

BAM

September-October 2007



Charlie Knocke admires Ed Harper's Orchid

www.bamsite.org

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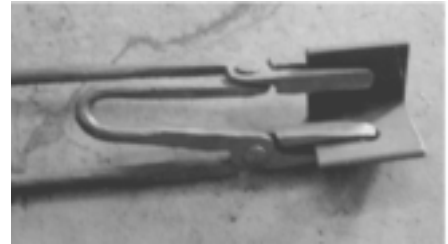
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***Newsletter of the
Blacksmiths
Association
of Missouri***

Volume 24 No. 5

SEPTEMBER-OCTOBER

2007

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Kirk Sullens

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Bruce Herzog

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 \$25/year; a portion of this amount is for a subscription to this newsletter for one year. Editorial inquiries should be addressed to: **Bob Ehrenberger 6192 Hwy 168 Shelbyville, Mo 63469** or e-mail to **bameditor@centurytel.net**

BAM membership inquiries should be addressed to: **Bruce Herzog, 2212 Aileswick Dr., St. Louis, MO 63129; (314) 892-4690** or send e-mail to **bjherzog@msn.com**.

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Membership Application

Name: _____

Address: _____

City: _____ State: _____

Phone: () _____ Zip: _____

E-mail: _____

New Member Renewal ABANA member?

How did you learn a b o u t BAM? _____

Memberships are for one year from receipt of dues. Dues are \$25, which includes a subscription to the bimonthly BAM newsletter. Please make checks payable to Blacksmith Association of Missouri.

ABANA Membership Application

Primary ABANA Chapter Affiliation: _____

Name: _____

Address: _____

City: _____ State: _____

Phone: () _____ Zip: _____

New Member Renewing Member

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

Regular Member.....\$55 yr.

Senior Citizen (Age 65+)\$50 yr.

Full time student.....\$45 yr.

Overseas airmail.....\$80 yr.

Overseas surface mail\$65 yr.

Contributory\$100 yr.

Public library\$45 yr.

See reverse

Send this form in an envelope with your payment to:

BAM,
c/o Bruce Herzog
2212 Aileswick Dr.,
St. Louis, MO 63129

I _____ hereby apply for membership in the Artist-Blacksmith's Association of North America and enclose \$_____ as my annual membership dues for one year.

MasterCard VISA Check/Money Order

Card Number

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Exp. Date
(Required)

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Checks must be in U.S. currency

SEND RENEWAL TO:

ABANA

P.O. Box 816 Farmington, Georgia 30638

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ABANA

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The Blacksmiths' Association of Missouri is an affiliate of the Artist Blacksmiths' Association of North America, and is devoted to the preservation and advancement of blacksmithing and to communication among blacksmiths in Missouri and surrounding areas. BAM's newsletter's goal is to support these aims. Letters to the editor, tech tips, tools for sale or anything else which furthers these ends will be considered for publication.

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From the Editor

By Bob Ehrenberger

The worst of the summer heat is behind us and we are enjoying the fall weather.

At Ehrenberger Forge we had a pretty poor summer show season. We did get through it and the Fall shows are more promising. I got an unexpected surprise when Hannibal Magazine called and wanted to feature me on their October cover. This should help my sales at the Hannibal Folklife Festival at the end of the month. They gave me permission to reprint their cover where I usually put my head shot.

One good thing about slow sales, is that it left me with more time to work on my new power hammer. I did get the hammer running, but it was a lot more work than expected. As these projects frequently go, the deeper I got into it, the more I found that needed to be done. By the time I got done, I had it torn down all the way to a bare casting. It turns out that the guy that originally put it together didn't expect to get any repeat business from Tom and didn't really finish the job.

When Tom Clark heard that I was having trouble, he made a house call to help me diagnose the problem and decide on a course of action. He then shipped me the inside and outside micrometers that I needed, as well as the hones to fix the problem.

I was going to try and give a full account of the project here, but even a brief summary of the project took the whole page and there is too much going on in BAM to give that kind of space to my project. I'll try to have a full article in the November newsletter.

I've only been able to use my new hammer a few times but having all that power is pretty addictive. When I went back to my 25lb. trip

hammer, it seemed to take forever to get anything done.

There is a lot of conference activity. Things are really coming together. In addition to having all the demonstrators lined up, we have an early registration form, and the Conference Ring project is taking off. They want to know in November who is sending in rings even though the rings themselves are not due until the conference. I have suggested to Kirk that we have a ring making demonstration at one of our next meetings. That should help you get started if you

good time to kill two birds with one stone.

I got a call from Rob Gunther a month or so ago and he said that he couldn't get ahold of Bells Novelty Casting who advertises in our newsletter. I tried to get them too, and no luck. So I am pulling their ad. If any of you have trouble with the advertisers in the newsletter let me know and I'll investigate. I tend to just renew vendor ads figuring that they are a service to the membership, but we don't want to give space to vendors that aren't doing their job.



are not confident in making the ring itself. I would also suspect that you could submit a ring at the last minute even if you hadn't notified the organizer ahead of time, but don't hold me to that.

I talked to Wayne Holder last week getting information on the November meeting. He told me that his shop is heated and air conditioned, so no matter what the weather is, things should be comfortable. Also Wayne has a large classified ad of a lot of heavy equipment, if you have an interest in any of this stuff, this would be a

The publisher/printer has made some changes as of the last newsletter. They no longer accept low resolution pictures or graphics. I got them to make an exception on a couple things in the July/August newsletter but they really want things in High resolution from here on. So that means that when you take pictures for the newsletter, please set your cameras on high resolution. I can adjust the resolution in Photoshop by resampling the picture, but that just tricks the program into thinking that the picture is better than it really is. It would also be nice if you would send pictures to bameditor@centurytel.net instead of to my personal e-mail address. When editor stuff comes in on eforge, I have to resend it to bameditor to get it on the MAC.

I would like to thank all the members who have stepped up and helped with this issue, since I couldn't be at the last meeting. Special thanks to Bruce Herzog and Larry Hults for providing the Roster information and formatting it for print. Please check your entry and get corrections to Bruce.

The submission deadline for the November/December issue is November 10. Kirk needs meeting hosts for 2008.

Minutes BAM meeting 9/15/06

By Larry Hults

Thanks to host Dale Gilman.

