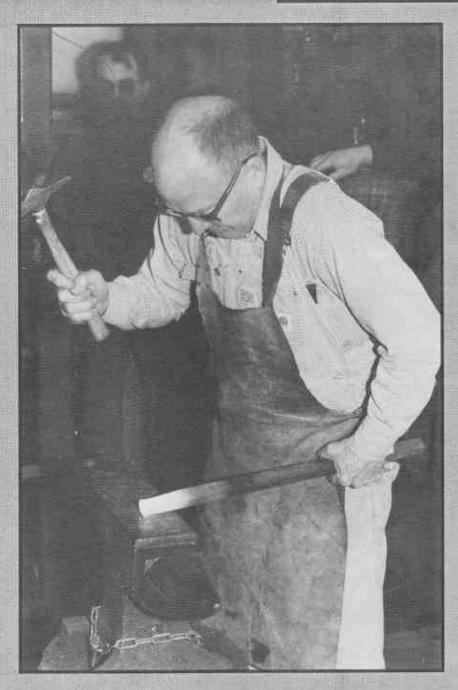
# PANCE STATE

It's Ozark Conference Time! See Page 14 for details.





NEWSLETTER of the BLACKSMITHS ASSOCIATION OF MISSOURI

### **Contents**

Editor's anvil

5 Blacksmithing in Cyberspace via the ArtMetal project is a good way to spend winter.

Pat's place

7BAM has been busy this wirrter with a trip to Memphis for 22 members.

January meeting

We had a day of super demos at Jerry Hoffmann's shop.

ABANA news

10 New ABANA president Joe Harris tells us about recent changes at ABANA.

**BAM** scholarships

11 Get your application in soon — you could win one of three BAM scholarships.

Ozark Conference

14 It's time once more for the annual Ozark Conference set for May 5-7.

Weathervane

16 Here's how to forge a weathervane from the Rural Smiths of Mid-America.

One-piece hook

18 Beginners, here's a simple but practical piece to test your skills on.

John's jig

19 John Medwedeff showed off this jig during the BAM trip to the Metals Museum.

Shop tips

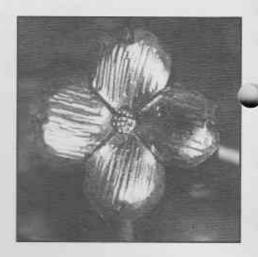
20 Retaining rings revisited, cheap cones, etching Damascus and other ideas.

**BAM** news

26 Dates, workshops, hammerins and other important stuff to know.

Next meeting

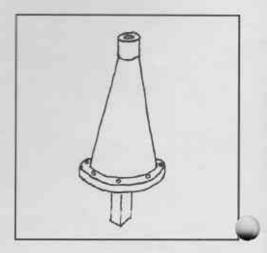
27 Maurice Ellis will host the next BAM meeting March 25 in Belgrade, Mo.



Page 8



Page 14



Page 20

### Newsletter of the Blacksmiths Association of Missouri

### Volume 12 No. 1

Our cover: Tom Clark works out the business end of a ball enroute to a demo at the January BAM meeting. Photo by Jim McCarty.

Editor
Jim McCarty

### **Contributing Editors**

Tom Clark
Pat McCarty
Len Ledet

Artist
Jerry Hoffmann

Mailing Labels
Maurice Ellis

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 \$20/year; a portion of this amount is for a subscription to this newsletter for one year. Editorial inquiries should be addressed to: Jim McCarty, Rt. 1 Box 20, Loose Creek, MO 65054 (314-897-4111). BAM membership inquiries should be addressed to: Steve Austin, 44 N.E. Munger Rd., Claycomo, MO 64119 (816) 781-1512). 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 be given credit.

### BAM Membership Application

Address:	State
	Zip:
☐ New Member ☐ Renewal	
How did you learn about BAM?	

Memberships are for one year from receipt of dues. Dues are \$20, 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:	
	Zip:
☐ New Member ☐ Re	
How did you learn about A	ABANA?
Regular Member	\$35 yr.
	\$30 yr.
☐ Fulltime student	\$25 yr.
	\$70 yr.
	\$50 yr.
	\$100 yr.
	\$25 yr.

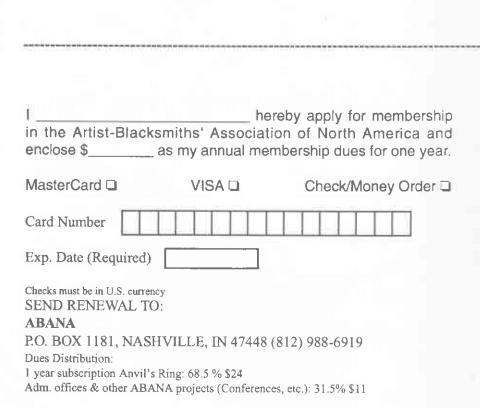
See reverse

Send this form in an envelope with your payment to:

BAM, c/o Steve Austin,

44 N.E. Munger Road,

Claycomo, MO 64119





### Officers:

**President**Pat McCarty

1st Vice President
Maurice Ellis

**2nd Vice President** Todd Kinnikin

**Secretary** John Murray

Treasurer Steve Austin

The Blacksmiths' Association of Missouri is a chapter 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.

