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.*

Air-hose patch

Recently, my 50-ft. air hose turned up with two punctures. To fix them, I used PL Premium construction adhesive, which expands as it cures. For the larger hole, I applied a dab of adhesive to the puncture and wrapped it with tape, forcing the adhesive into the puncture. The second hole was tiny. I dabbed adhesive on it, then ran my 1/32-in. drill bit into the hole and withdrew it. Then I wrapped the hole with tape. In each hole, the glue expanded on the inside, creating a plug that's locked in place.

—James Blohm, Amityville, NY

Boot cleaners

I am currently finishing up a large house on a hillside in Portola Valley, California. Naturally, we have timed this project perfectly for the onslaught of the rainy season. The clay in the local turf, so excellent for the grapes that become chardonnay and merlot, also makes world-class mud. Even the most strenuous attempts to scrape and stamp the stuff loose are futile.

To keep the mud at bay, I made the boot cleaners shown in the drawing below. I placed them at all the main points of entry to the house. The base is a 3/4-in. thick piece of plywood. The scrapers are the brushes from push brooms.

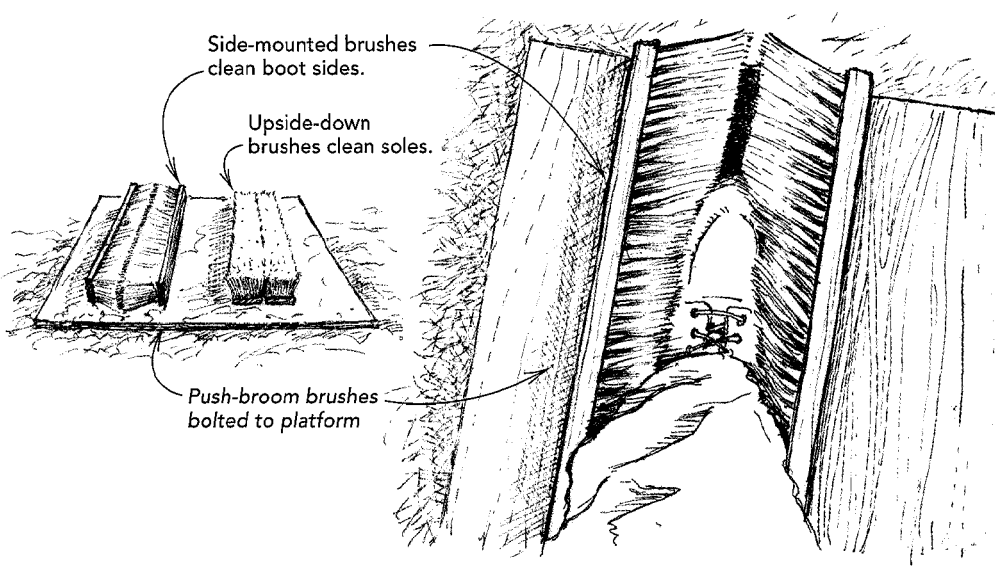
The bristles of the upside-down brushes have been trimmed a bit to stiffen them. Now they can really dig into the nooks and crannies of a boot sole.

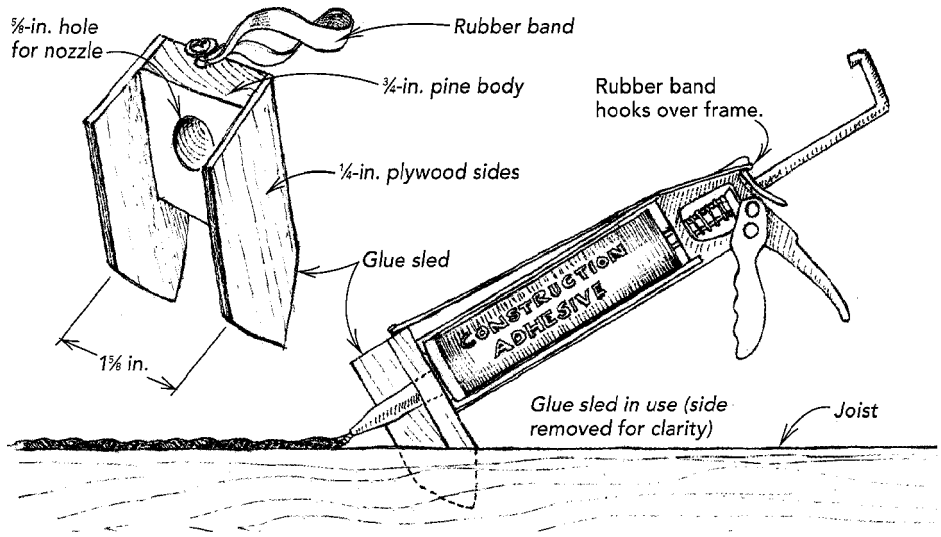
The side-mounted brushes get the mud off the sides of a boot. We placed them just far enough apart to allow a "kick fit." You have to kick hard to squeeze your foot in. The technique is to kick hard at the brooms for about 30 seconds per boot.

