

Get an Edge on Sharpening

When I was 16 I bought my first round knife. It was a new C. S. Osborne head knife. It came with the blade wrapped in waxed paper and it was as dull as a shovel. I had some natural oil stones and a knife steel. I was famous at school for showing off how sharp my pocketknife was by the hairless shaved patches on my left forearm. But this round knife had me stumped. We didn't even have a bench grinder that I could have abused it with. Eventually I got Buster Warenski, a famous knife maker whose daughter I went to school with, to sharpen it for me. I failed to ask him how to sharpen it because I thought I was already an expert knife sharpener. I was able to keep it sharp, but I didn't quite understand the way its edge needed to be shaped. Over the years I began to figure it out by trial and error. One error ended in the web between the middle and index fingers of my left hand. The knife was razor sharp but still got stuck or wedged in the heavy skirting I was trying to cut with it. This of course led to having it jumping dangerously out of the cut and heaven help anything in its path. I know that the round knife when properly ground, sharpened, and stropped is a steady and reliable tool. There is no other knife that a leather worker can use to do all of the things that this family of blades can be safely used for.

I'd like to demystify the sharpening of knives for cutting and skiving leather, in particular, knives for cutting vegetable tanned leathers like saddle skirting. The fibers in skirting leather are strongly knitted together. When dampened the



fibers can be bent and shifted slightly. In vegetable tanned leathers these fibers remain tightly bound to each other allowing the leather to retain its new shape. When cut through the fibers grab hold of the blade. Any wedge shape to the blade magnifies this. The fibers are also tough, and absorbent. The wax from stropping compound is quickly absorbed which quickly removes the lubricating waxes and oils that come from stropping the blade. Any texture left in the blade surface makes this worse. Razor blades work well in skirting because they are so thin. However, that thinness also makes their edges break or bend easily because of the toughness of the fibers. What it all comes down to is compromise. Knife steel is hardened and then tempered, a compromise between brittle, hard, and pliable, tough. Another compromise is made between sharp, or thin, and blunt, or tough.

The pictures here are taken from a very old H. F. Osborne round knife. This knife has a blade somewhat thicker near the handle than the other knives that I own. They all however end up very close to the same thickness one quarter of an inch from the edge. Fig. 1 shows that one quarter inch from the edge this knife is .042" thick. (slightly more than 1/32"). Another that I use daily is .046" thick one

