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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 7-9 2019	IBA REGIONAL CONFERENCE ROCHESTER, IN
Aug (?) 2019	INDIANA STATE FAIR
Sept 4-6 2019	IBA REGIONAL CONFERENCE ROCKVILLE, IN
TBD 2019	3RD IBA REGIONAL CONFERENCE



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May 7-9 Regional Conference, Rochester

Sept 4-6 Regional Conference, Rockville

Editors Message

Last month the IBA held the annual business meeting via Zoom video conferencing. The meeting was sparsely attended. We had 8 directors plus 3 others.

Jim Johnston announced that he was stepping down from board due to ongoing health issues. Jim has been instrumental in advancing the IBA conference. His efforts make the conference a popular and valued event. We will definitely miss Jim's input. I wish him the best for a quick and full recovery.

The treasurer gave a financial report. Without a Conference, the IBA lost about \$3500 last year. However the IBA does have sufficient cash reserves to make it through this tough stretch. The cash flow summary report is posted on page 9.

The remainder fo the meeting focused on renewed IBA sponsored events. The usual June conference at Tipton was deemed too large to organize and pull off in the short time frame. Several smaller, regional conferences were proposed.

Two additional Zoom meetings were held. In the first meeting, Daniel Sutton was nominated to replace Jim Johnston on the board. The meetings then focused on conference details and locations. Page five lists details for conferences at Rochester and Rockville. A third conference is being worked on. That site has not yet been confirmed.

All regional conferences are expected to be free of charge to IBA members. Non-members may join the IBA for \$35/household.

Your IBA membership may be expiring soon. A copy of the membership application is included on page 4 or you can down load a copy at:

http://indianablacksmithing.org/membershipapplication.pdf

The IBA board has scheduled a Zoom meeting for 6:00-8:00 PM on Thursday, May 13. The purpose of the meeting is to discuss the Rochester conference and possible adjustments for later conferences. If you want to participate use the link below.

Meeting URL: https://cummins.zoom.us/j/91873822147?
pwd=V0Q5K09nczFmSWNrUThBRjRuRE0wQT09

By Phone (any number): 646 558 8656 651 372 8299 786 635 1003 267 831 0333

301 715 8592 312 626 6799

Meeting ID: 918 7382 2147

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: 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

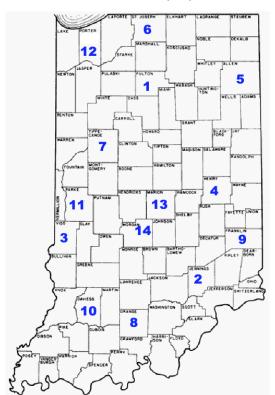
6) St. Joe Valley Forgers

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

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

The Jennings County Historical Society Blacksmiths met at the forge of Kevin Welsh on Sat. ,March13. Kevin started forging with a "S" hook 10"x1/4" cold rolled hanger. He then made a door pull from 1"x1/4" flat stock. Josh Sampson worked on a fire poker while Chelsi Sampson made an "A" from 1/4" round as a gift for a friend. Dave Good made a hammer head and drifted it. Kevin took the time to show us the use of a swedge block. Many thanks to Kevin and Pam for their hospitality, great breakfast and,thanks for the many pitch-in dishes, a great meal. Good turn out for the iron-in-the-hat. Next meeting will be back to Vernon on April 10. Hope to see you there. Paul Brav

Indiana Blacksmithing Association, Inc. An Affiliate of the Artist-Blacksmiths' Association of North America, Inc.

Application for Membership

Membership in the Indiana Blacksmithing A Membership dues are paid at the time of app Make Checks payable to: Indiana Blackst	lication and are renewed	d on June 1st of the following year.
Please incl	Membership (All fami ude name(s). ODE CHANGE	Address Change.
NAME:		
ADDRESS:		
CITY, STATE, & ZIP+4:		
PHONE (HOME):	PHONE (V	WORK):
E-MAIL ADDRESS:		
	u can download a PDF crobat Reader which is	
		one Number, and E-mail Address in r members. Your information will be
Check here if you would consider he Check here if your meeting place is Check here if you are available to d Check here if you are available to d	heated. o demonstrations at IB	
Please read and complete the following release In consideration of the Indiana Blacksmithing granting permission to enter the area of said d my person or property which may be caused b Inc., it's officers, directors, agents, or employe inherent dangers in blacksmithing and I assun demonstration and waive any and all specific r acknowledge that I have read and understand	Association, Inc.'s makin emonstration, I hereby w by an act, or failure to act es and the hosts and demone the risk of all dangerou notice of the existence of s	ng these demonstrations available and raive all claims for damage and/or loss to of the Indiana Blacksmithing Association, onstrators. I understand that there are us conditions in and about such
Signature	Date	Witness (if not mailed)
Signature	Date	Witness (if not mailed)
SEND COMPLETED FORM TO: FARREL L. WELLS 8		UNKIRK, IN 47336-8807

Home: 765-768-6235 Home Office/Fax: 765-768-6247

RECEIVED CHECK# AMOUNT CLASS DATABASE CARD SENT

Your IBA board is pleased to announce further details on our upcoming regional conferences:

There will be **NO admission fees** for these conferences, however **current IBA membership is required**. Memberships can be renewed at the conference, please bring exact change cash or a check. Membership is \$35 for a household, so a real bargain.

