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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.

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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 <i>Forge Fire</i> for monthly IBA revisions.	
<b>May 20 2023</b>	<b>ROB HOUGH'S SHOP ALBANY, IN</b>
<b>Jun 2-4 2023</b>	<b>IBA CONFERENCE TIPTON CO FAIRGROUND</b>
<b>Jun 17 2023</b>	<b>TBD</b>
<b>Jul 15 2023</b>	<b>TBD</b>



## Editors Message

The **IBA Conference** is fast approaching. The Conference Brochure and Registration forms seem to be stuck in the mail. I had expected to receive my copy a two weeks ago. I encourage everyone to let IBA members know the Conference will be June 2-4. PDF files of the brochure and the registration form, are posted on the IBA Facebook page.

We have four very different demonstrations scheduled this year:

- Mark Blosser and Norm Gable will demonstrate forging with an induction heater.
- Ellen Durkan will be demonstrating wearable “forged fashion”
- Andrew Larson will be showing the details of making tools
- Josh Sampson has not revealed his demonstration topic, but he always delivers an educational and entertaining demonstration.

Friday evening will start with pizza for all, then Mark and Norm will give the first demo of the event.

The other demonstrations be on Saturday and into Sunday morning.

Saturday evening features the dinner buffet, Iron-in-the-Hat, Auction, Awards and forging contest.

The Done at Home contest is a “Steak Turner”. There are no limitations to artistic license so long as the item will turn a steak.

2023 Conference Fees	In Advance		At the Door	
	One Day	Weekend	One Day	Weekend
Member of any Blacksmith Association	\$35	\$47	\$40	\$52
Additional Family Members	\$5	\$7	\$6	\$8
Non-Members	\$40	\$52	\$45	\$57
Additional Family Members Non-Members	\$6	\$8	\$7	\$9

Shifting gears, we had a great April hammer in at Bob Hunley’s shop. There is a brief write up on page 5. The May hammer in will hosted by Rob Hough. I expect a strong turn out for that hammer in as well.

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LITTLE FEESCH

### Dates to Remember

May 20  
Hammer In  
at Rob Hough’s

June 2-4  
IBA Conference

**IBA website:** [www.indianablacksmithing.org](http://www.indianablacksmithing.org) **IBA Facebook page:** [www.facebook.com/groups/IndianaBlacksmithingAssociation/](https://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: Ray Sease (812) 522-7722

**3) Wabash Valley Blacksmith Shop**

Meet: 3rd Saturday at 9 AM  
 Contacts: Bill Cochran (812) 241-8447  
 Max Hoopengartner (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 Conyers (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**

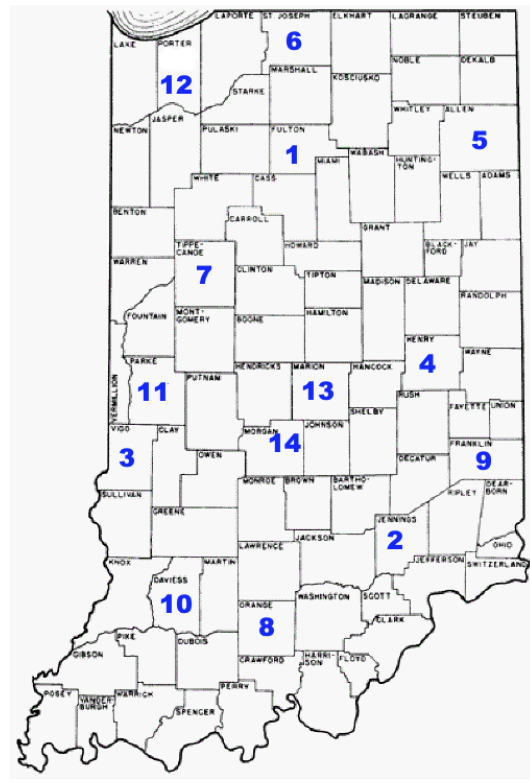
Meet: 4th Saturday  
 Contact: Darrin Burch (317) 607-3170  
 Doug Wilson (317) 439-7684

**14) Old Town Waverly Blacksmiths**

Meet: 2nd Saturday  
 Contacts: Mike Lyvers (317-728-5771),  
 Kenny Hale (765-318-3390),  
 Mike Jackson (317-509-9115).

