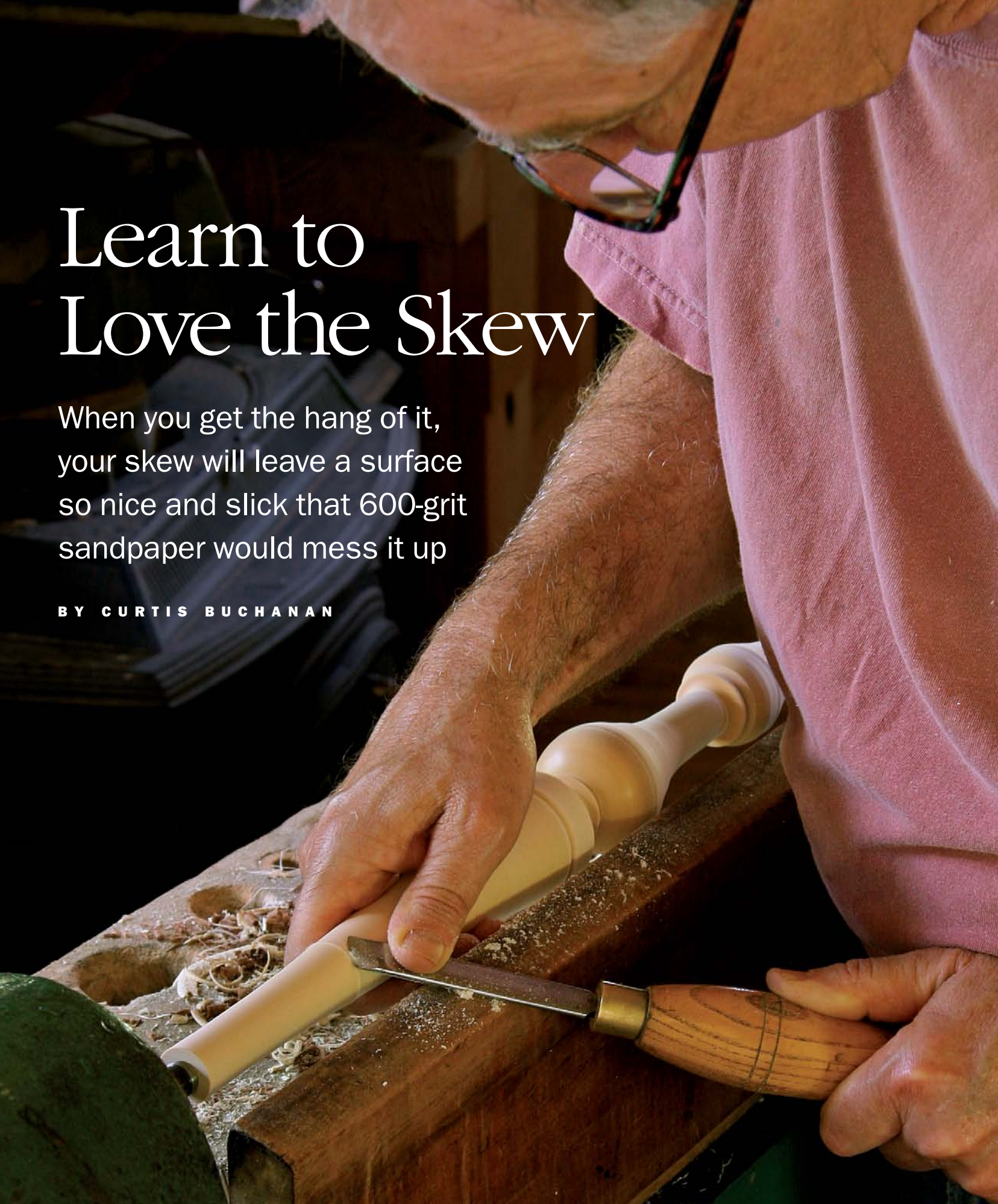
Learn to Love the Skew

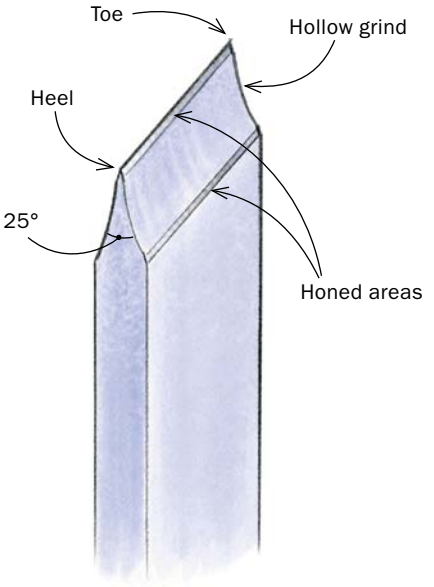
When you get the hang of it, your skew will leave a surface so nice and slick that 600-grit sandpaper would mess it up

BY CURTIS BUCHANAN



Photos: Jonathan Binzen

SKEW ANATOMY



When I started making chairs I did the turning with a dull gouge, scraping and jerking wood fibers with the lathe running at mind-boggling speed. Then I broke out the sandpaper, working my way through the grits. The process was loud, nerve-wracking, dusty, and expensive. It was like making war. Then I had a chance to watch Vermont chairmaker Dave Sawyer at the lathe. His skew glided over the surface of the wood, leaving a glass finish—no sanding needed. His fillets were sharp enough to cut you, his beads were beautifully formed, and his V-cuts were crisp and clean right to the bottom. He did all this with the lathe running at a moderate speed. And it looked like fun. He explained that the skew takes time to master, but no other tool leaves such a flawless surface. In the months that followed, there were times I sulked into the house dejected; my good wife would patch me up and point me toward the shop. At other times I would hit the sweet spot, and that kept me inspired. In hindsight I see the time I put in learning the skew as a small sacrifice that pays off now every time I switch on the lathe.

