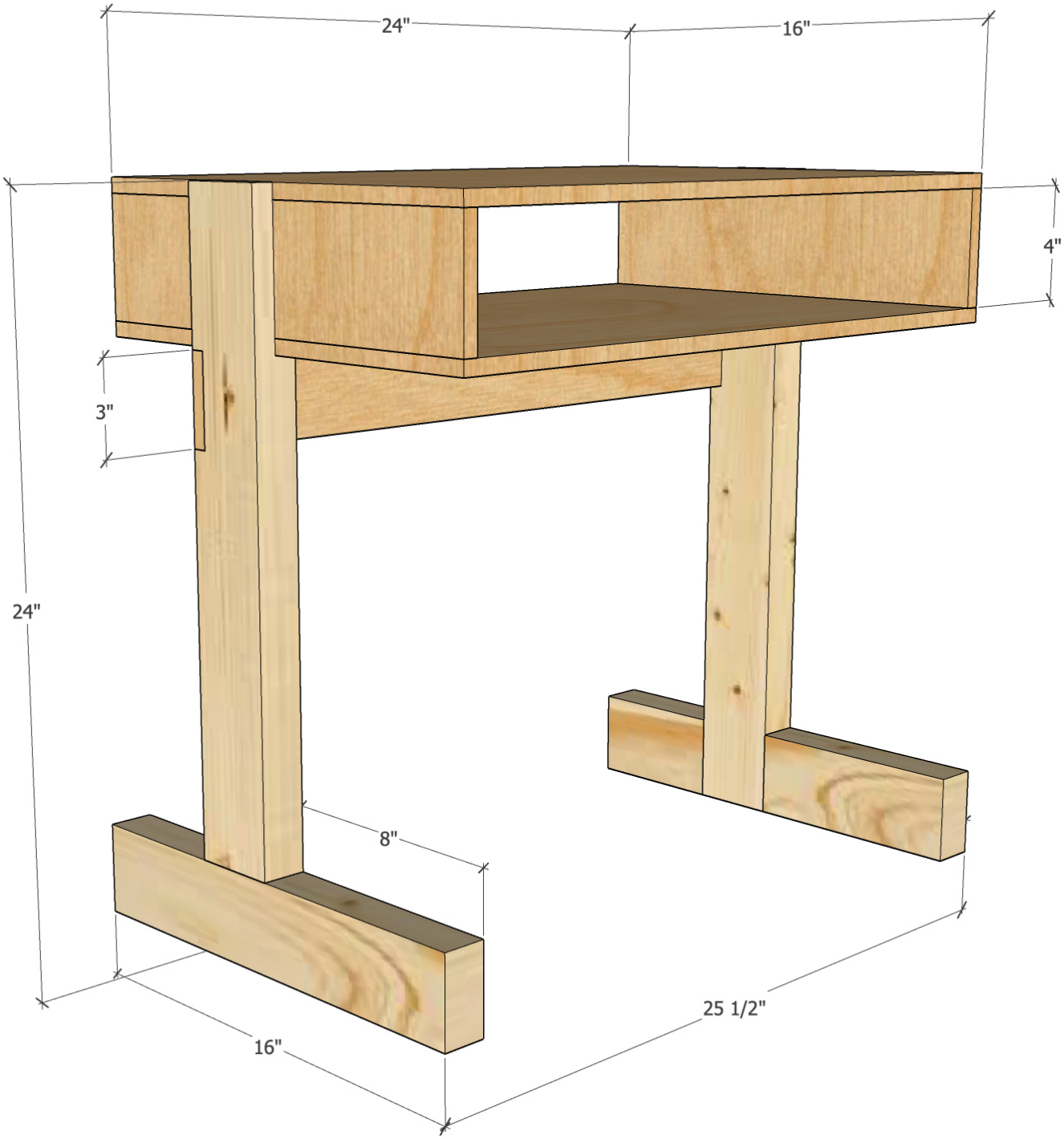
The Kid's Desk

A simple 16x24-inch writing surface, 24-inches tall for young learners.



