Battery Terminal Puller

STEP 1: HANDLE
- 3/8" rod dia.
- 3/4" rod
- 3/4" high
- 2" above center of steel
- 3/8"-16 N.C.
- Thread rod before cutting in half and welding
- 3/8"-16 N.C. (C.R.S.)
- 5/16" washer
- 5/16" washer, ground to 1/2" O.D.

STEP 2: YOKE
- 5/16" dia. 3/8"-16 N.C.
- 1/4" r.
- 3/16" dia. 2 holes
- 1/4"
- 3/4"
- 1 1/4"
- 1/2"

STEP 3: YOKE BRACKETS
- Round all edges
- 1/8" thick
- 1/4" x 1/2"
- 3/4"

STEP 4: JAWS
- Bend cold, then cut to size and file notch.
- 1 3/8"
- 1/8"
- 30°
- 3/8"

AG-704-P

BATTERY TERMINAL PULLER
DRAWN FULL SCALE
DRAWN BY: DSS
COURTESY UMC
Ag. Engineering Dept.
### BILL OF MATERIAL

<table>
<thead>
<tr>
<th>No. of Pieces</th>
<th>Material</th>
<th>Dimensions</th>
<th>Part Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cold-rolled steel rod</td>
<td>3/8&quot; x 6&quot;</td>
<td>Handle</td>
</tr>
<tr>
<td>1</td>
<td>Cold-rolled steel rod</td>
<td>1/2&quot; x 1/2&quot; x 1 1/4&quot;</td>
<td>Yoke</td>
</tr>
<tr>
<td>2</td>
<td>Flat iron</td>
<td>1/8&quot; x 1/2&quot; x 2&quot;</td>
<td>Yoke bracket</td>
</tr>
<tr>
<td>2</td>
<td>Flat iron</td>
<td>1/8&quot; x 1/2&quot; x 1 3/4&quot;</td>
<td>Jaw</td>
</tr>
<tr>
<td>2</td>
<td>Soft iron</td>
<td>3/16&quot; x 1&quot;</td>
<td>Rivets (round head)</td>
</tr>
<tr>
<td>1</td>
<td>Flat washer</td>
<td>5/16&quot;</td>
<td>Flat washer</td>
</tr>
</tbody>
</table>

### CONSTRUCTION PROCEDURE

#### HANDLE:

1. Cut a 6" piece of 3/8" cold-rolled steel rod.
2. Thread the first 2" on one end with a 3/8" - 16 N.C. die.
3. Cut this piece evenly in half and form a T by welding the non-threaded piece to the non-threaded end of the other piece.

#### YOKE:

4. Cut a 1 1/4" piece of 1/2" x 1/2" cold-rolled flat iron.
5. Drill a 5/16" hole in the center and thread this hole with a 3/8" - 16 N.C. tap.
6. Drill two holes 3/16" diameter, perpendicular to the 5/16" hole, 1/4" from each end and centered.
7. Grind the ends to a 1/4" radius.

#### YOKE BRACKETS:

8. Cut two pieces of 1/8" x 1/2" flat iron 2" long.
9. Place the yoke in the center of this piece and bend cold around the yoke to make a 90° bend on each side.
10. Drill a 3/16" hole on each end of these two pieces 1/2" from the outside edge.
11. Round all front edges on these brackets.

#### JAWS:

12. Cut two pieces of 1/8" x 1/2" flat iron 1 3/4" long.
13. Make a 90° bend 3/8" from one end of each piece.
14. File a 30° notch in the end closest to the bend.

#### ASSEMBLING THE PARTS:

15. Weld the jaws to the yoke brackets.
16. Attach the jaw and bracket pieces to yoke with two 3/16" x 1" rivets.
17. Screw the T-handle into the yoke.
18. Grind a 5/16" washer down to a 1/2" outside diameter and weld on the end of the threaded part of the handle.
19. Remove all slag and clean properly with a grease and oil remover if needed. Prime with a rust-inhibiting paint.
20. After primer coat of paint has dried, paint with a suitable metal enamel paint.

### AVAILABLE FROM:

Instructional Materials Laboratory, 10 Ind. Ed. Bldg., University of Missouri, Columbia, Missouri 65201.