

JOB NAME Babbit Hammer

BLUE PRINT NUMBER: 01-A-9

ITEM: Handle.

INFORMATION: This tool is useful for setting down work held in a vise without maring the surface finish.

PRIMARY SKILL LEARNED: 1. Turn taper with tailstock offset.

STOCK: 5/8" Gold Rolled Steel.

OPERATIONS:

1. Cut stock to 7 7/8" length.
2. Face off and center drill in collet.
3. Knurl on centers.
4. Chamfer end.
5. Reverse and turn 1/2" diameter 4 1/8" long.
6. Turn 7/16" diameter 3/4" long.
7. Turn 3/8" diameter 5/8" long.
8. Cut 3/8" - 16 thread.
9. Offset tail stock 5/32" and cut taper.
10. Blend in radius at start of taper.

JOB NAME Rabbit Hammer

BLUE PRINT NUMBER: C1-A-9

ITEM: Head

PRECAUTIONS:

1. Allow stock to stick out at least $5/8$ " in chuck.
2. Do inside and outside taper in same setup.
3. Set compound rest for cutting tapers.
4. Honl head by ends when drilling for tapped hole.
5. Relieve first thread to get snug fit on handle.

STOCK: 1 $1/8$ " Diameter Hexagon Cold Rolled Steel.

OPERATIONS:

1. Cut off stock to 1 $1/4$ " length.
2. Chuck in 3 jaw chik and turn outside taper.
3. Drill $5/8$ " hole.
4. Bore inside taper.
5. Reverse piece in chuck.
6. Turn outside taper.
7. Drill $5/8$ " hole.
8. Bore inside taper.
9. Drill $5/16$ " hole $7/8$ " deep.
10. Drill $3/8$ " hole $1/8$ " deep to remove first thread.
11. Tap $3/8$ "-16 thread.

JOB NAME: Rabbit Hammer

BLUE PRINT NUMBER: CI-2-9

ITM: Mold

PRECAUTIONS:

1. Outside diameter does not have to be turned.
2. Have large side of taper facing you when boring so that $1 \frac{1}{16}$ " dimension may be checked.

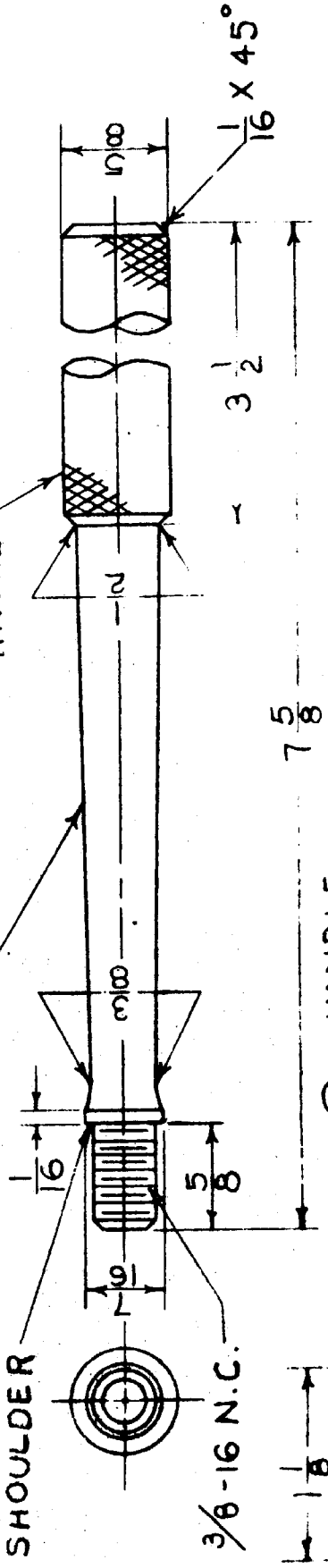
STOCK: Machine steel $1 \frac{1}{2}$ " diameter.

OPERATIONS:

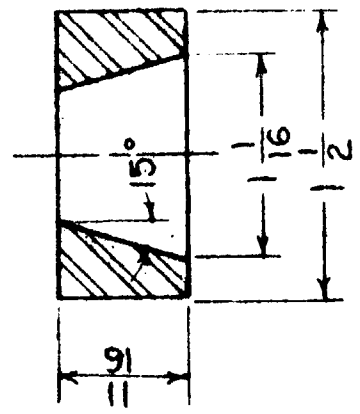
1. Cut stock to $\frac{13}{16}$ " length.
2. Remove burrs.
3. Face off in 3 jaw chuck.
4. Drill $\frac{5}{8}$ " hole.
5. Bore 15 degree angle.
6. Reverse piece and face off to $\frac{11}{16}$ ".

