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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.

Apr 15 2017	WHITEWATER VALLEY JOYCE ROELL
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May 20 2017	ONE-ARMED BLACKSMITH SHOP TAYLORSVILLE, IN
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June 2-4 2017	IBA CONFERENCE TIPTON FAIRGROUNDS
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July 15 2017	TBD
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Dates to Remember

June 2-4
IBA Conference
October 13-14
UMRBC

Editors Message

At the March business meeting Jim Johnston and John Bennett were elected to the two board of directors positions. Jim is returning, while John fills the spot vacated by Keith Hicks. Steve King pretty well summed up the voting by saying it was a big turn out with over 100 ballots cast and that every candidate would have made a good director. Officers remain the same as last year.

In other news from the business meeting:

- A financial audit was completed with no issues or discrepancies. The IBA book keeping is order.
- In the last fiscal year the IBA came out ahead with \$34106 income and \$32260 expenses. The annual conference accounted for greatest income amount.
- The IBA library acquired a number of new books and DVD's

This month we will be getting together for a hammer in at Joyce Roell's shop outside of Brookville. Keith Hicks tells me that anyone using GPS should enter State Route 252 as "State Road 252" has been known to go the wrong location. Next month will be at the One-Armed Blacksmith Shop, and then on to the conference in June.

The conference is coming up fast. I had a chance to speak with Robert Taylor about his copper working demonstration. It will be amazing! Robert will cover a wide variety of techniques that can be used on many different projects. He will also be discussing tools and jigs as well as patina and coloration techniques. I have not spoken to Gordon William, but have seen him demonstrate. He will give you good blacksmithing tips in rapid succession.

If you were thinking about taking the hammer and tong class at Conner Prairie, you need to sign up now. That last update indicated only one opening was left. So sign up or miss out.

Most of you are aware the IBA participates with other blacksmithing organizations in the Upper Midwest Regional Blacksmith Conference (UMRBC) every other year. UMRBC will occur this year. Historically the conference is held in July; however this year it will be held in October. The location is still the Threshermen's Park in Pontiac, IL. The later date should make the event even more enjoyable, as July has been uncomfortably warm some years. Check out page 11 for more details.

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
 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) Meteorite Mashers

Contacts: Mike Mills (812) 633-4273
 Steve King (812) 797-0059
 Jeff Reinhardt 812-949-7163

10) One-Armed Blacksmith Shop

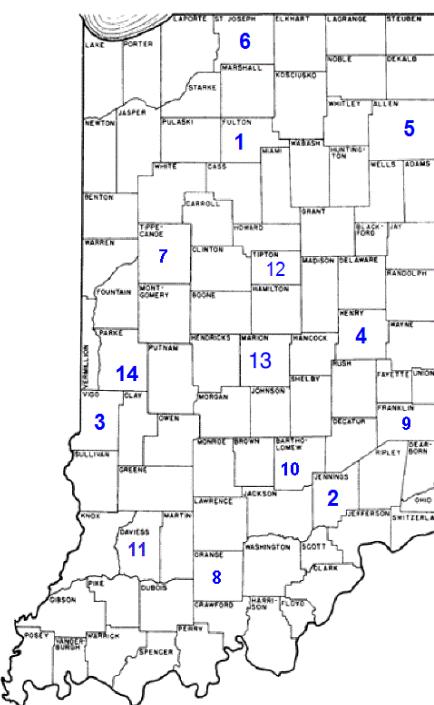
Meet: 1st Saturday
 Contact: Tim Metz (812) 447-2606

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 Kevin Welsh at Nabb. Kevin warmed up his power hammer and hand forged a real nice folded leaf. Ray Sease and Matt Jones fabricated a hot pepper, using some tooling of Ray's. Kevin and Matt , using other tooling of Ray's, formed a large onion bulb. Alex Spellman made a brush handle with a leaf on both ends. Kevin forged a nice pea pod. Jeff Williams and Steve King were heat treating a hammer head. Alex then , with a little help from Jeff, drifted a hammer head. Jeff then forged a horse head bottle opener from flat stock, which Charlie Helton said it looked like it was ready for the race track. Kevin and Steve were then heat treating a hammer head. Kevin then made a small hot pepper. Kevin Welsh, Bill Wanning, and Bill Kendrick all received men's door prizes. Lana Elam, Julie Metz and Julie received women's door prizes. There was more food than we could have eaten in two days. Many thanks to Pam and Kevin who also furnished breakfast for everyone. We had a very profitable iron -in-the-hat as usual. Next months meeting will be back to Vernon. We all look forward to getting back. Bring any articles you may want to use for the rack.

