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# THE FORGE FIRE

The Newsletter of the Indiana Blacksmithing Association, Inc.

An Affiliate Of The Artists-Blacksmiths' Association of North America, Inc.

IBA is a Not For Profit Indiana Corporation recognized by the IRS under section 501(c)(3)

9:30 AM is the regular meeting time for IBA Hammer-Ins with beginner training available at 9:00 AM.
PLEASE MAKE SURE TO ASK FOR HELP!

If you would like an IBA membership application form, please contact Farrel Wells, Membership Secretary (765) 768-6235.

BULK LOTS ARE AVAILABLE TO DEMONSTRATORS, SHOPS, SHOWS AND OTHERS WILLING TO MAKE THEM AVAILABLE. WE APPRECIATE YOUR HELP.

The Indiana Blacksmithing Association, Inc., its staff, officers, directors, members, and hosts and the *Forge Fire*, specifically disclaim any responsibility or liability for damages or injuries as a result of any construction, design, use, manufacture or other activity undertaken as a result of the use, or application of, information contained in any articles in the Forge Fire. The Indiana Blacksmithing Association, Inc. And the *Forge Fire* assumes no responsibility or liability for the accuracy, fitness, proper design, safety, or safe use of any information contained in the *Forge Fire*.

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# More nearby resources and organizations for blacksmiths:

#### **Rural Smiths of Mid-America:**

Meetings are on the first Saturday of each month Call Ron Gill 317-374-8323 for details

#### **IBA MEETING SCHEDULE**

Check the latest Forge Fire for monthly IBA revisions.

July 15
2023

SNAKE ROAD FORGE

July 28Aug 20

INDIANA STATE FAIR

Aug 19
2023

TBD

Sept 16
2023

TBD



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#### Dates to Remember

July 15 IBA Hammer In at Snake Road Forge

July 28—Aug 20 Indiana State Fair

> Sept 22-24 SOFA Quad State

## **Editors Message**

In last month's Forge Fire, I listed the 2023 IBA award winners. However I failed to acknowledge the contributions that Kathy Phillips and Farrel Wells have provided to the IBA over many years. Kathy has managed and operated the IBA stores for many years. If you have IBA shirts, hats, patches or decals it is because of Kathy. She definitely is deserving of the Paul Moffett award. Farrel has been the hidden strength of the IBA. He has carried the combined duties of membership chair and treasurer. Many IBA members may have never met Farrel as he was usually assigned to work as a firefighter during our annual conferences. I want to express my gratitude to both Kathy and Farrel for their friendship and hard work in supporting the IBA.

This month's hammer in is hosted by Snake Road Forge. Snake Road Forge is in Valparaiso. Driving instructions are on the back cover. Note they are in the Central Time Zone, which may be helpful if you have a long drive to get there.

The Indiana State Fair begins on July 28 and runs through August 20. The fair is closed on Mondays and Tuesdays. Bill Corey is coordinating the blacksmith shop operations. If you are interested in demonstrating contact Bill at (317) 919-1047 or email: <a href="mailto:bc65925@gmail.com">bc65925@gmail.com</a>. Groups that can demonstrate for a full day are encouraged.

Page 4 has a short article on the IBA library. The library is under utilized and holds a tremendous wealth of information. Take a look. You will find something of interest.

We have four project articles that I hope you enjoy:

- Pages 5 to 7 shows how to make a campfire toaster. Bill Corey provided the 3 page article. As with many of Bill's projects there is a high level of refinement and artistry. Follow Bill's step by step instructions to make your own.
- Page 8 has an article on forging a leafing hammer. Forging the hammer is part of the California Blacksmith Association Level II skill. The hammer is then to be used to make the CBA Level III grille. The printed article is just an introduction. Use the link to get to a YouTube video showing the full process.
- Page 9 shows how to make a simple bender for working 1/4" for 5/16" stock that may be too small for larger, commercial benders.
- Pages 10 and 11 go back to the CBA for a project on making a clevis hook.
   I would call this style an eye hook, rather than clevis hook, but chain hooks are always in demand.

