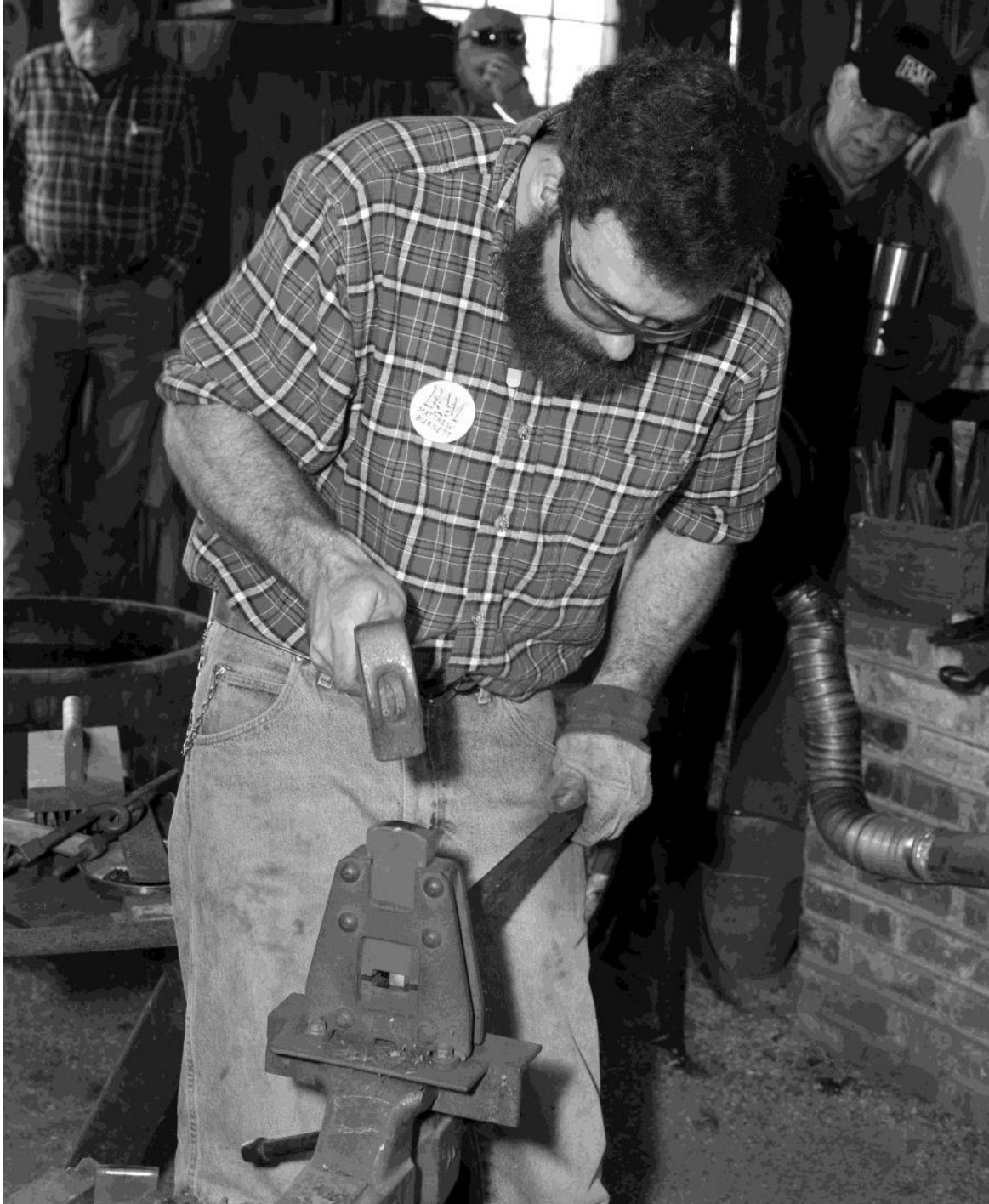


RAM

Nov / Dec 2016



November / December 2016
Volume 33, No 6

Blacksmith Association of Missouri

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Matthew punches out a great demo
in Doniphan.



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Phil Cox

Mailing Labels

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The Newsletter of the Blacksmiths Association of Missouri is published six times a year and is mailed to members of BAM. The annual fee for regular membership is \$30/year; a portion of this amount is for a subscription to this newsletter for one year. Editorial inquiries should be addressed to : Jon McCarty 815 Miller Street, New Haven, MO 63068; (636)359-1246, or send an email to: bameditor2015@gmail.com BAM membership inquiries should be addressed to: Bruce Herzog, 2212 Aileswick Dr. St. Louis, MO 63129 (314) 892-4690 or send email to bjherzog@charter.net. Occasionally some material will be copyrighted and may not be reproduced without written consent by the author. BAM welcomes the use of any other material printed in this newsletter provided the author and this organization are given credit.

Membership Application

Name: _____

Address: _____

City: _____ State: _____

Phone: () _____

Zip: _____

E-mail: _____

New Member Renewal ABANA member

Are you interested in taking a class?

How did you learn about BAM?

ABANA Membership Application

Primary ABANA Charter Affiliation: _____

Name: _____

Address: _____

City: _____ State: _____

Phone: () _____ Zip: _____

New Member Renewing Member

Includes a Subscriptions to the Anvil's Ring and The Hammers' Blow magazines

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From the President

By Phil Cox

It's hard to believe that Thanksgiving is only a week away. I have been working in the shop in a T-shirt what a beautiful fall, cool mornings mid 70's at mid day. I have never got so much done as I have this fall. I have rebuilt 3 hammers since I returned from SOFA. I have 2 of the Bradleys running and we got Bill Moffet's hammer finished and he has it inside his new shop. Started work on the last Bradley today a 150# strap hammer. I do have a Big bank job that I'm working on this year. I have been working with a man that repairs bank vaults. He is working on a vault door that is over 100 years old and there are no parts available so I have been making several parts for him. A family in Oklahoma has been in the banking business for well over a hundred years. They are restoring this door as the center piece of their new bank. So far I have forged, welded, and machined several items.

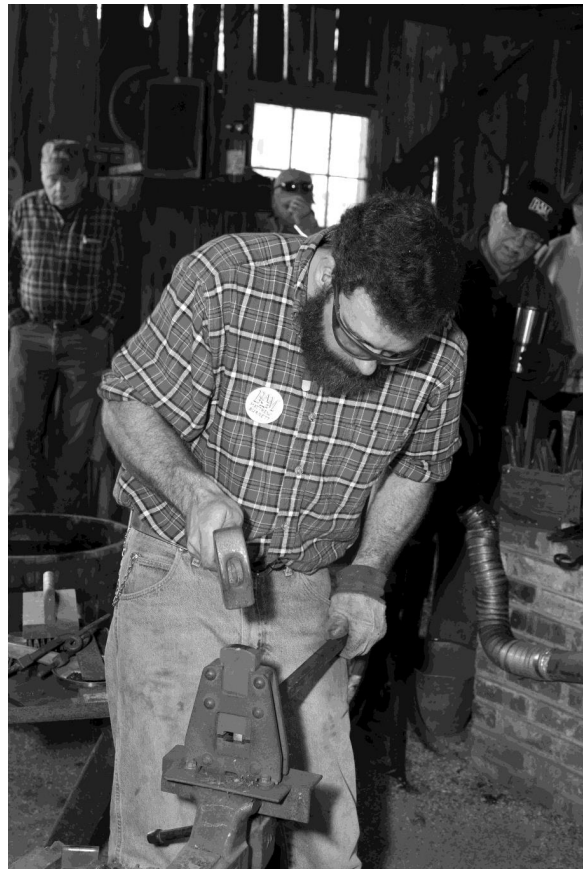
The November meeting at the Tom Kennon blacksmith shop at the Pioneer Heritage Homestead, Doniphan Mo. was a good one. Chis ordered great weather a little cool in the morning but the sun warmed things up into a nice day. Matthew Burnett was the demonstrator. His project had 4 mortise and tension joints as that was the theme of the trade item. As always he did a meticulous job. I am sure there will be pictures of his work in this issue. I would guess about 50 attended at least 5 of those were new members.

They continue to improve the homestead and the blacksmith shop every year. If you haven't made this one you need to try to make the next meeting there. It is a long drive from northwest Missouri but lots of nice things to look at on the way down. The Tappels took Marg and I on a sightseeing trip to some of the springs and other sights as we traveled down on Friday.

As my thoughts turn to Thanksgiving I must include my BAM family. I am truly blessed and thankful for the wonderful people in BAM. The knowledge and wisdom possessed within the membership is astounding. The willingness to share and help is what makes BAM so special. Thank you all for being who you are and doing what you do. Keep it up and we will have another great year.

Till next time keep your anvil bright and your fires clean.

Phil



November Meeting Minutes

By Bob Stormer

Phil Cox opened the meeting by thanking Chris Miller for hosting the meeting, and all the Ripley County blacksmiths for helping with the meeting preparations. He also thanked the demonstrator, Mathew Burnett. Phil recognized the new members who were present. Bruce Herzog gave the treasurers report, and noted that BAM now has 622 members.

Mike McLaughlin gave a brief report on the 2017 BAM Conference. The conference will be Thursday, May 4th through Sunday, May 7, 2017. The demonstrators will be, Lyle Wynn, Allan Kress, Howard Clark, and Matthew Burnett. Mike is looking for volunteers to help with all aspects of the conference from helping demonstrators and helping with setup and cleanup. Contact Mike McLaughlin at cowpie42@hotmail.com, or 816-296-3935 if you can volunteer. Volunteers get their conference fee waived, but do need to pay for lunches and the banquet if participating in those events.

Please support the auction by making something for the auction, buying something, or both. Iron-In-The-Hat needs donations. Display something in the gallery. The boutique needs moderately priced blacksmith items as well as baked goods for sale. After Bernie posts the tool list on the BAM website you can volunteer to make tools for the BAM Tool Boxes that Mike Gentsch is making. BAM has received donations of an anvil, forge and post vise for the major raffle. In addition to Mary Jo McCarty's basket classes, Patty Bagley will have footstool weaving class.

If you will be needing a motel room for the conference you should call early since there will be military events at Whiteman AFB that same weekend. All are invited to participate in the Thursday evening pot luck dinner by bringing something to share. Mike needs someone to organize the forging contest and someone to develop a T-shirt design/theme for the 2017 conference. Michael Gorzel will be the new conference chairman for the 2018 conference and will be learning from Mike M. as the 2017 conference progresses. Mike McLaughlin has been organizing the conference for the last 7 seven years.

