

February 2017

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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.

**Feb 18
2017**

**KEN DETTMER'S SHOP
COLUMBUS**

**Mar 18
2017**

**ANNUAL BUSINESS MEETING
KELLEY FARM**

**Apr 15
2017**

WHITEWATER VALLEY

**May 20
2017**

TBD



Editors Message

The IBA annual business meeting will be held next month at Kelley Farm. The ballot for board of directors is listed on page 7. This year we have five candidates running for two positions. With that level of competition every vote will be significant. Mailed ballots should be reach Steve King by March 15. Ballots can be submitted in person at the business meeting.

The January hammer in was hosted by the Sutton-Terock shop. It was a beautiful, warm day. We had a great turn out. It was certainly good to get together with so many folks. Larry Newton demonstrated how to forge a traditional flint striker with high carbon steel face welded to a mild steel body. Several new members took advantage of the multiple forges to get in some forge time. See page 5 for photographs.

Our February hammer in will be hosted by Ken Dettmer. Ken's hammer ins are always informative and well attended. Be sure to bring a chair.

The John Deere Historic Site in Dixon, IL is planning a large hammer-in for August 4&5 **2018**. They are getting advanced notices out, so people have plenty of time to arrange their calendars.

This years pre-Conference class is set. Nathan Allen will be leading a hammer and tong making class at Conner Prairie on May 31 and June 1. I have seen a number of positive comments from people who have taken this class in the past. Be sure to sign up early as space is limited. Check out page 10 for more details.

Hopefully you have got a good start on the freestanding coat/hat rack for this years Conference contest. As usual the project definition leaves tremendous latitude for creative expression. JJ has mentioned that competition will be tight. Lots of good work coming together.

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Dates to Remember

March 18 Annual
Business Meeting

May 31/June 1
Hammer & Tong
Class

June 2-4
IBA Conference

ABANA Membership Drive

We are excited to announce our 2017 membership campaign drive. As a gift to a first time member we will award (while supplies last) a copy of Francis Whitaker's book, My Life as an Artist Blacksmith.



ABANA is widely recognized as the preeminent organization of blacksmithing in the world. Visit us online at www.abana.org and like us on Facebook and Twitter. You may join ABANA or renew your membership by following this link:

<https://www.abana.org/membership/index.shtml>

Thanks for your support.

Eddie Rainey
ABANA President

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 Hoopengartner (812) 249-8303

5) Maumee Valley Blacksmiths

Meet: 2nd Saturday
 Contact: Clint Casey (260) 627-6270

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

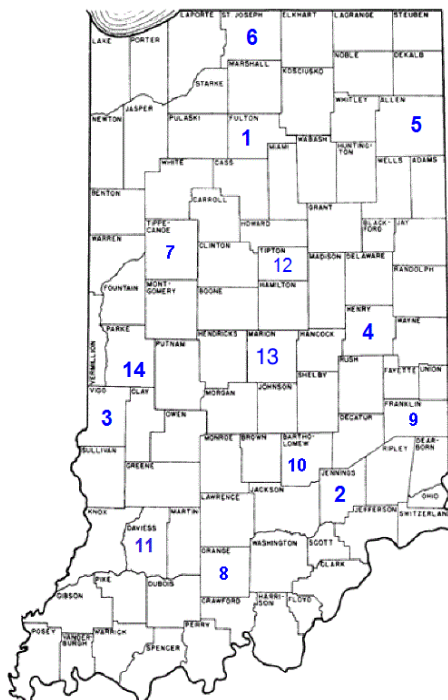
Meet: 1st Saturday
 Contact: Tim Metz (812) 447-2606

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 met at the home of Paul Bray in Seymour. It was off to a slow start, with so many wanting to use the anvil at one time. They finally decided to let Leelyann Dean show his friend how to open a cross and put the "pretty" embellishments on it. After some debating, forge master Charlie Helton, took a tire iron and crafted a punch for making mortise and tenons, then demonstrated how to use it. These were donated to the iron-in-the-hat, which I became the proud owner of. Members were very generous with items and finances for this event. There were 23 guests signed and some who forgot to sign in. Each one seemed to have a story or two to share. Our next hammer in will be at Kenny Dettmer's shop -15721 S 250W Columbus IN. The State meeting the following Saturday will also be here. Please bring iron-in-the-hat and food for both events. Show and tell items are always welcome. Hope to see you there.