Get it sharp

You can get away with just one skew, but I use two ½-in. skew chisels. One is ground in a straight line, and the other to a slight convex arc, which makes the center of the cutting edge more prominent and tucks the heel and toe back a bit. With the arced skew you have more control

TWO TYPES

STRAIGHT-GROUND

With toe prominent, the straight-ground skew excels in making V-cuts.

ARCED

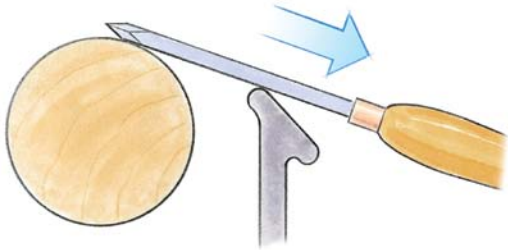
With the center of the cutting edge prominent, the arced skew is best for beads.

Buchanan uses a light touch with an aluminum-oxide wheel on a slow-speed grinder (left) to hollow-grind both sides of the skew chisel's tip. He swings the handle sideways to achieve an arced grind. To hone, press down on the bevel, making certain that both the tip and the back edge of the hollow grind are in contact with the stone (right).

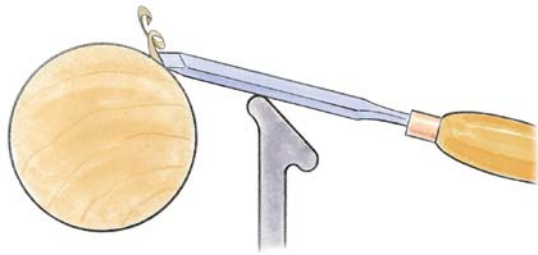
Drawings: Dan Thornton

Planing cuts

When making planing cuts and beads, the bevel must always be in contact with the workpiece to support and control the cutting edge.



