

E-Newsletter 2020 - 1

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Just a Few Projects

In lieu of our cancelled

In lieu of our cancelled

demonstrations, these new

projects were generously

shared to be included

shared to be included

in an "E" xtra newsletter.



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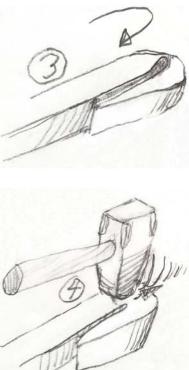
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# Scroll Door Knocker By Steve Alling, a MABA member

This will be a little different than normal; people see these projects when they are all finished. But when you work through an idea for yourself, you may run into problems.



Fold the stock over-

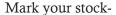
Here is the first place I ran into trouble. Initially I just hammered the fold area flat but when you make a bend like this the inside is compressed and swells up where the outside is stretched and thin. No amount of flat hammering would restore the ½ inch thickness to the outside of the bend.

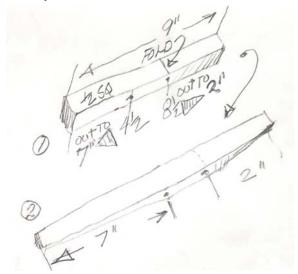
I had to start over and this time use the pien of the hammer starting on the inside of the bend and work the stock toward the outside of the bend.

Shape the scroll and drill the hole for the hinge pin.

This is where if you don't maintain the ½ inch thickness your parts will wobble.

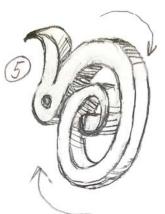
The finished projects that we put in the newsletter are often the result of trial and error. Things don't always go so well and things have to be done over. So, on this project I will point out a few places where I ran into trouble.

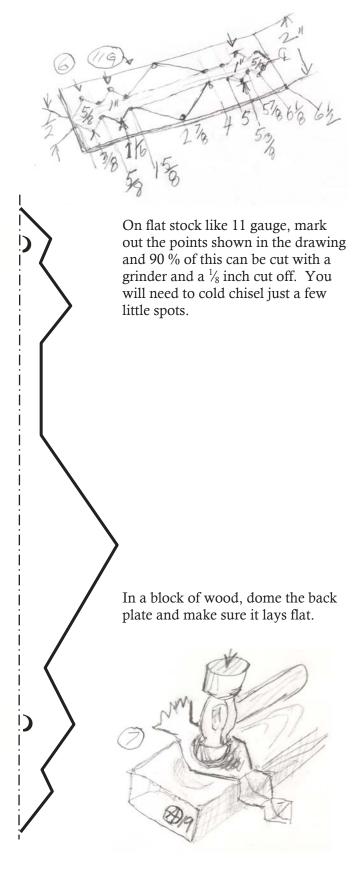




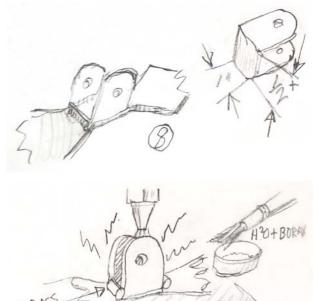
Taper your stock leaving it ½ inch wide.







Originally, I had included two tabs that I intended to bend up to form the hinge, this proved to be a mistake. I couldn't get the part held in my drill press to make parallel holes. Fortunately, I was able to flatten things out and chisel the two tabs off.



It's better to form the hinge separately, this way you can slide in a ½ inch piece of stock to make the drilling simple.

Then flux just the area you want the braze to be, otherwise it will follow the flux. Place carefully in its proper position laying two thin brass wires on either side and bring to a red heat. The brass will melt and flow under the part. Then it's an easy assembly with a short pin and piening the ends.

Note: So, you can see what looks like things went smoothly, is not always the case.

MABA Editors note: We think the person that received this in Iron in the Hat was lucky you worked through your idea! And thanks for the project.



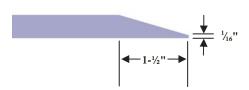
## Hoof Pick

By Larry Carrigan, a MABA member

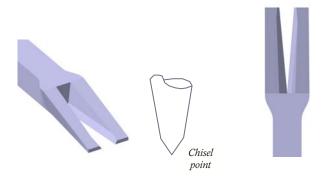
Back in the day, my horse customers liked these small hammers to put in their saddle bags during trail rides. Good enough to tighten a loose shoe or clean out mud or snow.

½ square stock needed.

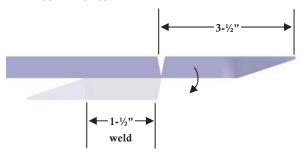
1) Forge a blunt taper on one side for approximately  $1-\frac{1}{2}$  inches.