Introduction

The basic kid's desk was designed by Marc Spagnuolo, a.k.a. *The Wood Whisperer* (https://thewoodwhisperer.com/) and is copyrighted by him. A video showing its construction can be found on that website.

A single quarter-sheet of ½-inch 2 ft × 4 ft sanded plywood and one 96-inch 2×4 stud are all that is needed to construct a single desk for a cost of around $25.

The desk is assembled using glue and brad nails, but glue and 1-inch screws would work just as well.

The purpose of the design was to be relatively inexpensive, placing function over looks. Do not fret if you are not a fine-furniture builder.

Tools

A table saw is essential to rip the 2×4 boards to 3 inches wide as well as for making the dado cuts. You could use stock 2×4s (3-½ inches wide) and adjust the plans accordingly, and use a circular saw for the plywood and dado cuts. You would need a long, straight edge guide for accurate cuts.

The use of a nail gun for the brad nails is ideal but you could use a hammer and finish nails or 1-inch wood screws instead, all that is needed is a drill (for pilot holes) and a screwdriver.

Any interior wood glue will suffice for all the joints.

120-grit sandpaper is used for final sanding and a wood rasp, plane, or file is used to clean up the dado cuts.

Optionally, a clamp that opens to 25 inches wide for the final leg attachment would be useful to have. Clamps are also useful for holding the chair parts in place while glueing and screwing.

Desk Construction Steps

1. Begin by cutting out the plywood pieces needed to make the box top. (See *cut list* illustration.) First, rip the 3-inch wide strip from which the stretcher will be cut. Next, cut the 4-inch wide strip that will be used for the sides (*exploded view* illustration). Lastly, cut the 16-inch wide strips that will be used to cut out the desktop pieces. Cut that 16-inch strip in half to get two 24×16 inch top pieces.
2. Do not cut the stretchers to length at this point. Go ahead and cut the side pieces to 16-inch lengths, matching the width of the top pieces.
3. Construct the desk top box by applying glue to the side piece edges and aligning the top pieces as shown in the illustrations. Use 1-inch brad nails to hold the pieces firmly in place. Wipe off excess glue and set aside for the glue to dry, at least 12 hours.
4. Cut the leg and foot pieces from the 2×4 board to the dimensions shown.
5. Rip the leg and foot pieces to 3-inches wide to remove the rounded edges. First, remove 3/16-inch from one edge, then rip to the final 3 inches.
6. Cut the 3-inch wide, ¾-inch deep dados in the feet. These cuts start in the middle of

each foot (see illustrations) leaving 8-inches protruding towards the front of the desk and 5-inches towards the rear.

7. Cut the matching 3-inch wide, ¾-inch deep dado cuts at the bottom of each leg piece.
8. Cut the 5-inch wide, ¾-inch deep dado cuts on the top of each leg *ON THE OPPOSITE SIDE* from where the bottom cuts were made (see illustrations).
9. Cut the 3-inch wide, ½-inch deep dado cuts for the stretcher on the back side of each leg, just below the top dado cut.. **NOTE: The legs will be mirror images of each other,** so decide which is the left and which is the right for these last cuts. The stretcher holds the legs together and supports the underside of the desktop.
10. Clean out the dado cuts on all pieces with a file or chisel and ensure leg and foot pieces mate together cleanly.
11. At this point it is easier to finish sanding the leg pieces to 120-grit before assembling the desk.
12. Construct the left and right leg assemblies (see *leg detail* illustration). Apply glue to the lap joint on each foot. Press the leg piece into place and ensure it is square. Drive in five 1-¼-inch brad nails to hold the assembly together. Wipe off excess glue and set aside to dry. Make sure you have a paired set of left and right leg assemblies at this point.
13. After the top assemblies have dried, sand them with 120-grit paper, making sure side edges are flush at each joint. Sand to round over all edges to prevent sharp edges and remove splinters.
14. Sand all the leg assemblies to smooth out joints and to round over all the edges.
15. Attach the legs to the desk tops using glue applied to the 5-inch leg dado cut. These are set 8 inches starting from the front of the desk, matching the feet. Press the leg into place and drive in 5 1-inch brad nails. (Optionally, attach with 2 to 3 1-inch wood screws from inside the desktop.) Wipe away excess glue. If you have one, use a clamp to hold the legs to the desktop until the glue dries.
16. Measure the distance between the outside edge of each leg at the point where the stretcher attaches. It should be 25-½ inches but this may vary depending on the actual depth of your dado cuts and other factors during assembly. Cut the stretcher to length to match this measurement. Glue the stretcher into place and drive in three brad nails on each side to hold in place. Wipe off excess glue.
17. Set the desk on a flat surface and check for any wobbling. Use a hand plane, wood rasp, or heavy sandpaper to remove any necessary material from the feet to remove wobbling. If it is too out-of-square, the use of furniture leveling feet may be necessary. These can be found for a few dollars in any hardware store.
18. Do any final sanding to ensure a smooth writing surface and round over the sharp edges of the desktop and legs and feet.