The Newsletter of the Blacksmiths' Association of Missouri and its members do not manufacture, distribute, sell, test, warrant, guarantee, or endorse any of the tools, materials, instructions or products contained in articles or features in the Newsletter of the Blacksmiths' Association of Missouri. The Newsletter of the Blacksmiths' Association of Misouri disclaims any responsibility or liability for damages or injuries as a result of any construction, design, use, manufacture or other activity undertaken as a result of the use or application of information contained in any articles or features in the Newsletter of the Blacksmiths' Association of Missouri. The Newsletter of the Blacksmiths' Association of Missouri assumes no responsibility or liability for the accuracy, fitness, proper design, safety or safe use of any information contained in the Newsletter of the Blacksmiths' Association of Missouri

### Editor's anvil

Tt's winter and here in central Missouri the snow is piled up hub deep to a Ferris Wheel. While I complained about the heat last summer, at least then I was able to make my way to the forge without hip waders.

I haven't been doing a lot of blacksmithing lately. Instead, I have been taking part in the ArtMetal project on

the Internet.

If you haven't heard of the Internet chances are you don't read the newspaper, don't subscribe to any magazines and have no TV. The 'Net is a world-wide network of computers in homes, businesses and schools and colleges that are sort of linked together through phone lines.

If you have a personal computer and a modem you can tap into the Internet. What does this have to do with blacksmithing? Until last summer's ABANA Conference, not

much.

In St. Louis a number of Blacksmith/computer users gathered under the invite of Enrique Vega and worked out the details of a blacksmithing presence on the Internet. Washington University offered some computer space and Enrique took on the challenge of getting things start-

Six months later, there is a place in CyberSpace called ArtMetal, I tried for a long time to get online with this service through America Online, a computer service you subscribe to that allows limited access to the Internet.

The problem I encountered was that Washington University allows just 250 people to log on at one time. Each time I tried I got a message saying I wasn't one of the chosen 250.

Finally semester break sent the students home and I got on. I found some interesting stuff here. The first thing you encounter is a cluster of folders. ABANA has one, but inside is just one item, Will Hightower's Index to the Anvil's Ring.

Inside the ABANA folder is a chapters folder, and inside that you will find the complete text of the last BAM newsletter. We are the first chapter to upload our newsletter on

the net. I plan to do this with each issue - hopefully others will follow BAM's lead.

There's a gallery, where artist blacksmiths like Enrique and David Huffman have uploaded computer images of some of their work. They also have resumes should anyone consider using their services after seeing samples of their work.

There's information about using the project. There's a NOMMA folder and a Yellin Foundation folder, but

both are empty.

There's really not much on board yet, but that's because not enough

people are using it yet.

What I am having fun with though is the ArtMetal mailing list. To join the list you send a message to the administrator (Enrique) and he adds your name to the list. When someone sends an E-Mail message to the list it goes to every subscriber.

I have my computer set up to automatically log on to America OnLine and download the day's mail. In this manner I have read some pretty interesting commentary, ranging from philosophical debates about art to an inquiry in French that I couldn't read.

I sent out a message about a hammer-in Jan. 1 at brother Pat's shop and heard back from BAM's own David Hoopes, George Dixon and Andy Quintner.

I was able to help a fellow smith find a 50-pound hammer for sale and I have picked up some interesting items for publication in this newslet-

If you have access to the Internet, you can browse the ArtMetal board by ftp/http at wuarchive.wustl.edu. When you connect you need to look in the edu/arts/metal folder.

To subscribe to the mailing list send an E-Mail message to artmetalmail@artmetal.pdial.interpath.net.

For those of you who don't understand any of this don't fret. If you would like to take part in the blacksmithing information age, your best place to start is with one of the online services: America OnLine, Compuserve or Delphi. All offer low cost access to the Internet and a host of other services to go with it.

America OnLine costs \$9 per

month. For this you get five hours of on-line time. You can get software, art, recipes or carry on conversations about any topic with people all over the world.

The Internet access is limited to sending E-Mail messages and downloading files from any location you can sign on to. Compuserve offers similar access, though I think they charge you extra after so many E-Mail messages.

Delphi offers unlimited access to the Internet but its interface is harder

A lot of folks not familiar with the Net ask me, why not just pick up the phone or write a letter? The answer to this explains the true value of the Internet.

Say you have a question about blacksmithing but don't know who to ask for help. Perhaps you live in an isolated place like Alaska or the Australian Outback or Lesterville.

You post your question on the Internet and I guarantee you will get a dozen responses, from people you didn't even know existed. The Internet creates a dialogue between people who share a common interest but would never have met otherwise.

A lot of the world's problems are going to be solved in this manner because people working on similar problems can meet, share notes and draw new conclusions based on other people's findings.

Eventually the worldwide blacksmithing community will find access to new ideas, schedules of events, work samples and discussion through

the ArtMetal project.

