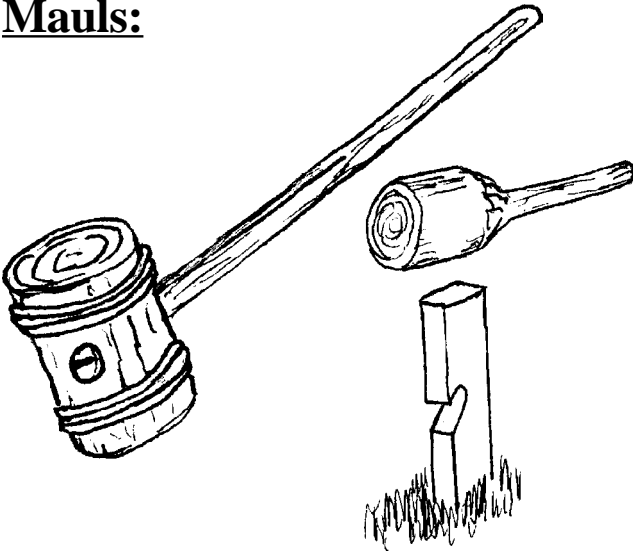


## Mauls:



A maul is a wooden club or hammer that is used for driving stakes or wedges and for safety reasons should be used instead of an ax.

Using an ax instead of a maul exposes the user to the danger of being cut by its sharp edge. Even if the edge is covered by a sheath, a glancing blow can cause the sheath to be ripped off or to be cut through.

The pole of an ax serves as a counterweight to the blade. This counterweight adds to the balance of the ax head and helps to control and increase the force of momentum delivered to the bit. The ax head is shaped in such a way that the momentum of the ax head is delivered through the thin walls of the eye. However, when an ax is being used as a hammer, this same shape causes the eye of the ax head to spread and the handle to loosen.

The flat surface and angular edges of an ax pole makes it difficult to strike a stake squarely. This difficulty in striking a square blow results in most blows delivering some force sideways, causing the end of the wooden stake to flare and split very quickly. In addition, when the pole of an ax contacts a stake, the metal surface of the pole lacks the ability absorb any of the force of the impact this contributes to the destruction of the stake. A wooden maul, on the other hand, absorbs some of the impact of the initial contact and a maul has no angular edges. Therefore, more of the force of the maul is used to do useful work and less of the force is used up in deforming or splitting the stake.

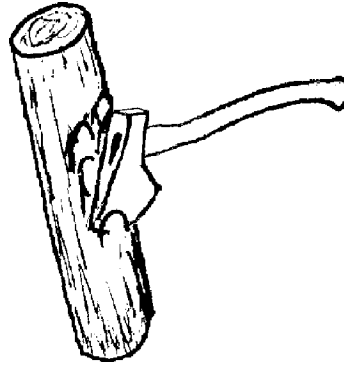
## Making a Club Maul:

A club maul, for driving tent pegs and other light work, can be made from a piece of hardwood that is about 3 inches in diameter and 18 to 24 inches long.

-----18" to 24"-----|

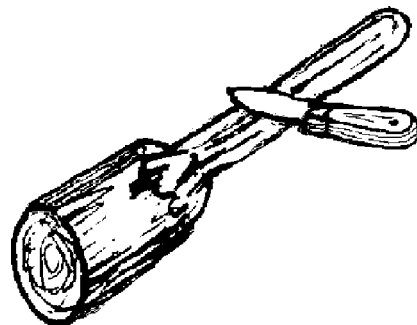


---- 4" to 5" ----|



**STEP 1:** Use an ax to rough out the maul. Form a handle by cutting away one end of the piece of wood so that it is about 1 1/4 inches in diameter. Leave 4 to 5 inches of the other end at its original diameter to form the head of the maul.

**STEP 2:** Smooth the handle with a knife.



# MAKING A HAMMER

## MAUL:

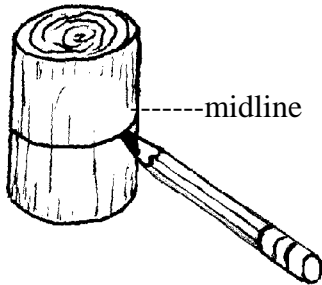
### Materials:

To make the head of a hammer maul you will need a 4 inch diameter, 10 inch long piece of hard, dense, unchecked, well seasoned, hardwood such as elm, black gum or hophornbeam.

For the handle you will need a piece of well seasoned ash, hickory, or similar straight grained wood; 1 1/2 inch diameter and 3 to 4 foot long.

