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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.

May 18
2019

**JIM CLAAR'S SHOP
NEW LISBON, IN**

**IBA CONFERENCE AT
TIPTON COUNTY
FAIRGROUNDS
MAY 31—JUNE 2**

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Dates to Remember

May 31– June 2
IBA Conference

October 11-12
UMRBC
(Pontiac)

Editors Message

My heart felt apology to the family of Charles Gruell for posting the incorrect date of the memorial service. I hope the social media updates alerted people of the correct date.

We do have an IBA hammer in scheduled this month. It is relatively short notice, but we will be meeting at Jim Claar's shop in New Lisbon on May 18. Jim is a uniquely talented person. His shop includes a wide variety of interesting tools that he created. Directions are listed on the back page.

We are just a few weeks away from the annual IBA Conference.

We have a strong demonstrator line up:

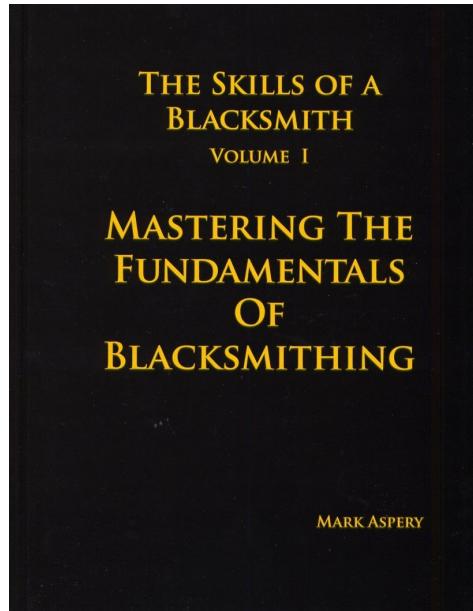
- Mark Aspery is featured on Saturday and Sunday,
- Steve King and Broadus Thompson sharing duties on Saturday
- Brad Weaver demonstrating on Friday evening.

Fred Oden is continuing to look for Iron-in-the-hat donations. This is not a scrap iron swap meet. We are looking for high quality tools and items of value to blacksmiths.

Please volunteer some time to help set up on Friday and tear down on Sunday. This is truly a case where many hands make light work. Your help is appreciated.

Blue Moon Press will have books and other items for sale at the conference. I just checked on line. Blue Moon offers Mark Aspery's 3-volume set for

about 20% under Amazon. Be sure to check out their display, or better yet order ahead of time.



BLUE MOON PRESS

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Email: books@bluemoonpress.org

Toll Free Order # 866.627.6922

*Supporting the Art of Metal Work
Around the World*

**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
 Dennis Todd (574) 542-4886

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: 2nd Saturday at 9 AM
 Contacts: Doug Moreland (217) 284-3457
 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 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

Meet:
 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

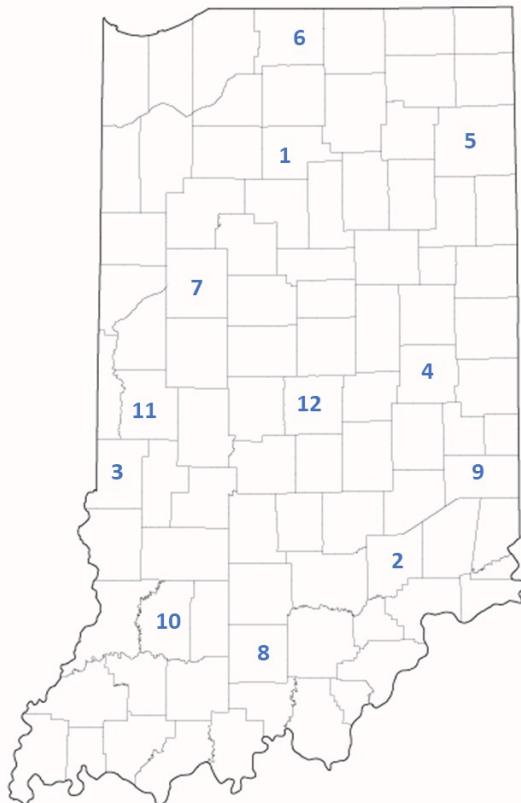
Meet: 1st Saturday
 Contacts: Jim Malone (812) 725-3311
 Terry Byers (812) 275-7150
 Carol Baker (317) 809-0314

11) Covered Bridge Blacksmith Guild

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

12) Satellite 13

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



Jennings County Historical Society Blacksmith Shop

The Jennings County Historical Society Blacksmiths had a great day to be back in our home shop. Dave Good started out the day by making a couple of Ginkgo leaves. Nathan Pelvor made a great Ram's head. Kevin Alvarez made a knife from a spike. Alex Spellman tried to drift a ball peen hammer with a tomahawk drift. Dave Good made a cutoff from a bearing .

