



Woodsmith<sup>®</sup> PLANS

# WALL-MOUNTED LUMBER RACK



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One of the challenges in any shop is finding a good place to store the lumber for your woodworking projects. It's all too easy to stack boards on the floor or lean them against a wall. But that often leads to moisture damage and bowing.

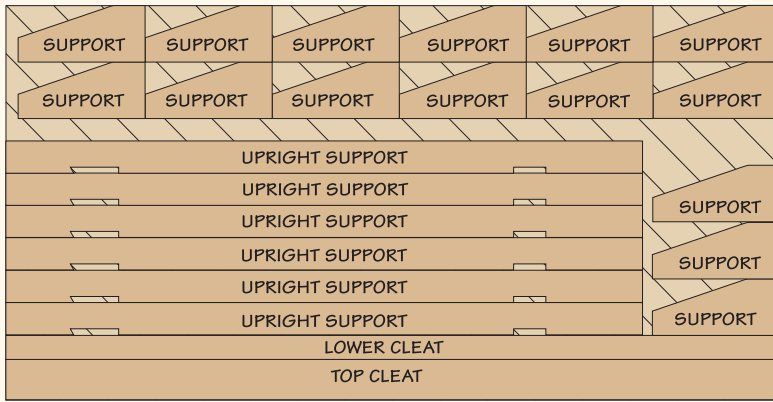
A better solution is to build a lumber rack like the one you see in the photo at left. It holds plenty of wood and, more importantly, keeps it flat and dry.

The rack consists of three vertical assemblies, with five lumber supports on each. These assemblies hang on cleats attached to studs in your shop wall. A short dowel placed in the cleats prevents the vertical assemblies from moving, as shown in the inset photo below.

**START WITH THE SUPPORTS.** The first step in building the rack is to cut out the lumber supports (Figure 1 on page 2). Then you can use a shop-built tapering jig to make the angled cut on the bottom of each piece. To find out more about this jig and how to make these cuts, see the box on the following page.



**Alignment Pin.**  
A short length of dowel in the cleats keeps the hanging vertical supports in position.



**THE VERTICAL ASSEMBLIES.** With the supports cut, the next step is to make the uprights. As you can see in Figure 1, the uprights have an angled notch that fits over the top cleat and a square notch that provides clearance for the lower cleat.

It's important that the notches are positioned identically on all six uprights so the lumber supports hang at the same level. The easiest way to do this is to clamp them together and make layout marks. Then, remove the clamps and cut the pieces one at a time. A jig saw makes short work of these cuts.

Now just attach the lumber supports to the uprights, as shown in Figure 1. For this, I used a little glue in addition to the screws.

### HARDWARE

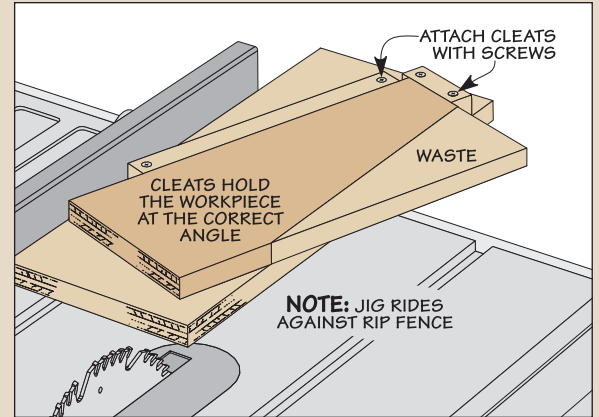
- (120) #8 x 1 1/4" Fh Woodscrews
- (8) 4" x 1/4" Lag Screws
- (8) 1/4" Washers
- (6) 5/8" x 3" Dowels

**WALL CLEATS.** As I mentioned earlier, the vertical assembly hangs on wall-mounted cleats. The top cleat requires a beveled cut on the top edge to match the angled notch in the vertical assembly. I made this cut at the table saw.

The next step is to drill holes for the dowels. It's important that they be spaced uniformly on both cleats so the vertical assemblies align. On the next page, you'll find a tip for drilling these holes.

