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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.

Feb 17 2018	KEN DETTMER'S SHOP COLUMBUS
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Mar 17 2018	KELLY FARMS BUSINESS MEETING
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Apr 21 2018	TBD
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May 19 2018	TBD
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INDEX

- PGS 3-4
- IBA DIRECTORS BALLOT
- PGS 5-7
- SATELLITE NEWS
- PGS 8-9
- FORGING NAVAL BRASS
- PGS 10&11
- JANUARY HAMMER IN

Dates to Remember

- March 17 Annual Business Meeting at Kelley Farms
- March 16 & 17 Little Giant Re-build Class
- May 30 & 31 Classes at Conner Prairie
- June 1-3 IBA Conference

Editors Message

The January Hammer In was a great success. Larry and Glenda were great hosts. The shop was spacious and warm. Attendance was around 40 people, young and old. Ron Gill provided a wonderful demonstration on making a saw-tooth trammel lamp holder. Hopefully we will have a detailed article on the trammel in a future edition. A big thanks to Ron. The demo was both informative and entertaining. After lunch, Kurt Fehrenbach took a turn on Larry's Bradley helve hammer. Some pictures of the day are posted on pages 10 and 11.

The February Hammer In will be at Ken Dettmer's shop in Columbus. I have not heard who will be demonstrating. This is always a well attended hammer in. Be sure to bring a chair, something for iron in the hat, and something for the pitch in lunch.

The March Hammer In will be held at Kelly Farms, south of Kokomo. This will be the annual business meeting. We do not have many candidates for the board of director election. The ballot is shown on page 3.

Nathan Allen will be teaching two one-day classes at Conner Prairie prior to the June conference. The first class is forge welding on May 30 and the second is tong making on May 31. Details and registration information is posted on page 6.

For the June conference our primary demonstrators are Nathan Allen and Pep Gomez.

Nathan will be demonstrating traditional blacksmithing techniques.

Pep does work in mosaic damascus. Samples of his work are shown here. More information can be found at: <https://ink361.com/app/users/ig-628057701/lostartsforge/photos>.

The Saturday only demonstration will be power hammer rebuilding led by Bill Conyers. I believe this will include pouring babbitt bearings.



IBA website: www.indianablacksmithing.org **IBA Facebook page:** www.facebook.com/groups/IndianaBlacksmithingAssociation/

Ballot
IBA Board of Directors
Vote for 2 Only



Gary Phillips



Steve King

Write in. _____

(Must be willing to serve)

Send ballot to:

Steve King
1155 S. Paoli Unionville Rd
Paoli, IN 47454

Mark the word ‘Ballot’ on envelope so it will not be opened until the business meeting in March.

Ballots may be cast at the business meeting.

Mailed ballots must be received by March 15th.

Ballot
Gary Phillips
14800 N SR 167 N
Albany, IN 47320

Steve King
1155 S. Paoli Unionville Rd
Paoli, IN 47454

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

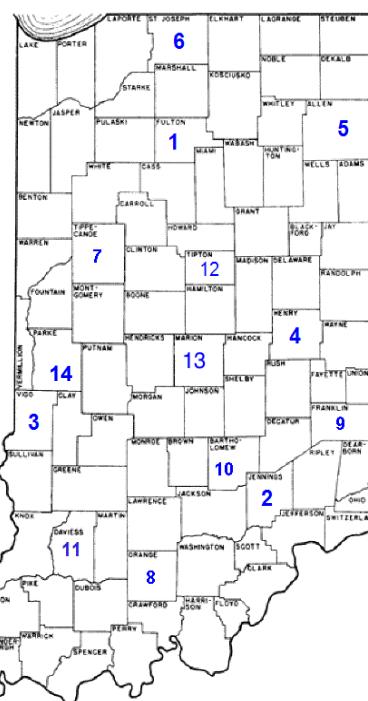
Meet: 1st Saturday
 Contact: Tim Metz (812) 447-2606

