Sharpen your spokeshave

A SIMPLE BLADE HOLDER IS THE KEY TO SUCCESS

BY CHRIS GOCHNOUR

Sharpening most spokeshaves is like sharpening a handplane, but the blades are a lot smaller and tricky to hold. The solution is a wooden blade holder. With the blade mounted in it, you can grind and hone to perfection using standard sharpening techniques. It's also double-ended, so it can handle both short bevel-up blades and longer bevel-down blades. A concave spokeshave requires a different approach, but I'll tell you the secrets to that, too.

Make the blade holder

I first discovered this style of blade holder when reading about spokeshaves in a reprint of a book written in 1903—*The*

Photos: Ben Blackmar; drawings: John Tetreault

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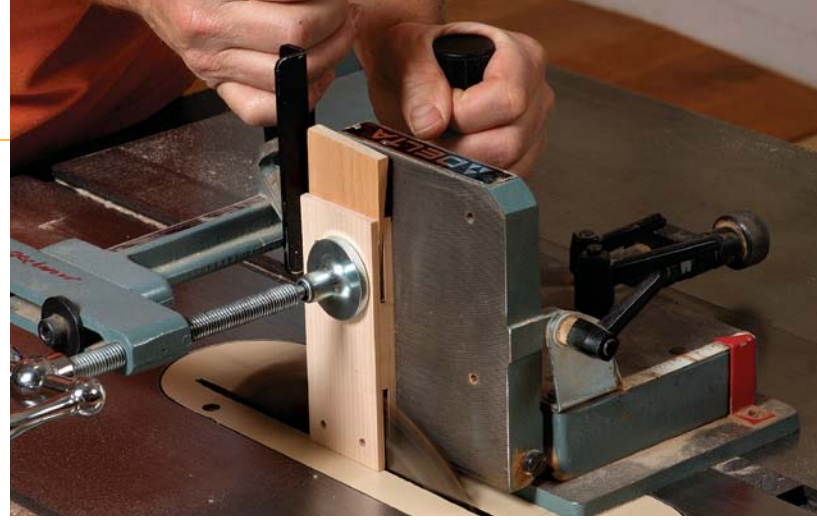
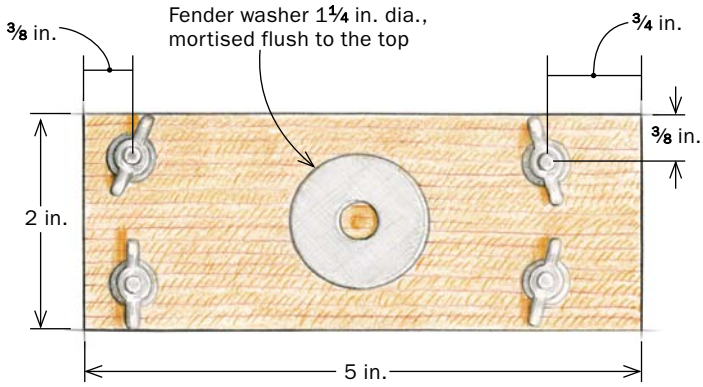
MAKE THE BLADE HOLDER

A slotted block with wingnuts lets you get a grip on hard-to-hold spokeshave blades for easy grinding and honing. An inset washer lets you mount a digital angle gauge for quick, accurate setup (opposite).



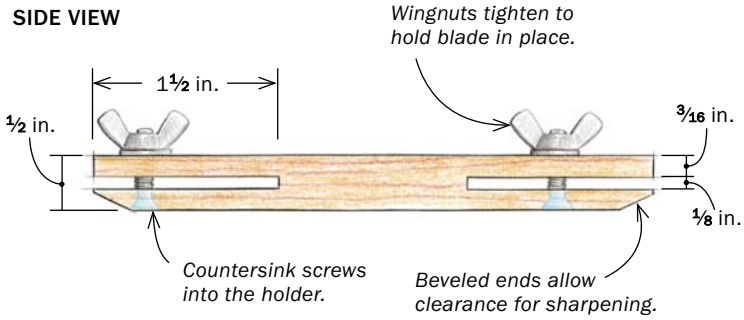
Make way for the blades. *Gochnour uses a tenoning jig to cut the slots on the tablesaw, and sticks a wedge in the first slot to keep the blade holder securely in the jig when cutting the second slot. A ⅛-in.-wide slot is perfect for most blades.*

TOP VIEW



Drill the holes and the mortise. *After drilling the holes for the screws, use a Forstner bit and set the depth stop to create a shallow mortise, then secure the fender washer with cyanoacrylate glue.*

SIDE VIEW



Add some glue to the screw heads. *The screws thread into their holes on one side. To keep them from spinning during use, Gochnour uses a little cyanoacrylate glue under each screw head to lock them in place.*

Handyman's Book by Paul Hasluck (2001, Ten Speed Press). Traditionally the blade is wedged into the holder's wooden body, but I added screws and wingnuts to hold the blade and glued a steel washer to the top so that I could stick on a magnetic angle gauge. I also cut different-size slots into each end so that I could sharpen 1½-in. long bevel-down blades, and shorter bevel-up blades too.

