TOOL TEST

Choosing and Using Spokeshaves

For shaping and smoothing curved parts, nothing beats this time-honored tool

BY CHRIS GOCHNOUR

I recently completed a writing desk that had curves and contours nearly everywhere—in the legs, the aprons, the drawer fronts, and even the top. All of those curves meant that my trusted handplane had to stay on the shelf for extended periods. The handplane, after all, is designed to make things straight and flat—hardly what you want when working with curves. For this project, I reached instead for the handplane's versatile cousin, the spokeshave.

Spokeshaves are simple tools, consisting of a wooden and/or metal body with handles, a blade, and a narrow sole. The tool often is associated with chair makers who use it with a drawknife for shaping spindles, legs, and rungs. But with a spokeshave, you can perfect and smooth any number of curved furniture parts, from complex cabriole legs to simple arched table aprons.

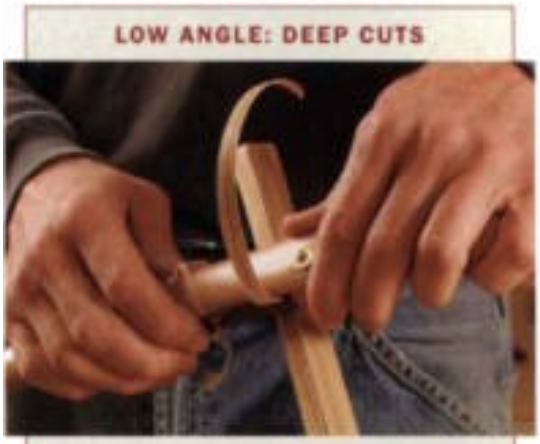
There are many diverse styles and models of spokeshaves. For this review, I looked at 11 shaves with flat soles and straight blades. This style shave is a good, all-around performer, capable of handling most shaving tasks well. Within this group, the shaves are classified as low angle or standard angle, depending on how the blade is bedded. Both low- and standard-angle shaves have their places. The secret lies in knowing which type of shave is best suited to the work that you do.

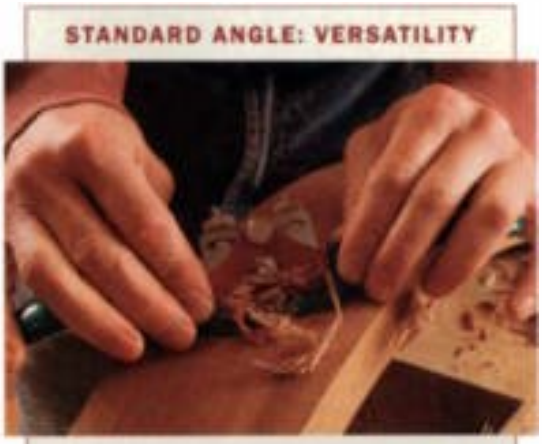
Chris Gochnour is a frequent contributor.

Low-angle vs. standard-angle shaves

Although some woodworkers classify spokeshaves based on the material from which they are made (wood vs. metal), the real difference among these tools is how the blade is oriented in the body (bevel up or bevel down) and thus the cutting angle created by that orientation.

Spokeshaves that have blades bedded bevel up have low cutting angles, from 20° to 35° depending on the bevel angle. The lower cutting angle makes it easy to take heavy cuts. Spokeshaves with blades bedded bevel down, which I call standard-angle shaves, have a steeper cutting angle of around 45°. The steep cutting angle deftly handles tricky grain.





Low-angle spokeshaves can take heavy cuts

Low-angle spokeshaves have a number of advantages. The shaves seldom jam because they have no lever cap or chipbreaker, which gives shavings an unobstructed path to pass through. This design allows the shaves to handle heavy shavings and thin, wispy ones equally well.

Unlike older versions of low-angle shaves, which had blades with tangs on the ends that were pressed into the shave's body, modern shaves rely on threaded posts and thumbscrews to hold the blade rock solid. The design allows for easy blade removal and a fit that doesn't loosen over time. Many of these shaves employ setscrews to regulate blade depth, making it easy to reset things after sharpening.