It is time for all of us to start thinking about items for the tool box. Time will be up too soon.

Be sure to send in your conference dues. Everyone should have their booklet by now. If you haven't, get in touch with a board member or contact Jim Johnston, conference chairman at 765-452-8165. Put your skills to good use.

Thanks Paul Bray

IBA Satellite Groups and News (continued)

Bunkum Valley Metalsmiths

The Bunkum Valley Metalsmiths met Saturday May 4th. Attendance was a bit down on such a rainy day. Those who came had plenty of room for forging. There was a large Iron in the hat, lots of learning, good food and even some first time visitors. Please visit we meet the first Saturday of each month. Bring a dish to share and your best stories!



Sutton-Terock Memorial Blacksmith Shop

Here is a photo of Tim Pearson (on the right) after helping a father and his two sons forge their first s-hooks. They were visiting from England!

-Jason Fritz



IBA Satellite Groups and News (continued)

Meteorite Mashers

This month's meeting was at Jeff Reinhardt's shop in Floyds Knobs. The day started warm and sunny with this the first meeting in many months with nice enough weather for forging outside at the beginners forges. With 3 forges going, hard to keep up with who was doing what. Jeff Reinhardt started the day demonstrating a Japanese gardening knife, made complete from a RR spike under the power hammer. This was to show Darren Bender-Beauregard another way since Darren has forged several recently by hand. Then Jeff Made a garden trowel same way to show how to get a much wider blade from the same stock. Mike Mills was as usual doing a great job with beginners classes outside. After a lunch of spaghetti and meat sauce and Taco soup, a nice iron in the hat was held. Lots of nice items. Then not one but 3 door prizes, a set of tongs by Steve King, and the trowel and garden knife from Jeff.

The signs that are put out to mark the turns for new visitors actually brought in several groups who were just interested to see what we were all about. One was interested in buying a knife and contacts were made, the other, a long time smith from Hardinsberg Indiana was provided an IBA brochure and invited to our next meeting. Heck our group drags em in off the road to join.

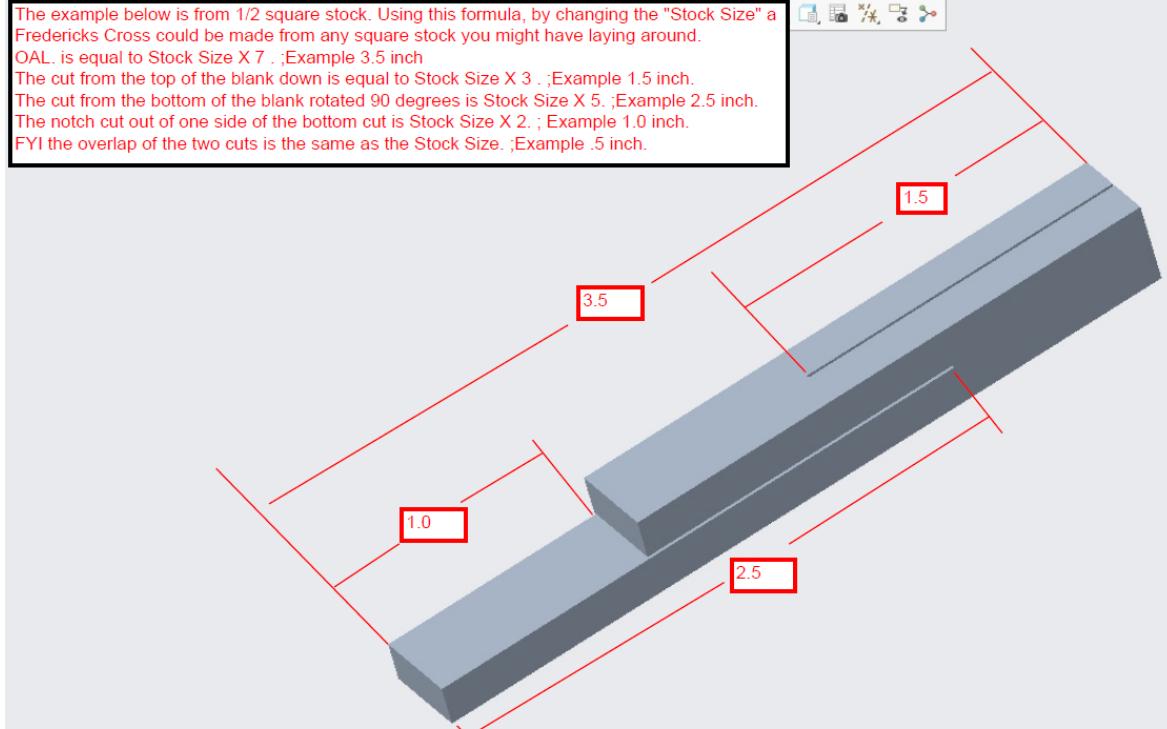
As the day went on rain started, and the temp dropped. Ended up with all back inside and the shop closed up to break the cool breeze.

