

Lumber Storage Solutions



Shopmade racks and carts keep material organized and accessible

BY ANDY BEASLEY

Once read that the idea of infinite space was perhaps the most difficult concept for the mind of man to grasp. I beg to differ. Anyone who ever has tried to create a functional shop knows that fitting it into a finite space is a far more challenging proposition. Once all of the necessary tools, materials, and that last bottle of glue have been shoehorned into the workshop, you can find yourself on the outside looking in.

When building my shop several years ago, I experimented with different layouts until I found the one that worked best for me. I've been happy with the result, largely because the lumber-storage system I developed added considerably to the efficiency of my shop while taking up little of its finite space.

Wall rack handles the long stuff

The centerpiece of my storage system is a horizontal rack along one wall. The rack is exceptionally stable, and the various levels hold a lot of material within a small footprint. The design is straightforward, the

Wall rack for lumber

With stanchions spaced 32 in. on center, the rack can be made to fit a wall of any length and height.



Lumber at the ready. A wall-mounted rack keeps lumber organized and accessible without taking up valuable floor space.



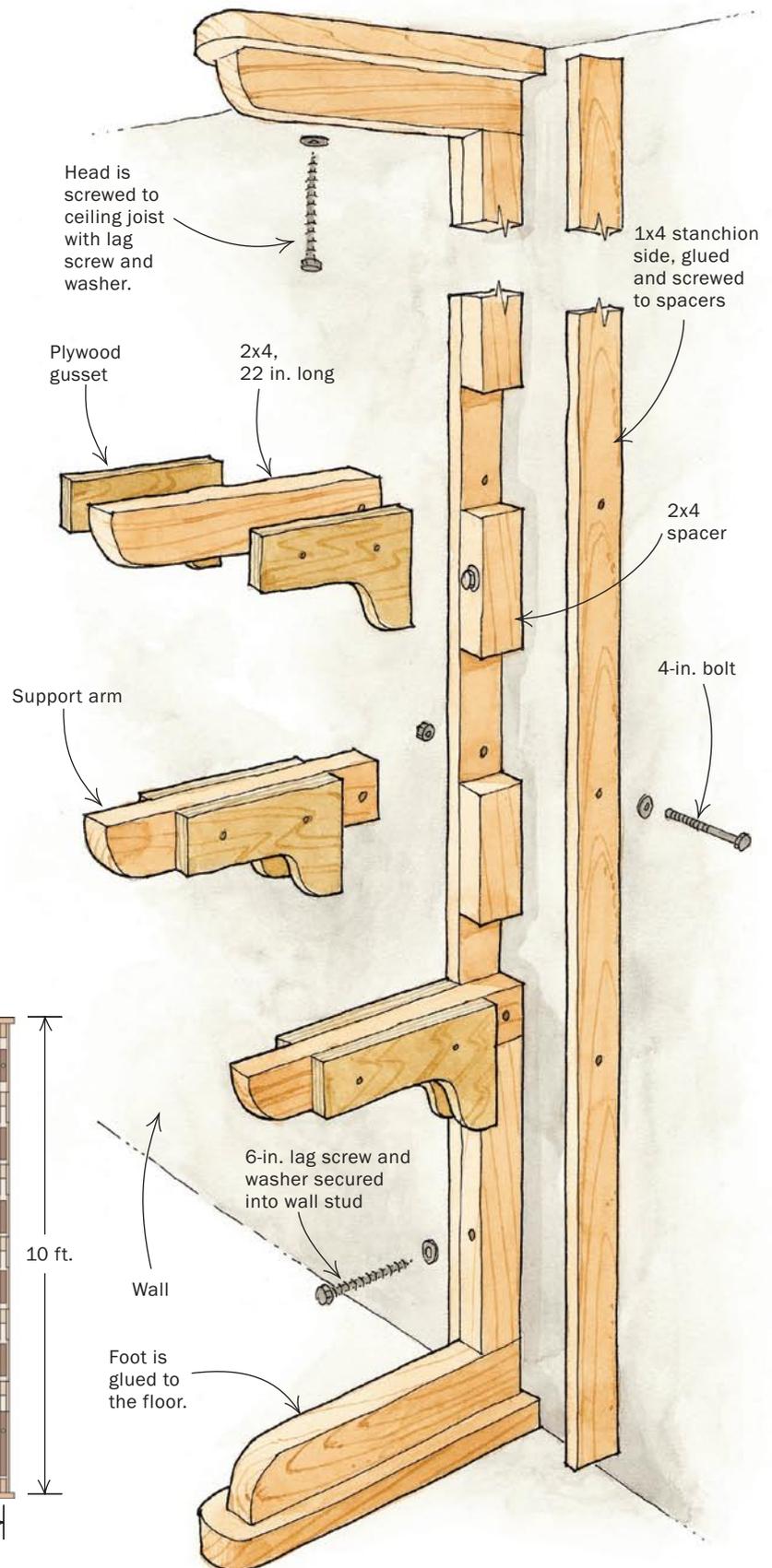
Simple mounting system. Lumber rests on a series of support arms that are bolted to stanchions.

materials are relatively inexpensive, and the construction time is short.

