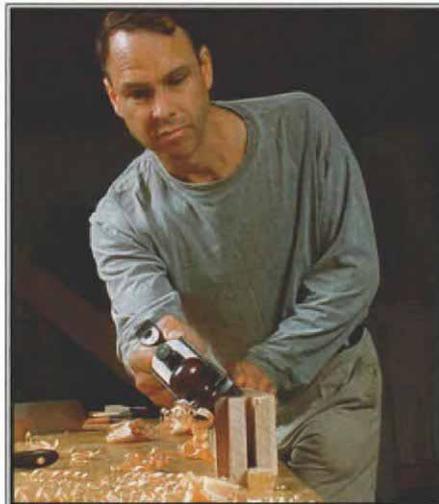
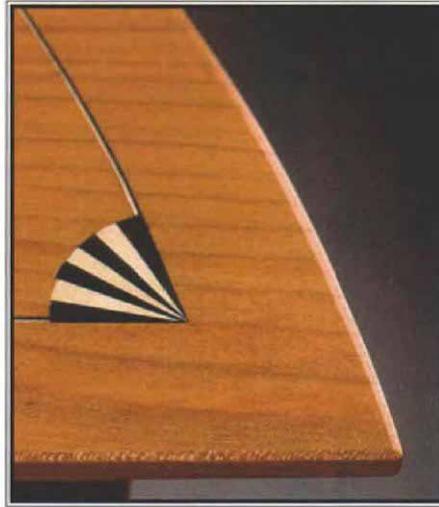


# Chamfers



Where and why to use beveled edges,  
and how to cut them with hand tools

BY GARRETT HACK

**T**ime is hard on furniture. The wear and tear, bumps and bruises that add character to some furniture can just as easily leave it disfigured, depending on the degree of damage. How gracefully a piece of furniture ages has to do with many aspects of the design, not least of which is how you deal with the edges. If you leave edges sharp, in time they'll be rounded over and chipped away, probably not as you intended. Cut a chamfer—a bevel across the edge, however small—and the edge will be more apt to keep its shape. Also, chamfers generate interesting

shadow lines that can create a sense of depth or lightness, and they offer one more surface to decorate and add detail to your work.

Look at almost any style of furniture closely, from curvilinear Art Nouveau to rectilinear Craftsman, and you'll see different sizes of chamfers. Shakers used them on the edges of lipped drawers, as a simple molding (alone or in opposing pairs) or to outline a curved table leg. Federal and Chippendale furniture sometimes have chamfers on the outside corners of chests of drawers to reduce their visual mass.

**The block plane is fast and reliable.** Shown here shaping the top edge of a small table, this tool is lightweight and easy to adjust. By holding one finger under the body of the plane, you can control the angle of the cut for a consistent bevel.

Chamfers are both practical and decorative. By cutting a chamfer, you create a new edge that reflects light differently than either of the two surfaces it joins. It catches your eye by highlighting the shape of a curve or by subtly altering a sense of scale. I've used chamfers to make large parts, such as square tapered legs, appear more slender. A chamfer cut along each corner of the leg gives it a slimmer look. Similarly, a chamfer can outline a shape and draw attention to it. A shadow line can also have the opposite effect, such as the feeling of greater depth on a shallow molding, much the same way the field in a raised panel can appear more raised than it really is.