By the way, as an improvement to our original design, we have since bolted a piece of steel angle to the platform for scraping off major chunks before kicking the brooms.

These setups work really well, but we've also come across commercially available boot cleaners. We weren't impressed. They are smaller, with inferior bristles that started to disintegrate practically from the first use. They cost about the same as our site-built versions: $54 vs. four $17 brooms.

—Gregg Roos, San Francisco, CA





The glue sled

Call me persnickety, but I like to place a nice full bead of construction adhesive down the center of the floor joists before I lay down a sheet of plywood subflooring. Too many times, I've been on a job site where the glue was applied carelessly, resulting in an erratic line with skips and unacceptably thin smears. If it's worth the expense and effort of gluing a subfloor in the first place (and I think it is), then it's worth taking the time to do it right. The device shown above is my solution to the problem. I think the best part is that using this gadget, I center the glue bead on the joist every time without having to go back.

The glue sled, as I call it, is nothing more than a 1 7/8-in. wide block of 3/4-in. pine with a hole in it. The block is sandwiched between 1/4-in. thick plywood sides. The hole accepts the nozzle of the glue cartridge, and the rubber band loops over the caulk-gun frame, holding the sled in place. In use, the plywood sides ride along the sides of the joist, keeping the nozzle centered.

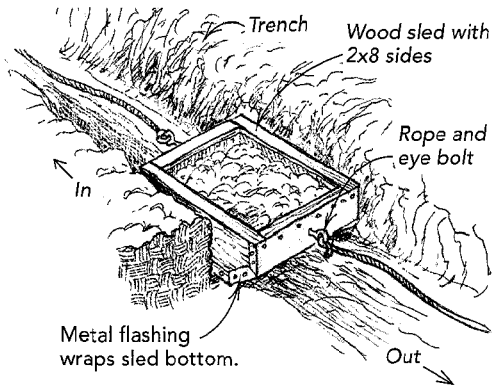
I think a 3/16-dia. bead of glue is the ideal amount. And although I don't obsess over this detail, I can tell you that cutting the nozzle 3/8 in. from its tip yields a 3/16-in. opening for the glue to exit. If your joists are on 16-in. centers, figure on using about three-quarters of a 10.5-oz tube per sheet of plywood. Where sheets come together on one joist, you can get a fairly even off-center bead of glue by lifting up the sled and angling the glue gun to the side.

—Herrick Kimball, Moravia, NY

The dirt sled

When my crew and I were doing floor-framing repairs under a 50-year-old house, we found that one 25-ft. section of the house had tight clearance. You could crawl in on your belly but had to position yourself between joists to roll over. We needed a more comfortable space, so I suggested we make a new opening in the foundation and dig a 25-ft. working trench for better access.

I asked a carpenter to build a sled with a rope on each end that we could pull in and out of the crawlspace to remove the dirt from the trench. In a couple of hours, he came up with a wooden tray about 8 in. deep, 16 in. wide and 2 ft. long, as shown in the drawing below. Then he wrapped a 20-in. wide piece of heavy-gauge metal flashing around the whole contraption, fastening it to the sides of the sled with roofing nails. Using eye bolts on both ends and a couple of ropes, we put the sled to work. One guy lay in the trench digging with a small foxhole shovel and pick. He'd fill the