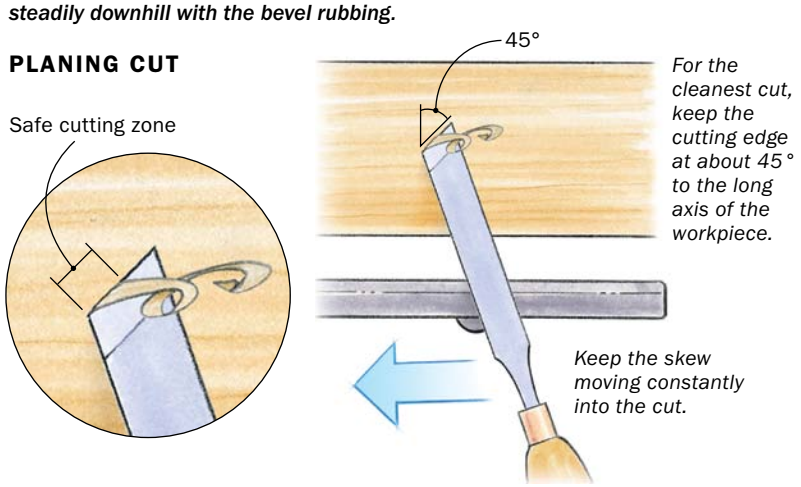
1. To start a cut, rest the shaft of the skew wide face down on the workpiece.

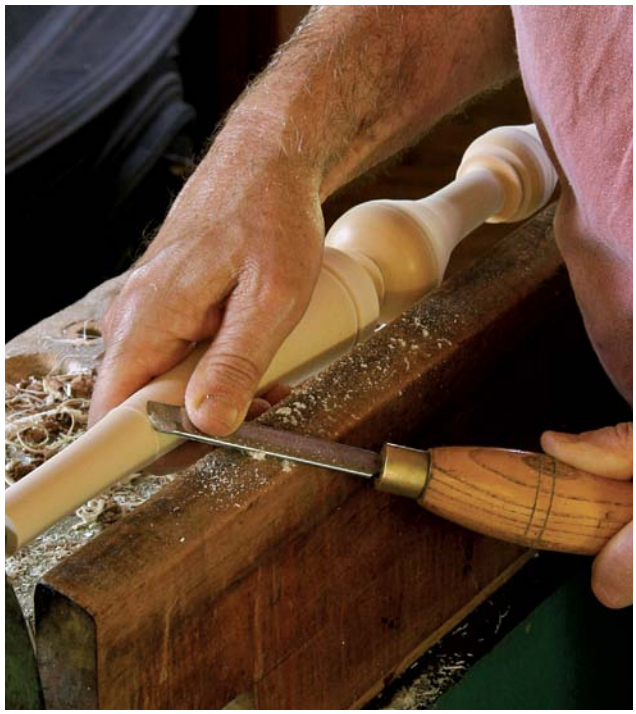


2. Then gradually draw the handle back until the tip engages and shavings appear.

TAPERED PLANING CUT

Tuck in with the heel. *For a tapered planing cut, begin at the high point and cut steadily downhill with the bevel rubbing.*





Keep it constant. *With the cutting edge angled at about 45° to the long axis of the workpiece and the handle tucked close to your hip, move your body laterally to make a smooth cut.*

and less risk of catches while making planing cuts and rolling beads. For V-cuts, which are made with the toe, the straight-ground skew is better. In either case your skew needs to be, using Sawyer's phrase, "fiendishly sharp." I hollow-grind my skews at a 12½° angle on each side (25° total); this makes it a little race car—it really zings across the wood. Whatever angle you choose, use a light touch and grind both bevels equally.

Once it's hollow ground, I hone the skew first on a 1,000-grit waterstone, and then on an 8,000-grit stone. During honing, both the very tip and the back edge of the hollow grind must be in contact with the stone. It can be difficult to balance on those two points, but it's essential to avoid rounding over the honed area at the tip. I re-hone very frequently while turning; 10 seconds or so at the stone keeps the skew razor-sharp.