Phil is continuing to look for a solution to the noisy blower motors on the BAM coal forges. A short discussion on the conference gallery ensued and Bruce Herzog mentioned our gallery was better than the SOFA gallery this past year. The gallery organizers were also recognized for their continuing ef-

forts to make it a showcase gallery. Member made items are always requested to show off the many talents of BAM members. Bernie Tappel suggested that we have a "Peoples Choice" award for the gallery items to help stimulate participation.

Esther Digh gave a brief status of the scholarship program. Wayne Rice has been awarded a scholarship to study with Pat McCarty. She also reminded everyone that you must be a BAM member in good standing for two years to apply for a scholarship. She requested that someone else take over the scholarship program. Please give this some thought and help her with this if you can.

Phil noted that Ken Jansen and Pat McCarty are having their annual meetings on Black Friday and New Years Day respectively. BAM guidelines require the membership to vote on sanctioning any events as official BAM events in order to cover them properly for insurance purposes. Chris Miller made a motion to sanction both events, the motion was seconded and was passed with a show of hands.

The next meeting will be at Dale Kirby's shop on January 17th, at Higbee, MO, with the trade item TBD. Additional meetings for 2017 are; June 10th at Ned Digh's shop in Fulton, MO and at Don Birdsall's shop on September 16th. Volunteers are needed to host the July and November meetings for 2017.

Ned Digh made a motion to research a better way for Karen Bouckaert to get the BAM library to and from the BAM meetings. The library is growing, and carrying all the material in plastic boxes is getting very cumbersome. The motion was seconded and passed with a show of hands. Any suggestions on how to make this easier for Karen would be appreciated. The meeting was adjourned.

After the meeting, Chris Miller volunteered to give a tour of the Ripley County courthouse and museum.

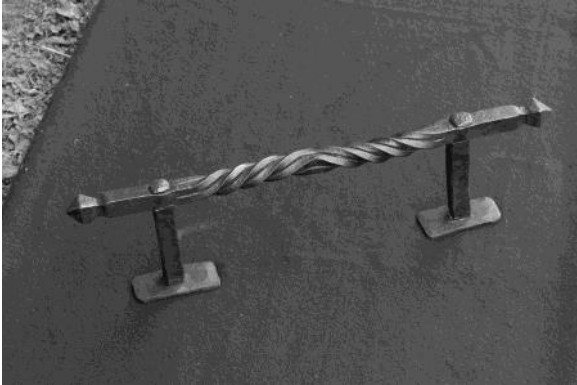


Iron in the Hat ~ November Meeting

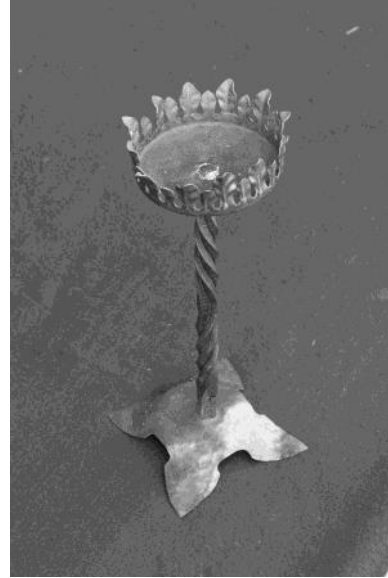
Donated by	Won By	Item
Mark Lawson	David Rosemann	Die Set
Last BAM Meeting	Harold Van De Mark	Wrench
Michael Gorzel	John Huff	Lemongrass Soap
Harold Van De Mark	Don Anders	Tool Box
Ray Scott	Steve McCarthy	Steering Shaft from Road Grader
Mark Lawson	John Huff	Sanding Belts
Dennis Mohrmann	Chris Miller	Springs
Michael Gorzel	Don Anders	Lemongrass Soap
Ned Digh	Dennis Mohrmann	Air Tank Conversion Kit
Steve Eikerman	David Roseman	Bucket of Flint
John Sherwood	Eddie Mayton	Springs
David Rosemann	John Huff	Garage Springs
Dennis Mohrmann	Mike McLaughlin	Buggy Axle
Ned Digh	Michael Gorzel	Arbor Press Kit
Martin Monfee	Mark Lawson	Metal Barrel
Martin Monfee	Jim Pendergraft	Metal Barrel
John Huff	Steve McCarthy	Horse Shoes
John Gries	Ned Digh	Misc Metal
Pat Layton	Dennis Mohrmann	Jack Hammer Bit
Dennis Mohrmann	Aaron McCarthy	Tools Box
Esther Digh	Eddie Mayton	Jewelry Hammer
Matthew Burnett	Don Anders	Steam & Gas Hats
Santo Giuffrida	Eddie Mayton	Garage Springs
Esther Digh	John Sherwood	Grinding Wheel
Dennis Mohrmann	John Sherwood	Springs
Matthew Burnett	Chris Miller	RR Spikes
Bob Stormer	Gary Ethridge	Mini Anvil
Bob Maes	John Huff	3 Tongs
Danny Schilling	David Rosemann	Backyard Blacksmith Book
Don Birdsall	John Huff	Coil Springs
Karen Bouckaert	Chris Miller	Oxygen Tank



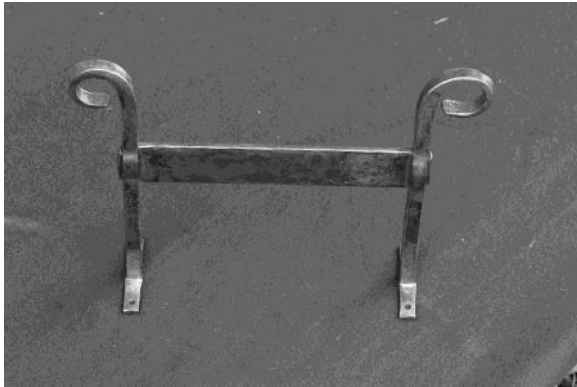
Trade Items ~ November Meeting



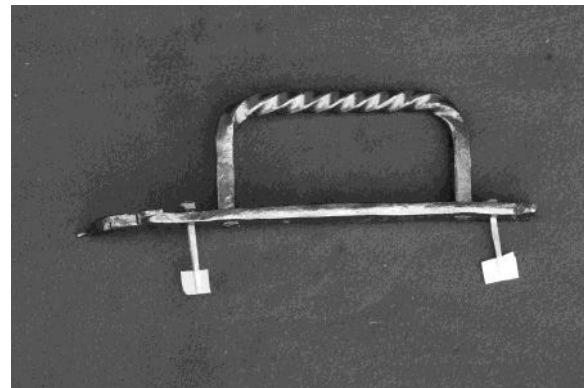
Made By: John Sherwood
Traded To: Harold Van De Mark



Made By: Chris Miller
Traded To: Yuval "UV" Awazn



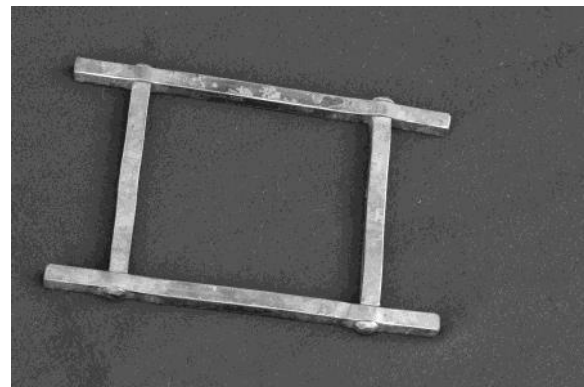
Made By: Bob Stormer
Traded To: John Sherwood



Made By: Randy Carrier
Traded To: James Craig



Made By: Dennis Mohrmann
Traded To: Steve McCarthy



Made By: Don Anders
Traded To: Danny Schilling



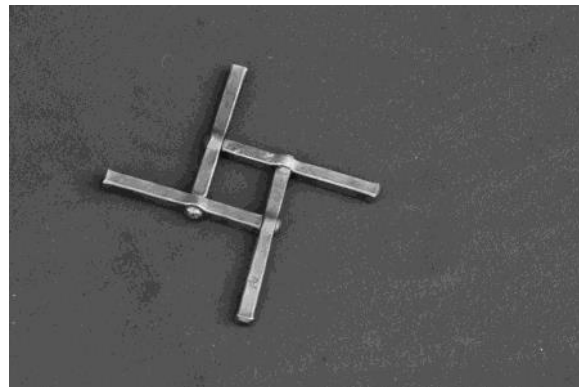
Made By: James Craig
Traded To: John Gries



Made By: Matthew Burnett
Traded To: Mark Lawson



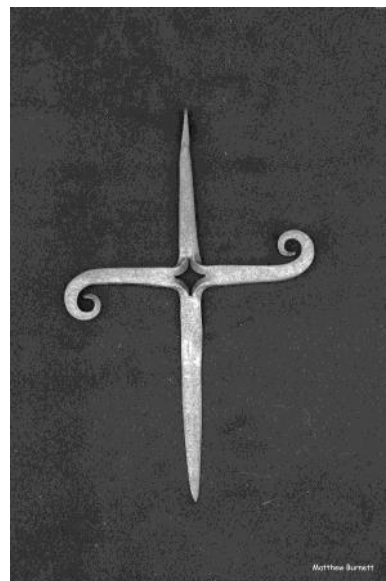
Made By: Bernie Tappel
Traded To: Chris Miller



Made By: Steve McCarthy
Traded To: Matt Dickson



Made By: Mike McLaughlin
Traded To: Bernie Tappel

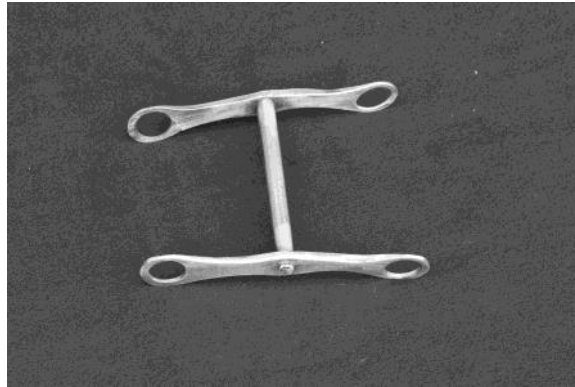


Made By: Unknown
Traded To: Unknown

Trade Items Cont.~ November Meeting



Made By: Don Birdsall
Traded To: Randy Carrier



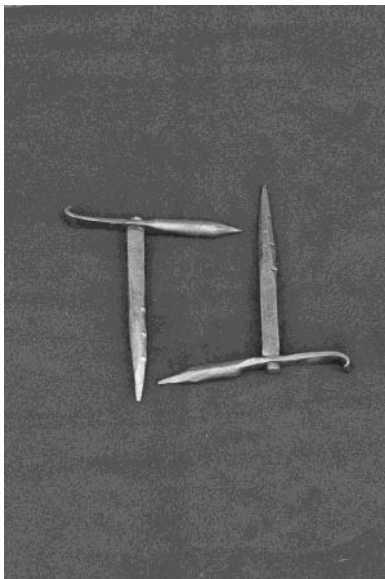
Made By: Mark Lawson
Traded To: Matthew Burnett