A) Conference update from Kirk

- 1) Gave lineup of demonstrators
- 2) Discussed catering bid from the Burnett's
- 3) Discussed plan to have pre-registration info in this newsletter (and on the website)
 - a) \$60 before 1st of year
 - b) \$80 after 1st, until April 15
 - c) \$100 after April 15
- 4) Answered questions about international demonstrators. Has ABANA sponsorship for 1 international demonstrator
- 5) Answered questions about camping at the fairgrounds
- 6) Sign up to help at the conference is by contacting Kirk- e-mail at <kirk@kirksullens.com>, and put BAM in the subject line
- 7) Plans to get a conference flyer in the newsletter
- 8) ABANA publications are giving us space to advertise the conference

B) Ian Wille told us about the 2007 SIMS conference to be held at SIU-Carbondale-details elsewhere in this newsletter (page 9)

C) Don Birdsall gave an update on the Mobile Training Station, reminding us of the session at Foxfire Farm near Boonsboro on Sept. 29, and suggested attendees bring video cameras.

D) Don also told us we have a new member who is a metallurgy student at Rolla, and we hope to get him to speak at one of our meetings.

E) Ned has a Spare Tire Power Hammer for sale, asking \$2000

F) John Huff reports that the demo trailer for the State Fair needs a couple of leg vises. Ned Digh volunteered to donate a vise and stand, and Kirk volunteered to donate a vise. Joe Wilkinson will show Kirk a method of mounting a leg vise on the anvil with a hardy stem.

G) Bruce Herzog gave a financial report
BAM's current membership is 543.

H) Bruce also spoke about the Doug Hendrickson Scholarship Fund. The fund raised \$1690 for BAM scholarships in lieu of sending flowers to Doug's funeral, at Bonnie's request. Kirk will talk with Bonnie about how best to utilize the money, and will send thank you notes to the people who donated.

Ned Digh made motion to adjourn at the end of business, and was seconded by Joe Wilkinson.

Trade Items were made by:

Ned Digh, Esther Digh, John Huff, Ed Harper

Ned drew Esther's name, and they decided to donate Esther's enamelled pumpkin yard ornament. The auction brought BAM \$25.

Iron in the Hat:

Harry Weber donated small kingpins, won by Al Scott
Esther Digh donated a tube of lithium grease, won by Harry Weber

Ned Digh donated a drill gauge and a Grizzly Tool catalog, won by

Scott Woods

Bruce Herzog donated a coal shovel, won by Norman (I'm sorry, Norman, but I can't read your last name on this note)

Bruce donated a saw set tool, won by Joe Hurley

Larry Hults donated feed-table rollers, won by Connie Huff

Harry Weber donated some large kingpins, won by Al Scott

Bruce donated a pick head, won by Ned Digh

Bruce donated a rasp, won by Fred Arnold

Bruce donated a poker, won by John Huff

Bruce donated a stove lid, won by Don Forlow

Bruce donated hoof nippers, won by Ed Claxon

Bruce donated an oxygen bottle cap, won by Harry Weber

Bruce donated the mystery item, won by Don Forlow

A Word From El Presidente

By Raoul (Kirk Sullens)

Dear BAMmers,

You know, the hardest thing I do as president is write this letter. BAM has always been a close-knit group, where when something needs to be done, willing hands are always there to help. Even now, with our membership so much larger than it was 10 or 15 years ago, it's still like that, even from people I haven't had much chance to get to know yet. So doing things as an organization isn't too bad, not bad at all. I just wish I could get someone to ghost-write for me.

The weather was perfect for the meeting at the Gilman's Foxfire Farm, near Boonsboro, last weekend. It was a beautifully cool, sunny autumn day. Ed Harper and Joe Wilkinson were the demonstrators. Ed did an orchid demo that I'd never seen before, but that I want to try right away. And Joe gave a basic talk on heat treating steel, good for our new smiths, and good review for those of us who've been around a little longer. Thank you both. The Gilman's put up a good feed for us, and the meeting was held out in the bright sunshine, but we didn't get too hot because of the breeze on the hill. Wonderful. Thank you to the Gilman's for having us again.

While I'm thinking of meetings, I need to say that I've lost my scheduling notes for next year. If I've scheduled a meeting with you for 2008, please contact me AS SOON AS POSSIBLE. Otherwise, don't be surprised if the meeting you thought you were hosting is listed at someone else's place. I've only done that once before, and it was deeply embarrassing to me. Once was enough, so please get in touch. Or, if you want to weasel out of it, here's your perfect chance! My mind's like a lumber room-things wanted often buried. Sigh.

As you'll read in the meeting minutes, conference plans are moving ahead. I'm still a little behind schedule, and trying to catch up, but still going. I want to thank the people who're keeping me going; Mona, Tom, Kate.

I made it to the last day of the State Fair, where Peggy gave me good reports of all the people who showed up to work this year. And, of course, we love how Peggy keeps it all organized and running smoothly.

As we get closer to the conference, the need for volunteers will increase, especially for setup and tear down. If you think you'd like to volunteer, please contact me at (417)863-8628, or <kirk@kirksullens.com>. If you e-mail, please put BAM in the subject line. If you don't speak with me directly, please leave a way to contact you. I'd like a pool of names to draw from, when the work needs to be done.

As usual, I have the niggling feeling I'm forgetting something, but it's after one in the morning, and I'm heading for bed. Got to get up at 5:30....

El Presidente Raoul
aka, Kirk Sullens

Joe Wilkinson giving his
talk on heat treating steel



BAM is gearing up for its 17th annual Ozark Conference, May 1st-3rd, 2008, this time with an international flair. With extended dates and foreign demonstrators Josef Habermann and Heiner Zimmermann, plus US smiths Bob Patrick, Darryl Nelson, the team of Michael Bendele & Joe Bonifas, and the team of Steve Mankowski & Shelton Browder from Colonial Williamsburg, this promises to be the best conference ever—and the conference committee would like you to share the experience with us. There will be numerous options for your housing, including camping with or without hook ups, and lots of places to find food, so we hope you will join us.

Vendor sites will be under the same roof as the demonstrators—a wonderful, huge, open-sided brick and concrete pavilion on the grounds of the Missouri State Fair in Sedalia, Missouri. While the pavilion is covered and offers weather protection, blowing rain could find its way to the floor in some places, and Midwest weather is unpredictable, so please still plan your attire accordingly.

At this year's conference, besides our regular demonstrators, we are planning a display on the history of power hammers. We are trying to assemble as many varieties of hammers that have been available in the past as well as those available today. As part of this special exhibit, Sid Seudemier is planning to bring the first and the last 25 pound "Little Giant" as well as many other historically interesting hammers. Most will be there only for display, but some will actually be available for hammering!

