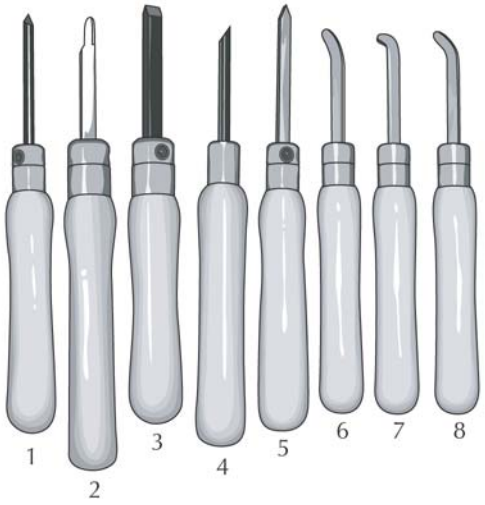
Frank Penta
Wood Sprite Turnings

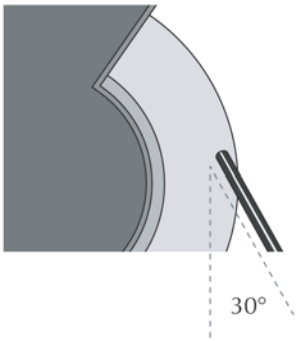
Eight Easy to Make Turning Tools

There are several turning tools that I use frequently and are quite easy to make. These tools include (1) the ¼" three-point tool, (2) the 3/8" box scraper, (3) the 3/8" beading and parting tool,(4) the ¼" round skew chisel, (5) the ¼" beading and parting tool,(6,7 & 8) three ¼" bent hollowing tools. The handles I turn for these tools are 6-7 inch long and fit comfortably in my hand. I use collets in the handles because they enable me to conveniently remove the tools from the handles when I travel.

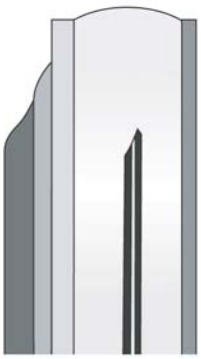


3-Point Tool

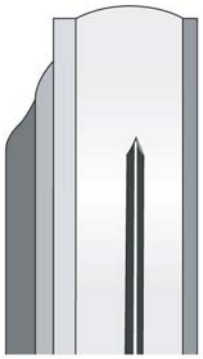
The 3-point tool is made from an 8" long piece of ¼" round high-speed steel. I place the steel rod in a Wolverine sharpening jig and lay one end of the rod against the grinding wheel at approximately a 30 degree angle. Pressing the rod against the wheel, I grind half way through the end of the rod. You now have one flat side or facet at the end of the rod.



With the flat side facing left and the round side facing right, I place the end of the rod back on the grinder at the same 30 degree angle and again grind half way through the end of the rod. You now have two flat sides.

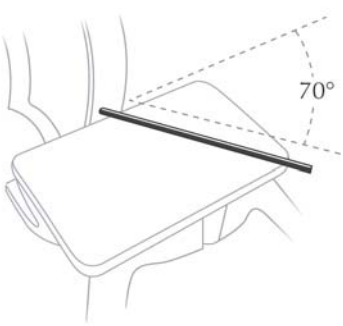


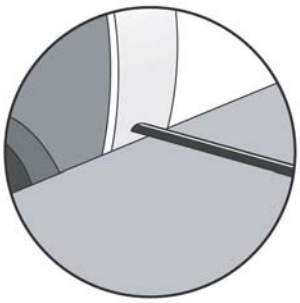
The next step is to place the last remaining round part of the rod on the grinder and again grind halfway through the end.
You finish with a rod that has three facets around a center point. If necessary, regrind each of the facets so that they are approximately the same size.



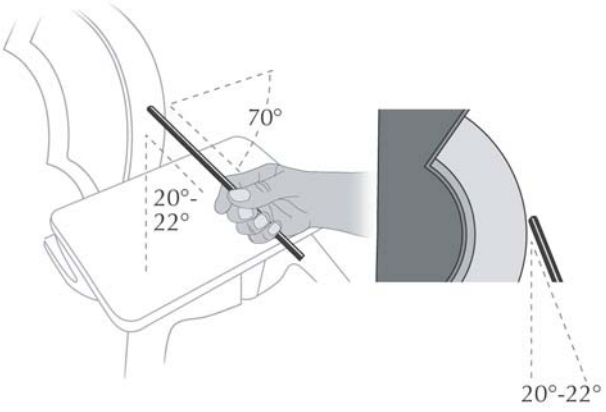
Skew Chisel

The skew chisel is made from an 8"long piece of ¼" round high speed steel.