Low-angle shaves slice effortlessly through straight-grained wood, which is why chair makers often favor them for whittling and shaping rived, green wood into arms, legs, rungs, and spindles. Low-angle shaves work great on end grain, too, because their low cutting angle slices cleanly across the fibers.

On the downside, the small sole (only in front of the blade) and low cutting angle make this category of shaves less predictable and harder to control when smoothing curves along a board's length, as in cabriole legs, arched aprons, and curved slats. Also, when a low-angle shave encounters areas of figured or reversing grain, it is prone to lifting and tearing out the wood.

DAVE'S SHAVES NO. 1 TRADITION

Source: www.ncworkshops.com
Price: $89
Body: Cherry, 12 in. long
Blade: High-carbon steel, 2¾ in. wide
Comments: Dave's No. 1 Standard Tradition is a simple tool that simply works well. The shave came sharp and tuned just right. It worked well for cutting thick, aggressive shavings, such as those required for spindle work, but it also made fine finishing cuts with no problem. Even on end grain, it left a clean, almost polished, surface. The only negative about this shave is that to set the blade depth, you have to remove the blade to adjust the screw jacks (left photo, below), an inconvenient process.

HARRIS TOOLS

Source: www.traditionalwoodworker.com
Price: $80
Body: Tropical hardwood, 11 in. long
Blade: Carbon steel, 2⅛ in. wide

Comments: The Harris Tools low-angle spokeshave is a high-quality shave that is easy to set up and use. The rock-solid, 3/16-in.-thick blade is nearly one-third thicker than that of any other shave reviewed. The blade can be adjusted instantaneously with no backlash via a pair of spring-tensioned thumbscrews (right photo, below). This blade-adjustment system is the most convenient of the low-angle shaves I tested. Unfortunately, the blade on this shave wasn't machined flat, and its bevel required a good honing. Once properly sharpened, though, the Harris shave performed well.

Two ways to adjust the blade. *On some low-angle shaves, you have to remove the blade to change the depth of cut (far left). Other models (left) allow you to adjust the blade depth without removing the blade, a more convenient system.*

Photos, except where noted: Thomas McKenna; product shots: Michael Pekovich; drawings: Vince Babak

KANSAS CITY WINDSOR STANDARD

Source: www.toolsforworkingwood.com
Price: $100
Body: Western big leaf maple, 13½ in. long
Blade: A2 steel, 2¾ in. wide
Comments: The Kansas City shave is a lightweight, graceful tool that was razor sharp and fully tuned out of the box. The blade is hollow ground on both its bevel and underside—a unique design that made honing a breeze. On the downside, the thin handles are a bit difficult to grasp, particularly if you have large hands. Also, to reset the depth of cut, you need to adjust screw jacks between the blade and body, an inconvenient task. On top of that, the opening between the blade and wear plate is so small that thicker shavings had a tendency to jam in the throat.

VERITAS LOW-ANGLE SPOKESHAVE

Source: www.leevalley.com
Price: $52.50
Body: Cast aluminum, 10½ in. long
Blade: A2 steel, 2 in. wide
Comments: The Veritas is a lightweight shave similar in concept to vintage Stanley Razor Edge shaves. The blade is easy to adjust for light or coarse shavings, and it has no posts, so it's a breeze to sharpen. On most low-angle shaves, the blade sits in a fixed position. As a result, the mouth tends to widen gradually as the blade is sharpened. The Veritas shave, however, allows you to adjust the blade forward as it shrinks from wear. The sole is reversible—flat on one side and round on the other—which allows the shave to work either gradual or tight curves. Overall, the Veritas shave is a versatile, well-thought-out tool at a reasonable price, which is why it is my choice for best value among the low-angle shaves.

Sole reversal. *Both the Veritas and Woodjoy low-angle shaves have a reversible sole: flat on one side, round on the other. The round edge is useful for shaving along tight curves.*

WOODJOY MASTER SPOKESHAVE

Source: www.woodjoytools.com
Price: $100
Body: Cocobolo, 12½ in. long
Blade: A2 steel, 3 in. wide
Comments: Woodjoy's Master Spokeshave was ready to go right out of the box. The blade is mounted to the body with two screws, so there are no posts or tangs to get in the way when you sharpen it. Also, blade depth is adjusted easily via a couple of screw jacks that are accessible from the top of the shave. The Woodjoy has an innovative reversible brass sole that adds versatility to the tool. One side is flat; the other is rounded, which is useful for getting into concave areas. The Woodjoy is a great all-around shave that can handle tight curves and end grain, as well as chair spindles and rungs. It's my pick for best overall of the low-angle shaves.