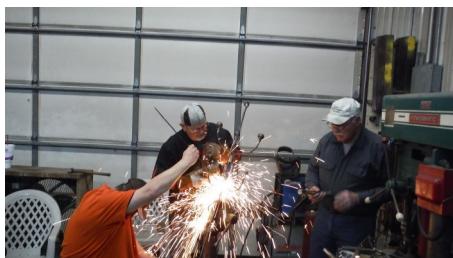
IBA Satellite Groups and News (continued)

Meteorite Mashers

This month's meeting was at Jeff Reinhardt's shop in Floyds Knobs. Several of our regulars were elsewhere this month with family events. We did have many beginners perhaps 8 all getting in forge time. Lots of S hooks and J hooks made. The lunch was Chili made by Jeff Reinhardt with Sandwiches and deviled eggs by Rick Warrens wife. We had lots of treats as well. During all this Jeff, Butch Sparks and Aaron Baker cut up a large fork lift to start the making of 3 striking anvils. The tine was so big it took all three to carry it into the shop and put it into the bandsaw. The next meeting will be at Dave Kunkler's shop in Branchville.

Fall Creek Blacksmith Shop

13 smiths signed in. Weather was beautifull and we got things accomplished. All is left is some prep work and adding a finish. No iron-in-the-hat held. reported by Dave Wells.



St. Joe Valley Forgers

During the March meeting the St. Joe Valley Forgers had the pleasure of celebrating Bill and Linda Conyer's 50th Wedding Anniversary. Please join us in congratulating Bill and Linda.



IBA CONFERENCE

JUNE 2, 3, 4

Tipton County Fairgrounds

Featured demonstrators:

Gordon Williams - Traditional Blacksmithing

Robert Taylor - Copper Work

Brotherhood of Friendly Hammermen - Group Forging

Classes:

Beginners Blacksmithing with Bill Newman: no charge

Baskets with Connie Retter: no charge

Pre-Conference Hammer and Tong Making with Nathan Allen at Conner Prairie (Contact Conner Prairie Guest Services Department at 317-776-6000)

Auction June 3 @ 6:30 PM

Open to the public

Items selling for \$100 or higher eligible for 50/50 split

Bring your best, you and the IBA will benefit

Tailgaters welcome

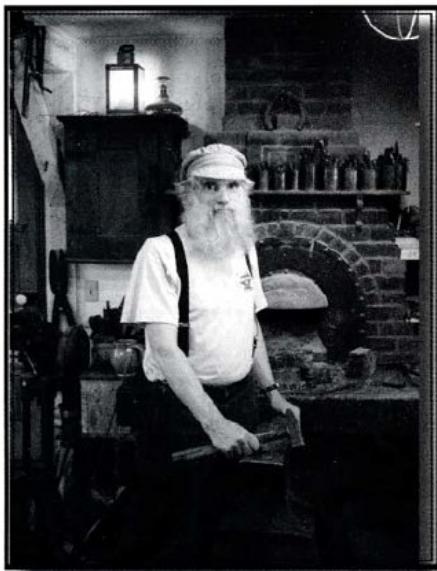
Forging Contests

Full Conference brochure and registration form will be coming soon.

