Skew Chisels

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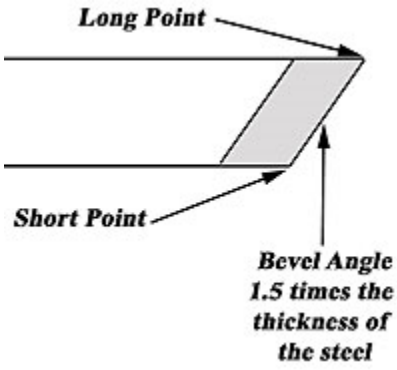

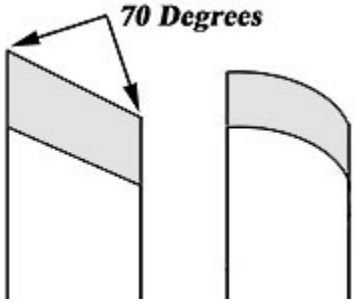

Skew chisels:

I prefer rectangular sectioned skews, the heavier the better (at least 1/4" thick, better yet, 5/16" or 3/8") with the short point side rounded back to the ferrule, the long point side chamfered back to the ferrule. I do not like the oval sectioned skews: they are overly thinned out, rock on the tool rest when grinding, nearly impossible to do the peeling cut (which I use a great deal), and presents a changing angle to the wood as presented in several of the cuts below-such as the rolling cut.

Sizes:

I primarily work with two sizes: a smaller one that is 1/2" or 5/8" and a larger one that is 1 1/4" or 1 3/8". These sizes work well on all the cuts below on stock 3" in diameter down to miniature sizes. Preparation: get it sharp through grinding, refine the edge through hand honing (I prefer a diamond hone) or using power honing on a MDF wheel charged with buffing compound that cuts high speed steel. Make sure the tool rest is filed flat and clean, perhaps wax the top surface. Drive the work with a cup center rather than a spur-especially if you are in a learning phase.

Cuts:

Planing:

most commonly done with the short point down and leading the cut, positioned at about 45 degrees to the axis of lathe. Problems: skating, dig-in, ribbing, chip-out.

Roughing:

using the tool in the same position as the planing cut, the skew can be used to round smaller diameters (usually under 2 1/2") and shorter pieces (generally under 18" in length). Is very much a pushing off of the corners to reach the cylinder? In chippy woods like red oak or ash, I use the planing approach but shorten the length of each cut or use a peeling approach-followed by a planing cut to clean the surface.

Vee:

long point down, cutting with an arcing motion. For the first cut, the point is at a right angle to the axis of the lathe. To deepen or widen the "V" that is created, come from the side of the original cut, being sure to clear the long cutting edge away from the area just cut. Problems: skating, burning, "stalling out."

Shoulder:

long point is down, long cutting edge is tilted away from the face of the shoulder only a few degrees (2 to 5). Cut is performed high on the work, using an arcing motion and ending above the center axis of the lathe. Problems: skating on entry or at any time on the face of the shoulder, dig-in, "stalling out," torn grain.

Saucer:

done very much like the shoulder cut, except the action is now concave. Since this is cutting somewhat against the grain, don't take the cut too deeply into the end-grain. Useful in doing the bottom of projects like a goblet, vase, toothpick holder, lidded box, etc. or for cutting rings free on a shaft.

Parting:

done with the long point down, a series of vee cuts to part a small piece off at the headstock side. Tends to avoid many of the problems of parting tools: cleaner cut on the end-grain and seldom snaps the piece off near the conclusion to create a small hole in the end of the project.

Pummel:

the process of turning square elements that transition into round. I prefer to cut these with the long point down-especially square shouldered pummels. Layout the placement with a single 90-degree line (using a square or protractor). Cut to the waste side with a Vee cut-then turn away material on the waste side until you reach a cylinder (using either a peeling or planing cut). Make the cut to the line using the same method as for a shoulder cut (for the square shouldered pommel). For a curved pommel, make two 90-degree lines-one for the ending point (meets the rounded area of your project) and one for the starting point of the pommel. I usually go ahead and create a square pommel at the end point. Then in a series of light cuts, add a curving motion to create the curved surface until you reach the line that marks the starting point of the pommel. If a relatively friendly wood, I lead with the long point through the entirety of the cut. If a difficult wood (usually very soft or easily torn on the end grain), I start with the long point in the wood, then raise the handle with my back hand to allow cutting in the area just above the long point.

Rolling:

using the skew to produce a convex shape, such as a bead. For small beads (under 3/8" wide or less) I often use the long point. For most beads and other convex shapes of a larger size I make the cut with the short point down. You may cut with the short point in the wood (to assist with keeping the tool against the side of the bead and with a bevel rubbing) or with the area above the short point but not above the center of the tool's long cutting edge. Problems: skating (creating slashes in the bead), dig ins (getting the trailing edge/point pulled into the wood), shapes that are not rounded-but were intended to be convex.

Coving:

using the skew to produce a concave shape. Usually done with the short point down, moving the tool with a scooping action. Here the curved edged skew certainly performs better. Problems: skating and failure to produce a curved surface in the cove.

Peeling:

using the skew like a veneer peeler's action on a log. The cutting edge is held parallel to the lathe's axis, but with the handle low in back to provide a cutting edge that has bevel support-not a scraping action with just a sharp edge. I normally use only a portion of the tool's edge as too heavy of a cut is hard to make or control. This is a sizing and rough cut-not for finishing. It can be used to take the corners off of a square, cut tenons, or remove large amounts of waste material.

Rough-Grain:

using the skew as the final tool to work an area of twisted grain, severe chip-out or even a knot. First the area is lightly cut with a roughing gouge, cutting edge at a 90 angle to the lathe's axis, with bevel support. Make the cuts across the difficult area lighter and lighter until almost dust like in their action. Next, be sure the tool rest is almost touching the wood; cutting edge of the skew is held parallel to the lathe's axis, tool handle is horizontal; edge is presented in a scrapping approach with no bevel support. Make very light passes across the difficult area, completing with only the lightest of cuts.

End-Grain Scrape:

using the skew for scraping directly across end -grain as found on the rims or bases of such projects as lidded boxes, goblets, toothpick holders, etc. Get the tool extremely sharp by honing, place the tool rest as close to the work as possible, present the tool facing the end-grain area, the tool handle should be horizontal (to present the edge in a scraping approach with no bevel support) and lightly scrape across the area. You should be getting tiny ribbons rising from the edge-if not, you may be tearing the grain.