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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)

10:00 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 Moe Handy
(317) 862-5647 for details.

IBA MEETING SCHEDULE

Check the latest *Forge Fire* for monthly IBA revisions. Contact **Michael Wollowski** (812) 232-2591 if you are willing to host or demonstrate for IBA

July 16 2011	SOUTHERN INDIANA METEORITE MASHERS
Aug 20 2011	MAUMEE VALLEY BLACKSMITHS
Sep 17 2011	GARY PHILLIPS (BOARD MEETING, OPEN FORGE)
Oct 8 2011	WABASH VALLEY BLACKSMITH SHOP



Editors Message

The reports are in and this years IBA Conference was a financial success as well as supremely entertaining. The IBA netted about a \$6000 profit. Take a look at the Beginners Class Report from Keith Hicks on page 4.

We are now preparing for UMRBC at Pontiac, IL. UMRBC occurs every other year and is a joint event sponsored by IBA, Illinois Valley and Upper Midwest Blacksmith Association. This is a quality event with top notch demonstrators, displays and tail gating.

Ken Dettmer and I stopped by Ted Stout's to gather some of the sound equipment for UMRBC. Ted said he wished he could make it to Pontiac, but he was committed to support the Illiana Steam show. As we were talking, it hit me just how many different blacksmith events are going on in the next 3 months. The same week end UMRBC and Illiana is the IBA hammer in at Steve King's shop in Paoli. The State Fair will begin in about 3 weeks along with a number of steam power and threshing festivals. It is impossible to attend all of the different festivals and events, but be sure to get out an enjoy at least a few.

As you look to page 3, you will see a slightly different look. The IBA now has 12 satellite groups. Satellite news and events are important to the health and longevity of the IBA. I have tried to post all satellite contact information on one concise spot. Please give me your feedback. Does this format work for you? Also check the information to see if it is accurate. I see that I do not have the meeting dates/times for all groups. Also check that contact information is up to date.

For those of you who want to work on your traditional joinery, I urge you to look at the Francis Whitaker scholarship details on page 11. Several years ago, I had the opportunity to attend the joinery class at John C Campbell. It is good class that touches on a wide variety of joinery techniques. Based on Clay Spencer's comments there are not a lot of applicants.

If have not renewed your IBA membership, a copy of the membership form is located on page 9. Fill it out and mail it to Farrel Wells.

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Dates to Remember

Aug 5-21 State
Fair

Sept 17
IBA Board Mtg

Sept 23-25
Quad State
(SOFA)

Visit the IBA website at: www.indianablacksmithing.org

IBA Satellite Groups and News

Sutton-Terock Memorial Blacksmith Shop

Meet: 2nd Saturday at 9 AM
 Contacts: Fred Oden (574) 223-3508
 Dennis Todd (574) 542-4886

Wabash Valley Blacksmith Shop

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

Maumee Valley Blacksmiths

Meet: 1st Saturday
 Contact: Clint Casey (260) 627-6270

Rocky Forge Blacksmith Guild

Meet: 2nd Saturday at 9 AM
 Contacts: Ted Stout (765) 572-2467

Whitewater Valley Blacksmiths

Meet: 2nd Saturday
 Contact: Keith Hicks (765) 914-6584

Bunkum Valley Metalsmiths

Meet: 1st Saturday
 Contacts: Doug Neukam (812) 259-4430
 Steve Stoll (812) 486-9668
 Shawn Gilley (812) 486-9113

Sutton-Terock News:

June 11,11

Shop open at 9 am only four people came. Tim Pearson and Robin Fitterling ran conduit and wire for the power hammer. Tim brought in a steel table that the shop bought to mount the two vices on that we got from IBA. Thank You Tim and Robin for the help.

Dan Neidig worked on his project.

The shop closed at 2 pm.

Hammered in Friendship

Fred Oden

Jennings County Historical Society Blacksmith Shop

Meet: 2nd Saturday at 9 AM
 Contact: Ray Sease (812) 522-7722

Fall Creek Blacksmith Shop

Meet: 4th Saturday at 9 AM
 Contacts: John Zile: (765) 533-4153
 Larry Singer (765) 643-5953
 Farrel Wells (765) 768-6235

St. Joe Valley Forgers

Meet: 4th Saturday at 9 AM
 Contacts: Bill Conyers (574) 277-8729
 John Latowski (574) 255-6209

The Southern Indiana Meteorite Mashers

Contacts: Billy Merritt (812) 338-2876
 Steve King (812) 797-0059
 Shawn Gilley (812) 486-9113

