



Safe Use of Hand Tools

Cold Chisels



Keep tools clean and free from grease. Select the right chisel for the work being done and check its condition. Wear goggles. Holding a cold chisel between thumb and forefinger with palm up is recommended whenever possible. Keep beveled cutting edge flat against work. Pay strict attention to what you are doing and keep your eye on the cutting edge of tool.

Screwdrivers

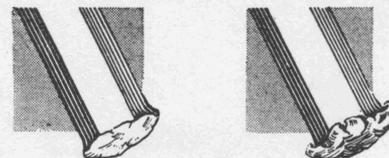


Grind screw driver blade so that tip has square edge and parallel surface to avoid slipping. Select screw driver of proper size to fit milled slot. Blade too thick or too thin may slip.



Misuse as a pry or chisel is hazardous. When work is held in hand injury will result if tool slips. Make hole with drill or nail to start each screw.

Dress Shock Tools



Always dress struck ends when they begin to crack and spread to eliminate hazards of splintering steel and diverted blows. Never allow tools to reach stage of burring or mushrooming shown on right.

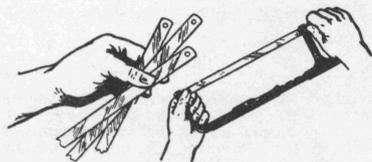


A tool will withstand more hammering with less danger of chipping when dressed with a slight radius ($\frac{3}{16}$ ") on the edge of the head. A radius is better than a straight bevel or chamfer.

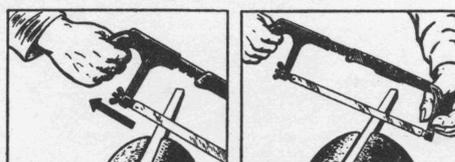
W. L. Ulich, Extension agricultural engineer
Texas A. & M. College System.

(Information and illustrations in this leaflet were made available through Farm Division, National Safety Council.)

Hack Saws



Use sharp blades with coarse teeth for heavy material and fine teeth for light material (about 18 teeth per inch for general work). Point teeth forward and use just enough tension to hold blade straight and prevent twisting.



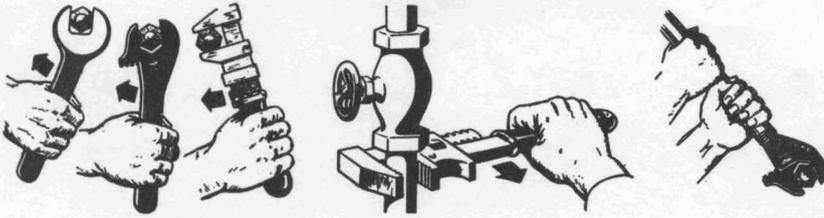
Anchor work solidly, grip handle with right hand and use left hand to guide saw. To start cut score work on up-stroke, then use slow steady strokes with enough pressure on forward stroke to make teeth cut. Lift slightly on back stroke.

Wood Saws



Keep saw sharp, clean, and set teeth properly. Use crosscut saw for cutting across the grain and a rip saw for cutting with the grain. Start a cut with one or two long pulls upward using thumb as guide (see illustration). Then remove hand from danger zone and proceed with long forward cutting strokes. Watch your balance, keep the saw blade in direct line with the cut at 45°-60° angle. Hang saw up when not in use.

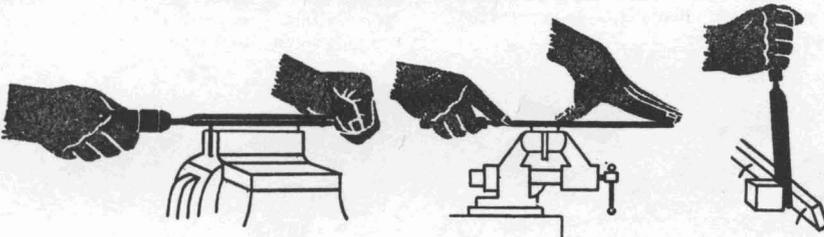
Wrenches



Use wrenches of the right type that fit snugly. Pull in direction the jaws joint. If wrench must be pushed use heel of palm against end of handle to protect knuckles if it slips.

Never use a piece of pipe on the handle to get more leverage, a shim to make a large wrench fit or pliers as a substitute for a wrench. Don't hammer on a wrench.

Files



Keep files clean and fit them with good handles. A file should be pushed forward with just enough pressure to cut and should be lifted on the return stroke.

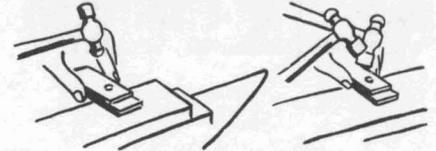
Use long steady strokes when filing. Files are made for filing and they are too brittle to be used for other purposes such as prying, punching, or hammering.

Metal Work

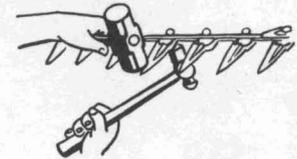
Support work on something hard and solid.



Grasp handle firm near the end, hold chisel with steady but relaxed grip—strike squarely.



When riveting with a ball peen strike straight down with ball peen, then rivet over with ball peen or face of hammer.



Use sledge hammer to support irregular work.

Wood Work

TO START A NAIL—Use light taps.

Wrong—Thumb and finger near point of nail.



RESULT IF NAIL SLIPS—Smashed thumb and finger.

Right—Thumb and finger near head of nail.



RESULT IF NAIL SLIPS—Thumb and finger knock out of way.

Analysis of 145 accidents involving hammers—unsafe practices in using hammers 40 per cent; failure to use goggles 33 per cent; defective tools 17 per cent; failure to use tongs and chisel holders on heavy work 10 per cent.