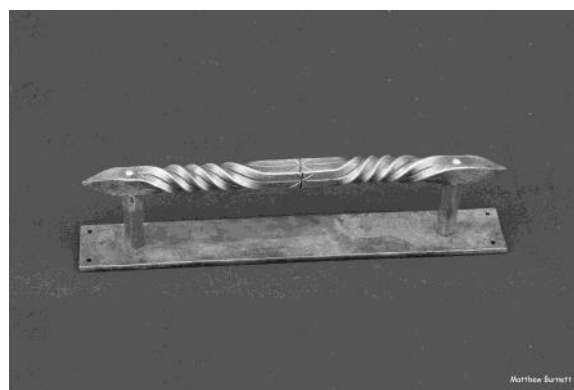
Made By: Danny Schilling
Traded To: Bob Stormer



Made By: Yuval "UV" Awazn
Traded To: Dennis Mohrmann



Made By: Matt Dickson
Traded To: Don Birdsall



Made By: Unknown
Traded To: Unknown



Gaylan Veater's
Group Project Hacksaw Frame -Part-two-
Gaylan Veater and others:
Bonneville Forge Council, Utah

At this stage, you should have an Alpha jig ready to use, shown in the 20 Vol 1 issue of the Hammer's Blow.

Only one Alpha jig is required per organization. The Alpha jig will make numerous D-shaped jigs for regional workshops.

We used a length of one-inch wide by half-inch thick flat bar, bent the easy way, to make all the D-shaped jigs.

The wide stock allows the jig to be used for half inch square (or round) stock, leaving room on the base plate for a spacer bar to be utilized. The spacer will keep the handle material off the base plate and facilitate the use of a hand or set hammer to fit the handle to the D-shaped jig.

About 1.-inches of material of the one by half was bent over upon itself and hammered flat. A hand hammer was used to drive some of the deflected edges back into the parent bar.

With a suitable scrolling fork at the ready, a long heat was taken on the one by half stock and it was fit to the Alpha jig as closely as possible.

The stock was allowed to cool slowly and any excess material was trimmed off with a hacksaw.

The outer face of the D-jig material was ground smooth, with all the lipping and cupping created by the

bending process removed.

The D-jig was checked against the Alpha jig before it was welded on to a backing plate.

For our D-jig, we went with drilled and tapped holes for both of the two pins.

The D-shaped bar was held against the backing plate with the bottom edge of the D parallel to the lower edge of the plate.

A silver pencil was used to draw a line around the D-shaped bar.

The bar was removed, and the location of the drilled and tapped holes marked.

The side of the first pin is roughly 1/4" clearance from the edge of the D-shaped bar.

This first pin traps the forged eye in place as you bend the handle around the D-shaped jig for the first bend.

The location of the second pin is more problematic.

A test taper and rolled eye was needed to find the average thickness of the bar as it travels around the pin.

The material traveling around the top of the pin needs to be in line with the initial U-shaped bend in the handle.

The second pin needs to be placed so that the material passing the first forged eye does not bind or interfere with the eye.

We used 1/2" bolts for our pins and so drilled two 27/64" holes in the bar for tapping purposes.

Once the holes were drilled and tapped, the handle jig material was offered up to the base plate and located within the line drawing. It was tack welded, checked and then fully welded to the plate.

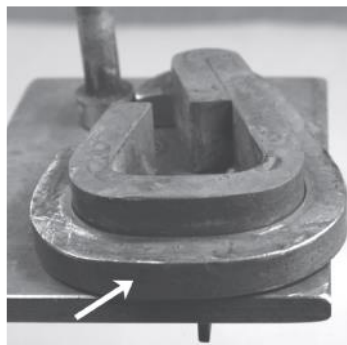
A suitable bar was welded to the back of the plate allowing for the jig to be held in the vise.



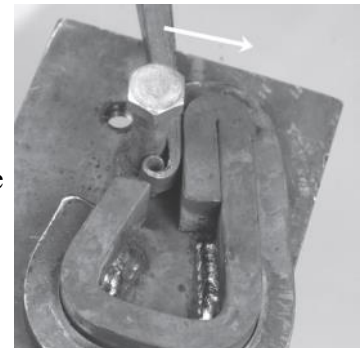
The Alpha jig with stops & spacer bars fitted



Here the D-shaped jig is welded to a base plate and a spacer bar fitted



The spacer bar lifts the handle stock away from the base plate



The first pin is used to trap the rolled eye of the handle

Once the handle jig was fully welded and held in a vise, a piece of half-inch square stock was wrapped around it to act as a spacer between the base plate and the hacksaw handle material.

Due to the tight bends involved, the handle material will have to be tapped into place by a hand hammer before a scroll wrench can be utilized.

We drew a 4 1/2" long taper to one end of a 1/2" square bar, recording the amount of material used. The bar was then wrapped around the jig. A line was drawn where we wanted the second taper to start.

A rough estimate of the amount of material needed for the handle was then able to be calculated. We ended up with a 13 1/2" long bar of half inch square. You can, of course, use round bar for comfort of use when using the hacksaw, but we chose not to do that.

A center-punch mark was placed at either end of the bar at the 2 1/2" mark.

Your students are required to draw a 4 1/2" long taper on each end of the bar without going past the center punch marks.

The corners of the bar are lightly chamfered for comfort and an eye rolled at either end of the bar.

The eyes are located on the same side of the bar.

We chose to roll the eyes towards the center-punch marks in an effort to place those marks on the inside of the handle.

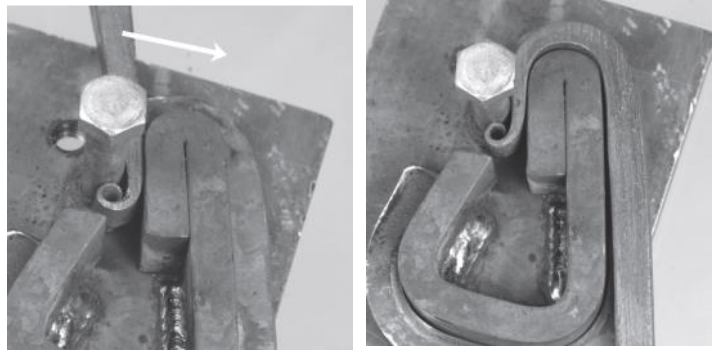
Take a long heat on one end of the handle material. With a rolled eye facing away from the handle jig and secured by the first pin, pull the handle material around the jig.

At some stage you will need to use a hammer to tap the handle material into place beside the jig.

We asked the students to pause here and take the handle material to the anvil to dress the bulges caused by the bending action—a 'teachable moment'.

This is a good time to remove the first pin from the jig.

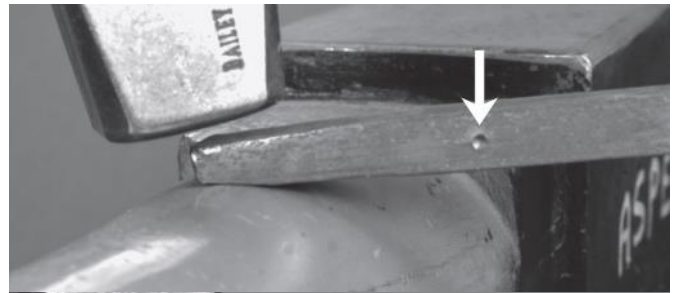
The second and third bends can be made with a bending or scrolling fork with a second heat of the bar.

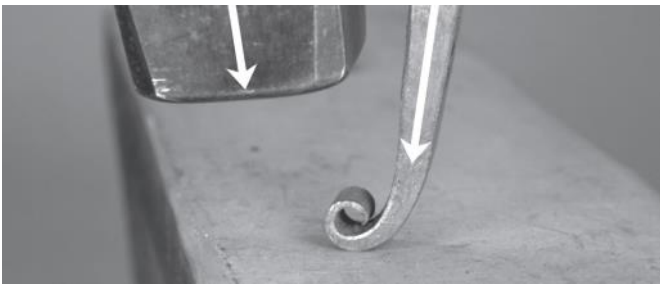
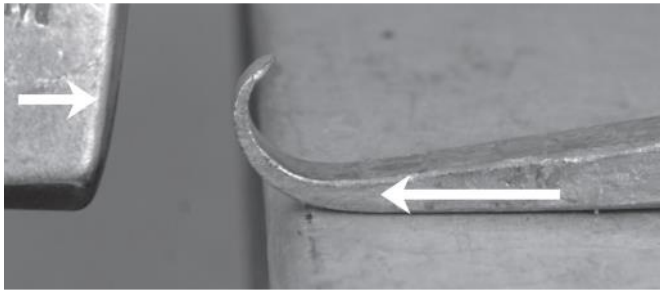


The rolled eye is captured by the first pin and the stock pulled around the first bend of the handle jig and hammered straight.



A test piece was made to calculate the length of stock required for the handle





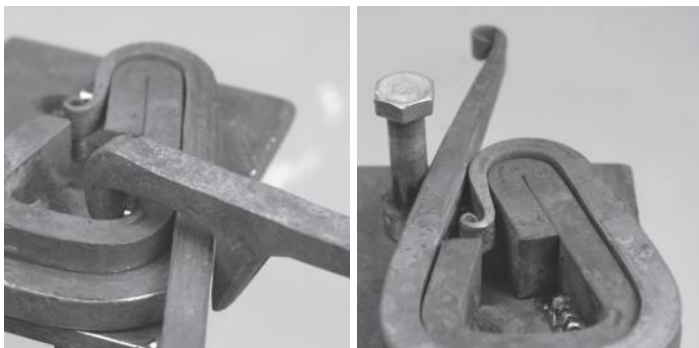
For our handle jig, 13 1/2" of 1/2" square bar was used to make the inner handle. A center-punch mark was placed 2 1/2" from each end, with a 4 1/2" long taper drawn from each. The ends of both tapers were turned into a 1/4" ID rolled eye, both eyes face the same direction, towards the center-punch marks.

