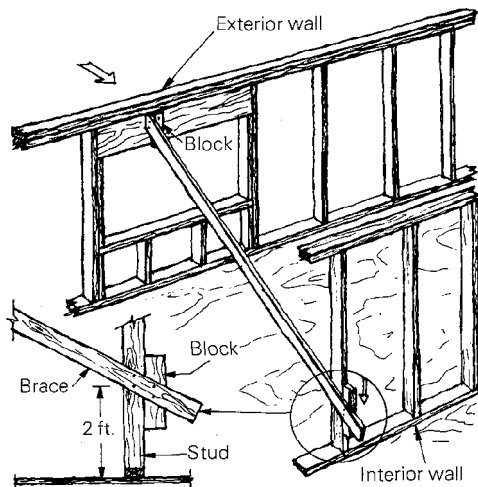


Tips and Techniques is a forum for readers to exchange the methods, tools and jigs they've devised. We'll pay for any we publish. Send details, sketches and negatives with photographs to Tips and Techniques, Fine Homebuilding, Box 355, Newtown, Conn. 06470.

Walls with braces

When plumbing and lining a frame, I use this trick if I encounter a stubborn exterior wall, bristling with headers and bowed outward.

Nail a 2x4 scrap flat to the inside of the exterior wall below the top plate where it is most bowed out. Secure a long 2x4 brace onto the side of the block. The brace must be long enough to reach an interior wall that runs parallel to the exterior wall you are lining. Hold



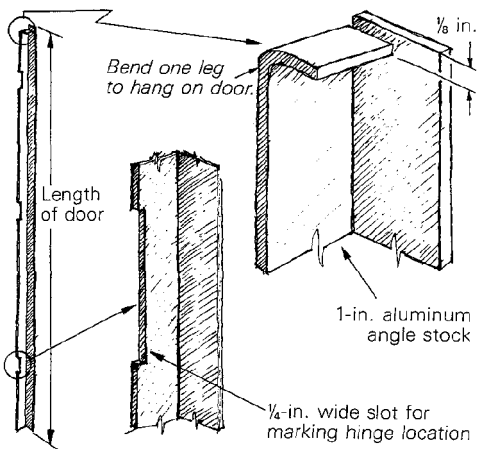
the bottom end of the brace about 2 ft. off the floor and against a stud in the interior wall.

Attach an 8-in. block to the brace, making sure that the block is on the far side of the interior wall. Now push down on the brace at the point where the block is attached. The levering action of the block against the stud will pull in any bow in the exterior wall. Once the wall is straight, the brace can be face-nailed to the stud.

—Don Dunkley, Sacramento, Calif.

Door butt gauge

For accuracy and speed when hanging doors from scratch, I use a butt gauge (drawing, below) that I made out of 1-in. aluminum angle



stock. Bending one leg of the angle over 90° just 1/8 in. down from the top, and cutting slots the same size as the hinges where they are to be positioned on the door, complete the gauge.

To mark the door, just hook the bend over the door edge and scribe the hinge cutouts with a utility knife. For the hinge jamb, hold the unbent face of the top of the gauge to the top of the jamb and mark the butt spacing. When you are not hanging doors, the gauge and a couple of clamps serve as a handy straightedge for cutting and scribing lines on almost anything.

—John Toly, Richmond, Calif.

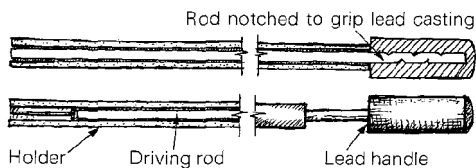
The pea-shooter

Ever need the help of a 4-in. carpenter, or a helper to drive the first nail when you're installing cabinets? Here's a useful addition to your tool kit that can help you drive those nails in tight places—the pea-shooter.