Stay on the bevel

When making a planing cut or a bead, it's vital that the bevel is contacting the workpiece—without that contact, you can't control the depth of cut and you can't control the tool. To begin a planing or bead cut, lay the

CURVED PLANING CUT

Start at the top. *A hybrid of planing and bead cutting, the curved planing cut begins with the skew high on the turning (above) and heads downhill. To cut the section where the curve flattens (right), swing the skew's handle toward your body and move the cutting edge lower on the workpiece.*

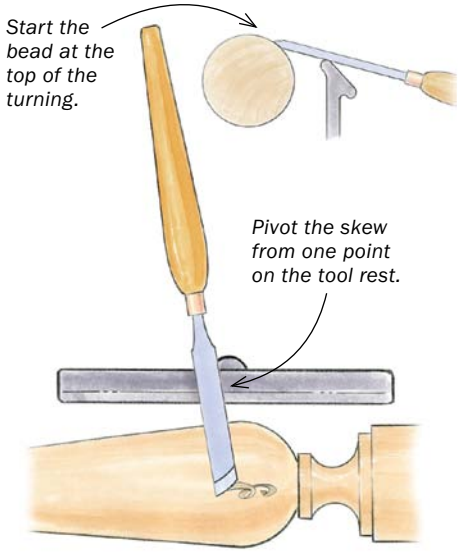
BEADS

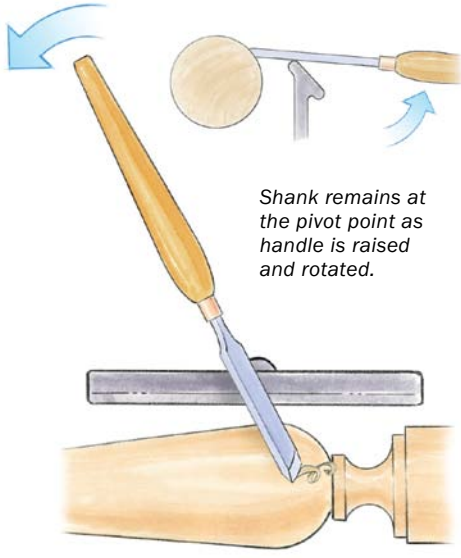
A cluster of movements combine to create a bead. In a coordinated motion, the skew's handle is raised, swung sideways, and rotated while the shank stays in one spot on the tool rest—the pivot point. To cut the last third of the bead, the shank moves laterally along the tool rest.

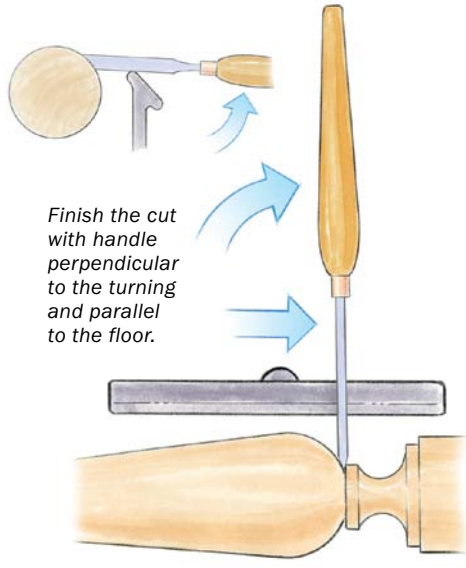
Top dead center. *Having roughed out the beads with a gouge, Buchanan refines them with an arced skew. Making sure the bevel is rubbing to support the cut, he begins at the very top of the bead and cuts downhill.*

Lift and rotate. *The first half of the cut is made without moving laterally along the tool rest. Keep the bevel rubbing and the cutting edge engaged with a combination of lifting, rotating, and swinging the handle.*

The lateral move. *To finish the bead, continue raising and rotating the skew's handle but now move laterally along the tool rest as well.*