Rome Hutchings, grandson of Francis Whitaker, is overseeing a ring project that will be completed at this conference. For more information about submitting a ring, please see the article in the summer issue of The Anvils Ring.

With all the things BAM is planning, we think this will be the best conference yet—and we'd love to have you come and be a part of it. After all, we do all this For Love of The Craft!

The BAM 2008 Conference Committee

Pre-Registration Form
17th Annual Ozark Conference May 1, 2, 3, 2008

Pre-Registration

Early Bird # x\$60
(post-marked by 12/31/08)
Pre-Registration # x\$80
(post-marked by 04/15/08)
At the Door # x \$100

Saturday Night Banquet

(pre-registration only,
1st come, 1st served) # x\$12.50

Workshops (with paid registration)

Basket Weaving # x\$30
(22 max)
Broom Tying # x\$30
(20 max)
Finger Weaving # x\$20
(20 max)

Would you like to be notified if other activities are added? -Yes -No

BAM Membership Dues # x\$25

Total Enclosed (Make check out to BAM) \$ _____
(Sorry, but we can not accept credit/debit card payment.)

Mail check & form to:

Bruce Herzog — BAM Treasurer
2212 Aileswick Drive
St. Louis, MO 63129-3604
314-892-4690
e-mail: bjherzog@msn.com

Name _____

Others Attending (Spouse & Children under 18 are FREE with a paid adult) _____

Address _____

City _____ **State** _____ **Zip** _____

Phone _____ **E-mail** _____

2007 SIMS Conference Schedule

Friday, Oct. 5th

9:00 - 3:00 Demonstrations by Sarah Perkins, Phillip Baldwin

5:00 "L. Brent Kington: Mythic Metalsmith" lecture by James Wallace

Saturday, Oct. 6th

9:00 - 2:00 Demonstration by the Angel Family (coppersmiths from Mexico)

2:00 - 2:30 Slide Presentation by L. Brent Kington

4:00 - 5:00 Auction Preview

5:00 - 7:00 Live and Silent Auction

Sunday, Oct. 7th

9:00 - 3:00 Demonstrations by James Wallace

Daryl Meier

Alice James

Visit our web site at: <<http://mypage.siu.edu/sims>> for more information

Registration:

\$25.00 for the weekend

\$10.00 for one day

Professional Blacksmiths' Association

Dear Fellow Smiths,

There has long been talk of creating a professional blacksmith's association. Based on recent conversations around the country, a BLOG has been created to discuss nationally the possibilities of such an association. Please forward this e-mail to as many smiths.....whether they are professionals or not (membership will be open to all).....as we wish to establish a network of interested smiths. Temporarily, the name of the future organization will be the "Professional Ornamental and Architectural Blacksmiths' Association" or "POABA".

Please refer to www.poaba.wordpress.com for more information, and to keep abreast of this ongoing discussion.

Please note.....I am simply a mediator for this site.

Thank you, and we look forward to your comments and ideas.

Sincerely,

Dan Nauman

President/Bighorn Forge, Inc.

4190 Badger Rd.

Kewaskum, WI 53040

(262) 626-2208

(262) 626-3324 fax

www.bighornforge.com bighorn@alexssa.net

Joe Wilkinson's Refresher on Annealing, Hardening, and Tempering

By Ned Digh - reviewed by Joe Wilkinson

At the BAM meeting in Boonsboro, Joe Wilkinson gave a refresher session on annealing, hardening and tempering steel. Joe brought a copy of "New Edge of the Anvil" by Jack Andrews and published by Skipjack Press. He says this is the best resource book in his library and he refers to it quite often.

A review of the annealing process was the first order of instruction. Generally annealing is to make the steel soft by heating to critical temperature (non-magnetic state) and then cooling slowly. Joe's favorite method to cool the object is to stick it in a container of lime and let it cool slowly. Other blacksmiths have different methods, ie: let the object cool in the forge as it cools overnight, one member says a bucket of sand works for him. Vermiculite and wood ash are also good for annealing. The important point is to let the object cool slowly to become in the annealed (soft) state.

After annealing the steel, it can be sawed, drilled, filed, sanded, forged or in other ways worked to make the desired item.

To harden steel it must contain some carbon. Hardening is the process of very rapid cooling of tool steel that has been heated above the "critical temperature". This causes the carbon molecules, which have moved to the face of the steel grains by heating, to stay locked in this position. The steel must be cooled very quickly in the proper medium, ie. water, oil, or air, depending on the type of steel. The hot steel must be kept in constant motion while quenching, to avoid creating a steam jacket surrounding the metal and retarding the cooling process.

Tempering is to vary the hardness depending on how the tool is used. For example, cutting tools are harder than punching tools.

The tempering part of Joe's refresher brought on a good discussion among the members about the different methods preferred by different blacksmiths. To temper steel, the object is reheated to the desired temperature and quenched. The desired temperature depends on the steel, a general reference point is around 600 degrees. Many smiths watch the running colors of cooling steel and quench the piece when the desired color appears. For example, if making a punch or chisel, straw color is a commonly used indicator of the appropriate color. To watch the running of the colors, a part of the object is polished or cleaned by sanding so the bare metal at the point or cutting edge is visible. The object is then gradually reheated to the proper tempering temperature, frequently removing from the forge to observe the running of the colors. When the desired color (probably straw) is observed, the object is quenched.

The purpose of the quenching at a certain temperature, ie: when the cutting edge reflects straw color, is to have a hard working edge but a softer tool body on the punch or chisel. If the punch or chisel is left hard and brittle, it will crack or shatter when used. Two other methods for determining the proper temperature to quench when tempering are contact "Tempil" sticks (melt on contact at certain temperature) and infrared temperature meters. You can also temper in a temperature controlled oven.

To experiment with hardening and tempering in different quenching solutions, Joe prefers to experiment with water, oil, air, in that order.

The order preferred by Kirk Sullens is oil, water, air. A common practice is to make quenching water into brine by adding salt and dishwasher detergent, ie: Dawn. Some discussion also evolved concerning Rob Gunther's Super Quench formula.

The discussion by Joe and those present emphasized safety when quenching. Hot metal quenched in water gives off steam and hot metal quenched in oil (flammable oil) is likely to flame up and most likely is not healthy to breathe. The technique of quenching was also discussed. The object being quenched should be submerged in the quenching solution and swirled around to become evenly quenched. If part of the object is quenched more severely, a fault line can develop from the uneven quench.