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


Jennings County Historical Society Blacksmith shop

The Vernon blacksmiths met at the forge of Paul Bray (me) in Seymour. After breakfast, Denise Howell desired to create a couple of hearts suitable for key rings. Bill Kendrick was very gracious to offer to mentor her progress. The results were great, as expected. Barak Kirchner used 1/4" square stock and flat stock to fashion two child/pet proof cabinet locks. Chris Pettit was mentored by Brad Weaver while fashioning a leaf. After making his second leaf, Brad also made a leaf fixture. Everyone was great at helping clean up and fellowship, which we all enjoy.

Our next meeting will be at Kenny Dettmer's -15721 S 250W Columbus, IN. Please bring a dish for pitch-in, stuff for iron-in-the-hat, and money for same.

March meeting will be at Kevin Welsh's - 25619 Gill Rd., Nabb IN. please bring same. Oh, Yes, a word to the wise :Pam makes a wicked breakfast.

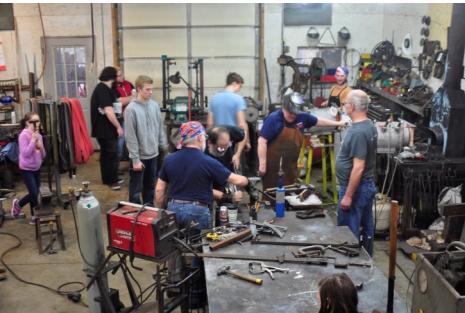
Thanks for your help. see you next month. Feb. 10 Paul Bray.

IBA Satellite Groups and News (continued)

St. Joe Valley Forgers

During the 4th Saturday of January the St. Joe Valley Forgers met for our first meeting of 2018. Attendance was good for a winter meeting. We had a number of young smiths that are working on their knife making skills. We also had four young lady smiths working on developing their skills. As a group project our group is working on a sign for a local park. As always we shared a great meal at lunch.

Mark Hohulin reporting



Rural Smith of Mid- America

Good turn out at the meeting Saturday ,February . I worked with the new smiths on forge welding, several of them took home a completed fire place poker, good job!



The next meeting will be March 3 at Conner Prairie. This will be a very busy meeting. We will have election of new officers, there will be a chili cook off, iron in the hat, an auction, a demo by Nate, and a trade item. Please make something for the auction. The trade item will be to make one of 366 hooks. If you have any questions or want more info, let me know

Ron Gill
President
RSMA



IBA Satellite Groups and News (continued)

Fall Creek Blacksmith Shop

8 smiths signed in.-----Frankie (John Ziles daughter) gave a nice thank you card for working on the Ziles bird feeder. Some repairs on the flowers to accommodate a friend wood and tube suppling the seed.-----The group talked about the chair project, decided on a design and started working on it. Lunch at Sulphur Springs and back working. Good progress. No iron-in-the-hat held Gary brought the donuts, J.J. was at home sick. Hope to see more members next month to work on the project. reported by Dave Wells



Meteorite Mashers

The Meteorite Mashers met at Dave Kunkler's shop this month. Dreary wet day outside, warm and dry inside in Dave's nicely heated shop. Had a smallish but friendly crowd, with Joseph Gehl forging early followed by Tristan Forester and Mike Mills. Good lunch of fried chicken from Mike Mills and bean soup from Dave Kunkler. a nice laid back meeting to end January. Next month's meeting will be in Jeff Reinhardt's shop in Floyds Knobs

Pre-Conference Classes at Conner Prairie

Blacksmithing: Forge Welding

Wednesday, May 30 • 9 am-5 pm

\$115/non-member (\$105/ Conner Prairie member)

Ages 16+

Welding is an ancient technique that is not only practical but produces an aesthetic that can't be matched with other processes. In this class, we'll learn the basics of welding using a coal forge. Several different types of welds will be practiced including lap welds, "t" welds and chain links. Previous blacksmithing experience strongly preferred to get the most out of this class.

