

BOARD OF DIRECTORS

Gary Phillips '18 President:

14800 N SR 167 N
Albany, IN 47320
(260) 251-4670
behere@netdirect.net

Steve King '18

1155 S. Paoli Unionville Rd
Paoli, IN 47454
(812) 797-0059
kingstephen228@gmail.com

Bill Conyers '19 Vice Pres

50964 Lilac Rd,
South Bend, IN
(574) 277-8729
billconyerssr@yahoo.com

Bill Newman '19

4655 Williams Rd
Martinsville, IN 46151
(317) 690-2455
ruralsmiths1@yahoo.com

James Johnston '21

Education Chairman:
806 Twyckingham Lane
Kokomo, IN 46901-1885
(765) 452-8165
kokomoblacksmith@comcast.net

John Bennett '21

Secretary:
741 W Jessup Rd
Rosedale, IN 47874
(812) 877-7274
JohnBennett1959@gmail.com

Jeff Reinhardt '20

2810 W. Riley
Floyd's Knobs, IN
(812) 949-7163
ptreeforge@aol.com

Dave Kunkler '20

20749 Lancaster Rd.
Branchville, IN 47514
(270) 945-6222
dwkunkler@yahoo.com

Librarian:

Larry Rosentrader
8715 E. 375 N
Churubusco, IN 46723-9501
260-693-3267
lrosentrader@gmail.com

Editor:

Bill Kendrick
1280 N 900 W
Seymour, IN 47274
(812) 445-3009
bill.d.kendrick@cummins.com

Treasurer and membership secretary:

Farrel Wells
8235 E 499 S
Dunkirk, IN 47336-8807
(765) 768-6235
flwells@frontier.com

Awards Chairman:

Charlie Helton
2703 South Water Plant Road
Westport, IN 47283
(812) 591-3119
heltoncs@frontier.com

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.

Jan 20 2018	LARRY WHITESELL'S SHOP TIPTON
Feb 17 2018	KEN DETTMER'S SHOP COLUMBUS
Mar 17 2018	KELLY FARMS BUSINESS MEETING
Apr 21 2018	TBD



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Dates to Remember

March 17 Annual
Business Meeting
at Kelley Farms

March 16 & 17
Little Giant Re-
build Class

June 1-3
IBA Conference

Editors Message

If you are looking for an anvil, Chupp Auctions in Shipshewana, IN may have what you are looking for. They have a three day winter auction January 18-20. On January 19 they have a large number of anvils listed. There are large and small anvils, including two bridge anvils. The January 19 auction is open for on-line bidding. To see the complete listing go to www.auctionzip.com and enter auctioneer ID 11841.

The December hammer in hosted by Don Reitzel was a big success. Kurt Fehrenbach demonstrated knife making techniques. Attendance was good despite the cold weather.

This month we will be meeting at Larry Whitesell's shop in Tipton. Ron Gill will be demonstrating. Larry (hopefully Glenda) will provide the main course for lunch. Please bring a side dish or desert.

As noted in last month's ForgeFire, we are looking for potential directors to serve on the IBA board. If you are interested, please contact Gary Phillips immediately. Next month's Forgefire will include the board of directors ballot in advance of the March business meeting.

It is time to start thinking about nominations for Rookie and Blacksmith of the Year awards. Charlie Helton has been working to get at least one nomination for each satellite group. We have continually fallen well short of that target. I know we have a large number of qualified individuals who are deserving of the recognition. Guidelines and nomination forms are posted on the IBA website (www.indianablacksmithing.org/) under the membership menu.

Spring Mill State Park is looking for a blacksmith to work in their shop this year. More details are listed on page 4. If you are interested contact Coletta Pruitt at (812) 849-3534.

On page 6, I have posted some information that came in from ABANA. Old Globe is a company that salvages material, including wrought iron, from old structures. They are offering a 20% discount to ABANA members. If you are in the market for wrought iron, this may be a good opportunity for you. Also listed on page 6 is a brief notice about this year's ABANA conference in Richmond, VA. I would encourage you to check the ABANA website for more details.

I have not made a plea for articles recently. If you have a project, tool or technique that would be of interest to others, please send me the information. Photographs can often reduce the need for detailed descriptions.