Ned Note: With permission from Joe Wilkinson, the below explanation of Super Quench is added from: www.lamametalsmiths.org/news/robb_gunther.htm <http://www.lamametalsmiths.org/news/robb_gunther.htm>

Robb Gunther's "Super Quench"

5 gal water

5 lb Salt

32 oz Dawn (blue) dishwashing liquid (28 oz if it says "concentrated" on the label)

8oz Shaklee Basic I* or 7oz UNSCENTED Jet-Dry or other surfactant (like **Simple Green**) of appropriate quantity for 5 gal mix (wetting agents)

The Jet-Dry (or whatever you use for a rinse agent) does something chemically to the surface of the steel. It allows the salt in the mix to start attacking it as soon as it hits the air - make sure you have a LOT of clear water to rinse in ready at hand. These surfactants are wetting agents. They break down the surface tension of water allowing it to make contact with a material. We've all dipped a cold piece of metal in water and seen a bubble-like "skin" form with dry metal under it. This is surface tension trapping a layer of air, it makes a fair heat shield. In a quench, steam will form a similar surface "skin" and prevent full contact with the water, insulating the steel from a proper chill. Wetting agents prevent the "skin" from forming.

Detergents do a somewhat similar job, they're emulsifiers allowing oils and water to mix. This prevents any oily residues from the fire from forming a "heat shield" surface layer. The salt in the water raises the specific heat of the water and draws the heat from the steel faster.

Stir it up to get it moving before you quench. Don't quench anything with more than 45- 50 points of carbon. It will harden mild steel to Rockwell 42-45 (in spite of common wisdom that says you can't harden mild steel).

It's color coded - when you've exhausted the usefulness of the quench, it'll shift color from blue to green.

BAM 2008 Affiliate/General Membership Ring Project Information

Ms Liberty will be made from a variety of sizes of flat bar ranging in size from 3/8x1 to 1/8x1/2 and round stock ranging in size from 3/8 to 1/8. There is still some consideration for the use of sheet for the tablet and flames of the torch. The frame in which Ms Liberty stands will be of 5/8 stock, we are still fine tuning some of the design, it could be 5/8x1, 5/8x1-1/2 on edge or 5/8 round. As for the lettering at the base, it may be raised copper, or chisel cut and forged, that's yet to be decided..... if you are interested.....see below.

The frame and Ms Liberty will be forged and assembled by separate teams. For those interested in working on either the frame or Ms Liberty should contact the project coordinator ASAP. See contact information below.

The forging team for Ms Liberty is lead by Myron Hansen and already has several people selected. The scope of the Ms Liberty is the forging and assembly of the center-piece of the project.

The forging team for the frame is lead by Andrew Molinaro. The scope of the frame team is the forging and assembling of the outer framework that houses Ms Liberty

The overall height of the project, Ms Liberty, and frame is 7'-3" and the width is 4'-0".

BAM 2008 Affiliate/General Membership Ring Project Guidelines

Ring dimensions are as in the past affiliate ring projects, 10" O.D. made of 1/4x1 flat stock.

The rings need to leave clear the 12 o'clock, 3 o'clock, 6 o'clock and 9 o'clock positions a minimum of 5 minutes either side of these positions for mounting. Refer to the sketch attached below

Eight Rings will be selected. The rings are not due until the conference. I need to have commitments by November 2007. Here is my Email: forge@theprairieismygarden.com

Note: Here is a chance to shine and show your best work! Rings sent early will be used for photo opportunities prior to the BAM 2008 Conference. So, contact the project coordinator ASAP and get those rings in early!

The selection will be based on the quality of execution, traditional smithing techniques, forge welds or rivet joining of the ring, or any mechanical joint would be acceptable as well. Ring materials can be any ferrous or non-ferrous metals.

More on selection. As in the past, rings will be checked dimensionally, also the selection of methods is important, use of joinery, use of tooling, chiseling, riveting, forging....including forge welding. Rings that represent a high standard, will have a better chance than, say something that is sloppily thrown together.



If you want to get an idea of what has been done in the past, there is a posting of photos on the internet, here is the link for the photo website: <http://www.photoaccess.com>
The Login: **blacksmithblacksmith@hotmail.com** and the password: **anvil**

Photos are in a folder called Ring Project, after you login, click on "My Albums or use the "Choose Album" box.

