

Smooth Curves with a Spokeshave

For curvy furniture and shaped edges, make the spokeshave your secret weapon

BY CHRIS GOCHNOUR

When it comes to refining curves and shaping contoured work, there's nothing better than a spokeshave. Mechanically, a spokeshave works the same way as a handplane, but its small sole makes it ideally suited for following curves. After you've cut out your work on the bandsaw or router, a spokeshave steps in to remove sawmarks and irregularities with precise fingertip control.

Spokeshaves come in a wide array of styles and designs (see "Specialty shaves," p. 67). The most versatile and perhaps the easiest to start out with is a standard-angle shave, with a flat sole and the blade mounted bevel down. This type of shave can handle most of the curves—concave and convex—a furniture maker will

encounter. Here I'll show you how to get the most out of this special tool, from setup to shaping.

Install and adjust the blade

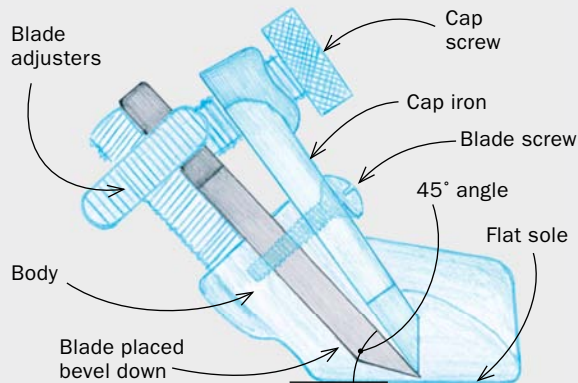
As with a bench plane, the first step with a spokeshave is to sharpen the blade. Because of its small size, sharpening can be tough, but I have a jig that takes the pain out of the job (see Handwork: "Sharpen your spokeshave" on p. 22). Once sharp, it's pretty easy to install and adjust the blade for perfect results.

Most newer spokeshaves have twin adjustment screws that move the blade laterally as well as in and out, making it easy to get the blade in the proper alignment. With the blade drawn into the

Set up for success



The first shave to buy is a flat-sole, bevel-down version. It can negotiate all but the tightest curves, and in most situations it leaves a smooth finish without tearout.



Insert the blade and put on the cap. Make sure the bevel is oriented correctly (down, in this case) and that it rests flat against the bed. Slip the cap iron into place and tighten the cap screw—enough to hold the blade securely, but still allow you to adjust it.



body, begin by tightening the cap screw (or screws) to hold the blade. Slowly rotate the adjusting screws to advance the blade and stop when the blade begins to project proud of the sole. You can sight along the shave's sole for the initial setup, then try out the shave on a wood scrap and adjust the blade until you get the right setting. It's best to start with a light cut, and advance the blade as needed. For an even-depth cut, the blade should project evenly and be parallel to the sole. Check it by taking a shaving with each edge of the blade—it should cut the same on each side.

If your shave doesn't have adjustment screws, don't worry. Loosen the cap screws and set the shave on a flat piece of wood. Insert the blade until it touches the wood, then tighten the screws. Test it out first—it should make a very light shaving. If you need a deeper cut, advance the blade with a few light taps on the back with a small hammer. Tapping in the center moves the blade forward, and tapping the sides moves it laterally. To back out the



Adjust the blade. Sight along the sole and raise the blade until it begins to project, and is parallel across the sole. Test it on a scrap and fine-tune the setup as needed.

NO ADJUSTERS? NO PROBLEM

Some shaves don't have adjustment screws, but the setup is just as fast.



Use a piece of wood to set it up. Place the shave on a block of wood, insert the blade until it touches the wood, then tighten the screws.



Then tap it out. A few taps with a small hammer on the back of the blade gets it into position. For lateral adjustments, tap on the side of the blade.

