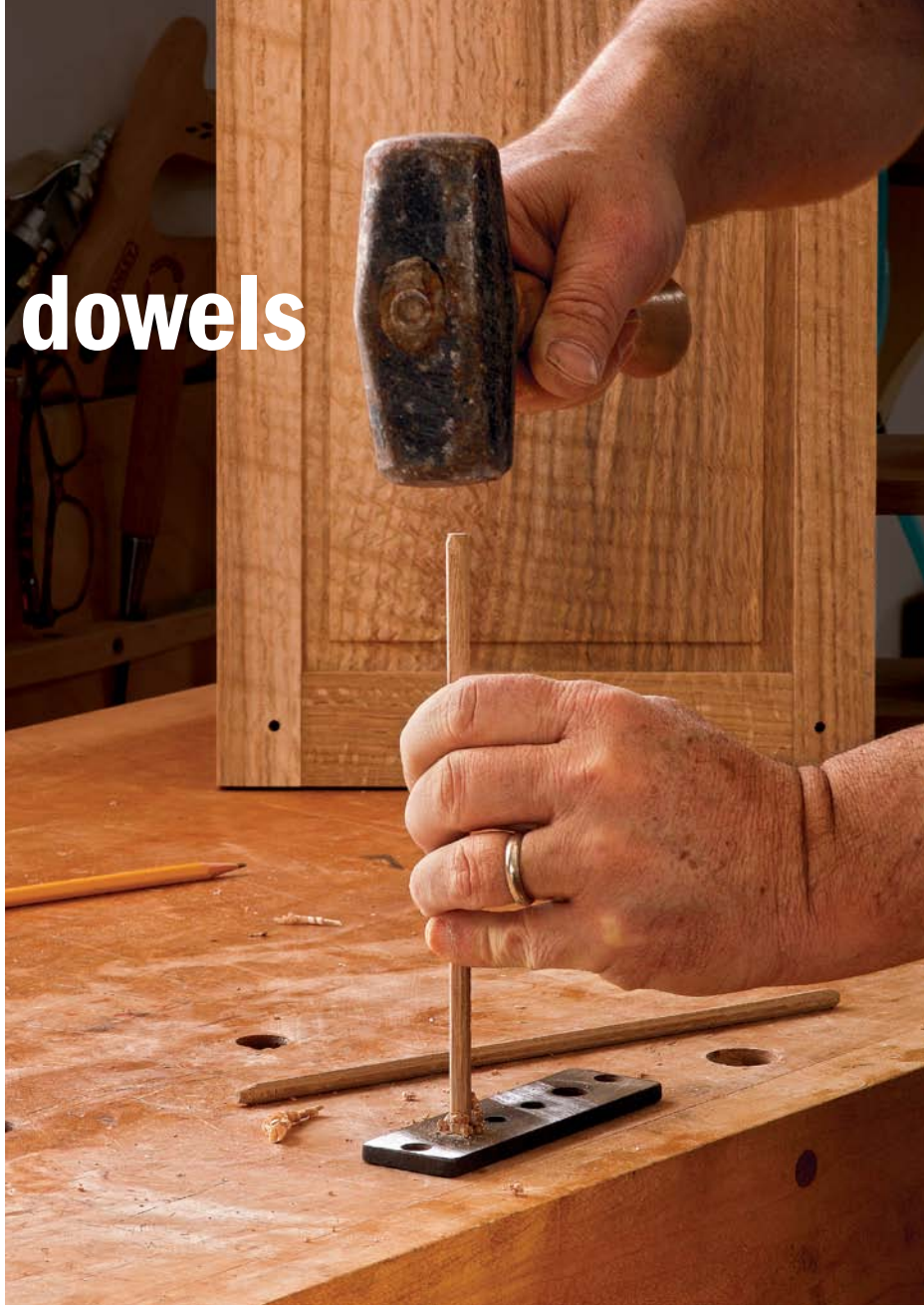
handwork

Make your own dowels



WITH A DOWEL PLATE, YOU CAN CUSTOMIZE THE SIZE AND SPECIES TO MAKE STRONGER, PRETTIER PEGS

BY MICHAEL PEKOVICH

Because the furniture I make is heavily influenced by the Arts and Crafts movement, I cut a lot of mortise-and-tenons, and peg the joinery to add strength and visual pop. I'm always in need of dowel stock to make the pegs. Store-bought dowels are fine, but they come in only a few species, and if you don't have what you need on hand, work stops until you get it. That's why I began making my own. With a dowel plate, it's a snap to bang out a few dowels whenever I need them, in whatever species I choose.