IBA website: www.indianablacksmithing.org IBA Facebook page: www.facebook.com/groups/IndianaBlacksmithingAssociation/

## IBA Satellite Groups and News

#### 1) Sutton-Terock Memorial Blacksmith Shop

Meet: 2nd Saturday at 9 AM Contacts: Fred Oden (574) 223-3508 Tim Pearson (574) 298-8595

#### 2) Jennings County Historical Society **Blacksmith Shop**

Meet: 2nd Saturday at 9 AM Contact: Paul Bray (812) 521-7177

#### 3) Wabash Valley Blacksmith Shop

Meet: 3rd Saturday at 9 AM Contacts: Bill Cochran (812) 241-8447 Max Hoopengarner (812) 249-8303

#### 4) Fall Creek Blacksmith Shop

Meet: 4th Saturday at 9 AM

Contacts: Gary Phillips (260) 251-4670

#### 5) Maumee Valley Blacksmiths

Meet: 2nd Saturday Contacts: Clint Casey (260) 627-6270

Mark Thomas (260) 758 2332

#### 6) St. Joe Valley Forgers

Meet: 4th Saturday at 9 AM Contacts: Bill Convers (574) 277-8729 John Latowski (574) 344-1730

#### 7) Rocky Forge Blacksmith Guild

Meet: 2nd Saturday at 9 AM Contacts: Ted Stout (765) 572-2467



#### **8)** Meteorite Mashers

Contacts: Mike Mills (812) 633-4273 Steve King (812) 797-0059 Jeff Reinhardt 812-949-7163

#### 9) Whitewater Valley Blacksmiths

Meet: 2nd Saturday

Contact: Keith Hicks (765) 914-6584

#### 10) Bunkum Valley Metalsmiths

Meet: 1st Saturday Contacts: Jim Malone (812) 725-3311 Terry Byers (812) 275-7150 Carol Baker (317) 809-0314

#### 11) Covered Bridge Blacksmith Guild

Meet: 1st Saturday

Contact: John Bennett (812) 877-7274

#### 12) Snake Road Forge

Meet: 1st Saturday

Contact: Rod Marvel (219) 241-0628

#### 13) Satellite 13

Meet: 4th Saturday

Contact: Darrin Burch (317) 607-3170 Doug Wilson (317) 439-7684

#### 14) Old Town Waverly Blacksmiths

Meet: 2nd Saturday

Contacts: Mike Lyvers (317-728-5771), Kenny Hale (765-318-3390), Mike Jackson (317-509-9115).

#### **Meteorite Mashers**

The June meeting of the Meteorite mashers was held at Dave Kunkler's shop in Branchville. The attendance was a bit sparse, but those who attended had a great time. Pete Riddle was there for a meeting, the first in a long time, and made a split cross from some pretty mucky wrought. He gave a blank to Jeff Reinhardt who also made a split cross from the wrought, Jeff intends to deep etch his in citric acid.

Next meeting is up for grabs, location to be announced on the meteorite Mashers face book page.

## IBA Satellite Groups and News (continued)

#### **Jennings County Historical Society Blacksmith Shop**

Kevin Welsh, Bill Kendrick and Fred Ripberger diligently worked resetting the 50# hammer. Kevin fabricated a make-shift rake to pull the gravel back around the hammer base. Dave Good fired up the forge and made a part for the hammer. He also mentored Conner Brooks, a newcomer. Kevin made a large forged Nail for a specialty use. Dave made a traditional blacksmiths Knife from 52100 steel. Hope to see all of you on July 8th. Paul Bray

## The IBA Library

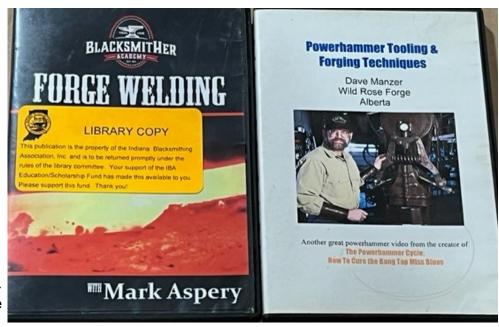
I suspect few IBA members know the IBA has a library, and even fewer are aware of how extensive the collection actually is.