You will find that the third bend cannot be completed without the first pin being removed.

Remove the pin if you haven't already done so and complete the bend.

The bend around the second pin requires either a smaller scrolling wrench or the use of a hand hammer.

Make sure that the bent material is a tight fit to the pin. The alignment of the second taper may need some adjustment at the anvil after bending upon the jig. It should be as close to parallel to the bottom of the handle as possible.

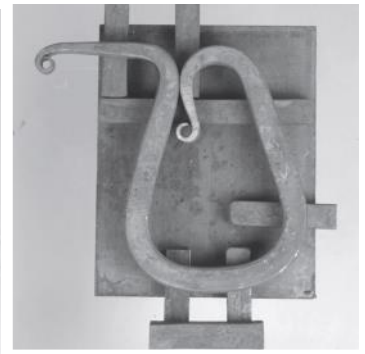


The 2nd & 3rd bends were made after the pin was removed from the jig. The pin was replaced for the 4th bend.

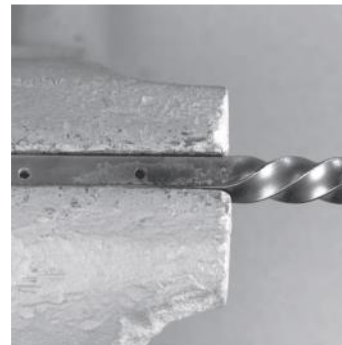
The first of your handles is used as a jig to make all the outer frames. That was found to be the easiest method of working, rather than trying to create a de



The material covers the location of the first pin



The handle was welded to a base plate to make multiple outer frames: note spacers



The outer frame material was drilled & twisted prior to bending around the jig.



The inner handle and the start of the outer frame

vice that would capture individual inner handles as the student wrapped the outer handle around it.

The layout for the outer handle and frame material is given at the end of this article. Our result was heavily influenced by the alignment of the planets at the time, I would advise you to conduct a test piece to determine your own layout prior to having a group of smiths arrive at your place for the workshop.

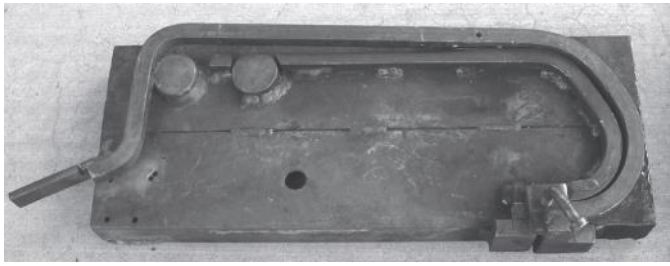
The location of the rivet holes is omitted from the drawings as they are easier to drill with the handles together. We used a section of channel bolted to the edge of a drill table to support the stock as we drilled.

The top front bend of the outer frame was roughly calculated from the position of the front edge of the inner handle. The front edge of the downward leg was seen to be about 11-inches from handle end of the same bar.

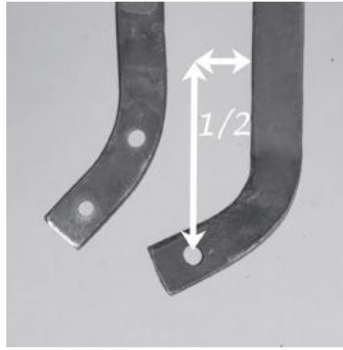
The bend was made around a piece of one-inch round stock.

Note to instructors:

This was seen as an opportune time to teach the stu-



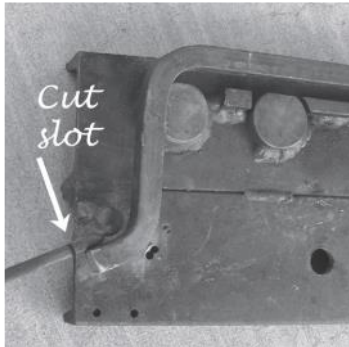
If your workshop is a little tight on time, another jig can be made to wrap the complete outer frame around. The one shown has a clamp at the handle end and a slot for a hacksaw guide at the other (both ends shown below)



The blade cam bar (L) and the front, outer frame (R)



Here the two units have been riveted together



Here the two ends of the outer frame jig are shown. Care must be taken to thin the jig stock to match the tapered handle stock as you wrap the jig around the D-jig.

mine where to pace the 90° bend of the blade cam bar.

Once the cam bar has been bent, the other end can be drawn down to a taper to reach the blade cam clip at the handle end of the top bar.

Leave yourself a little room to roll an eye on the taper for safety during the hacksaw's use.

Continued on page 20

dent about the neutral axis of bent stock. One side compressed, one side under tension (stretched).

Another bend was made 3 1/2" below the top of the outer handle frame to about 45°. The end of the bar was now trimmed and drilled, with the center of the drill hole being 1/2" in front of the front edge of the outer frame.

The end of the bar was cut with a hacksaw to a depth of 1 1/4" and then opened out to a 1/4" gap with a hand held fuller.

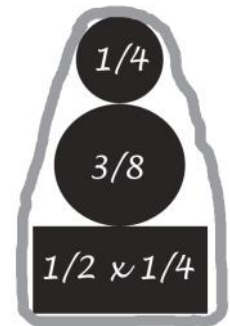
The blade cam bar was made from a length of 1/2" x 1/4" flat bar about 14 1/2-inches long with one end then drawn down to a taper making the bar 17 1/2" long overall. The bar was drilled with two 5/32" diameter holes, one at 3/8" from the end and the other at 1 3/8" from the end to hold 1/8" rivets.

This bar was also cut with a hacksaw to receive the hacksaw blade as shown in the right-hand photo below.

The outer frame and the blade cam bar can now be temporarily fitted together. This allows you to deter-



A jig for the blade cam bar showing a 2-inch ID bend



The cam clip was rapped around a stack of welded bars



The clip after being cut from the mandrel.



The clip fitted to the frame

The taper is joggled at the end to receive the retaining

Scholarship Article, 18th Century Apple Roaster

By Scott Payne

I was blessed to receive a BAM scholarship to attend a course at John C. Campbell Folk School this past July. I hope in reading this, others will be inspired to apply for scholarships and attend classes there as well.

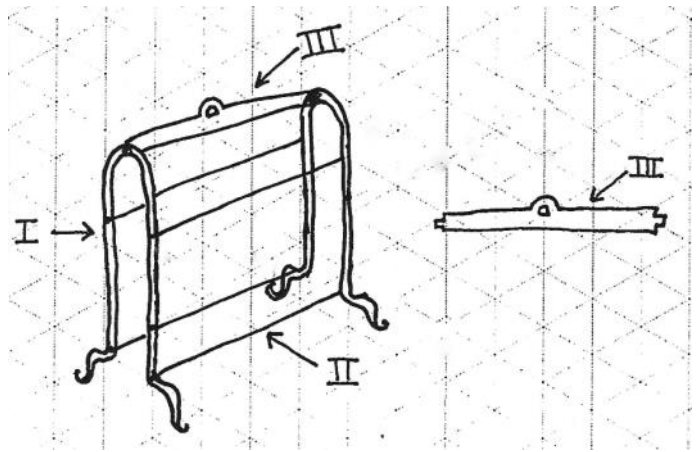
I am a high school Ag teacher/FFA Advisor in Greenville, Missouri and a Chaplain in the United States Army Reserve. Those responsibilities, along with the many other hats worn in the small community in which I live, have kept my blacksmithing (mostly bladesmithing) at the hobby level most of my life. As a shop/Ag teacher, I have been able to incorporate some basic blacksmithing into the courses I teach at Greenville High School. The students always look forward to it (and I enjoy the extra forge time!). I was searching for training on new techniques that I could master and pass on to my students. The course at John C. Campbell was exactly what I was looking for.

This year, my summer calendar allowed time to attend a class, so I applied and received a scholarship to attend. The application process was painless and the people were very friendly to work with and answered all my questions. For those of you who have not been to JCCFS, I would encourage you to go. The campus is a beautiful and peaceful place. The staff are friendly and the instructors are very knowledgeable.

The course I attended was Colonial Hearthwork, taught by Jerry Darnell and Bob Alexander. Bernie Tappel attended the same course. He, Jerry, and Bob were very patient and helpful each time I had a question. We built fishtail scroll andirons, a potsway, and an apple roaster. Their projects turned out much more photogenic than mine! The typical workday was 9:00 – 4:30. However, Jerry and Bob were very gracious and came in early/stayed late for students to work. There was no wasted time and I felt like the course was well worth the cost.

The apple roaster project is outlined below. The full article with all the projects can be found on the BAM website. If you have any questions about the projects, John C. Campbell Folk School, or I may be of help in some other way, please do not hesitate to contact me. Thank you again to Jerry, Bob, and Bernie for all of your help. Thank you BAM for allowing me the privilege of attending this course!

Scott Payne, Greenville High School
573-625-8135 cell (call/txt)
chapspayne@gmail.com



Frames – 2 pcs. 1/4" x 3/4" x 29"

Nose off ends – on edge. Forge end edge down to tongue. Taper to 3" (it can fish tail a little)
Roll a small scroll on the end (no wider than full width of stock.) Clamp on edge in vice at 4 1/2" mark. Pull around quickly and hammer at the same time (light taps) to make a nice short edge bend with a sharp inside corner. Make multiple heats to lessen buckling. Cool the corner. Set it on the horn and tap down over the 2" diameter area of the horn. Repeat for other side. Grab both sides with good, side locking tongs and pull around cone or mandrel – even bend up by eye. Repeat for second leg. Dimensions to shoot for: 2 1/2" inside width (about as wide as an apple), 3" leg height countersink all holes on the outside (both sides if tapering tennons on stretchers, outside only if grinding tennons on stretchers.) Lay frames on top of each other and adjust until they are the same. Drift top hole to 1/4" square. Stretchers 4 pcs. 1/4" round stock 13" long Taper (or grind) each end about 3/4" to a blunt taper with the tip less than 3/16"

Top stretcher 1/4" x 3/4" x 13"

Saw out 1/4" x 1/4" tennons on each end. Find center of top stretcher and mark off center. Slit punch with a half round chisel. Bulge out the side but don't split it Out. Drift to about 5/16". Forge 4" of 1/4" round stock to a chain link. Fish it through the just punched hole. Flux and weld. Round it out into a ring on a small cone.