Spokeshaves can be pushed or pulled

Both low-angle and standard-angle spokeshaves are finesse tools, and with a little practice, they are a pleasure to use. They're equally suited to being pushed or pulled with the grain in either a straight or skewed position. When pushing the shave (top photo, below), place your thumbs on the back, just behind the blade, your index fingers on the top front edge, and your other fingers on the handles. Use your index fingers to push down the front of the shave and your thumbs to power the shave through the cut. When pulling the shave (bottom photo, above), move your index fingers to the back to power the shave and exert pressure on the front with your thumbs to keep the shave steady in the cut.

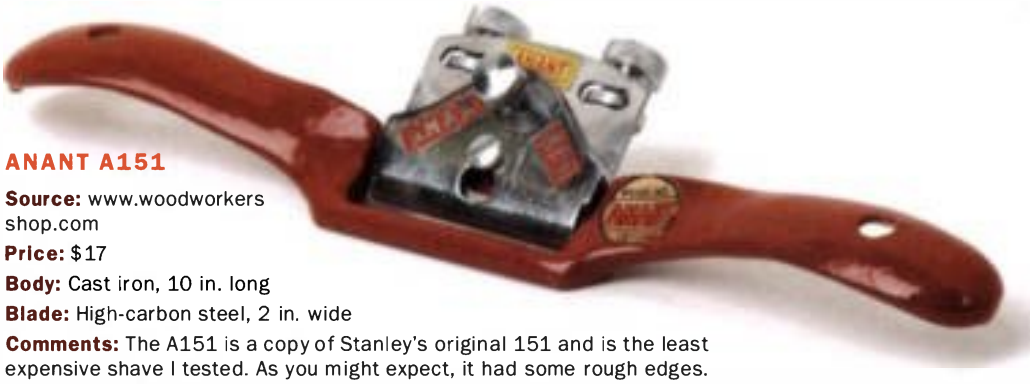
When pushing or pulling the shave, work with the grain. *On a concave surface, that means starting at the ends and working downhill toward the middle. On a convex surface, work from the middle toward the ends.*

Standard-angle spokeshaves handle tricky grain

The design of a standard-angle spokeshave is akin to that of a bench plane. It has a sole that surrounds the blade, making the tool easier to control, and it typically is equipped with a lever cap that acts as a chipbreaker. As a shaving enters the throat, it is broken abruptly by the steeply pitched blade and lever cap, weakening its ability to tear the grain. Many standard-angle shaves also make setting the blade easy and ensure that, once set, it will stay set. Like their low-angle counterparts, they can be pushed or pulled. In general, this good all-around performer is the shave to pick if you can afford only one.

The steeper 40° to 55° cutting angle helps these tools handle tricky grain well, leaving the wood with a clean, smooth surface, even when shaping figured or reversing grain. The downside is that the tool requires more force in use, and, if not sharpened and well tuned, is liable to skip and chatter.

Tap or twist. *All of the standard-angle shaves Gochnour tested allow for easy blade adjustments via thumbscrews on the lever cap (above) or with the tap of a hammer (below).*



ANANT A151

Source: www.woodworkers shop.com

Price: $17

Body: Cast iron, 10 in. long

Blade: High-carbon steel, 2 in. wide

Comments: The A151 is a copy of Stanley's original 151 and is the least expensive shave I tested. As you might expect, it had some rough edges. On the model I tried, the thumbscrew blade adjusters were rough and didn't rotate smoothly, and the body casting had deep recesses where the thumbs rest, which made it uncomfortable to hold for extended periods. In spite of shortcomings, the Anant has the basic ingredients of an effective shave. It would make a good general-purpose shave for someone with a limited budget and the willingness to spend some time tuning it up.

