

September 2016

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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 *Forge Fire* for monthly IBA revisions.



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Dates to Remember

Sept 9-10
Heartnut Festival
(Rural Smiths) at
Johnson County
Park

Sept 23-25
Quad State SOFA

Editors Message

Folks, I have not been getting much input lately. If you have news and/or projects that you would like to share please send me the details. I can use digital pictures and documents and I can scan items. The IBA Facebook page has been busy with lots of sharing. I do not know how many Forge Fire readers do not have access to Facebook. Send me a note or call me if you would like to see information published from Facebook, or let me know if you would prefer not to see the same information twice.

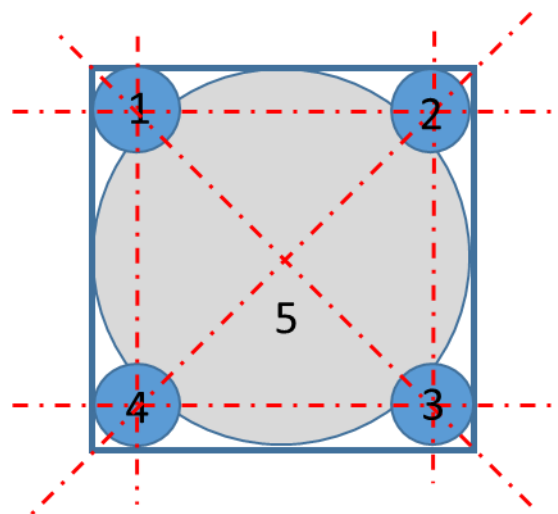
Festival season is in full swing. There are numerous posts on the IBA Facebook page relating to events people are headed to or returning from. Hopefully you are getting into the action as the weather begins to cool. Here are a couple festivals coming this month:

- Rural Smiths will be supporting the Heartnut festival at Johnson County September 9&10.
- The Trail of Courage festival will be at Fulton County (Rochester) on Sept 17 & 18. Fulton County is the home of the Sutton-Terock Memorial Blacksmith Shop. IBA members are invited to demonstrate in the shop and receive free admission to the festival. More details are listed on page 5.

The tong article in page 7 looks like it would be useful information. I know I have experienced work pieces jumping out of bolt tongs. Changing the geometry at the hinge to eliminate wedge action is a good tip.

Here is a tip for "drilling" square holes.

1. Layout the square.
2. Scribe diagonal lines and lines 1/2 a drill diameter from each side.
3. Center punch where the scribed lines cross.
4. Drill the four corner holes
5. Drill the center hole
6. File to shape. Over 90% of the final hole should be removed by drilling.



Visit the IBA website at: www.indianablacksmithing.org

IBA Satellite Groups and News

1) Sutton-Terock Memorial Blacksmith Shop

Meet: 2nd Saturday at 9 AM
 Contacts: Fred Oden (574) 223-3508
 Dennis Todd (574) 542-4886

3) Wabash Valley Blacksmith Shop

Meet: 2nd Saturday at 9 AM
 Contacts: Doug Moreland (217) 284-3457
 Max Hoopengartner (812) 249-8303

5) Maumee Valley Blacksmiths

Meet: 2nd and 4th Saturday
 Contact: Clint Casey (260) 627-6270
 Bruce Teegarden (260) 226-1722

7) Rocky Forge Blacksmith Guild

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

9) Whitewater Valley Blacksmiths

Meet: 2nd Saturday
 Contact: Keith Hicks (765) 914-6584

11) Bunkum Valley Metalsmiths

Meet: 1st Saturday
 Contacts: Jim Malone (812) 725-3311
 Terry Byers (812) 275-7150
 Kathy Malone (812) 725-3310

