Tips & Techniques

edited and illustrated by Charles Miller

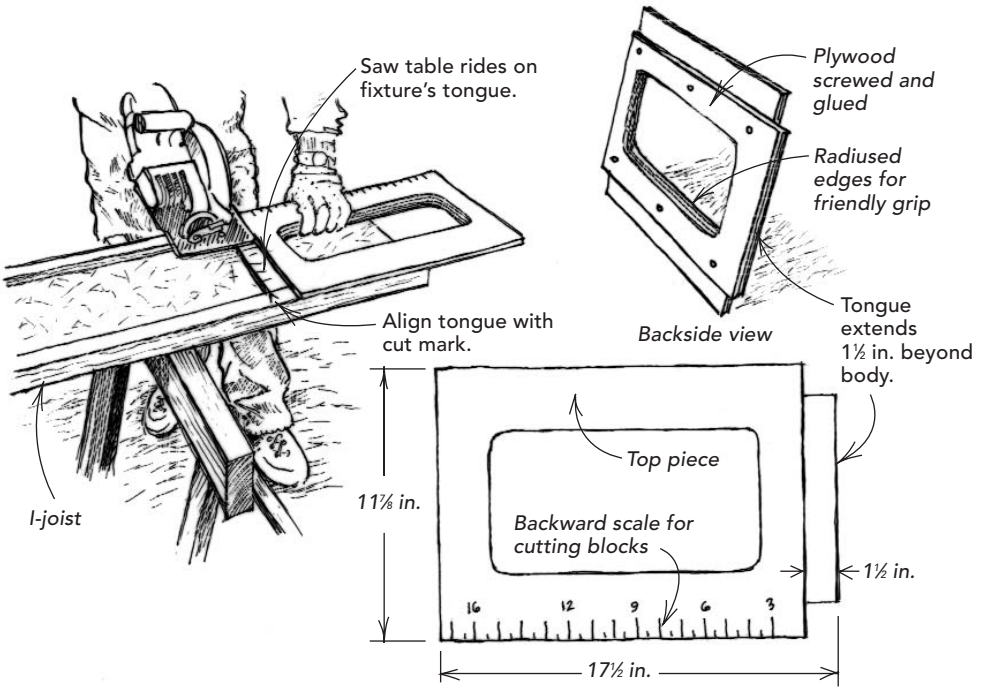
Tips & Techniques is a forum for readers to exchange information about methods, tools and jigs they've devised. We'll pay for any we publish. Send details to Tips, Fine Homebuilding, P. O. Box 5506, Newtown, CT 06470-5506.

I-joist cutoff fixture

Because my crew and I frame our floors exclusively with I-joists, we needed to find an efficient way to cut them to accurate lengths. Using a regular framing square to mark them wasn't as accurate as I like, and a Speed Square required several steps to get a line across the recessed web of an I-joist.

As shown in the drawing at the right, we now use a cutoff fixture that consists of two layers of ½-in. plywood. We typically use I-joists that are 11⅞ in. deep. The top piece is ripped to that width so that it spans both the top and bottom chords of the I-joist. The lower piece, or tongue, is 8¾ in. wide. It is screwed and glued to the underside of the top piece, and it rides between the top and bottom chords of the I-joist. The tongue projects 1½ in. past the top piece. This length is the distance between the left edge of my circular saw's table and its blade.

Before use, I cut out the center of the fixture for a handhold. Then I chuck a roundover bit in my router to smooth the cutout's edges to make it easier on the hand. Last, I spray the fixture with lacquer to make it last in the weather.



In use, the tongue of the fixture is aligned with the cut mark on the joist, and the saw table rides atop the tongue, with the edge of the table placed hard against the top piece I'm working on.

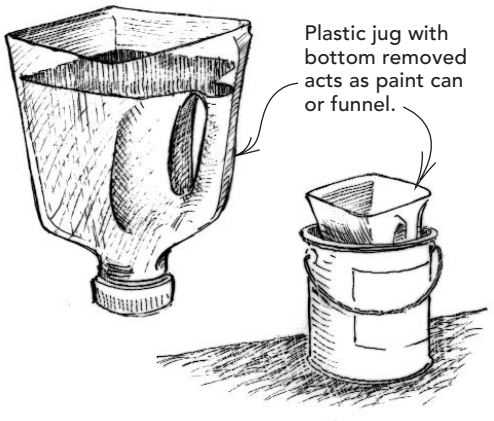
Over the years, this fixture has evolved to include a ruler scribed across the bottom edge. The ruler reads from right to left, and it's there to help in cutting blocks. Cutting blocks to the right length is as simple as lining up the left end of the joist with the measurement of the block you need and running the saw across the joist.

