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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.

Jun 16 2018	TBD
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Jul 21 2018	TBD
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Aug 18 2018	TBD
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Sep 15 2018	TBD
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Dates to Remember

- June 27-30 ABANA Conference Richmond, VA
- July 14-15 Power Hammer Class at Jennings County Blacksmith Shop
- Aug 3-19 Indiana State Fair

Editors Message

Well we just finished another great IBA Conference. The demonstrations were superb. We started on Friday night with John Bennett and Steve King forging a rose out of 2" round stock. On Saturday, Jeff Reinhardt stepped in on short notice to demonstrate copper forming and finishing. Nathan Allen and Jose Gomez were the feature demonstrators on Saturday and Sunday. Both Nathan and Jose held a large audience throughout the conference.

My general impression was attendance was down slightly, but the crowd seemed to be more active. This may have been an odd year where unexpected issues arose. I do know both of the early registration winners as well as the Rookie of the Year missed the conference.

Here are this year's award winners:

Broadus Thompson:	Rookie Blacksmith of the Year
Steve King:	Blacksmith of the Year
Charlie Helton:	Paul Moffett Award
Fall Creek:	Contest Winner (Chair)

Although the crowd may have been a little light, this year showed a new high for quality items in the auction and in iron-in-the-hat. The new iron-in-the-hat format was very exciting. We did have a few logistical issues, but I think the concept of higher quality items that could be individually selected drew much more interest than the older format. I heard that Steve King will be coordinating next year's iron-in-the-hat to improve the logistics.

I would like to thank Jim Johnston for setting up this year's conference. It was certainly a big hit.

Power Hammer Class

The Jennings County Historical Blacksmith Shop will be hosting a power hammer class on July 14 and 15. The class will be taught by Kurt Fehrenbach. The class will be held in the newly expanded shop in Vernon, IN. Topics will include: Hammer safety, dies and tooling, techniques for completing various functions. Cost is \$25 per person in advance or \$35 per person at the door.

For advance registration contact Charlie Helton at (812) 591-3119 or email: heltoncs@frontier.com.

Lunch will be pitch in or local restaurants. For accommodations, North Vernon has a Quality Inn and there are 4 hotels at the I-65/US50 interchange in Seymour.

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

3) Wabash Valley Blacksmith Shop

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

5) Maumee Valley Blacksmiths

Meet: 2nd Saturday
 Contacts: Clint Casey (260) 627-6270
 Mark Thomas (260) 758 2332

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
 Carol Baker (317) 809-0314

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) 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
 Contact: Charles Gruell (765) 513-5390

14) Covered Bridge Blacksmith Guild

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

Meteorite Mashers

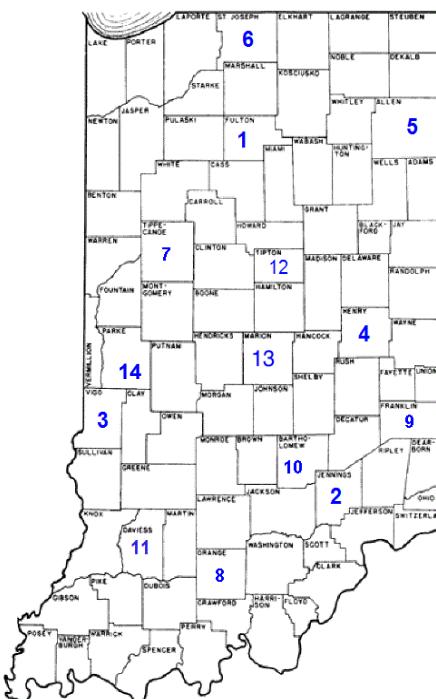
The Meteorite Mashers met at Dave Kunkler's shop in Branchville this month. Small crowd this month as many were at their home shop making items for the iron in the hat at Tipton. Dave demonstrated his power twister. He twisted a dozen table legs from 1/2" square for Butch Sparks, and they were very consistent. He noted that the twister stalled on 3/4" cold stock after it had done a very tight twist. Butch Sparks worked with a younger smith on the finer points of knife making, Mike Mills worked with Becca Allen on basic hammer control and tapering. Small crowd but a good time was had by all.

The next meeting will be at Jeff Reinhardt's shop in Floyds Knobs.

Jennings County Historical Society Blacksmith Shop

Thanks to a tremendous effort from Brad Weaver, our new addition is complete. We now have room for two full forging stations. The June hammer in will primarily be reserved for shop cleaning and organizing.

