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A Guide to Honing and Sharpening

Flattening the Backs of Chisels and Plane Blades

Click on the picture to enlarge

A blade has two sides. One side has the bevel, and it is the side which will be honed. The other side is the back and it must be honed flat. The reason for this is that unless the back of the blade is perfectly flat before you start honing, it will be impossible to remove the wire edge that is formed.

Flattening the back of a blade.

Quality tools should arrive from the store with a flat or almost flat back. The situation in the past decade has improved quite a lot, and there is no reason to accept drastically unflat backs. In truth, all we really care about it the area immediately at the back of the cutting edge. Even a consistent 1/64" is adequate. The way to tell if the back of your tool is flat is simply to hone it for a few strokes on an India stone. If the back is flat, you will see even grind marks from the stone all along the cutting edge. If not, you have work to do. Sometimes with new blades, the back seems perfectly flat, with even grind marks all the way across, except at the actual edge. This happens when a slight rounding at the tip occurs during the manufacturing process. This is bad, the back must be flat and have grind marks from your stone directly to the edge. Sometimes the back will be perfect except for a tiny area near the cutting edge. In that case, you may be able to work it out by leaning harder on that area while honing the back. As stated before, all that is required is the tiniest of flat honed areas at the edge. Everything else is cosmetic. If the edge is drastically out of flat, you may be forced to regrind the tool. If you consistently have trouble getting a flat back, check your sharpening stones. While it is rare for an India stone to be out of flat, it does occur, and waterstones are notorious in not being flat.

The best way to flatten the back of a blade is to rub it vigorously on the coarsest, largest flat stone you own. A coarse diamond stone is perfect. Rougher stones are even better. Finer stones take longer. You can also use course abrasive sheets on a thick peice of glass. The

technique for rubbing the back of a blade is the same as for honing shown later in this article. But naturally the procedure takes longer since we are trying to remove lots of metal.

Japanese blades are usually hollow ground in the back to minimize the amount of material that has to be removed when honing the back. This does make flattening the back easier, but also can present a problem as the blade is honed and the edge creeps into the hollow ground area. In classic Japanese woodworking, when this happens, the bevel on the front of the chisel is tapped with a hammer to force metal into the hollow grind. However, if you routinely hone the back of the chisel when you sharpen, enough material will be removed from the back so that as the edge of the chisels recedes the area of the hollow grind will recede too, thereby making tapping out the bevel from the front unnecessary.