The pea-shooter (drawing, below) consists of three inexpensive and easy-to-assemble parts: the handle, the driving rod and the holder. The handle should weigh about 3 lb. and have a rounded end that's comfortable to grip. A lead casting, a bumper hitch ball or a steel bar all make good handles.

The driving rod is about 30 in. long and should be a piece of oil or water-hardened drill rod. Mild steel rod can be used, but won't last as long. For 16d and 20d nails, use a 3/8-in. rod. For 8d and smaller, use 1/4-in. rod. One end of the rod is secured by welding to a steel ball or notched and cast in a lead handle. A steel handle can be secured to the rod with setscrews, which also allows the rod to be easily replaced. The end of the rod that strikes the nail should be hardened by heating it over a natural gas flame until it is brownish purple, and then quenching it immediately in oil or water.

The holder is a piece of tubing or pipe with a 1/2-in. or 3/8-in. inside diameter (depending on the driving rod) with a relatively thick wall. The length should be exactly the same as the length of the driving rod, excluding the handle.



To use the pea-shooter, draw back the driving rod into the holder, insert a nail into the end of the tube, and place the end of the tube where you want a driven nail. A few blows with the driving rod and the nail is home for good.

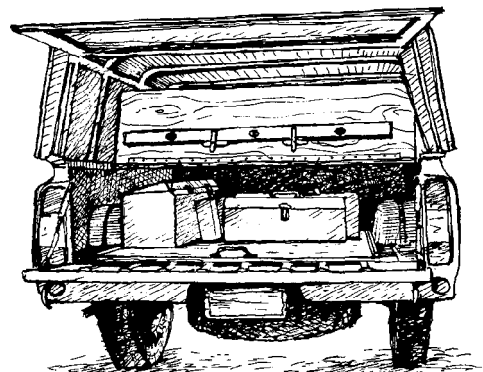
—Dave Jochner, South San Francisco, Calif.

Sliding tool chest

I was able to solve the problem of keeping my tools locked up and yet accessible in my pickup camper shell with this sliding-shelf tool locker.

I mounted a piece of angle iron along each side of the bed, level with the top of the tailgate. Then I cut a 3/4-in. plywood shelf about 4 ft. long and as wide as the bed, and bolted it to the angle. I hinged another piece of plywood at the back of this where it would fold down just behind the wheel wells. I added a latching hasp and now had a lockable compartment for

my tools as well as a storage space above them. For inside this compartment I cut 3/4-in. plywood narrow enough to slide between the wheel wells. I edged the plywood on three sides to keep toolboxes from sliding off, put a handle on the front, and attached casters to the bot-



tom. This gave me a drawer that could be locked in place when the lid was closed. With the tailgate open, this sliding shelf will reach far enough to give access to everything on it.

Long material can be carried out the back of the camper shell supported by the top of this locker and the tailgate, which are at the same height. The entire system can be removed in minutes, if the full use of the bed is needed. Also, I have discovered that the inside of the lid is a good place to store such awkward tools as my 4-ft. level.

—Kevin Ireton, Dayton, Ohio.

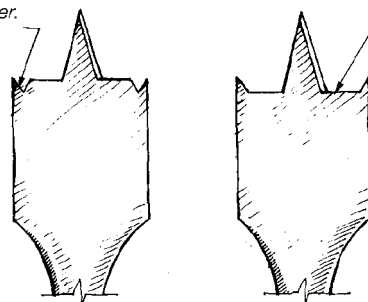
Born-again bit

I recently needed a clean-cutting bit to drill through some old Douglas fir molding. Lacking the funds to buy a good bore, I purchased a cheap spade bit and remodeled it with a flat file, as shown below.

First, I used the corner of the file to make two

Make V-cuts with file corner.

Lower cutting edge with file.



V-cuts near the edge of the bit. Then I removed the area between the base of the new cutting spurs and the pilot with the edge of the file. The resulting bit produces a remarkably clean cut.

—Duff Bogen, Seattle, Wash.