Top Extender

Forge a blunt point on each end of a piece of 1/4" round stock 12" long. Turn 1 1/4" to 1 1/2" cold eyes on

both ends Forge a second one with a hook on one end Assemble and close the all of eyes except the lower one (leave it open to attach to frame later) Assembly Use 1/4" spacers to make vice more effective in holding round stock. Tennon together on edge of vice Start on one side of a frame at the bottom. Heat and peen down the 3/16" portion of the rivet sticking up through the frame. Do all of one frame first, then attach second frame. Correct any racking of the frame. Attach hanger and close final eye. Heat, smoke, and wax.

Shop Tips.

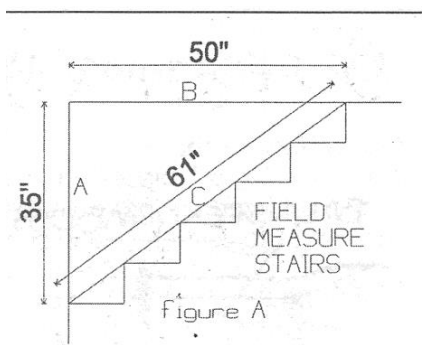
Railing Layout

By: John Groll

Pittsburg Area Artist Blacksmith Association

May 2004 Issue

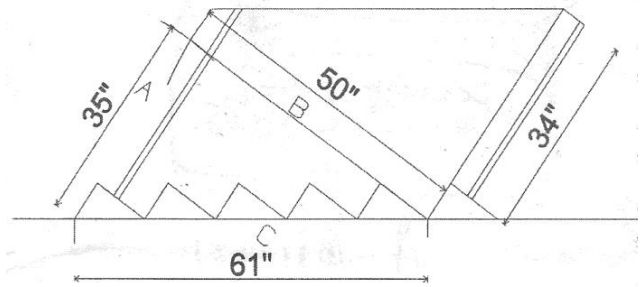
During the meeting at my shop, I felt that some members probably still had questions about the railing layout demonstration and for anyone who missed it so, I will try to explain it again. The way we lay out all of our rails is by measuring the stairs using a 4' level and taking three measurements. These measurements form a right triangle which can be checked for accuracy using the Pythagorean theorem ($A^2 + B^2 = C^2$). (Figure A)



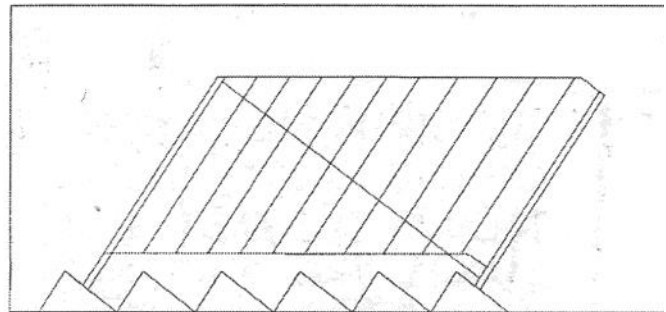
We used a layout table that has a perfectly straight side as a work point. The edge of the table is used as the hypotenuse of the triangle (measurement C). After marking the nose to nose length on the table, start an arc using the A measurement (the total rise of the stairs). Then from the other end of the hypotenuse, draw an arc using the B distance (total run of the treads) that intersects with the A arc. Now, draw a straight line from the start of "A" to the intersection point. Next set a large bevel square on the "A" line, this is the bevel of the post and pickets and is the cutting bevel for the post top. We usually set our posts back 4" from the front of the tread and draw in the end

posts. The building code requires railings to be 34" to 38" high on the stairs so we need to draw the top rail by measuring up from the first and last nosing and connecting these points.

If

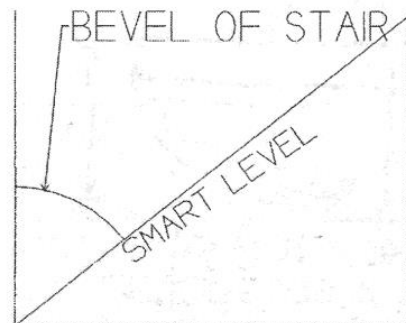


the stairs are elevated above grade the rail requires pickets or ornamental design that a 4" sphere cannot pass through. To space the pickets we measure the distance between the posts along the "B" line and add the width of one picket (1/2") then divide by 4 1/2" to see how many pickets will fit in the space (the number of spaces must be an even number to start and end with a twisted picket if you are using alternating pickets).



Now, divide the even number of spaces into your distance between posts + 1/2" which gives you the center to center spacing of the pickets.

Start marking at the center of the line toward each post and you should end at 1/4" past the post. Some other ways to measure the slope of stairs is using a Smart



Level to get the angle in degrees and use the complimentary angle off the edge of the layout table. A straight board (1 x 10) laid on the nosing of the stair and using a level, mark a plumb line on the board and mark all the nosings on the board.

Historic Forge

By Heather McCarty

Pittsburg Area Artist Blacksmiths Association

Volume 3, Issue 2

May 2004

Want a New Hang Up?

By: Larry Albrecht

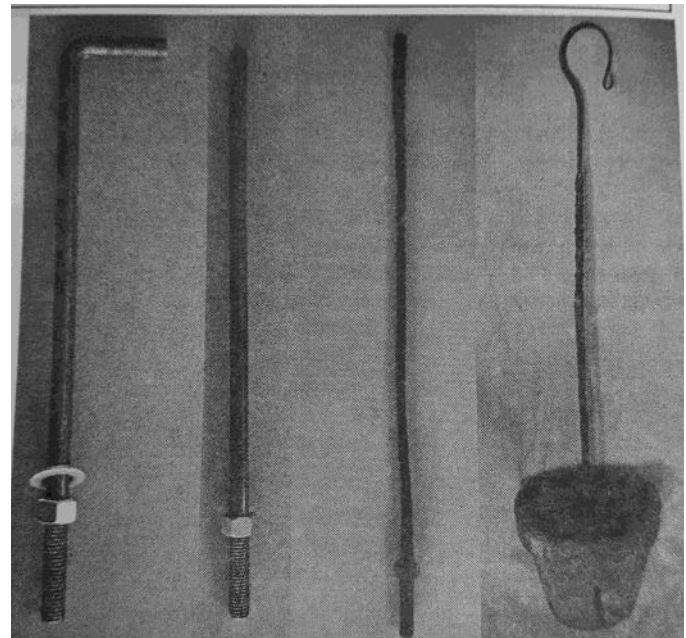
One afternoon I was browsing around Home Depot's concrete and cement department and came across anchor bolts.* They were 7/16" x 12", had a thread on one end with a nut and washer. I forged this into a hanger for clay pots that have a hole in the center of the bottom.

1. I screw the nut all the way on because I hold the threaded end. When finished forging, just back the nut off and the threads chased.
2. Straighten the curved section end and square it off. I forge the whole length to the nut.
3. Now there is 14" of square stock to draw out and taper to 26". I do not draw out the last 2 1/2" until the very last. If I want a matching pair I use a set of dividers to compare tapers. Keep taper smooth and straight at the end of each heat.
4. 10" up from the nut, I put a 5" double reverse twist for decoration.

5. I draw out the last 2 1/2" to a point and make my hook. Add a washer and nut to inside of pot and tighten.

6. I use a 2" lag bolt, cut the head off and make a matching hook to hang from.

* Editors Note: These fasteners are also called foundation bolts.



Upcoming Events

- January 1st 2017—Hammer In, Pat McCarty, Washington MO
January 14th 2017— Meeting, Andrews & Kirby Co , Higbee MO
January 24th 2017— Newsletter Submission Deadline
March 2017— Meeting, Lou Mueller, Arnold MO
May 4-7 2017 - Ozark Conference, Sedalia, MO
June 10th 2017— Meeting, Ned Digh, Fulton MO
September 16th 2017—Meeting, Don Birdsall, Rolla MO
November 2017 Meeting, Doniphan MO

**ILLINOIS VALLEY BLACKSMITH ASSOCIATION
JEFFERSON COUNTY HISTORICAL SOCIETY
MT. VERNON, ILLINOIS
MARCH 4-5, 2017**



Members of the Illinois Valley Blacksmith Association, in support of the Jefferson County Historical Society, will present a 2 day Blacksmithing Workshop on March 4 and 5, 2017 from 9am – 4 pm Saturday and 9am – 3 pm on Sunday.

Demonstrators will be John Lovin and Ken Markley.

John will present beginning to intermediate forging techniques, including forge welding. John has 35 years working in the blacksmith trade and with his wife Beth, runs a traditional blacksmith shop, Auxier Creek Forge.

Ken is a Journeyman knife maker, specializing in Damascus pattern welding. Ken will field questions from the audience and through discussions and demonstrations, answer your knife forging questions, including steel selection, forging, heat treating, grinding, and installing handles.

There will be an auction after the Saturday demonstrations, of donated items, and demo pieces. Please bring something to donate to the auction.

Bring any blacksmith related items to tailgate; rusty, dusty, working or not.

Name _____ To preregister please send \$20 for both days, or \$15 for 1 day to:

Address _____

John Lovin

City/State _____

21735 E Bakerville Rd

Phone _____

Belle Rive, Il. 62810

E-mail _____

For questions, directions, comments, or suggestions call Buster Bradford at 618-244-2111 or John Lovin at 618-731-5661 or e-mail anvilman@hamiltoncom.net

All money raised will be used to perform repairs and maintenance to the equipment and building.

clip mounted on the outer frame.

The retaining clip was made from 3/16" diameter spring steel (an old garage door spring) The spring was re-wound around a mandrel made from a lamination of 1/2" x 1/4" flat bar, a 3/8" diameter round bar and a 1/4" diameter round bar, stacked and welded together. A hole was drilled at one end to help with the wrapping process. Each clip was then cut from the mandrel with a hacksaw, rather like the process for making chain mail links.

The clips need to be straightened and then fitted to the outer frame.

We have found that there is always a little tweaking of the assembled frame before you can call it a finished product and get busy with the wax finish.

The project engaged both the new and the seasoned smiths and made for a great weekend activity at our conference. I'm looking forward to seeing the next generation of hacksaw frames emerge.