**Jennings County Historical Society Blacksmith Shop**

This being the first meeting at Vernon this year, a lot of rearranging had to be done. We started our meeting with the pledge of allegiance. Dave Good built the first fire and made some unique "S" hooks, swedged in the middle. Ray Sease fired up our "new" gas forge and gave a positive report. Dave McNulty made two rings for a railing, to be completed at home. Dave illustrated the process in making a basic leaf. Brian Turner tried his hand at making a leaf, with Dave starting it and Brian finishing it. There were 16 signed in. May 13 meeting will be the last one before the conference. Bring anything you want to put in the tool box. I hope to see you at May's meeting. Bring door prize an any iron in the hat you want to donate. Paul Bray



## IBA Satellite Groups and News (continued)

### Bunkum Valley Metalsmiths

The Bunkum Valley Metalsmiths met Saturday the 6th with 17 in attendance. We always have a great time; smithing, learning, fellowshiping and sharing a pitch in meal. Below are a few pictures to enjoy.

We also began planning our Fall Conference so please mark your calendars for Friday, October 6th and Saturday the 7th. There will be demonstrations, food, room for campers overnight and of course Iron in the Hat! Please plan to join us! More information will be forthcoming!



## IBA April Hammer In

The April hammer in was hosted by Bob and Dana Hunley. It was a beautiful day with a strong turn out. Bill Corey was the featured demonstrator. Bill demonstrated forge welded dovetail hinges. The hinge design and forging process is based off a Peter Ross design. Peter's DVD is no longer available, but the video can be downloaded from the Popular Woodworking site ([videos.popularwoodworking.com](https://www.popularwoodworking.com/videos)). Several others tried their hand at forging out a set of hinges.



# ERIC JOHNSON

## *A Different Chimney*



"This style of hood also has the advantage that there is access to the fire all around, and so getting work into the fire is much easier."

This article reprinted from the Spring 2023 edition of the Newsletter of the New England Blacksmiths

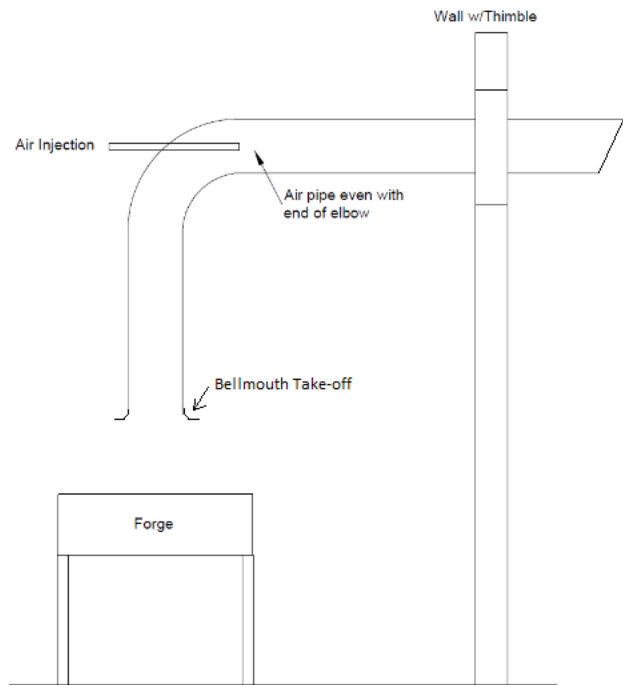
A while back, I moved my shop indoors, and could not install a conventional chimney going straight up. Instead, I installed a super-sucker hood, and a horizontal, induced-draft pipe going out the wall.

I was able to do this by tapping off a bit of the blast air for the forge, and blowing it into the horizontal leg of the chimney with a piece of 1" EMT tubing. The stolen air doesn't seem to be missed by the forge itself.