The world is definitely getting to be a smaller place.

> —Jim McCarty, editor (JimfromLC@aol.com)

### Dear BAM

I am looking for some help from other members of BAM, I operate a blacksmith business where I demonstrate to the public during the summer season. I feel I am pretty well versed in the historical aspects of the trade and I have a fairly good reference library. I frequently get questions about anvils and it is the one area where I feel I am really lacking information. Could you or anyone else recommend some good reference works on anvil history, types, methods of manufacture, facts about different brands and types, etc.? I would appreciate any information anyone out there could send to me. Sincerely, Bill Printy, Iron and Lace, Rt.2,

I am a new member that attended the meeting last Saturday at the National Ornamental Metal Museum in Memphis. During the meeting John Medwedeff presented a set of slides on the construction of a railing. One of the tools used was a "bending fixture." A number of members were very interested in the fixture. I made a drawing (as best I could) that you may be able to use in your newsletter if you think it's worthwhile.

Keosaugua, Iowa 52656

Thanks, Len Ledet, Little Rock, AR

Although a "Johnny-come-lately" to BAM, I'm here, and after much thinking about who/what we are, where we want to go and how we set about getting there, and then commiserating with a number of you about what the future holds for our organization, I offer the following thoughts with the intent of contributing to a reasoned, representative and constructive dialog:

- 1. Since our membership appears to number more than 300 (a dramatic increase in a short space of time) and we are scattered far and wide, we should take a hard look at how this membership can best be represented. Some improvements are in order.
- 2. Bylaws should be updated with the latest changes and made available to any member who wants them.
- 3. We should enlarge our definition of

- a membership quorum to something more than seven.
- 4. We should consider more use of committees to make important decisions, record deliberations, make them available for review and report results.
- 5. Couldn't we have some newsletter dialog to augment/enhance discussion during bimonthly meetings that are typically attended by a small portion of the membership? A good example is the excellent letter to "Dear BAM," July-Aug.'94" by Jim Kendzora suggesting improvements in our conduct of elections. I think Jim's suggestions were on the mark and should be considered for adoption. 6. What are the specific short-term and long-term goals of our organization? Shouldn't we make some, formalize them and apply our resources toward those goals?
- 7. What are the pros and cons of a move to splinter or sub-divide the organization according to region?
  8. Is there any conflict between Potosi and Faust Park as sites for BAM activities? What are the pros and cons of each location?
- 9. Do we want to increase our library assets? If so, we owe Ray Chaffin more financial support than we've given him.
- 10. What's the story on the selling of BAM forges? How many are there, what are they selling for and how many are left?
- 11. Our financial and other resources are considerable. Couldn't we see an accounting of these printed in our newsletter once a year?
- 12. What do you think of having an agenda for our monthly meetings? Having some insight into what issues are planned for discussion could allow us to do some homework and help us express considered views instead of shooting from the hip.

What thoughts do you have? Our fine newsletter editor repeatedly solicits your views. Let's accommodate him for the good of the organization. Sincerely, Bob Woodard, Cape Girardeau.

Here's an E-Mail message from a BAM member looking for help with his Boy Scout programs. If anyone can help Steve I am sure he would be glad to hear from you. Contact him at: 15020 Hwy 63N, Sturgeon, MO 65284 or call (314) 696-3329.

I've noticed your ads looking for blacksmithing tools in the Rural Missouri and BAM newsletters. I would also like to aquire blacksmithing tools, particularly anvils and forges (if not the entire forge then just the firepot) and hand crank blowers. I work with the Boy Scouts both in St. Louis and Columbia developing high adventure summer programs. Since 1992, blacksmithing has been part of the summer program in St. Louis at S-F Ranch near Farmington and hopefully this summer we'll begin blacksmithing with the central Mo. area scouts at Camp Hohn. To accomplish this, I need tools. Can you help? Basically, the equipment that I now use consists of four anvils (all approx 100 lb - two are in good shape, two are o.k.) and two forges homemade barrel type with hand crank blowers. One firepot is in bad shape but usable, the other is good. All of this is used for the program that we do for the St. Louis area camp. I would like to replace one forge but really don't need anything else for that camp. I am presently working with Great Rivers Council (Central Mo. area) to set up a program at their camp but do not have any equipment for this. I would be willing to buy what I need (probably one forge and blower and two anvils) but I certainly appreciate your offer to loan and might take you up on it. I am still trying to work out the details with Great Rivers but I figured it was never too early to start looking for equipment - I will keep in touch about this. I'm sure that they would be interested in all the help that any BAM member could provide.

I hope to be able to make it to a BAM meeting sometime but have not yet. I did attend the Potosi Conference in 1993 and really enjoyed it hopefully I'll be able to make it this year.

I would love to see the blacksmithing merit badge reinstated we've been blacksmithing at the St. Louis camp since 1992 and it has

### Pat's place

Its been a busy month again. On Jan. 13, 22 BAM members descended on Memphis for the Forging On The River 2 conference. It was hosted by the River Bluff Forge Council, President Doug Learn was chairman.