March meeting will be at Kevin Welsh's - 25619 Gill Rd , Nabb, IN 47147.

Paul Bray

IBA Satellite Groups and News (continued)

The Southern Indiana Meteorite Mashers

The Meteorite Mashers met at Jeff Reinhardt's shop in Floyds Knobs this month. 67 first timers in attendance, 8 beginners at the forges. Jeff demonstrated a messaluna for Larry Zoeller who had demo'ed making them several years ago, and Jeff developed his take from that demo.



Lewis Meyer brought a hand forged hammer head and donated it as a door prize for iron in the hat. Jeff donated the forged but as yet unfinished messaluna as a door prize as well. Several of the beginners made very nice S hooks. Lunch was a bean soup and Taco soup brought by Mike Mills. Great fun for all in a heated shop in January. Lewis Meyer brought his striking sledge, and compared it to Jeff Reinhardt's and Butch Spark's sledges both made at Henry Vogt Machine co. in the blacksmith shop there and since his shop is only a couple of blocks from there we concluded that it too was made in the blacksmith shop at VOGT. So.. We had to take a photo of the triplets sitting on the big striking anvil. We even had a few hardy folks manning the outdoor forge station.

The next meeting will be at Jason Hardin's shop, 26631 South Mill Creek road, Salem in 47167.



Fall Creek Blacksmith Shop



9 smiths signed in. Jamie Foster from Muncie area, is the new guy. Dave Kline was working on the shop lights when Eric and I arrived. After deciding on the project we got started. We got a good start on the conference piece. J.J. said there was stiff competition. The idea is to get people involved and working with one another. No iron in the hat held.



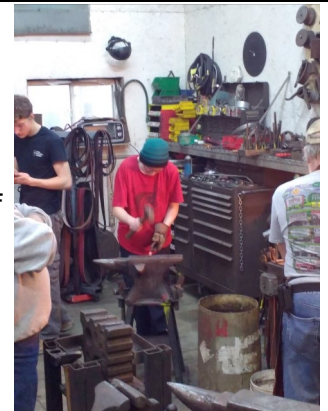
Reported by Dave Wells



IBA Satellite Groups and News (continued)

St. Joe Valley Forgers

This last Saturday there were over 20 people at the meeting of the St. Joe Valley Forgers. Don and John Latowski worked on forge welding a cable in preparation of making a knife. Mark Hohulin worked with a young family who were first time visitors to our group. Most of the projects that day were focused on making tools, heat treating, or preparing pieces for new projects. As always it was a great day for Blacksmithing.



IBA January Hammer In

Photos and article courtesy of Mark Thomas

Larry Newton was a demonstrator at the January IBA hammer-in at Rochester, IN. Larry starts his fires with flint and steel and makes his items also in a traditional way. Larry made a flint striker from mild steel with a piece of tool steel forge welded on for the striking



surface. It was clearly explained every step of the way and had a lot of spark when finished. Afterward Larry made a leaf for the tree painted on the wall of the teaching area. Most leaves are similar but Larry decided to make a banana leaf. As most of us don't know what a banana leaf looks like we had to take his word for it. Mark Thomas made a nail to mount it with.