Our next meeting will be at Jason Bowman's shop in Elizabeth Indiana. Jason has joined our group and was volunteered to host.

Proportions for Cutting a Fredricks Cross

By Tim Metz and Julia Decker

The example below is from 1/2 square stock. Using this formula, by changing the "Stock Size" a Fredericks Cross could be made from any square stock you might have laying around.
OAL. is equal to Stock Size X 7 . ;Example 3.5 inch
The cut from the top of the blank down is equal to Stock Size X 3 . ;Example 1.5 inch.
The cut from the bottom of the blank rotated 90 degrees is Stock Size X 5 . ;Example 2.5 inch.
The notch cut out of one side of the bottom cut is Stock Size X 2 . ; Example 1.0 inch.
FYI the overlap of the two cuts is the same as the Stock Size. ;Example .5 inch.



The ABANA 2020 Conference. The Chain Making Competition: Intermediate Category



Chain and Repair link

360 Degrees of Blacksmithing



ABANA 2020 June 3-6
Saratoga New York

The ABANA 2020 conference chain making competition

ABANA 2020 Conference competitions #2
Chain-making - Intermediate Category

Mark Aspery, California.

You are to forge two links of chain from 6-inch long pieces of $\frac{3}{8}$ -inch round bar, and a repair link from a piece of $\frac{3}{8}$ -inch square stock, the length of which is unknown at this time.

The repair link will have an included mortise, either formed by punching and drifting, or by welding an eye.

For punching the eye, you'll need either a $\frac{3}{8}$ - $7/16$ -inch wide slot-punch or a slitting chisel and a round drift. I use a tapered round drift as I find it suits my needs better than a parallel sided drift. You will also need a hot cut chisel and maybe your own pair of $\frac{3}{8}$ -inch tongs, as these will be at a premium during the event.

If you intend to weld the eye, you may need a mandrel as well as a drift.

Either method is appropriate, with welding perhaps more suited to wrought iron and its grain.

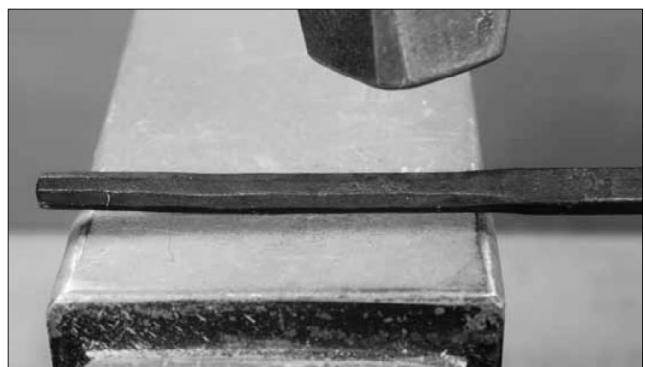


Here is the repair link applied

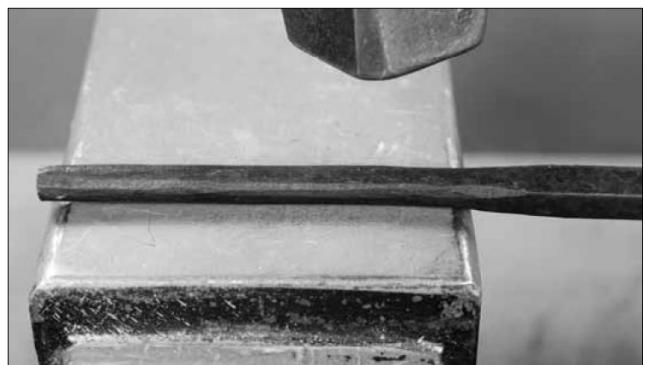
Start by drawing down a section of the square stock and forging it into a $\frac{3}{8}$ -inch round cross-section. I estimate a need of around 4-inches (finished) of drawn square stock, that will be further forged to a length of $4\frac{1}{2}$ to 5-inches of $\frac{3}{8}$ -inch round stock, the remainder of the bar being left $\frac{3}{8}$ -inch square.



