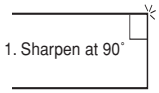
Life After Sandpaper

Highland Hardware's guide to sharpening and using a woodworker's best friend

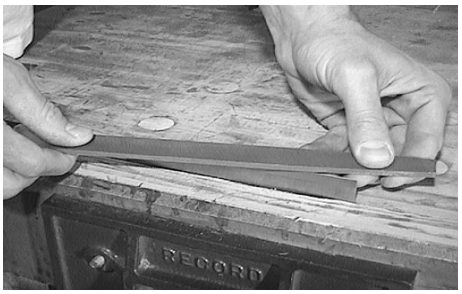
If there were a ten-dollar finishing tool that worked ten times faster than a sander, made almost no noise, worked on finishes between coats as well as on bare wood, and did the work of abrasives from 60 to 220 grit, you'd know about it, right? And if there were such a thing, surely you'd already be using this miracle tool for cleaning off glue squeeze-out, taking wood directly from thickness planer to 180-grit finish, erasing layout marks, smoothing lacquers and varnishes, doing spot repairs and lifting dirty fingerprints, and doing a dozen other chores that a tearout-proof, ultra clean-cutting hand tool could do. There really is such a device: it's a scraper, of course.

Scrapers are the simplest tools this side of a pencil. They're simply thin, flat pieces of steel, with straight or curved edges that can be formed into tiny, high-angle cutting tools. Most scrapers, like every other new hand tool, must be sharpened before they're ready to use. This means you must polish the faces of the scraper quite smooth along each of the four working edges, and then work the edges themselves as well. Once it's sharp, you'll take two more short steps to make the scraper into the finest finishing tool you own.

SHARPENING

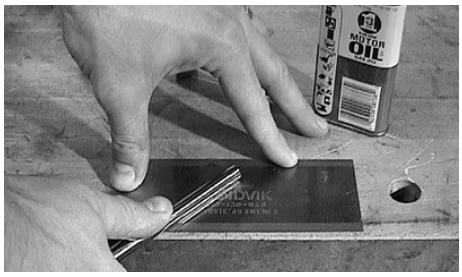


We'll illustrate the process with a standard rectangular scraper; bear in mind that the techniques discussed apply to curved scrapers as well. The goal of sharpening is simple: you want each of the four working edges to be quite straight, as close to square as possible, and crisply sharp. A clean, sharp mill bastard file 6" to 10" long is an ideal sharpening

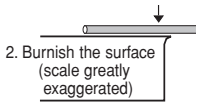


tool. It's easy to file the scraper's edges straight and square. You can use a jig like our Veritas Jointer/Edger, or you can simply clamp the scraper in your bench vise about a finger-thickness high, so a file lying level across the fingers of both hands just contacts the edge as you move it along. Skew the file so a good bit of its length lies along the scraper's edge; this will almost inevitably cut the edge straight—and edges do need to be straight for finishing flat surfaces. Slide the file along the edge like a plane, applying firm pressure until you're getting a positive, consistent bite all the way along. Now give several more strokes with less and less pressure until you've created clean, sharp edges with no detectable burrs hanging off the sides. If you feel any burrs, file a little more with very little pressure to avoid crushing and tearing the sharp, delicate edges. If the edges don't feel *very* sharp, they aren't; keep at it. Once you've sharpened one edge, turn the scraper over in your vise and file the other edge likewise.

Conventional instruction now calls for honing on sharpening stones, but if you do a good job with the file you can skip honing and never miss it.

