

Sharpening the Ellsworth Ground Bowl Gouge with a Tormek

by Fred Holder

Shortly after the June issue went to press, I received a package from Sweden. I wondered what Tormek could be sending me. I hurried to open it and found the following inside:

1. An Ellsworth Bowl Gouge made by Crown tools
2. A grinding Jig SVD-185 that was set to what would be at position 6 and locked in place.
3. A Protrusion Measuring device for setting the tool protrusion from the SVD-185 jig.
4. A wooden piece to use in setting the distance between the Universal Support on the Tormek grinder and the grinding wheel.
5. A copy of the table of various shapes from page no. 63 in their manual.
6. A photographic guide to sharpening the Ellsworth Bowl Gouge.
7. A letter explaining how to sharpen the Ellsworth Bowl Gouge.

When I first obtained my PRO PM Ellsworth Bowl Gouge, I was unable to get my Wolverine Grinding Jig or my Tormek to match the grind on the gouge. As a result, I purchased one of David Ellsworth's grinding jigs and set it up so that I could grind my gouge on the Wolverine Grinding Jig using the Ellsworth grinding jig. This was great, but I missed the very sharp edges I could get with the Tormek grinder. Apparently, Torgny Jansson of Tormek, who is a subscriber to *More Woodturning*, read about my dilemma and came up with a way to use their grinder to sharpen the

Ellsworth Gouge. He sent me the gouge that he used to develop the process. It was sharpened using the procedure he outlines and polished on the polishing wheel. It looked beautiful. It also cut very well.

I immediately grabbed my tool sharpened with the Ellsworth Jig and set up the Tormek to grind my gouge with these new tools Torgny had sent. I did not expect the grind to match exactly. I was surprised, with just a few passes on the wheel, I had a nice and shiny bevel that matched the original grind. The Ellsworth Ground Gouge has a 5/8" tool shaft, which is required to get a perfect grind from the Ellsworth Grinding Jig. I overcame this limitation for my Sweazey 1/2" Bowl Gouge by making a sleeve that measured 5/8" in diameter on the outside and had a hole to accept the shaft of the Sweazey gouge. This had allowed me to use the Ellsworth Grinding Jig to sharpen the Sweazey gouge.

I had to use the sleeve with the Tormek also, but I had to cut away the top part of the sleeve to allow it to be fit into the Tormek grinding jig SVD-185. With this slight variation, I was able to duplicate the Ellsworth Grind on my Sweazey Bowl Gouge and again have the benefit of the sharpness that can be obtained with the Tormek.

By leaving the Tormek set up for this tool, you can regrind in a matter of moments. I didn't actually check my time, but it was as fast as using the Wolverine Jig and the tool was sharper from the Tormek. Since the Tormek is slow for originally shaping the tool, it would be nice to have a Ellsworth Grinding Jig for

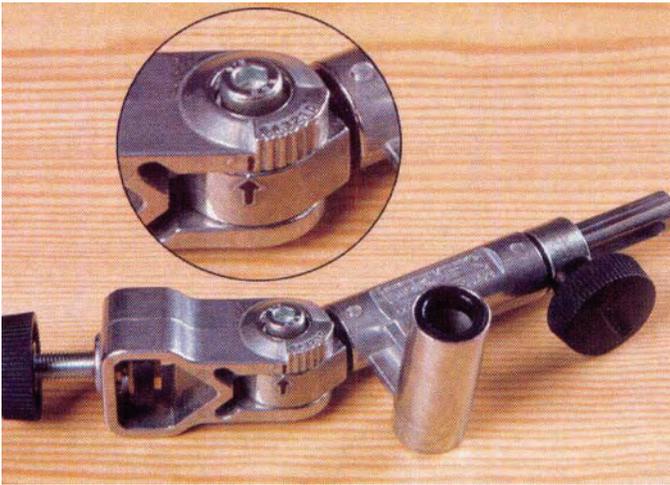
the initially shaping. Then switch to the Tormek to get a really sharp tool. After the tool is originally shaped, the Tormek can handle all of your sharpening unless you try to turn your chuck and remove a chunk of metal. The key is repeatability. With the Tormek you only sharpen where it is needed and get a much finer surface on your tool.

Torgny says, "The key to quick repeatability is to use a fixed setting on the jig and the same protrusion all the time. The jig is designed so that you can set it to various shapes, but I recommend that you always keep the setting you have chosen to make it simple."