One Armed Blacksmith's Shop

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

“Doc” Ramseye Blacksmith Shop

Meet: 3rd Sunday at 2 PM
 Contacts: Mike Kelley
 Charles Gruel (765) 513-5390

Jennings County News:

The Vernon Blacksmiths (some, wore out by the conference) got off to a running start . Our now famous conference demonstrator, Ray Sease, Gave us a lesson on the ins-an-outs of drawing out a taper on a wide piece of flat stock. Bill Newman forged two hearts with a new twist . Glad to see that. He then proceeded to make a twisted handle poker. Bill had to make himself a screwdriver (which he donated to the shop) to spread the coils on his poker. Ken Dettmer Forge welded a six- rod basket with a filler in the center. After the Iron-in-the-hat and lunch , discussions were held on forming another forging station. Work was later preformed, and we now have a forging station on either side of the forge. Paul Bray

IBA Satellite Groups and News (continued)

Rocky Forge News:

The Rocky Forge group will meet at Ted's shop on July 9th. Coffee and doughnuts will be available after 8:30 and we will have a short meeting starting promptly at 9:00. After the meeting the forges can be started and we can forge until noon. There is plenty of metal to play with so just bring your bucket of favorite tools.

Carol will cook hamburgers so if you bring a covered dish to pass we should have a good lunch.

After lunch we will load our sign, anvils, forge blowers, etc and take them to the Illiana Steam and Power show grounds and proceed to begin the setup for the show. The Illiana Antique Power Show will be July 15, 16 and 17th at their show grounds north of Attica on Highway 41 to the Rainsville road, then turn east and go about 1.5 miles to the showground's.

This is an important event for the Rocky Forge group so I encourage all our members to participate for the weekend show. There will be a free dinner Friday evening with entertainment (free will offering for the entertainment).

Bring iron in the hat for the July 9th meeting.

See you all then.

Ted 765-491-2194

One Armed Blacksmith News:

Work continues on the blacksmith shop on the Bartholomew County Historical Society's Breeding Farm. A clean up detail was held on July 2. The shop location was cleared of trash and debris, then Tim's wife provided lunch. Brickwork on the forge has been completed to the point for the table to be poured. (update provided by Bill Kendrick)

2011 IBA Conference Beginners Class Report

June 30, 2011

To all I.B.A. members,

My name is Keith Hicks. I've been an IBA member for several years and was elected to the board of directors in 2009, and am currently the recording secretary. I also am the current president of the Whitewater Valley satellite group.

I thank the IBA for the opportunity to teach this year's beginner blacksmithing class at the June conference. I also thank everyone that helped me set up for and tear down afterwards. I especially thank Bill Newman and Eric Shotwell for their tireless efforts helping me.

In spite of the oppressive heat, this year's class was a great time, with more than twenty students participating. Their ages ranged from nine years old to sixty five. Each student left with a handcrafted item. I hope that all left with the knowledge and confidence to get out there and heat and beat metal every chance they get.

Sincerely,

Keith Hicks

I.B.A Board meeting report

6-18-2011 at Conner prairie blacksmith museum

Board members present: Gary Phillips, Keith Hicks, Jim Johnston, Ted Stout, Dominick Andrisani, Ken Dettmer, and Michael Wollowski.

The IBA made about 6000.00 dollars at the conference.

12 people signed up to become new members, bring our total membership to a total of 315.

The board authorized the funds to buy six more tables

Display award winners are: 1st place Billy Merritt for his fabulous display of Damascus artistry.

2nd place was awarded to Kurt Fehrenbach for his exquisitely crafted giant knife and sheath.

3rd place was well deserved by Don Neuenschwander for his beautiful copper vase.

The board agreed to invite the same food vendors to come back to the conference next year.

On behalf of the entire IBA we wish to give Larry Whitesell a heartfelt thank you for his tireless help in setting up and tearing down the conference.

The board agreed to accept the proposed constitutional amendments. A copy of these proposed amendments with the current wording and the proposed changes will be sent to all members for review and latter voting.

President Phillips strongly urges each satellite group to send at least one member, but as many people as possible to each board meeting. Everybody's input is needed at the meetings.

UNFINISHED BUISNES: The insurance investigating committee (Ted Stout, Dominick Andrisani, and Michael Wollowski) will research our insurance policy concerning member coverage at hammer-ins. They will present a progress report at the next board meeting.

The next board meeting will be at the home of Gary Phillips on September 17-2011. There will be open forge and a potato bar. Everybody should try to attend.