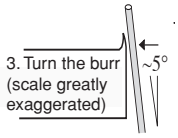


BURNISHING



The final two steps are done with a burnisher, which is a short rod of very hard steel polished to a very smooth surface. To "burnish" is "to polish; make shiny or lustrous by rubbing". The burnisher will finish the job of sharpening the scraper's edges and then gently shape them into high-angle cutters. Lay the scraper on a firm, flat surface such as your bench, and wipe a liberal smear of heavy oil along the edge. Use 20 or 30 weight motor oil or the like, not thin cutting oil; you want to lubricate the scraper to be sure the burnisher slides smoothly with no chance of biting into it and tearing the cutting edges. Bring the burnisher on flat, with your thumb bearing down hard directly above the scraper's edge, and stroke its full length fifteen or twenty times. This will make the surface smoother (hence sharper), and both harder and tougher as well, so the tiny burr you're soon to create will be able to stand up to the kind of hard work you're going to ask of it. Apply eight to ten pounds' pressure; enough to feel firm without hurting your thumb. Flip the scraper over and burnish the opposite side, then turn it around lengthwise and do the other two edges as well.

TURNING THE BURR



We might be smarter to call this "forming the edge" to avoid confusion about what "burr" means. In this case, it does not mean the sort of torn, ragged cornice we're usually talking about when we use the word. On a scraper the "burr" is actually the clean, smooth and continuous cutting edge created by filing and burnishing. You're going to use the burnisher very gently to push that cutting edge up to form a tiny, sharp hook that runs the full length of the scraper. Daub a little more oil along the edge, and hang the scraper 1/2" or so off the edge of your bench. Present the burnisher vertically, then tilt the top inward slightly (about 5˚) so it contacts only the scraper's upper edge. The edge you're about to work on is sharp, which means there's very little steel right out at the cutting edge—which

means it takes *very little pressure* to push it up into a tiny burr. Applying no more than about eight ounces of pressure, stroke the edge full length five to ten times. Now wipe off the oil and feel the results. The burr should hardly be big enough to detect; it should feel mostly just like a very sharp edge. A distinct, heavy burr won't work well at all, so if you've produced such a thing, use the burnisher to lay it out flat and try again. Turn a burr on all four edges, so you'll be able to do plenty of work before you need to start over.

STARTING OVER

As you use the scraper, its tiny edge won't last terribly long, and eventually it will begin making more dust than shavings. At this point you probably won't have to resharpen unless you've been doing something rough such as scraping glue squeeze-out, which might have damaged rather than merely dulled the edges. Lay on a smear of oil and use the burnisher lightly to lay any remaining burr out flat. Now repeat the process of burnishing and turning the burr just as before. Often you'll be able to do this several times before the edges are worn beyond easy repair. Then it will be time to pick up the file and start from scratch.

MAKING SHAVINGS

Scrapers may be pushed or pulled as you please. Pulling is the soundest way to scrape large flat areas efficiently. With eight fingers distributing pressure

evenly behind the blade, lean the top edge toward you as you pull it along the grain. At about 30˚ forward tilt the cutting edge will begin to bite, cutting ultra-thin shavings right across its full width. To avoid creating a washboard effect, skew the scraper slightly, first to the left for a couple of strokes, then to the right, rather than facing it consistently perpendicular to the grain.

Pushing the scraper, with your thumbs bowing the center forward, narrows the cutting area and allows you to work very precisely, removing material from a narrow line or a specific spot without disturbing the surroundings. The scraper's high cutting angle makes it generate lot of heat; it doesn't take long for your thumbs to start sizzling. A scraper holder, such as our Veritas model, lets you push or pull the tool as well as control the degree of bowing, without roasting yourself in the process.

Many finishes, such as lacquers and varnishes, can be scraped fsmooth between coats both faster flatter control than with sandpaper. Start by scraping across both ends of a piece; it's hard to start at the end without cutting too deep. Then scrape full length, skewing the tool and overlapping strokes just as on bare wood. A quick lick with 220-grit paper or a medium Scotch-Brite pad completes the prep for the next coat of finish. Work at a moderate pace and be sure the scraper is sharp to avoid heating and scarring a fresh finish.

If you get inconsistent results, just keep on practicing. Troubleshooting is easy, because there aren't too many things that can go wrong. Most often you'll try to fool yourself into believing you've sharpened well even if the filed edge doesn't really feel sharp. Sometimes you'll apply more pressure than necessary when turning the burr, and wind up with too coarse an edge. Try again; the rewards are worth much more than the work.