INTRODUCTION

This is a brief guide to assist the novice and inexperienced knife sharpener to sustain and establish a quality and long lasting edge on any type of blade. Some of the most common questions will be addressed and there will be some very handy hints along the way.

Some of the commonest mistakes made when sharpening a knife are not setting the angles correctly, failure to establish a new edge and leaving the edge too rough. The following methods address each of these mistakes.

The keys to success are:
1) Use an angle guide to control the edge angle,
2) Sharpen until you raise a burr
3) Hone or polish the edge smooth.

THE CONVENTIONAL METHOD

For fast removal of the old edge, start with a coarse, fast cutting stone. Diamond stones are the fastest cutting manual stones, with Japanese waterstones second. The first step is where most of the work is, and you can benefit most from using a power sharpener. Set the guide and take a light stroke with the stone. Check the angle against the old bevel. If the new scratch pattern is on the back edge of the old bevel, you are lowering the angle. If it is at the edge, the angle is being increased. When the scratch pattern is centered on the bevel you are duplicating the original angle. Keeping the original angle is a safe strategy until you gain more knowledge.

If you can’t see the scratch pattern, try darkening the old bevel with a black felt tip marker, then stroke the stone again. The scratch pattern will stand out against the dark marking. When the angle is set correctly, grind one side of the blade until you have removed the old edge. Grind until you have raised a burr. The burr will appear on the side opposite the one you are grinding. With experience you will learn how to stop with just a small burr in this step. If you are not sure, grind until you can feel the burr. Then turn the blade over and grind an equal amount off the second side.

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FEELING THE BURR

A burr is a natural occurrence in steel when one bevel isground until it meets another. When I was learning I would show my work to my grandfather, and he would often show me that I had a burr. It seemed sharp, but the burr would eventually bend over and become dull. I tried to avoid ever raising a burr for years after that. As a result I never got anything quite sharp. Now I know that one of the secrets of sharpening is to raise a burr, then hone it away.
Ceramic knives and some very hard steel will not raise a burr. Here again experience will tell you when you have ground enough.

There are three basic strokes when you sharpen - sliding the stone onto the edge, sliding it off the edge, or circular strokes. At the first stage, any of the three is okay, although sliding the stone off the edge makes a larger burr, which in turn makes it easier to detect.
For the next step use a medium stone. Its purpose is not so much to remove material as to grind away the scratches made by the first stone. The medium stone should be about twice as fine as the first. If you started with a 180 grit stone, you can use 320 or 360 now. Use circular strokes until the old scratch pattern is gone. Then do an equal amount of grinding on the second side.

You might still be able to detect a small burr at this stage. Finish with a few light strokes sliding onto the edge to remove the burr. This is where slicing a decal off the stone is an accurate description. The blade should now be sharp with no burr. The edge now has 320 or 360 grit micro-serrations, which is good enough for many uses.
The micro-serrations are providing some of the apparent sharpness now but they will wear and bend. A steel or a touch-up stone will straighten them and bring back the sharpness. Continue to the next step if you want a longer lasting edge.
For the third step use a fine stone, 600 or 800 grit, and hone using only strokes going onto the edge. Alternate sides with every stroke. This will help prevent forming a new burr. Your edge should now shave. Test it as described above. If there is roughness, go back to the medium stone. If there is no roughness but the edge doesn’t have enough bite, continue with the fine stone.
When the blade becomes dull, repeat the medium and fine stones. Only when the blade becomes nicked or damaged will you need to go back to the coarse stone.
When you get to the fine stone increase the angle again another couple of degrees. Hone with strokes going onto the edge and alternate sides with every stroke. You are now grinding only a small area right at the edge, removing the burr and the scratches from the medium stone. Since a finer stone cuts more slowly, it usually takes quite a bit of work to remove the previous step’s scratches. By increasing the angle by a couple of degrees when you change stones, you focus this work on a smaller area near the edge and reduce the work needed.

MULTI-BEVEL WITH A LANSKY SHARPENER

A multi-bevel edge can be accomplished with a Lansky Sharpener by fixing the rod at different positions with each stone.

Here is an easy way to do a multi-bevel with the Lansky:
1. Push the rod into the coarse stone as far as it will go and still have the screw tighten against the flat. This decreases the angle by a degree or so. Do extra-coarse stones the same if used.
2. Mount the rod on the medium stones in the center of the flat per the instructions.
3. Push the rod into the fine stone only far enough to tighten the screw against the flat. This increases the angle by a degree or so. Do the ultra-fine the same if you have one.

Now, when using these stones you will automatically create a three bevel edge.
Tip: replacing the thumb screws with flat head screws will give you another 1/2 inch or so of useful stone.

HONING

You can further improve the edge by honing the edge on an ultra fine Japanese, Arkansas or ceramic stone, 1000 grit or better. Maintain the same angle as the final step above. With India and bonded Arkansas stones you can use oil or use them dry. Clean them with paint thinner. Use and clean Japanese waterstones only with water, but store them dry and soak them before using. Ceramic and diamond stones can be used dry or with water. Clean them with water and scouring powder when necessary. Washita and natural Arkansas stones can be used with oil, water or dry, and cleaned accordingly.

If you have used water on a stone and want to change to oil, let it dry thoroughly, and then oil it. Once you have used oil on a stone, it is difficult to change back.

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