Carriage Bolt Header Tool

Article and Photographs from Peter Ross
Originally posted on "Museum Blacksmiths and Tinsmiths" Facebook page

I recently had to make a few small carriage bolts so I thought I'd share the steps I used. These are 5/16 diameter bolts about 2 inches long, made from 1/2 inch square wrought iron. First, draw what will be the shank to length and diameter, leaving a long taper from shank to orig stock, then cut. I partially rounded the big end of the tapered area so it forms a rounder head when squashed. Last, at a welding heat, upset the head in a square header. Part of the taper will be forced into the header, making the square section of shank under the head. For longer square section of shank, forge the taper smaller, so it slides partway into the header. It may take a few trials to get things just right, but these bolts are nice to have when you want them and not much work to make.



Pat Taylor:

Is the hole straight or tapered a little ?

Peter Ross:

Can do either. this one happens to be straight, but many old carriage bolts have a tapered sq shank, so for that style I would make the header tapered. The bolts in my example above were for use with heavy iron hinges, so the square shank didn't need to be very long- it was fitting a square hole in the hinge. If the bolt is meant to grip in wood then a longer square is needed and a tapered header is best.

Pat Taylor:

Did you steel the face of the header?

Peter Ross:

For bolts and rivets I usually make headers of mild steel with no hard face. However, I make sure I am only working red or hotter when using it. The real damage to headers comes from continuing to hammer the piece after it cools to black. My bolt headers last many years with no hard steel on top. Now nail headers are a different story.

Ballot
IBA Board of Directors
Vote for 2 Only

☐

Aaron Baker

☐

John Bennett

☐

Jim Johnston

☐

Ted Stout

☐

Daniel Sutton

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

A Better Way To Cool Tools

By Randy Stoltz

Both paraffin wax and beeswax have an excellent ability to absorb and store heat. Additionally both of these substances do not have a melting point, they have a melting range (i.e. they slowly liquefy over a range of temperatures not a single point like water). This makes wax a great medium for cooling punches, chisels, drifts, and other tools used to work hot steel as it will cool and lubricate the tool without the risk of hardening it.

I have used a mixture of paraffin wax, beeswax, and powdered graphite to cool my punches and other tools for some time now and have had very good results.

You can use all paraffin or all beeswax but I used a 50 - 50 mix since the paraffin is harder than the beeswax (and I had several pounds of it sitting around). I added the powdered graphite to improve the lubricating properties of the mixture. Graphite is a high pressure high temperature lubricant often used on dies or presses. It works very well on drifts to keep them from sticking. You can also use molybdenum disulfide powder for extreme lubricating applications but it usually costs a lot more.

To make the mixture, I add one tube of the powdered graphite (.21 oz / 6 grams) to 2 cups of melted wax and pour it into a metal cup. Note that wax expands 5-10 percent when heated so leave some room in the cup.

Here is some additional technical information. Paraffin wax is part of a family of hydrocarbon compounds known as alkanes with the general formula of C_nH_{2n+2} that are solid at room temperature. Paraffin that is liquid at room temperature is known as mineral oil.

Beeswax is not a single compound but is a mixture of several compounds with the base compound very similar to paraffin. Both paraffin and beeswax are solid at room temperature and have a flash-point of 400° F.

The melting range of paraffin wax varies with the exact compound but can be classified as: low (125° F - 135° F), medium (135° F - 145° F), And high (150° F - 165° F). Beeswax has a melting range of 144° F - 147° F.

[Reprinted from The Anvil's Horn, January 2011.](#)

Mark your calendars: Special hammer-in Aug 4&5 2018 at the John Deere Historic Site

The event will be conducted much as in the past, but with a few major exceptions to be announced later. This event is expected to eclipse all past events, taking nothing away from any, especially the 2004 historic event where we all came together to build John Deere the blacksmith's 1837 self-scouring plow.

We plan to have primary demonstrator(s) that will not only draw you, but will ensure the public is attracted to this great historic site. Early planning is in progress, more specific information is expected sometime in the middle of this year,

Much as with Hammer-In 2008 where there were 91 demonstrators mixed with not only blacksmiths and Roy Underhill and the Mastermyr Viking replica toolbox, many other crafts-persons including wheelwright, cooper, broom maker, basket maker, water color artist, jeweler, tatting, quilting, special book sale, and others will join together around a central event theme.