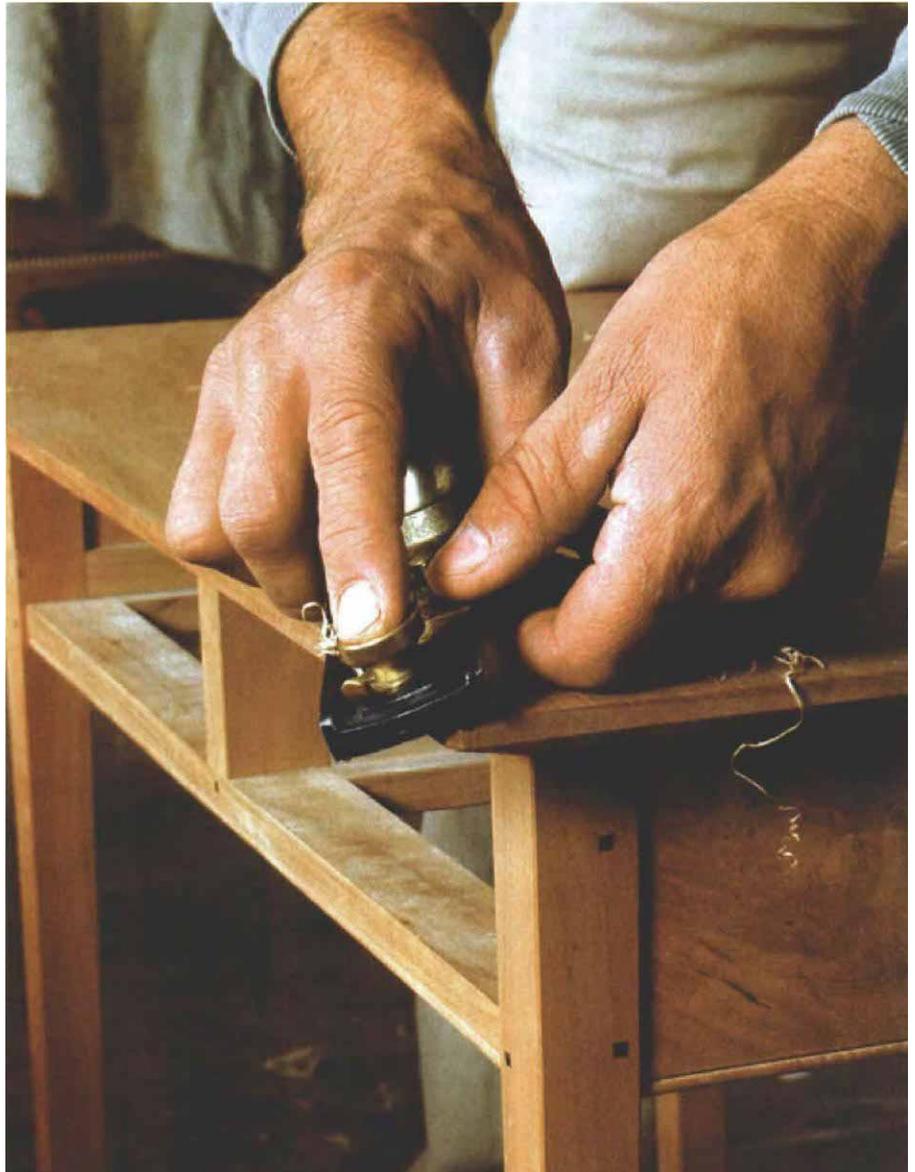
Cut wide chamfers along the outside edges of a chest of drawers to make the case appear more slender, and you've created a place for some decorative detail. Scratch in some reeds or flutes, or add an inlay or two. Carve an end to your chamfer with a neat flourish such as a lamb's tongue or a curved stop. Chamfers are small surfaces to let go with your creativity.

### Cut chamfers with your choice of tools

Unless you are cutting large chamfers or one to some exacting specifications—such as those on a tapered pencil post—you don't have to be all that meticulous about cutting chamfers symmetrically or consistently. Your eye might notice some variation in the width of a chamfer but not slight changes in the bevel angle along its length. In fact, some slight irregularity makes a chamfer more visually appealing.

I cut most of my chamfers freehand with a block plane, guiding it with my hands and body. A block plane will cut a clean chamfer around a convex curve; but for a really bold curve or a concave one, a flat- or round-soled spokeshave is a better choice. Stanley once made a small chamfering shave (No. 65) with adjustable guides to help cut consistent or wide chamfers around curves. But for large chamfers and clear-cut accuracy, the Stanley No. 72 chamfering plane is the ideal tool. It can also be fitted with a beading attachment to cut moldings or inlay grooves within a wide chamfer. For stopped chamfers and decorative flourishes, a chisel, small files and a scraper will suffice.

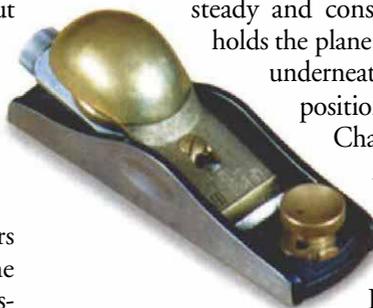
**Block planes**—Typically, I use a block plane to cut chamfers around the edges of a tabletop, either straight or curved (see the photo above). Chamfers are often cut at a consistent 45° bevel, es-



pecially when breaking a square corner, but that's not a rule written in stone. One advantage of working with hand tools is that you can fine-tune the chamfer angle and depth as you progress. When it looks right, stop. When you start to cut a chamfer, the first few passes let you get a feel for what it will look like and how the grain of the wood is behaving. You may need to change the cutting direction along an edge to prevent tearout and get a perfectly smooth and polished chamfer.

When working freehand with a plane, you must clamp the workpiece in place, so that you can use both hands to make steady and consistent planing strokes. One hand holds the plane in position, the other guides it from underneath, and both are somewhat locked in position by the upper body and arms.