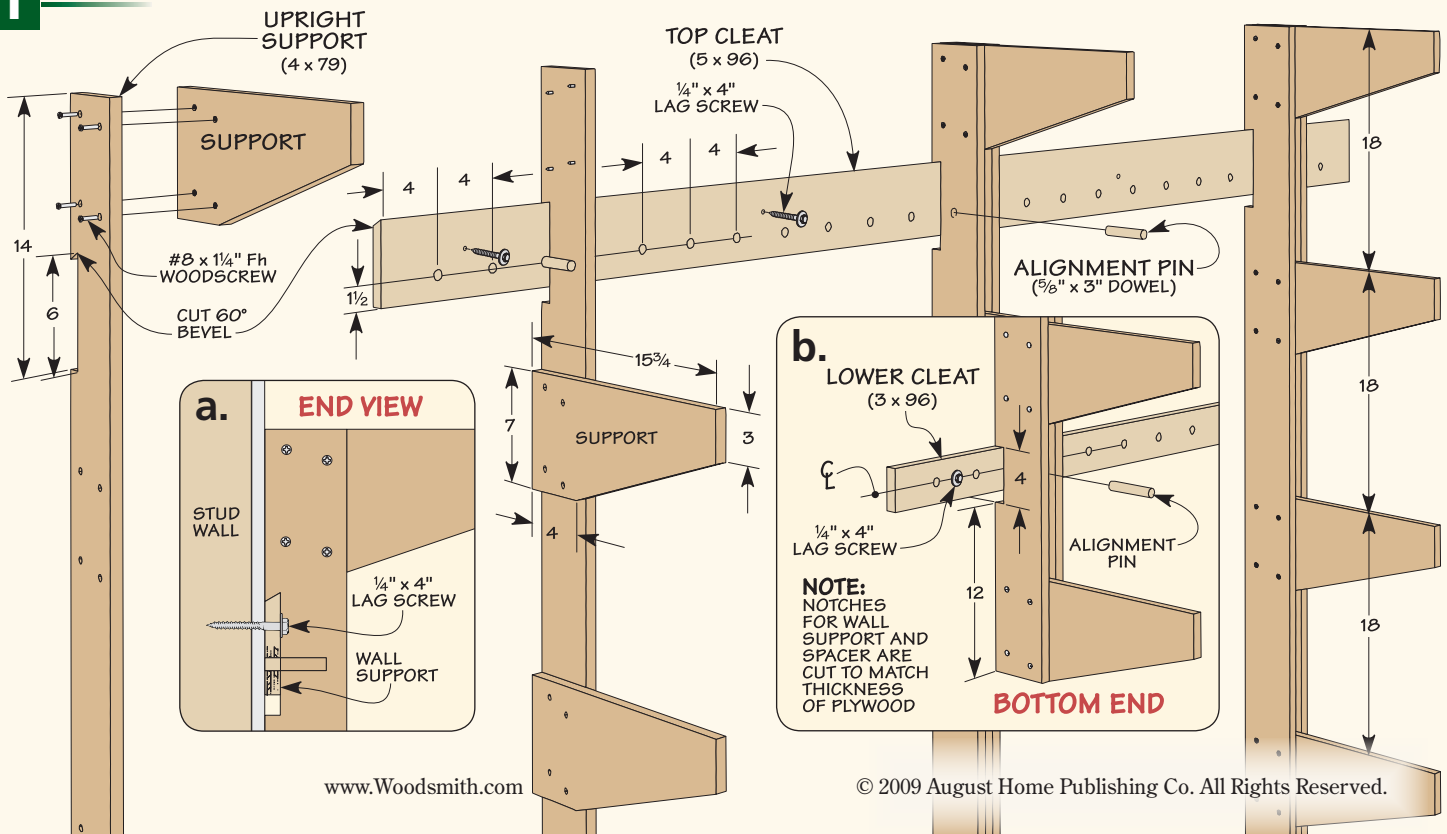
### SHOP TIP: TAPER JIG

To make the angled cut on the lumber supports, I turned to the table saw and a simple tapering jig. As the drawing below shows, it's just a piece of plywood with a couple of cleats to keep the workpiece in position. The plywood base rides along the rip fence, leaving a consistent cut every time.



**MOUNT UP.** The last step is to attach the cleats to one of the walls in your shop. Since the rack will be holding a lot of weight, you'll need to make sure the cleats are anchored securely. After identifying the screw locations, all you need to do is predrill holes and attach the cleats with lag screws.

1 FIGURE



## Extra-Long Drill Press Fence

The small size of some drill press tables can make it almost impossible to drill long workpieces, like the cleats of the lumber rack. There's just not enough support for the workpiece, especially if you drill near the ends. To make the job easier, I used aluminum angle to make an extra-long fence and then added some plywood supports (drawing at right).

To act as outriggers, the supports are screwed to the bottom of the fence near the ends. They provide the extra "hand" needed for a long workpiece. Once the supports are added, simply align the fence to accurately position the workpiece under the bit. Then you can clamp the fence to your drill press table and get to work.

