

## MALLET

**MATERIALS REQUIRED:** Brush Box for the Head.  
Spotted Gum for the Handle.

**CUTTING LIST:** 1 piece 6" x 4" x 2 1/4" for Head.  
1 piece 13 1/2" x 1 5/8" x 3/4" for Handle.

### CONSTRUCTIONAL DETAILS.

#### STEP 1.—Preparation.

- Prepare piece for head to required width and thickness only.
- Prepare handle to 13 1/2" long and 3/4" thick only. Mark centre line along the face, measure 5/8" on each side at one end and 13/16" on each side at the other end. Join the tapering lines and plane off waste.

#### STEP 2.—Setting Out.

- Square a centre line round head.
- Mark 3" on each side of this centre line for outside of head.
- Mark 2 3/8" on each side for inside of head.
- Gauge thickness of mortise for handle with mortise gauge.
- Mark position of head on handle, then place head over these lines and transfer the width of the handle as shown (2e). Square lines across mortise gauge lines to give correct size of mortise on each edge of head.

#### STEP 3.—Cutting Out.

- Bore out some of the waste for mortise and clean up with mortise chisel.
- Cut off waste ends of the head. Set out and cut 11" radius curve on outside edge.
- Set out and plane faces to 2" thick on inside edge of head.
- Set out and plane 1/8" chamfers round the three edges of both sides of head.
- Mark shape of handle on both faces and plane to shape with spokeshave.
- Mark shape of handle on both edges and plane to shape.
- Round off corners with spokeshave, files and glass paper. Set out and plane or file 1/8" chamfers.

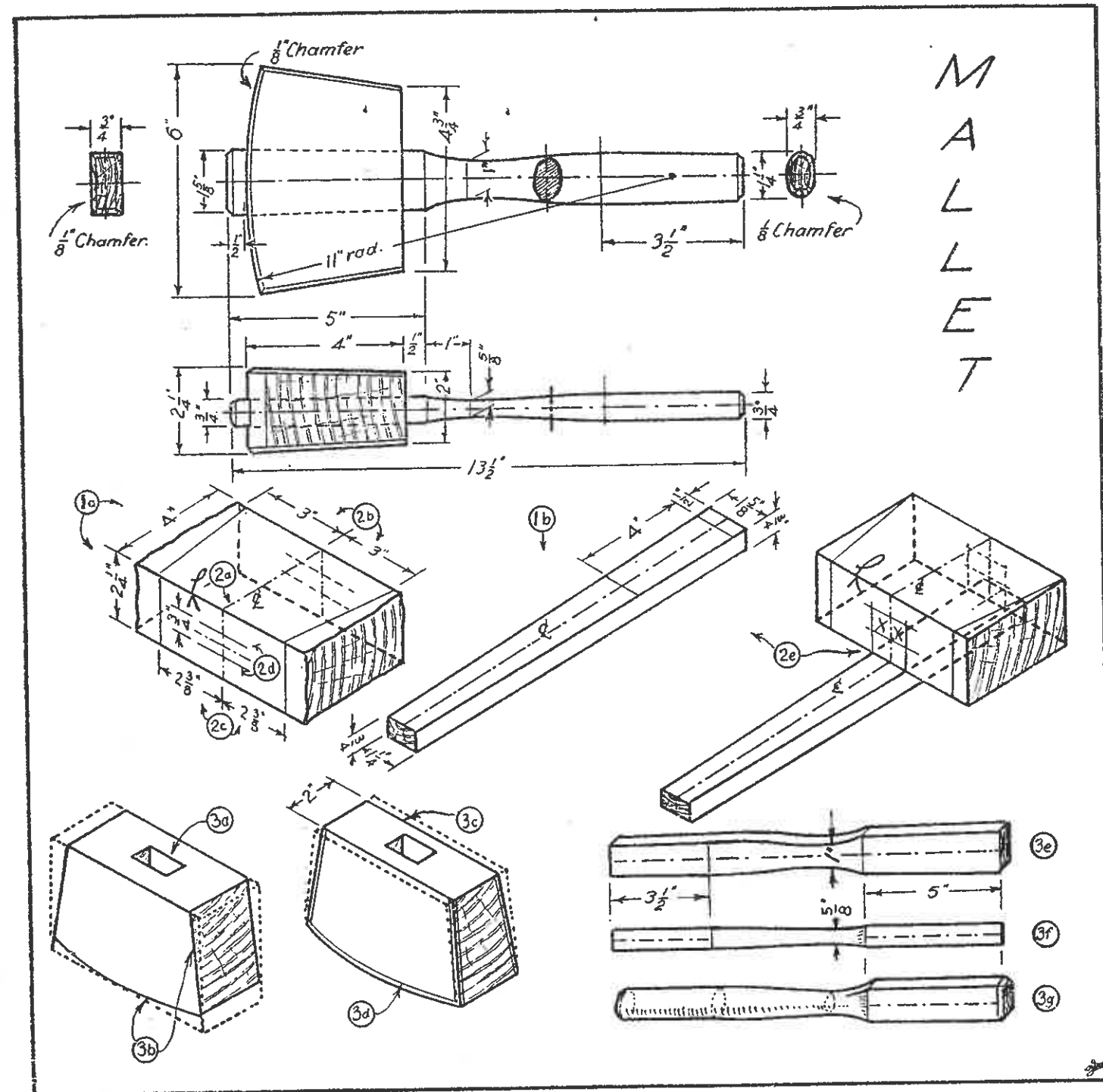
**STEP 4.—**Clean up the head with smoothing plane and glass paper. A little oil on the sole of the plane will enable it to smooth the hardwood more easily. Paper and handle smooth. Assemble and apply several coats of linseed oil.

#### QUESTIONS ON ABRASIVES (Page 22)

- Briefly describe four types of abrasive papers or cloths. State the particular use of each.
- What types of backing are used for abrasive papers?
- Explain how the different grades are determined.
- Why is glass paper inferior to garnet paper?
- Explain 120-C 3/0, Open coat.
- Name and state the uses of four kinds of files.

#### TEST (Marks in brackets x 5 = %)

- Name four kinds of abrasives used for abrasive papers. (4)
- Name two types of glues used for gluing the grits to the backings. (2)
- Explain "Close" coat and "Open" coat. (4)
- Explain how the grit numbers are obtained. (5)
- What does the letter "D" on the backing of a paper mean? (1)
- Name and state uses of two files. (4)



#### QUESTIONS FOR HOME STUDY.

- Make a neat workshop drawing of the mallet. Insert all dimensions.
- Describe the steps in cutting the mortise for the handle.
- Describe the shaping of the handle.

#### TEST (Marks in brackets x 5 = %)

- Name two timbers used for mallet heads. (2)
- Name four timbers suitable for tool handles. (4)
- What tools are used to set out the chamfers on the head? (2)
- Name 8 cutting tools required for making the mallet. (8)
- What effect has oil on the sole of the plane? (2)
- How is the handle fixed in the head? (2)