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
 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

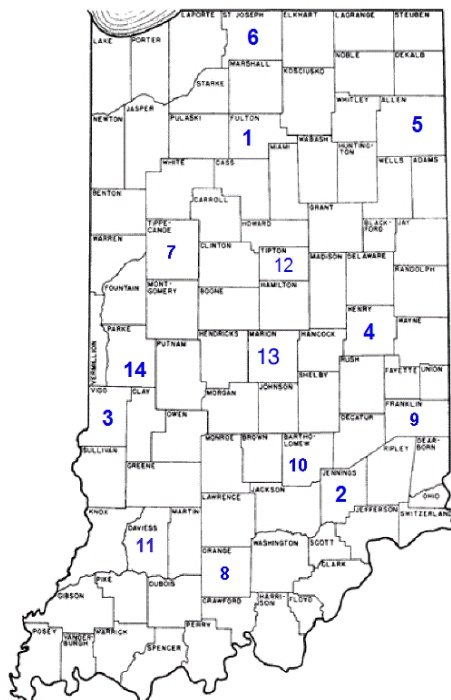
Meet: 1st Saturday
 Contact: Tim Metz (812) 447-2606

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 December meeting was held at Dave Kunkler's Nice and warm shop on a very cold almost last day of the year. Inside we had a slightly smaller group than usual due to many having family holiday commitments. Steve King demonstrated and helped with tong making Aaron Baker showed tips on knife making. Joseph Gehl brought a show and tell item, a ladder damascus billet made with tooling he made from gear rack he got from Jeff Reinhardt last month. Dave and Donna Kunkler were the usual gracious hosts and provided a big crock pot of chili and Mike Mills brought fried chicken so we had a good hot lunch on a cold day. A good time was had by all. The next meeting will tentatively be again at Dave Kunkler's. If the weather is inclement then it may move to the shop of Jeff Reinhardt since Jeff has a more level driveway. If the meeting is moved it will be announced on the IBA Facebook page

IBA Satellite Groups and News (continued)

Jennings County Historical Society Blacksmith shop

The Vernon blacksmiths met at the newly expanded shop of John Cummins. I could almost live in this. Kevin Welsh warmed up the forge by demonstrating the making of a leaf. Jackie Schmidt then tried her hand at the anvil, with the guidance of Kevin. Garry Johnson crafted a thistle motif hook, which was unique for some of us. Xander Good worked on a drawing out exercise. John Cummins then showed us how to form a billet by layering metals together and forge welding them together. After carefully drawing it out on his power hammer, he laid this one aside to cool while he used his prestacked billet to show us how to make a Damascus knife blank. We had a great Steel-in-the-Stetson, followed by an "all you can eat" food bar. The first door prize was a Damascus knife made by John Cummins and won by Fred Vinup. The second door prize was a set of tongs won by Garry Johnson. Third prize was a walking stick made by Jackie Schmidt and won by Ray Sease. There was enough left for another meal, I'm sure. The January meeting will be at Paul Bray, 139 South Park Drive, Seymour IN 47274. Breakfast will be furnished. Bring iron in the hat and money. February meeting is at Kenny Dettmer's, and March is at Kevin Welsh's, 25619 Gill Rd., Nabb IN 47147. Merry Christmas and Happy New Year!- Paul Bray

Rural Smith of Mid- America

The RSMA have been very busy with the blacksmith shop in Johnson County park. We got the concrete floor poured and now we need to put the shop back together, we will be starting on building the brick forge. We have a lot to do in a short time. We will be having some work weekends coming soon.

With the January meeting we start a new year with lots to do. We will continue to work with the new smiths in the group, and when the shop is back in order we will start to work with the Veteran and also make garden tools for the Veterans shop. We will also be doing more projects and work shops, and blacksmith classes. So stay tune for some fun time this year.