The primary goal is to educate the public about blacksmithing by attracting them to the beautiful John Deere Historic Site.

REDUCING THE SIZE OF A HOLE

by: Tommy Ward

Here are a couple of tricks for reducing the size of a drilled or punched hole that is found to be slightly larger than desired.

One method is to find a ball bearing with a diameter larger than the hole and drive it against the opening with a hammer to push the metal around the lip into the hole. This technique can be done cold, but may require heating the piece to a forging temperature if more material is to be moved or if the work is particularly hard. Repeat the process on the reverse side.

Another approach is to heat the area around the hole to a bright red and then carefully quench the "bottom" side of the work (the hole should be perpendicular to the water) while leaving the "top" part outside of the water. The submerged area will cool rapidly and shrink somewhat, but the portion of the metal remaining outside of the water will be drawn in more as it slowly air-cools - resulting in the "top" half of the hole being reduced in size. Reheat the piece and repeat the process on the opposite side. I have found it easier to hold the work pre-cisely half-submerged by bending up some coat hanger supports that span my slack tub. Make a couple of dry runs to get things adjusted, and then quenching will be a simple matter of lay-ing the heated material on the hangers that have been pre-adjusted for the correct depth. If you're really curious about how the shrinkage of the metal can be influenced, play around with the leaving the piece in the water until it cools to room temperature, or taking it out of the wa-ter and allowing it to air-cool after the initial quench.

Both of these techniques work better, of course, on thicker pieces of metal, and with a little practice can reduce the size of a hole by a surprising amount.

[Reprinted from January 2017 edition of "The Upset", newsletter of the Mississippi Forge Council](#)

Blacksmithing Class: Forge Tongs & Hammer

Conner Prairie

May 31 & June 1

9 a.m. – 5 p.m.

Cost: \$250/\$240 members

Participants: Min. 5, Max. 8

Instructor: Nathan Allen

Using tools that you've crafted yourself is a feeling hard to beat. This class will give students an opportunity to hand forge their own small (apx. 1 1/2 lbs.) blacksmith hammer and several sets of blacksmith tongs. The morning of day 1 will be spent forging the hammer. The remainder of the forge time will be concentrated on forging several styles of forge tongs: flat bit, bolt, box jaw and scroll pliers.