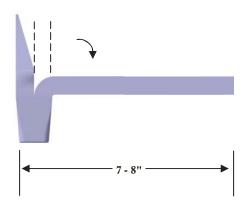
**2)** Split down the center for  $1-\frac{1}{2}$  inches with a blunt chisel.

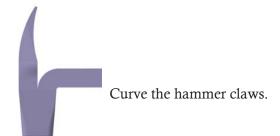


**3)** Cut stock part way through, at 3-½ inches with a hardie, fold back and forge weld approximately 1-1/2 to 2 inches.

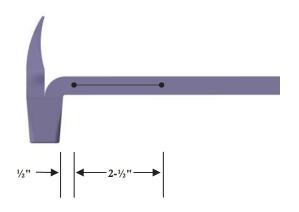


- **4)** Round up and break corners of welded area. Taper slightly.
- 5) Place  $1-\frac{1}{2}$  inches of hammer nose in vise and bend handle down to 90 degrees. Cut handle off at 7-8 inches.

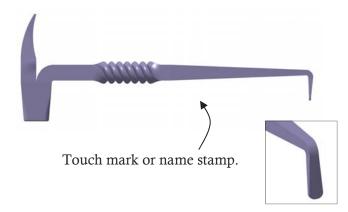




**6)** Chisel cold, then hot, mark for rope twist on all four sides. Twist  $1-\frac{1}{2}$  times.



7) Forge end out on all four sides to form pick. Bend pick down 90 degrees and flatten out bend area.

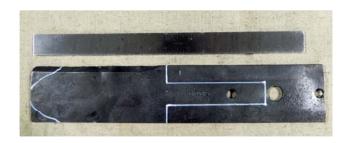




# garden trowel

### By Ken Glowski, a MABA member

The garden trowel is made from scrap materials.



This trowel is made from the remnants of an old lawn mower blade, a piece of maple firewood and a copper ferrule from old water pipe. Your dimensions will be different depending on what materials you have on hand.

The blade started out at, 6"x 2- $\frac{1}{2}$ " x  $\frac{3}{16}$ " and the tang is 1" x 4- $\frac{1}{2}$ ".



Cut away the excess material with a band saw, hack saw or angle grinder with a cutoff wheel.



Start from the center and pein the blade towards the sides. End up with approximately  $6-\frac{1}{2}$ " x 3".



Begin folding the tang in a swage block to form a "U" shape.



Then hammer it into a cylinder.



Bend an offset into the tang, approximately 1".





Form the blade into a curve in a swage block, table of the anvil or over the horn.

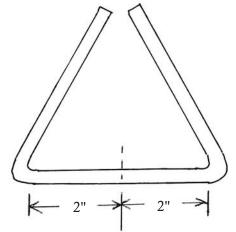


The handle is made from a piece of maple firewood that was sawn into a block,  $1-\frac{3}{4}$ " x  $1-\frac{3}{4}$ " x 10". It was then turned on a lathe. If you don't have a lathe, you can form the handle with a draw knife, spoke shave or any other carving knife.

The ferrule shown is a piece of <sup>3</sup>/<sub>4</sub>" copper. Any pipe or conduit can be used. Cut a shoulder into the handle the size of the inside diameter of the ferrule. Place the ferrule on the handle. Drill a hole in the handle the size of the tang. Put exterior glue or epoxy into the handle and insert the tang. Finish the handle with boiled linseed oil.



Lyons Loop
By Steve Anderson,
a MABA member

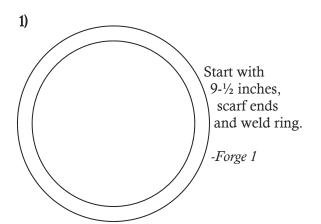


Start with 12-3/4 inches and bend cold.

-Make 1

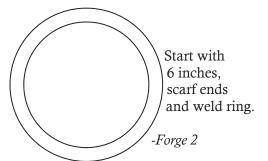
This is another old, traditional iron puzzle along with the method and measurements I use to make them.

Stock- all 1/4 inch round





Insert one of the 6 inch rings on the triangle, forge closed and weld.



2)

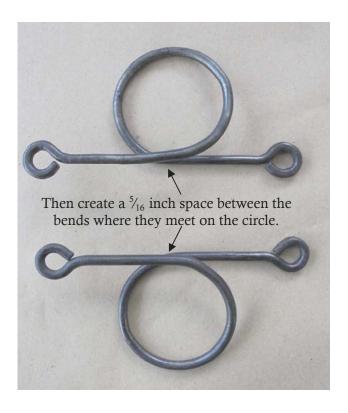
Use two pieces of  $17-\frac{3}{4}$  inch long stock and forge eyes at both ends starting at  $2-\frac{1}{4}$  inches from the end.