Blacksmithing: Making Tongs

Thursday, May 31 • 9 am-5 pm

\$125/non-member (\$115/Conner Prairie member)

Ages 16+

Making your own tools is a rewarding part of the blacksmith's trade, and good tongs are an essential part of the work. In this class, we'll cover the basics of making tongs to suit different types of work, such as flat bit, bolt, box jaw and offset jaw tongs. To get the most out of this class some basic blacksmithing experience is preferred

Sign Up & Details: <http://www.connerprairie.org/things-to-do/events/prairie-pursuits>

Forging Naval Brass

By Dominick Andrisani

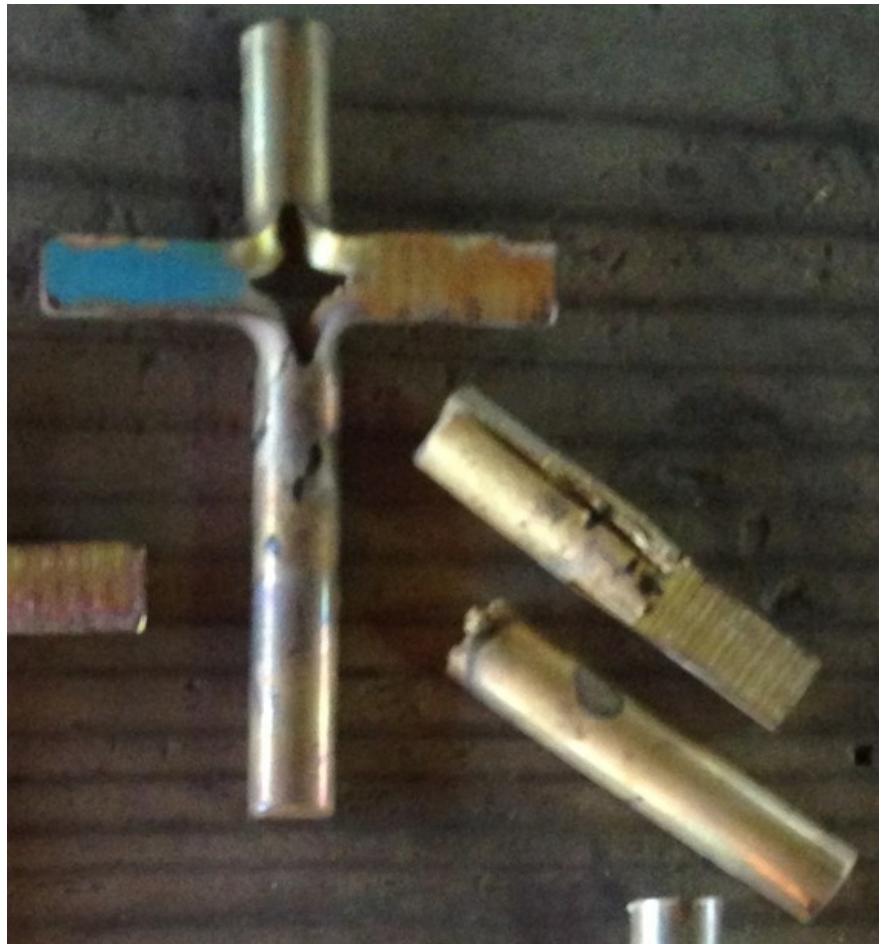
Naval brass is a terrific metal to forge. However, as I recently learned, it has several idiosyncrasies that must be understood in order to avoid forging disasters.

During our IBA Conference in 2015 Michael Bendele, one of our demonstrators, talked about the forging properties of various alloys. In his handout entitled "Non-Ferrous Metal Tips" (see The Forge Fire, June 2015, <http://www.indianablacksmithing.org/newsletters/ff-2015-06.pdf>) Michael made the following comment about naval brass. "This is a very nice alloy to work with".