Making a dowel might seem simple: Pound a stick through a hole. But there are a few potential pitfalls—broken pegs being the worst. Through the years, I've learned some tricks that help you to avoid these headaches. I'll show you my techniques so that you, too, can end up with nicely formed dowels.

Michael Pekovich is a furniture maker, instructor, and FWW's executive art director.

Places for pegs

Sure, a joint reinforced by a peg is stronger than the same joint without one, but that's not the only reason to peg joinery. Even when made from the same wood as the joint, there's just enough contrast from the end grain to sound a quiet decorative note.

FLUSH IS ELEGANT

A pegged tenon is easier to execute and just as strong as a dovetail for joining drawer rails to a case side.

TOGETHER FOREVER

A drawbored joint is pulled and locked together as the peg is driven home, making the joint ideal for hard-to-clamp assemblies like big table bases.

PROUD BEAUTY

Standing 1/16 in. proud of the surface, a peg becomes a tactile design detail that adds a rustic charm to joinery.

Photos, except where noted: Matt Kenney; this page (bottom three): Michael Pekovich

Making a dowel

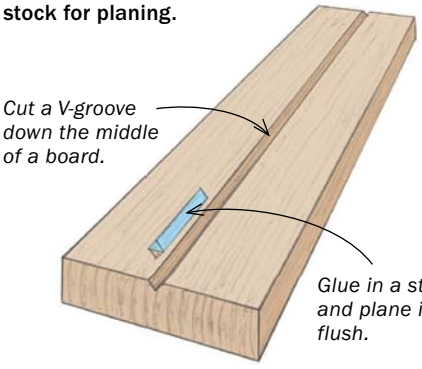
USE STRAIGHT-GRAIN STOCK

Runout—grain that flows out to a board's edge—in the blank causes it to split when you pound it through the dowel plate or, even worse, when you're driving the peg into the joint. Resaw the peg blank so you get stock with straight grain. The blank should be as close to the dowel's final diameter as possible.

Cut parallel to the grain. *A pencil line along the grain suffices as a guide (left). Clean up the newly cut edge with a handplane. To account for the blade's rough cut, rip the blanks just a hair over the final diameter (above).*

EASE THE CORNERS

The sharp corners of a square blank get rolled up and jam when the blank is driven through the plate's round hole. To prevent this, chamfer the corners with a block plane first. A jig holds the small stock for planing.



Jig holds the blank. *A V-groove in the jig turns the blank 45°, standing the corner up for planing. Flatten the corner, but don't get too aggressive. If you plane too far, the dowel will have a flat side.*

POINT BOTH ENDS

Sharpened to a blunt cone, the leading tip starts more easily than a square one, while the tapered trailing end leaves the plate more cleanly.

Tapers result in better dowels. *Use a pencil sharpener to create a blunted point on both ends (left). This ensures that the blank will be centered in the hole when you begin (center). Also, as the blank exits the plate, the waste breaks off easily at the taper.*

Tips for installation

CUT IT FLUSH

The trick to perfectly flush pegs is cutting them cleanly without damaging the surrounding wood. Here's how to do it.

Get it close. *Protect surfaces with P400-grit or finer sandpaper. The fine paper is thin, so there's very little peg waste left. Also, fine grits don't scratch the surface.*

Trim flush. *Pare the waste with a freshly sharpened chisel. Take it all in a single pass.*

SET IT PROUD

Hammers aren't delicate tools, which makes it hard to drive a bunch of pegs so they are all the same distance above the surface. Fortunately, there's a jig for that.

Round the exposed end. *Pekovich uses P400-grit sandpaper on his benchtop.*

Cut the peg short. *This way it doesn't bottom out in the hole before you drive it to the correct depth.*

Two tools for dowels

To make your own joinery pegs, you'll need a dowel plate. My now-vintage plate is no longer sold, but both Lie-Nielsen and Veritas sell a tool for making dowels. I've tested both, and they performed well. If you need just a size or two, the Veritas Dowel Former ($12 for the plate, $10 per insert; left) is the tool for you. If you'd like to make a wide range of sizes (⅛ in. to ⅝ in.), the Lie-Nielsen dowel plate ($55) is a great value.

—M.P.

Perfectly proud. *Drill a hole in the end of a block that's as deep as you want the peg proud. Use it to knock in the peg.*

Photo, this page (bottom left): John Tetreault