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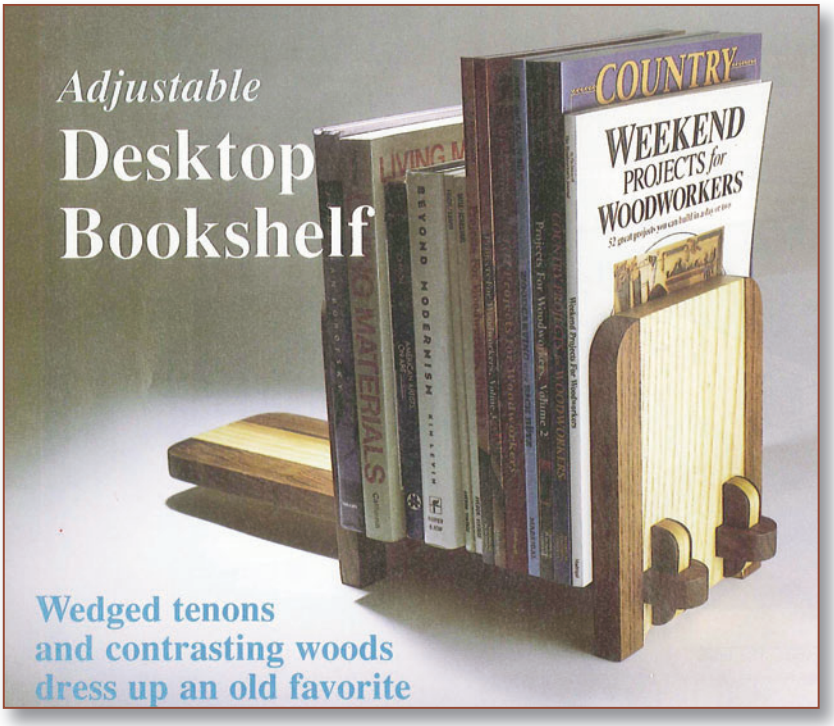
Classic Project

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.

Adjustable Desktop Bookshelf



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Adjustable Desktop Bookshelf

Wedged tenons and contrasting woods dress up an old favorite

We combined ash and walnut, two of our favorite domestic woods, to create this good looking bookshelf. The wedged through-tenons are not only a nice accent, they also allow the bookshelf to be knocked down flat, a feature that's helpful should you want to store the piece, or perhaps ship it as a gift.

It will hold anywhere from one book up to as many as 30 small paperbacks. The sliding end "locks" firmly in place when the weight of a book tilts it at a slight angle.

Although there are a number of ways to make a bookshelf like this, the nine-step process that follows is pretty foolproof.

Make the Ends

1 Cut 3/4 in. thick ash to 5 in. wide and at least 15 1/2 in. long. Crosscut the stock into two parts; one 9 1/4 in. long, the other 6 1/8 in. long. Label the parts "A" and "B" as shown.

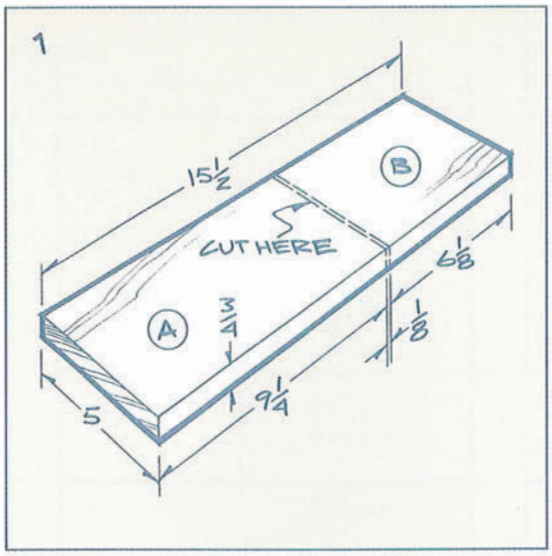
2 Set the table saw blade to a height of 1 1/2 in. and, using the miter gauge, pass the stock labeled "A" through the blade to create the 3/4 in. wide by 1 1/2 in. long notches. You'll need to make several passes in order remove all the stock. It's best to use a stop block on the miter gauge fence to insure that the notches are exactly 6 1/8 in. from the end.