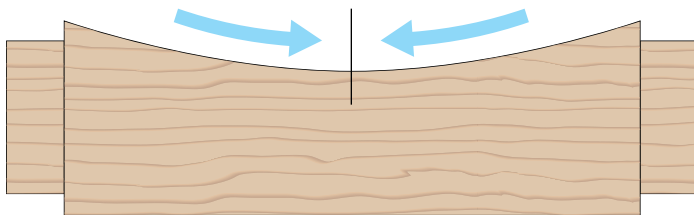


Back out the blade for fine cuts. The easiest way to do this is to flip over the spokeshave and tap it against the bench.

Smoothing with a shave

CONCAVE CURVES

Start at the ends and shave downhill toward the center, working with the grain.



blade for a shallower cut, hold the shave upside down and gently tap the handle on the bench. Be careful of tapping too hard—if it takes more than a few light taps, it's better to loosen the cap screws and pull the blade in, then advance the blade out again with a hammer.

For best results, cut with the grain

Spokeshaves excel at smoothing out bumps and refining curves fresh off the bandsaw. To give you the basics, I'll show you how to refine the concave and convex curves of an arched table apron.

The main idea is to cut with the grain, or downhill. On the concave edge, start at one end and cut downhill until you reach the low point of the curve. Do the same for the other side, always shaving downhill toward the center. If the wood tears out or the tool digs in, stop and check the grain direction—you may need to reverse your approach.

Because of its short sole, getting the shave started isn't always easy. But there's a trick for that: Skew the shave by holding it diagonal to the workpiece. This lengthens the sole, giving you more support for a smoother start. After the rough sawmarks and



Grip it and rip it. Use your thumbs to push the shave (top), gripping both handles between your thumb and index fingers, and wrapping your other fingers around the handles. For a pull cut (bottom), turn the shave around and hold it the same way, but pull with your index fingers.

AVOIDING TEAROUT TROUBLE

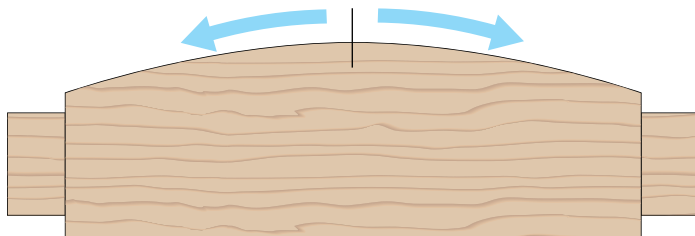


Watch out for reversing grain. If you notice tearout or feel the blade digging in, try cutting from the other direction. This tearout (above) is from cutting uphill in white oak. The best way to check for bumps and tearout is to run your fingers down the edge (right). They'll feel bumps you can't see.



CONVEX CURVES

Start the shave at the top of the curve and work downhill with the grain.



major bumps are beginning to smooth out, go back to a normal grip and clean up the rest of the arc with a few more passes.

To remove stock evenly and maintain a flat, square workpiece, watch the sawmarks—you want them to disappear evenly on each side. Keep working until the sawmarks are gone, then check your progress against the layout lines. Your hands often can feel differences that your eyes can't see, so to find those last bumps and dips, try running a hand along the curve.

Once the concave side is finished, flip the workpiece over and begin smoothing the convex edge. The principle is the same. Start the shave at the highest point of the arc, and work downhill with the grain.

Broader curves, such as on drawer fronts, can be handled the same way. Just like before, rotate or skew the shave to get it started in rough spots, and straighten it as the surface begins to smooth out.

Rounding an edge—You can round curved edges, too, like the bullnose edge profile of a curved tabletop. Cut out the curved edge and smooth it with a shave. Lay out some pencil lines for the bullnose profile starting with a 45° bevel, then set the shave for a deep cut. Shape the 45° bevel first, then knock off the corners



Start high and work low. Gochmour starts in the center and pushes toward the low end of the curve (left). To smooth the other side of the curve, he reverses his grip and pulls the shave, always cutting with the grain (below).



EXTRA STEPS FOR WIDE STOCK



Work wide curves evenly. Gochmour works systematically to create an even surface on this drawer front—watching the bandsaw lines to keep him on track. This works well on narrow edges, too.