Ron Gill
President
RSMA

Blacksmith Wanted: Spring Mill State Park

Spring Mill is looking for a for blacksmith to work in pioneer village during the 2018 recreation season. If you have experience blacksmithing or basic knowledge and want to learn more, we are looking for you. We can offer housing with rooms and shared living areas. Position begins mid-March weekends only until mid-April when the position switches to 5 days a week with days off through the week. The position ends the last full weekend in October. No benefits are available with the job. The pay rate is commensurate with experience and we can provide additional training if previous experience is limited. Duties include but are not limited to: demonstrate blacksmithing in the 1800's; while demonstrating produce a line of products that will be sold by the park in the village mercantile; offer programs to small groups, assist in operations of the grist mill, offer special programs during special events. Work day is 9 am to 5 pm with some evenings scheduled for special events.

Contact: Coletta Pruitt
Spring Mill State Park
3333 State Road 60 E.
Mitchell, IN 47446
(812) 849-3534

December Hammer In

Kurt Fehrenbach demonstrating

Photos courtesy of Dave Wells





Old Globe is offering a Discount of 20% to all members of ABANA!

We are happy to extend a 20% discount to all members of ABANA through July 31, 18.

With one of the largest supplies of wrought iron available in the USA over 900 tons to harvest.

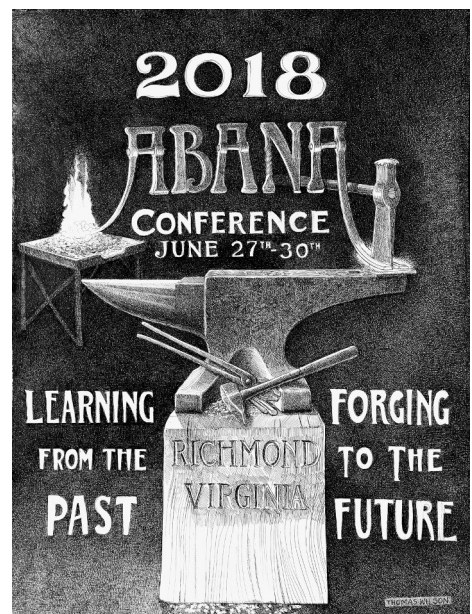
Visit Oldglobewood.com and select from numerous diameter of rods.

Click [HERE](#) to visit Old Globe.

Use "ABANA" to receive your 20% discount on orders over \$250. Feel free to share with membership.

The ABANA 2018 Conference

The ABANA 2018 Conference
will held in
Richmond, Virginia
at the
[Meadow Event Park](#)
Wed Jun 27 – Sat 30 Jun, 2018
Save the Date



Making a Rectangular Tapered Drift with Terry Sheridan

By Joe Cebek

One of the most basic processes in blacksmithing is to punch a hole and then use a drift, or a series of drifts, to render the final shape and dimensions of the hole. An example is making the eye of an adze. The eye needs to be tapered so a wooden handle can be attached to the adze and stay on while the adze is in use. The tapered eye is largest at the bottom of the adze; the handle slides in from the bottom and its end is tapered to match the taper of the adze eye. An elegant feature of this design is that the handle can be easily knocked out whenever the adze needs sharpening.

An adze eye is generally tapered on two dimensions and a drift is the perfect tool to establish the correct tapers. Terry Sheridan regularly forges adzes, and this article shows how he goes about making a tapered drift that can be used to make an adze eye (Fig. 1). For this drift, Terry begins with a piece of 1 x 2 x 6³/₄ inch mild steel bar stock. The finished drift is 13 inches long overall, with an 8 inch octagonal handle, and measures ³/₄ x 1¹/₄ inches at the tip. Tapers are generally expressed as a change in thickness or width over 12 inches, e.g. a ¹/₂ inch increase over twelve inches. Terry has measured numerous adze eye tapers, and has found the tapers to be fairly consistent at ³/₄ inch over 12 inches on the narrow side and 1¹/₄ inches over 12 inches on the wide side. This makes it easy to interchange handles if necessary. Once you know the tapers that are needed for each side, you can easily make a template for a tapered drift (Fig. 2).

A good-sized handle greatly improves the usefulness of a drift. Not only does it make it easier to hold as you pound the drift into a hot piece of steel, a handle makes it possible to use the drift for holding an adze head as you shape the outside of the eye. Terry forges



Figure 1. A finished drift and a piece of flat bar stock for making another. Note that the bar stock has a short piece of 1 inch round stock welded on to make it easier to handle the flat bar during forging. The extension can be cut off when no longer needed.