Rochester will be May 7-8-9. Saturday night demonstrator is yet to be confirmed. Saturday Demonstrator is Jeff Farmer.

Sunday is clean up and so forth all help appreciated.

There will NOT be a gallery or Competition.

Iron in the hat will be held and run by Fred Odon, please bring nice items as this will be run like the last Tipton meet.

Camping is free and you are welcome to come early. There is however a fee for electrical hookup of \$25/ night.

Food will be available from the Historical society for all 3 meals cash sales.

Door prize of a free years IBA membership will be drawn from those who sign in for the conference.

Rockville: September 4-5-6 (Labor day weekend)

Friday night is Bill Cory with "come and make tongs"

Saturday is Doc Schertz demonstrating copperwork

Sunday is again cleanup all help appreciated.

There will be a gallery, iron in the hat and a Competition.

Beginners area will be available.

There will be an auction at Rockville, and it will be a 50:50, with 50% to the IBA and 50% to the seller.

Camping is again free, and again electric hookup is \$25/night. Dump station available. Nice block building with restrooms and showers available.

Door prize of a free years IBA membership will be drawn from those who sign in for the conference.

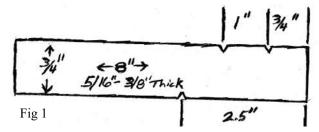
Tongs Demonstration

Written by Mike McLaughlin

Photos: Bruce Herzog, Bob Stormer, John Sherwood, And Mike M.

These are the steps I used to create 2 different sets of tongs. The first set is a design borrowed from a Youtube video by Toby Hickman. The second pair I was just winging it. I usually make these on a little giant. I did draw out the reigns on the little giant before the demo. I have a supply of 3/4" sucker rod that I use. I forge it to a rectangle about 5/16" x 3/4" and cut it off at 8" long. This size of material has worked ok for tongs that hold up to 3/4" material. The material I used for the demo was 3/8" x 3/4" mild steel 8" long.

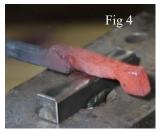
Mark bar with cold chisel. (fig 1) 3/4" mark is the jaw area. 1" is between the jaw and boss. 2.5" is other side of boss where reigns will begin. This will net reigns 12" long. Make indent deep enough to index to your butcher or anvil devil. Make sure it is perpendicular to bar length. Use a file to straighten out crooked marks.



Butcher a little shy of halfway in. (fig 2 and 3) Use a radiused tool for final blows to make sure you don't have too sharp a corner. Make sure the angle of your butcher is going the correct direction.









I draw out the reigns first, so I don't have to use tongs for the rest of it.

Forge out area that will be the curved part of the jaws. (fig 4 and 5) Using either the nearside and far side edges of the anvil with half faced blows. Or use a little tool like the ¾" hardy tool I made. I also have a 2" x 2" block that fits in the hardy to help form this area. (fig 9) You are looking for half the thickness of the original bar. It should be about 2" between the boss and jaw area. Make both halves the same length.



Heat boss area clamp in post vise and bend and hammer back almost 90 degrees. (fig 6) Heat jaw area and bend back at least 45 degrees. (fig 7)Use an area of the vise that has radiuses or use radiused jaw liners. Do them the same.



Heat and bend area between the boss and jaw over the horn or use bending fork. The flat part of the jaw should line up with an imaginary center line drawn by the reigns and the center of where the rivet will be.





Clamp in jaw cutting fixture in post vise. (fig 10) Mark a center line on jaws with hot cut chisel. (fig 11) Heat and cut from one side keeping on center line. Load tongs the other direction to meet in the middle. You will probably have to do this in multiple heats. I had been chiseling from the same side and I would run off center. Plus my chisel isn't ground exactly the same on both sides so I rotate it every few hits. For holding material up to ½" you only need to go about 1 /4" deep. Use anvil devil or edge of anvil to form jaws to a 90 degree angle. (fig 12)

Hot punch or drill hole for rivet. I use 5/16" X 1". If you punch do it with the tongs facing the same direction. The sides that are on the anvil will be the sides that will touch when assembled. Keep area flat and file if necessary. I set the rivet cold. You will have to tighten it up after you adjust the jaws and reigns.

