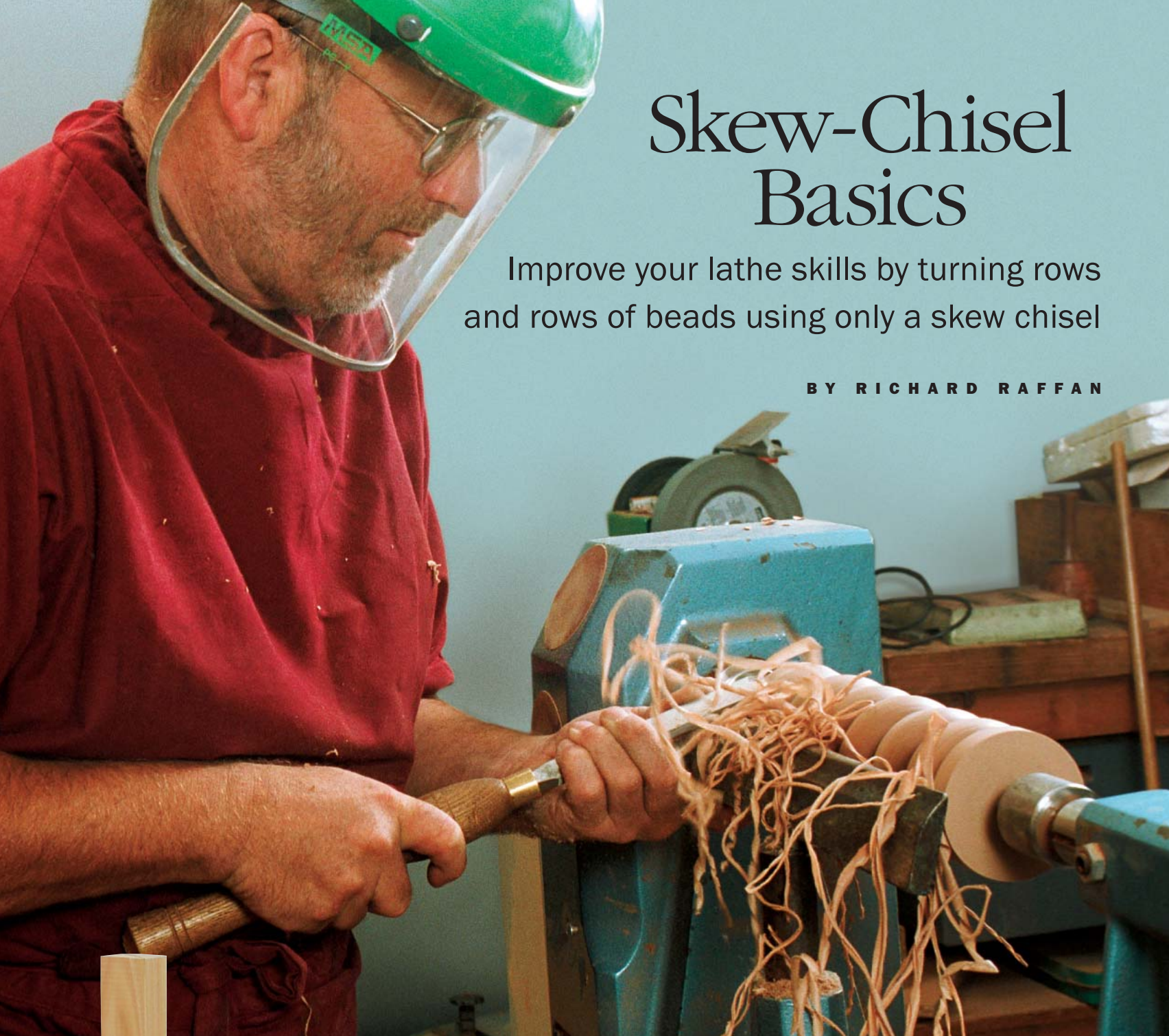


# Skew-Chisel Basics

Improve your lathe skills by turning rows and rows of beads using only a skew chisel

BY RICHARD RAFFAN



**Good control comes with practice.** Cutting repetitive beads with a skew chisel teaches the basic essentials of turning.



Many people buy a lathe with a specific job in mind. Furniture makers want to turn chair stretchers, drawer knobs or bun feet. Hobbyist woodworkers might want to turn parts for a grandchild's cradle and make bowls. But sadly, many novice turners have their enthusiasm so dampened by the tool catching and digging into the wood and ruining the job that they give up turning almost before they've started.

No matter what you want to turn on your lathe, a few days spent turning

grooves and beads between centers using a skew chisel will teach you the basic essentials of turning wood. The exercise will help you develop control and gain a feel for how little force is required to remove wood if a sharp edge is presented at the proper angle. Master the skew chisel, and other turning tools become comparatively easy to use.