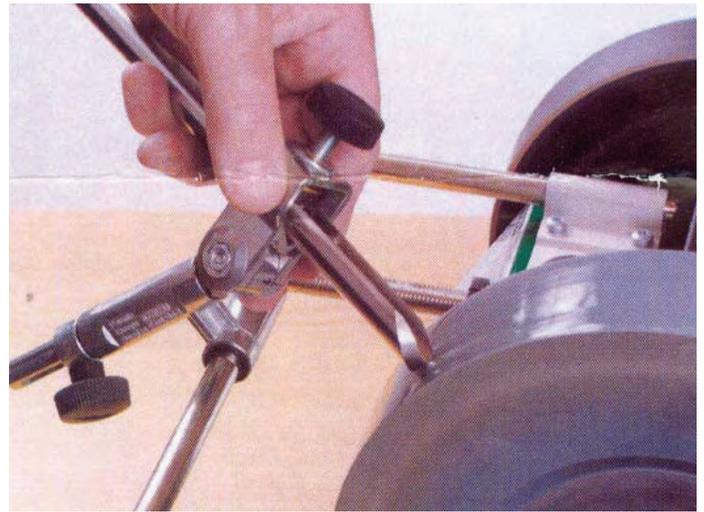
The protrusion of the tool from the jig should be three inches to match the Ellsworth Grind. The wooden spacer for setting the spacing between the wheel and the Universal Support measures 2.05". Using this spacer to set up the Tormek is what they call the IR method. Something that I described in a previous issue from Geoff Brown's demonstration at Craft Supplies in Provo, Utah.

The SVD-185 grinding jig can be adjusted to grind a number of different shapes by using the jig settings from 1 to 5 as shown on page 63 of the Tormek handbook. Torgny says, "I recommend that you do not change the setting, but use a fixed setting of the jig so you can use the fast IR method at re-sharpening."

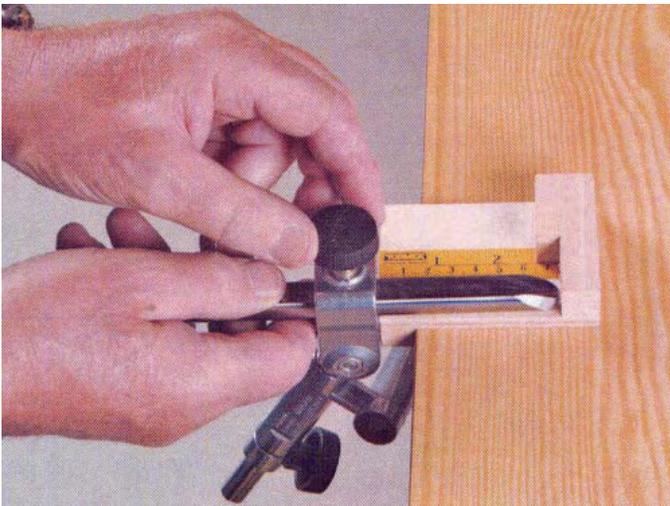
The photographs and captions on the following page describe the steps in sharpening your Ellsworth Bowl Gouge using your Tormek wet grinder.



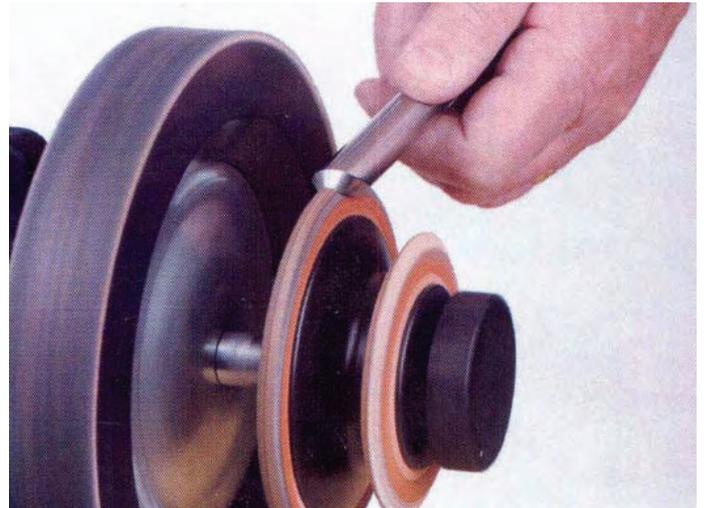
Set your SVD-185 gouge jig to one step higher than the maximum marking on the jig. Torgny says to call this No. 6.



Slip the SVD-185 jig onto the Universal Support rod and sharpen the tool by swinging the gouge handle from left to right and back. Make this transition as smooth as possible. Stop when your bevel has ground clean to the edge of the tool.



Insert the tool into the gouge jig and extend the tool three inches beyond the jig face for a three inch protrusion.



Hone the flute of the tool on the profiled leather honing wheel as shown. I recommend another light pass on the grinding wheel after this honing.



Take your IR Block and set the Universal Support that thickness (2.05") from the grinding wheel.

There have been many arguments put forth by non users of a Tormek grinder saying the extra sharpness is unimportant and it takes too long to sharpen your tools on the Tormek. I've found that a tool sharpened on the Tormek wet grinder will turn well for a longer period of time than one sharpened on a high speed dry grinder. I am pleased that Tormek has introduced a way to sharpen my Ellsworth Grind Bowl Gouge. If you use an Ellsworth Grind Bowl Gouge and have been unable to use your Tormek to sharpen it, you now have the information to get another way to sharpen your tool and another excuse for adding a Tormek to your sharpening tool inventory if you don't already own one.