This worked very well for a couple of years, but eventually, the super-sucker began to feel restrictive, as it blocks off one whole side of the fire.

Because of this, I converted to a plain bell-mouthed pipe inlet suspended over the center of the fire about a



foot up. This has been remarkably effective, and you have to do some really awful fire-keeping to get smoke backing up into the shop. The hood will pull a whole sheet of paper towel right out of your hands!

This style of hood also has the advantage that there is access to the fire all around, and so getting work into the fire is much easier. You can also run a bank of green coal on two sides, and make coke all the quicker.

Bell-mouthed take-offs are sold by the same HVAC dealers that have spiral ducting, which is really just the perfect stuff for forge chimneys. Use a 10" diameter pipe for the best results. It's also important to cut the outdoor end of the pipe at an angle to help shed rain. I pitched mine very slightly to the outside to keep rain out as well.

If you are interested in why the bellmouth works better, take a look at the orifice flow formula and the discharge coefficients (Cd) illustrated below. This coefficient is a direct multiplier in the flow equation. The bellmouth is about 35% better than a straight pipe, and about 20% better than a flat-faced pipe end.



An example of an HVAC bellmouth

ORIFICE FLOW FORMULAS

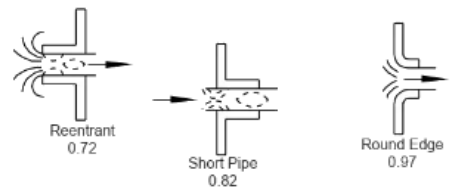


Figure 1; Cd for some orifices

$$Q = 1658.5 \times A \times C_d (h/g)^{0.5}$$

where:

Q =flow

A =area of the orifice

Cd =discharge coefficient

h =pressure drop across the orifice

g =specific gravity of the gas





# Copper Tulip

By David W. Wilson

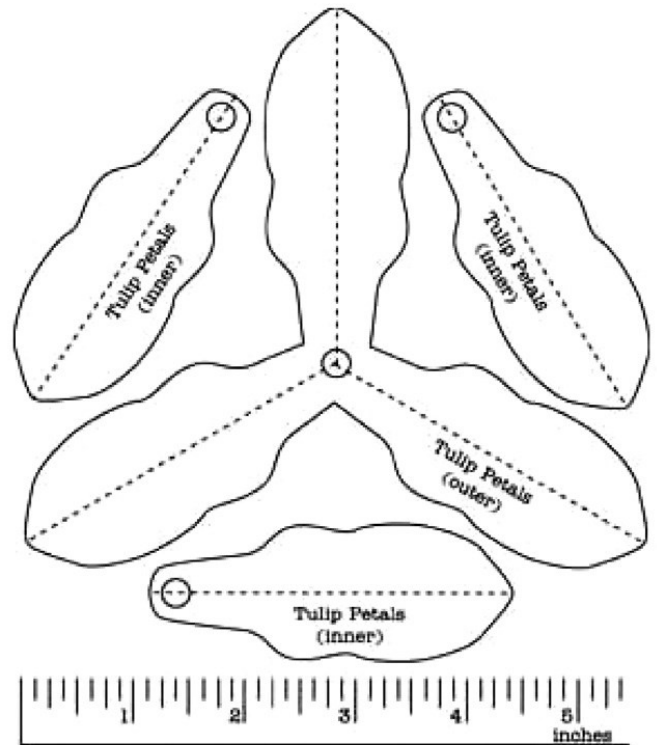
This tulip is planished from .032" (20 gauge) copper. The end of a fireplace poker handle will work well as a stake. A smooth face planishing hammer will not leave unwanted marks on copper. To make the copper easier to work, frequently anneal it, especially after hammering. To anneal, simply heat with propane torch to dark red and quench. The PETAL Patterns are designed to conserve material. Individual petals may also be created, however the inner petals should be slightly smaller.