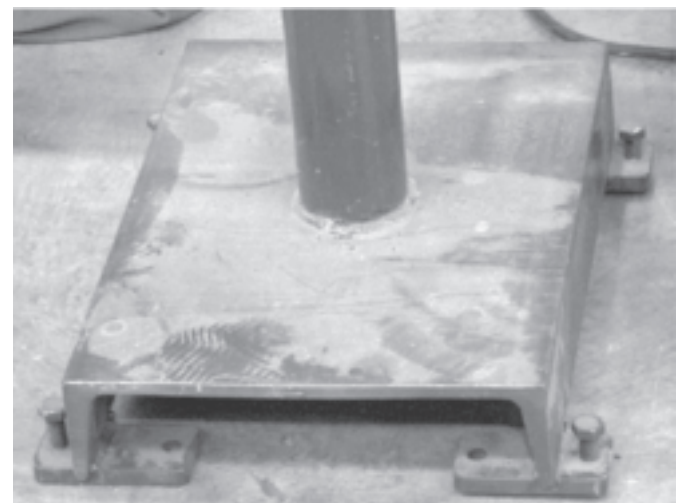
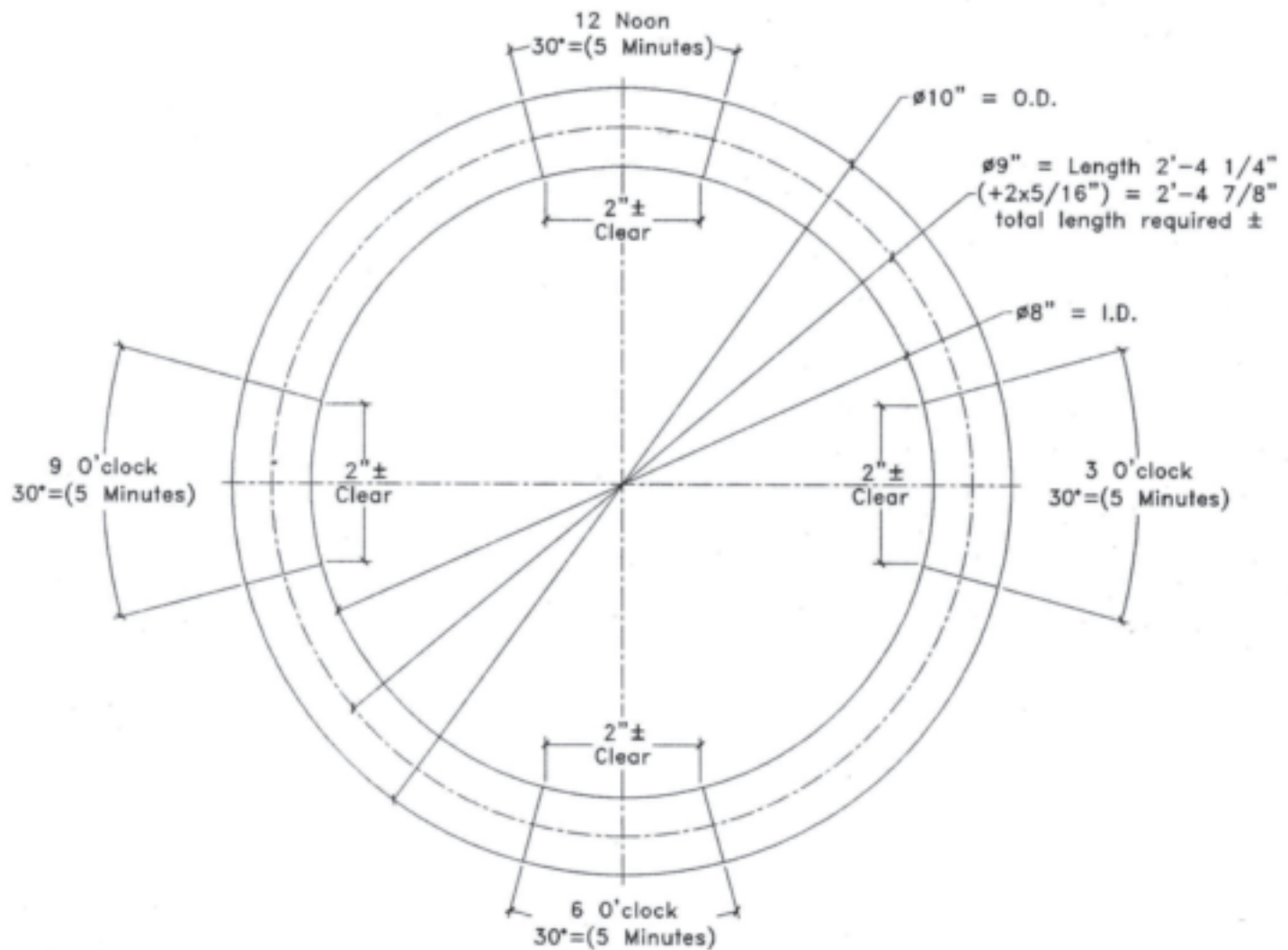
The funds raised from the BAM 2008 Ring Project go toward off setting the conference costs and the educational mission of BAM, grants, scholarships to individuals, and special projects of an educational nature.

PS: There is a full size drawing for the project and can be duplicated as a full size layout template

Thanks,

Rome Hutchings
The Prairie Forge
13633 Ferman Ave NW
Clearwater, MN 55320
(763) 878-1694
Email: forge@theprairieismygarden.com

Ring Areas That Need to Remain Clear for Mounting



Pictures of Anvil Base and Tool Stand Base sent in by Mike Gentsch, the pads on the tool stand are tapped so that the stand can be levelled.

Hammer-In At Don Birdsall's

The hammer-in was a lot better this time. We had 8 people show up. Six existing members and two new members who joined that day.

The two new members are students at the University in Rolla.

Kyle Rackers is a metallurgy senior and lives in Jefferson City, MO.

Mike Shuman lives near Memphis, Tennessee and has worked at the Metal Museum. He is a mining student

We forged a pair of tongs for Kyle.

Some of those attending forged items that they wanted to make for themselves.

I made a punch out of a ball pein hammer head and a spring wire handle and heat treated it and then tried it out by punching a hole through 1/2 inch bar, it worked.

We tried several other ideas for some of the members to see if we could obtain the results they were looking for.

The last two hours were spent grilling Kyle about forging problems and heat treating of different steels. That was probably the most interesting part of the day.

The most useful information that I learned:

When we heat and forge a piece of steel, each molecule splits into six molecules, the next heat after that they split again into six and again the third time, now they are too small to split any more and the steel quits moving. To get the process started again the steel must be allowed to heat for a longer time, sometimes up to a half hour, the molecules then reform and forging can be started again. I have had this happen to me when forging a large piece of high carbon steel. Now in the future I know what to do.

Don

Editor's Note:

Don, That sounds great. 8 people is about the most that you can handle and keep everyone involved.

You can also get steel grain growth by taking it to a higher heat, that is why they say to normalize a blade three times after forging and before heat treating. Especially with damascus where almost all the work is done at or near welding heat.

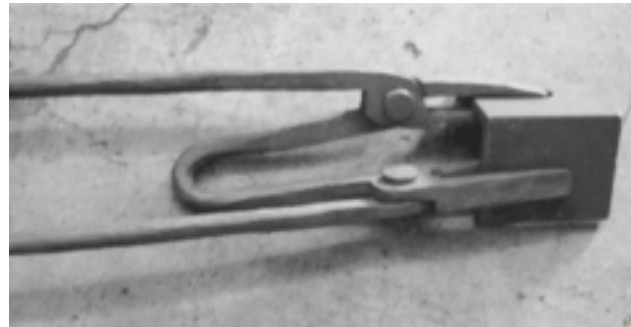
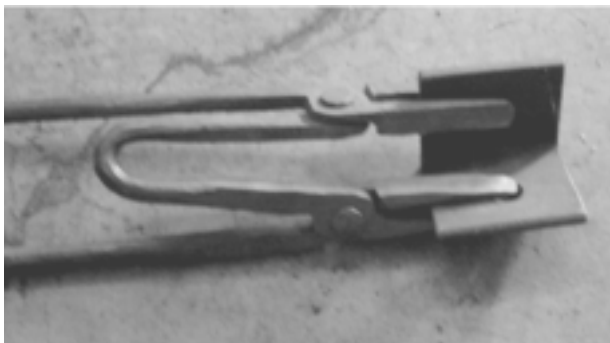
Normalizing is where the steel is brought up to critical temperature (nonmagnetic) and then allowed to cool in the air.