## Begin with a sharp tool

I grind a skew chisel with a very slight radius along the edge. Initially this was due

to ineptitude, but about 25 years ago I found several advantages to this grind, not least of which is that catches are less severe than when using a traditional straight edge.

Some skew chisels are rounded on the short-corner side so that they slide more readily along the average slightly pitted tool rest. The corners of the chisel can be rounded using a belt or disc sander.

I sharpen my chisels using either an electric grinder or a belt sander. My grinder has two wheels—36 and 80 grit. Use silicon-carbide wheels when sharpening high-speed-steel lathe tools. A grinder will put a concave or hollow-ground bevel on the tool. My belt sander is equipped with a 100-grit belt and will produce a convex bevel. Whichever method you use, don't grind a secondary bevel; it will make the tool difficult to control. Grind the tool on both sides and remove the burr with a benchstone.

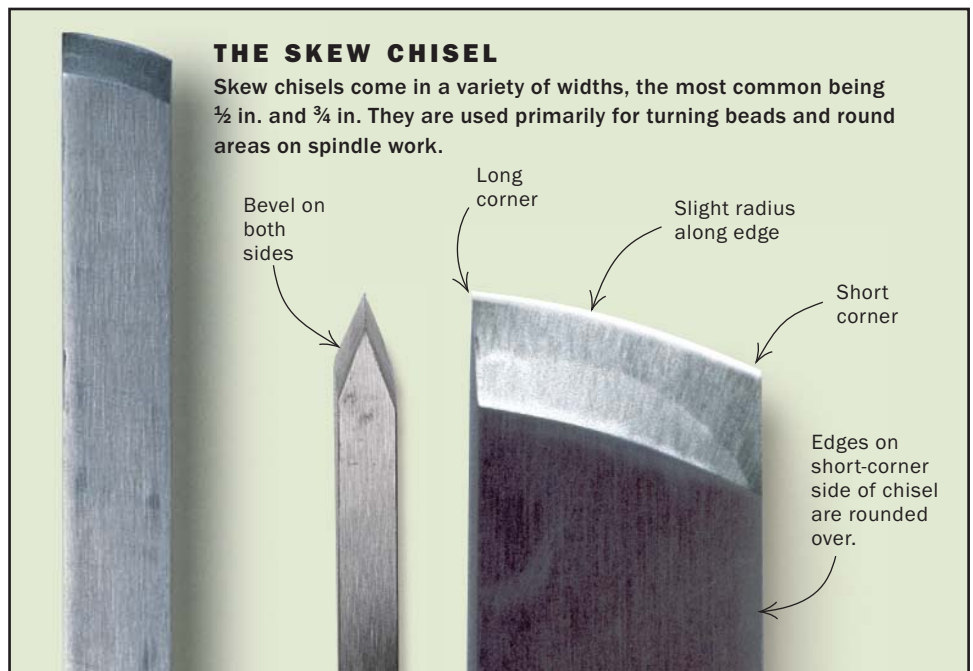
### Practice on scrap or fresh cuttings

A construction site can provide plenty of acceptable lumber for practice exercises. Framing-lumber cutoffs may be had for the asking. Wood destined for the fireplace is also suitable. Choose straight-grained wood about as long as your tool rest. Adjust the tool rest to about center height and orient the stock so that the grain is parallel to the lathe's axis. Before turning on the lathe, spin the stock by hand to see that it clears the tool rest. Set the lathe speed from 1,500 rpm to 2,000 rpm. And don't forget to wear a face shield. Use a gouge, and turn the blanks into cylinders. (On small section squares you can complete the entire exercise using just the skew chisel.)

### Cut a row of evenly spaced grooves

Turning grooves develops fine tool control. You need to pin the tool firmly to the rest with the long point down, then pivot the long point into the wood so that it enters the wood through an arc (see the photos on p. 86).

You can use either an underhand grip or an overhand grip (see the photos at right). I prefer an underhand grip: I hook the forefinger of my left hand under the tool rest, which allows me to pull the chisel firmly to the rest so it cannot easily move either sideways or forward as the point of the skew enters the wood. Other turners prefer an overhand grip, where the fingers are wrapped over the chisel's shank, and the



## Two ways to hold the tool

There are two basic grips that may be used with the skew chisel. Try them both, and pick the one that gives you the most control. Whichever you choose, the tool addresses the stock in the same manner.