□ Gaylan Veater

The CBA Coal Forge

Workshop Led by Mark Kochan
Held at John McLellan's Shop, Loomis

By now, these forges have been used at CBA Spring Conference, at the ABANA Conference, and at

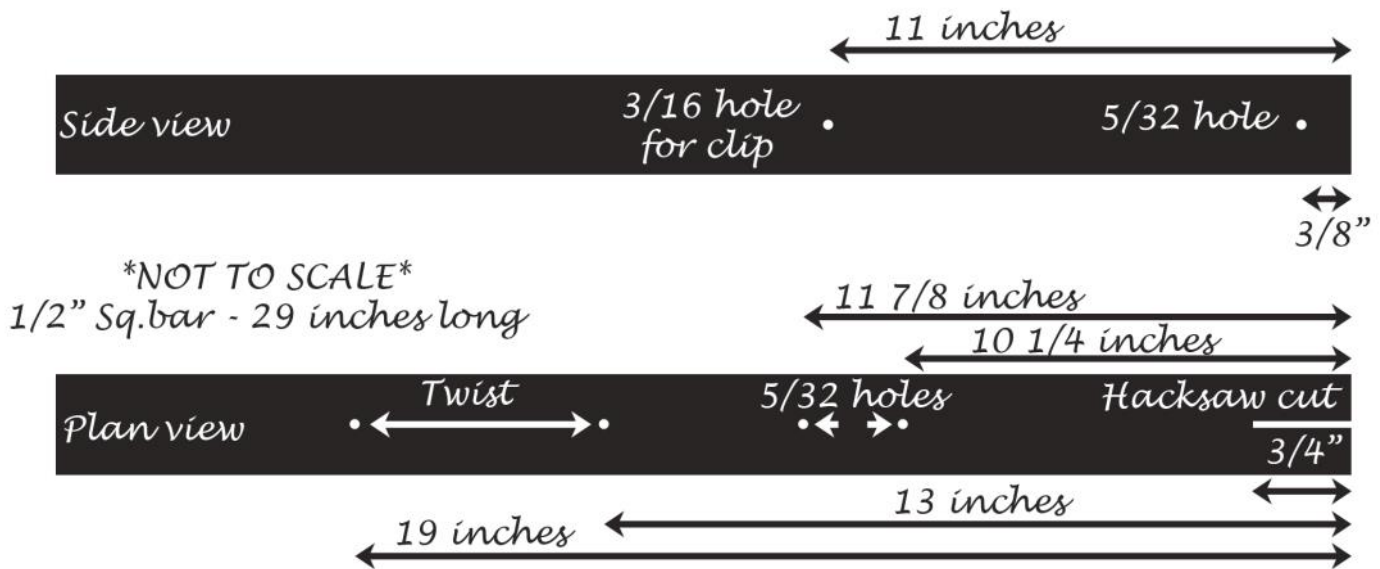


various other events. This article documents the process and dimensions, so that interested readers can reproduce these forges for themselves.

At this workshop, the team produced 22 forges, half for themselves. The other 11 will be available as CBA-owned forges to be used at Conferences and other events.

Starting Point: What Size Forge?

Size of the forge pan is your choice - depend-



This is the layout of the hacksaw frame. The stock is half-inch square, 29-inches long. As with most things, your mileage may vary—depending upon driving conditions. Do a test piece before you turn up for the group project—it prevents hiccups.

ing on the scale of work that you intend to conduct. However, these forges are approximately 30.7" by 24.7" by 5" high. The forge pan was made of 1/8" steel. The legs are removable, fitting into welded-on tubes. The forge pan is approximately 31" high.

Heart of the Forge: the Firepot Assembly



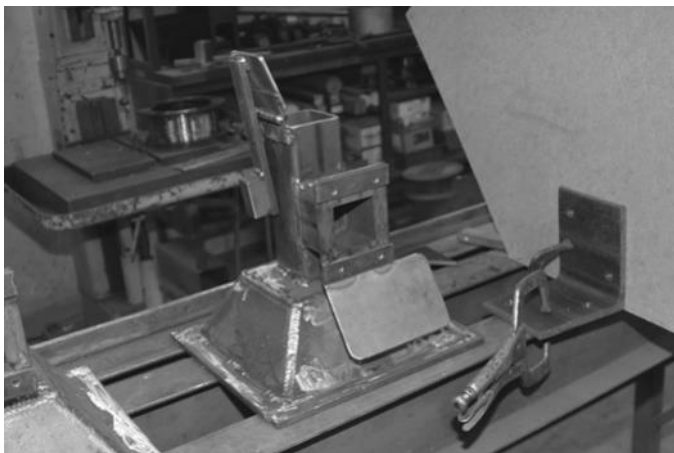
The firepot assembly consists of the firepot, ash gate, clinker breaker, and blast gate.

The firepot itself is made of 1/2" thick plate. The downpipe is a section of 3" x 3" x 3/16" square tubing .

At the workshop, all the pieces were cut, aligned, and welded together.

At right is one of the firepots sitting on the welding bench. The slide gate/blast gate bolts onto the flange on the downpipe. (the photo is flipped upside down)

The firepot is not attached to the table - it is held by gravity. This allows for expansion and contraction during use.



The firepot pieces:



Another view, with the ash dump installed.

Clinker breaker, ash dump, blast gate

The ash dump is welded on with a hinge. Make the weight on the end of the bar heavy enough so that it will hold the dump gate closed.

The clinker breaker is a 1" x 2" x 2 1/2" block, drilled to allow the rod to pass through. The rod is held in place with a set screw, in a drilled and tapped



hole. All edges and corners are smoothed off and relieved.

The blast gate is a plate, with a hole cut in it, with a loop handle welded to it. It slides inside a matched housing.

Air Supply:

For these forges, at first we used a 134 CFM blower - it provided enough air to reach a welding heat, but we decided to upgrade to a 165 CFM squirrel-cage blower. Airflow is controlled by the air blast gate.

Fire It Up!

These forges have been used at several venues now. They work well, and by having an electric blower, they are suited to fueling with coke, which pollutes less.

For travel, these break down well, and nest together for easy transport in the trailer.

Editors Note:

I saw these forges at the ABANA Conference in



Utah. At first glance I thought they were simple hand-made forges. During tear down I was very impressed with how much engineering went into these seemingly “simple” forges. They were able to stack six of these forges into less space than we are able to store two of our conference forges.

I thought this would not only allow us to maybe fit a bit more into our conference trailers but maybe also allow us to carry some coal forges in the MTS trailer as well.

I was able to contact John McLellan from the California Blacksmiths Association and get them to share

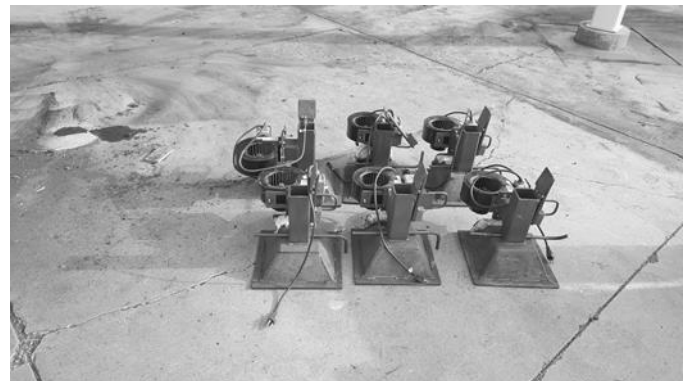
this article with us. The fire pot is very similar to what we have on bamsite.org with some minor differences.

I thought I would share this with everyone and see if there was any interest. I am currently planning on building one for myself with 2 firepots. This will allow me to have both an electric and hand crank firepot for demonstrating as well as use at my home shop. I am including photos I took in UT of the torn down and stacked forges so you can see what I mean.

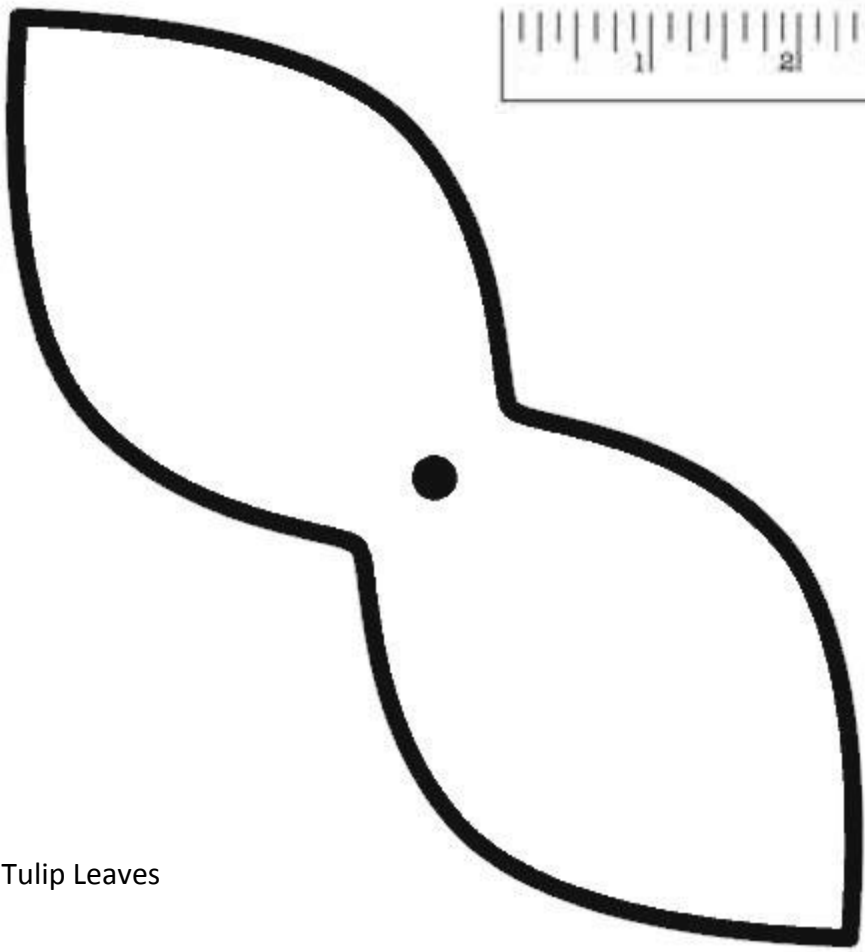
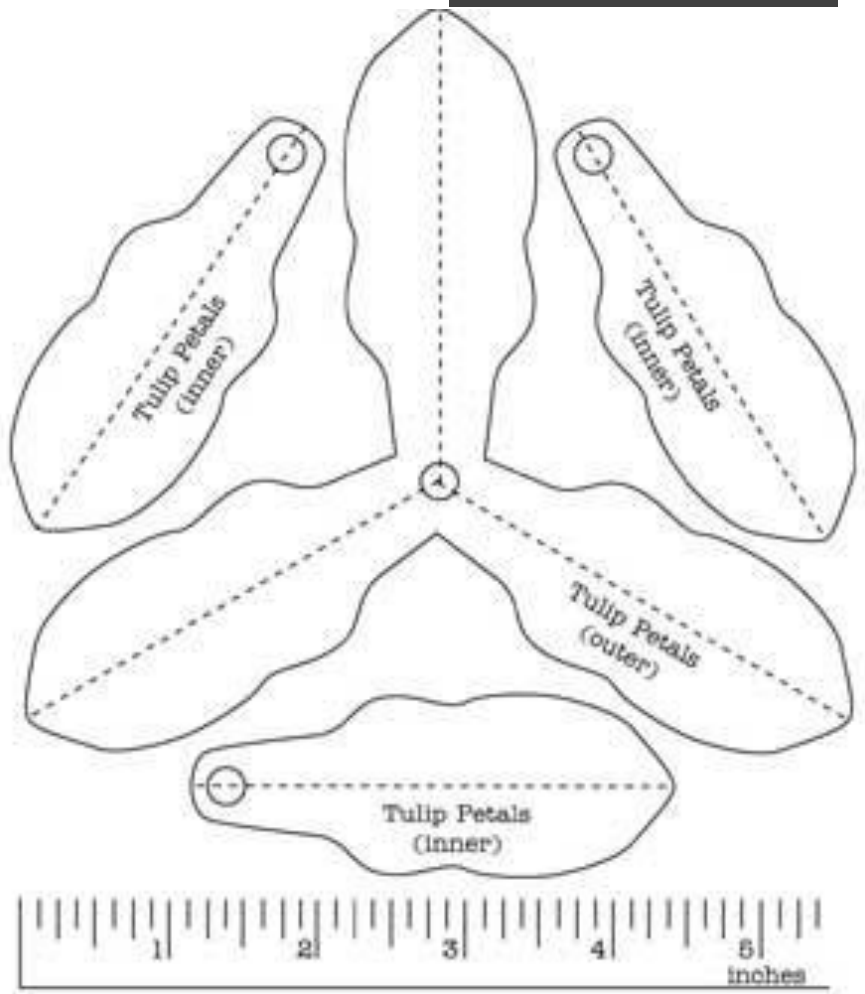
Jon