It is also important to not take steel above critical before hardening. The further above critical you go, the larger the grain (molecule) size and the weaker the blade.

Bob

What is It? Follow-up

As I reported last time, the tongs pictured in the May/June newsletter were designed for holding angle iron. Here are a couple pictures of the tongs holding a piece of angle.



I also had several people suggest that they were for holding a plow share. I just happened to have a plow share, so I took a picture of the tongs trying to hold it. The angle on the plow share is closer to 70° than 90° so they don't fit. It wouldn't take much to adjust the angle on the tongs to fit a plow share, but as they are, they don't fit



Josef Habermann 1.1.1976 Jihlava, Czech Republic

- 1990-1993 The School for Blacksmiths Prague
- 1990-1998 The Experience in Habermann's studio "The Forge in Forest"
- 1998-1999 The Experience in the workshop of Mr.C. Rombout Holland
- 1999-2000 Venice European centre for the trades professions of the conservation of architectural heritage
- 2000-2005 I worked on a lot of projects for the customers from various countries
- 2006 The Experience in the workshop of Mr. Vaclav Barina NY, USA
- 2007 The Experience in the workshop of Mr. Chris Topp

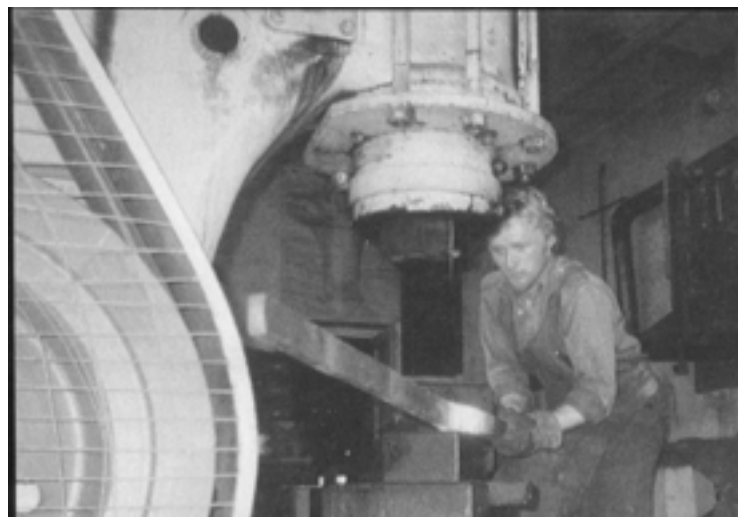
Exhibitions and demonstrations

1993	Helfstyn international meeting	CZ		
1994	Ibsitz international meeting	A	2.prize	True-Born Bell
1996	Jihlava independent exhibition	CZ		
1998	Rotterdam demonstration	NL		
1999	Helfstyn international meeting	CZ	1.prize	The Butterfly
2000	Ville de Rouen-Musess exhibition	F		The Butterfly
2005	Helfstyn demonstration on the meeting	CZ	2.prize	The Capricorn
2006	Ibsitz demonstration on the meeting	A	prize	The Fire
2007	Helfstyn international meeting	CZ	3.prize	The Wings of my freedom



Josef and Father with restoration piece.

Josef demonstrates repouse in the market place



Josef with Father's power hammer



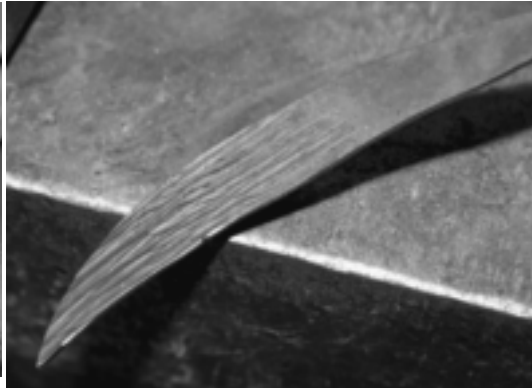
Golem #2 power hammer.

Ed Harper Orchid Demonstration

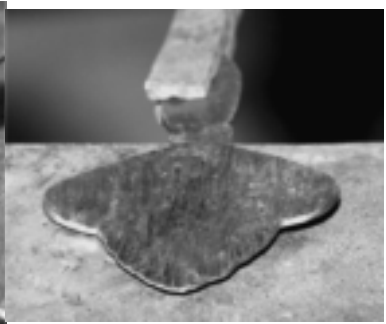
Comments Bob Ehrenberger
Photos Bruce Herzog & Kirk Sullens



The leaves and petals are textured with a sharp peen.



Textured leaf



Petal about half textured



Shape the leaves and petals on a small swage block



More swage work



The end of the stem is flattened out and rolled into a tube



The petals are drilled and stacked on the stem.

They are then welded to the stem with O/A torch.



Ed shows off his finished orchid

The petals are then heated and shaped with scrolling tongs.



Editor's note: I've been told there is a pattern for the flower petals. I'll publish them if I can locate them.

Buy, Sell, Trade

Individual Classified ads

50lb Star power Hammer- bad shape, cheap, yard ornament?
Doug Persell after 6:00 (660)-339-7418.

Borg Warner 1 H. P. speed reducer. New, in original box.
20-1 ratio 5/8" input shaft, 1" output shaft. MSC Catalog price
\$650.00. Sell \$200.00 + \$25.00 shipping. (great for large tum-
bler) Joe Wilkinson 573 943-6779

I've ordered 100 **rose kits** from a laser cutter, if anyone wants
some let me know, the price is \$6.00 ea plus shipping. Thanks,
Pat McCarty... new e-mail ..budden@yhti.net...636-239-3814

Spare Tire Power Hammer for sale for \$2500.
Ned Digh 573-642-8332 or 573-642-9502 Cell 573-220-0421

3 phase rotary inverter from single phase. New bearings,
capacitor, switch control. \$875.00

Lincoln Tig. 255 sq wave. Less than 2 tanks of gas used.
\$2000.00

Large lathe and extras. \$800.00

200 Lb. Bradley Trip Hammer ½ round and flat dies. Looks
very good. \$2750.00

Punch Press With round, square, and some oblong dies. Home
made, looks like factory made. Works good. The brake needs a
little TLC. \$500.00

Cement Forge Approximately 4ft x 6ft. With electric blower
and rheostat Works good. 300.00

Wellsaw Model 8,8 1/2 x 13 1/2 wide cut \$1000.00
Wane Holder 641-446-6225

Kirk Sullens has organized a group buy for **gas saver valves**.
\$136.25 (tax included) Contact Kirk Sullens. 417-863-8628

Commercial / Resource ads

Services:

Custom spinning in copper, brass, pewter, and steel. Contact
Ken & Kathy Markley, 7651 Cabin Creek Lane, Sparta, Ill.
62286. Phone: (618) 443-5284 Fax: (618) 443-5284

Ray Chaffin has a new computer operated **plasma cutting** sys-
tem that can cut anything out of metal. Mail, call or e-mail your
design for a price quote. Ray Chaffin, (660) 438-6720 or Ray's
Welding, RR 3, Box 279, Warsaw, MO 65355.