Draw down a length of $\frac{3}{8}$ -inch square bar on the bick



Draw down a 4-inch length to a $5/16$ -inch square cross section



Dress the forging and take to octagon and then on to round



Aim for a $4\frac{1}{2}$ to 5-inch length of $\frac{3}{8}$ -inch round bar when finished

Mark Aspery

Once you have drawn down the end of the bar to a round cross section, you have a choice of working methods; your decision may be made for you depending on the room in the forge pan, length of original stock etc.:

1. Severe the material that you think that you need from the parent bar and punch or weld the mortise.
2. Punch and drift the mortise before cutting the repair link from the bar.

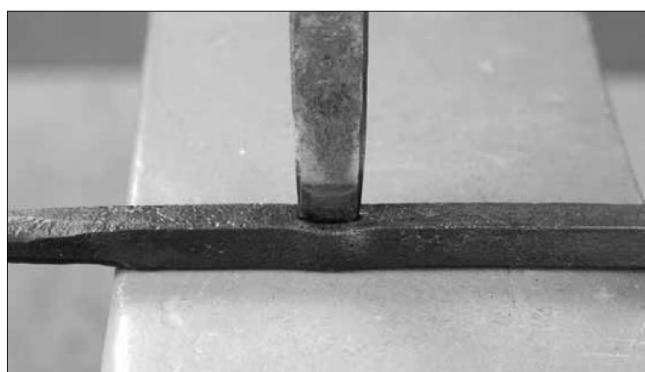
I prefer not to cut the project away from the parent bar until after I have finished the link. Keeping the project on the bar makes it much easier to punch and drift as well as turn the link to thread the eye.

Cutting the link away from the bar also creates a problem with the corners of the cut bar creating 'rabbit's ears' during drifting, but it maybe a needs-must situation, depending on forge room etc.

I show both methods in the photograph progression below to cover to all eventualities.

If you cut the project from the parent bar, you have a couple of options. You can cut the bar straight across and be left with a flat end, or you can use a curved chisel (or hardy cut-off) and leaving a curved end. Both methods have their shortcomings.

You need 1 $\frac{3}{4}$ -inch to 2-inches of un-forged square stock on the end of the forged round stock, to complete the repair link. I find that a length of 6 $\frac{1}{2}$ -inches from the end of the bar to the start of the mortise is about the right length of material for the link.

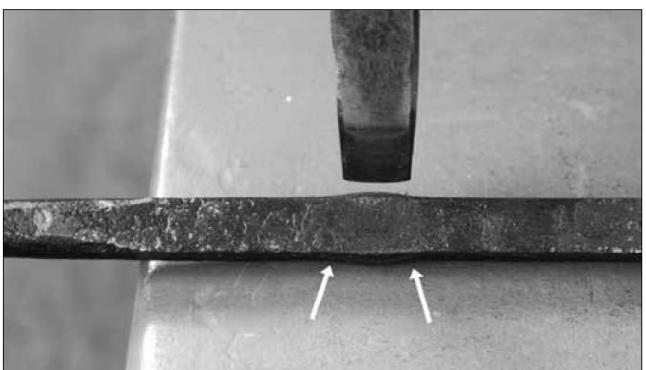


Punch to slightly past halfway from one side of the bar

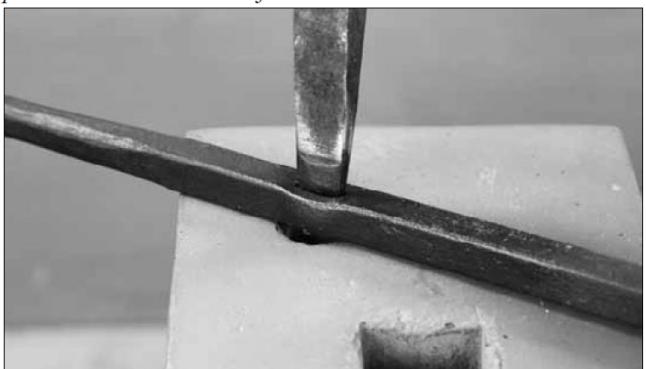
I like to punch from both sides of the bar pushing the resultant swelling to the middle of the bar, rather than to one side, and leaving a uniform look.

