Hanging Panels Keep Tools

Close at Hand

BY JASON STEPHENS

Clever holders blend security with easy access

I joined the Army in 1994 as a drummer in the band program. One day on the Army base in Wiesbaden, Germany, I noticed my friend Dave coming up the stairs carrying a newly made wall cabinet with beautiful exposed joinery. He told me he'd made it at the woodshop right across the parking lot from our barracks. I was floored.

For the next eight years, I spent practically every waking moment in that shop, which I realized later was a world-class facility. I began accumulating hand tools during those years, and it didn't take long before the shop workbench began doubling as my storage shelf, with tools eating up all of its usable real estate.

My tool-storage solution

When I returned to the United States and finally had the opportunity to set up my own shop, I consulted Jim Tolpin's *The Toolbox Book* (The Taunton Press, 1998). I loved his idea of French-fitted trays, which protect tools and show at a glance where they belong. As for the many cabinets featured in the book, they were magnificent, but I don't like opening doors or drawers to retrieve bench tools. I want to be able to grab them right away with one hand.

My hanging-panel-based tool storage solution marries custom holders for each tool with easy one-handed access. I use it for both hand tools and machine accessories, placing panels full of tools within arm's reach of my working position.

I mounted my tool holders on 2-ft. by 4-ft. pieces of ½-in. plywood (as opposed to directly on the wall) for a few reasons. First, the plywood saves your wall from becoming Swiss cheese when you rearrange the layout, add tools, and delete others from daily use. Also, plywood lets you attach and relocate holders with simple screws, as opposed to the fussier fasteners required for drywall or concrete. And if you need to relocate a group of tools—or the whole shop—you can take the panels and holders off the wall in one piece, and mount them easily in your next location.

Jason Stephens, who recently retired after 24 years in the U.S. Army, lives in Dunn, N.C.

Two ways to attach panels

1. SCREW THEM IN PLACE

2x4s are simple and effective. *Mounting strips screwed to the wall make it easy to attach the plywood panels. You can ignore the studs if you like and use self-drilling plastic drywall anchors (left), rated to support 50 lb. each. That lets you space the strips 24 in. apart, at the edges of the panels. The panels then screw on easily and securely.*

I've attached the plywood tool panels to the wall in a couple of ways. If you are pretty sure that they will be staying put, the simplest, strongest method is attaching 2x4s solidly to the wall and then screwing the plywood to those. A more versatile option, the French cleat, allows you to move panels with ease.

A French cleat consists of two pieces of wood beveled at 45°, one on the wall and one on the back of the tool panel. It lets you drop the panel into place securely with the mating bevels pulling it firmly against the wall. When it's time to move a panel, mount another cleat in the new location and you can lift the panel off the first one and drop it onto the new one. When I moved my bandsaw, I relocated the panel holding all its accessories in minutes.

An additional benefit is how the French cleat (and a spacer strip that keeps the panel from tilting inward at the bottom) keeps the panel off the wall. The plywood is only ½ in. thick, and that air space at the back lets me drive screws all the way through, for maximum grip when attaching holders.

As for beveling the French cleats, you can bevel two at once by making a 45° ripcut along a single piece of hardwood or plywood, or bevel individual pieces of solid lumber on the jointer. Because the cleats are ¾ in. thick and the plywood is only ½ in., I screw the plywood to the cleat, not vice-versa.