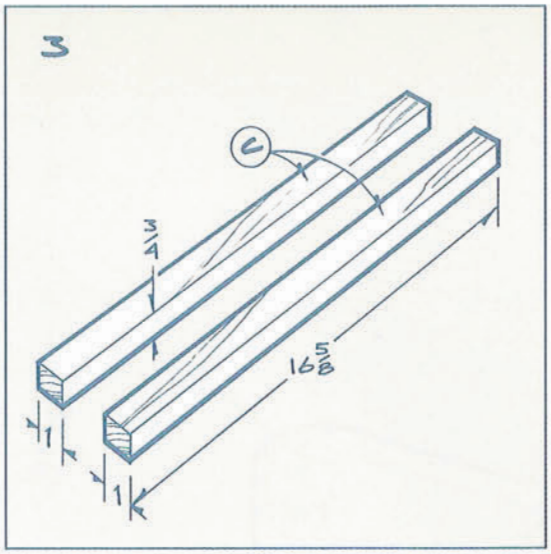
3 Rip 3/4 in. thick walnut to 1 in. wide by at least 16 5/8 in. long. You'll need two pieces. Label each of them part "C."

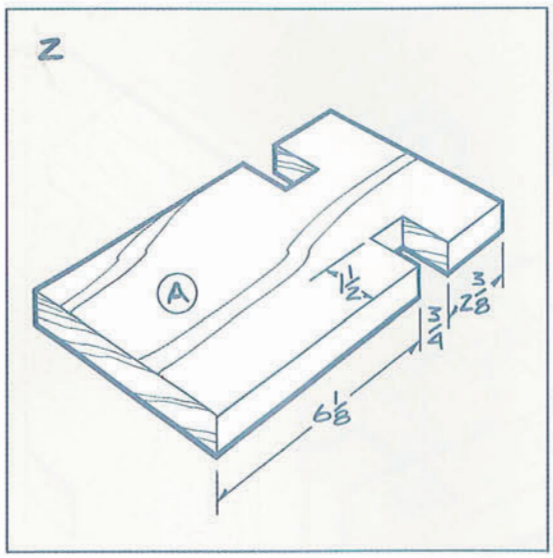
4 Cut a spacer block from 3/4 in. thick stock. It should be 4 in. to 4 3/4 in. long and 3/4 in. wide.

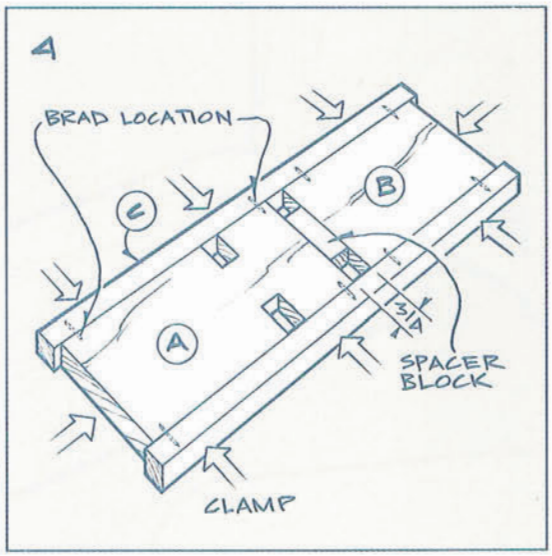
Butt parts A and B together with the spacer in between. No glue is used here.

