

FIG. 23. GATE HINGE.

GATE HINGE

Two new forging operations, punching and riveting, are used in making the gate hinge. The stock is listed on the drawing, Plate 7.

How to Make the Gate Hinge

1. On the hook part of the hinge, A, draw a square point $2\frac{1}{2}$ inches long.
2. Bend in the vise or over the anvil to form the $1\frac{1}{2}$ -inch hook. Use a set hammer, if you have one, to shape the up-turned part perfectly round at the place it is bent. If this part is not round the hinge will "stick."
3. On the strap part, B, mark off the centers for the holes and the amount of stock used to go around A.
4. Heat and bend the strap about A making a loose fit so that it will turn easily.
5. If the holes are to be drilled this should be done now. Three $\frac{1}{4}$ -inch holes for attaching the hinge to the gate, and a $\frac{1}{4}$ -inch hole for the rivet, are needed.
6. Heat a rivet of the proper size (make one if necessary), and rivet together. Fig. 23 shows the completed hinge, with the holes punched instead of drilled.

How to Punch Holes

Heat the iron to a bright red heat. Place on the anvil and drive the punch half-way thru the piece. Turn it over and punch half-way thru again. Then place over pritchel hole or tool hole and drive out the burr, Fig. 24. These holes can be punched with a hand punch also.



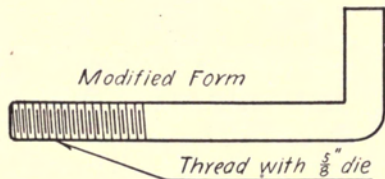
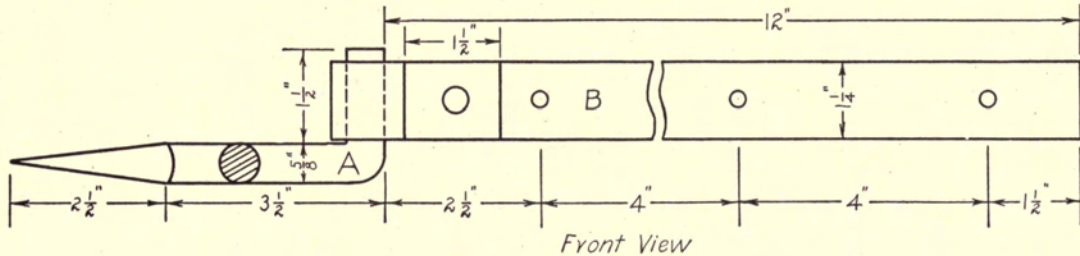
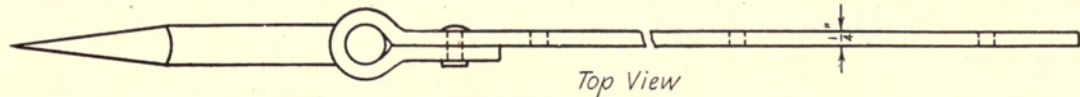
FIG. 24. PUNCHING—DRIVING OUT THE BURR OVER THE PRITCHEL HOLE.

Notes.—The hook part, A, may be made with the end threaded instead of pointed. See drawing and Fig. 23. In Fig. 23 is shown a nut which was hand made. A piece of square stock was upset to the proper size, a $\frac{1}{2}$ -inch hole drilled and the hole tapped with a $\frac{5}{8}$ -inch tap.

Be sure the end is perfectly round before you try to thread it.

GATE HINGE

Stock
 1 Piece $\frac{1}{4}$ " x $1\frac{1}{2}$ " x $16\frac{1}{4}$ "
 1 Piece $\frac{5}{8}$ " x 6", round



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A TEXTBOOK AND
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