The library services are offered at no charge to members. The borrower is only responsible for returning the material damage free and in a timely manner. The IBA website posts a <u>partial</u> listing of books, periodicals and videos at: (<a href="http://www.indianablacksmithing.org/readerscorner/library.pdf">http://www.indianablacksmithing.org/readerscorner/library.pdf</a>).

Larry Rosentrader is the IBA librarian. Larry always brings a small sample of library materials to the annual conference. I was talking to Larry and the two videos below caught my eye.

- Mark Aspery's video on Forge Welding covers many of the techniques expressed in his book The Skills of Blacksmith, Vol I. The video provides added commentary, making the information easier to understand.
- Dave Manzer's video has <u>a lot</u> of tips on how to be more efficient using a power hammer.

Both videos are well edited and easy to follow. I am planning to view both again before returning them.



The website listing has over 300 books, videos and periodicals. Neither of the videos I borrowed are listed. This shows how large the library collection actually is. Topics range from anvils to welding with general blacksmithing and project design in the middle.

Next on my list will be "Anvil Making at Kurt Fehrenbach's" and "Rebuilding a 25 pound Little Giant Power Hammer".

If you are looking for some instructional material or project ideas or just something interesting, I encourage you to contact Larry Rosentrader at <a href="mailto:looking-nc-en-super-loo



# **Campfire Toaster** By Bill Corey

After using the first campfire toaster I forged and seeing how it left the design of the part that holds the toast upright on the toast I knew I wanted to forge another one using hearts.

Here are the steps I followed to forge my new campfire toaster.



I started with two pieces of 1/8" thick by  $\frac{3}{4}$ " wide piece of steel 7½" long splitting them on both ends 3".





I then spread those out to about 90 degrees and drew them out to a tapered point about 4 ½" long.



Those were then shaped over the horn to a heart shape.







I then bent the hearts to stand them up, first using the vice then a piece of 1" bar stock and C-Clamp as the piece would no longer fit in the vice.

I used aluminum vice jaw inserts to better grip the piece without marring it.





I forged rounded ends onto the piece that the hearts were to be attached to. It was 12 1/4" of 1/8" thick stock by 1 1/4" wide.





I then started forging the handle. It was made from about 4' 1 ½" long piece of 3/32" rod cut into 4 even length pieces and these folded in half and twisted all in the same direction and the same number of times. (9 times clockwise)





Then holding them together to form a square I forge welded them together at each end in the coal fire and prepared each end with a scarf to be welded onto 3/8" square bar to form the rest of the handle. These were then all brought up to a yellow heat

and twisted in the opposite direction of the individual pieces (counterclockwise) about 1 and ½ turns.







A short piece of 3/8" square bar was welded to one end of the handle to then forge into a tapered hook, the other end attached to another piece of 3/8" square bar that was split at the end and forged into a T shape to attach to the front legs. I added a twist to this piece as everything in life needs a little twist.





The next step was to forge the legs and feet for the toaster using more 3/8" square bar. The front legs were bent using an upset square with the legs being about 4" long and the bar connecting them about 12" long. In the middle of the bar connecting the legs I used a square punch and a piece of chain link I had forged to forge in an upset. This upset raises the connection point for the piece holding the hearts to allow for clearance when spinning it during use.





The rear leg was forged to match the front adding a scroll for decoration.



I then forged flat feet on the ends of the legs curling them into a scroll and hammering in a small fuller to add a feature to the feet.