This was a very well run conference, with some very good demonstrators. Charles McKinney started off with a demo on making scrolls to fit into a given space. I've always wanted to try this but wasn't sure how. Jerry Hoffman took us through 5 ways to make snub end scrolls, The local CBS-TV station was there to film the conference and Jerry made the evening news. Jim Wallace did a very amusing demo on making a screwdriver, Steve Ysuko talked to us about sculpture and showed us how the big hammer worked. Jorgen Harle took us through

the steps to make a hammer head, and John Medwedeff took us on a slide trip with his pocket knife. There were many other demos including Tom Clark's demo on making miniature horseshoes.

Tim Ryan showed up to present the ABANA board ring project to the museum and held an auction. We started off Sunday with a tour of the museum narrated by Jim Wallace. I was glad to see BAM represented in the exhibit. Doug Hendrickson's piece was used on the brochure. For a small fee you can become a member of the museum. Contact the metals museum for details. I enrolled as an individual for \$ 25. This entitles me to free admission to the museum, 10 percent discount in the gift store, and other benefits.

The next weekend was the BAM meeting at Jerry Hoffman's shop in Lonedell. Despite the bad weather the meeting was well attended by about 80 members. We had some interesting demos and a quick business meeting. The name tag buttons were passed out. I'll bring them to the next meeting for those of you who weren't at Jerry's. If anyone wants a button for their spouse or children let me know and I'll make them one.

Don't forget to get started on a project for the auction at the Potosi conference. This is a good chance to apply all the demos and classes we've attended and raise some money for BAM.

—Pat McCarty, BAM president

been extremely popular. Let me know if I can help out in any way. Thanks for your help - I'll keep in touch.

Next time you talk to Tom Clark, tell him thanks also. He helped us get started in 1992 and has helped us with coal - he talked me into joining BAM and I'm glad he did.

Keep up your good work in the BAM newsletter and the Rural Missouri newsletter - I enjoy them both.

— Steve Willsie, Sturgeon, Mo.

Hello Jim, I just finished reading the Rural Missouri and I couldn't resist writing to you. Bernie uses Internet all the time but this is my first time. I am tying to get a little more computer-wise. I am presently taking my first college course at Linn Tech. on computers. I'm sure having my husband teach me would be cheaper, but this way it's a sure way to save the marriage! Did you go to Jerry's for BAM? The snow scared Bernie and Vernon away. Take care. And keep up the good work that you do in print.

—(via Internet)Patti Tappel, Wardsville, Mo. (HBSM90B@prodigy.com)

### Welcome new members

Roger Quaintance PO Box 254 Amana, Iowa 52203

Len Ledet 4001 Rodney Parham Rd. Little Rock, AR 72212 (501) 221-9069

Robert Partee Rt.1 Box 479 Lakeview, AR 72642 (501) 431-7790

James Conway 1218 Adams Rd. Bonne Terre, MO 63628 (314) 431-3618

Frank Zion 640 Linn Union Star, MO 64494 (816) 593-2486 Russell Hall 305 E. South St. Marthasville, MO 63357 (314) 433-5050

David Norvell 17500 E. Melrose Glencoe, MO 63038 (314) 458-2113

Robert Hostkoetter Luxenhaus Farm 5437 Hwy O Marthasville, MO 63357

Lt. Col. Harold E. McKinney Rt.6 Box 106 Kinston, NC 28501 (919) 523-9390

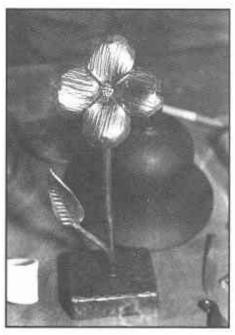
Annete M. Zobel 1446A Tamm Ave. St. Louis, MO 63139 (314) 644-2671 Donna Wolter 5024 A. Jamieson St. Louis, MO 63109 (314) 832-6679

Charles Sharpe Sharpe Farm Chase, KS 67524

New Address: Richard Terry 2720 Leuchtfeld Rd. Sullivan, MO 63080

Coal Money: \$145 Membership Dues: \$640

### BAM Jan. MEETING



Flower from plans in the last newsletter as interpreted by Ed Harper. Somehow this got left out of the Iron in the Hat, Ed!

Jerry Hoffmann hosted the January BAM meeting and by all accounts it was a good one. We had about 50 people on hand to see Jerry and a half dozen other folks teach us a few lessons.

The trees and the fields surrounding Jerry's Lonedell shop were covered with ice and the highways to the west were still snow covered but that didn't hinder the hardy BAM folks. Walt Hull made the long drive from Kansas and new member Dennis Williamson and his wife came in from Warrensburg.

The day started with Jim Waller at the forge. Jim knocked out a quick letter opener — believe it had a mystery twist handle. Of course most of what Jim does is a mystery. Jim graciously added his demo to the Iron in the Hat.

Kenny Valdejo was next at the forge. Kenny does a lot of rendezvous stuff and he showed off his Roger Lowrance swage block. Most folks don't like the shovel blank on Roger's block but that is because they don't know you need to make a top tool to go with it.

