

Fig. 32.—Avoiding a knot by chopping around it saves the axe and makes chopping easier.



with the grain, and it leaves the trunk smooth.

Warm your axe. A cold axe is brittle and easily chipped or cracked. If you have no ready means of taking the chill out of the steel, chop slowly for a few minutes to warm it up.



Fig. 33.—Lopping branches from the underside saves the axe, and leaves a smooth trunk. Never cut into the crotch.

CHAPTER IV

Felling a Tree

A tree can be hacked down in a haphazard, laborious fashion, or it can be dropped, easily and quickly—exactly where you want it to go.

The methods described in this chapter have been tested by a quarter-century of experience. They should prove invaluable to any man who uses an axe.

In order to demonstrate clearly the technique of using an axe to fell a tree, the photographs illustrating this chapter have been taken in a natural standing pose.

In actual practice, chopping in this position is not advisable as too high a stump is left standing. Much valuable timber is wasted by cutting a tree higher above the ground than is absolutely necessary.

Determining the Lean of a Tree.—Practically every tree has a natural *lean*, and will fall in the direction of this lean unless guided by the chopper.

Always determine the direction of this lean before commencing to chop. Do this by standing a few yards away from it and holding the axe up loosely by the

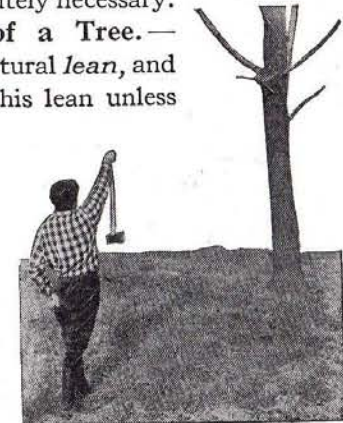


Fig. 34.—Determining the lean of a tree before chopping, by using the axe as a plumb line.

end of the handle, with the head down. See Figure 34.

When the blade is pointed directly at the tree trunk, the handle becomes a plumb line, or straight edge, along which you can sight to find which way the tree is leaning.

When you find where the tree would normally drop, decide where you want to drop it. You can do this at any spot within a quarter-circle on either side of the spot where its natural lean would take it. Figure 35 illustrates this.

Pick the place you want the tree to drop, taking the wind into consideration, as a falling tree will naturally carry in the direction of the wind, particularly if it has heavy foliage.

Choose a clear spot to drop it; or if you must crash it into another tree, pick a dead one.

You are now ready to chop. The first step is to make a Box Cut directly facing the spot where tree is to fall. In Figure 36, for instance, the tree will topple in the direction shown, because the Box Cut faces in that direction.

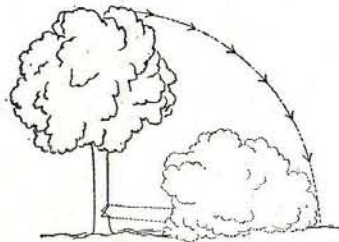


Fig. 36.—The front box cut determines where a tree will drop.

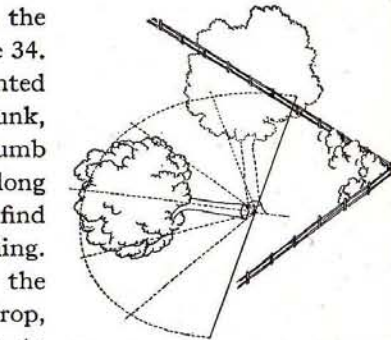


Fig. 35.—A tree can be dropped within a quarter-circle on either side of the spot where it would naturally drop.

Depth and Angle of Cut.—On a tree twelve inches in diameter, take six inches on the face of the tree, i. e., your Box Cut, from top

to bottom should measure six inches. Chop half way through the tree, or to a depth of six inches. The bottom of your cut should be level, while the top should slope at an angle of forty-five degrees.

Figure 37 illustrates a Box Cut partially completed. The axe blows are placed in series, very similar to those used when cutting a fallen log, i. e., the first blow on the near edge of your cut, with the heel of the axe left free of the cut; the second blow on the far edge of your cut with the top of the edge left free to help clear the axe. Then one or two strokes in the middle.

Figure 38 shows this method very clearly. Both ends have been cut away first. The middle has been left high, and the axe is now removing the middle chip.

Alternate your series: Three on the top of your cut and three on the bottom. Give your blade a twist on each stroke at the bottom of the cut to loosen the chip.



Fig. 37.—A box cut in a tree, partially completed.



Fig. 38.—Always remove the wood at both ends of cut first, leaving the middle wood high, so that the axe edge will never be entirely in solid wood.



Fig. 39.—Proper position at beginning of stroke. Notice distance of chopper from tree.



Fig. 40.—Proper position at completion of stroke. Chopper should not crowd his work.



Fig. 41.—Front and rear box cuts almost completed. A few more strokes will topple it.

Use the Sidearm Stroke in cutting a tree. See Figure 39 for your position in relation to the trunk, and for the position of arms and axe at beginning of stroke. Figure 40 shows this stroke completed.

With your front notch completed, start a notch on the opposite side of the tree, cutting it in exactly the same way, and of the same height and depth.

Figure 41 shows a tree with both notches nearly completed. A few more strokes at the back notch will drop it.

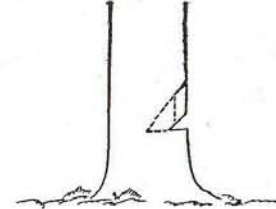


Fig. 42.—Chopping larger trees by cutting a small notch first; then breaking down the chip above this notch.