13) Satellite 13

Meet: 4th Saturday
 Contact: Bill Newman (317) 690-2455

2) Jennings County Historical Society Blacksmith Shop

Meet: 2nd Saturday at 9 AM
 Contact: Ray Sease (812) 522-7722

4) Fall Creek Blacksmith Shop

Meet: 4th Saturday at 9 AM
 Contacts: Gary Phillips (260) 251-4670
 Dave Kline (765) 620-9351

6) St. Joe Valley Forgers

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

8) The Southern Indiana Meteorite Mashers

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

10) One-Armed Blacksmith Shop

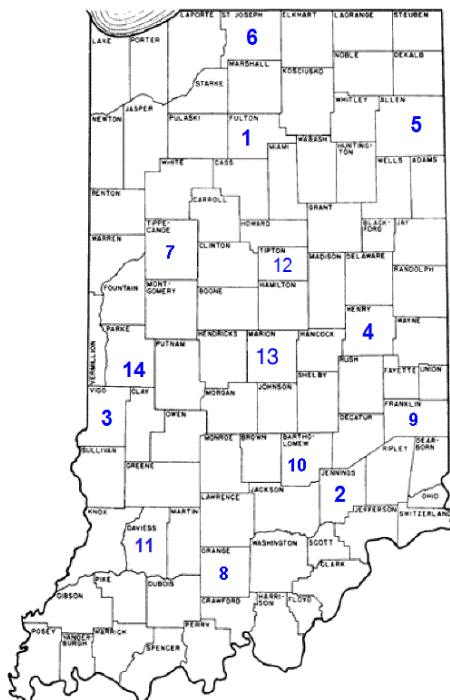
Meet: 1st Saturday
 Contact: Tim Metz (812) 447-2606

12) "Doc" Ramseyer Blacksmith Shop

Location: 6032W 550N, Sharpsville, IN 46060
 Meet: 3rd Sunday at 2 PM
 Contacts: Charles Gruell (765) 513-5390

14) Covered Bridge Blacksmith Guild

Meet: 1st Saturday
 Contacts: John Bennett (812) 877-7274



Jennings County Historical Society Blacksmith Shop

The Jennings county Historical Society Blacksmiths spent most of the morning looking over and purchasing some of the artifacts and tools still surviving from the estate of Ed Putoff. More are going to be available soon. After Iron-in-the-hat and other business was conducted, Nathan Pevlor began working on a primitive dragon (if there is such an animal). Alex Spellman started working on a very large knife. Little Diana Hollyfield made her maiden appearance at Vernon. The State Fair was a huge success despite the lower attendance. We also support Hayden Historical Society Blacksmith Shop and the Little Hoosiers. See you in September. Paul Bray

One-Armed Blacksmith Shop

The One-Armed Blacksmiths held their September hammer in at the Hayden Shop. All told there were about 10 blacksmiths present. Nathan Pevlor did an excellent job forging a humming bird. Brad Weaver and Tim Metz combined on a forged rose with a forge welded leaf. Charlie Helton, Paul Bray, Ray Sease and Bill Kendrick also took turns hammering.

IBA Satellite Groups and News (continued)

The Southern Indiana Meteorite Mashers

The Meteorite Mashers met at Beck's Mill again the month. This meeting was also the 208 birthday celebration for the mill, so lots of visitors. Isaiah Jenkins set up in the blacksmith shop, with Jeff Reinhardt and Mike Mills setting up demo trailers in the parking lot. 3 forges going and lots to see. Jason Hardin was caught in photographic evidence actually forging at a monthly meeting as he demonstrated one of his sheet metal hot forged vases. The meteorite Mashers will not meet in September due to the very heavy demonstration schedule and of course SOFA, Quad State attendance. See you at Quad State.



St. Joe Valley Forgers

In August the St. Joseph Valley Forgers participated in two public demonstrations. In early August, Bill Conyers, John Latowski, and Mark Hohulin demonstrated at the Mini Maker Faire at the Success Academy in South Bend. On August 21st John Latowski, Jamie DePriest, Dan Semple, Dave Edwards and Mark Hohulin demonstrated at Art Beat 2016 in South Bend Indiana.