Kenny showed this technique and then made a bunch of ladles. He recommends starting at the edge and working inward. Kenny let some of the beginners give it a try — it's not as hard as it looks.

Tom Clark was next, using Pat McCarty as a striker. He showed us how to do the beautiful pineapple twist and put a ball on the end of the l inch square bar to boot. Tom forged his ball under the Pat-powered treadle hammer using a spring die. It made a nice ball and best of all the ball didn't break off.

It was a most impressive demo and gave Pat a chance to work off his doughnuts.

After lunch Jorgen Harle took the forge and welded up an iron ring. This looks like a good piece to practice on.

The rest of the afternoon was reserved for the host. Jerry did a few welds and showed the braided handle from his *Blacksmiths Journal*. We also got to see how to recover from a missed weld — was that intentional Jerry?

As usual a lot of rusty iron changed hands including a nice forge Jerry used in his shoeing days that went way too cheap.

Thanks for your hospitality Jerry
— looking forward to going back.

### Minutes:

Meeting called to order by President Pat McCarty

Pat spoke on the demo at Faust Park.

BAM members had a good time in Memphis at the NOMA Museum. 22 members attended.

Report on the "First Fires" workshop at Lou Mueller's. Discussion of possible second workshop for beginners or intermediate workshop. Bess Ellis spoke highly of the first workshop.

Tom Clark mentioned that Steve Austin is working on the 501(c) status for BAM. This would enable companies to donate lots of equipment etc. to BAM and claim a tax deduction.

### Financial status:

Newsletter mailing costs up — running about \$1,000 per issue.

BAM has about \$6,800 in the bank and bills are paid up to date.

BAM has two sidedraft forges left, we will probably keep them for workshop use.

Discussion of future forge building workshop to provide teaching station forges.

### New Business:

Knifemaking workshop April 1 and 2 in Mt. Vernon, Ill. See Ken Markely for details.

John Medwedeff and Doug Hendrickson will both be teaching various craft schools (Penland, Peters Valley, etc.)

Doug Hendrickson called for a motion to send editor Jim McCarty to a summer class of his choice. Motion seconded and approved heartily.

Lou Mueller spoke on possibility of buying a PA system for meetings and conference use. It would be a system like auctioneers use, with a throat mike and remote amplifier.

Motion made and seconded to authorize Lou to buy one. Motion carried.

Second Saturday of each month there is a hammer-in at Mt. Vernon, Ill. See Andy MacDonald for details.

John Medwedeff spoke on historical blacksmithing at Murphysboro. More to come in newsletter.

Jim Wallace at NOMM is working on history of blacksmithing in 20th century. If you have anything to share he would appreciate hearing from you.

Cahokia "Mardi Gras" (free wine) last Saturday in February. See Kenny Valdejo.

Next meeting at Maurice Ellis's shop. Trade item will be a spoon.

April 22 and possibly 23 will be a hammer in at SIU in Carbondale. Details in newsletter to come.

September meeting will be held at John Stovesand's shop near Cedar Hill. Demo of silver casting and hi-tech foundry set-up. Exact date to come.

Also, 2nd annual "Symposium of Iron" at Penland School under guidance of Elizabeth Brim in September.

Tom Clark urged BAM members to send samples of work to Anvil's Ring.

Meeting adjourned.
—John Murray, BAM secretary

### Iron in the hat:

Phil Williamson hammer and spike went to Tony Smith Steve Stuenkel candle holder went to John Sherwood

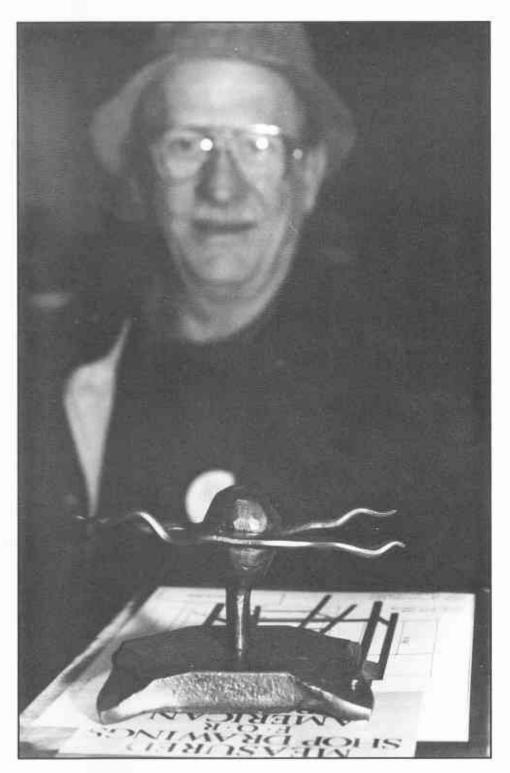
Bob Bupp brass candle holder went to Ken Markely

Jim McCarty wizard garden shovel went to Ed Harper

Joe Wilkerson spoon and fork went to JK Reynolds

Pat McCarty cowboy wizard went to Jim Waller

Jim Waller letter opener went to Craig Schmidt



Doug Hendrickson forged this piece, tentatively titled "Luigi's Prostate" in honor of Lou Mueller's recent surgery. Word has it that Lou is doing just fine.