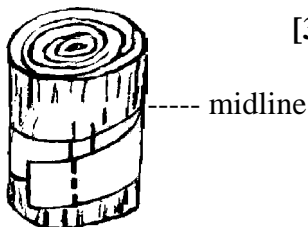
### Making a Maul:

**STEP1:** Square the ends of the head with a saw.



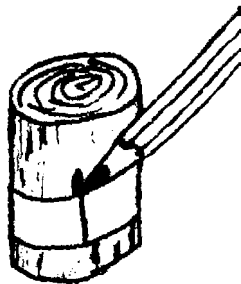
**STEP 2:** Find and mark the midline between the two ends.

**STEP 3:** Locate the center of the handle hole on each side of the maul head.

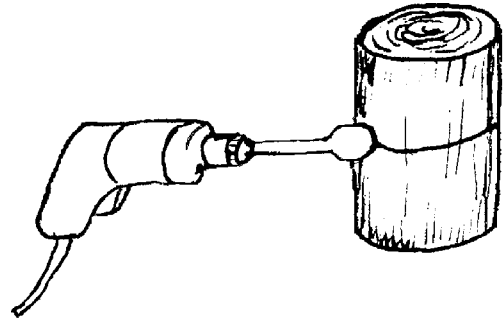


**[3A]** Wrap a strip of paper around the maul head. Cut the strip of paper off so that the two ends just meet.

**[3B]** Locate handle hole by folding the strip of paper in half to mark its mid point, then unfold it and wrap it around the maul head again. Mark the midline at the fold and at the ends of the strip of paper.



**STEP 4:** Drill handle hole in head. Use a 1 1/4 inch drill bit to drill a hole halfway through the head from one side, then finish drilling the hole from the other side of the maul head.



**[NOTE]** If the holes do not lineup in the middle use a chisel or wood rasp to cut away some of the excess wood.

**STEP 5:** Make maul handle.



**5A]** Cut a saw kerft in the one end of the handle. The depth of the kerft should be equal to 1/2 the diameter of the maul head.

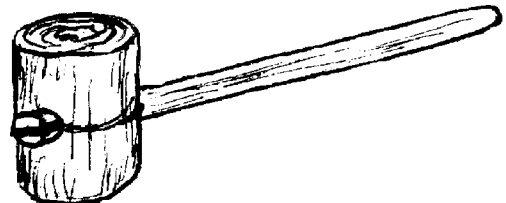
**5B]** Use a knife to shave the end of the handle down until it can be easily driven through the head with light blows with a light wooden block.

**STEP 6:** Attach the maul head to the handle.

**6A]** Make a hardwood wedge that is 1 1/4 inch wide, 3 inches long, and 1/4 inch thick at its large end.

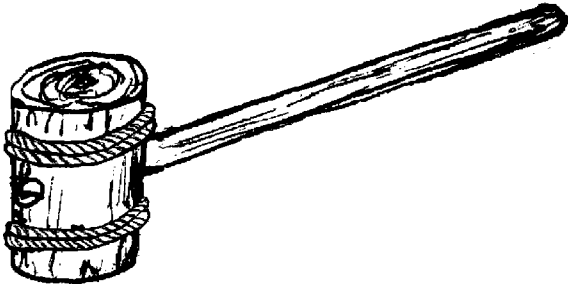


**6B]** Drive the handle into the maul head, make sure that the saw kerft is lined up across the maul head.

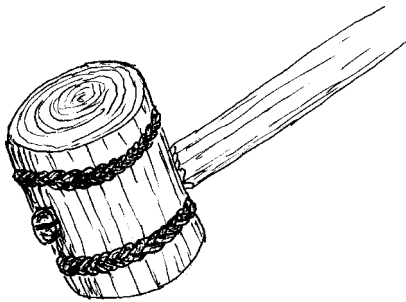


**6C]** Then drive the wedge in place.

**STEP 7:** Reinforce the maul head to keep it from splitting by wrapping several turns of rope or wire around each end of the maul head. These can be held in place with staples.

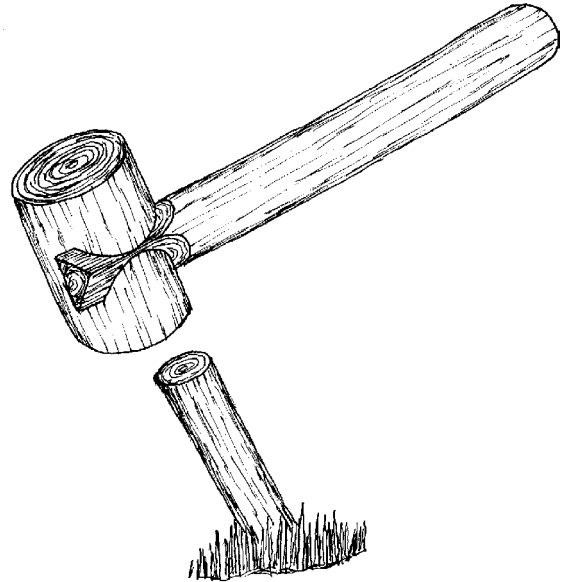


Another method of reinforcing the head would be to drive a braided ring or a grommet over each end of the head.



