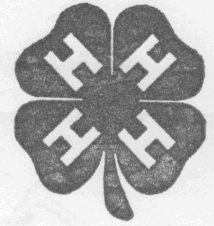


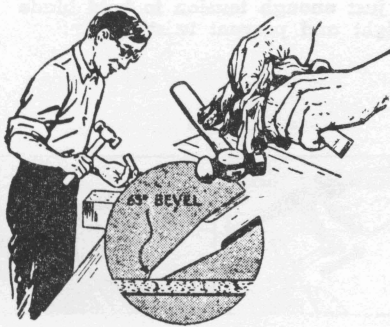
# Safe Use of Hand Tools



W. L. ULICH, EXTENSION AGRICULTURAL ENGINEER  
TEXAS A. & M. COLLEGE SYSTEM.

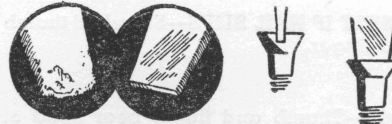
(Information and illustrations in this leaflet were made available through the Farm Division, National Safety Council.)

## 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

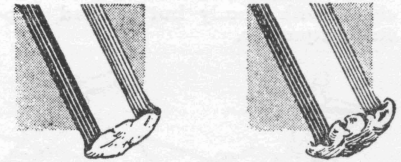


Grind screw driver blade so that tip has square edge and parallel surface to avoid slipping. Select screw driver of proper size to fit milled slot. Blade too thick or too thin may slip.

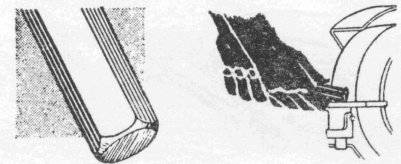


Misuse as a pry or chisel is hazardous. When work is held in hand injury will result if tool slips. Make hole with drill or nail to start each screw.

## DRESS SHOCK TOOLS

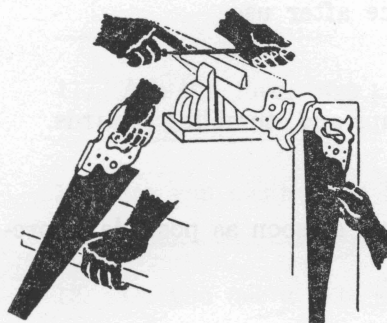


Always dress struck ends when they begin to crack and spread to eliminate hazards of splintering steel and diverted blows. Never allow tools to reach stage of burring or mushrooming shown on right.



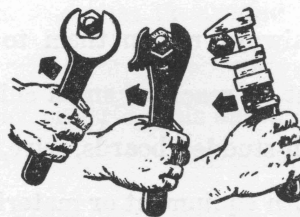
A tool will withstand more hammering with less danger of chipping when dressed with a slight radius (3/16") on the edge of the head. A radius is better than a straight bevel or chamfer.

## WOOD SAWS

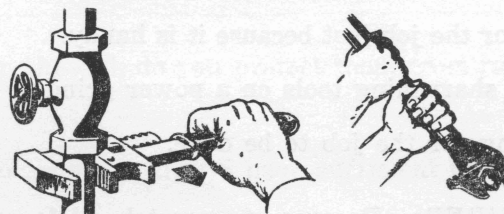


Keep saw sharp, clean, and set teeth properly. Use crosscut saw for cutting across the grain and a rip saw for cutting with the grain. Start a cut with one or two long pulls upward using thumb as guide (see illustration). Then remove hand from danger zone and proceed with long forward cutting strokes. Watch your balance, keep the saw blade in direct line with the cut at 45-80 degree angle. Hang saw up when not in use.

## WRENCHES

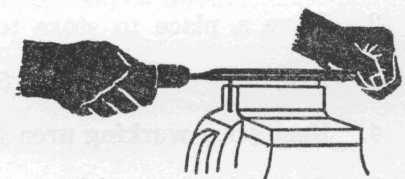


Use wrenches of the right type that fit snugly. Pull in direction the jaws joint. If wrench must be pushed use heel of palm against end of handle to protect knuckles if it slips.