Figure 2. Terry uses chalk to sketch the tapers for the wide and narrow sides of the drift on a scrap sheet of steel.

the handle first, using a spring fuller with his power hammer to begin necking down the bar (Figs. 3 & 4). The power hammer can quickly reduce the cross-section of the bar first to a square (Figs. 5 & 6) and then to an octagon (Fig. 7).

Terry also uses the power hammer to forge the tapers (Fig. 8) and frequently checks the developing drift against the chalk templates (Fig. 9). With auxiliary dies, he can smooth



Figure 3. Using a spring fuller with a power hammer to mark off where the handle begins, at roughly mid-way on the bar.



Figure 4. The spring fuller is also used to indent the steel near the end of the developing handle. Indenting at this point prevents a "bird's mouth" from forming on the handle's end as the bar is reduced in thickness.

The surfaces very close to finished dimensions (Figs. 10 & 11). A few minutes is all it takes on the belt grinder (Fig. 12), and he's done.



Figure 5. Terry uses the power hammer to quickly thin the bar for the handle.



Figure 6. The handle is first forged to a square cross-section.

Reprinted from the Spring 2017 Iron Trillium
www.ontarioblacksmiths.ca



Figure 7. The handle is next forged to an octagon cross-section.



Figure 10. Using a hand-held auxiliary die with the power hammer.



Figure 8. With the handle finished, Terry begins to forge the tapers.



Figure 11. The auxiliary die allows Terry to refine the drift's surface.



Figure 9. During forging, the developing taper is regularly compared to the template.



Figure 12. Terry does a final touch-up of the drift on a belt grinder.

Blinded By the Light

Be Careful How You Look

Bob Dixon Gumm

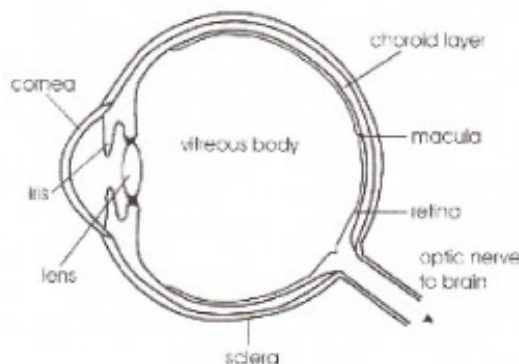
Shortly before the holidays, I was working on a welding project. The object that I was MIG welding had many prongs sticking out from it. While welding another prong, I noticed what appeared to be a weak weld. Lifting up my helmet, I poked my head in for a closer examination. What I failed to do was to move the MIG gun away from the project and rest it in the table holder. The outcome is easy to imagine. The gun was near my face, and as I got even closer to the weak spot, I accidentally pushed the trigger against one of the prongs. This was followed by a bright flash, a very warm feeling against my eyes, and a wait of about five minutes before I could resume welding. Once the bright spot in my eyes had gone away, I thought everything was fine. I worked for another hour, ate a meal, and sat in front of the television to see, 'How the Grinch Stole Christmas'.

It was soon after when I felt that I had a small grain of sand in my left eye. I lifted my eyelid back, hoping that tearing would remove the grain. My eyes cried a river, but the irritant only seemed to grow larger and the pain more intense. It wasn't long before my right eye began to express its outrage over my failure to secure the MIG gun. Convinced that I had a flash burn, I went to the urgent care clinic. They confirmed this, and provided antibiotic ointment and an ophthalmologist appointment. After about a week, my eye felt as good as new. I was lucky.

Most of us have heard of flash burn. But what exactly is it? Flash burn can be thought of as sunburn in the eye. If you imagine yourself lying on a beach, you know that there are greater things to worry about than being chomped on by a shark. Sunglasses, sunblock, that bird doo looking stuff that lifeguards wear on their nose, and an umbrella all point to the greatest danger: sunlight. Sunlight is ultraviolet (UV) light, and UV risk comes to us in many different ways: sunlamps; nearby lightning flash; halogen lamps; reflection of sunlight off water and snow; and most important for us – any type of welding light, be it gas, SMAW, MIG, TIG, and forge. The latter causes are reason why the condition is known as 'welder's flash' or 'arc eye'.

