

# Sharpening the card scraper

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It seems everyone who writes about woodworking is obliged to do a piece on sharpening (and dovetails). I use to think this avalanche of articles was redundant, but now I see where it allows for a diverse set of techniques for the woodworker to choose from; a smorgasbord if you will. What I do not like are articles that over complicate the process of sharpening, (or any aspect of woodworking) these only serve to intimidate newcomers, or make the writer look smarter than they are. I also dislike jigs or guides for sharpening; the only one I use is the tool rest on my hand cranked grinder. Learning to trust your hands and eyes is fundamental to efficient work, in not only sharpening but all of woodworking.

Below is the way I sharpen the card scraper. It produces an excellent edge that lasts as long as any method, and is so quick and easy that it becomes second nature, which is the way all sharpening techniques should be.

(You can click on a photo to see a larger version.)

The process starts with filing the edge. I have a small block of pine with recess routed into it that receives a 6 inch mill bastard file. Hold the scraper on its edge, squaring it by eye, and push it down the file 2 or 3 times.



It is important that the scraper be held square, or one edge won't be serviceable. This will result in an edge that won't require any further honing. This filing does raise a burr on the face of the scraper that must be removed. To do this, I use a super fine diamond hone. I like the diamond hone, because it doesn't require any kind of lubrication. I'm careful to hold the diamond hone flat on the face; letting it tip over edge just once, will ruin that edge.



It would seem like the steel in the scraper is so hard that it could not be easily deformed, but that is exactly what must be done to form the cutting edge. In order to do this, you must work the edge (burnish) with a tool harder than the scraper; that tool must also be highly polished. I have heard of everything from the backs of chisels, screw driver shanks, valve stems from car engines, to purpose made burnishers, but I use a broken solid carbide endmill, shoved in an old file handle. Carbide is an ideal material, being very hard, slick and in the case of the shank of an endmill, highly polished. The first step in burnishing, is to draw out some metal from the faces of the scraper. To do this, hold the scraper flat on the bench and take several firm strokes down the edge, holding the burnisher, slightly off level. Be sure to work the full edge. When complete, if you magnified the edge, you'd see a sort of C shape, with little projections of metal drawn out on each face.



The next step is the trickiest; these projections must be flattened out, so the cross section would now look like a T. To do this, hold the scraper on edge, and with *extremely* light pressure run the burnisher down the edge. You should really only use the weight of the tool on the first couple of passes. You will feel a slight drag at first, as those projections are flattened out. When this drag is gone you can increase the pressure slightly for one final pass (as before be sure to do the entire edge). The common mistake at this stage is to apply too much pressure, which will gall the burr, or work harden it; neither of which is a good thing.



Now that burr must be rolled over, to form a cutting edge. To do this lay the scraper on the bench with its edge overhanging the bench and run the burnisher down the edge, holding it just a little off the vertical. I only make two strokes down each of the 4 edges, using a good pressure. On one stroke, start at end towards you and run it off the far end, on the other stroke, start it way from you and run it off the end towards you; this way you get the burr turned for the full length of the cutting edge. As with the last step over working the edge will work harden it, and it will dull more quickly. The common error here, is turning a burr that is too aggressive. Over doing it, will result in a burr that dulls quickly and you won't have the control you need, because you have to lean the scraper too far forward to get a good bite.



The cutting edge of scrapers are not long lived. You'll know when they dull because they will make dust not shavings. As long as you didn't over do the burnishing of the burr on the first go around, you can re-roll the burr at least once, before you have to go back to the file.

To re-do the edge, place the scraper on the bench and flatten the burr, much like the first step in forming the burr after filing and honing, only here you must use very light pressure, as in the second burnishing step described above. Here again, you will feel a slight drag at first. To finish, just repeat the second and third steps above, and go back to scraping