We will not have a July hammer in as the shop will be used for the power hammer class being taught by Kurt Fehrenbach.





Scrolling Wrenches Adapting to $\frac{3}{4}$ " Sucker Rod

By Eric Jergensen

Mark Aspery, in “Mastering the Fundamentals of Blacksmithing”, gives steps and stock layout for scrolling wrenches from $\frac{3}{8}$ ” x 1” flatstock. I wanted to use his methods, but with $\frac{3}{4}$ ” sucker rod so I worked out appropriate stock division. $\frac{3}{4}$ ” rod has a cross section of $\pi \times (3/4 \div 2)^2 \approx .44$ in sq, which is close to the .375 of the flat stock.

The handle part is easy. I want 12” of $\frac{1}{2}$ ” by $\frac{1}{2}$ ”. That’s $12 \times \frac{1}{2} \times \frac{1}{2} = 3$ cubic inches. Dividing that by the cross sectional area of $\frac{3}{4}$ ” rod gives $3 \div .44 = 6\frac{3}{4}$ ”.

Mark uses 1” of the flat stock for the middle leg. That’s close enough for $\frac{3}{4}$ ” rod as well.

The outside leg and gap are more complicated. The stock will be drawn down to $\frac{1}{2}$ ” by $\frac{1}{2}$ ”. I generally get a 1” middle leg. These are wedge shaped legs. Drawing a wedge will double the starting length. So, $\frac{1}{2}$ ” for the leg. The gap is a given. I’ve made $\frac{3}{8}$ ”, $\frac{1}{2}$ ”, $\frac{3}{4}$ ”, 1”, and $1\frac{1}{4}$ ”. I also want $\frac{1}{2}$ ” for the bend. To figure out how much $\frac{3}{4}$ ” rod is needed, I do the volume in $\frac{1}{2}$ ” by $\frac{1}{2}$ ” and divide by the area

of $\frac{3}{4}$ ” rod (0.44 in sq):

$$(\frac{1}{2} + \frac{1}{2} + \text{gap}) \times (\frac{1}{2})^2 \div 0.44. \quad \text{Rounded up to the nearest } \frac{1}{8}''.$$

Gap	Length	Stock
$\frac{3}{8}$	$\frac{7}{8}$	$8\frac{5}{8}$
$\frac{1}{2}$	$\frac{7}{8}$	$8\frac{5}{8}$
$\frac{3}{4}$	1	$8\frac{3}{4}$
1	$1\frac{1}{4}$	9
$1\frac{1}{4}$	$1\frac{3}{8}$	$9\frac{1}{8}$

This article re-printed from June 2018 edition of Saltfork Craftsmen Artist-Blacksmith Association newsletter.

Here's the marking for a 1¼" wrench.



I prefer to work from the end of the handle back, so I cut the stock to length and use tongs (also made of sucker rod, of course) with a tong clip.



I set down just outside the marks and then flatten to a little proud of $\frac{3}{8}$ ".



I draw out on either side of the middle leg allotment, leaving the gap side proud of $\frac{1}{2}$ " by $\frac{1}{2}$ " since drawing out the middle leg will cause some thinning of this area.



Mark Aspery has a nice jig for doing the drawing out in a vise, but laziness is the mother of invention. I found a bit of 1" square scrap that already had some taper and turned it into a wedge.



The drawing out is tricky. It's easy to end up with a cold shut from a curl at the end of the forming leg. Too "sharp" a fuller / peen encourages the cold shut. Working all the way down the emerging leg helps keep a curl from forming at the end. I did my best work with a crosspeen while kneeling so that the work was just below eye height.



The leg on my $1\frac{1}{4}$ " gap wrench shows both the cold shut and the thinning. A close look shows that the thinning is the result of the flat side of the middle leg's being driven upward at a slight angle (due to the wedge) during the drawing. Lighter blows would minimize this, but even with my fairly aggressive hammering, leaving the gap about $1/16$ " proud of $\frac{1}{2}$ " square compensated nicely. Mark Aspery's jig probably doesn't have this issue. I did some remedial work on the cold shut with a slot punch and a couple of different fullers which improved, but did not eliminate it. My punishment for the cold shut will be making a replacement when this one breaks!



I finish the leg and gap by forging out my extra 1/1 6", cutting off any extra length, forging the wedge, relieving all the edges I can reach, and then rasping.