Walt Hull Damascus blade went to John Sherwood

John Murray soup ladle went to David Bulk

Tom Clark demo piece went to Bob Alexander

Doug Hendrickson's Yellin chain went to Jim McCarty

Steve Stuenkle 0-1 steel went to Pat McCarty

Ruth Hull's bibs went to Bob Alexander

Total iron in the hat was \$132. Newsletter sales brought \$33.



P.O. Box 1181, Nashville, Indiana 47448
Executive Secretary, Janelle Gilbert Franklin

Office Hours: 7:30-11:30 am & 1:30-4:30 pm Phone: (812) 988-6919

### ABANA President's Message February 1995

Dear ABANA Chapters,

The year was barely a week old when 1995 had its first major get together for blacksmiths. I am, of course, talking about Bill Gichner's annual event. There was a good turnout and I am sure many chapters were represented. As always it was first class in every respect. Thanks Bill.

We have a new ABANA Secretary. Hans Peot resigned from the officer position of ABANA Secretary and accepted the chairmanship of the Finance Committee. The directors elected Clayton Carr to the office vacated by Hans. In addition to the normal duties of ABANA Secretary, Clayton will be upgrading our databases. We have a wealth of information at the central office. Clayton's efforts will enable us to obtain maximum benefits from this information.

Many of the ABANA Chapters are turning out some very fine newsletters. The one theme, other than blacksmithing, that seems to be common among them is; send me some information for the newsletter, share your stories, tell us about your projects, pass on your shop tips, we need your help. Being an editor is not an easy job. I extend a sincere "thank you" to those who have sent material to their editors and urge those who have had good intentions to do it now and on a continued basis.

The second juried ABANA exhibition, "ABANA Comes of Age", at the National Ornamental Metal Museum ends February 5, 1995 (perhaps before you read this letter). I do hope that many of you were able to see the exhibit. We are indeed indebted to Jim Wallace and his staff. The exhibits have helped ABANA gain some much deserved recognition.

At a recent demonstration a chip flew off of a set hammer and hit one of the observers. The result, a cut finger. Good luck prevailed. It could have been so much worse. Don't trust luck, wear safety glasses.

Keep in touch.

Sincerely,

Joe Harris ABANA President

# ATTENTION

Once again, BAM will be awarding three scholarships of up to \$500 at the Ozark Conference. Scholarships are open to all BAM members in good standing (dues paid) with two reserved for Missouri residents. Scholarships are to be used for the study of blacksmithing or a related subject such as metallurgy or design, etc.

Funds will be paid directly to the recipient and may be applied toward tuition, transportation, housing or materials.

Upon completion of their studies, each recipient will be required to:

- 1. Write an article about their experiences for the newsletter.
- 2. Demonstrate at a regular BAM meeting or at the Ozark Conference.

These conditions must be met or the money must be refunded.

Applications must be received by April 5 to be considered by the scholarship committee, whose nominations are subject to confirmation by the executive board. It will require a unanimous vote by the executive board to deny a scholarship.

To apply describe the course you would like to take and the projected expense and send it to the address below. Winners will be announced at the Saturday night auction during the Ozark Conference. Good Luck!

Send to: BAM Scholarship Committee, Todd Kinnikin, chairman, 8356 John McKeever Rd., House Springs, MO 63051

Name:

Address:

Phone

Describe course you want to take:

Projected cost:

# Color your world: Put patinas on metal

Editor's note: This article came from a meeting I believe was held in North Carolina and was downloaded off the Internet through the ArtMetal mail list.

by Rand Esser

The patinas demonstrated at the March 12 meeting were copper sulfate solution, Black Topaz, and Rusty Red.

I mix my own copper sulfate solution by mixing copper sulfate crystals with water, a little at a time, until the water will no longer dissolve the copper sulfate. Copper sulfate is available at Southern States stores.

Black Topaz and Rusty Red are sold by Sur-Fin Chemical Corporation. Sur-Fin will send you a finish kit including seven six ounce bottles of their finishes for \$50 (they also sell patinas for other metals). Larger sizes from one to fifty-gallons are available.

These finishes result in a variety of effects depending on strength of the solution, reaction time, relative humidity, temperature, surface texture, and type of top coating.

The Rusty Red and copper sulfate solution create similar effects. The Rusty red seems to be a bit more red and the copper sulfate is a bit more orange. I prefer the copper sulfate solution. It is more beautiful and less expensive than the Rusty Red.

### Tips for patinas on steel

The surface to be finished must be

completely clean. Remove all scale by sandblasting or wire brushing. Different surface textures will create different results. Sand blasted surfaces tend to be more dull and require a shorter reaction time. Wire brushed surfaces will be shinier, but require a longer reaction time. I sandblast first to remove the scale and then wire brush to create a shiny surface.