HNT GORDON SPOKESHAVE

Source: www.hntgordon.com.au

Price: $130

Body: Macassar ebony, 11 in. long

Blade: High-carbon steel, 2 in. wide

Comments: The Gordon spokeshave is a well-made tool, similar in form to a traditional Japanese spokeshave. A wedge holds the blade in place, and quick, precise adjustments can be made using a hammer. The Gordon is a smooth, solid performer. The steep cutting angle (55°) keeps tearout to a minimum, even on figured and reversing grain. However, the shave seemed too large, and its flat edges made it difficult to grasp. Its wide brass sole (1⅞ in.) makes the tool suitable for flat, convex, and slightly concave surfaces, but it can't handle tight curves. I'm accustomed to working tighter curves, even with a flat-soled shave.

KUNZ 51A

Source: www.traditional woodworker.com

Price: $20

Body: Cast iron, 10 in. long

Blade: High-carbon steel, 2 in. wide

Comments: Of the three Stanley 151-style shaves I reviewed, the Kunz had the cleanest machining, with smooth-working blade-adjustment knobs. However, the lever cap didn't seat on the blade right and was prone to jamming, and the bed and sole had some rough edges. So I spent 30 minutes tuning the shave, and it was time well spent. After that, the Kunz worked extremely well. The shave is available with an aftermarket, high-speed-steel blade ($28). The Kunz is my choice as the best value of the standard-angle shaves.

LIE-NIELSEN BOGGS SPOKESHAVE

Source: www.lie-nielsen.com
Price: $125
Body: Bronze, hickory handles, 10 in. long
Blade: A2 steel, 2 in. wide
Comments: The Lie-Nielsen is a top-notch shave designed by renowned chair maker Brian Boggs. The bed and sole of the tool were milled precisely, and with a bed angle of 40° (the lowest of the standard-angle shaves), the tool requires less energy to use and makes end-grain work easier. Blade-depth adjustments are easy to make by tapping the blade with a hammer. The mouth is quite narrow, which limits the shave to moderate to light cuts, but the tool renders an exceptional, tear-free finish, with no chatter. Overall, the Lie-Nielsen shave has a distinctly sure and solid feel.

STANLEY NO. 151

Source: www.woodcraft.com
Price: $25
Body: Cast iron, 10 in. long
Blade: High-carbon steel, 2 in. wide

Comments: The Stanley 151 is a design that has been around for nearly 100 years. In general, the tool worked well in a variety of situations (on both concave and convex surfaces, end grain, and spindle work), and its low price makes it very appealing. The blade is easy to adjust and remove for sharpening, and a lever cap keeps it steady in use. On the downside, the castings and machining were a bit rough on the tool I tested, and the tool was susceptible to a high-pitched chatter, even after sharpening the blade. I was able to reduce the chatter by giving the shave a complete tune-up.

VERITAS FLAT SPOKESHAVE

Source: www.leevalley.com
Price: $75
Body: Ductile iron, African rosewood handles, 10½ in. long
Blade: A2 steel, 2 in. wide
Comments: With its flat spokeshave, Veritas has taken the standard-angle shave to a new level of performance. The tool came sharp and ready to go right out of the box. Blade adjustments were smooth and precise with minimal backlash, and both the lever cap and bed were well-machined and needed no further refinement. This shave is equally at home in soft or densely figured hardwood, and it comes with two shims that can narrow the mouth opening to help reduce tearout in figured woods. For those looking for a high-quality shave, the Veritas will fill the bill. It's my choice as best overall of the standard-angle shaves.

Skew the spokeshave to reduce chatter

Smooth cuts in rough areas. *Skewing the shave on end grain and tricky or reversing grain helps reduce the effective cutting angle of the tool, allowing for smooth cuts without chatter.*

A frequent problem with spokeshaves is their propensity to chatter. But the problem can be overcome by taking light cuts, holding the shave properly, and working with the grain (see photos, p. 69). Another way to overcome chatter is to skew the shave, which lowers the blade's effective cutting angle, reduces resistance, and makes the shave cut with greater ease, particularly on end grain. When smoothing gentle curves, skewing the shave in effect lengthens the sole, giving it a broader footing and helping to stabilize the tool. On tighter curves, skewing the shave has the effect of raising the blade to give a lighter, polishing cut in the final passes.