Next, I bend the outside leg most of the way and hammer it back at the tip (quench to avoid too much damage). I want a little extra length so I can rasp off the damaged tip. These images are from the ½" gap wrench. Note that I didn't compensate for the thinning as well on this one.

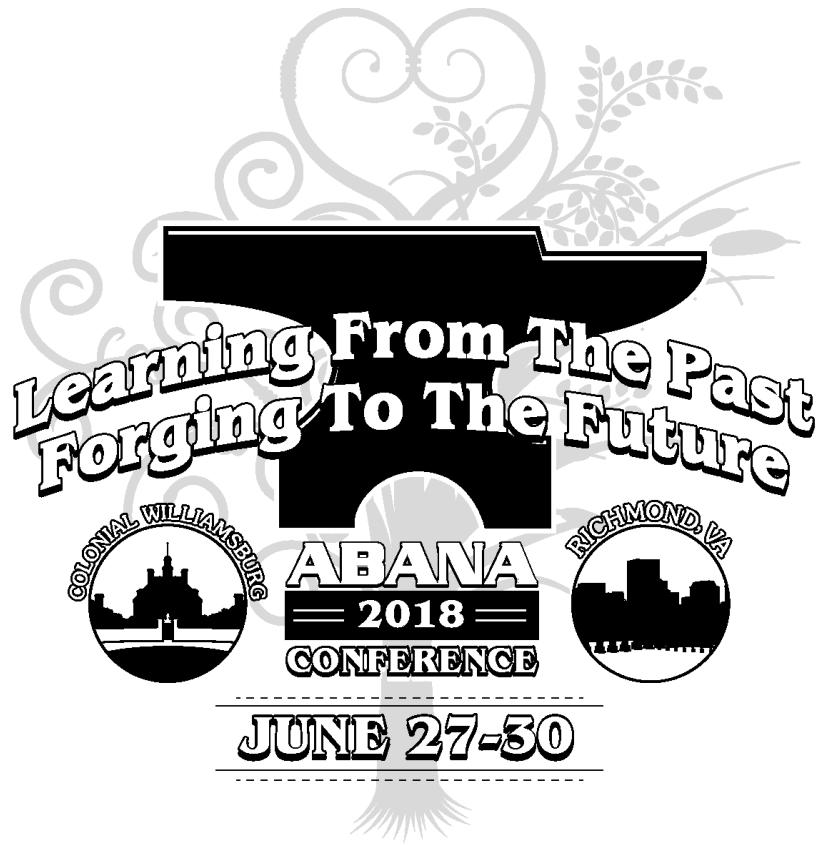


I do the loop on the end of the handle last. That makes it possible to use my 1" inner – diameter induction heater coil to do the clean up on the handle side of the middle leg. That coil heats the ½" or so handle much faster than my 1½" coil.



IBA 2018
Conference
Photos by
Mark Yoder
& Bill Corey





Website: <https://abana.org/conference/>

ABS Demonstrators include:

Butch Sheely – Grand Rapids, OH (basic forging and tomahawks)
J.W. Randall – Keithville, LA (basic forging and mosaic Damascus)
Harvey Dean – Rockdale, TX (basic forging and some Damascus)

Patient Order of Meticulous Metalsmiths Demonstrators include:

Tom Latane' – Pepin, WI
Peter Renzetti – Clayton, DE
Tina Chisena – Wheaton, MD
Kim Thomas – Seville, OH
Kevin Clancy – Eldersburg, MD

Farrier Demonstrators include:

Sponsored by: Farrier Product Distribution – <http://www.farrierproducts.com/>

Jennifer Horn
Royden Bloom

Current demonstrators include:

Patrick J. Quinn
Andrew Kyte
Zack Noble

Michael Dillon
John Medwedeff
Stuart Hill

Chris Shea
Pavel Tasovsky
Susan Hutchinson



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

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Power Hammer Class with Kurt Fehrenbach

July 14 & 15

Jennings County Historical Blacksmith Shop

Vernon, IN

Cost: \$25 per person in advance, \$35 at the door

For advanced registration contact Charlie Helton at 812-591-3119,
or email: heltoncs@frontier.com

Indiana State Fair (August 3-19): We have 2 forges in the blacksmith shop plus 1 in the carriage shop.

Schedule:	August 3-5	White Water Valley
	6-7	Rocky Forge
	8-10	Vernon Group
	11-12	Covered Bridge
	13-14	Bunkum Valley
	15-16	Ripberger brothers, Phoebe Graham, Paul Bray
	17-19	Fall Creek, Satellite 13