Changing the bevel angle is then just a matter of repositioning hands and body. For more accuracy, scribe light pencil lines along the edge and top surface to define the cut. If I have lots of chamfers to make, I'll





**Spokeshaves are good for concave curves.** Lightweight enough to use with one hand, this Stanley No. 54 has an adjustable mouth to help control the depth of the cut.

sometimes use two block planes—one set for rapid wood removal, and the other for a light, polishing cut.

**Spokeshaves**—I turn to a spokeshave when I have to cut a chamfer on a tight or concave curve (see the photo above). A flat-soled spokeshave works fine most of the time, unless the curve is too tight, in which case a shave with a curved sole works better. The technique is the same as using a block plane, except that the two long spokeshave handles can be an advantage for keeping the tool steady and at a consistent bevel. The challenge—especially with a curved edge—is to keep the tool cutting smoothly for the final cut.

Getting the feel for the task comes with practice, learning how to rotate the shave into or out of the cut.

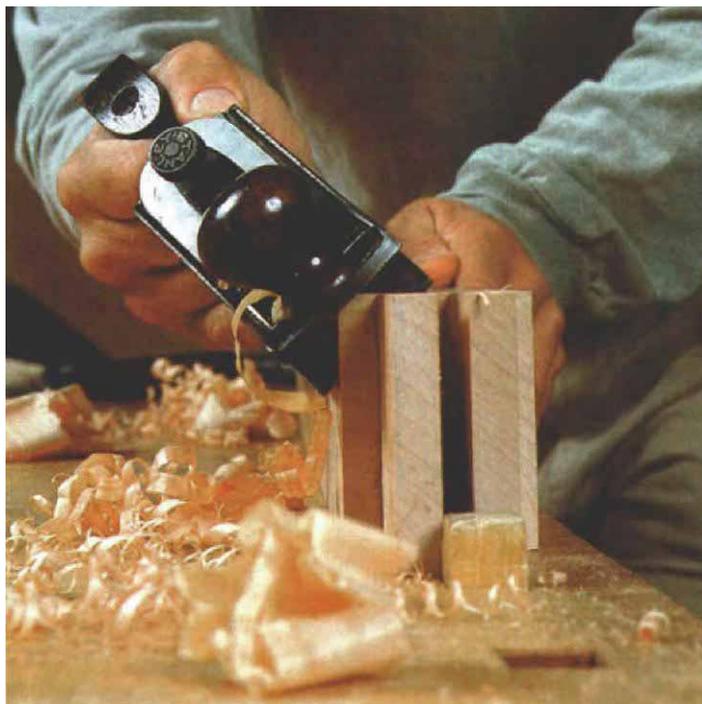
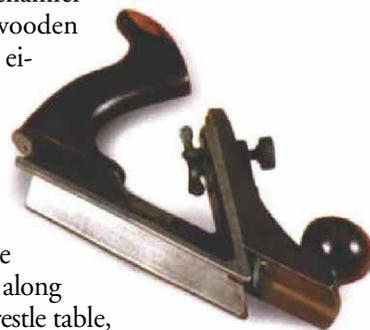
I rarely use the Stanley No. 65 chamfering shave, but it can cut precise chamfers along curves because it has two guides that ride along both sides of the cor-



ner, the width between them determining the width of the chamfer. (Kunz makes a similar shave sold by Woodcraft.) Being able to shift the guides is a nice feature because you can use fresh areas of the cutting edge, not just the center. This tool still requires a bit of operator control, but with the guides in place, it gives you chamfers at a consistent width and a true 45° bevel.

**Chamfering planes**—When furniture makers worked entirely by hand, plane makers responded by devising many specialty tools, such as chamfer planes, to do the work more easily or accurately. Stanley produced the No. 72 (see the photo below) with an unusual, angled sole that rides securely along any square edge. (You can still occasionally find this tool at flea markets and auctions.) The cutting iron and small flat sole at the front of the plane adjust up and down to cut any width of chamfer and act as a depth stop. Some wooden chamfer planes are still available; either used English versions or modern Japanese planes.

The beauty of these planes is the ease with which they will cut a consistent bevel along a straight edge. I recently used the No. 72 to run some large chamfers along the stretchers and posts of a long trestle table, where uniformity was an important aspect of the design. As with the chamfering shave, the tool rocks around when getting started and is firmly guided by the sole only when you get close to the final cutting depth. Over the years I've found that I can work nearly as accurately with a block plane, or



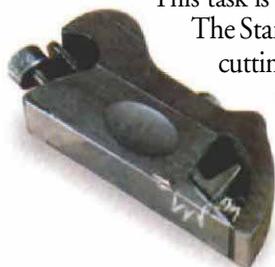
**This old tool cuts with the accuracy of a router bit.** The Stanley No. 72 chamfer plane was designed for cutting chamfers. The original also came with an attachment that fits on the front of the plane and accepts specialized cutters for dressing up the chamfer with beads or coves.

for longer chamfers, a No. 4 bench plane, without all the set-up fuss that the No. 72 demands.