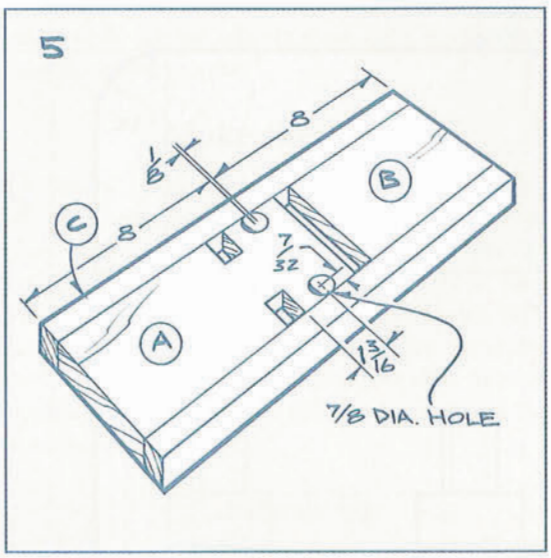
Add a thin coat of glue to the mating edges of parts A, B and C, then assemble and clamp all the parts. As indicated by the arrows, we used four clamps, three along the glue joints and one across the ends. Note that the two









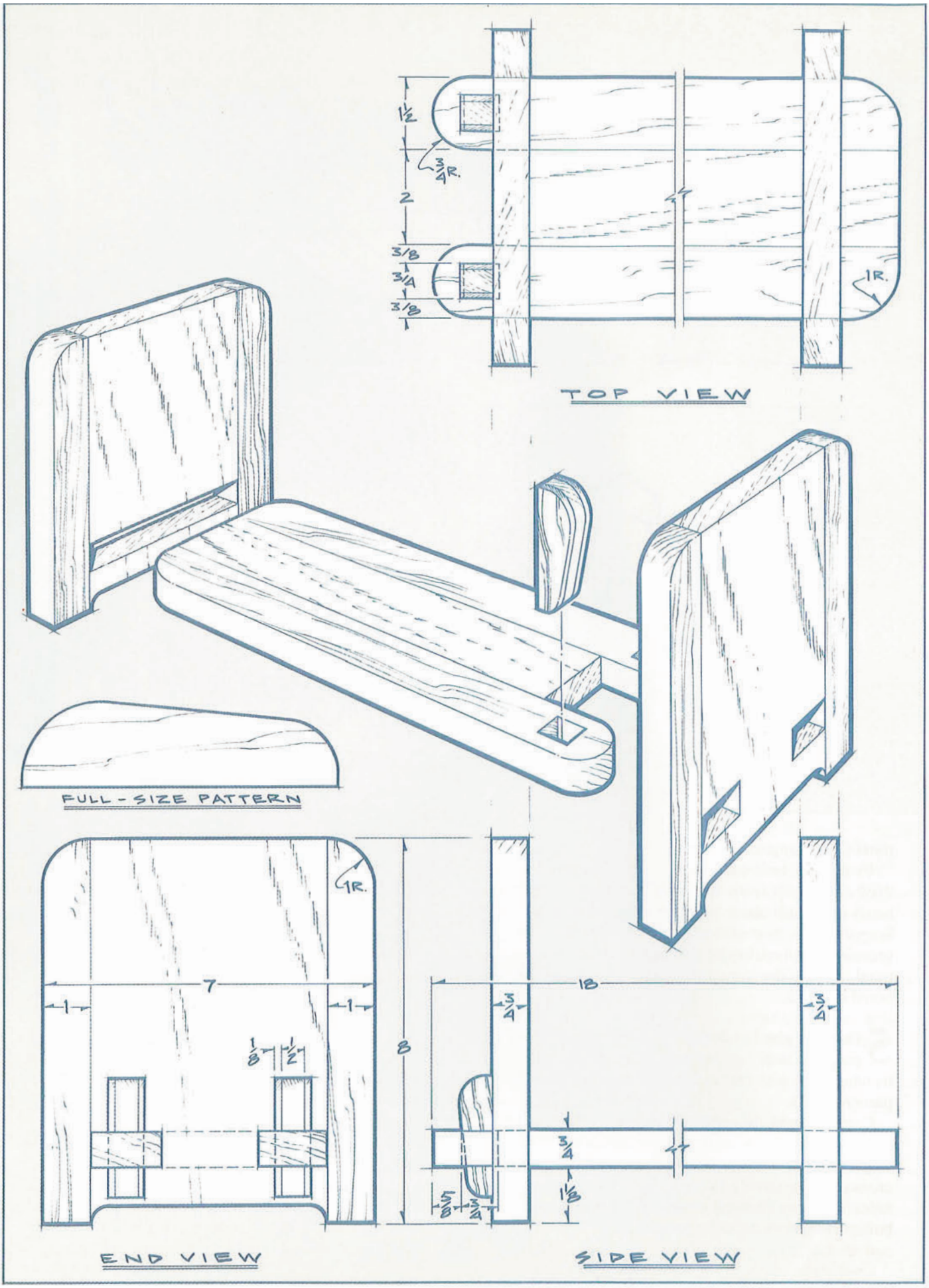


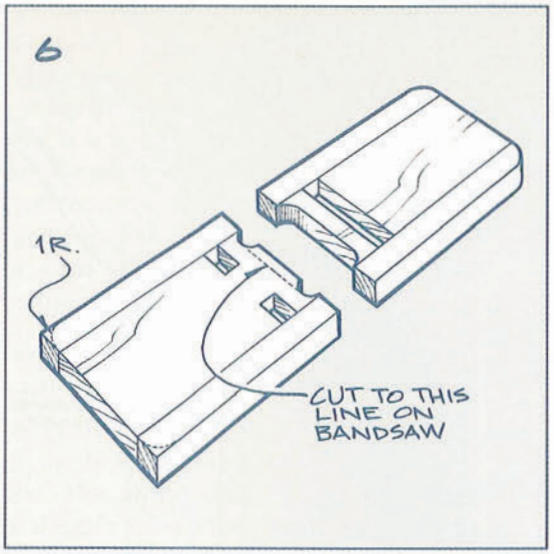
parts C overhang on each end.

