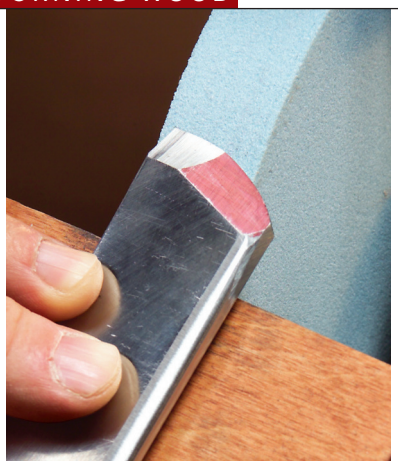


4 Flip the tool now and then as you continue grinding. It's important to keep the bevels on both sides of the tool equally long to center the cutting edge.

Begin sharpening the straight section (Photo 3). Flip the tool as you go to remove the same amount of material from each side (Photo 4).

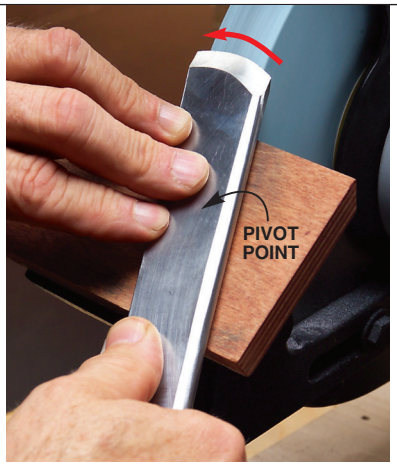
Now for the curved section. You'll grind and sharpen this in one long sweeping motion, using your fingers as a pivot point (Photo 5). Start next to the straight section, then rotate the long point off of the wheel. Continue in one fluid motion down to the short point. Stop when the area around the short point is square to the wheel (Photo 6). Then, without changing your hand position, rotate the tool in the opposite direction, back toward the straight section. The idea is to fan the tool back and forth without lifting it from the tool rest. Make three or four passes on one side of the tool. Then flip the tool and make an equal number of passes on the other side. Continue sharpening and flipping until the bevels meet at the cutting edge.

As with any turning tool, you'll know when to stop sharpening by watching the sparks. When they fly off evenly both above and below the bevel, the cutting edge is sharp. To confirm that it's sharp, lift the tool and look down at the edge under a bright light. A dull area reflects light; a sharp edge disappears into a black line.

Hone and Test the Edge

I'm a big believer in honing. An extra-sharp skew is safer and performs better. I use a diamond slipstone on high-speed steel tools because it cuts fast (see Sources, below). To get the angle right, hold the slipstone so it only rubs on the bevel's heel (Photo 7). As you move the slipstone up and down, incline it until it touches the cutting edge as well; then maintain this two-point contact. Repeat on the other side. Hone the tool's sides near the short and long points, too. Test your tool by making a light planing cut (Photo 8).

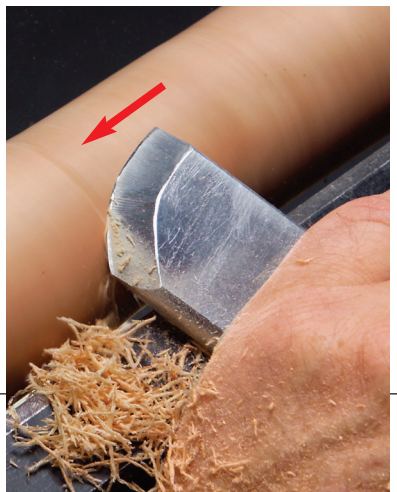
Sources Alan Lacer, (715) 426-9451, www.alanlacer.com Diamond slipstone plated on two flat sides and two round sides, $88. • MSC Industrial Supply Co., (800) 645-7270, www.mscdirect.com Diamond whetstone plated on one flat side only, #01054931, $58. Sanding belts for metal, Norzon, Three-M-Ite or MetaLite brands, many sizes and grits available.



5 Grind the curved section by using your fingers as a pivot point. Keep the spot you're grinding square to the wheel.

6 Continue grinding with a fanning motion. When you reach the short point, as shown here, reverse the direction without lifting the skew from the tool rest.

7 Hone the cutting edge with a diamond slipstone. It's easy to find the correct angle by feel. Hold the slipstone so it contacts two points on the bevel's concave surface: the heel and the cutting edge.



8 Check the tool's sharpness by putting it to work. Make a planing cut on a cylinder. A sharp tool will require little effort to push, produce lots of shavings and leave a very smooth surface.