Then all was left was the assembly using rivets. First attaching the handle to the feet, and then the hearts to the cross piece and that to the front leg.



# Leafing Hammer: Argentina & Los Angeles John Williams, Elk Grove

This article is based upon several teaching opportunities by John in recent times.

The photo at right shows John teaching the leafing hammer in Argentina, part of Jerry Coe's "Reviving the Trade Skills of Buenos Aires" trip in 2018.

Most of the notes are taken from an instructor training class with John at Adams Forge in June 2022.

John conducted a zoom class on this hammer, as reported in March/April 2021 California Blacksmith. The zoom is available at

https://www.youtube.com/watch?v=zclkbGGh1ul

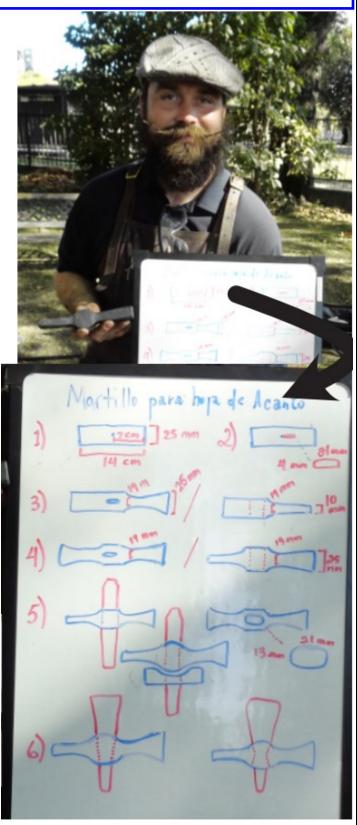
Overview of the Steps

- (1) Slot punch eye
- (2) Forge pein (draw out)
- (3) Draw out face end
- (4) Cut off excess
- (5) Drift the eye
- (6) Draw out cheeks
- (7) Grind face & pein
- (8) Clean up inside eye
- (9) Case harden
- (10)Fit handle



Leafing Hammer Instructor Training at Adams Forge June 2022

This article reprinted from the July/August 2023 edition of California Blacksmith Online



Above: John teaching in Argentina, closeup of his storyboard

# Shop Tip Making a Simple Bender By Bob Ehrenberger

A couple years ago, I had a friend lose the handle to her violin case. She had sent it off, with all the rest of the hardware, to get it brass plated, and the plating company lost it. They needed a replacement and it had to match the original. It needed to be made out of 1/8" round stock with four sharp bends. Pretty simple, right. Wrong, when I bent it in the Hossfeld bender the radius on the bends was way too big. When I tried to clamp it in the vice and bend it over with a hammer, there were marks on the piece from both the vice and the hammer.

What I needed was a miniature bender that would make tight bends in light stock and not leave marks. The solution was simple. I drilled several 5/16" holes in a piece of 1-1/2" x 1-1/2" x 1/4" angle iron. I then drilled a series of holes in the end of a 5/16" x 3/4" flat bar. I rounded off the end of the bar to reduce the clearance required. I cut

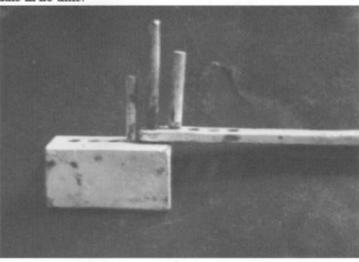


Bender parts, handle, base, three pins

3 short pieces of 5/16" round stock and I was done. The first set of holes were too far apart for the 1/8" stock, so I ended up drilling the opposite end of the bar, with the first hole real close to the pivot hole. The bender worked nicely and I was able to make the violin case handle in no time.

Since then, I have used my little bender on a regular basis for all kinds of bending operations. It can handle up to 1/4" cold and 5/16" hot. I have discovered that I really only needed one position for the pins, since by the time you get to where you needed to move the pins for clearance, the bender was not heavy enough for the job any way. When I tried to skip a hole and put the pin in the next one, it was too far out. So I use one end of the bar for 1/8" and 3/16" and the other end for 1/4" and 5/16" stock.