A strapping idea

The easiest way to keep the bottom plate of a framed wall from walking when it is being raised is to toenail it into the subfloor. The nails bend easily as you lift the wall, and the bottom

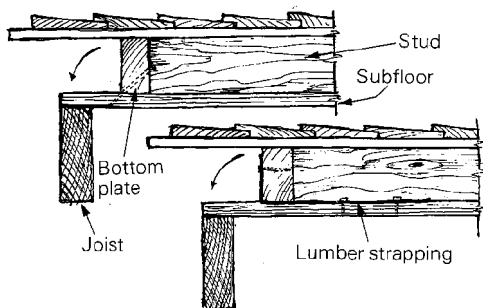


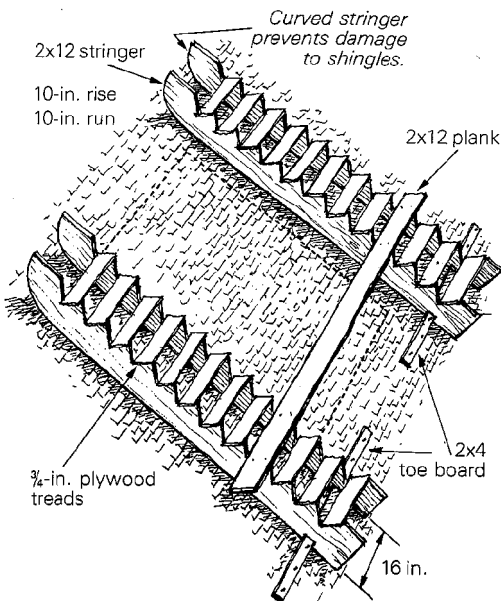
plate usually remains in the immediate neighborhood of its intended layout.

A more secure system uses the strapping that binds lumber loads. Cut it into 12-in. pieces and nail one end to the underside of the bottom plate. The other end should run under the wall and be nailed into the subfloor. Concrete nails will pierce the stuff, or you can abuse your 2/32 nail set and start a hole. The strapping can be left in place and covered by the finish flooring.

—M.F. Marti, Monroe, Ore.

Stepping up

I recently added three dormers on a 12:12 roof, using a toe-board and roof-stair system that saved me a lot of time, risk and effort. As shown in the drawing below, the stairs are made of two 2x12 stringers with 16-in. long, 3/4-in. plywood treads. The uphill end of each stringer was cut in a curved pattern to keep the front edge from damaging the shingles when it slid onto the roof. The downhill end should be notched on the underside for a flat 2x4 toe-



board. I placed one ladder on each side of the dormer layout, and hooked them over the 2x4 toe board that was nailed at the eave parallel to the ridge. A 2x12 plank could then be laid across the treads of the two stairs, and moved up and down the pitch of the roof. Framing, siding, trimming, painting and shingling the dormers and surrounding area were relatively easy, and the system caused a minimum of damage to the existing roof.

—Wayde Millany, Dillon, Colo.

Soldering water pipes

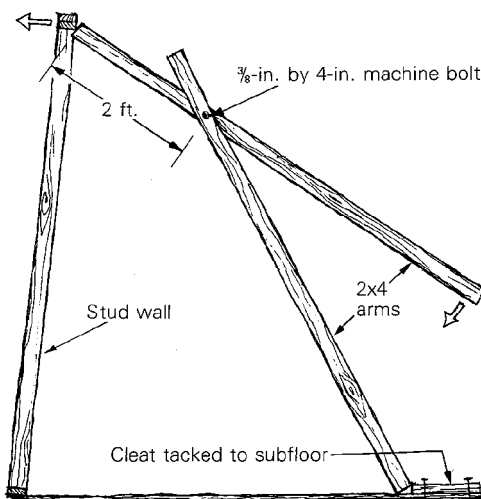
An old plumber's trick for resoldering copper water lines when making repairs is to take a piece of white bread, make two dough balls and then stuff them up the pipe in both directions. The dough balls will block the water while the soldering is being done, and then dissolve easily in the water system.