I frequently store 16-ft. lengths of molding, so I decided to install six vertical stanchions to provide the necessary horizontal space. The 2x6 studs in the shop wall are on 16-in. centers; I installed a stanchion on every other one, or 32 in. on center. These stanchions are merely lengths of 1x4 pine, glued and nailed to 2x4 spacers. The spacers add stiffness, create pockets for the support arms, and provide a solid attachment point for the lag screws that mount the assembly to the wall.

Although the stanchion assembly is simple to build, it helps to choose stock that is straight, without bow or twist. Gluing and nailing the pieces together on a level floor is an easy way to keep them true.

This rack is designed to support considerable weight if it is mounted securely to a sturdy wall. To attach the stanchions to the shop wall, I first marked the locations of the electrical wires in the wall so that I could give them a wide berth. Then I secured the stanchions with





Rolling cart adds convenience. A framed plywood box on wheels provides the perfect place to store offcuts.

6-in. lag screws through the spacer blocks and into the wall studs.

This rack can be attached equally well to a concrete wall as long as heavy-duty masonry anchors are used. The small, plastic expanding anchors used to hang pictures on cinderblock walls won't provide the necessary pull-out resistance. For similar reasons, don't mount this rack to a hollow gypsum or paneled wall.

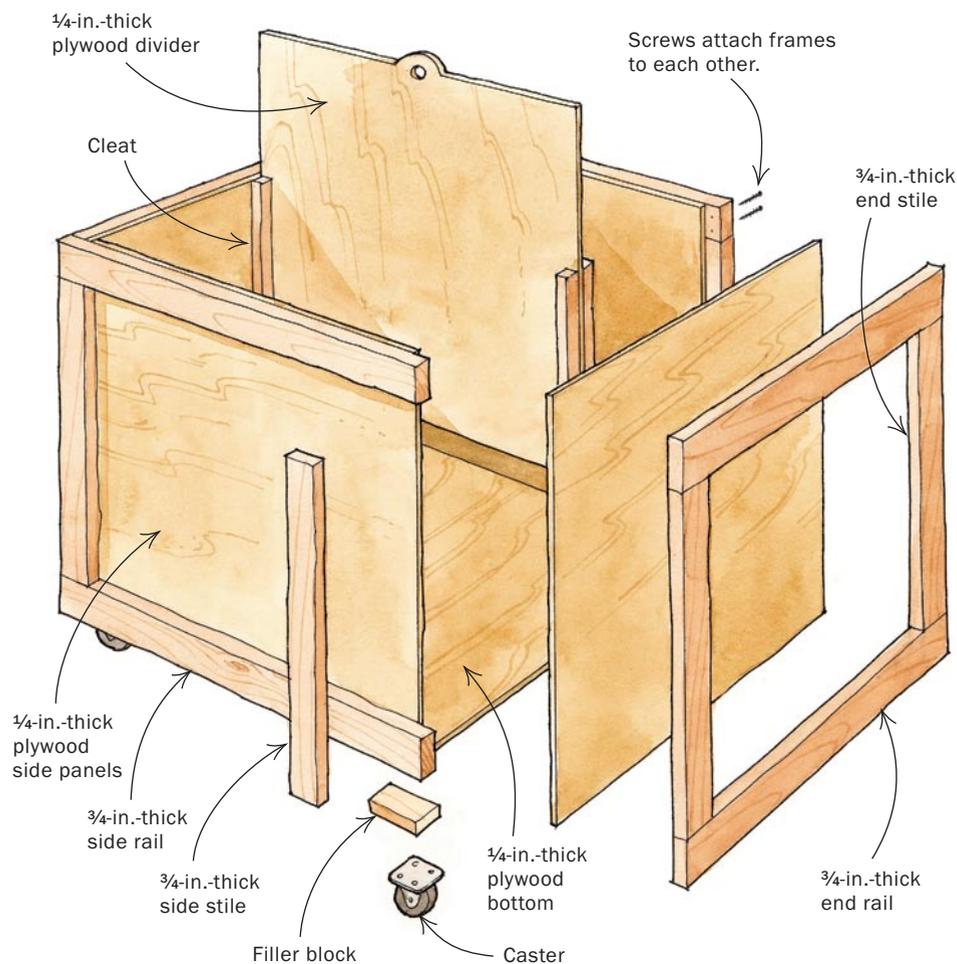
The head and foot of each stanchion help prevent twisting, stabilizing the rack when it's under load. The head is screwed to a ceiling truss, while the matching foot is glued securely to the floor.