Six forges in a stack about three feet high.



The six firepots take up about as much floor space as the forges do. They can also be removed without any tools required.



Tulip Leaves

BAM Scholarship/Grant Program

- I. Scholarships and Grants will be awarded by the Scholarship/Grant Committee to BAM members in good standing and have been an active member of BAM for two years. Decisions of the Committee will be final.
- II. Scholarships up to the amount of \$1000 will be granted by the Scholarship/Grant Committee to an individual (1) to attend a recognized educational program or (2) to train under a recognized blacksmith craftsman (see notation on page 2) for the purpose of learning new and/or advanced blacksmithing skills. The submission of an appropriate application is required.
- III. Grants of \$250 or \$500 can be made by the Scholarship/Grant Committee to (1) fund a workshop in a member's own shop (2) train and/or share skills with fellow blacksmiths or (3) to complete a one on one mentorship with a skilled blacksmith craftsman for skill enhancement. The submission of an appropriate application is required.
- IV. The Committee is to consist of 3 members who serve rotating 2 year terms appointed by the BAM President. The President will appoint one of these members chairman of the committee.
- V. The Committee will be responsible for publicizing the Scholarship/Grant Program and for suggesting changes to these guidelines as may seem appropriate. Changes are to be approved by the Board of Directors of BAM.
- VI. The Committee will determine the number and amounts of scholarships/grants based on the amount of funding approved by the Board of Directors.
- VII. The Committee Chairman will have the responsibility of requesting funds from the Board of Directors for the calendar year.
- VIII. Eligibility: Only members in good standing in BAM may receive scholarships and grants and the scholarship committee members are not eligible to receive a scholarship/grant while serving on the committee. No member may apply for a scholarship within one year after receiving a previous scholarship. Applicants who have not received a scholarship within three years prior to their application will be given priority.
- IX. Applications must be received 30 days before the date of the award unless waived by the Committee Chairman and/or President of BAM
- X. **Scholarship Recipient:** Every Scholarship recipient, within three months after completing the event for which the scholarship is granted must submit a written description of the event to the BAM Newsletter (appropriate pictures and diagrams may be included). Within one year, the recipient must also demonstrate what was learned as a consequence of the scholarship either at a BAM meeting or on a video tape to be placed in the BAM Library.
- XI. **Grant Recipient:** One of the following four options can be selected: (1) chose to write an article for the BAM Newsletter describing the workshop they conducted or the skills taught to fellow members; (2) write an article describing the mentorship experience; (3) provide diagrams and directions of the items made during a sponsored workshop; (4) present a demonstration at a BAM meeting.
- XII. The Scholarship/Grant Committee will prepare an appropriate application forms for both the Scholarship and Grant Program. In addition, the forms will be published in the BAM Newsletter
- XIII. Scholarship and Grant applications must be submitted to the Scholarship Chairman, Esther Digh, 6792 CR 424, Fulton, MO. They will be shared with the other committee members and a decision will be made. The recipient will be notified in writing of his/her selection.
- XIV. Questions about Scholarships or Grants can be addressed to the Scholarship/Grant Chairman.

Please note: Members of the Scholarship Committee may contact applicant for additional information on the individual(s) teaching the selected event.

SCHOLARSHIP APPLICATION

Name:

Address:

Phone Number:

E-Mail Address:

The education program/workshop do you wish to attend:

The location of the event:

Individual responsible for the event and/or teacher for the event:

Identify the costs to attend the event:

Tuition

Travel

Lodging/meals

Other

Briefly, describe how attending the particular class/event will advance your blacksmithing skills and be helpful in promoting the craft of blacksmithing. Identify the specific skills you expect to learning during this learning experience.

I understand that as a requirement of receiving this scholarship, I will be required to submit an article about the education experience attended with appropriate notes and diagrams to the BAM Newsletter no later than 3 months after attending the event AND within 1 years of the event, I will present a demonstration of the newly learned skills at a BAM meeting or complete a video tape to be place in the BAM Library.

Signed _____ Date _____

Mail to Esther Digh, 6792 CR 424, Fulton, MO 65251

GRANT APPLICATION

Name:

Address:

Phone:

E-Mail Address:

Identify one of the two options for Grants you wish to complete:

Identify the objective(s) of the workshop to be conducted or the objective of the mentorship:

Identify the instructor of the workshop or the mentor selected for the educational experience:

Identify the expected outcomes or skills to be learned from this experience:

Identify the costs of this educational experience (materials, fuel, travel, handouts, propane, etc:

Select one of the following to complete after the educational experience:

- (1) Write an article for the BAM Newsletter about the workshop conducted and the skills taught;
- (2) Write an article describing the mentorship experience;
- (3) Submit diagrams and directions for making the items made during the workshop;
- (4) Present a demonstration at a BAM meeting.

Signed: _____ Date: _____

Mail to Esther Digh, 6792 CR 424, Fulton, MO 65251

Welcome our New Members

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30801 115th Street
Hopkins, KS 64461
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twistedbjj@yahoo.com

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mlcunningham71@gmail.com

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johndgettings@gmail.com

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Max Vollmer
273 West Highway 8
Steelville, MO 65565
573-775-4930
max.vollmer@gmail.com

BAM Tailgate

Buy, Sell, Trade

Individual Classified ads:

For Sale: Due to my failing health, I am needing to liquidate my blacksmith tools. This includes anvils, forges, blowers, post vises, cone mandrel, and swage block. Please see this link: <http://anvils-rogersfoods.rhcloud.com>

For Sale: Anvil's Ring Magazine collection Sept '73 thru Present. \$350 Bob Woodard Edwardsville, IL 618-692-6508

Real slate chalkboards for your shop various sizes and prices call Matthew Burnett for details (816) 575-2798

Commercial / Resource ads:

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Beverly Shear Blades Sharpened. Remove blades from shear and ship to Clay Spencer, 73 Penniston Pvt. Drive, Somerville, AL 35670 \$41 includes return postage, additional cost for deep notches or blades previously sharpened at angle.

Little Giant-- We can do repairs on any or all components of your Little Giant front assembly. Contact Roger Rice, Midwest Machine, 6414 King Road, Nebraska City, Nebraska 68410. (402) 873-6603

Roller Blade Treadle Hammers (Clay Spencer design) for Sale or Workshops led to build hammers. Bob Alexander, e-mail to scruboak4@netzero.com, or call 636-586-5350.

Information / Education:

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Cameron, MO
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Tong Making Class--Weekend Course, 4 people per class - \$125 per person. Contact: Charles Comstock, Rt.1 Box 20, Deerfield, MO. 64741 (417) 927-3499, or (417)-321-2286 cell

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oldschoolcrafts Blacksmith School, Joe Davis
12625 Lawrence 1175, Mt Vernon, MO 65712 phone
417-461-0387 on the web www.oldschoolcrafts.org E-Mail oldschoolcrafts@hotmail.com

David Norrie blacksmithing school in Colorado

David Norrie 303-859-0770 <http://>

www.forgewithintention.com

or <http://www.davidnorrie.com>

The Upper Midwest Blacksmiths Assoc (UMBA)

video library. An index list can be viewed at
www.umbaonline.org

They are VHS or DVD-R Cost is \$5 each with \$2 per order shipping there is no return date, you keep the video for this price. All videos are made at group demos, no commercial titles.

Blacksmithing E-books on CD

Now eight titles are available on CD, \$4/each, or all eight books, \$24 postpaid. More books are in production and will be available soon- order on-line at www.blacksmithingebooks.com, or check/MO to Brian Gilbert, 3404 Hartford Dr., Chattanooga, TN 37415.

Ray Clontz Tire Hammer Plans by Clay Spencer
Send check/money order for \$30 to Clay Spencer, 73 Penniston Pvt. Drive, Somerville, AL 35670-7013.
Includes postage to US and Canadian addresses. Other countries e-mail clay@otelco.net for price. 256-558-3658. Tire Hammers for sale contact me for current price

New England School of Metalwork

www.newenglandschoolofmetalwork.com 1-888-753-7502

Power Hammer page

I've taken some time to collect and post old info, catalogs and brochures on power hammers. The link of our NEB web page to this information is: http://www.newenglandblacksmiths.org/power_hammer_info.htm Ralph Sproul

Rochester Arc & Flame Center! Featuring Blacksmithing, Welding & Glass Blowing, over 30 classes available for all levels of interest, rocafc.com 585-349-7110

For Sale: Power Hammer instruction DVDs. \$125 per set. Clifton Ralph, 4041 W 47st, Gary, Indiana, 46408 (219)980-4437

Products:

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Wanted:

Blacksmith business cards. I would like to put together a collage of Blacksmith business cards. Bring them to a meeting or mail them to me with your dues.