At Art Beat we handed out flyers with information about our group and the Indiana Blacksmithing Association. Our demonstration at Art Beat was a great out reach to our community. Not only were we able to demonstrate our skills, sell some of our items, but we were able to connect with people in the community who are interested in Blacksmithing. During our regular monthly meeting on August 27th we had 30 people. 20 of these people had never been to one of our meetings before.



Mark Hohulin
Reporting

Trail of Courage Sept. 17-18

Always an event that brings never-known history, the 41st Trail of Courage Living History Festival Sept. 17-18 at the Fulton County Historical Society, Rochester, Indiana, will have many special things for the Indiana Bicentennial. **You are invited to earn free admission by demonstrating blacksmithing at the Sutton – Terock Blacksmith Shop** beside the round barn or at Fred Oden's Tiosa Forge inside the Trail of Courage festival.

The FCHS grounds are located 4 miles north of Rochester on U.S. 31 where the museum and big white round barn is seen beside the highway. The Trail of Courage is held there on the banks of the Tippecanoe River 10 to 6 on Sat., 10 to 4 on Sunday. Admission \$7 adults, \$3 children age 6 to 11, free 5 and under. Living history activities, traditional crafts, blanket trading, wigwams and teepees make this like stepping on a movie set. It is so educational, many schools send buses of children. Foods cooked on wood fires include buffalo burgers, ham & beans & cornbread, barbecue, corn on the cob, apple dumplings, and more. Lots of tables and benches make this relaxing for all ages. It is handicapped accessible.

Many long-time participants will return, including the Aztec Dancers, Indian dancers and drum, mountain men, trade blankets and tents, canoe rides, foods cooked over wood fires, shooting contests, two stages with music and dance, and more.

The round barn, taken down by a tornado Aug. 3, 2015, has been rebuilt and so has the cider mill. The 1912 jail and 1860 log cabin have not been repaired yet for lack of funding.

For more information, contact:

Fulton County Historical Society, 37 E 375 N, Rochester IN 46975. 574-223-4436,
fchs@rtcol.com, www.fultoncountyhistory.org and www.potawatomi-tda.org
which has photos of all 80 Trail of Death markers, history, maps, etc.

“Like Birds in a Wind Storm” showing Friday Sept. 16

The annual meeting of the Potawatomi Trail of Death Assn. and a special screening of the documentary “Like Birds in a Wind Storm” will be Friday evening Sept. 16 at 7 p.m. in the Fulton County Museum. The title refers to how the Potawatomi were scattered after being forcibly removed from Indiana to Kansas in 1838 on the Trail of Death. This documentary was made by Susan Green, Rochester, a professional film maker. It was sponsored by the Citizen Potawatomi Nation, Shawnee, Ok.

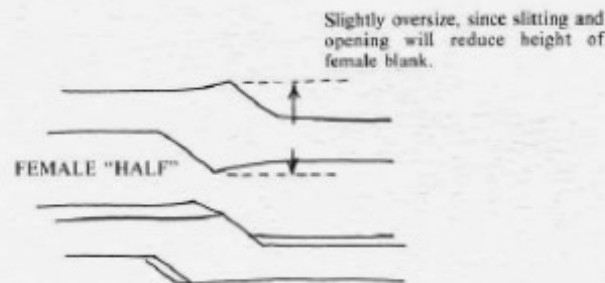
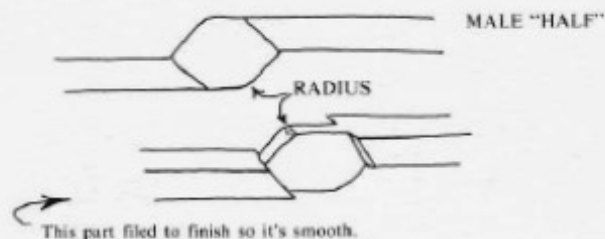
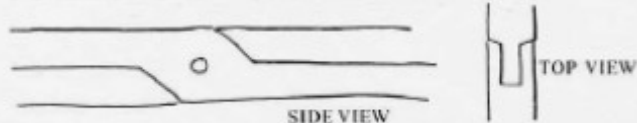
TIPS AND TECHNIQUES