A stem may be made from 1/4" round stock. Use oxyactelene torch to weld a nut on the stem for shoulder (at base of petals). Heat and hammer the hex nut to a round shape. Inside the petals, a threaded end with nut on the stem will allow easy repositioning and removal of the petals. Peening over the stem onto the petals will also work. Put a slight curve in the stem to add a realistic look.

The leaves are made from 22 gauge sheet steel. Fold the LEAF Pattern in half and open half way. This creates a center vein for the leaf. Ridges are made by heating with propane torch and bending with smooth needle nose pliers. File or snip the tips so they are not sharp. Wrap the base of the top most petal onto the stem first. Then wrap the lower petal base around the upper one. Note: the lower petal has a longer base to hide the upper petal base.

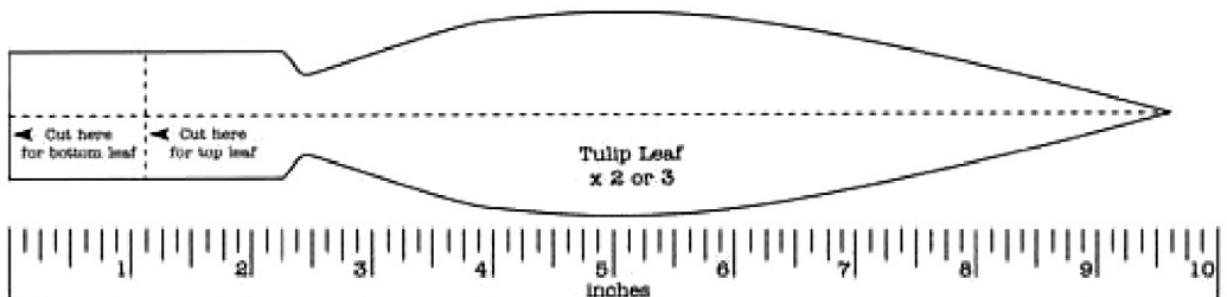
To make a ridge on the center of the petals, use copper wire. Wrap the wire around a round surface, lay the petal on the wire, outside up. Hammer with dead blow hammer to raise ridge.

Drill 1/4" holes in the copper PETAL Pattern. Place the larger, outer petals on the stem first, then the inner ones. Screw nut onto the end of the stem, stagger petals as



Created by David W. Wilson Illustration/Design  
[www.flash.net/~dwwilson/](http://www.flash.net/~dwwilson/)

Our grateful thanks to CVBG for sharing contents from their publication "Iron in the Fire" - June 1998.



This 2 page article reprinted from the May-June 2023 edition of The Upsetter, the newsletter of the Michigan Artist Blacksmith Association

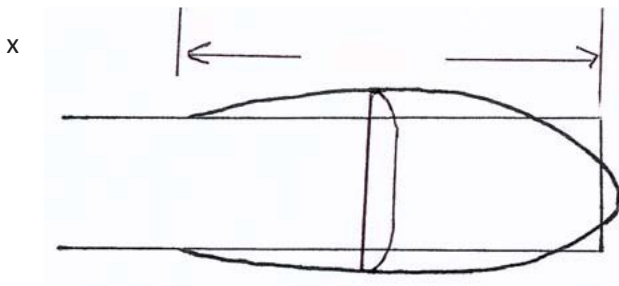


### Little FEESCH

Drawing, photos and write up by Steve Anderson, a MABA member

Forging cold steel into a life like form appears magical, but it also is educational. These little fish would be a great demonstration for shows and festivals this summer.

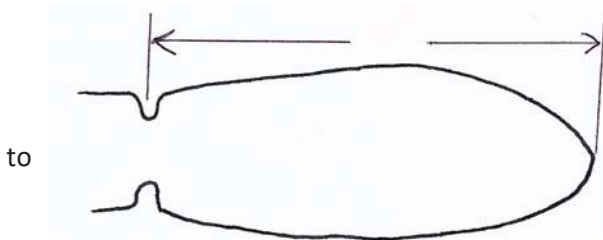
1—Forge the head and body on 3" of the end of



stock.