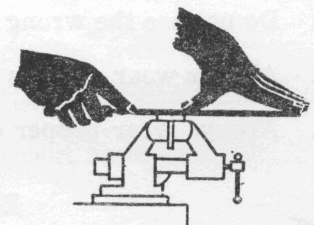


Never use a piece of pipe on the handle to get more leverage, a shim to make a large wrench fit or pliers as a substitute for a wrench. Do not hammer on a wrench.

## FILES



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.

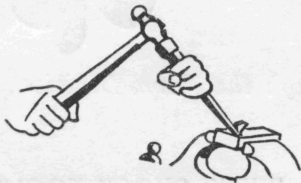


Keep files clean and fit them with good handles. A file should be pushed forward with just enough pressure to cut and should be lifted on the return stroke.

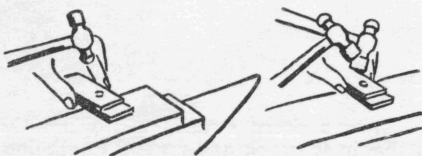
## Prevent Bruised and Cut Fingers — Handle Tools Safely

### METAL WORK

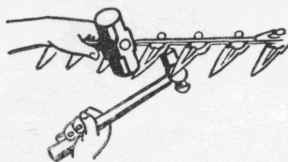
Support work on something hard and solid.



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.

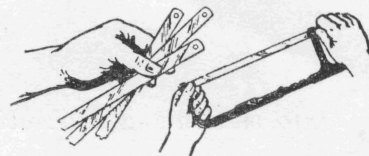
Right—Thumb and finger near head of nail.



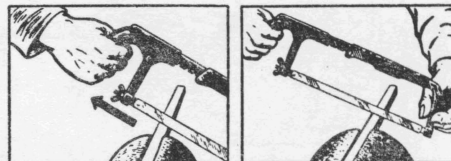
RESULT IF NAIL SLIPS—Thumb and finger knock out of way.

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

### 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.

### Some Safety Rules

1. Always keep tools clean and in good repair.
2. Have a place to store tools and always return them to their place after use.
3. Keep sharp tools in a safe place out of reach of small children.
4. Keep your working area free of nail-studded boards, wire, metal scraps and stumbling hazards.
5. Do not block an aisle or doorway with equipment or materials.
6. If grease or other slippery substances are spilled, always remove them as soon as possible to prevent falls.
7. Pile all material in an orderly manner.
8. Do not use the wrong tool for the job just because it is handy.
9. Always wear goggles when sharpening tools on a power grinder.
10. Always wear proper clothing for the job to be done.

**REMEMBER:** *Because of a scratch, a life was lost!*

*Check Your Habits When Handling Tools*

In answering the following questions, make a survey as to how hand tools are used on your farm.

1. Do you have a definite place for every tool when not in use?.....  
.....
2. Is the yard clear of garden tools, forks, etc?.....  
.....
3. Are the handles on your tools smooth?.....  
.....
4. Do you watch for nails and knots when sawing wood?.....  
.....
5. Are all tools and machinery stored in a building or in an area away from livestock?.....  
.....
6. Is there a barrel handy for storing loose wire?.....  
.....
7. Are the handles on your tools solid and tight?.....  
.....
8. Are all sharp tools placed out of the reach of small children?.....  
.....
9. Are the hinges on doors and gates substantial?.....  
.....
10. Do you let scythes, rakes, forks and hoes lie around with the sharp edges up?.....  
.....
11. Are the cords and plugs on your electric tools and utensils safe?.....  
.....
12. Do you clean your hand tools carefully each time after you use them?.....  
.....
13. Do you use a safe sawhorse or rest for boards when you saw them?.....  
.....
14. When you store tools in the fall, do you protect them from rust by coating with oil?.....  
.....
15. When working with tools, do you always have sufficient light to prevent accidents?.....  
.....