Remove all grease, oil, and, dirt with mineral spirits. Surface must be white glove clean for best results. Different concentrations of the finish solutions give different results. Sur-Fin recommends diluting the Black Topaz 1:10 with water. I have used the Black Topaz at 1:5 with a very brown /black result. Different reaction times give different results. I usually leave the solutions on for just a few minutes. The Black Topaz ranges from a jet black with a short reaction time to bluish, greenish, black with longer reaction times to brown/black with very long reaction times. The Rusty Red and copper sulfate solutions range from a light copper plating effect to light rust to a dark crusty rust depending upon reaction time.

Some interesting effects can be created by using two or more finishes on the same piece. The Rusty Red and copper sulfate solution will work on top of the Black Topaz finish. The Black Topaz does not seem to work on top of the others. I often begin with the Black Topaz and drizzle, drip, or brush a pattern on specific areas of the surface, leaving other areas bare. I then allow the Black Topaz solution to react until it is dry.

Then I come back and coat the entire piece with the Black Topaz solution and quickly rinse the piece in water to stop the reaction. The areas treated first will have a different tone than the areas treated later. I then come back over the piece with the Rusty Red and/or copper sulfate solution and brush, drip, drop or drizzle it in specific areas to create coppery or rusty highlights. The entire piece is then thoroughly rinsed with water to stop the reaction.

### Top coating

Once you have stopped the reaction by rinsing with water, allow the piece

to air dry or speed up the process by heating it with a torch. At this point the piece is not very pretty. You will not know what the piece will ultimately look like until you apply a top coat.

I usually heat the piece with a torch until it is barely hot and then apply wax with a lint free cloth. I have heard that linseed oil also works well. At this point the patina will reveal itself in its final state. By applying more wax and rubbing I can usually remove some of the more rusty spots revealing coppery areas. Additional coatings of wax will create a shinier finish with more depth.

### Safety

These chemicals are poisonous. They will irritate your skin and eyes. Wear rubber gloves, goggles, protective clothing, and a respirator. Read the labels on these products and dispose of properly. Keep them away from your kids.

### Persistence

It takes time and experimentation to get good results with these chemicals.

Your finishes are likely to look different from mine due to the many variables involved. I am continually experimenting with different finishes on metals, steel in particular. I would like to compile a data base of information on this subject to share with other metalworkers.

If you have information that you would like to share please let me know.

Rand Esser
302 Glascock Street
Raleigh, North Carolina 27604
or send e-mail to:
esser@artmetal.pdial.interpath.net

### **Addresses for Pre-Mixed Patinas:**

Sur-Fin Chemical Corp., 1530 Spence St., Los Angeles, CA 90023 (213) 262-8108

Chemicals for mixing patinas.
Bryant Laboratory, 1101 Fifth St.,
Berkeley, CA 94710, 800 367-3141
Supplier of Brass, Copper, sheet,
plate, bar, etc.

Metal Supply Co., 4001 G St. Philadelphia, PA 19124 800-638-2521

# THIRD ANNUAL SOUTHERN ILLINOIS UNIVERSITY CARBONDALE

### 1995 SPRING HAMMER-IN

SATURDAY, APRIL 22ND 9A.M.-6P.M.

### DIRECTIONS

Look for anvil signs on your way into town on Routes 13 and 51.



HAMMER-IN will be located in the Pulliam Industrial Wing, Room #116, directly west of S.I.U. clock tower at Puliam Hall.

### 

### • MORNING • DEMONSTRATIONS/LECTURES

### **JORGEN HARLE**

\*HAMMER FORGING

### ROBERT GARDNER

\*BLADESMITHING

• AFTERNOON • HANDS ON WORKSHOP

\*PROPER SAFETY
EQUIPMENT REQUIRED TO
ACCESS SHOP EQUIPMENT
\*EYE PROTECTION
REQUIRED FOR ALL
SPECTATORS

Send	check	Oľ	money	order	to	9
------	-------	----	-------	-------	----	---

### \$10 Registration Fee

Fee includes parking, access to shop, demos, and lunch

Name \_\_\_\_\_Address \_\_\_\_

PRE-REGISTRATION
DEADLINE
APRIL 1st
\$15 FEE DAY OF
EVENT

### A.C.M.E.

School of Art & Design Allyn Building S.I.U. at Carbondale Carbondale, Illinois 62901

### Information

Jorgen Harle/Robert Gardener Office: (618) 453-3778 Home: (618) 457-5699

### It's Ozark Conference Time

The fourth annual, much expanded, Ozark Blacksmith Conference is set for May 5-7 in Potosi, Mo., with Clifton Ralph, Clay Spencer, Bob Patrick and Jerry Hoffmann as the demonstrators.

### **Demonstrators**

Clifton Ralph, past winner of ABANA's Bealer Award, is widely recognized as the authority on the power hammer. Clifton will demonstrate using the 100 pound Little Giant and a Kuhn air hammer.

Clay Spencer is to the treadle hammer what Clifton is to the power hammer. Clay will bring his box of gadgets, jigs and modified hammers and show his foot skills on a variety of projects.