You could probably scale this up using a larger angle iron and a larger bar for the handle. It wouldn't be as good as a Hossfeld, but it would be portable and really cheap.



You could make this bender in 15 minutes, from scrap lying around your shop.

This article was reprinted from the Winter 2014 newsletter of the Appalachian Blacksmith Association

Reprinted from Bamsite.org

## Clevis Hook

# Based on Teaching Notes from Jake Jacobs, Wizards Workshops Forge

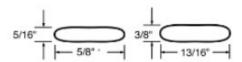
This is one of those "make it to suit the size you want" projects. This article will give notes for using 1/2" and 5/8" stock. Round, mild steel.

1/2" x 5", 5/8" x 4 1/2"

Round the ends.

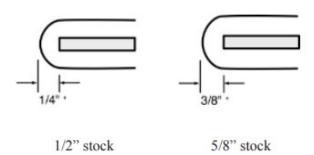


Draw to a flattish oval.



3. Slot punch for the eye - use a 1/8" x 5/8" or 1/8" x 3/4" slot punch. Chamfer all corners.





Note: even though you're nominally punching to half the width of the stock, for me it works better to leave the ends a little fat, draw down after punching. This version created at RoadRunner Forge for the Saturday Afternoon Blacksmith series

Photos taken at RoadRunner Forge

4. Drift to round.

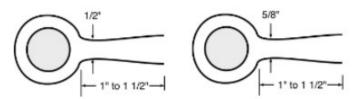
Possible problems you may have:

If you have "ears", hammer down over the horn.

If you have a dimple at the base of the hole, quench the tip, then hammer down over the horn.



Draw the neck down below the eye.Maintain same thickness as the rest of the stock.



3. Draw the end to a point. Go first to square (1/4" x 1/4"), then to 1/8" x 1/8". Make the taper 1 ½". Chamfer all corners.

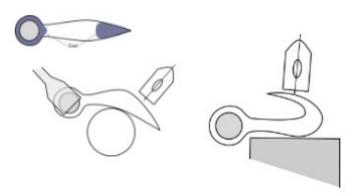


Note: sometimes I draw the point before drifting. It all works, either way.

This 2-page article reprinted from the July/August 2023 edition of California Blacksmith Online

### Clevis Hook

7. Bend. Start over the horn, quenching both ends. Bend roughly in the middle, while watching and correcting to keep the hook in a flat plane. This step will probably take several heats. If necessary, adjust over a mandrel.



8. Put a reverse bend in the tip. To do this, grab the eye/shank in the vise, then twist the end out of line.





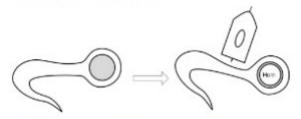
9. Hammer the tip curl over the horn.



Then hammer back into flat alignment.

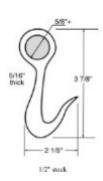
Thanks to Jake Jacobs who shared the initial version of this back in 2020 when we produced our (too early) Re-Opening Special edition in August 2020.

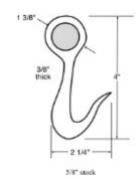
10. Optional: Bend eye over.





- 11. Check it all over, fix any goofaws.
- 12. Cool, clean, finish and enjoy! Dimensions:









Address Correction Requested If Undeliverable return to sender

# July 15 Hammer In Snake Road Forge

38N 600W, Valparaiso, IN 46385

**Directions:** I-65 exit 249 (Crowne Point East 109th Ave). East 109th Ave becomes CR 100S. After about 7 miles turn left on CR 600W. Drive about 1.4 miles, shop is on the left.

Note: This part of Indiana is in Central time zone.

Forge Master: Rod Marvel ph: (219) 241-0628

First Class Mail