Making the blade holder is simple. Mill a piece of hardwood to size and cut a slot in each end, 1½ in. deep and as wide as the blade it will hold. In my case, a ⅛-in. slot worked well, but if your spokeshave blade is thinner, you may want to cut the slot with a thin-kerf blade. I cut the slots using a tenoning jig on the tablesaw. Next, to create clearance for grinding and honing the bevel, tilt the blade to 25° and cut a bevel on the underside that rises about 5⁄32 in. on each end. Drill and countersink holes for the two clamping screws in each end. The screws will also serve as a depth stop to keep the blade square with the holder, so make sure they are parallel with the ends. To allow the top half of the slots to tighten freely under the wingnuts, change to a drill bit slightly larger than the screw threads and redrill the holes on the top side of the holder. A fender washer mortised into the top creates an attachment point for a magnetic angle gauge. Drill the shallow washer mortise in the center of the top, then glue it in with cyanoacrylate glue. The screws for the

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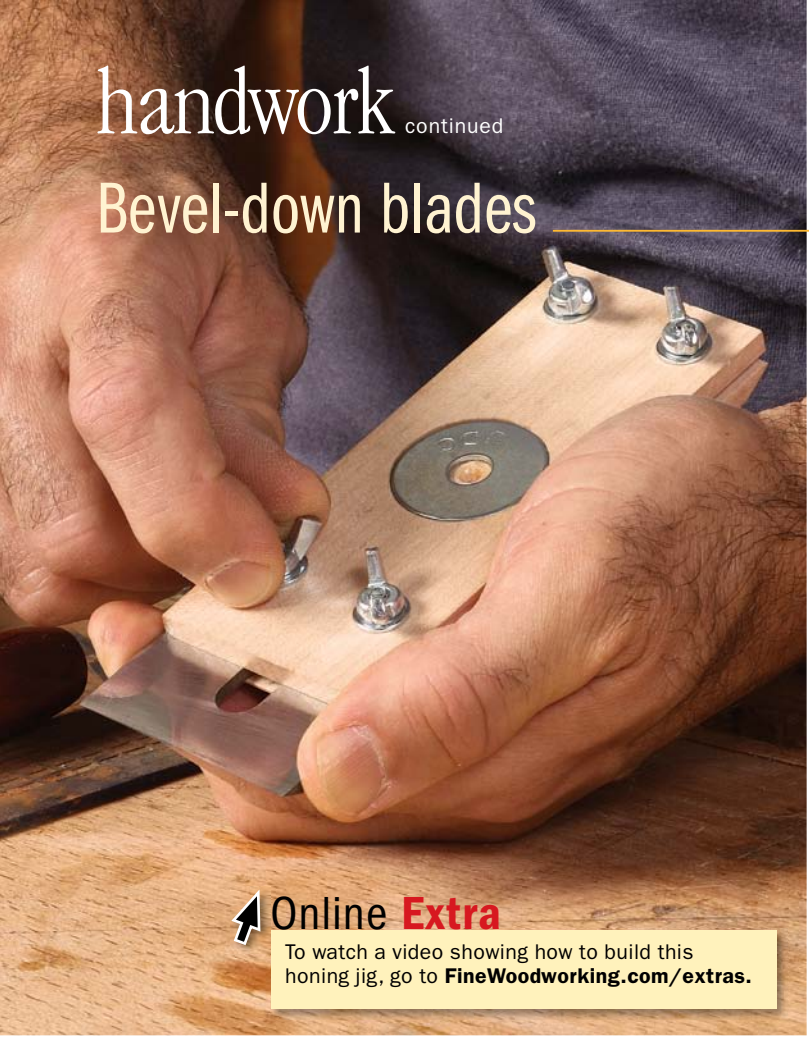
Bevel-down blades



Online Extra

To watch a video showing how to build this honing jig, go to **FineWoodworking.com/extras.**

Insert the blade. *Slide it all the way in, then tighten the wingnuts to secure it for grinding and honing.*

wingnuts are also glued in place (just a bit under the screw heads) to keep them from rotating in their sockets. Put on the washers and wingnuts, and you're ready to sharpen.