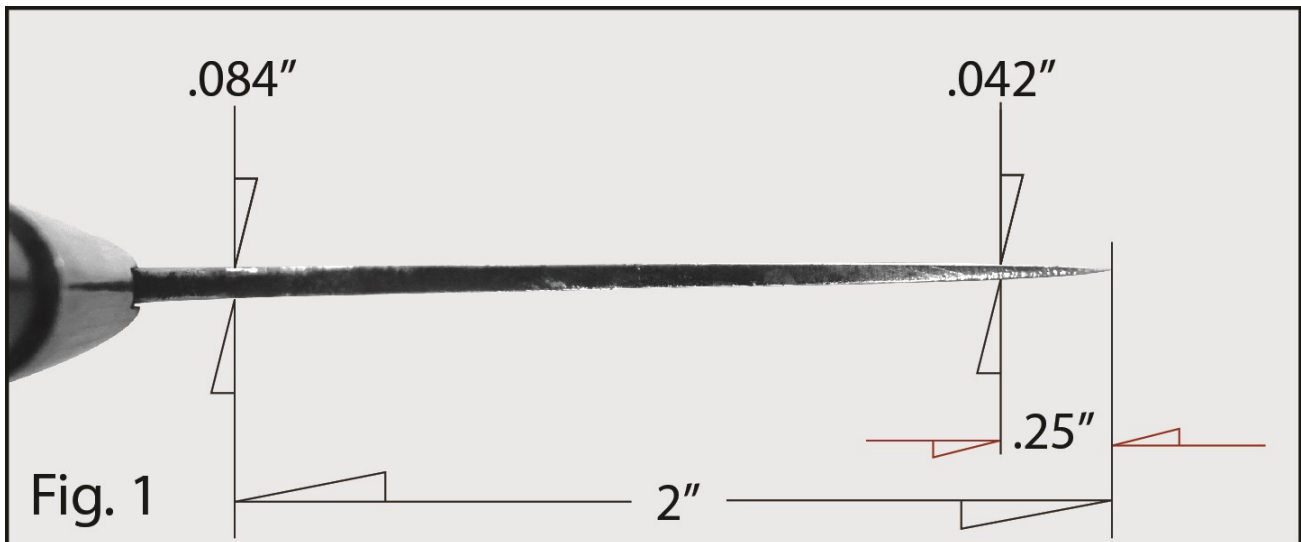


Fig. 1

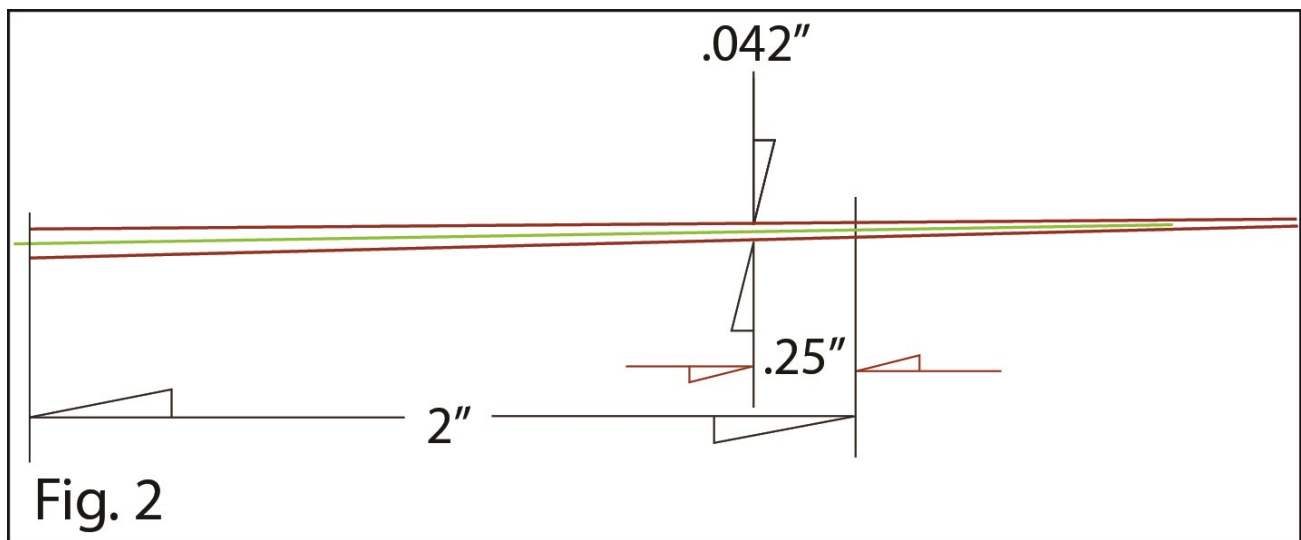


Fig. 2

quarter of an inch from its edge. It doesn't matter how thick they start out at the handle before they were ground, the blade that works so well is around .045" thick one quarter of an inch in from the edge. Let's call this observation #1. Observation #2 is that all of the knives that I use were made with a flat taper from thickest near the handle down to the neighborhood of .045" one quarter of an inch from the edge. They are tapering constantly, getting thinner and thinner until they reach that point, yes, .25" from the edge. Fig. 2 shows that if it were possible for the blade to just continue to get thinner, and thinner, and thinner, it would eventually be so thin you could see

through it. Long be fore it got that thin however, the edge would break off if it's hard or bend like tin foil if it's soft. So, to give the edge enough strength to part the fibers in skirting without getting stuck and breaking or bending we have to strike the best compromise that the steel will give us. The blade has to dub off while it is still strong enough, or thick enough. We call this protecting the edge. In a nutshell, that is the secret to sharpening knives for use in skirting leather. Other leathers require something similar. Thinner leathers or leathers with softer fibers may be quite thin before changing the bevel to protect the edge. With some skiving

knives this change may not be perceptible without magnification.

Maintaining an edge over the life of a blade requires that we preserve the constant flat taper by removing metal from the thickness further back from the edge as the blade wears away due to use and consecutive sharpening. A 200-grit diamond lap works remarkably well for this and a variety of grit sizes are needed to also keep the surface finish smooth enough to easily pass through leather fibers. These laps don't have to be expensive. 200, 600, and 1,000 or 1,200 grit are a good place to start. I've found that a very fine waterstone or ceramic waterstone in the 8,000 to 10,000 grit range works incredibly well and quick to maintain that critical last .25".

Waterstones will work up a slurry that aids in working the edge in a way that very hard stones can't. You have to be very careful to drag away from the edge when using them in order to avoid cutting into the stone. The flatness of the stone also has to be maintained. They are a little extra work that I find very much worth the effort. Wood working suppliers have a variety, and the Norton brand are reasonably priced. I hope this shortens the learning curve for sharpening your round knives to keep your clean and accurate, and your fingers safe and free of nicks.

Gordon Andrus

7/22/2021