- Forge 2



Use a 2-1/4 inch mandrel to form a circle in the center of each piece as shown.

### Make sure they are mirror images and not identical.



### 4) Apply a finish-

I prefer to use a wire wheel, next apply a thin coat of Pentetrol, then 3 coats of wax when dry.



**3)** Assembly-Assemble cold by using a crescent wrench to open and close the small eyes in a vise.



# Around Otto Bacon's Shop By Otto Bacon, a MABA member



I made a dedicated measure for my bandsaw. The same idea would work for a chop saw or other metal cutting saw. I added a stop to the underside of a metal yardstick so that when I run the stop up against the casting on the frame of the saw the blade measures to the center of the blade cut.



I recently picked up some old gym lockers for the shop. The insides were already outfitted with plywood shelves, ready to fill with treasures. The lockers cover up wall space that has peg board and was the storage space for a number of my small tools. It was easy enough to just drill some holes and mount the pegboard racks right on the steel doors. Now the pliers, screw drivers and files that I use most are right at hand. I also used magnetic clips to hold small rulers that I use a lot. The yellow ruler in the center is a piece of a broken tape measure, cut off at 4 feet. For most things in the shop, it is a lot handier than a tape measure. It is held by a magnetic clip. On the right side of the cabinet are racks for my wrenches and on the left side hooks for a dustpan and bench brush. The lockers were in a paint shop. I kind of like the patina.





This is a cutting vise that I setup for my portable band saw. The vise is just a cheap, light duty unit that I found at the scrap yard. The stand is made from a brake rotor and some conduit. It's very light. A hook was added to hold the bandsaw. Note that the conduit is welded to a plate that is bolted to the brake rotor. Welding directly to the rotor is often not successful. I made this the same height as my big vise so that I can use them both when I need to clamp long stock.



I made a couple modifications to the vise. First I ground a groove into one jaw face to better hold round bar stock. I used a grinding wheel on my angle grinder.



I also ground the right hand end of the jaw square so that there is a place to rest the work table of the bandsaw. The original jaw had quite an angle in this area, which led to crooked cuts or binding of the saw blade.

If you have a portable bandsaw, you know what a pain it is to store. After using this stand for several years it finally dawned on me that I could add a hook and store the saw on the stand.

A side note, old table cloths make great machine covers for the tools you don't want covered in blacksmith shop grit. The background in the picture is the table cloth that is usually covering my metal lathe.



Hopefully when the weather gets warmer and folks are able to get back together I thought my meat/vegetable flipper design would be fun to make and useful when cooking on the grill.

Start with 10" of  $\frac{3}{8}$ " square stock and flatten on the diamond so the stock is forged to approximately  $\frac{3}{16}$ "- $\frac{1}{4}$ " thick and  $\frac{5}{8}$ "-  $\frac{3}{4}$ " wide. (Note: Dimension stated in this article are not set in stone, so it is not necessary to measure to a gnat's behind. Use your eyes to determine pleasing proportions.) After flattening the stock create the handle by using 6" of stock to twist approximately 5", leaving approximately  $\frac{3}{4}$ " – 1.00" at the end untwisted for the eye. The pieces in this article were twisted 2- $\frac{1}{2}$  revolutions. Straighten as needed and if you need to take multiple heats do not worry. I need two heats to twist the handle.



The next step is to create the eye with a diameter of ½". This was started by punching a slot that is approximately 40% of the eye's circumference which figures out to be approximately  $\frac{5}{8}$ ". (Note: after making the pieces for this article it might be easier to punch the slot before doing the twist.) I like facets on the twist I do. The facets were formed by hammering the twist. If you use facets on your twist you will notice the flats for the shank and eye will need to be realigned. Tweak as needed. If you are happy without the facets omit them. Upset the slot to a round shape using moderate force blows. I clamp the piece in the vise using inserts to protect it



from the vise jaws sharp edges. Straighten as needed. Bring the hole to size using a ½" diameter drift, driving it through from both sizes.

Now it is time to start the transition from the handle to the shank. Using a  $\frac{5}{16}$ " spring fuller, place fuller marks at the end of the twist and approximately 1.00" further down the flat. Taper end of twist to fuller mark and taper between the fuller marks.



Draw out the shank to approximately  $\frac{3}{16}$ " thick being careful not to hammer the stock to thin. Hammer end to a point and form a hook. I formed the hook around a  $\frac{3}{4}$ " diameter pin. Once the hook is formed bend over the edge on the anvil. Adjust hook orientation so the flipper works well in your hand by flipping an old work glove on the anvil. Dress up the top of the eye by grinding or filing. Wire brush as needed and season using cooking oil or fat.

This article was intended only to be used as a guide when making this project. Please add your own personal touches and have some fun. Also make a hook or decorative nail to display your flipper.

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