THE BOX-JOINT Submitted by Tom Bredlow

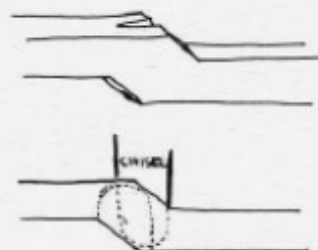
A couple years ago, at the conference at Carbondale, Ill., (Iron: Solid Wrought) there was a good deal of excitement over a hinge that showed up in the fireplace set made by Daniel Boone. While I was looking at it I heard a number of comments speculating as to how it was made, suggestions of forge-welding and lots of other mystique, and when I got back home, I tried one, but not without doing some thinking, not about its mechanics so much, which were evident, but about the work-attitude that surrounded it. The box joint is the hinge that appears in most of the jewelers' pliers and surgeons' forceps, and gobs of other applications that have come up over the centuries; its handiest reference being the pliers and what-not of the last century and more, right up to the present. It occurred to me that while Mr. Boone's use of it as part of the whole package in his fire set was a fine judgement as an element of decoration in an elaborate but nevertheless very nice fire set, (it was the hinge for the firetongs, a slender pair decorated to fit the set, which included acanthus and delightful little scrolls superbly welded in — a crossover hinge and rivet would have detracted) it was not done as a trick used to impress. It seemed to me that it should come from the same attitude as the tons of them that are around — that is — learn how to do one in an afternoon and have a bucket full of them by the end of the week. They are, except for Mr. Boone's delightful application, a hardware store item. Smiths have been filling bins in hardware stores for over a hundred years, anyway, with the sugar cutters, pliers, and so on, which employ the thing as strength and alignment, and while it takes some care, there are too many blacksmiths, Mr. Boone included, who have done them too well to fall for them as mystique or trickery. They're real. Here's what I think they are about:

The center piece is shaped to its final shape, but for some filing or grinding, (notice in nearby examples how the parting lines, while usually parallel to *each other* are less often parallel to the *outside edges*? Stock removal on the outside after the fit is right) and the outside "half" is forged, split, and opened up so the male "half" will slip through the opening with not much clearance to spare, then, with the center (finished part) cold, and the surrounding, opened part at a good forging heat, it is hammered shut, using the captive center part as the forging core, opening and closing the thing as it is being worked, probably a single heat operation, once they are set up (had to keep filling that bin, you know). Mr. Boone's box joint if I remember correctly, may not have dressed completely flush all around with all the voids filled, like the round nosed pliers and surgical forceps, but it was just fine, couldn't be improved upon for the application, and works without benefit of rivet. Top grade for that one, I say, as it was not pliers or forceps he was thinking of when he skillfully included it in his *nice* fireset. But you can fill out the corners of the thing, with a little work learning the shapes.

Box-joint blank, ready to be made into something. Ends can be made up before closing the joint, if they are complex, but this is the basic idea:



Begin slitting:



Open end of chisel cut with flat bottom rectangular punch as thick as male is at reduced section.



Then, with a tapered square punch, open the slit from both sides to size of "handle" dimensions. Carefully enlarging the opening so as not to distort too much (Backed up by open jaws of the vise, gradually opened further with knee, to accommodate widening punch taper.



THE ANVIL'S RING,



When opening proves to be sufficient to receive male half (it'll do it, no kidding) then . . .



take a good forging heat on the female half, insert the cold male half, and forge the female down around it, working the parts as you go so it doesn't forge gorge steps inside, remove any excess so all surfaces are flush, and there you have it. It took me several tries to fill the thing up, but you catch on as you go.