**Underhand grip.** The forward hand grips the shank from underneath, with the forefinger hooked under the tool rest.

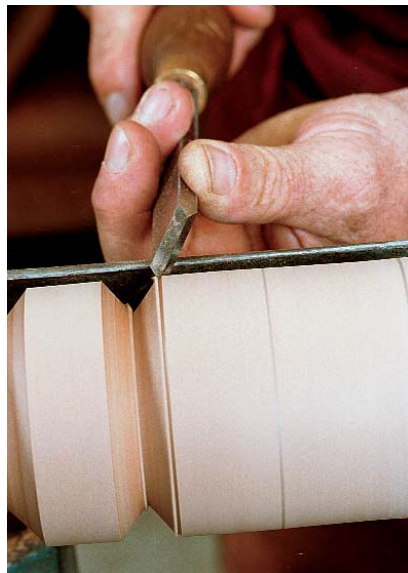
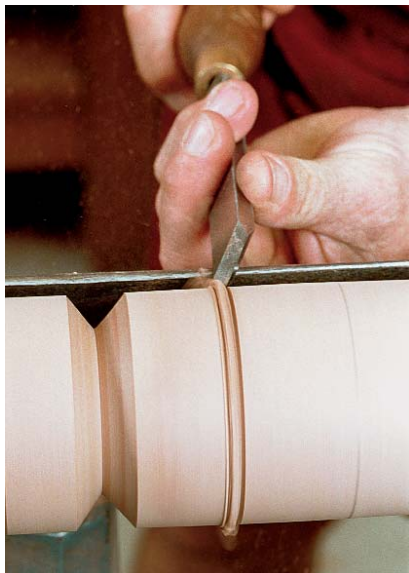
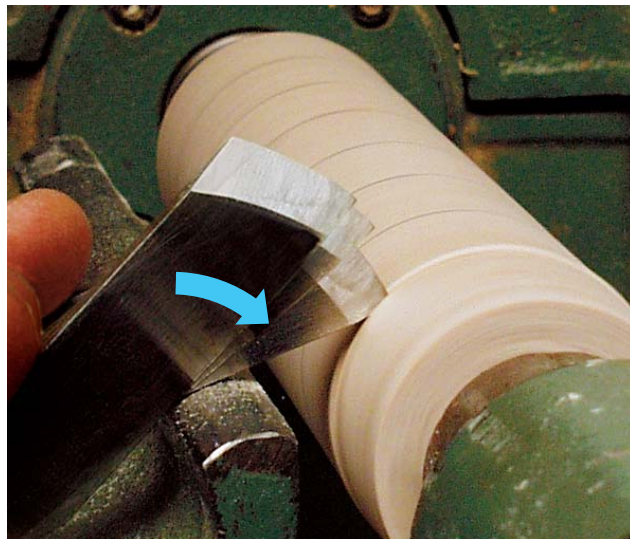


**Overhand grip.** The forward hand wraps around the top of the shank, and the tool rest supports the heel of the hand.



## GROOVE TECHNIQUE

**Begin with a turned cylinder of wood, and pencil in the location of grooves. Start with the skew chisel on the tool rest with the long point facing down and the edge perpendicular to the axis of rotation. To start the cut, swing the tool in an arc into the workpiece. Don't push it as you would a pool cue.**



**Next, rotate the tool slightly to widen the V-cut. Let the point of the long corner of the skew chisel do all the work. Don't move your body or switch the grip.**

**What you want to avoid.** If any portion of the skew's edge other than the point makes contact with the stock, a classic catch is the result.



heel of the hand leans against the tool rest. Don't push the tool forward as you would a pool cue. The idea is to align the bevel in the direction you want to cut, then pivot the tool into the wood on that line. Start by bringing the long point into the center of your groove 90° to the axis. Then cut in from either side to widen the groove.

You don't need to move your body very much or switch your grip during the cut. Swing your lower hand (the one gripping the chisel handle) through a small arc and roll the tool, first to one side, then to the other. The tool requires only the slightest movement to make the cut. The bevel should not contact the wood on this cut. Only the point should contact the wood. If any portion of the cutting edge other than the point makes contact with the stock, you'll have a classic spiral catch, where the tool suddenly digs in. Use the upper hand (the one nearest the tool rest) to keep the tool firmly planted on the rest.

Wider beads are easier to turn than narrow ones, so begin by spacing the grooves about 1½ in. to 2 in. apart. Resist cutting two grooves and then making a bead right away. Get on top of one technique before moving on to the next. Ideally, you should turn several dozen grooves on a number of spindles before attempting beads.

### Now it's time for the beads

Bring the skew chisel to the wood with the long corner up and with the tool shank 90° to the axis. This cut is made by rolling the tool with the lower hand while the upper hand (on the rest) ensures the edge doesn't kick back as it keeps the tool pinned firmly to the rest. This grip works well cutting to the right because the thumb provides pressure high up the blade. But you can see that if this grip is adapted to cut to the left, the thumb now acts as a fulcrum, and there's no stabilizing pressure to guard against a kickback at the top of the tool. Catches are much more likely.