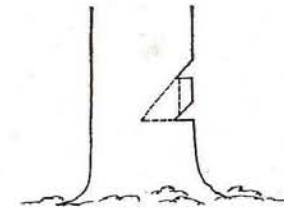


Fig. 43.—Another method for large trees. Two notches are cut, and the chip broken down between them.

If the tree has more than a slight lean, the front notch (the first one cut) should go deeper than half the thickness of the tree. This will prevent the tree from tearing or ripping when the back notch is cut. Some choppers believe that to cut the back notch slightly lower than the front helps to keep a leaning tree from ripping.

Chopping Larger Trees.—On larger trees it is not possible to make a Box Cut with one notch only, because the chip would be too large to throw out. Figure 42 illustrates how a smaller notch is cut first, and the chip cut down above your cut, as shown by the dotted line.

Another method of cutting larger trees is illustrated in Figure 43. Two separate notches are cut, the distance between them depending upon the thickness of the tree. The chip between the notches is then cut out as shown by the dotted line.

Felling a Tree Against the Lean.—It is possible to force a tree in the opposite direction from which it is leaning, if it is not too large. First, wait if possible for a wind in the direction you want to fell it. Make your

front Box Cut facing in this direction also, as explained before, to a depth of one third of the way through the tree. Then proceed with your Box Cut in the back half way through the trunk. You will then have about as much solid wood left as shown in Figure 44.

Next, wedge the tree as I am doing in Figure 44, this is called a "soldier," and is inserted, of course, in the back notch to force the tree over in the direction you want it to go.

To do this cut a heavy piece of wood and square it on both ends. Then with your axe, square up the top of your cut so the block will seat properly. It should fit in its space loosely, so that a wedge can be inserted underneath it as I have done. Now drive in the wedge as far as you can; see Figure 44. Return to your front Box Cut and cut through the balance of the tree.

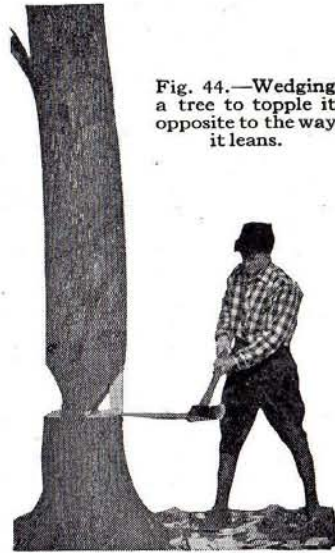


Fig. 44.—Wedging a tree to topple it opposite to the way it leans.

CHAPTER V

Playing Safe

I have often been asked—"Isn't the axe a dangerous tool?" And I invariably answer—"Any edge tool can become dangerous in the hands of a careless man."

In all my years of chopping I have received but one slight cut, and that in a careless moment where I carried the axe incorrectly because I had only a short distance to go.

The danger of an axe is largely a mental hazard. The user is fearful: he stands so far from his work that his axe is not under control, forgetting that if he misplaces a stroke, or hits a glancing blow, the axe will always come home to him.

Safety lies in learning to swing correctly and in placing your strokes accurately. Then stand within easy swinging distance and chop with confidence.

Of course, there is always the careless man who minimizes any risk, and chops more with abandon than with skill. In his hands the axe (or any edge tool) is dangerous.

Play safe! But do not fear your axe. Instead—master it.

Use precautions when your axe is not in use. In the woods, drive it into a stump, or, if a double-bit axe, lay it flat on the ground with the blade under or against a log.



Fig. 45.—Proper position as tree is falling. Note that axe is held away from body with edge pointing outward. Always watch the direction of fall.

Do not stand your axe up in woodshed or cellar. Lay it flat with the edge towards a wall.

When carrying an axe for any distance carry it on your shoulder with the edge pointing *outward*. For short distances carry the axe in your hand, always with the edge pointing away from you.

If you are carrying a double-bit axe, be especially careful.

If you fall, throw the axe from you, as quickly, and as far as you can.

Never chop a log or tree without making sure you have a clear circle to swing your axe. Remove all vines, brush, shrubbery, sticks, etc., that are within range. Look especially over your head for vines that may catch or deflect your axe. Stand close to your work. There is little danger of a misdirected blow injuring you. The danger lies in a glancing blow when the axe does not bite in. These false blows are usually due to the axe not being under control.

Never run from a falling tree. Just step a few feet to one side and watch the direction of its fall. Figure 45. If it changes its direction, a few feet more to one side brings you to a safe place.

Do not stand *behind* a falling tree. It may crash into another tree, which sometimes will force the butt over its own stump. See Figure 46. Always stand to one side.

Beware of "sailors." A sailor is a branch which has broken

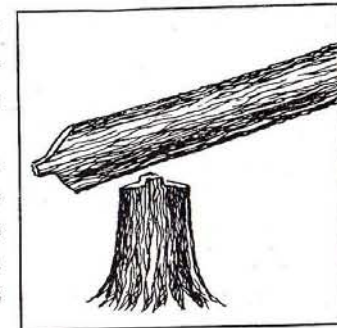


Fig. 46.—Do not stand behind a falling tree. It may ride over its own stump as illustrated.

off a falling tree when it crashes through a live tree. This branch remains suspended in the live tree until dislodged by a puff of wind or by its own swinging motion, when it crashes to the ground, perhaps weeks or months later. Always look overhead for sailors before chopping logs in the woods.

Beware of a rotten tree. There is no way to guide its fall.

The axe is a safe tool in the hands of the careful man. Accidents happen usually to the careless.