

CHAPTER II

How to Sharpen and Care for Your Axe

Getting the Axe in Shape.—The style, grind and weight of an axe depend upon a number of factors: A narrow axe with a thin blade is best for hard woods; a wide axe with a thicker blade for soft woods. Weight, of course, depends upon the size, strength, or skill of the user.

Thus there are varying patterns for different sections of the country—patterns that are dictated by local preference.

So it is difficult for the axe maker to produce an axe to satisfy every individual user.

If your axe is not ground correctly to suit your preference, or the work you have to do, use a wet grindstone, with plenty of water, to get it into shape.

Grind the blade of the axe flat to the required thinness on both sides, but not too thin or the axe will break. Start your grind about 3" back from the cutting edge, and work for a fan-shaped effect as shown in Figure 5. Carry this grinding down to within one-half inch of the edge; then roll off a bevel, making it a gradual taper from a point half an inch from the edge down



Fig. 5.— Fan grind, the best way. See the file marks running back towards the head.

to the cutting edge. Such a bevel throws the chip and prevents breakage in the blade.

After you have gotten your axe in shape the first time, the grindstone need never be used again.



Fig. 6.—The Plumb All-Work File, with a coarse edge for fast cutting, and a smooth edge for finishing.

Use a file to keep it sharp, and down to the required thinness.

Type of File to Use.—For this purpose, the ideal file is a flat file with a coarse, fast-cutting edge on one side, and smooth side for finishing. I recommend the Plumb All-work File illustrated in Figure 6 for this purpose.

Using the File.—Hold the file level with the blade of the axe as shown in Figure 7, and begin filing the flat of the blade at the top of the roll, or one-half inch from the edge. From this point file away the flat of the blade to a point about three inches back from the edge.

Work for the fan-shaped effect shown in Figure 5, as this style of grind is serviceable in practically all kinds of wood.

Use the double-cut, or fast-cutting, side of the All-work File for this purpose, and stroke from the edge back toward the head of the axe. File only on the



Fig. 7.—Hold the file level with the axe blade. Note the peg driven into the ground to hold the axe for sharpening.

forward stroke, lifting the file clear of the axe on the return stroke.

Do not file the flat of the blade farther back than the three inches mentioned, or your axe will stick in the wood, or the vibration will break it, as it has no support against the sides of the cut.

Now file the bevel, using the single cut, or smooth, side of the file. Start filing at a point one-half an inch from the edge, and roll the bevel down to the edge, always sending your file strokes toward the head of the axe.

After filing the bevel go over the flat of the blade with the smooth side of your file to remove any coarse scratches.

Now reverse your axe and proceed in the same manner with the other side.

Each time you file your axe, start back on the flat of the axe as explained, before you file the bevel. Thus you keep the same proportionate thinness of bevel and blade. If you merely file the bevel, your blade will soon be stubby, and the axe will not sink in the wood.

Holding the Axe for Filing.—

Drive a peg into the ground and rest the blade of the axe upon it, to file a single bit axe in the woods. See Figure 7. Or cut a notch in a stump and drive the head of the

forward stroke, lifting the file clear of the axe on the return stroke.

Do not file the flat of the blade farther back than the three inches mentioned, or your axe will stick in the wood, or the vibration will break it, as it has no support against the sides of the cut.

Now file the bevel, using the single cut, or smooth, side of the file. Start filing at a point one-half an inch from the edge, and roll the bevel down to the edge, always sending your file strokes toward the head of the axe.

After filing the bevel go over the flat of the blade with the smooth side of your file to remove any coarse scratches.

Now reverse your axe and proceed in the same manner with the other side.

Each time you file your axe, start back on the flat of the axe as explained, before you file the bevel. Thus you keep the same proportionate thinness of bevel and blade. If you merely file the bevel, your blade will soon be stubby, and the axe will not sink in the wood.

Holding the Axe for Filing.—

Drive a peg into the ground and rest the blade of the axe upon it, to file a single bit axe in the woods. See Figure 7. Or cut a notch in a stump and drive the head of the

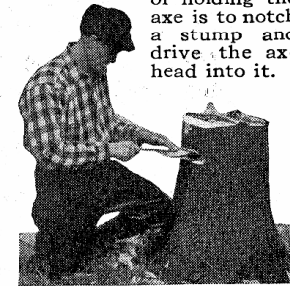


Fig. 8.—Another method of holding the axe is to notch a stump and drive the axe head into it.

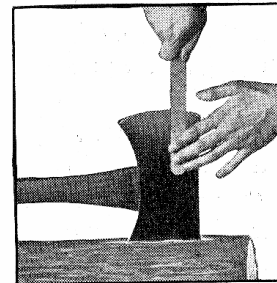


Fig. 9.—A double bit axe can be held securely by driving it into a log.

axe in, so that it is held securely, as shown in Figure 8.

A double bit axe can be held firmly by driving it into a log as illustrated in Figure 9.

Honing

After each sharpening, and every time you are about to use the axe, hone it. Most men never hone an axe. If they realized the difference it would make, they would know that the few minutes spent are made up many times over in time- and strength-saving.

A hard, fine grit stone is best for this purpose. Hold

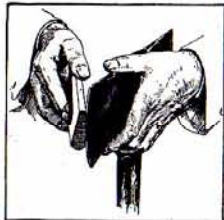


Fig. 11.—Correct angle of stone and axe blade.