The horizontal support arms do the hard work. They're made of 2x4s with 3/4-in.-thick plywood gussets screwed to each side. I angled the arms upward 2° to keep material from sliding off, and I rounded the protruding ends to soften any inadvertent collision between my head and one of the arms. My wife painted most of the rack before installation. However, to prevent lumber from picking up unwanted stains, the top edge of each arm was left unpainted.

I started at the top row and installed each arm by drilling a hole through the stanchions and the inner end of the arm. A 1/2-in.-dia., 4-in.-long bolt secures each arm. In the future, though, should I decide

Cart for lumber offcuts

Simplified frame-and-panel construction means the cart assembles without much fuss, yet has plenty of strength.



to change the elevation of the arms, the oversize pockets in the stanchions give me the ability to drill a new bolt hole and shift each arm to a new location.

Roll-around cart for short pieces

Besides death, taxes, and slivers, I think the accumulation of lumber offcuts is about the only thing woodworkers can take for granted. The woodstove can handle just so much, and besides, that peanut-size chunk of walnut may come in handy someday. Owing up to my pack-rat tendencies, I built three storage carts for offcuts that fit in the unused area under the bottom shelf of the wall rack. I left the rest of that area open for future storage needs.

The carts are simple boxes on casters. To stave off the chaos that would ensue if I just threw scrap into the carts, I installed

removable dividers, which allow for a rough sort of organization. By adding a removable plywood top to one of the carts, I immediately had a mobile workbench.

Vertical box stores sheet goods in minimal space

I'd initially planned to store sheet goods flat or on some sort of horizontal cart, but I discarded those ideas because they ate up too much floor space. The obvious answer was vertical storage. Holding 15 to 20 sheets, the rack I constructed is little more than a doubled-up plywood bottom, a few 2x4 posts, and a plywood top.

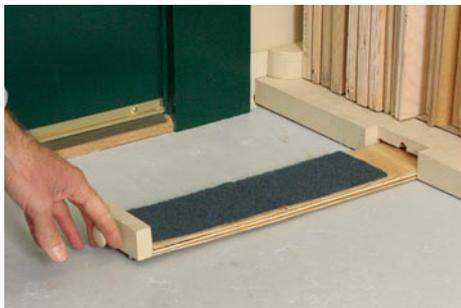
Because there's little outward pressure on this type of rack, it can be attached to a wall with either nails or wood screws. To this simple structure, I added a few user-friendly features. The 2x4 spacers on the side walls of the rack give me some

Rack for sheet goods

Stored vertically in this rack, sheet goods like plywood and medium-density fiberboard (MDF) can be accessed with relative ease.



Choose and use. This vertical rack makes it easy to flip through the sheets and pull one out without damaging it.



Protective pad. The outside bottom corner of sheet goods gets some protection from damage, thanks to a pull-out pad.

finger room when I want to withdraw a sheet that's located near the edge. A layer of Plexiglas covering the plywood bottom makes sliding even the heaviest sheet a breeze. And because I don't relish the idea of dinging the corner of an expensive sheet, I installed a pull-out pad to protect the pivoting corner as I load or unload material. To squeeze the last bit of utility from the rack, I use the outer frame as a place to hang levels, squares, and cutting jigs.

A storage system works only if you use it

Just as a closet won't pick up that shirt you've thrown over a chair, a lumber rack won't do you any good if you don't use it. I've developed habits to keep the shop both uncluttered and efficient. At the end of each day, I select the offcuts I intend to keep. Any boards shorter than 24 in. go

into the roll-around lumber cart; longer pieces are stored on the horizontal rack. I used to put these leftovers anywhere, but each time I brought in a new load of boards, I had too many little things to rearrange before I could place the incoming material on the rack.

When I return plywood or sheet goods to the vertical rack, I always write the new width on the exposed edge. That prevents miscalculations when I'm reviewing the

material I have on hand for a project, and I don't have to slide out a piece to check its width.

This storage system works exceptionally well. Now, when work is going smoothly and all my materials are stowed neatly away, I sometimes let my mind wander to those minor problems of infinity. □

Andy Beasley works on his unfinished house near Hillside, Colo.