Use the swelling created by punching from the first side to landmark the punch on the second. Clear the slug over the pritchel hole.

My preference is to use a tapered round drift to finish the mortise, working from both sides of the bar and teasing the hole into its final shape.



Use the swelling created by the initial punching to locate the punch on the second side of the bar



Clear the slug over the pritchel hole of the anvil



My slot punch is slightly over 3/8-inch wide

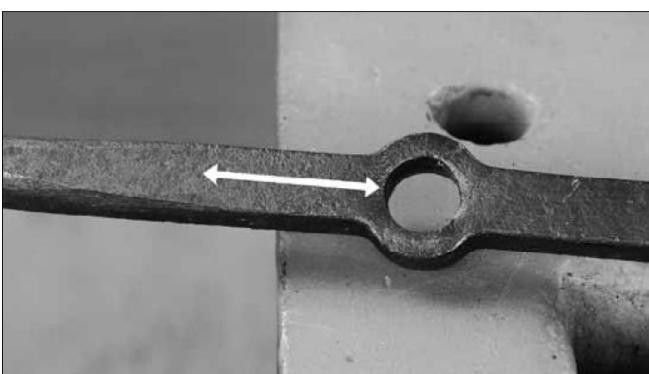
The ABANA 2020 conference chain making competition



I use a tapered drift when drifting the mortise, but that's personal preference



Work from both sides of the bar as you drift



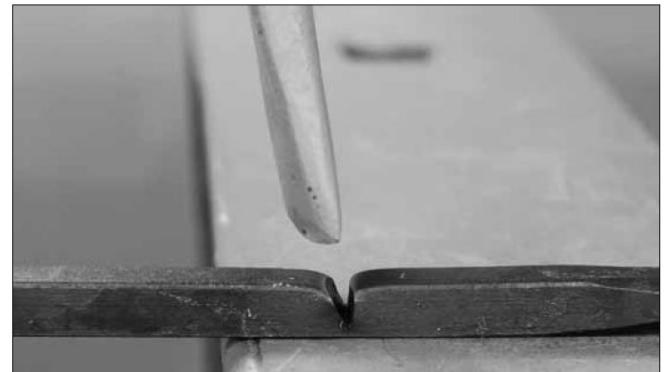
I like about 6½-inches of length from the start of the mortise to the end of the round bar

If you have a flat cut you can either hot rasp the end now or later, although delaying it until after you have drifted the mortise might be more appropriate.

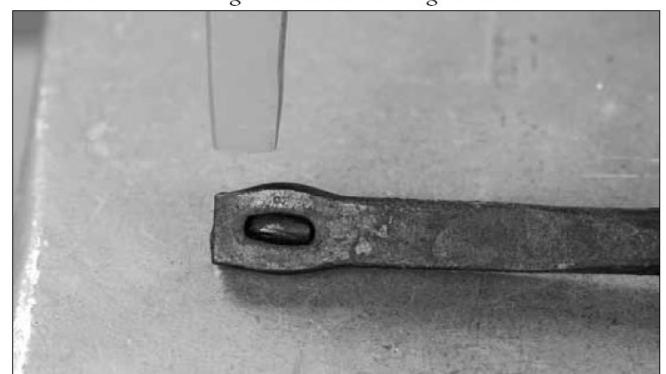
My slot punch is about $\frac{1}{16}$ -inch thick and a little over $\frac{3}{8}$ -inch wide. When placed along the centerline of the bar it will leave $\frac{5}{32}$ -inch on either side of the punch.

If you cut the project from the parent bar, theory suggests that you leave that same amount from the edge of the punch to the end of the bar. Theory and practice don't always align, and this is one time when they don't.

The end of the bar, having minimal support, is stretched and thinned by the drifting action of forming the eye. To accommodate for this, pad the measurement from the edge of the punch to the end of the bar to allow for this - not by much, a $\frac{1}{32}$ -inch or so, a little more if you are going to hot-rasp the end.



Sever the piece from the bar 1 ¾-inch past the transition area. Note that I am holding the chisel at an angle to the bar



Leave an allowance at the end of the bar for cleanup and drift movement when you punch.