A flash burn is a (painful) inflammation of the cornea. It produces a sensation similar to that of a corneal abrasion. But flash burn generally affects both eyes, though one eye usually is more irritated, whereas corneal abrasion takes usually occurs in one eye. The cornea is the clear tissue that covers the front of the eye. For our purposes, think of the cornea as the glass lens on the front of a camera. The cornea covers the iris (the colored part of the eye), focuses light on the retina, and protects deeper structures of the eye by acting like a windshield. Although the cornea is clear, it consists of cells that are similar to those in the skin. If you've ever had sunburn that resulted in blistered or peeling skin, then imagine the damage that UV light can do to your eyes.

CROSS SECTION OF THE EYE



Jeepers, Creepers, where'd you get that peeper?
Online, where else?



Bad news.
It hurts worse than it looks.

What do you do when you receive a flash burn? The first step is to make arrangements to get to a doctor or care center. You should never attempt to drive yourself there. In the interim, flushing your eyes with water provides some pain relief. Once your eyes have been attended to by a doctor, you must be vigilant about applying prescribed antibiotic drops or ointment to your eyes. You may also wish to use OTC artificial tears, anti-inflammatory, and pain medications. Do not wear contacts lenses and do not apply topical anesthetics. They will only prolong the condition. It is important to wear sunglasses whenever you're outside, and if the doctor determines that you need to wear a patch, ask for one of the black, pirate looking ones. They're rather dashing.

If you've followed doctor's orders carefully and have refrained from the activity that caused your flash burn, you can expect the cornea to repair itself within a few days, and all irritation or discomfort to end within a week. Typically, flash burn usually heals without leaving a scar. More severe cases may take longer. Like the time in my Navy days when our ship was in the shipyard. A young seaman who was having second thoughts about his enlistment was assigned as fire watch to a welding crew. While maintaining vigilance, it occurred to him that flash burn might just be his ticket out of the Navy. And so he stared at welding arcs. Instead of getting a pirate looking patch, as one expects for a sailor, the corpsmen taped big wads of cotton and gauze on top of his eyes. So rather than Blackbeard or Barnacle Bill, the poor guy looked like a human fly. Whenever he was led past shipmates who were standing around with nothing much to do, they would yell, "Help me!" and then bust out laughing. Far be it from the Navy to provide no opportunity for fun. Several of his bunkmates waited through the night, and when they were certain he was asleep, took magic markers and drew owl eyes on his bandages. The crew thought it was a hoot!

For blacksmiths and welders, we know that working with hot metal is fraught with danger. We all fear the black hot burn that leaves an impression on our fingers of the thing we just picked up. Skin, like eyes, is an organ, but an organ with the capacity to replenish itself and go on working as if nothing happened. What's a little scar among blacksmiths, right? It may get you bragging rights or a ! cup of coffee. The eye, unfortunately, is not so capable. A severe flash burn can produce scarring, and this can obstruct vision to some degree. If the flash burn is not treated, an infection may start. This is as serious a matter as getting a shard or miniscule piece of metal stuck in your eye. If infection sets in and goes untreated, the result may be partial vision loss or a blind eye.

Remember!

- *Arc rays can injure eyes and burn skin*
- *The welding arc is brighter than the sun*
- *Precaution must be taken to protect your eyes and skin from UV radiation*
- *Wear correct eye and body protection*



Tommy Ward used to say, "You can walk on a wooden leg but you can't see out of a glass eye."

"CAUTION AND GOOD COMMON SENSE"



The *FORGE FIRE*

Newsletter of the
Indiana Blacksmithing Association, Inc.

Farrel Wells *Membership Secretary*

8235 E 499 S

Dunkirk, IN 47336-8807

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January 20 Hammer In

Larry Whitesell's Shop, 4314 S County Road 300W, Tipton, IN 46072

Directions: From US-31 turn east on CR 500S. Go east about 3 miles and turn north on CR 300W. The shop is about 3/4 of a mile up on the left (west). From SR28 turn south on CR 300W. The shop is about 2 miles south on the right (west) side of the road.

Please bring a dish to share.

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.