Report by. Keith Hicks

Article supplied by Tim Metz:

Claying Forges :

Coal Forge Linings

Many old forges had "clay before using" stamped or cast into the bottom. The reason for this varies and there are no manufacturer's instructions they explain exactly what they wanted. Claying does not apply to heavy cast firepots, just the surrounding forge pan.

Reasons to line a metal forge with refractory material or clay.

1. The manufacturer said so to make the forge more durable and avoid warranty problems.
2. To create a better shape "pot" in a flat bottomed forge.
3. To protect thin sheet metal pans from burn out.
4. To protect thin cast iron pans from thermal shock.

Reasons NOT to line a metal forge.

1. May serve no purpose.
2. Makes the forge heavy (portable becomes NON-portable).
3. Can accelerate rust due to trapped moisture in damp environments.
4. May make the forge more difficult to use.

The first reason to line a forge may be valid if the forge is used very heavily but it had been demonstrated over and over that unless you build a HUGE fire that forges generally do not need refractory linings. The manufacturer avoiding any possible warranty problem is a greater possibility.

The second reason, to make a better "pot" may be valid and is the ONLY situation where I have seen a manufacturer's diagram. This was in a flat bottomed sheet metal forge with a flat or shallow fire pot or tuyere. The clay was shown as a ring around the joint between the sheet metal and the tuyere. It formed a raised enclosure of maybe two inches with sloping sides to create a "firepot". This would help increase the controllability of the forge by keeping the fire concentrated in the middle of the forge. This makes a hotter fire and saves fuel.

The reasons not to line a forge are self explanatory. Many forges are used without lining and work well. Forges stored outside will rust rapidly due to the acidic coal ash unless cleaned very clean after every use.

The Clay

The clay used can be fireclay or common clay. It can be a commercial product or dug from a clay bed or even your backyard depending on where you live. The bottoms of small metal forges do not get so hot that they need refractory clays. Common red clay like they make bricks from will work fine.

IF using plain clay it needs to be worked up like modeling clay. Mix as stiff as possible and then work on a plaster slab "bat" or "vat" to absorb moisture as it is made smooth and pliable. It's the extra moisture that causes the cracking. Some cracks are inevitable.

Cement is not necessary for claying a forge. When it is used add about 10% portland cement. If you are going to use a sand cement mix you should consider a castable refractory cement. It is overkill but it is very durable in this application.

Recipes and Methods

The mix I used (based on my grandpa's recipe) was

- 3 parts mortar
- 3 parts clean sand
- 1 part fireclay
- 1 part dry lime

I mixed it, poured in the hearth to a depth that was flush to the top of the firepot and raked it smooth, then sprayed only enough water on it until the surface was wet. I let sit two days before making a fire and it had hardened nicely with no visible cracks anywhere. I think the minimal amount of water helps eliminate the cracking. - HWooldridge

REFRACTORY Here's the do-it-yourself castable refractory/mix from Jim Lindsay:

- 4 parts premixed concrete (includes the cement and is very lean)
- 4 parts fire clay (available at masonry suppliers)
- 1 part vermiculite (available garden suppliers)

Mix dry first then mix with as little water as possible making a "stiff" almost dry mix. Compact into place. Be sure to let dry (as long as possible, several days - week) and bring up the heat slowly on first use. The vermiculite is a good insulator, withstands high temperatures, adds porosity, and doesn't absorb a lot of water so the mix shrinks less than it would otherwise. -- guru Friday, 10/15/99 05:10:00 GMT

Coal Forge linings, revisited

By clay, they mean clay of any type but preferably a clay with a plasticity like good potters or artists clay. These work up stiff and harden without cracking severely. A refractory clay or mixture is slightly better but you do not need refractory temperature material for claying a forge. Clay suitable for making bricks is also suitable. It does it need to be a refractory cement or cement bonded clay.

The only manufacturer's diagram I have seen of claying a forge showed a ring at the joint between the flat bottomed forge and the flush fire grate. The ring created a "duck's nest" or shallow fire pot. This would help control the fire and partially substitute for a heavy cast iron fire pot such as the better forges came with.

Other shallow cast pans that had "Clay Before Using" cast into them probably wanted the clay as an insulating layer to reduce thermal shock to the cast iron. A uniform layer of clay about 1/2" - 3/4" (13 to 19 mm) thick would suffice.