Sharpening the blade

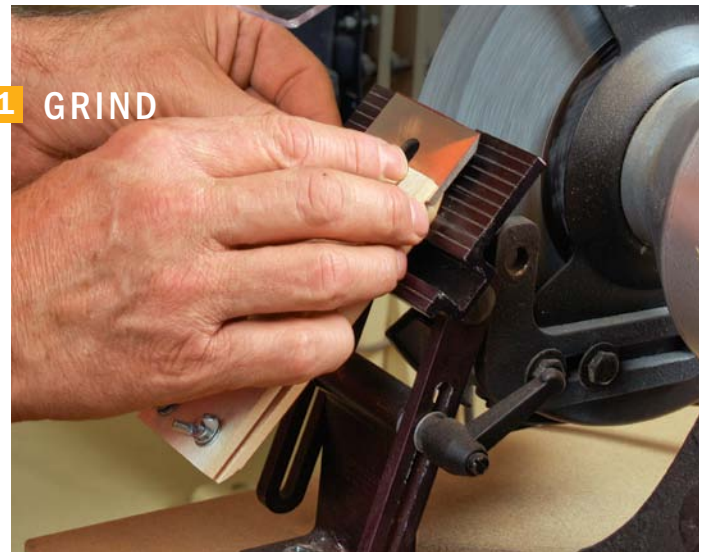
Bevel-up and bevel-down spokeshave blades are sharpened the same way, but their secondary bevels are a slightly different angle. Bevel-down blades typically have a 25° primary bevel and a 30° secondary bevel. Bevel-up blades have a 20° primary bevel and a 25° secondary bevel.

To begin sharpening, check the blade's back. If it isn't flat, lap the back on a series of sandpaper grits (220 through 2,000) until it's flat and polished. For more details on flattening the back, check out Handwork, "Plane blades and chisels need a flat and polished back," in *FWW* #232.

Next, grind the bevel. It's best to use a slow-speed grinder to avoid overheating the blade. You won't need to regrind it every time—only when it's worn, chipped, or needs an angle change. Put the blade in the holder with the bevel facedown. To protect myself from the sharp edge, I secure the tip of the blade about ½ in. deep in a vise, then stick the holder onto it until the blade butts against the screws, and tighten the wingnuts. Set the tool rest to the primary bevel angle and grind the bevel, making the edge straight and square to the blade's side.

To hone the secondary bevel, mount the blade and holder in a side-clamp honing guide. Set the angle to 30° and begin

1 GRIND



Grind the primary bevel. *The blade holder keeps a firm grip on the small blade, and its size makes it easy to hold steady against a tool rest.*

2 HONE

Sandpaper, then sharpening stones. *Gochnour starts honing on 150-grit sandpaper, then switches to the stones, working his way up through the grits for a sharp, polished secondary bevel.*

3 POLISH

Remove the burr. *After honing the bevel, remove the burr by polishing the blade's back flat against your finest stone.*

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Bevel-up blades

Straddle the stone. *For bevel-up shaves, grind and hone the same way, using the slot for narrow blades. Just let the tangs hang off the sides.*

Simple fix for short blades. *If the tangs don't clear the face of the stone, hone the blade freehand with diagonal strokes on the stone's edge.*

honing with 150-grit sandpaper to produce a wire edge. After you notice a burr forming on the back, switch to sharpening stones and polish the cutting edge, working through a series of grits: 1,000 to 6,000 to 13,000. Last, remove the burr by rubbing the flat back against a fine stone. If your blade has tangs, you can sharpen it using the blade holder—just let the tangs straddle the stone. If the tangs aren't wide enough to straddle the stone, hone the blade by hand on the stone's narrow side.

Concave shave is a different beast

The cutting edge of a concave spokeshave blade is ground to match the shave's sole, so you'll need a different method to sharpen it. I bring the abrasive to the blade by using a large dowel wrapped with sandpaper to establish the bevel and hone a secondary bevel. Just like a regular spokeshave blade, the primary bevel shouldn't need attention every time you sharpen, but it will once in a while. Mount the blade in a vise with the bevel faceup, tipping it to the angle of the primary bevel, about 35°. Use a wooden dowel slightly smaller than the blade's arc, wrapped with 150-grit sandpaper. Hold the dowel horizontal and hone the primary bevel, using a diagonal sweeping motion. Then loosen the vise and adjust the blade's angle to 37° to hone the secondary bevel. To easily see which part of the blade you're honing, mark the bevel with a permanent marker. Change the abrasive paper on the dowel to a finer grit, and hone a microbevel on the blade, working your way through 320-, 600-, and 1,000-grit, checking the marks on the bevel to make sure you're getting an even edge. Now just remove the burr—take it out of the vise and polish the back on a fine stone. □

Chris Gochnour is a professional furniture maker and hand-tool expert in Salt Lake City.

Concave blades

Hone it by hand. *With the blade mounted in a machinist's vise, set the bevel parallel with the benchtop, and hone the bevel with a side-to-side motion, sweeping it across the blade's curved edge.*

Remove the burr. *Finish the job by removing the burr using a 13,000-grit stone.*

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