Just a word about application of the thing. There have been a lot of very good looking tools made this way, and some good looking decorative items, as well, but the good ones all have the look in silhouette, from a distance, of something that *should* have the box-joint as a hinge. They weren't thrown in as mystique — there's certain *shapes* of things they go with and enhance, both for looks and for alignment and strength. So don't stop at the magic of a box joint — make a package of it, and the fellows who did thousands of the things will thank you for taking part in a real thing.

Editor's Note: This article reprinted from the December 1978 Anvil's Ring

Tong Design by Jake James

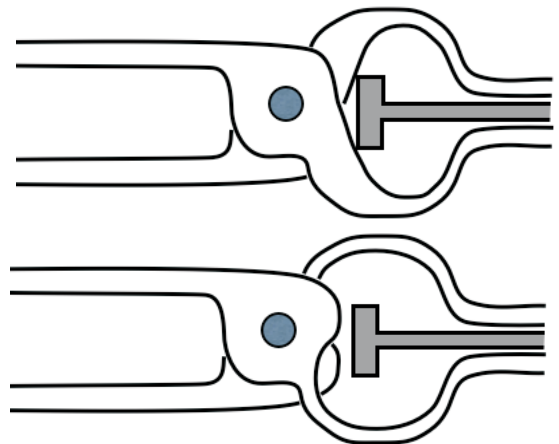
Adam's Forge Sculpture Workshop, April 15 - 17

At the sculpture workshop held at Adam's Forge, Jake James shared this tip about tongs, especially for use with the power hammer. The tip is intended to improve the holding ability of tongs, especially when the hammer force causes the work to bottom out when held with typical bolt tongs.

Interior of a typical bolt tong is shaped something like this.

The force of the power hammer can cause the work to bottom out between the jaws, forcing them apart or loosening your grip.

A solution is to shape the area in front of the rivet so that if the work bottoms out, the jaws are not forced apart.



Here are examples of tongs forged as described above. They were used by Frank Trousil and Mark Krause in their demonstration at Spring Conference 2016. Photo by Tom Davisson

Editor's Note: This article reprinted from the California Blacksmith newsletter, September/October 2016 edition

Organic Metalworking Volume One – The Grapevine

by Lorelei Sims

Book Review by Frank Golding, Boulder Creek

Organic Metalworking Volume One – The Grapevine is a well-written how-to book for the person who may want to learn the process of making grapevines and applying what they have learned to their forged metal artwork. In the book, Lorelei covers the basic tools needed to fabricate the grapevines, with an easy-to-follow step-by-step tutorial along with color photographs and explanations of the process for making the grape vines and clusters of grapes. She also covers some practical projects for the reader to try.