This 5-1/2 page article reprinted from the Hammer's Blow, Winter 2017

Freehand Metalworking

Chasing Solid Material



by Tom Latané

HB Staff Writer

Photos by Catherine Hillman Latané

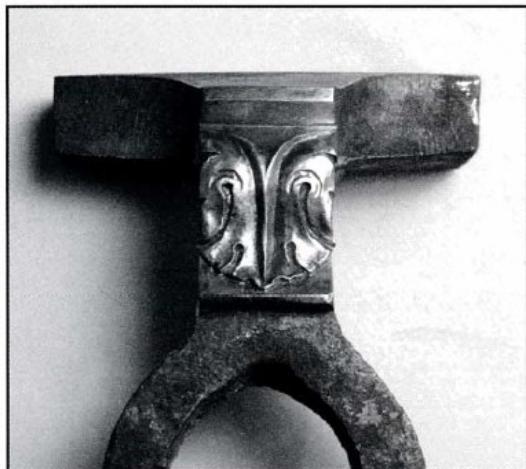


Image #1: Finished chasing

Chasing solid material employs the same tools and is similar to chasing sheet, except that there is no downward displacement, nor embossing from the back. With solid stock the basic surface contour is forged and any major depressions are made while the material is hot. Pieces not flat on the back can be supported by a depression carved or burned in a dampened wood block to avoid deforming the forging. (Steam from the wet wood is annoying, but does not sting the eyes like smoke.) The rest of the detail is achieved with the metal cold. Because of the mass of solid stock, deformation is limited to the surface. Displaced metal is forced to either side as each tool presses into the material. As resistance builds on the sides, metal is forced out from the surface. This action adds dimension and can be used to upset material well above the original ground.

I have chosen a stylized acanthus leaf as an example because it employs many of the different types of chasing tools I use.

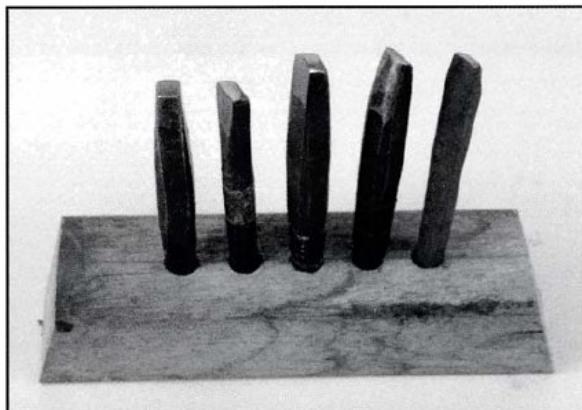


Image #2: Planisher (left), and four various butchers

These are the terms I use for my tools:

Planishers are flat or slightly domed on the end and have most or all of the edges rounded. On some I leave one edge square for working up to corners. The planishers smooth and shape flat or convex surfaces.

Butchers are what I call any tools with offset leading edges and ends at a variety of angles. They are used to produce steps in surfaces and come in several sub-types. I will call the angled part that contacts the surface of the workpiece the "end" and the side adjacent to the leading corner the "face."

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Straight butchers have flat ends and flat faces meeting at various angles, in straight leading edges. They are used to create straight steps and those with convex curves.

Curved face butchers have flat ends at a variety of angles, and faces with a variety of curves. They are used to produce steps with concave curves and, in making this leaf, to reach into the valley to upset the center vein.

Curved end butchers have ends of various curves at assorted angles to flat faces. They are used to chase straight steps through concave areas. In making the leaf they will also be used to give the leaf edge curved indentations.

I have a few butchers of other configurations (concave curves and curves on both face and end), but I rarely use them. I did not use them to make this leaf.

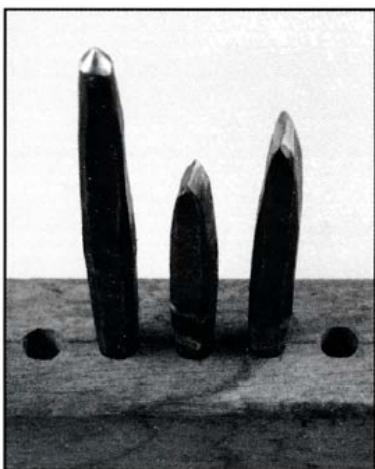


Image #3: (L to R) Center punch and liners

Center punches produce inverted conical depressions of various sizes.

Liners are chisels that produce lines of different widths depending on the angle to which they are sharpened, and the depth to which they are driven. They can be sharper than liners used on sheet because there is no danger of tearing through thick material. I make them straight and in different curves. I chamfer the corners on the sides of many of them to prevent corner nicks, but do not crown the center. I leave square corners on some for use where there is an abrupt stop. You can round the side corners of one end and always trail with that end while saving the square-edged end for working up to a step.

Rounds are dome-ended punches that produce rounded dimples in assorted sizes.



Image #4: (L to R) Round tool, fullers, and teardrop tool.

Fullers are like chisels with the ends ground to various radii to produce rounded grooves. I make them straight and in assorted curves. They can have one edge ground square for ending a groove at a step and the other ground rounded to planish the groove when trailing.

Teardrop tools produce teardrop indentations of different sizes. Those with longer teardrop shapes can be used to create tapered grooves by rocking them toward the narrow or wide end while chasing the groove.