Little Giant-- We can do repairs on any or all components of
your Little Giant front assembly. Contact H. "Sid" Suedmeier
420 4th Corso, Nebraska City, NE. 68410 (402) 873-6603

Beverly Shear Blades Sharpened. Remove blades from
shear and ship to Clay Spencer, 73 Penniston Private Drive,
Somerville, AL 35670, \$35 plus postage, additional cost for deep
notches or blades previously sharpened at angle.

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

Ozark School of Blacksmithing - Tom Clark

Tom: tclark@ozarkschool.com

School: www.ozarkschool.com

(573) 438-4725 Cell-(573)-747-8648

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

Classes offered, The Ornamental Iron Shop
Contact the instructor to register and customize your class.

John D. Thompson – Metalsmith
3923 Hwy 25; Hodges, SC 29653 864-374-3933

Classes at Pieh Tool Company, Inc. - Camp Verde, AZ

The Bill Pieh Resource for Metalwork.

Call now for more information and to enroll:

(928) 554-0700 or (888) 743-4866. www.piehtoolco.com.

Subscribe to Jerry Hoffmann's **Blacksmith's Journal**, a month-
ly publication for blacksmiths. Call 1-800-944-6134 for more
information.

George Dixon edits a blacksmithing publication called "**The
Artist-Blacksmith Quarterly**". For \$28 you will get four issues
of how-to information. Contact him at 1229 Bee Tree Lake
Road, Swannanoa, NC 28778.

The Upper Midwest Blacksmiths Assoc (**UMBA**) **video
library.** An index list can be viewed at www.umbonline.org
They are VHS or DVD-R Cost is \$5 each with \$2 per order ship-
ping 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 avail-
able 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

Price is \$30US including postage to US and Canada, \$32US to
other countries. Send check or money order 73 Penniston Private
Drive, Somerville, AL 35670, Also, lead workshops for chapters
or groups to build 15 to 20 hammers. phone 256 498-1498, cell
is 256 558 3658, email is clay@tirehammer.com

Buy, Sell, Trade, Continued

Products

Heavy duty **Frying Pan Blanks**: Steel, approximately 9 inch in diameter with 2 inch sides. 12 gauge (2.5 lb.) or 14 gauge (1.75 lb.) thickness. Contact: Bob Tuftee, 3855 Aspen Hills Dr., Bettendorf, IA 52722; bobforge@hotmail.com; (563) 332-4800.

Tom Clark carries a complete line of hand forged Hofi style hammers, punches, drifts, tongs, shears, belt grinders and gas forges. He's also importing the Sayha air hammer from Turkey. For more info on the tools, contact him at Phone (573) 438-4725. Fax (573) 438-8483.

L Brand Forge Coke now packaged in 50 pound bags, 1,000 pound bulk sacks on pallets and 2,000 pound bulk sacks on pallets. Send your zip code for a quote on price including delivery. 1-800-441-0616 or LBrandForgeCoke@aol.com.

Kayne and Son Custom Hardware, 100 Daniel Ridge Road, Candler, NC 28715. (828) 667-8868 fax (828) 665-8303, e-mail: kaynehdwe@charter.net, web site: www.blacksmithsdepot.com. Offering a full line of blacksmithing equipment. We ship and accept Visa and Mastercard.

Persimmon Forge **PEDAL HAMMER** sit down treadle hammers for sale. Contact Dave or Betty Edwards by e-mail at djedwards@cableone.net, or write or call the manufacturer, Daystar Manufacturing at 3701 West 6th, Emporia, Ks., 66801, (620) 342-4440. For more information, go to www.persimmonforge.com and click on both "Pedal Hammer" and "Video Demo of Pedal Hammer."

SOFA fire pots are once again available. For information contact Bob Cruishank, 1495 W. Possum Rd., Springfield, OH. 45506 Phone: (937) 323-1300 or www.creativeironforge.com or www.sofablacksmiths.com

D.L. Schwartz Co. **Blacksmith and Farrier supplies**.
2188 S. US 27, Berne, In. 46711, 1-800-955-3064

USA Dealer for **REFFLINGHAUS ANVILS**, 77 to 1250 lb. European 2 horn with or without upsetting block & side shelf. Over 100 sizes and styles available. Guaranteed face @ HRC59 Dick Nietfeld www.blksmith.com Phone (308) 384 1088

Chile Forge- Next generation **gas forges**
www.chileforge.com
David Starr 520/360-2141

Help Wanted:

Full and Part time help wanted. Blacksmiths needed to produce small decorative items in your shop from our designs. Contact: Kathy Nugent, (913)-897-9411 nugentgbc@yahoo.com.

Welder - Fabricator - Blacksmith

Carnahan-White Inc. A Springfield, MO. Company since 1952 Is accepting applications for two positions in our blacksmith Shop. Applicants should have a strong background in layout Fabrication Welding and Blacksmithing.

Working in the (MAD) Metal Arts division duties include, Lay-out, Measuring Fabricating, Grinding, Welding, and Installation of the custom Items we produce.

We offer a Benefits program with a company profit sharing plan. Pay based on the amount of Experience. We require a pre employment drug screen, and random Drug screens also.

Items we produce are all custom chandeliers, fire screens, fire doors, sconces, Walk gates, Entry doors, drive gates, interior and exterior railings and fence, Etc.

Contact: Allen Waters
Carnahan-White Inc., Metal Arts Division Manager
1845 South State Hwy MM, Springfield, MO. 65802
Phone # (417)-883-9794 Fax # (417)-447-3347

Demonstrator List

Fred Weisenborn has a list of members available for demonstrations, fairs, historic events, and festivals, etc.

Contact Fred to get on the list:
417-589-2497 e-mail: jweisenb@llion.org

Around the Anvil BAM has it's very own E-Mail news group. If you would like to participate send an E-Mail to Ed Harper at aramed@grm.net and he will get you signed up.