Heat up the entire jaw and boss area. Clamp flat area of jaw in vise with chiseled area up. (fig 13) Using a hammer and a little





Fig 15



bending knock boss area over to line up center of jaws to the center of the boss. Do the same for both sides. Heat up jaws again then take a piece of the material you wish to hold and place in jaws of tongs. Squeeze in vise to make the jaws conform to the shape. (fig 14) If you have enough heat you can spread and adjust reigns to the spread you want to hold them comfortably. You may have to do this multiple times to get everything lined up. I then heat up the boss area on the reign side. Grip the reigns as close to the boss as possible in the corner of the vise jaws and bend past center, (fig 15) then move it up about 3/4" to 1" and bend back to center the reigns. (fig16) Do both sides the same. This may take a few heats. I do all of these adjustments by eye. Building some tooling for the offsets would probably make it easier. But after you make a couple pair it gets easier.







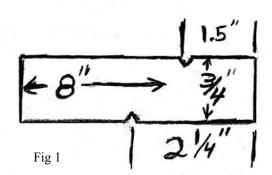




This article is reprinted with permission from the Blacksmiths Association of Missouri newsletter Jan-Feb 2021

The second set of tongs I use to hold chisels, punches, and my touchmark. I did not have very many pictures of the steps, but hopefully you can get it by my description. It uses the same $\frac{3}{4}$ " x $\frac{3}{8}$ " X $\frac{8}{8}$ " long piece of mild steel. I mark it with a chisel at the 1.5" mark on one side and 2-1/4" on the other. (fig 1) This gives you the $\frac{3}{4}$ " for the boss area.

Butcher a little shy of halfway in. Use a radiused tool for final blows to make sure you don't have too sharp a corner. Make sure the angle of your butcher is going the correct direction. I draw out the reigns first, so I don't have to use tongs for the rest of it.



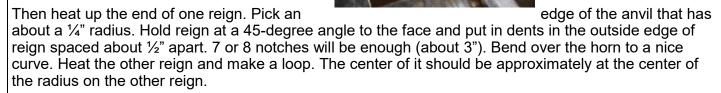
Heat jaw end. Clamp in vise close to the 1.5" butcher. Twist it 90 degrees not too fast but not too slow. Twist the other one the same direction. Forge out the jaw out about 3/8" to 1/2" longer keeping the 3/4" width the same. Make both sides match in length.

I used a small v-block and a hammer with a thin peen to curve the jaws. (fig 2) If you have a treadle hammer or a striker, you could lay a piece of

round over it and drive it in also. You could use a piece of square and drive it on the diamond to get square jaws. Do both and get as close to the same shape as possible.

Punch or drill holes for the rivet. Put halves together and rivet.

Heat the boss area clamp on material then clamp in vise to adjust the reigns. (Fig 3) I put more offset in these than I do in the others.



Use 6 to 8" of ½" round to make a loop like a chain link. The material I used for this one was an inch short. Put through loop on reign. Clamp material in jaws and squeeze together and see if the link will lock in. You will have to make the link a little bigger or smaller to get it to lock firmly. But that is part of the fun of it.





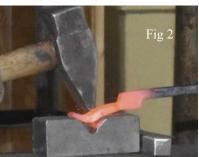




Fig 2

Tooling Notes:

Jaw cutting fixture (fig 1). 2 pieces of 2"angle iron 1.5" long. I tacked welded 5/16" square 1/4" from the angle to both sides clamped together. Then I cut through the 5/16" to separate them. I welded across the bottom all the way. I used a belt sander to grind the thickness down to hold the tongs. I added another piece of 5/16" to the edge opposite the angle so it would pinch them. You may have to grind that a bit to fit also.

The Anvil Devil (fig 2) is a piece of 1" square tool steel sawn on the diamond. This steel was shank tooling to hold carbide inserts for lathe tooling. It is probably 41xx or 43xx. It is tough but not hard. I ground a 3/32" radius on one side and 1/8" on the other. It is also ground to about an 86 degree angle. It keeps it from flopping over on the anvil when using it.

The block (fig 3) is just a 2" x 2" block of mild steel welded to a shank to fit my anvil. I ground a couple different radiuses on it.

The other block (fig 4) is 3/4" square lathe tool shank welded to a hardy shank. It has 3/16" radiuses on it.

The V-block (fig 5) is 1.5" square with a hole drilled in it and cut at a 90 degree angle. I have a couple different sizes of these.

There is many different ways of making tongs. Some are easier and some are more difficult. I kind of like







IBA Financial Statement presented in Annual Business Meeting

these at the moment.