Note: My tools are tapered toward both ends, leaving the greatest resistance to flex in the center where it is most needed. When I started forging in the 1970's, a stone carver told me that the taper keeps the force centered down the length of the tool. I also like the way it looks.

I harden both ends of my chasing tools and temper the struck end a bit more (business end brown, struck end blue). When struck with a soft face hammer, the ends of the tools mushroom very slowly. I keep them in cans according to type. Storing them business end up, I survey the selection and can pull one out without lifting others by a burr on the end of the first. I dress the soft-face hammer by re-forging once a year. Not only is it safer to avoid striking hard steel with hard steel, but the soft-face hammer is less likely to send tools flying across the room (though it is not absolute insurance).

A leaf will be chased on the jaw of a 3" bench vise. After forging, any filing to be done must be completed before the chasing. I do not want to remove the material that is left standing above the original surface (by chasing) because it adds to the design.

This 5-1/2 page article reprinted from the Hammer's Blow, Winter 2017



Image #5: Basic leaf design applied with a Sharpie™ marker.

I draw the basic leaf design (without any sub-lobes or edge detail) in the space it will occupy with permanent ink using a Sharpie™ Fine Point pen. In drawing and chasing this type of design, I am dividing and subdividing the spaces. I draw the pointed end of the leaf, then divide the width of the leaf in half with the center vein. On each side of the vein I draw a dot in the center of the crown of the convex curve. I then connect this with a gentle arc to the spot where the curved tip of the leaf meets the straight side of the stock. This drawing is enough to establish the leaf. I have clamped the piece to a short block of steel held in the vise, because it has no parallel sides to fit in the vise, and it is not flat across the bottom,

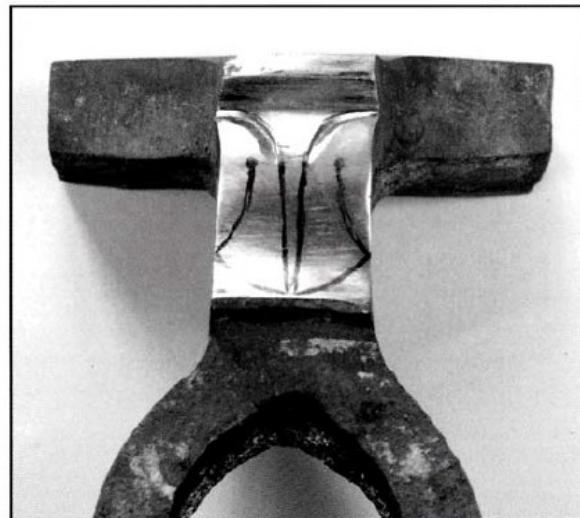


Image #7

Note: I once had a class in which half the students, perceiving that a triangular ridge was the goal, turned the butcher the wrong way and achieved a ridged vein after the first step. However, the vein did not end up taller than the surrounding surface, and they had trouble forcing the unwanted material away from either side of the vein.



Image #6: Beginning with a curved-face butcher.

I start chasing the center vein at its base with a curved face butcher placed so the angled end will push material away from the vein.



Image #8

The straight butcher is used over the convex surface.

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Image #9

The curved end butcher is used through the valley. The two sides of the vein should meet before reaching the tip of the leaf. When developing the shape, cracks are likely to form if the lines of the vein and those of the leaf edges meet in the same place.



Image #10

A straight butcher can be used to form the leaf tip with a slight convex curve. Before I accidentally rub away any more of the ink lines, I designate the bottom of the cleft between the major leaf lobes with a center punch. Sometimes it is necessary to remove ink lines with abrasive paper or a wire brush, so that the true shadow can be seen without the distraction of the dark ink.

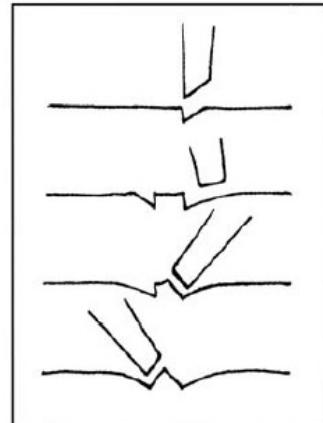


Image #11

A pass with the butcher leaves a dramatic step and a more subtle line where the angled facet meets the surface. In many cases the more subtle angle and the dramatic edge can be pleasing. In this case, I planished away the more subtle line to create a gentle curve from the original surface to the bottom of the steps forming both sides of the vein and the leaf tip.