—Chris Valenzuela, Millboro, Va.

Scissor framing

The scissor-like tool illustrated below can be useful in plumbing and aligning stud walls during framing. With it, a worker can exert and maintain great pressure against a wall while another worker nails bracing to hold the wall in its correct position.

The scissor can be assembled quickly on the job site from a pair of 8-ft. 2x4s and a 3/8-in. by



4-in. machine bolt. The proportions shown in the illustration are only approximate; I usually trim off one end or the other until the tool feels right and gives the best leverage.

To use the scissor for plumbing a wall, tack a cleat to the subfloor about 6 ft. from the bottom plate and place the foot of the tool against it. Next, open the arms of the scissor until its raised end can be firmly wedged against the top plate of the stud wall. By pressing down on the tool's handle, you will increase its span and force the top of the wall away from you. Fine adjustments can be made by altering the pressure on the handle.

—Malcolm McDaniel, Berkeley, Calif.

Cleaning sawblades

Pizza pans, which come in various diameters with a standard depth, are ideal for soaking circular-saw blades in chemical remover to get

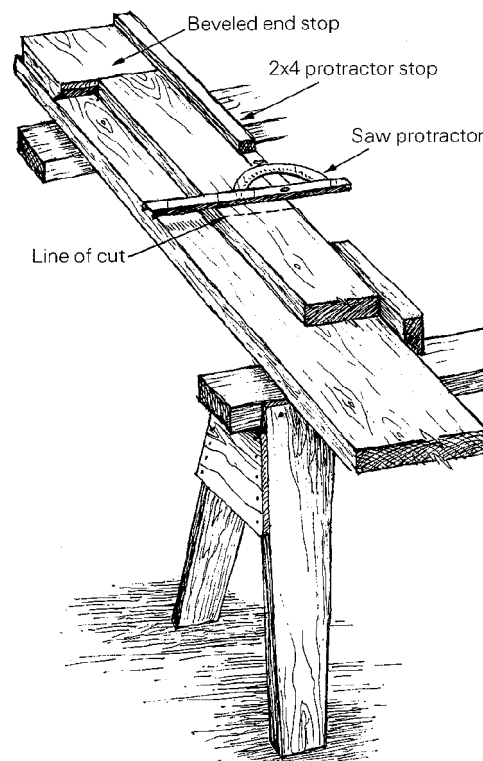
rid of pitch. Very little fluid is needed, and after an overnight soak the residual fluid can be poured back into its can to be used again. The blades come clean with little effort.

—Mike Denman, San Jose, Calif.

Cut-off fixture

I seldom use radial arm saws when I'm working on a job. They are expensive, difficult to move around and constantly out of adjustment. The alternative is to use the simple cut-off fixture shown in the drawing below, a circular saw with a shoe that is parallel to the blade, and a \$15 saw protractor.

The fixture can be made from 2x lumber of any width, and should be long enough to support the boards you are cutting. Attach a block



across the face of the fixture at one end. Make sure that this end stop is perpendicular to the edge of the jig. This block should be back-beveled along the end grain on the working side of the jig to prevent sawdust buildup when it's in use. A 2x4 block can then be nailed to the side of the fixture, with the bottoms flush. This is the protractor stopblock. It should be long enough, with the additions of the protractor arm length and the width of your saw shoe, to produce the cut-off length that you want.

Butt the piece to be cut against the end stop, set the protractor across the board and against its stop, and run your circular saw against the leg of the protractor. This method will produce fast, clean, accurate and repeatable cuts of any angle for everything from joist blocking to finish work over measuring and squaring each board.

If you are production-cutting several lengths, nail protractor stops in several locations along the length of the fixture. Clamping the stop is faster if only one or two cuts are needed at that length.

—Ron Davis, Novato, Calif.