Congratulations on a desk well made!

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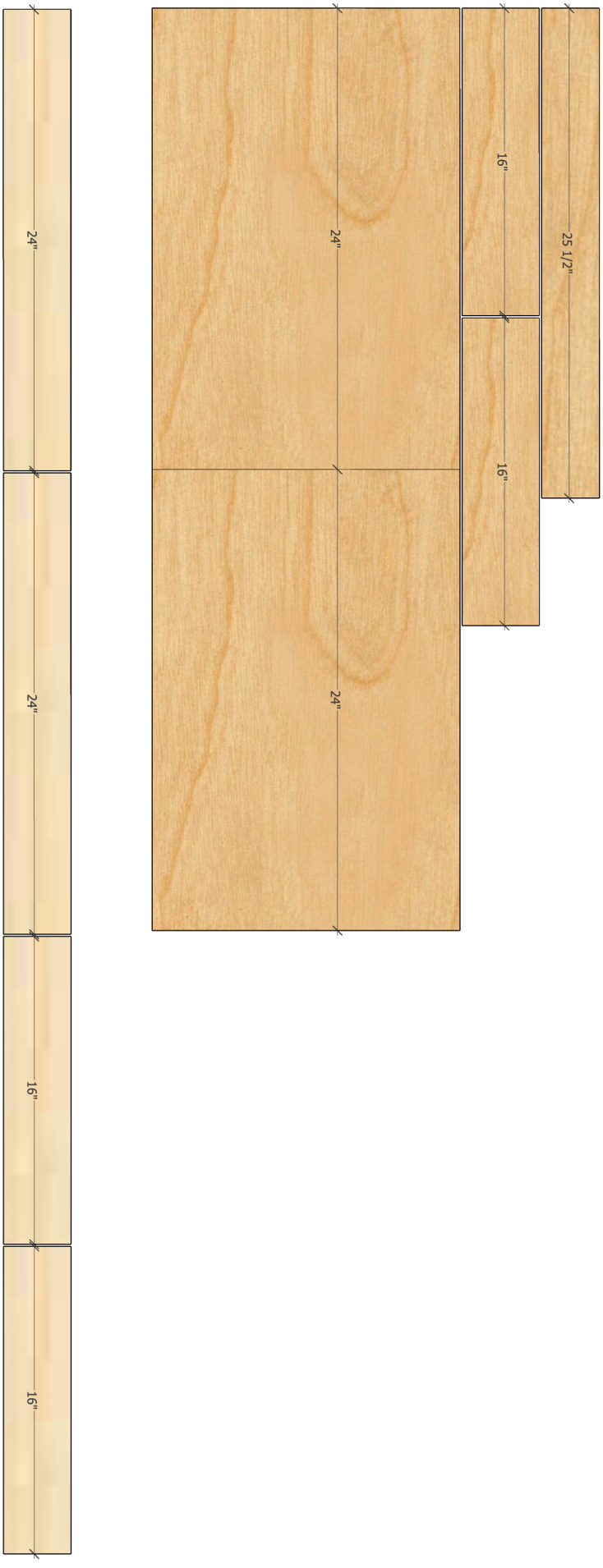
The cut-list. All pieces are cut from a single 2 ft × 4 ft sheet of plywood and one 2x4x8 ft long stud.