—Jim Anderson, Littleton, CO

Combo paint bucket/funnel

Instead of working directly out of a gallon can of paint or a smaller but hard-to-hold coffee can, I use a chopped-down milk jug. Not only is the built-in handle a plus, but the container also does double duty. When I'm finished painting, I just remove the cap and set the jug on top of the paint can. Any leftover paint will drain back where it belongs.

—R. B. Himes, Vienna, OH



Staying on the cutting edge

Keeping chisels and other edge tools sharp is a habit that I insist all our crew members develop, and I've found it to be a valuable lesson for new members in boosting morale, promoting safety and teaching skills. Here's our low-cost system for ensuring that we have a constant supply of well-honed tools available at all times and for designating who is qualified to use them.

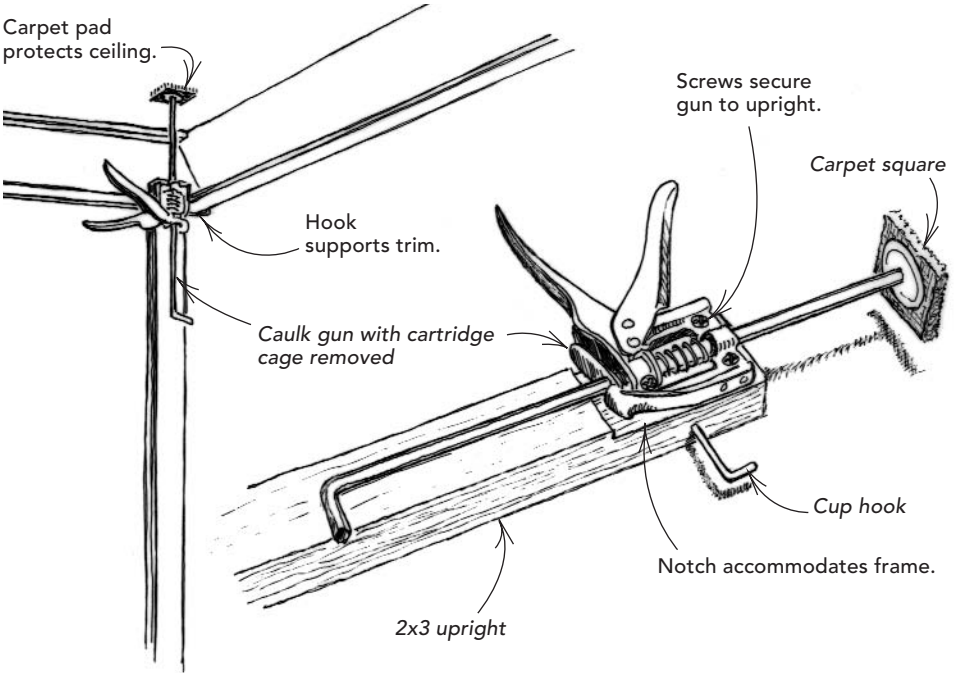
Dull, nicked or chipped chisels (also drill bits, planer knives, etc.) are deposited in a special drawer in the service body of one of our trucks. They are collected on a weekly basis and sharpened on my Delta sharpening center by me or another qualified employee. This task takes about 1½ hours per week by an experienced operator and keeps 25 employees equipped with sharp tools.

After they are sharpened, the tool surfaces are cleaned with solvent to remove the sharpening compound and allowed to dry. Then they are dipped briefly into a can of liquid electrical tape, a liquid plastic readily available in many colors. I dip the blades to a depth of about ½ in. above the sharpened area, sealing out moisture and dirt. The plastic dries in about 15 minutes. The coating comes off with a quick pass from a utility knife the first time the tool is used.

The coating does an excellent job of cushioning the newly sharpened tools as they rattle around in toolboxes. I used one this morning that had been overlooked at the bottom of a bin for more than a year, and it was as fresh as the day it was sharpened.

