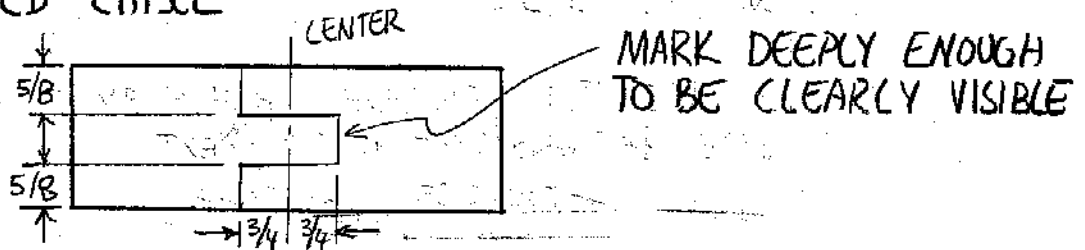


# BUTTERFLY HINGE

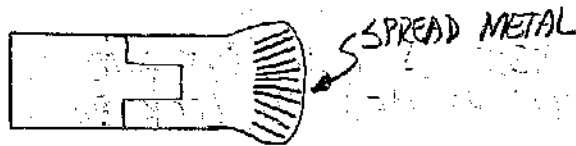
MATERIAL: 3/16 x 2 HOT ROLL BAR 6 INCH LENGTH  
1/4 DIA. HOT ROLL ROUND BAR

LAYOUT - MARK AND CHISEL LINES FOR HOT CUTTING USING A COLD CHISEL

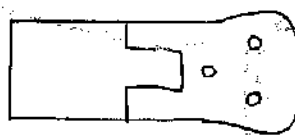


CHISEL - HEAT TO HIGH HEAT AND HOT CHISEL TO FOLLOW LAYOUT. DO NOT CUT IN HALF YET.

PEEN - HEAT AND USE CROSS PEEN HAMMER TO SPREAD METAL TO ACHIEVE PLEASING SHAPE



PUNCH - HEAT AND PUNCH 3 1/4 INCH HOLES

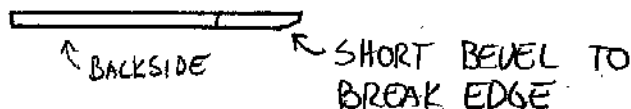


PEEN AND PUNCH BOTH SIDES

CUT - HEAT AND HOT CUT TO SEPARATE HALVES OF HINGE. WORK EVENLY TO MINIMIZE DISTORTION.  
\* USE CUTTING PLATE TO PROTECT TOOL & ANVIL

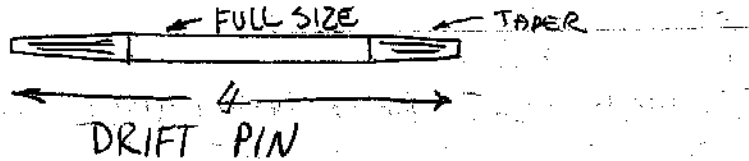
TRUE - HEAT AND HOT FILE TO REMOVE TAG FROM CUT EDGES. HAMMER TO TRUE UP SHAPE OF FINGERS.

BEVEL - HAMMER SHORT BEVEL ONTO THE BACKSIDE OF HINGE FINGERS AT THE TIP.



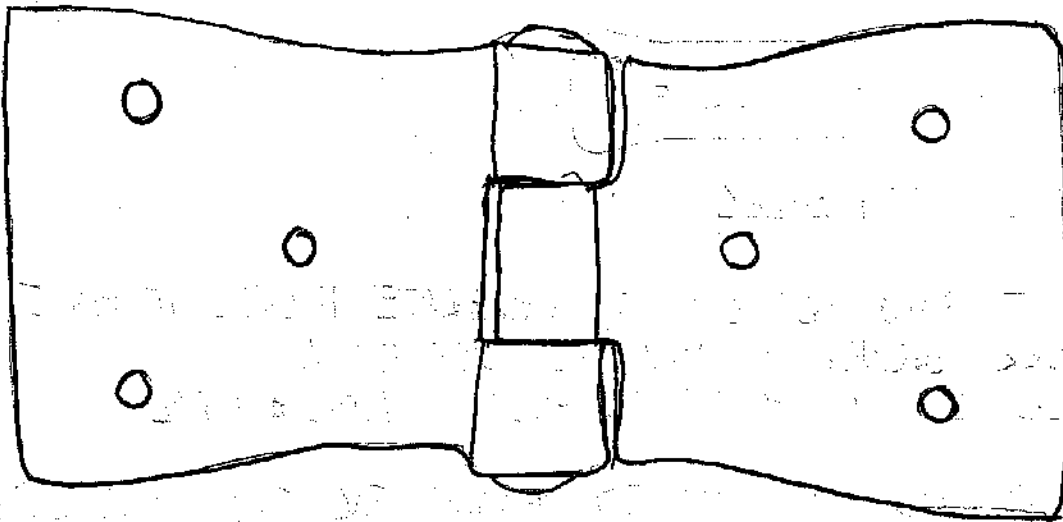
SCROLL - HEAT AND SCROLL HINGE FINGER BY BENDING OVER EDGE OF THE ANVIL. START AT THE TIP AND FEED MATERIAL OVER THE EDGE TO MAKE TIGHT ROUND ROLL. FLIP AND USE BACKING BLOWS TO TIGHTEN. FINISH BY USING DRIFT PIN TO OPEN HOLE TO SIZE

SCROLL THE TWO FINGERED HINGE BY FINISHING ONE ONE SIDE BEFORE STARTING THE NEXT.



ASSEMBLE - ASSEMBLE HINGE COLD WITH  $1/4 \times 2 1/2$  INCH HINGE PIN.

RIVET - HEAT EXPOSED END OF PIN AND LIGHTLY PEEN WITH A BALL PEEN HAMMER TO LOCK PIN IN PLACE



DAVE Vorel  
6/30/00