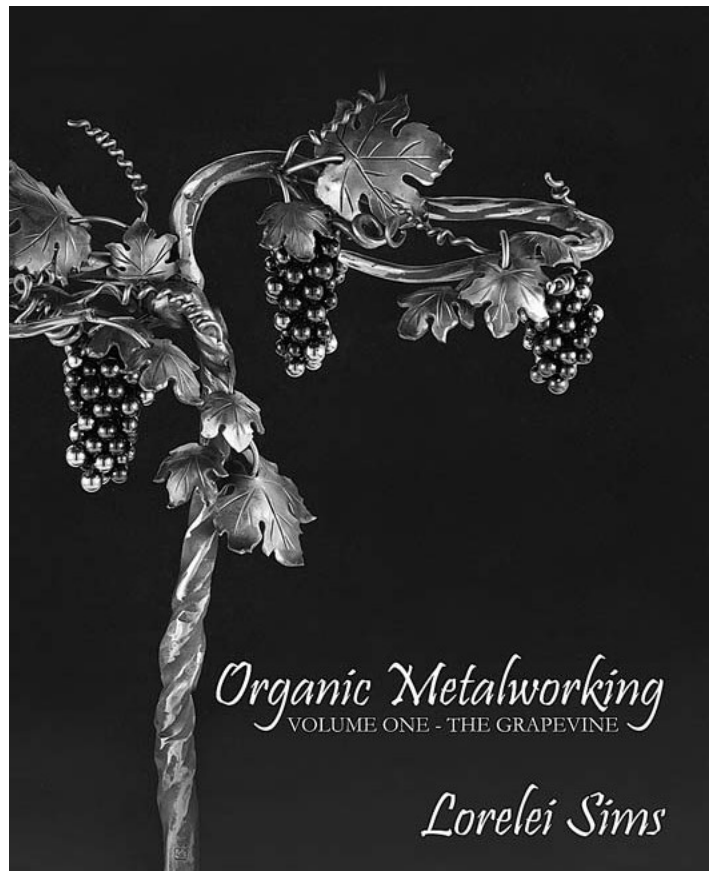
The tools needed by the blacksmith/metal worker are the same as what many of us may already have in our shops, such as the forge (gas/coal), hammer and anvil, possibly a power hammer, cutting and welding tools, air tools, grinder and sanders, saws and a tumbler (a cement mixer works for this).

Next she covers the different elements of the grapevine and the process of forging, welding (grape clusters) and making the grapevines look as realistic as possible. She covers each step in great detail, from forging and texturing of the vines, tendrils, leaves and petiole – the shoot – to the grape bunch. After detailing the process of forging the vine and its components, she covers other elements that will be used in some of the projects described later in her book. These elements include, for example, a forged nail for attaching items to a wall, rings, a candle dish and cup. Then she explains how to incorporate these elements into the projects.

Some of the projects covered are the candle holder, the curtain rod, the rod hanger and curtain tieback, a wall-mounted hanger, a hanging wine rack, a coat hook and fire poker. With every project, Lorelei Sims explains each step in detail with color pictures of the work and the tools needed.

For the blacksmith or metalworker who wants to explore the possibility of incorporating grapevines with a realistic look, this is a must read. Personally, I can't wait to get to work on my first project. □

Price \$20. Send check or money order to
Five Points Blacksmith Shop, 6146 Snake Trail Road, Charleston, IL 61920.
To order via Paypal, use the email account lorelei@blacksmithchic.com.



Editor's Note: Lorelei Sims furnished a copy of *Organic Metalworking* to the IBA. Contact the the IBA librarian if you would like to borrow it.

“Because You Bought American, We Have Jobs”

By Dominick Andrisani

Two years ago I purchased some fairly expensive kitchen cookware (pots) that were made in West Bend, Wisconsin by the Americraft (AmericraftCookware.com). The sales person I dealt with was at the Indiana State Fair, and earlier this week I met up with her again at this year's Fair. She gave me a CD about how the cookware was made (<https://www.youtube.com/watch?list=PL6rM3Wv09XSQjs7ZmPpRgz556l1CgluOs&v=SbPZgjught4>). Since I am interested in manufacturing processes involving metal, I was fascinated to watch the CD.

The manufacturing story involved steel making, steel layering to create a 7-ply steel sheet, plastic knob and handle making, and the shaping of the pots themselves. One key vendor in the supply chain is a small company in **Logansport, Indiana**, called **Ameri-Tek Manufacturing, Inc.** They make the metal fittings used to connect the plastic handles to the pots. All the vendors in the supply chain were American companies.

Shaping of the pots themselves is actually a fairly small part of the manufacturing story. They use DRAW PRESSES to do most of the work. The particular presses they use were converted from presses used during World War II to make shell casings for artillery shells. In a matter of seconds the DRAW PRESS forges a pot from a disk and in a second step forges the lip that creates a precise watertight seal for the waterless cookware. Another machine trims the lip of the pot to precision size. That's about it for the gross shaping of the cookware, processes that take less than a minute.