Many folks use a mixture of clay and refractory cement or castable refractory cement, OR clay and portland cement to line their forges. This must be done carefully and with thought. Adding a layer of refractory to a forge pan makes it VERY heavy and what was semi portable is no longer portable. If the refractory is too deep the reserve volume for fuel is lost. In forges without firepots a deep layer of refractory can help form a firepot but only if the shape is correct. As noted above it could be a simple ring around the fire grate and a thin layer beyond. Heavily cementing a forge makes maintenance very difficult. Tuyeer and grate bolts rust rapidly enough and occasionally need attention. If buried under a thick layer of cement this may be difficult or require removal of the cement. Less permanent clay may have advantages in this case.

Castable refractory is a lean mixture of refractory aggregates (usually synthetic mullite), refractory clay and a high temperature cement. The cement only holds things together long enough for the dried mix to be fired and become calcined and partially vitrified. Castable refractories are never as strong as fired refractories (brick). Unless castable is cured or fired through at high temperature the result is a very weak refractory.

Mixes of clay with a small portion of portland cement are probably better for claying forges than castable refractory due to the strength issue (as well as cost). Coal forge pans rarely get to the temperature needed to cure refractory cement and then only on spots near the tuyeer.

When claying OR cementing a forge the refractory/clay mix should be made as dry (stiff) as possible to prevent excessive shrinkage. Refractory clays are those with alumina and are generally tan or white. The higher the percentage of alumina the higher the temperature rating but also the higher the firing temperature. When cements are used high alumina clays are overkill because the cement will not withstand as high a temperature as the refractory.

Pressed or welded steel pans do not need to be clayed and are best used as-is. Heavy cast iron pans with heavier fire pots also do not need to be clayed. The bed of fuel provides sufficient insulation in most cases. Even thin walled cast iron forges hold up well without claying if they are used for light work and a sufficient fuel bed insulates the forge.

Note that many old HD forges had the firepot set very low in a forge pan 6 to 8" (150 to 200mm) deep for very deep fires intended for heavy work. It is often beneficial to raise the fire pot a brick's depth (about 2-1/2" or 64mm) by using bricks to line the forge pan. This leaves a sufficient coal reserve and raises the hot spot to very near the bottom of the side cut out in the forge. This allows heating long slender bars to welding heat in a fairly efficient fire. Some modern forge makers just mount the fire pot in a flat surface and use the fuel bed to adjust the work height. The down side of this is reduced coal reserve.

Note that forges stored outdoors will accumulate corrosive water that has picked up acid by passing through the coal ash OR alkali from wood or charcoal ash. This moisture trapped under the clay will cause severe corrosion. Forges kept outdoors should not be clayed or bricked and should have all the fuel and ashes cleaned out between uses.

Editors Note: Refractory Engineers, Inc. (REI) is an Indianapolis based supplier of refractory materials.

1750 Midwest Blvd.
Indianapolis, IN 46214
Phone: 317-273-2000
(800-522-6696)
Fax: 317-273-2015
<http://refractoryeng.com/>

BLACKSMITH OF THE YEAR

It has been a real privilege to be named "Blacksmith of the Year" for the IBA. I am very proud of this award and the plaque will be displayed on my shop wall to commemorate the award. If you have ever been in my shop you will see all the blacksmithing pictures that I cherish and this award will hang prominently among them.

I have enjoyed many years as a hobbyist blacksmith, teaching blacksmithing, offering encouragement and support to the IBA and other blacksmithing organizations. I will do my best to continue working with the IBA and the blacksmithing community to promote our future.

The award is a wonderful culmination of all those years of hard work. Though there are others just as deserving of this award I am honored and thank you to have been chosen as "Blacksmith of the Year".

Ted Stout

Indiana Blacksmithing Association, Inc.
An Affiliate of the Artist-Blacksmiths' Association of North America, Inc.

Application for Membership

Membership in the Indiana Blacksmithing Association is open to all persons. We welcome you.
Membership dues are paid at the time of application and are renewed on June 1st of the following year.
Make Checks payable to: Indiana Blacksmithing Association, Inc.

New \$35.00 All Family Membership (All family members living in your household)
Please include name(s).
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Public Membership List:

Check here to NOT have your Name, Address, Home Phone Number, and E-mail Address in our Public Membership List which is only available to our members. Your information will be included unless checked.)

- Check here if you would consider hosting a meeting.
 Check here if your meeting place is heated.
 Check here if you are available to do demonstrations at IBA Meetings.
 Check here if you are available to do demonstrations for the Public.

Please read and complete the following release form. Form must be signed and dated by each member.