Based on this, I decided to buy some naval brass (C464) from OnlineMetals.com. I paid \$23.20 for four feet of 0.4375 inch round bar. That is only 70% as expensive as silicon bronze (C655), a similar material that I am more familiar with. Naval brass is an alloy of copper and zinc with a little bit of tin and iron and when polished has a yellowish-golden color. Silicon bronze is an alloy of copper, silicon, zinc, manganese, with a little bit of iron, nickel, and lead and when polished has a reddish-golden color.

According to Michael Bendele, the hot working temperature of naval brass is 1200-1500 degrees F. That's 100 degrees cooler than for silicon bronze. As a result, I decided to heat the metal to a "just barely radiant temperature". This turned out to work just fine.

I made split-crosses (Friedrich crosses) out of 0.4375" round stock naval brass. After making the necessary cuts with a band saw, I heated the metal to a "just barely radiant temperature" and found that I could open the split-cross with almost no force. In fact, I could fully open and adjust the split-cross with only a paint scraper. Said another way, I did not need a hammer to open, flatten or adjust the primary shape of the split-cross. Surprisingly, the hot metal had a consistency more like molding clay than metal! I have never worked with a metal so soft! The photograph at right shows a split-cross after opening with a paint scraper but before forging the hammered surface texture.



So the first idiosyncrasy of forging naval brass is to heat the metal to a “just barely radiant temperature”. This temperature gives the metal the dullest faintest red color, i.e., the first color you can barely perceive in a dark shop.

The second idiosyncrasy of forging naval brass is if you get the metal too hot it is likely to fall apart in the fire or when you touch it with a tong. Too hot is a bright red forging temperature. This is a property that naval brass shares with silicon bronze, although for silicon bronze the “fall-apart temperature” is at a more orange forging temperature. The photograph above shows two pieces of a split-cross that broke in the fire because I got the naval brass too hot.

The third idiosyncrasy involves forging cold. When making silicon bronze split-crosses, I have often hammered at a cold temperature when doing the final surface texturing to give the hammered look. This makes a very good demonstration. Once in a while I might get a small crack or chip, but this is rare. Never has a silicon bronze split-cross broken while being forged at a cold temperature. On the other hand, when forging naval brass in a cold shop on a cold anvil I successfully cold forged nine split-crosses but the tenth cross broke near the center when I was flattening it. Naval brass seems to work harden more than silicon bronze. So the third idiosyncrasy is that naval brass should not be forged cold in a cold shop on a cold anvil. Reheating once or twice while forging to normalize the naval brass is the safe thing to do.

In summary, I agree with Michael Bendele that naval brass is a great metal to work with if you respect its idiosyncrasies. The end result is a beautiful and weatherproof product shown in the second photograph above that looks more like gold than silicon bronze.



January Hammer In Hosted by Larry and Glenda Whitesell

Ron Gill Demonstrating







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

Farrel Wells *Membership Secretary*
8235 E 499 S
Dunkirk, IN 47336-8807

First Class Mail

Address Correction Requested
If Undeliverable return to
sender

February 17 Hammer In Kenny Dettmer's Shop

15721 S 250W Columbus, IN

From the North: take I 65 S to Ogilville / Walesboro (exit 64) turn. right. Go to the 1st cross-roads (300 W). Turn left. Approx 1 mile to the "T" . Turn left (600s). Go to 250W. Approx. 4 miles to a brick house on your left.

From the South: I 65N to Jonesville exit 55 turn. right, go to road 950 (in Jonesville). Turn left. Go to 250W turn. right. Kenny's house is approx 1/2 mile on your right .

Please bring a dish to share.

March 17 IBA Business Meeting

Kelly Farms / Doc Ramseyer Shop

6032 W 550 N Sharpsville, IN 46060

Located just west of US-31. Approximately 6 miles north of SR-28 (Tipton) or 3 miles south of SR-26 (Kokomo).

Please bring a dish to share