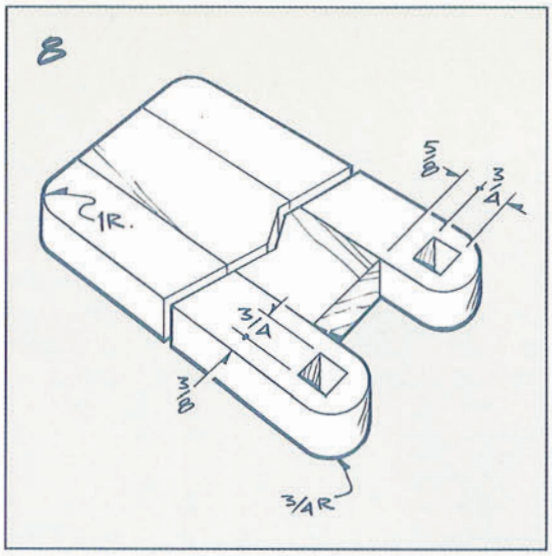
By the way, before gluing the parts, it's a good idea to drive four small brads into each part C, then snip the heads off so that about 1/16 in. protrudes. The brads will keep the parts from sliding out of position when clamp pressure is applied. Locate the brads as shown, keeping in mind that you don't want them where the holes will be bored in step 5.