Income & Expense Summary 2020-2021								
Income Summary	DUES	INT	MISC	IRON-HAT	STORES	CONF	AUCTION	OTHER
Mar, Apr, May	1,985.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00
Jun, Jul, Aug	3,575.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00
Sep, Oct, Nov	715.00	0.13	0.00	0.00	0.00	0.00	0.00	150.00
Dec, Jan, Feb	640.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	6,915.00	1.09	0.00	0.00	0.00	0.00	0.00	150.00

Fig 4

ExpenseSummary	N/L	INS	CONF	MISC	ED	MEM	STORES	CONF2
Mar, Apr, May	815.00	1,947.00	550.00	1,775.88	450.00	334.50	0.00	0.00
Jun, Jul, Aug	478.00	0.00	70.89	75.00	0.00	5.00	0.00	0.00
Sep, Oct, Nov	419.00	0.00	0.00	132.00	250.00	658.29	0.00	0.00
Dec, Jan, Feb	444.00	1,995.00	0.00	192.00	0.00	0.00	0.00	0.00
TOTALS	2,156.00	3,942.00	620.89	2,174.88	700.00	997.79	0.00	0.00

ANNUAL	INCOME	\$7,066.09		
TOTALS	EXPENSES	\$10,591.56		
	PROFIT/LOSS	-\$3.525.47		

	Savings		Cert of Deposit	t Checking
Cash Assets	\$76,580.9	9	\$0.00	\$2,929.72
IN HANDS OF SEC	\$0.00		-	-
OUTSTANDING CK	\$337.00			
			_	

Horseshoe to Heart An Exquisite Storyboard from Steve Taylor

Shown at Oktoberfest 2016

- Your basic horseshoe.
- Bend outwards, being careful to avoid collapsing the center groove.
- 3. Straighten the ends.
- Create the neck-to-head transition (step): halfon/half-off blows over a sharp corner of the anvil, or use a side set to make the step.
- 5. Draw the lower face out. Use a small fuller to make the two indents to define the snout.
- 6. Locate the center of the horseshoe, then over a vee-block or double bar bottom tool, use a fuller to make the center indent.
- 7. Bend the heads around, keeping both curves even and matching.
- 8. Punch in the eyes, nostril, mouth, and mane. This will probably take several heats.
- 9. Bring the heads together and even. Tweak as necessary.
- 10. Clean and enjoy!



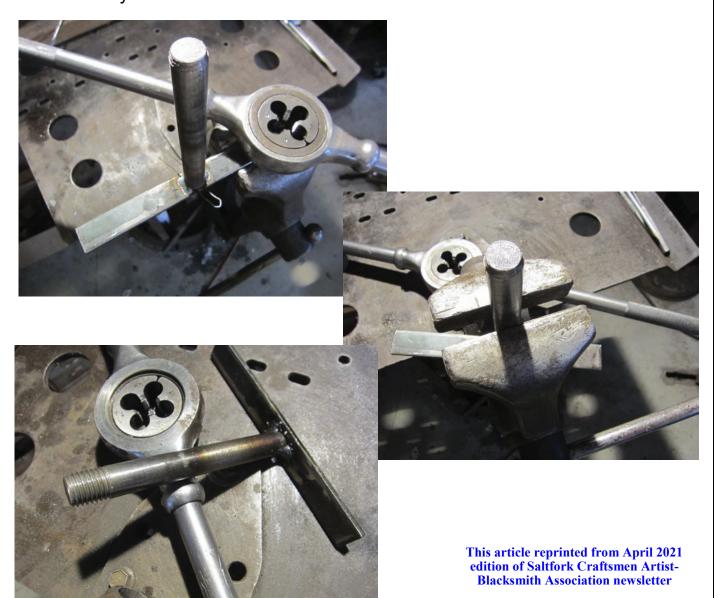
This article is reprinted with permission from the California Blacksmith Association Online newsletter

Mar-Apr 2021

SHOP TIP - Threading

By Jim Carothers

I recently had to thread some 3/4" bar. It was not worth the trip to town to the local machine shop I usually get help from, so I decided to try it myself here in the home shop. What I found was that I did not have a vise, including my pipe vise, that would hold the 3/4" round bar against the torque required for threading. After a few minutes, it occurred to me to tack weld a torque arm, scrap flat bar, onto the bottom of the round. The torque arm reacts against the sides of the vise; problem solved. Since I only had two pieces to thread, this saved me a lot of time and some money as well.





First Class Mail

Address Correction Requested If Undeliverable return to sender

IBA Regional Conference Sutton-Terock Shop (Rochester)

May 7-9

Friday Night Demo: TBD

Saturday Demo: Jeff Farmer

Sunday: Clean Up

More Details on Page 5

Camping Available

IBA Regional Conference Parke County Fairgrounds (Covered Bridge)

Sept 4-6

Friday Night Demo: Bill Corey

Saturday Demo: Doc Schertz

Sunday: Clean Up

Camping Available