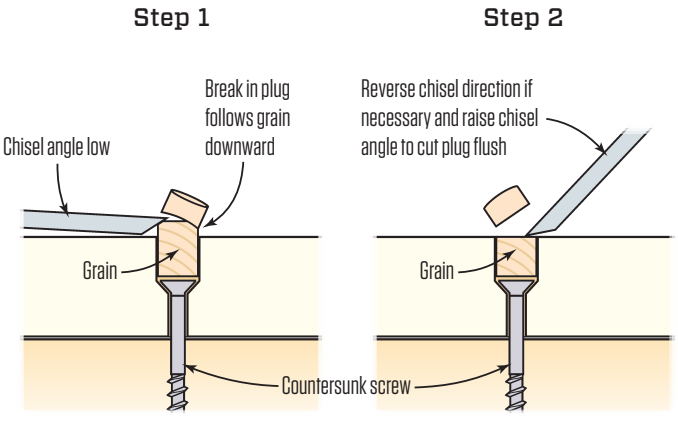
Q In Gary Striegler's article last month on starter steps, he uses filler in the fastener holes. Aren't wood plugs a more attractive alternative?

A Roe Osborn, senior editor at *JLC*, responds: When I questioned Gary Striegler about this detail, he explained that his company found that using finish-head screws for fastening and putting stain-compatible filler in the holes is the most cost effective and least visible way to take care of the screw holes. Finish-head screws leave very small holes—with just over 1/8-inch diameters—that are quickly and easily filled, while working with plugs can be time consuming.

Sometimes, though, plugs may be preferable. I worked as a carpenter in the joinery shop of a boatyard for a number of years, and we concealed all of our fasteners with wooden plugs, or "bungs," as they were referred to in the joinery shop. Well-installed plugs can add a note of craftsmanship to a project, and I've always enjoyed the almost Zen-like process of plugging screw holes.

Two-Step Plug Cutting



Make the first pass of the chisel with the blade slightly high and note which way the grain of the plug breaks. If it breaks down and away from you, reverse the chisel direction for the final pass.

Illustration: Tim Healey

Early in my stint in the joinery shop, I got a set of Fuller countersink bits with tapered bits for screw sizes #4 through #14, along with plug cutters for 1/4-inch, 3/8-inch, and 1/2-inch plugs. For drilling the countersunk holes, a portable drill works fine if you keep the bit close to perpendicular to the work surface. For cutting plugs, a drill press offers the best control and enables you to maximize the number of plugs you make from the material.

When plugging a countersunk hole, I first look at the grain of the board where it was interrupted by the hole, and I try to find a plug that has a similar character across its top. Woods such as quarter-sawn oak and mahogany are usually easy to match, but matching wood grain with more character and variations in color can be a bigger challenge.

In the boat shop, we used to save scraps from various shades of teak and mahogany so that we could match whatever we happened to be working with. It usually doesn't take a very big scrap of board to make the plugs you need. To make oak plugs, I usually just differentiate between red and white oak unless the grain is particularly gnarly and rustic.

After choosing a plug, I line up the grain of the plug parallel to the grain of the board and push it into the hole with my thumb. Then I tap the plug home with a lightweight finish hammer. A bigger hammer could mash the plug.

I used to put a dab of yellow glue on each plug before installing it, and some of my buddies at the boatyard insisted on using varnish to glue plugs in place. But a tight-fitting plug squeezes the glue out around it, and that glue will discolor the wood unless it is cleaned up completely and immediately. I now prefer to rely on the friction of the fit to keep the plug in place, using glue only if the hole is shallow or if the plug seems to be loose in the hole.

Once the plug is driven into the hole, I use the largest, sharpest chisel that I have to trim the plugs (I often use a large slick). The idea here is that the weight of the larger chisel helps to carry the blade through the plug with minimum impact. I keep the flat side of the chisel facing up (see Two-Step Plug Cutting, left) and start with the handle close to parallel with the work. That puts the cutting edge

slightly above the finished surface. After the first cut, I look at the plug to see if it has broken off at an angle. If the break is slanting down and away from me, I reverse the direction of the chisel to complete the cut. This keeps the plug from breaking off below the surface.

When I need to remove a plug that has broken off below the surface of the board, I simply drive a coarse-head drywall screw into the center of the plug. When the tip of the screw hits the screw in the hole, it keeps spinning and augers the broken plug out of the hole.

If matching the grain and color of wood that has a lot of color variation is too much of a challenge, consider using a different type of wood with a contrasting color to accent the plugs instead of trying to make them disappear. I've used mahogany or cherry plugs in light-colored pine, or a light-colored wood, such as ash or maple, in dark oak. This approach makes the plugs stand out and can create a striking design element.

Matching the variable grain of the native pine shelving on the left would have been difficult; instead, mahogany plugs were used to create a contrasting accent. In the even-grained outdoor mahogany plank table on the right, plugs made from the same boards fill the fastener holes almost invisibly.

Photos: Roe Osborn