**Bullnose rabbet and chisel planes**—If you have a frame-and-panel door, a chamfer cut along the inside of the stiles and rails makes a simple yet elegant transition from frame to panel. Chamfering all of the inside edges of a drawer makes it more user-friendly and helps it slide more smoothly upon the runners. With doors and drawers the chamfers are best cut after assembly, but doing so makes it more difficult to work cleanly into the corners.

This task is made easier by the right tool.

The Stanley No. 90 bullnose plane is a good choice for cutting inside chamfers (see the photos below). The mouth designed to cut rabbets and the small sole ahead of the iron are especially useful for working in tight spots. Also, the entire top at the front of the plane can be removed to convert the tool into a chisel plane. I start inside chamfers with a few quick cuts, roughly defining the miter and scoring the long-grain fibers of one side to prevent any tearout later. I then cut the chamfer as close to the corner as I can and pare away the small amount



of wood remaining by using the tool as a chisel plane. It's important to make only light cuts and to keep the pressure toward the back of the plane to prevent the iron from digging in too much.



**Use the Stanley No. 90 bullnose plane for cutting inside chamfers.** Start inside chamfers with a few quick cuts, then cut close to the corner. Pare away the remaining wood by using the tool as a chisel plane.

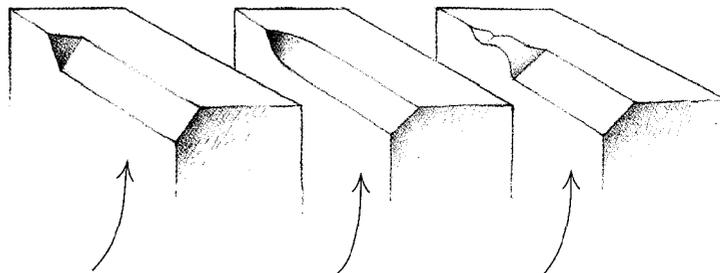
of wood remaining by using the tool as a chisel plane. It's important to make only light cuts and to keep the pressure toward the back of the plane to prevent the iron from digging in too much.

### Decorative details add charm to chamfers

You can cut chamfers all the way along an edge and miter them together at corners, but there are times when it's neater to stop the chamfer. Take, for example, the chamfered corner of a cabinet

carcase that has moldings along the base and under an overhanging top. If you cut a bold chamfer all the way along the corner of the cabinet, that would make it run right under the top molding and behind the mitered corners of the base molding. The result would be an unattractive gap behind the mitered moldings. A stopped chamfer will prevent this problem. A stopped chamfer

### STOPPED CHAMFERS



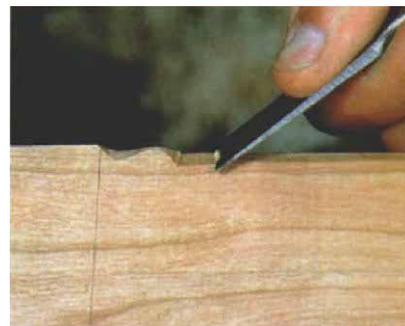
A plain stopped chamfer is usually made with a clean chop of a chisel.

A curved stopped chamfer is made with a spokeshave or carved with a knife.

A lamb's tongue is carved with a chisel and shaped with rasps and scrapers.

is also appropriate when you want to preserve an unchamfered area on a bedpost where it has been mortised for a rail. Luckily, there are several ways to end chamfers that are wonderful details in themselves (see the drawings above).

The easiest way to end a chamfer is with a square chop, but a more elegant way is to make a gradual sloping cut. You can curve this slope on both concave and convex shapes, or a combination of the two—as in one of my favorites, called a lamb's tongue (see the photo at right). Before cutting the chamfer, carefully lay out where the stops are and make a few trial cuts to see what shape fits. Wasting some of the wood at the stop before cutting the chamfer is not a bad idea. Depending upon the shape of the stop, you can cut it with a spokeshave, chisel or small files, but be careful not to overdo it.



**Shaping a lamb's tongue.** After marking the location on the workpiece, this fancy stop detail is carved entirely by hand, using chisel, rasp and scraper.

Within wide chamfers on higher-style work, it's not uncommon to see chamfers taken one more step to molded details or an inlaid line. If you can find one, the Stanley No. 72 has a beading attachment to hold scratch cutters for just this sort of work. You could also make your own basic wooden one. Whether you end up cutting some highly decorated chamfers or simple ones with a few quick strokes of a plane, time will treat those chamfered edges more kindly.

Garrett Hack is the author of *The Handplane Book and Classic Handtools* (The Taunton Press, 1997 and 1999, respectively).