Hot rasp the cut end after drifting to round

Mark Aspery

The size of your slot punch and drift must reflect the size and shape of the round end of the repair link.

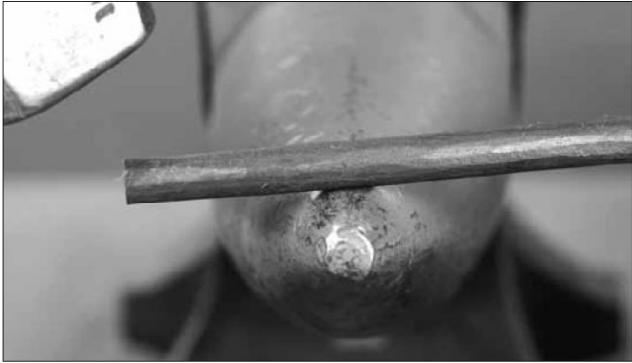
Once the mortise is formed, you will need to bend the end of the round bar to slightly past 90-degrees.

Lay off about 1 $\frac{3}{8}$ -inches past the centerline of the bick to locate the bend.

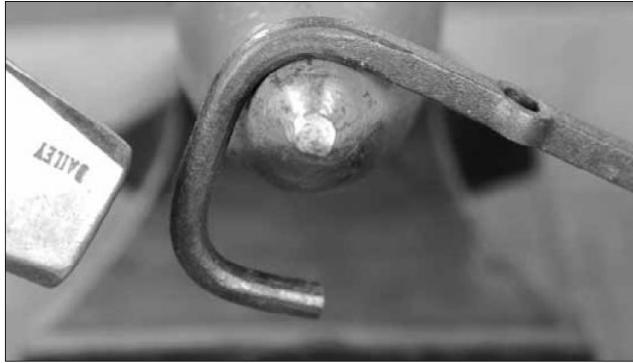
Make the bend at an area of the bick or horn that reflects the inside dimension of the chain - around 1-inch in diameter.



With an allowance of material needed to make the bend, turn the link



Lay off about 1 $\frac{3}{8}$ -inch from the center of the bick



Take the bend past 90° if you can, making it easier to catch the bick when you turn the link over



Bending the bar to slightly past 90° makes it easier to thread into the mortise

Bend the bar so that the tenon is headed towards the mortise. Make the bend around the area of the bick that best represents the inside diameter of the chain to be repaired.

There should be no square stock within the bend.

Close the link and give the whole thing a brushing. Cut the repair link from the bar using either a curved or a straight chisel. There is no set way the end should look, curved or flat, so long as the end doesn't interfere with the joined chain when applied.



Finish the bend over an appropriate part of the bick, leaving an ID that matches the chain link



This is as far as I go on the bick before moving to the face of the anvil

The ABANA 2020 conference chain making competition



Close the link on the face of the anvil and give it a good brushing before returning to the fire



Sever the repair link from the parent bar and hot rasp the cut end to either flat or curved, taking your cue from the judge



This is the end after hot rasping, showing the fit that I am looking for in the mortise



Open the repair link ready to apply the two chain links

Re-open the link sufficiently to accept the chain links with either a pair of tongs or at the bick.

Hopefully, at this time, you've already moved the material for the two chain links nearer to the fire to pre-heat them ready for forging.

A variation on this theme is to create a hammer-finished tenon on the end of the round bar section. Forego the drawing down of the bar at the bick, moving straight away into octagon and round. This move leaves the round bar oversized, and able to accommodate a tenon of the requisite size for the mortise.



The judge may or may not want the repair link closed on the day. Practice both and get a feel for the time needed



A variation on the theme is to create an appropriately sized hammer-forged tenon on the end of an oversized round section

The judge on the day *may or may not* want the repair link to be closed on the links, practice closing the repair link to get an estimate on the time needed should the need arise. Good luck!

Follow the ABANA 2020 conference on Facebook®:
ABANA 2020 Conference

Register for the conference at:

www.ABANA.org -or-
www.ABANA2020.com



The FORGE FIRE
Newsletter of the
Indiana Blacksmithing Association, Inc.

Farrel Wells *Membership Secretary*
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Dunkirk, IN 47336-8807

First Class Mail

Address Correction Requested
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sender

**May 18 Hammer In
Jim Claar's Shop**

New Lisbon, IN

Driving Directions: I-70 Exit #131 (New Lisbon) and turn North on Wilbur Wright Rd. Go about 3/4 of a mile. Look for signs

Lunch at local restaurants or brown bag.



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