In general, an overhand grip, with your fingers hooked over the blade, gives you more control when cutting beads, although you cannot see what's happening as well as when using the underhand grip. Whichever grip you use, the motion to cut a bead must be smooth and without pause. It should take only a second or two to roll one half of a bead. Always start at the fattest portion of the bead (see the photos on the facing page).

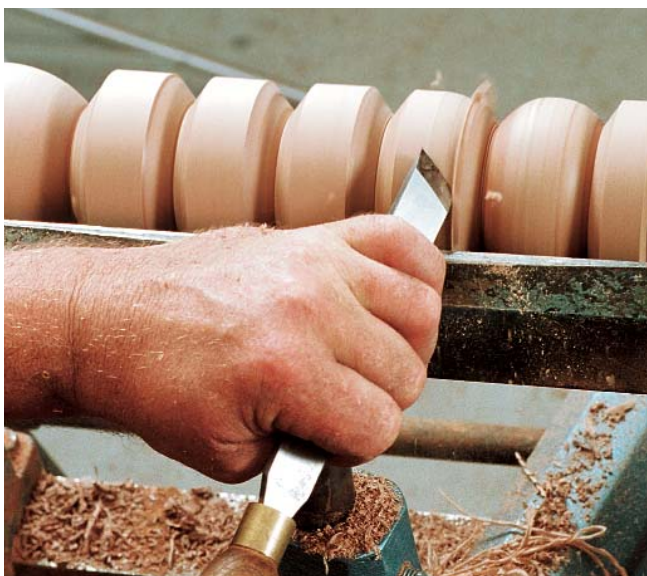
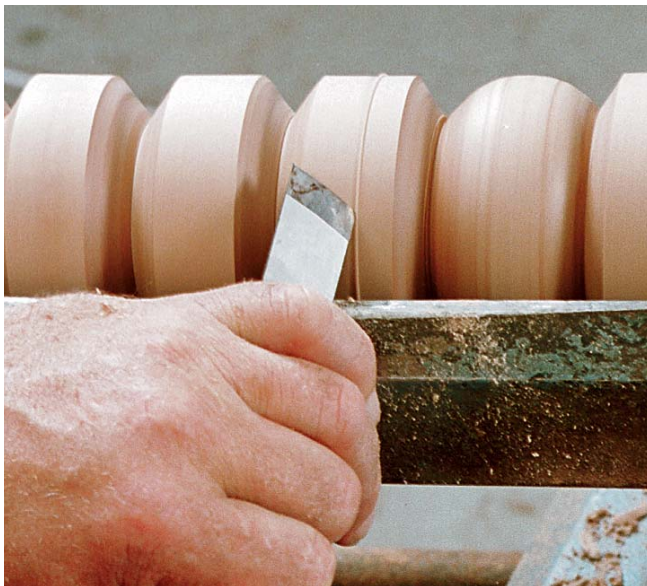


## BEAD TECHNIQUE

**Whether you choose an over-hand or under-hand grip, the movement of the tool is the same.** Begin by placing the tool's bevel against the rotating work. The short corner of the tip faces in the direction of cut.

**Roll with it.** Rotate the tool toward the groove with the forward hand.

**Smooth operator.** Stop the rotation once the tool has reached 90° and the edge is vertical and facing the groove. The entire movement should be smooth and take only a couple of seconds.



I prefer a slicing cut, using the leading portion of the edge just behind the short corner, but you need a very firm grip on the tool to avoid catches. You may, however, cut using the point of the short corner, keeping the edge clear where only the bevel side contacts the wood as the point shapes the bead. This latter approach is less prone to catches, and the finish off the tool is more than adequate. Although the work surface won't be as smooth as with the slicing cut, a dab of 120-grit paper will remove any irregularities. You'll need to learn both techniques if you are going to turn any end grain, as on a drawer knob or similar chuck-mounted project.

As you work toward center with the long corner up, it can be difficult to see the cut proceeding. So at that point, withdraw the tool, flip it over, and work with the long corner down, again ensuring that only the bevel side contacts the wood.

Once you have made one set of grooves or beads, continue practicing by reducing the diameter to a smooth cylinder so that you can begin the process all over again.

### Handling thin stock



*When cutting beads on delicate stock, support the workpiece from behind with one hand (note thumb against side of tool) and move the other hand farther up on the tool handle.*

As the spindle becomes thinner, it will flex unless your cuts become lighter or you use your fingers to equalize the pressure of the tool against the wood. If your fingers get too hot, you are clearly pushing too hard.

With these exercises you'll soon be turning very slim spindles, at which time most other aspects of wood turning will seem comparatively simple, and big, fat spindles a dolly—that's Aussie, for very easy. □

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