In consideration of the Indiana Blacksmithing Association, Inc.'s making these demonstrations available and granting permission to enter the area of said demonstration, I hereby waive all claims for damage and/or loss to my person or property which may be caused by an act, or failure to act of the Indiana Blacksmithing Association, Inc., it's officers, directors, agents, or employees and the hosts and demonstrators. I understand that there are inherent dangers in blacksmithing and I assume the risk of all dangerous conditions in and about such demonstration and waive any and all specific notice of the existence of such conditions. By signing this waiver, I acknowledge that I have read and understand this waiver.

Signature _____ Date _____ Witness (if not mailed) _____

Signature _____ Date _____ Witness (if not mailed) _____

SEND COMPLETED FORM TO:

FARREL L. WELLS 8235 E 499 S DUNKIRK, IN 47336-8807
Home: 765-768-6235 Home Office/Fax: 765-768-6247

RECEIVED CHECK# AMOUNT CLASS DATABASE CARD SENT

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

Francis Whitaker Blacksmith Scholarship

A \$500 scholarship will be awarded for the Traditional Joinery Projects class at the John C. Campbell Folk School, October 30 - November 4, 2011 taught by Clay Spencer. Francis left some money at the Folk School to provide for scholarships for this class. It has grown to the point where we can award 2 or more scholarships each year.

This scholarship is for intermediate and advanced students who have a solid foundation in basic blacksmithing skills, can manage a coal fire and forge weld.

Interested blacksmiths should complete the following application and e-mail it to clay@otelco.net. Contact Clay at 256-558-3658, e-mail or 73 Penniston Private Drive, Somerville, AL 35670 on any questions. Include your name, address, e-mail and phone number.

1. Describe your blacksmithing experience, how many years, classes taken, jobs, kind of work you do, how many hours you forge in an average month.
2. Goals for your blacksmithing career, what you wish to do as a blacksmith.
3. Make a scale drawing of a proposed project (your original drawing, not copied from another source). Should show 2 or 3 views with stock sizes and specify proposed joinery. Include a cut list for the stock. This does not have to be the project actually made in the class.
4. Describe your participation in the blacksmithing community: teaching, demonstrating, craft shows, writing articles, belonging to and attending local groups, attending conferences, etc.
5. Explain why you need a scholarship to attend a class.
6. Do you sell blacksmithing items you make? What type items? How do you sell?
7. Include at least 3, no more than 5, photos of some of your work.

The completed application should be e-mailed (e-mail preferred, regular mail accepted) no later than September 22, 2011. Successful applicants will be notified by September 28, 2011. Your application will be judged against other submissions to determine the winner.

The money will be paid directly to the Folk School. You will be responsible for all other costs such as fuel fee, materials, transportation, etc. The school has dorm rooms and a campground.

After the class you are requested to write a 2 page article explaining some of the blacksmithing techniques used in making your project, (include some photos or sketches) and send it to your state organization.

Francis required that students prepare a drawing before the class and send to him so that any problems could be worked out before class. He emphasized that drawing was another skill that a successful blacksmith must acquire. You must be able to make a drawing to present a proposal for a client or draw your project on steel table so you can make it. Most everyone has done some sketching, doodling or drawing, it is nothing to be afraid of and your first attempts do not need to be professional. Just start sketching, sketching, sketching, refining your ideas until you figure out the joinery and stock sizes you think are right. Then start making it to scale, easiest way is to use quad paper. You can get large sizes, about 2' x 3', with 1" squares

Chances to win a scholarship have been 100% for the last 3 classes. Good luck.



The **FORGE FIRE**

Newsletter of the
Indiana Blacksmithing Association,
Inc.

Bill Kendrick *Newsletter Editor*

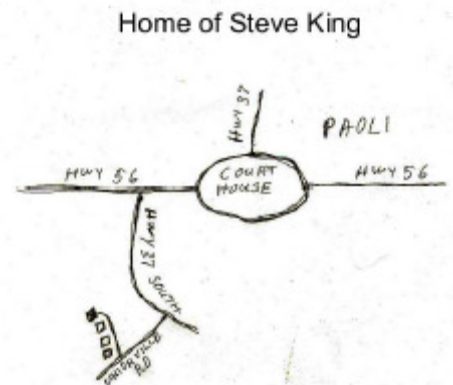
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July 16 Hammer In Southern Indiana Meteorite Mashers

Steve King's Shop
Paoli, IN



August 20 Hammer In Maumee Valley Blacksmiths

Maumee Valley Antique
Steam & Gas Association

1720 South Webster Road, New Haven, IN