Fig. 12.—Hone with a circular motion of the stone.

the head of the axe as shown in Figure 10. Rub the stone over the axe edge from heel to toe with a revolving motion, leaning the stone forward slightly. See Figure 11 and Figure 12.

Then turn the axe to position shown in Figure 13 and repeat the revolving motion from toe to heel on the opposite side of the blade.

The first operation turns the burr, or wire edge, to the far side, and when you reverse the axe, the stone cuts it off, provided it travels across the blade in the opposite direction.

A honed axe will cut fast and stay sharp, while an edge with the burr



Fig. 10.—First position for honing the edge after sharpening.

Fig. 13.—This is the second position for honing. Do not release the axe, but merely reverse your wrist dropping the axe handle down. This brings the opposite edge into position for honing.



left on will flatten out, slow you up, and induce crumbling along the cutting edge.

Pointers on Axe Sharpening

Grind your axe slowly. On a grindstone, use plenty of water.

Never grind an axe on an emery wheel or dry stone. This destroys its temper.

Always hone your axe before using and increase your chopping speed.

If no grindstone is available to get your axe into shape the first time, a file may be used, in the same way as described herein.

Always work for a fan-shaped effect on the blade of the axe as shown in Figure 5. An incorrect method is illustrated in Figure 14 where the bevel is too steep and the file has been run across the blade, instead of back toward the head.



Fig. 14.—Incorrect grind. Too steep a bevel and file marks run along the edge of the blade.

If you have a double-bit axe, keep one blade thicker for rough work and the other thin for clean, fast cutting.

Refitting the Handle

Kipling, in his *Pucks Tales*, tells how the ancient British wolf was cunning enough to attack the shepherd and his flock only on wet days when the thongs that bound the shepherd's stone axe to the handle were soaked with rain, and the axe was ready to fly from the handle at the first blow.

Keeping an axe handle tight has always been a problem.

No matter how tightly a handle may be wedged at the factory, after it has been in use a while, chopping and shrinkage will loosen it.

In a damp place an axe handle will stay tight longer than in a warm, dry place. Sometimes soaking the axe in a bucket of water will take up a slight shrinkage. But this is only a temporary measure.

Plumb Axes, which I use exclusively, are equipped with patent screw wedges which take up average shrinkage in a handle.

First, drive up the handle tightly. To do this, without splitting the end of the handle, cut about one inch off the fawn foot so that you will have a flat surface for driving the handle in. See Figure 15. This does not impair your axe as the fawn foot is for appearance only.

Then just turn the screw wedges with a screw-driver and your handle is tight again.

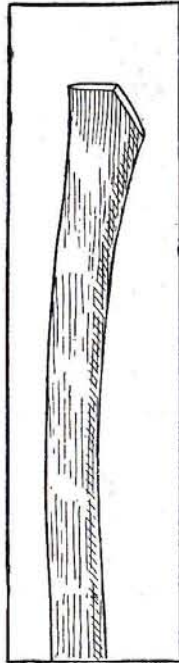


Fig. 15.—Cut off the end of the handle to obtain a flat surface for driving the handle up.

Eventually, of course, you will need to rewedge the handle. Take this opportunity to give your axe an overhauling.

Pick out the wedge and drive off the handle. If the wood of the handle does not bear against the axe eye at all points, shave the handle until it fits snugly.

If the hang does not suit you, now is the time to correct it. The hang of an axe is a matter of preference. It varies in different patterns. I prefer a hang where, when the end of a thirty-six inch handle touches a level surface, the cutting edge rests on a parallel surface, one-third from the heel of the axe blade.

Hang the blade to suit you. The one precaution you must take is to be sure that when you sight along the blade that the edge is in a direct line with the center of the handle. See Figure 16.

Now drive in your new wedge as shown in Figure 17. I always use a long wooden wedge, well dried out.

Iron wedges have many drawbacks. They are of a set size, and if too short, or too long, or too thick cannot be whittled to shape. The weight of an iron wedge can change the balance, or fall, of an axe. An iron wedge comes out more easily in use. Altogether I have found that wood is far superior.

After your wedge is driven in tightly, cut off the surplus wood,



Fig. 16.—In a correctly hung axe, the cutting edge is in a direct line with the center of the handle.

bore two holes for the screw wedges with a gimlet and screw them into place.

Your axe is now ready for use, and the screw wedges will take up the normal shrinkage for a long time.



Fig. 17.—Drive in tightly a long wedge of well-seasoned wood. Then cut off the surplus wood and restore the Take-Up Wedges.

CHAPTER III

How to Use an Axe

I know of no tool that is more abused in use than the axe. The popular conception of chopping seems to be that you take an axe and hit at the wood.

Chopping is an art. Only years of practice bring expertness. Yet there are certain fundamentals of axe use which can be readily grasped by any man. Frequently a knowledge of them will reduce his chopping time by half; always, they will save his strength and speed his work.

It is these primary principles which I treat of in this chapter.

The Proper Grip.—Look at Figure 18. I am standing upon a log with the axe in a horizontal position. Note the position of hands: The left hand about three inches from the end of handle; the right hand about three quarters of the way up the handle.

Now look at Figure 19. I have brought my left arm forward. The right arm is drawn back, and the axe head has traveled in a half circle along my right side and up the back. This is the top, or beginning of the stroke. The hands are still in the same position.

Keep your head down and your eyes on the cut. Aim your blow, and bring the axe down with a natural, swinging motion, sliding your right hand down the handle as the axe descends. At the end of your swing the hands should be together as shown in Figure 20.