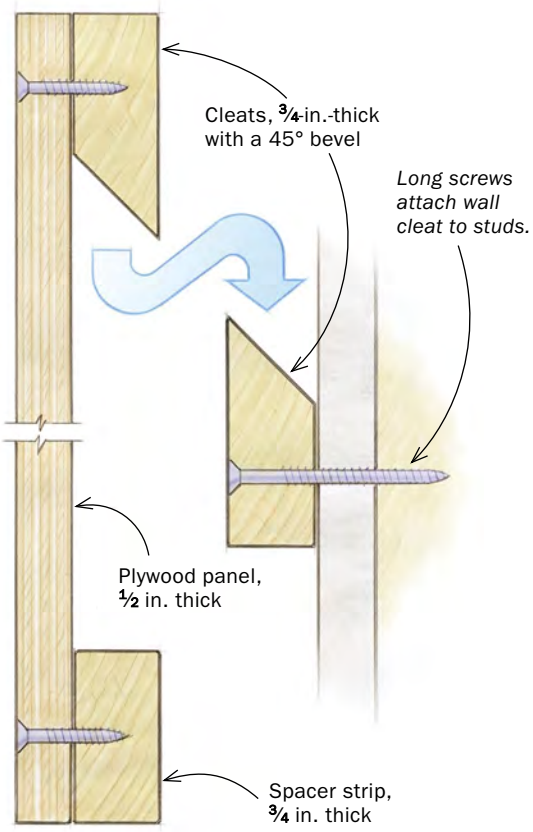
To attach 2x4s or French cleats to the walls, my method depends on what the walls are made of. For drywall, I hang French cleats by locating the wall studs and screwing into those. For the 2x4s approach, I use a number of self-drilling plastic drywall anchors—rated to support 50 lb. each.

Faced with concrete walls in a past shop, I used a .22-caliber powder-actuated tool to essentially blast nails through a 2x4 frame, securing it to the cinder blocks. Use washers with the nails, and plan carefully. Once these nails are driven into concrete, the 2x4s or cleats are not coming off without the use of demolition equipment.

Photos: Asa Christiana; drawings: Dan Thornton

2. USE A FRENCH CLEAT

Cleats make panels portable. *Find the studs behind the drywall, and screw a ¾-in.-thick beveled cleat to them (above). Then screw the panel to a matching cleat, and hang the panel on the wall with the cleats interlocking securely. A spacer strip at the bottom of the panel keeps the plywood plumb.*



Holders that stay put

Solutions don't need to be fancy. *To hang Japanese saws, Stephens screws eye hooks into the ends of their handles, and hangs them from simple deck screws.*

Spinners secure handsaws. *Stephens designs holders so that valuable tools won't fall, but he can free them easily with one hand. A twist of the spinning catch allows easy access to his backsaws.*

Custom hanging solutions. *Odd-shaped tools sometimes require a creative approach. A coping saw gets a pair of curved and coved hooks.*

The hand tools on the wall behind my bench are the ones I use in my everyday workflow. I even position them near the parts of the bench where they're used most, for example, dovetail saws near the main vise. Not only do I like my tools within arm's reach, but I also want to be able to release them with one hand and put them back just as easily. At the same time, I don't want tools hurtling to their demise on the concrete floor.

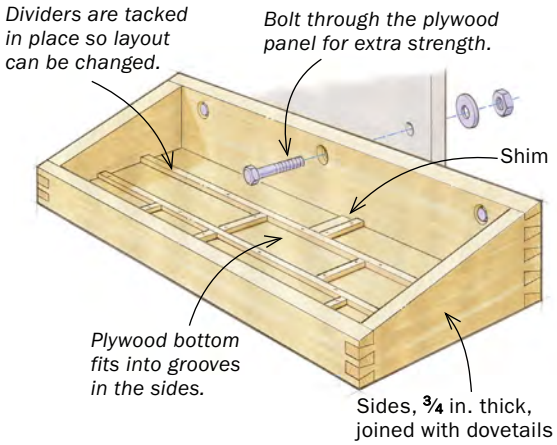
To create that balance of security and accessibility, each tool holder is a custom job. I find making these holders to be a rewarding problem-solving exercise. One of my first was a hanger for my mallet. I was never quite happy with it, because the top-heavy mallet was forever flopping over to the left. One day, when placing the mallet back in its mount, I accidentally put it back upside down, hanging it by the handle's knobby end. Perfect. I learned an important lesson that day: Sometimes you need to study a given problem, carefully formulate your best solution, and then do the opposite.

Here's a look at some of the holders I designed.

Handsaws—The two panel saws to the left of my bench belonged to my great-grandfather. They don't look like much, but hidden beneath the patina of 70-plus years of sweat and use I discovered the mark of Henry Disston. These are fine working saws, worthy of a place near the bench. I mounted the saws by cutting a form-fitting piece that fits inside the handle, with a T-shaped spinner that can be rotated to lock the saw in place. I did the same with my tenon and dovetail saws.