## [NOTES]

## MAUL --- DOVE TAIL HANDLE:

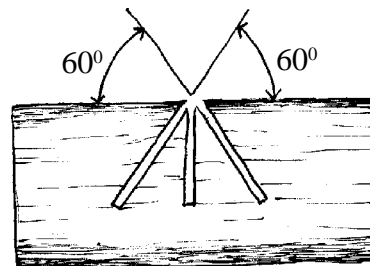


## MATERIALS:

- 1 ---- Piece of seasoned hardwood that is 2 2/2 to 3 inches in diameter and 5 to 7 inches long for the head.
- 1 ---- piece of seasoned hardwood that is 1 1/2 inches to 2 inches in diameter for the handle.

## CONSTRUCTION:

**STEP 1:** With a saw, cut 3 kerfts as shown at the center of the side of the head.

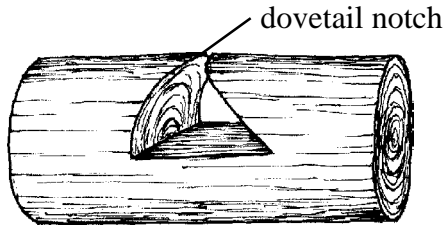


-----  
|-----|  
Less than the  
diameter of  
the handle

**[NOTE]** The width of the bottom of the dovetail notch must be less than the diameter of the handle.

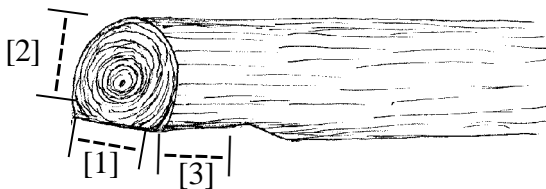


**STEP 2:** Use a knife or chisel to remove the wood to form the dovetail notch.



**STEP 3:** Shape and fit handle to head.

**3A]** Flatten one side of the end of the handle.

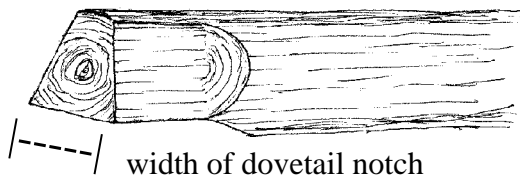


[1] Equal to or greater than the width of the bottom of the dovetail notch.

[2] Equal to or less than the depth of the dovetail notch.

[3] Equal to the diameter of the head.

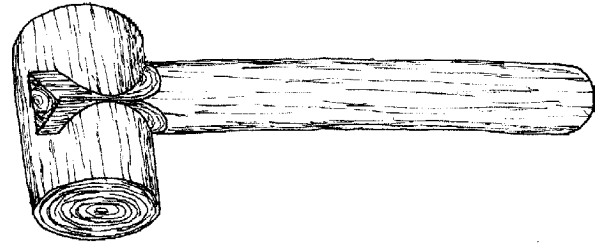
**3B]** Fit the handle to the bottom of the dovetail notch. Gradually remove the surplus wood until the flattened part of the handle is the same width as the width of the dove tail notch.



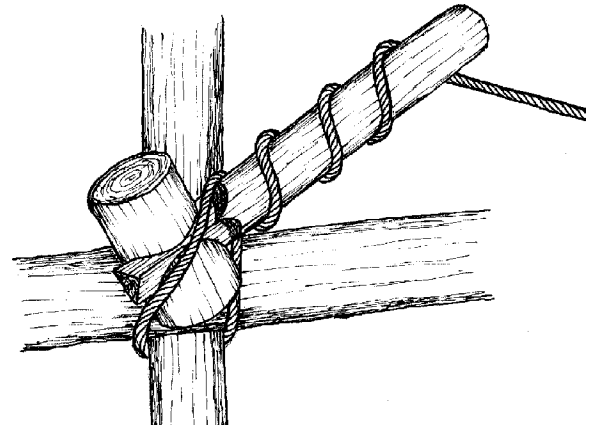
**3B]** Flatten the remaining two sides of the handle. Gradually remove the surplus wood until the handle fits snugly into the dove-tail notch in the head.



**3A]** Tap handle firmly into dovetail notch.



## ROPE WRENCH:



The dovetail maul makes a good rope wrench. Pass the rope over the head of the maul and then take several wraps around the handle. The rope is then tightened by rotating the maul so that the rope wraps part way around the head of the maul.