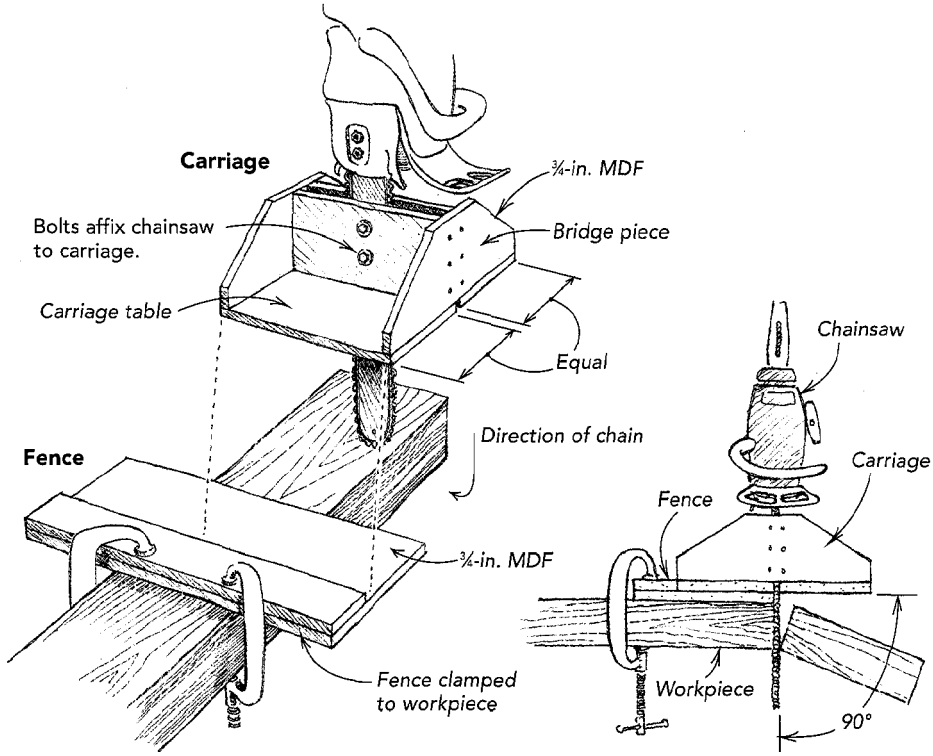
sled, and two guys on the outside would pull it out and empty it. The slick metal bottom slid easily on the compacted dirt, and within three or four hours, the 25-ft. trench was finished, allowing easy access for the next two weeks' work.

—Bill Phillips, Durham, NC

A use for expired credit cards

Rather than rely on my fingers for tooling fresh caulk, I use old credit cards. Their rounded corners leave a perfect radius. I can even vary the radius by changing the angle of the card as I draw it along the corner. And if I need a sharper corner, I can trim the card to fit with some snips.

—Richard Woolfort, St. Charles, MO



Precision chainsaw cutting

Our crew landed a framing job on a big house in Sun Valley, Idaho. Among the challenges were the 1,000 or so notches in the timber-framed roof. Each 3x10 rafter has at least three bird's-mouth cuts in it, and nearly every one of them is exposed.

Attempting to make these cuts with a circular saw would have left much of the cut incomplete, even when cut from both sides. Then each one would require a handsaw to finish it off. We tried a jigsaw, but because of the thickness of the rafters, it proved awkward at best. As shown in the drawing above, the jig we put together to solve this problem put our electric chainsaw to use as an unlikely trim saw.

The jig consists of two pieces. One piece is the carriage, made of ¾-in. medium-density fiberboard (MDF), to which the chainsaw is bolted. The carriage base is a table that slides across the second part of the jig: the fence.

The carriage is screwed together, which allows disassembly should the operator need to gain access to the chain for sharpening or tension adjustments. A couple of 2¼-in. long, ¼-in. dia. bolts affix the saw to the carriage. They run through holes precisely centered in the chainsaw's bar. Washers between the carriage and the bar prevent the carriage from pinching the chain. Each side of the carriage is the same width, which allows the use of the fence on either the right or left side. That means we don't have to flip a rafter to cut both sides of a bird's mouth. Gluing some sandpaper to the bottom of the fence helps to keep it in place as it's being clamped.

Using this rig, we were able to cut a pair of 3-in. thick rafters simultaneously without rolling over either of them. For stopped cuts, I screwed a stop to the fence and cleaned up whatever material remained in a corner with a chisel. To my surprise, the saw cut even the shallow angle of a bird's mouth without a hitch. I thought it might want to walk, but this wasn't a problem.

Note that the saw is pushed into the workpiece with the chain oriented so that it cuts on the upstroke. This way, it's always pulling the carriage toward the fence. I found it most comfortable to push the carriage from the center of the bridge piece into the work with one hand, with the other hand on the trigger grip.

For this setup to work well, the saw has to be in perfect shape. Worn bars have different-height shoulders that cause curved cuts. We used a fine-tooth chain, which yielded clean cuts as long as we kept it sharp.

And remember, chainsaws are among the most dangerous power tools. Use them with an extra measure of caution. Use the shortest bar possible to cut through the work, and if the bar extends beyond the depth of the workpiece, be careful not to let it touch anything. To do so can cause the saw to kick back at the operator.

—Bill Amaya, Hailey, ID