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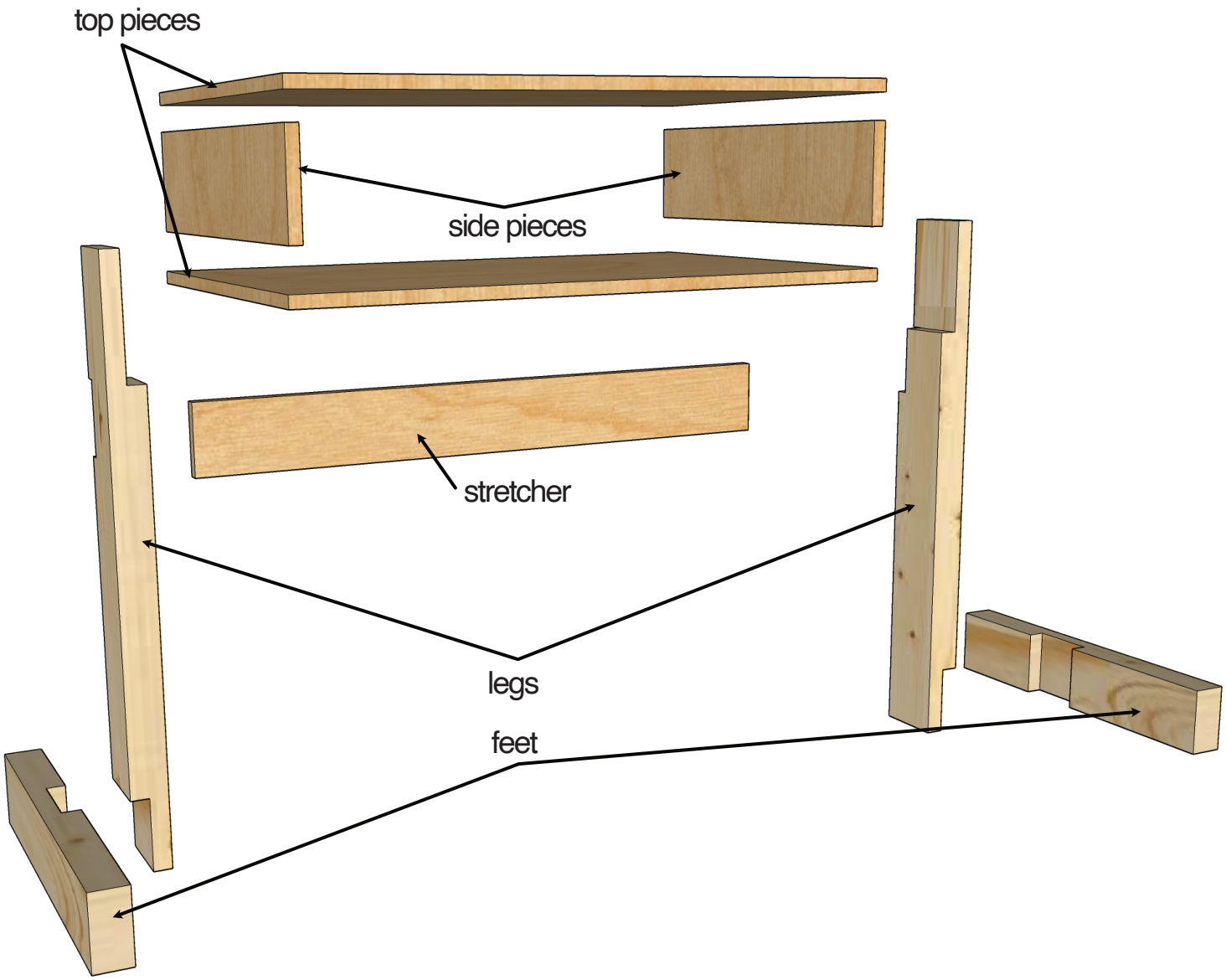
An exploded view of the desk.