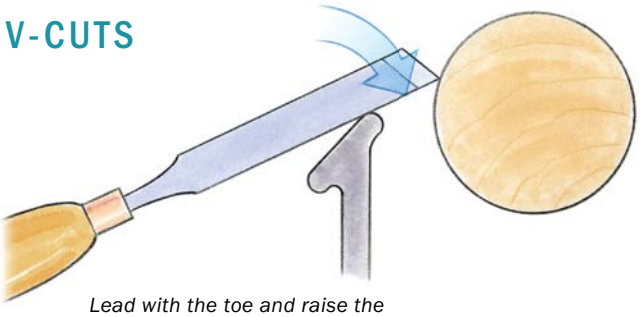






Specialty cuts

V-CUTS



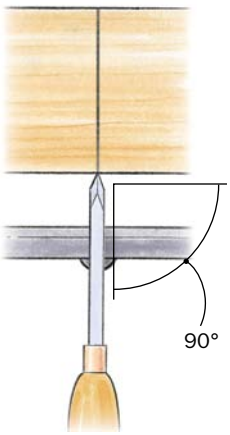
Lead with the toe and raise the handle to enter the turning.

skew on the rotating workpiece so the contact is just behind the hollow grind. Then gradually pull the tool back until the cutting edge engages. As soon as you raise a shaving, begin moving forward across the workpiece. The cutting should take place to the heel side of the center of the skewed edge. If you cut too close to the toe, the skew could catch. To shift the cutting zone toward the heel, rotate the handle slightly to lift the toe.

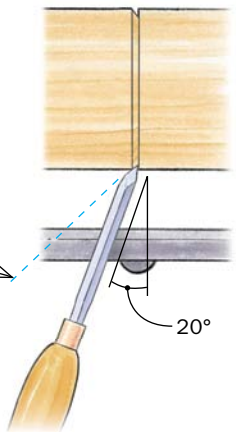
Beadwork can be befuddling

Beads are the trickiest shapes to cut. The bevel and the cutting edge both need to be in contact with the surface throughout the cut, so start by laying the bevel on the workpiece and gradually lifting the handle until the edge engages; then start rolling. Continue swinging and rotating the handle so the cutting edge and the bevel maintain contact throughout

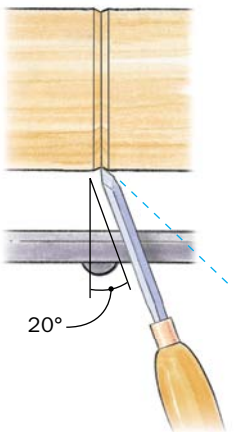
Plunge straight in. *With the narrow edge of the skew on the tool rest and the toe down, hold the handle perpendicular to the long axis of the turning and push directly in. This scores the turning but doesn't cut shavings.*



One angled wing. *Create one side of the V-cut by swinging the skew's handle to the side and rotating it slightly to tilt the top edge of the blade outward, then push in.*

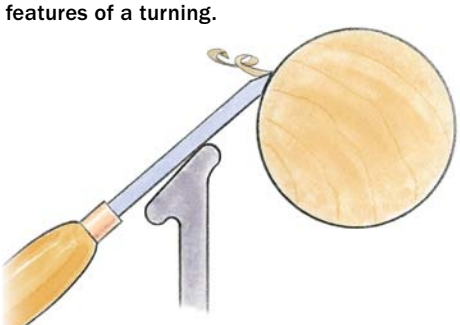


Complete the cut. *Swing the handle to the opposite side to finish the V-cut. Take additional angled cuts to widen or deepen the V. On these angled cuts, only the tip of the toe should contact the wood.*



PEELING CUTS

The peeling cut is a handy technique for sizing tenons and forming other flat features of a turning.



Place the skew high on the workpiece to produce a clean peeling cut.