Skew the shave for an easier start. When it's tough to get the shave started, try holding it diagonally to the work. It makes the sole longer, so it's easier to smooth out those first few high spots.

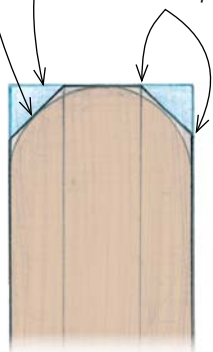
Shaping with a shave

PROFILE AN EDGE

1. Draw the profile.

2. Mark and cut 45° bevels.

3. Remove the peaks and finish shaping.



Bullnose starts with a bevel. Use a combination square to mark guide lines for the profile (above left). Shave to the lines to create 45° bevels, then do it again to create 22.5° corners. Set the shave for a lighter cut, and smooth away the remaining facets (right).



SCULPT A LEG



with 22.5° cuts. Finally, reset the blade for a light cut to make it even smoother. You can leave the last small facets if you like, or sand the profile smooth.

Shaping a cabriole leg—The flowing curves of a cabriole leg really show off the strengths of this tool. When all of the bandsaw marks are removed and the curves of the leg are smooth, begin to round the corners of the leg. The corners of cabriole legs transition gradually from square to round, so mark sets of lines down the corners to give you a guide. Set the shave for a deep cut and rough the leg to shape. Work with the grain, switching directions if necessary. For the final smoothing, set the shave for a fine cut and rotate the shave slightly with each cut. Smooth out any remaining tiny facets with sandpaper. □

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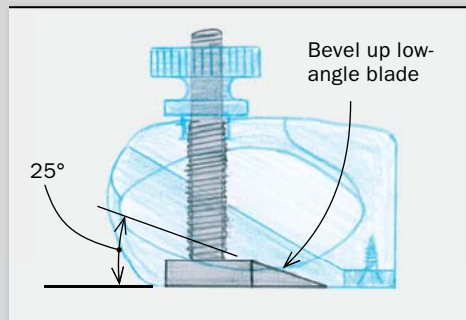


Shape a curvy cabriole leg. First Gochmour removes the sawmarks and smooths the curves (above left). With the overall shape established, he moves on to rounding and shaping the corners (above).

Specialty shaves

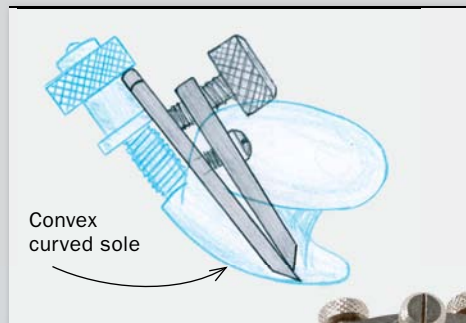
For extreme curves and tough end grain, a specialty shave can save you time and give superior results.

LOW-ANGLE BLADE FOR END GRAIN



Bevel-up shaves are the traditional choice for shaping green Windsor chair spindles, because the low cutting angle follows the grain nicely. They handle end grain better than a standard-angle shave, too, leaving it super smooth.

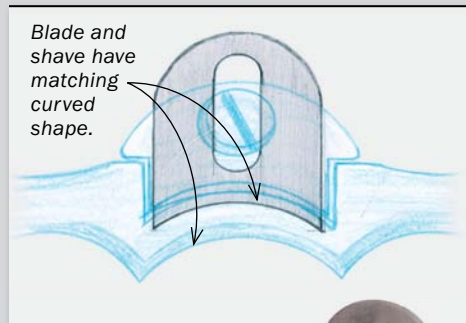
ROUND SOLE FOR TIGHT CURVES



Reach for a round-sole spokeshave to refine tight, concave curves like the ones on this cabriole leg.



CONCAVE SOLE FOR SHAPED PROFILES



This shave's concave bottom won't leave flat facets on rounded profiles like the one on this tabletop, and it's great for round chair spindles, too.