Bench planes—I store the most-used ones in a trough, hung at waist level for easy retrieval and located near the end of the

When subpanels make sense. *For sets of tools he wants to keep together, like these vintage saws, Stephens creates subpanels (above), so he can relocate the set as a unit in the future. A twist of a T-shaped spinner (right) locks the handles in place.*



The plane trough. *For his collection of standard bench planes, Stephens built this trough, which lets him access each one in seconds. Dividers separate the planes and show where each one goes, and a small shim inside each pocket raises the plane's toe to keep the blade from touching down.*

bench where I do most planing. I assembled the shallow box with dovetails because of the weight it would have to support—about 45 lb. If you use fewer handplanes, you can make a smaller trough.

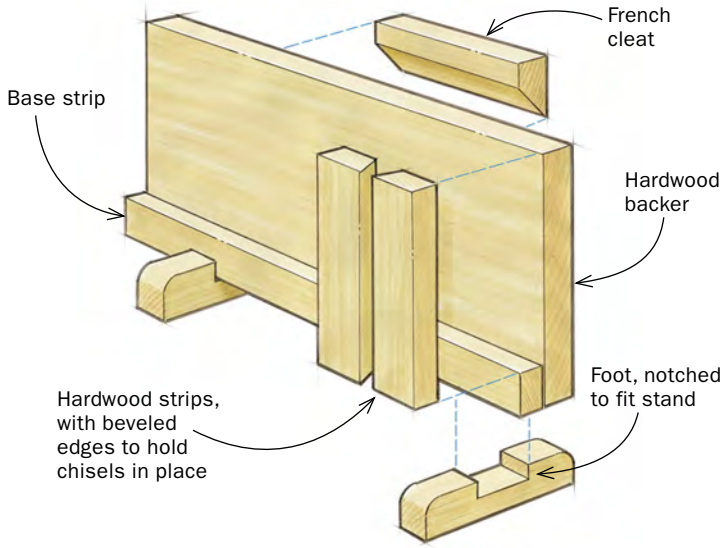
In keeping with my allergy against using more than one motion to retrieve a tool, I chose not to cover the trough. The result is extremely efficient, and I have to admit that years later I still sometimes smile when retrieving or replacing a plane.

Specialty planes—Some of my planes have a non-rectangular footprint, so I chose not to include these in the trough. Instead I made French-fitted trays for those, tracing around the sole with a pencil to achieve the desired result. A few of the planes—such as the rabbet and dovetail planes—are not flat on the bottom, so their holders required extra fitting. I accomplished this with a combination of drilling, chiseling, and some coping-saw work.

Special planes get special pockets. *For planes with curved soles or unusual shapes, Stephens makes custom holders like this one, designed to hug the sole and protect the blade.*

Holders that travel

Chisel stand. *Stephens makes holders like these for various types of chisels, letting him bring a whole set to the bench and keep them from rolling around when they get there. They attach to the wall with a French cleat. A hinged wood flap pivots over the top (right) to add security.*



A few of my wall-mounted holders double as detachable tool stands, which I take down as a unit and bring wherever they're needed. I find this especially helpful for chisels and drill bits. If you do a lot of carving, this is an extremely useful concept. I'm pretty sure I shamelessly stole this idea from someone—it's been long enough now that I can't remember.

Chisels—When I'm mortising or chopping dovetails, I like all my chisels in front of me so I'm not forever turning around and reaching for a different one. I also don't want them rolling around on the bench or over the edge. So I made separate free-standing holders for each of type of chisel I own (bench, mortise, dovetail).

I use a French cleat to mount each chisel holder to the wall, so I can easily take it off or put it back on. The cleats are pretty secure, but there is still the possibility of knocking the holder off the wall. So I installed a little hinged piece of wood on the wall mounts, which swings forward over the holder to lock it in place.

Drill bits—This holder lets me transport all my drill bits at once to my workbench or assembly table, with the bits standing upright for easy access. Obviously this can be done with a standard metal drill-bit case, but I wanted something with a little more soul. I also wanted the individual bits to be visible when wall-mounted, so it made sense to use a holder similar to the one for my chisels.

Drill-bit stand. *Stephens made another holder for drill bits, letting him bring his whole collection to the drill press or assembly table.*