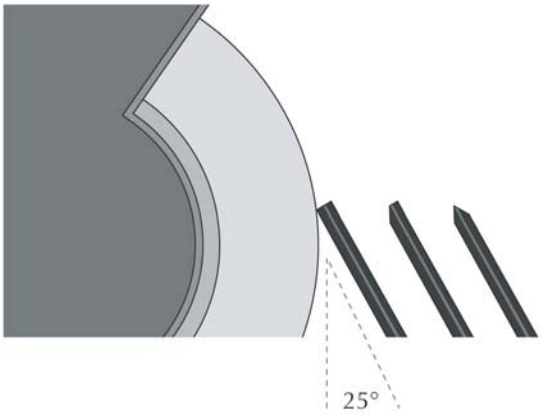
Lay the steel rod flat on the sharpening platform and set the angle of the platform at 90 degrees to the grinding wheel. Set the steel rod on the platform at a 70 degree angle to the grinding wheel. Grind the end of the rod until it is 70 degrees across.



To shape the bevel hold the rod at a 70 degree slant against the grinding wheel and grind a 20-22 degree angle bevel on both sides of the rod. You can also use a skew jig to grind the bevels.

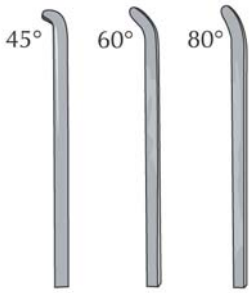
Beading and Parting Tools

I make 1/4" and 3/8" beading and parting tools from 8" long square high speed steel. Place the ¼" or 3/8" square steel rod in a sharpening jig and lay the end of the rod against the grinding wheel at a 25 degree angle. Grind halfway through the end of the rod. Reverse the rod and grind halfway through the other side. If necessary regrind the rod the make both bevels even. Both sizes of steel rod are made the same way.

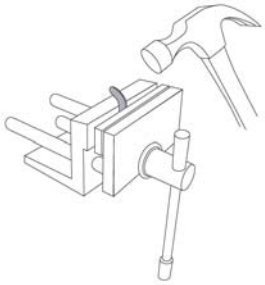


Bent Hollowing Tools

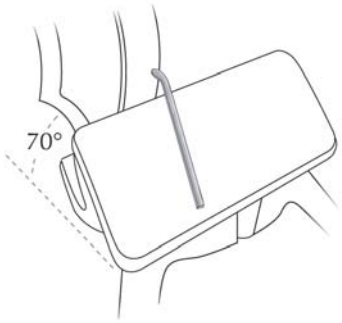
I make bent hollowing tools with ¼" water hardened square cold drawn tool steel, because it can be bent without heating. I bend these tools to three different angles, 45, 60, and 80 degrees.



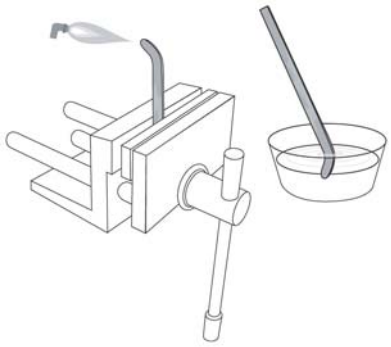
Place the steel in a metal vise with no more than ¾" sticking up above the vise. Using a hammer, pound the rod to bend at the desired angles (45, 60, & 80 degrees).



After bending the steel rod to the desired angle, place it on the grinder's sharpening platform. Set the angle of the platform to approximately 70 degrees and grind the bent end of the rod.

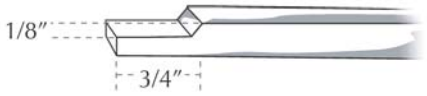


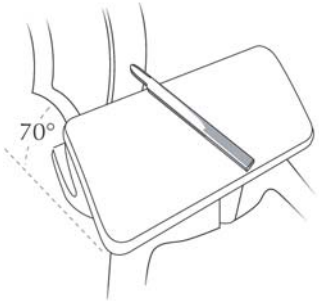
After the bent end of the steel rod has been ground to create a 70 degree bevel, heat the bent end of the tool with MAP gas (Propane gas does not get hot enough) until it is cherry red. Once it is cherry red, immediately dip it into a container of water. Heating the rod will release the tension that results from bending.



<u>Box Scraper</u>

The box scraper I make is one designed by Myron Curtis of Virginia Beach, Virginia. The scraper is sturdy enough to extend over the rest, enabling you to shear scrape the inside of a turned box. It is made from an 8" long 3/8" square high speed steel rod. Begin by grinding a ¾" long strip 1/8" deep, on the top at one end of the steel rod.





Place the rod on the sharpening platform and adjust the platform to 70 degrees and grind the end and side along the ¾" long strip. Grind the end of the rod so that it is round.

Sources of Steel:
Enco
400 Nevada Pacific Hwy
Fernley, NV 89408
800-873-3626
Use-enco.com

MSC Industrial Supply Co.
Melville, NY 11747-3151
800-645-7270
mscdirect.com