Registration: Contact Conner Prairie Guest Services Department at 317-776-6000

A SELF-MEASURING CENTER PUNCH

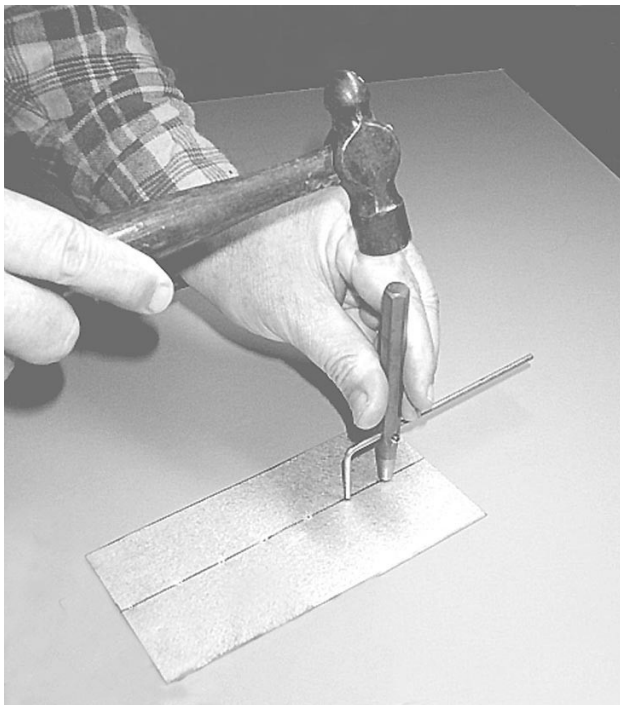
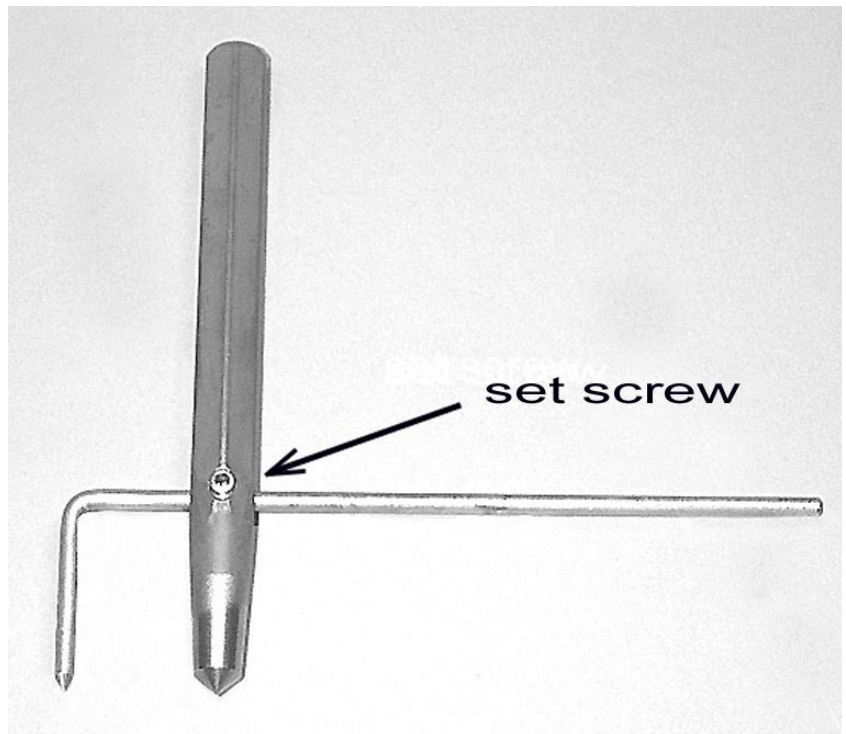
by Tommy Ward

From time to time I've had to drill a succession of equally and accurately spaced holes. Although laying out the hole spacing can be done fairly quickly using a transfer compass, the positioning of the compass points, scribe marks, and ultimately the point of the center punch itself, each present the opportunity for a slight error (particularly with my aging eyesight). Over a series of holes these small individual errors can "stack up" and result in a significant overall change in dimension. The solution to the problem is a "self-measuring" center punch. This little trick is neither new nor original, and is one I first recall having seen many years ago in an old metal trades manual.

A standard center punch can easily be fashioned into a self-measuring type by drilling a perpendicular hole thru its shank to receive a lateral locating rod. A point is sharpened on one end of a small diameter rod (I used 9/32" piano wire) and the sharpened end is bent ninety degrees to form the locating "leg". Cross-drill and tap the punch shank to accept a setscrew which will be used to lock the adjustment of the locating leg. Although punches are generally regarded as being a fairly tough steel, I had no trouble drilling a pilot hole through mine with an 1/8" dia. TiN coated bit running at 1500 RPM and using a coolant. The dimensions of things are not critical, but care should be taken to insure that the lengths from the cross arm to the tips of the punch and locating leg are identical.

To use the device, set the desired distance between the tip of the punch and the locating leg, lay out a longitudinal reference line on the work, and punch the location of the first hole. Then place the point of the locating leg in the first mark and punch a second mark on the reference line. This sequence continues for the remainder of the layout as the locating point is placed in each successive punch mark, a new mark is punched on the reference line, and the process is repeated as needed.

Reprinted from January 2017 edition of "The Upset",
newsletter of the Mississippi Forge Council





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

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If Undeliverable return to
sender

February 18 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 18 Annual Business Meeting

Kelly Farms / Doc Ramseyer

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