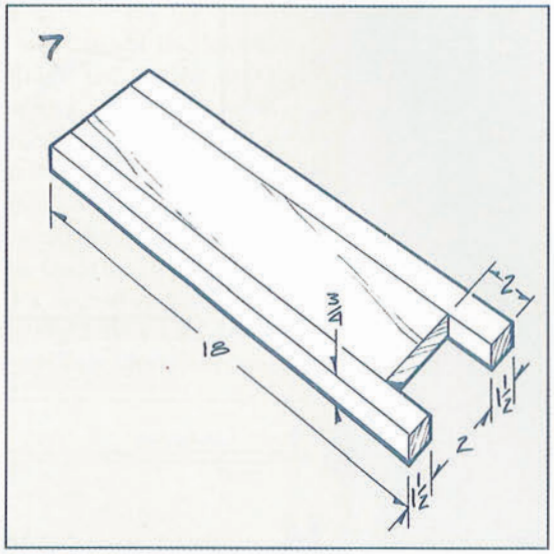
5 Once the glue has dried, remove the spacer and trim parts C flush with the ends of A and B. Make the trimming cuts with care so as not to change the length of parts A and B.

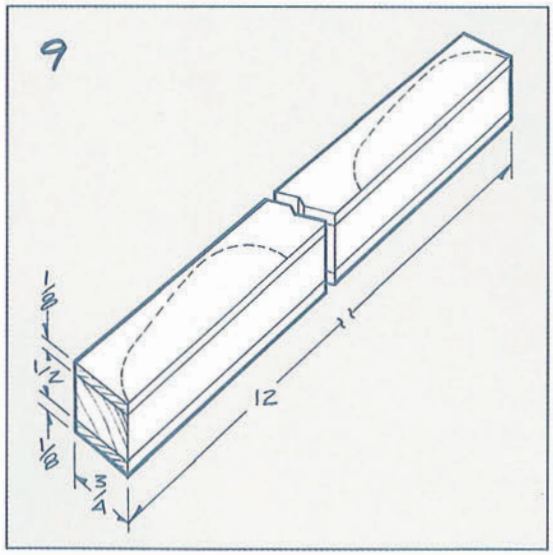
Carefully mark the centerline location of the two 7/8 in. diameter holes and bore them out. Once bored, set up a stop on the miter gauge exactly 8 in. from the blade and crosscut the assembly through the center of the bored holes. To insure identical lengths, it's a good idea to cut both parts against the miter gauge stop.











6 Scribe a line connecting the semi-circular holes in each side as shown by the dotted line. Also, using a compass, scribe a 1 in. radius on each upper corner. Make the cuts with a band saw, then sand the edges smooth.

Make the Base

7 Cut a piece of 3/4 in. thick ash to 2 in. wide and 16 in. long. Also, cut two pieces of 3/4 in. thick walnut to 1 1/2 in. wide and 18 in. long. Using clipped brads as you did earlier, glue and clamp the three parts together.

Remove any glue squeeze-out and sand the top and bottom surfaces. Check the base to see how well it fits up in the two ends. The two tenons created by the long walnut pieces should fit snugly in the end notches. The other end of the base should slide smoothly in the slot opening. Be sure to allow adequate clearance in the slot. If it's too snug, a dose of humid weather could swell the wood and bind the sliding end.

8 Lay out the 3/4 in. by 3/4 in. mortises, then bore a 5/8 in. diameter hole in the center of each one to remove most of the waste. Clean up the corners with a chisel.

Scribe the 1 in. radius at the corners and the 3/4 in. radius at the tenons and cut them out with the band saw. Sand the edges smooth.

Make the Wedges

9 Resaw 3/4 in. thick walnut stock to get two pieces measuring 1/8 in. thick by 3/4 in. wide by 12 in. long. Aiso, resaw 3/4 in. thick ash stock to get a piece measuring 1/2 in. thick by 3/4 in. wide by 12 in. long. Add a thin coat of glue to the mating surfaces and clamp the parts together to create a three-piece lamination as shown. Using the full-size pattern provided, trace the four wedges on the lamination, then cut them out on the band saw and sand smooth.

Finish Up

Most any clear final finish will look good on this project. We opted for a penetrating oil, applying three coats. When the finish is dry, assemble the parts without using glue, then lightly tap the pegs in place. WWJ

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