BE SAFE **- Safety Tip of the Month** (Gary Guenther)

Proper use of thin (1/16" thick) parting tools

Because one of our Members came to our last meeting with a nick on his hand from a minor turning mishap, I think it would be a good idea to pass this circumstance on to you all. The culprit was a "thin-kerf" (1/16"-inch) parting tool. This is a very useful tool – I use mine a lot. It is kept sharp very simply with a diamond honing card – it never goes to the grinder! It has a broad blade with a sharply skewed shape. Depending on the brand, the long point may or may not have a smaller portion cut away. Additionally, they may have a straight cutting edge or be fluted. The problem is that the displays of this tool in various catalogs are inconsistent in their orientation. While some are shown laying down so that no direction for use is indicated, others are shown either in their correct (safe) long-point-down orientation (as here) or in their unsafe (long-point-up) orientation. Craft Supplies web display is schizophrenic with some both ways. It's little wonder that people may question which side is up.

The simple question you have to ask yourself is what is the lever arm from the location of the cut on the object to the point of contact of support on the tool rest. In other words, is the cutting edge properly supported? Many tools will perform dangerously if the cutting edge is not immediately over the contact point on the tool rest. It also gets into the old business about stable equilibriums and unstable equilibriums. If you keep this tool exactly vertical, you can briefly get away with using it upside down – at least until it gets a slight angle – then BAM. The typical width of the blade of a narrow parting tool is around 1-1/4". That's a huge lever arm for the forces involved. If you go in long point up, it's the same thing as using a skew chisel long point up and cutting at the top of the tool. You really don't want to do that!

The thin parting tool, whether it is straight-edged or fluted, is used long point down. That way the point of contact of the cutting edge on the object is at or below the support on the tool rest. This is a safe situation. Don't let those upside-down photos or drawings in a catalog confuse you. The art directors are likely not woodturners. Long point down!