Hammer-ins at Don Birdsall's shop: Rolla MO.

On Saturday November 10th.
On Saturday December 1st.

Shop will open around 7 am for early birds and will stay open till last one leaves. Lunch and drinks will be provided. (If possible RSVP so I have enough)

Dent Co Rd 204 off of Hwy O turns into Phelps Co Rd 5480, first house on the right. I will have signs on the intersection of 204 and 5480 and at my house.

Any questions call me at: 573-364-7223
or e-mail me at **new address** donbirdsall@embarqmail.com
Don Birdsall

Need Coal ?

Check on Availability

Coal Captain: Bob Alexander



1. Bob Alexander (636) 586-6938
14009 Hardin Rd,
DeSoto, MO. 63020

2. Ken Jansen, (636) 366-4353
2257 Charter Rd.,
Moscow Mill, MO. 63362

3. Doug Clemons, (660) 595-2257
RR1 Box 124,
Malta Bend, MO. 65339

4. Jerry Rehagen, (573) 744-5454
Rt1 Box 97,
Freeburg, MO. 65035

5. Jeff Willard, (417) 742-4569
P.O. Box 416,
Willard, MO. 65781

6. Denis Yates, (573) 286-5316
343 Lamp Dr.
Sunrise Beach, MO. 65079

7. Joe Hurley (660) 379-2365
Rt1 Box 50
Downing, MO. 63536

Price \$10.00 per bag BAM members, \$11.00 per bag Non-members, \$9.00 per bag at Bob Alexander's
Coal keepers earn \$2.00 a bag

8. I have purchased 2500#s of Blacksmith coal from Sid Suedmeier in Nebraska to have some on hand for us blacksmiths in northwest Missouri where there are no club depots around. This batch will cost \$15.00 per 50#s. Future batches may have a price fluctuation. It is in bulk so guys will have to bring their own bags or buckets. I have scales to weigh it out. To start with there will be a limit of 250#s per person to insure some for several people. Just wanted to pass this along. The coal is located in Camden Point, Mo. I can be reached at 816-450-3352 or 816-8054223.
Thanks Vernon Adkins adkinsfarms@earthlink.net

Upcoming Events

October 6 **MTS #2** Workshop (Basic BS) Dale Gilman, Boonsburo, MO. (636)-447-6450 or (660)-848-2396

October 13 **MTS #3** Workshop (Sign Holder) Dale Gilman, Boonsburo, MO. (636)-447-6450 or (660)-848-2396

November 3- **BAM Meeting** Wayne Holder's, in Leon, IA. (641)-446-6225 Trade item: Any kind of hook.

November 10 - **Newsletter Submission Deadline**

November 10 - Hammer-in at Don Birdsall's Rolla, MO.

December 1 - Hammer-in at Don Birdsall's Rolla, MO.

January 1 Application deadline for February **Scholarship** awards.

January 12- **BAM Meeting** Tim & Mindy Johnson, Springfield, MO.

February 9 - **MTS #1** Workshop (Basic BS) Ray Scott Eminence, MO. -(573)-226-5541

February 16 - **MTS #2** Workshop (Basic BS) Ray Scott Eminence, MO. -(573)-226-5541

March 1 - **MTS #3** Workshop (Sign Holder) Ray Scott Eminence, MO. -(573)-226-5541

April 1 Application deadline for May **Scholarship** awards.

May 1-3 **BAM's 17th annual Ozark Conference** Sedalia MO.

July 1 Application deadline for August **Scholarship** awards.

July 12- **BAM Meeting** Bob Ehrenberger's shop Shelbyville, MO. (573)-633-2010

October 1 Application deadline for November **Scholarship** awards.

Note: For all MTS (Mobile Training Station) classes contact Don Birdsall (573)-364-7223 or workshop host to sign up

New Members

If you have a new member near you, welcome him to the group and show him the ropes.

Adams, John & Carol
4505 Hwy 63 N
Rochester, MN 55906
jc-adams@msn.com
507-289-4189

Endres, Dave
404 E. Gill Ave
Kirkwood, MO 63122
endreswk@att.net
314-568-1244

Hanson, Myron C
4015 Dodd Road
Eagan, MN 55123-1612
651-454-3984

Ruehling, Robert
30417 181st Ave
New Prague, MN 56071
952-758-2725

Bateman, Charlie
6201 Edgewood Ave
Woodbury, MN 55125-1193
charlie.bateman@prodigy.net

Forlow, Don
37431 W 156th Street
Rayville, MO 64084
marlow70@sbcglobal.net
816-470-2974

Johnston, Patrick
110 Abilene
Scott City, MO 63780
patrick.johnston@columbiaconst.
com
573-264-9912

Shuman, Mike
700 University Drive
Rolla, MO 65401
mjswdf@umr.edu
901-692-0851

Blanche, Dan
1295 E Hwy 47
Troy, MO 63379
dan252@centurytel.net
636-462-5278

Geisler, Robert
1430 Coffman Estate Drive
Marshall, MO 65340
drg531arm@yahoo.com
660-831-0080

Paine, Ed
3725 N.W. Button Road
Topeka, KS 66618
785-286-1180

Simmons, Bob
40706 E 144th Street
Richmond, MO 64085
bob@simmonsauktion.com
816-776-2936

Blanche, Kelly
1295 E Hwy 47
Troy, MO 63379
dan252@centurytel.net
636-462-5278

George, Sean
2505 Brookside Ct
Columbia, MO 65201
dreansinger321@yahoo.com
573-874-1612

Rackers, Kyle
1744 Hwy 179
Jefferson City, MO 65109
ksr7c4@umr.edu
573-619-6017

Wagan, Jacob
6929 Henarck Lane
Jefferson City, MO 65109
jaw_wagan@yahoo.com
573-584-0017

Rotter, John E
919 Highway A
Bonnots Mill, MO 65016
573-897-3954

Next Meeting: November 3 Leon, Iowa



Location:

25119 200th St. Leon, Ia

★ **Directions:** Hwy 2 to Leon-
North on Hwy 69 to 14th St.-
East on 14th to NE Poplar-
North on NE Poplar 1/4mi.-
Hard right curve NE Poplar
becomes 200th St.-
3/4mi. second house on
South side of the road, road
ends.

Host: Wayne Holder

Trade Item:

Any kind of hook

Food: Will be provided.

Phone: (641)-446-6225

Cell - (641)-344-9085

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@msn.com