Fast flattening. *Keeping the handle low, use a peeling cut to quickly create a flat surface. Here the peeling cut is a preliminary step for making a bird's beak.*

Online Extra

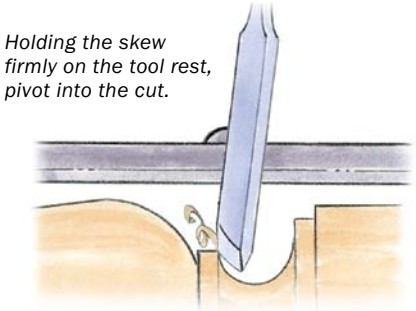
To see a video with Curtis Buchanan describing how he uses a skew, go to **FineWoodworking.com/extras.**

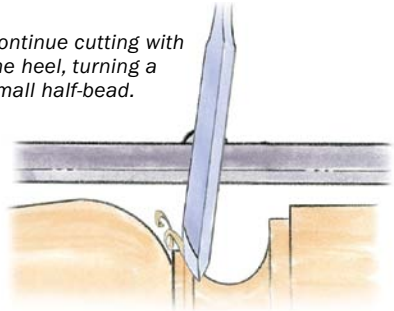
BIRD'S BEAK

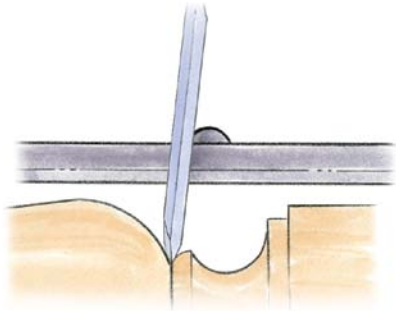
The bird's beak is half a bead. *With no wood to support the bevel at the start, the cut begins with the cutting edge in midair.*

Lead with the heel. *Use the point of the heel to raise a thin shaving, then roll the cut using only the heel.*

End at 90. *Finish with the heel down, the blade's wide faces vertical, and the skew pointing directly into the cut.*







the cut. Eventually, to maintain contact, you'll need to start moving the tool along the tool rest. Finish the cut with the skew handle perpendicular to the workpiece and the wide faces of the blade vertical. It's more complicated to explain it than to do it, but you'll soon get the hang of it.

The vital V-cut

The V-cut is often used as a finished detail in a turning, but it's also useful for defining the width and depth of a number of other shapes, and for providing tool access while creating them. It's a simple, three-step procedure. First, make a scoring cut with the skew held at 90° to the axis of the turning and the blade resting on its narrow edge, toe down. You're not really cutting wood here, just parting the wood fibers. Next, swing the handle 20° or so to one side, and rotate the handle very slightly so the top edge of the blade tilts outward. Align the outside bevel with the direction of cut and push the toe into the turning. Then swing the skew to the other side of the centerpoint and make a mating cut to establish the V.

Small essentials

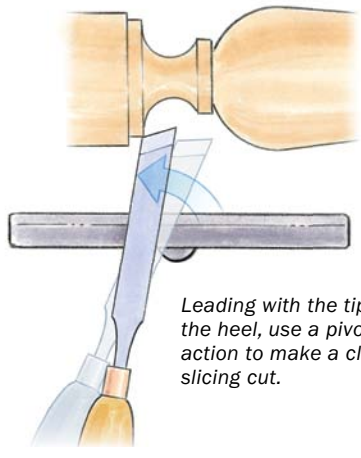
Fillets are flat sections separating other elements of the turning. You can rough-size a fillet by making a peeling cut. To complete the fillet with a very clean surface, take the last bit of material by swinging the handle so the heel angles in and takes a slicing cut.

Bird's beaks are a bit tricky because there's no bearing surface for the bevel at the start, so you have to enter the cut in mid-air. With the skew's wide face resting flat on the tool rest, swing the handle and catch a wisp of wood with the heel of the skew. Then roll the bead using only the heel.□

Curtis Buchanan, of Jonesborough, Tenn., has turned some 20,000 chair legs.

FILLETS

A clean-cut fillet. *To produce a beautifully crisp fillet, first reduce the diameter with a peeling cut. Then finish by pinning the skew's shank to the tool rest and swinging the handle sideways to take a light slicing cut.*



Leading with the tip of the heel, use a pivoting action to make a clean slicing cut.