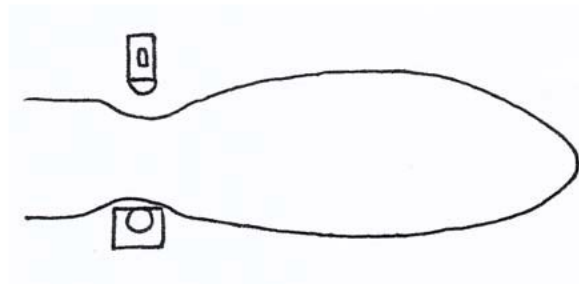
Leave the center flat, but taper the sides and end. File or grind if necessary.

To smooth, planish the surface by heating to red, then lightly hammering to a black heat.



2— Use a small fuller mark the start

of the tail 3" back from the mouth.

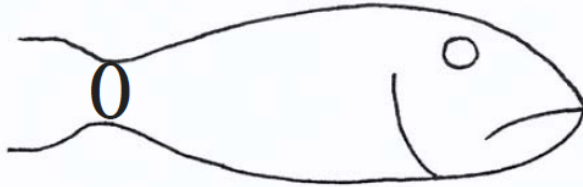


3— To forge the transition to the tail, use a small rounding hammer and tip of the horn. A spring fuller can also be used.

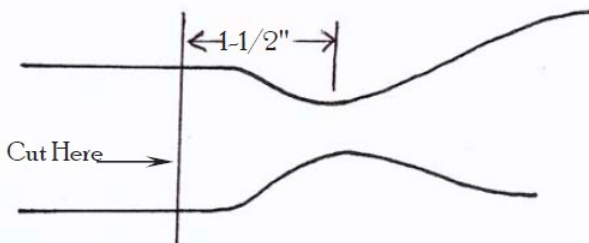


Be

4—Use curved chisels to form the mouth and gill cover. Make the eye with a 3/16" eye punch.

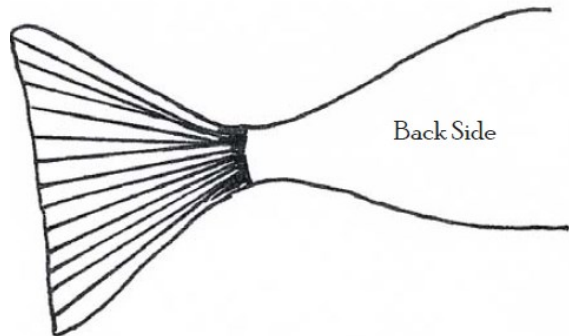
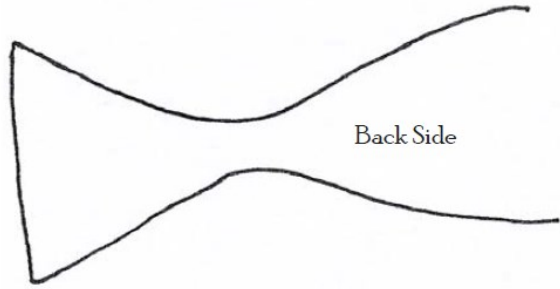


5—Add additional detail if desired. A lateral line can be made by imprinting the edge of a piece of a



small file. Spots can be created by using a nail set.

6—Cut the tail 1-1/2" back from the narrowest part.



On the

backside use a flat hammer to forge the tail to shape.





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**Farrel Wells** *Membership Secretary*  
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## **May 20 Hammer In Rob Hough's Shop**

9790 N Sharp Bend Rd, Albany, IN 47320

**Driving Directions:** From IN28 turn south on CR 550E (N Black Cemetery Rd) by Muncie Dragway. CR 550E will turn to the right, becoming Sharp Bend Road. Shop is about 1/2 mile on right side.

Please bring a dish or dessert

## **IBA Annual Conference**

June 2-4

Tipton County Fairground

**Demonstrators:** Andrew Larson, Ellen Durkan, Josh Sampson, Mark Blosser, Norm Gable

**Iron-in-the-Hat**

**Auction**

**Vendors**

**Tail Gating**

**Friday night pizza**