By color-coding the tools, I can tell the crew how much care was used in the sharpening process so that apprentices are not using hollow-ground, microbeveled chisels for removing brick veneer. Four colors—black, blue, red and green—do the job nicely for us. Our crew members have a real sense of pride when they graduate to using the most refined edge tools.

—John Avitabile, Trabuco Canyon, CA



Solo crown-molding installation

I needed to install a prefinished glue-in-place crown molding as a last-minute addition to the guest rooms for my wife's bed-and-breakfast business. Putting up 12-ft. lengths of flexible wood strips without smearing adhesive on the walls or ceiling was well-nigh impossible without another set of hands, or a set of supports to hold the pieces near their final position. Ideally, they should be something that I could maneuver quickly and accurately, with one hand.

The caulking gun that I would use to apply the adhesive turned out to be the inspiration for this solution. As shown in the drawing above, I bought a couple of caulking guns, removed the cartridge cages and drilled three holes for screws in the frames. I then cut 2x3 uprights to about 4 in. less than the floor-to-ceiling height. Next, I screwed a stripped-down caulking gun to one end of each upright. The most difficult part was chiseling away a bit of the uprights to clear the guns' moving parts, which took maybe five minutes. I stuck a bit of carpet scrap to the pistons to prevent marring the ceiling.

I made two uprights, and for my purposes, a cup hook screwed into the side of each 2x3 was all I needed to support the trim pieces near the ceiling while I applied adhesive to their backsides. The gun mechanism also allowed me to reposition the upright quickly once the trim was glued to the ceiling so that I could make small adjustments to the position of the trim and press it into place.

The uprights could be used almost anywhere you need to apply light outward pressure, including constructing a dust screen with plastic or fabric sheeting stapled to the timbers.

—Mark Miller, South Lopham, Norfolk, United Kingdom

Saving leftover caulk

I've always had trouble saving tubes of caulk once they've been snipped open. Like just about everybody else with the same problem, I've tried plugging the snipped tube with nails or screws, with varying degrees of success. My solution to this dilemma is so obvious as to be almost comical: duct tape.

I had an open tube of caulk I'd used to seal some errant drafts into the house. Instead of trying to find a suitable nail or screw, I reached for my trusty roll of 2-in. duct tape and tightly wound a couple of turns around the nozzle. Then I squeezed the open end of the duct-tape wraps together. So far, I have not lost any unused caulk, with the longest open tube lasting almost two years.

—R. D. Shorter, Nanaimo, BC, Canada

Dust mask for a circular saw

For those of us who occasionally cut bricks and concrete blocks with framing saws, consider the following: To avoid abrasive dust being drawn over the motor windings, simply pull an old sock over the motor housing to act as a temporary dust filter.

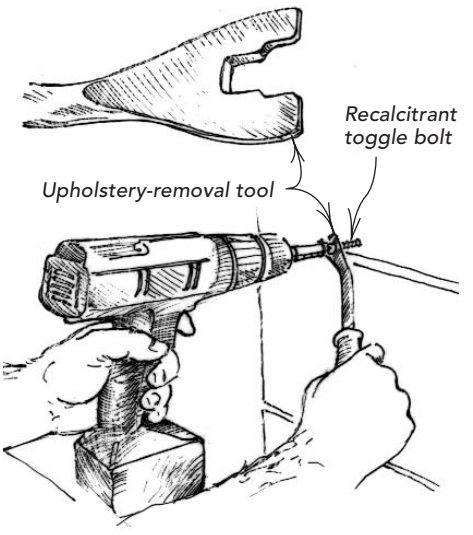
—S. J. Chant, Wyalusing, PA

Removing toggle bolts easily

Removing a toggle bolt really can be frustrating because of a fundamental contradiction. You have to pull on it, because the toggle is simply spinning inside the wall once the screw has been loosened, but at the same time you have to push on the screw to make it spin.

During a recent remodeling project, I tried a variety of tools to pull on the screw while twisting it with the screw gun at the same time. Pliers would grip the screw but wouldn't let it spin. A putty knife simply slipped off the spinning screw.

Then I remembered a gadget called a door-upholstery removal tool that I had picked up for a recent automotive project. As shown in the drawing below, it is shaped somewhat like a screwdriver with a



bent shaft and a slotted flat tip. This tool proved to be ideal for pulling back on the back of the screw head while the screw was spun out. You can purchase one of these tools at an auto-supply shop or online at www.toolsplus.com for about $9.

—Jim Parker, Littleton, CO