5/32 SETOVER OF
TAIL STOCK

SQUARE
SHOULDER



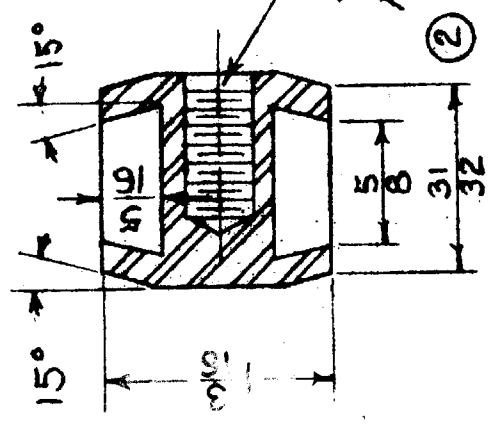
① HANDLE
C.R.S.



④ MOLD
C.R.S.

3/8-16 N.C.
3/4 DEEP - REMOVE
FIRST TH'D. WITH "W" DRILL

② HEAD
C.R.S.



BREAK ALL UNNECESSARY CORNERS

DO NOT SCALE THIS DRAWING		PART NAME		BABBIT HAMMER	
Material		Cold Rolled Steel		Heat Treat	
Eli Whitney Regional Vocational Technical School		Heat Treat		Date: -	
Dimensional Tolerances		Fractional ± 1/64		Decimal ± .002	
		Angular ± 1°		Concentricity ± .001	
		P.W.G. NO.		01-A-9	
		SCALE: -			

RABBIT HAMMER

Use $5/8$ " Cold Roll Steel. Face and center drill both ends in a Spring Collet.

Place the project on centers. Medium knurl one end 4 " long. Chamfer end. Fig. 1



Fig. 1

Reverse piece on centers, protect the knurl with a soft piece of copper.



Fig. 2

From the tailstock end, turn the following sizes:
 a. $1/2$ " diameter $4\ 1/8$ " long. Fig. 2
 b. $7/16$ " diameter $3/4$ " long.
 c. $.370$ diameter $5/8$ " long. Fig. 3



Fig. 3

Turn a $3/8$ " X 16 right hand thread to the shoulder.

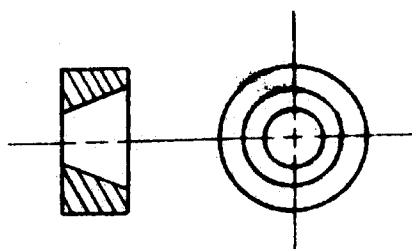


Fig. 4

Handle

Offset the tailstock $5/32$ " toward the front of the machine and turn the taper. Fig. 4

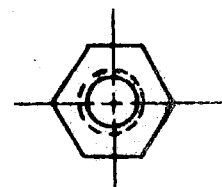
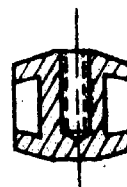
Mold



Mold

Use $1\ 1/2$ " diameter Cold Roll Steel $13/16$ " long. Place in a 3 jaw chuck, face off and center drill. Use a $5/8$ " drill and drill a $5/8$ " hole thru. Bore a 15° angle to the $1\ 1/16$ " dimension. Reverse the piece in the chuck and face off to $11/16$ " long. Fig. 5

Use $1\ 1/8$ " hexagon Cold Roll Steel stock $1\ 1/4$ " long. Face off, center drill and drill a $5/8$ " diameter hole $5/16$ " deep. Set the Compound Rest to 15° angle, turn the outside angle to the $31/32$ " dimension. Bore 15° inside angle to the $5/8$ " dimension. Reverse the piece in the chuck, face off to $1\ 3/16$ " long, and repeat the above operations for this side, Fig. 6



Layout, drill $5/16$ " hole $7/8$ " deep, drill $3/8$ " hole $1/8$ " deep tap $3/8$ " X 16 right hand thread. Stamp name and date.