I was expecting the CD to be about manufacturing processes, and it was. But I was surprised to learn that the entire supply chain involved American companies and **“Made in USA”** products. Again and again in the CD there were workers from the various companies saying, **“Because you bought American, I have a job!”**

This got me to thinking. I bought the cookware because I knew they were of superior quality. But I gave little thought to the many American jobs involved in their manufacture. I am now asking myself questions like the following. Should I actively seek out products that are **“Made in USA”**? Does **“Made in USA”** mean that the quality of the product is superior, like it used to be when I was a boy? Is it important that I support American jobs when I buy **“Made in USA”**? If an American made product costs more than an imported product of equal quality, should I still buy **“Made in USA”**?

The haunting parts of this CD were the faces of the American workers. They looked like you and me. They have good jobs, could support their families, and have good benefits and their self-respect. They have jobs because people like me bought American.



Aspery-Style Bending Fork

Dennis Dusek, Placerville

Note. While some dimensions are given here, this is a guide to make the size you desire for your bending fork.



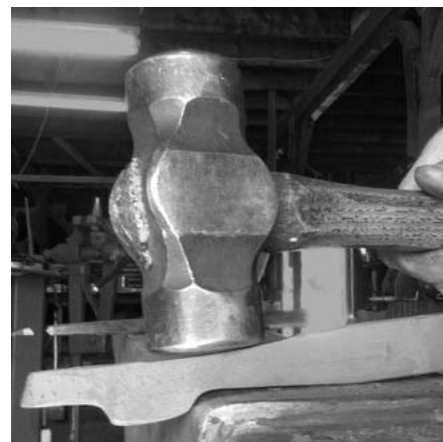
Stock. 1/2" x 1" mild steel.

Variety of sizes.

1. Start with half-face blows on the near side of the anvil, about 7/8" back from the tip of the stock. Compress the stock about half way. This will become the outer fork tine.



2. Next, isolate about 1 1/8" for the rear tine, using half-face blows on the far side of the anvil.



3. Using a 1/2" fuller, start walking the material out. Do not fuller all at once. Fullered material will widen, so keep returning to the anvil face, flattening the sides to keep this area at parent stock size.



4. Using a 1 1/2" fuller, dress the back of the fullered tine to create a nice radius on the back side of the tine. From time to time, flatten the sides to maintain the tine at the parent thickness.



Note the special jig that holds the bending fork.

Bending Fork

5. Draw out the handle to your personal style.
6. Taper the end. File working areas – contact points when you're bending – to a nice smooth radius so that you won't mark up your work.



7. Bend around a fixture of the desired spacing of the fork tines. Bring the tines to parallel.
8. Clean it up, and then go make a bunch in different sizes.



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Newsletter of the
Indiana Blacksmithing Association, Inc.

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sender

PROJECT NOTES—CHEESECUTTER

Author: Steve Bloom, Ironflower Forge



(1) 3/8 square stock - 7" (tool steel)

(2) Taper from center to ~ 12" overall



(3) Tight twist (1 1/2 turns) CW close to center,
then CCW on other side



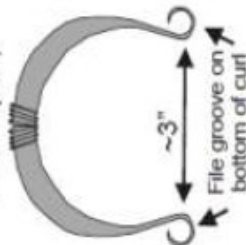
(4) Slit the ends (saw cut ~ 1/2"). Annealing
may be necessary



(5) Roll open finial on both ends.
Leave a slight (0.1") gap

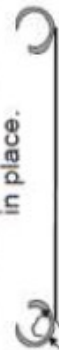


(6) Shape into matching
curves (spread slits to
~ 0.1" apart)



(7) Heat treat to make a spring
(oil quench, temper at 650 F)

(8) Squeeze in a vise and run SS
fishing leader between curls.
Use slots and passing wire under
the cutting bar to lock wire
in place.



Editors Note: This article reprinted from Blacksmith Organization
of Arkansas newsletter, September 2016 edition