Bruce Herzog
2212 Aileswick
St. Louis, MO 63129

Demonstrator List

Fred Weisenborn has started a list of members available for demonstrations, fairs, historic events, and festivals, etc. 417-589-2497 e-mail: jweisenb@llion.org

Around the Anvil BAM has its very own E-Mail news group. If you would like to participate there is a sign up link on the bamsite.org or send an E-Mail to Bernie Tappel at bamweb@embarqmail.com and he will get you signed up.

Check out back issues of BAM newsletter on www.bamsite.org. It now has a search feature to help you find old articles.

Ad Policy: Blacksmith related ads are free to BAM members. Personal ads will run for two issues. Resource ads are ongoing at my discretion. Send to BAMeditor2015@gmail.com, or call 636-359-1246

Number 1 beginner workshop Saturday April 8th 2017

Number 2-beginner workshop Saturday April 15th 2017

Location:

Ray Scott:

20588 State Route V

Eminence, MO. 65466

No daytime phone number

Evening telephone number 573-226-5541

Start time 8:00 am. Sharp.

Students should be there and ready to go at 8:00 am. both days.

Students must wear safety glasses while instruction and workshops are being run.

Students need to bring a lunch both days.

Water will be available.

Students should wear cotton or wool clothing, no synthetic type of clothes.

Gloves and aprons are not provided.

Must be a BAM Member (Insurance requirement) \$30.00 dollars for a one year membership.

Cost of each workshop is: \$30.00 dollars per student per day.

Instructors are:

Ray Scott

Don Birdsall

573-364-7223

Directions to Ray Scott's Shop:

At Eminence, MO.

Go east on highway 106 five miles to highway V go north two miles. Look for a white fence on right side of the highway, turn at the gate and drive down to the shop.

If not a member sends membership dues (\$30.00 dollars) to:

Bruce Herzog

212 Aileswick Drive

St. Louis, MO.

Send payment for workshops to Ray Scott at the above address.

Any questions call:
Ray Scott or Don Birdsall

Thank you and hope to see you at the workshops.

*Hope Everyone
has a Happy and
Safe
Holiday Season!*

FROM:

THE

BAM

Editors ~

Jon and Heather McCarty

BAM Coal Stations

Price per bag:

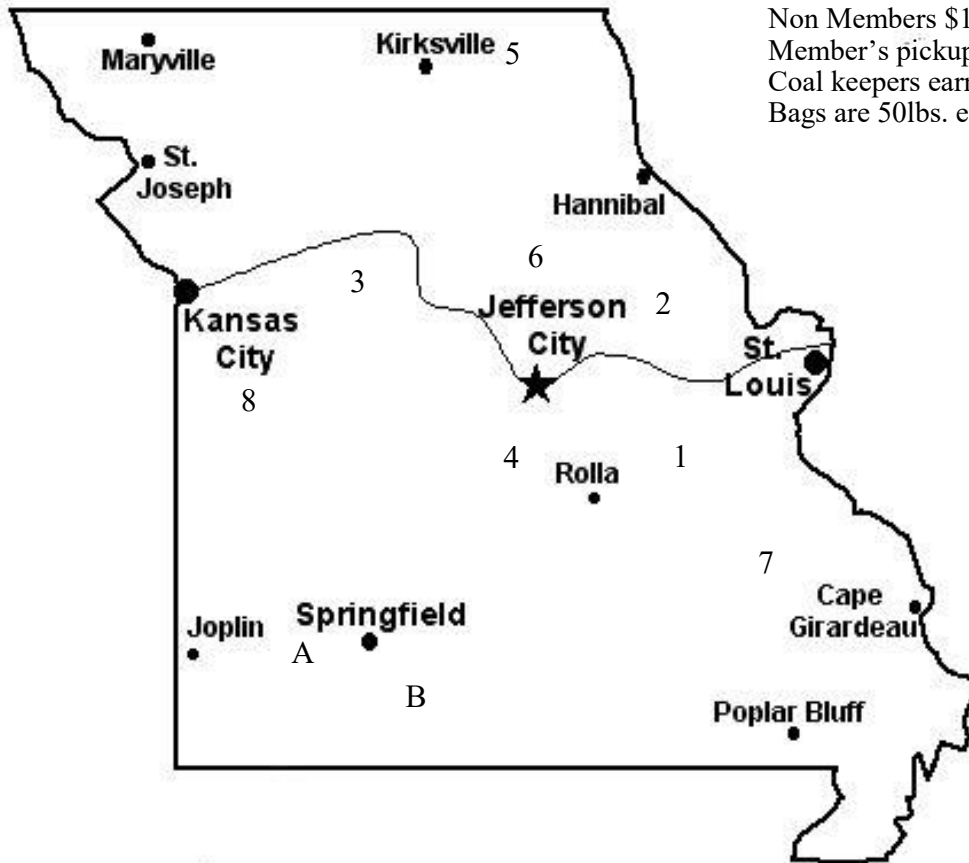
BAM Members \$14.00

Non Members \$19.00

Member's pickup at Bob Alexander's - \$12.00

Coal keepers earn \$3.00 per bag

Bags are 50lbs. each



1. Bob Alexander (636) 586-5350
14009 Hardin Rd.
DeSoto, MO 63020

4. Jerry Rehagen (573) 744-5454
390 Bozina Valley Trail
Freeburg, MO 65035

7. Bob Maes (573) 866-3811
Route 1 Box 106 K
Millersville, MO 63766

2. Ken Jansen (636) 295-5844
2257 Carter Rd.
Moscow Mills, MO 63362

5. Joe Hurley (660) 379-2365
or (660) 626-7824
Route 1 Box 50
Downing, MO 63536

8. Bryan Lillibridge (660) 638-4536
1545 NW 300
Urich, MO 64788

3. Doug Clemons (660) 595-2257
29377 Durango Ave.
Malta Bend, MO 65339

6. Paul Lankford (573) 473-7082
25849 Audrain County Road 820
Mexico, MO 65265

Non BAM Coal

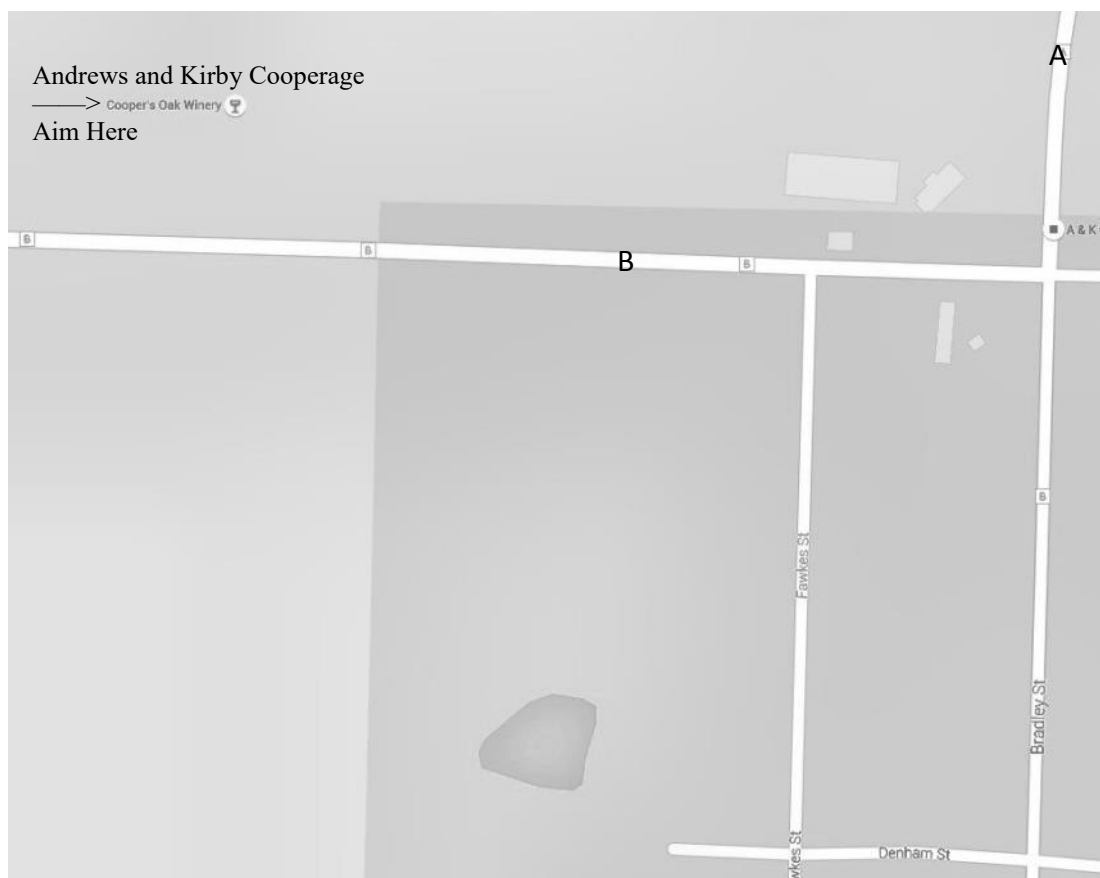
- A. Tim Johnson, Springfield, MO 417-886-8032 - \$.40/lb. check, \$.35/lb. cash. Bring your own containers.
B. Good blacksmithing coal for sale \$12 per 50# bag with bulk delivery available.
Matthias Penn Rt. 1 box 479-S Ava, Mo. 65608. (417)-543-2148.
Or e-mail tytheblacksmith@yahoo.com.

BAM
2212 AILESWICK DR.
ST. LOUIS MO 63129

Please send changes to Bruce Herzog, 2212 Aileswick Dr., St. Louis MO 63129 or e-mail to bjherzog@charter.net

Next Meeting: January 14, 2016

Dale Kirby, Andrews and Kirby Cooperage, Higbee MO, PH:660-456-7660



Trade item: A chopping tool: axe, hatchet, cleaver, knife etc.
Ken Jansen & Matthew Burnett will demonstrate. Food will be available.