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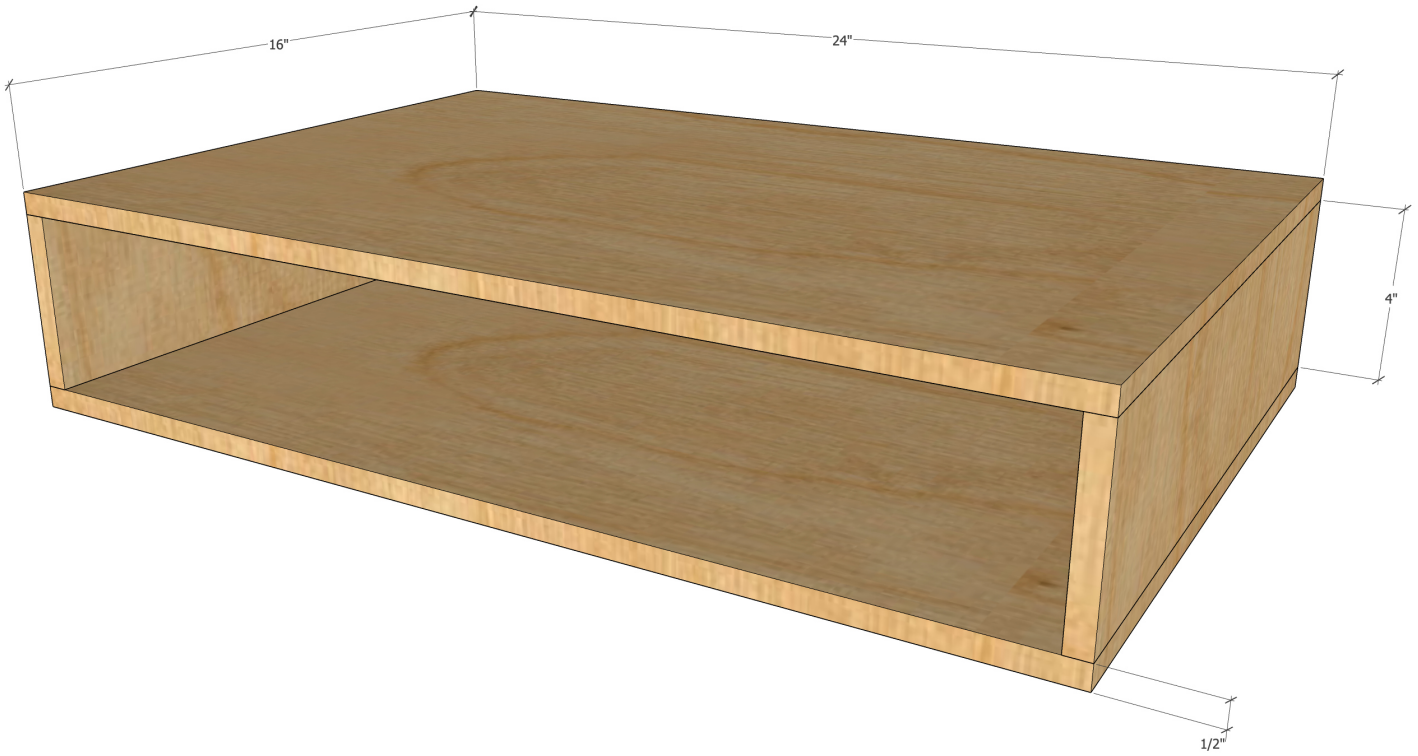
The desktop box.



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Leg assembly. Note: Left and right legs are mirror images. Only the right leg is shown here. The main difference is the 3-inch wide, 1/2-inch deep dado cut on the back side of the leg to support the stretcher.