Material pushed to the sides of the bar when chasing the leaf tip and base of the center vein is filed away before any desired protrusions are created.

I use a butcher with very little angle (leading edge against the base of the vein) to planish the sides of the vein to a ridge, upsetting material above the original surface level. Where the edges are concave, a curved-end butcher is used. A straight butcher is used where edges are straight, and in the valley a curved-face butcher is employed.



Image #12

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A curved liner is used to chase a gradual arc from the center punch mark on either side of the main vein, to the junction of the leaf tip with the straight side of the bar. I use a small teardrop tool to transition the bottom of each crease into the center punch depression. The liner is tipped toward the outside and driven deeper to widen the crease at the edge of the leaf. The upper lobes formed by the crease are then sub-divided by chasing a minor crease in the middle of each. These are opened at the leaf edge by driving the liner deeply, at an angle.

The leaf tip can be set off by slightly undercutting with an acutely angled straight butcher. To give the perimeter of the leaf some vitality, the edge can be broken by driving curved-end butchers and liners with square edges in from the outside. Try to achieve an interesting form by contrasting sharp indents with rounded convex curves and pointed tips with concave indents.



Image #13



Image #14

Variations

The smallest of the chisels in image #14 was used to chase the rope segments on the bead below the leaf in image #16. A bead can be created in a flat area by chasing a ridge like the leaf vein and rounding the top. This bead was filed across the bar. The hollow chisel must be wider than the bead to reach diagonally across it. If twisted until both points catch on the bead, the chisel will make indentations of uniform angle as long as the width of the bead is consistent. Spacing is left to the eye. I make the concave arc in the chisels flatter than the round of the bead, so the crown of the bead will be satisfactorily indented before the points of the tool dig as deeply into the recesses on either side.

As a simpler exercise, the leaf in image #15 was chased on a flat bar 3/16" thick.



Image #15



Image #16

The leaf in image #16 was created with the ground above the leaf tip stepped back to a flat plane so the leaf stands out more. During the forging stage the bar was butchered, then leveled with a flatter. The material which was pushed to the sides by this process was then cut away with a chisel.

The bolster on this hacksaw frame (Image #17) was chased in the round. The circular impressions and the spaces between the leaf tips were chased hot while a helper held the piece over a wood block. The cold chasing was done while the piece was still on the end of the bar, which could be held over the wood block by the vise. A teardrop tool was used to create the flutes in the lobes.

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Image #17



Image #18

This baluster form (Image #18) was held by wood blocks in the vise for the cold chasing. A pair of hardwood pieces, wide enough to reach the top of the jaws when resting on the tube of the screw box and as long as the baluster section, was loosely bolted at the bottom to a spacer, narrower than the forged piece. When forging was completed, the hot baluster was placed between the wood pieces so that a cavity, conforming to the curves of the metal, was burned near the top of each piece of wood. As a result, the cold baluster could be securely clamped between the wood jaws in the vise and rotated as needed. ■

Upper Midwest Regional Blacksmith Conference

Oct 13-14 Pontiac, IL

Featured demonstrators:

PEP Gomez: Damascus blades
Mark Asberry: Tooling and traditional iron work

Pre-conference class taught by Mark Asberry
Oct 9—11

Details: <http://umrbc.org/>

Contact Info: Bud Harvey
email: hotironblacksmith@comcast.net
Phone: 309-258-2010

Conner Prairie Opportunities for Blacksmiths and/or Wood Workers

I'm looking for someone to work in the historic blacksmith/woodworking shops. There could be someone in IBA or Rural Smiths that might be interested.

Contact Info: <http://www.connerprairie.org/about-conner-prairie/join-our-team>

NATHAN ALLEN
Manager of Historic Trades
Conner Prairie
Ph: 317.776.6000 ext. 276



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

Address Correction Requested
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sender

April 15 Hammer In Whitewater Valley Blacksmiths - Joyce Roell's shop

5175 State Rte 252, Brookville, IN 47012

Note: GPS works better using State Rte 252. Entering State Road 252 may take you to a different location.

For directions, or if you get lost, call Keith Hicks at 765-914-6584

Pitch in lunch

May 20 Hammer In One-Armed Blacksmith Shop Henry Breeding Farm, Edinburgh IN

Directions: From I-65, exit 76B onto US31 north bound. Turn right on CR 800N. Turn left on CR100W. Breeding Farm is about 1/2 mile on the left.

Pitch in lunch