Bob Patrick is the master of the forge weld. If you missed him in St. Louis see him in Potosi. He will also cover hammer and chisel forging and heat treating.

Jerry Hoffmann is well-known for his Blacksmiths Journal publication. At the conference Jerry will show many of the techniques he has been running in the Journal.

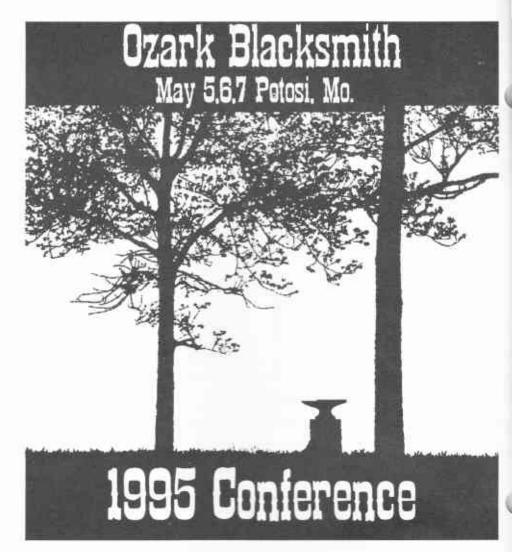
### Preconference Workshops

For the first time BAM is hosting three preconference workshops on Thursday, May 4 and Friday, May 5.

Clifton Ralph will take up to 8 people for a two-day, hands-on power hammer workshop. To take part you must have experience with a 50-pound or larger hammer. Register early or miss out!

Clay Spencer will do a hands-on workshop with the treadle hammer. You can register for one or two days. Check with Tom Clark if you are interested — we may need your hammer. Limited to as many hammers as we can come up with, but we will have 5 or 6 forges going. Bring old ball pein hammers and other stock to make tools. Open to those who have a hammer only.

Bob Patrick will teach two oneday workshops. Classes limited to 10



people with 2 to a forge. Bring your own tools: hammers and an assortment of tongs should cover it. We would like different people for each day but would take some repeats on Friday if space permits.

All three workshops are \$20 per day, first-come, first served so register early!

### Crafters

Tom Clark will again have some area crafters who will give on-going demonstrations in woodcarving, spinning, weaving and broom tieing. There are also numerous antique and craft shops in the area for those who may be interested in browsing.

### **Tailgating**

Dealers as well as individuals are welcome to bring anything they have to sell. No charge for tailgate space but if you have something for the auction we will appreciate it. The following groups will be set up:

- ABANA booth with magazines, T-shirts etc. and Janelle Franklin.
- Jerry Hoffmann will have his Blacksmiths Journal booth.
- Centaur Forge will have truckloads of stuff for sale, including tools, supplies and books.
- Lee Farber will again throw his stoneware BAM coffee mugs and we will have souvenir T-shirts proceeds to BAM.

### Food

Friday night we will have a fish fry, cost is \$5 (free if you preregister). Saturday lunch on your own, hamburgers and chili on the grounds provided by the Potosi Lions. Saturday evening banquet, cost is \$5. Sunday breakfast, \$2.50. Potosi has many restaurants nearby.

### Lodging

Group rates are available at the following places, with two or four to a room at the same price:

Sunnen Conference Center (314) 438-2154 Best Western Farmington (314) 756-8031 Days Inn Farmington 1-800-325-2525 Austin Inn Potosi (Janell's Choice) (314) 438-9002 Super 8 Farmington (314) 756-0344

This is a busy weekend in the Ozarks so make your reservations now! Be sure to mention you are coming to the Ozark Blacksmith Conference for the reduced rate. There is also free camping on the conference site, but no hookups are available.

Contest and chapter challenge

The conference officially gets under way Friday night with an anvil shoot around sundown, fish fry starting at 6 pm and the World's Largest Bonfire part IV. This year we will host a chain and nail forging contest.

Each contestant has 30 minutes to forge three links of chain from 7 inches of 3/8 round and two 2 inch nails from your choice of 1 4 round or square. There will be three categories: Beginners, intermediate and advanced. Top three will be mounted on a plaque and sold at the auction.

There will also be a chapter challenge. Each ABANA chapter repre-

Conference ends at noon Registration fees sented at the conference will be chalwill be \$40, which includes NORTH one-year membership to Llons Den Conference Site who preregister by April 28 will get a free ticket to the fish fry Friday night (a \$5 per day. You can buy meal tickets at the site. Family Kanaas members come for free st but must pay for meals. MISSOURI Spouses workshop Jackie Spencer host a kalei-

lenged to forge a hook in 1 heat on the end of a rod. We will start with 3/8 round and increase the size until no one can get the job done.

We hope everyone will enter the contests — the idea is to have fun and learn at the same time.

### Thursday schedule

Workshops start at 8 am and run through 5 pm with lunch break at noon (lunch is on your own)

### Friday schedule

Workshops start at 8 am and run through 5 pm with lunch break at noon (lunch is on your own) 6 pm: Fish fry Anvil shoot, contests and bonfire start around sundown

### Saturday schedule

8 am to noon: Clifton Ralph on the power hammer

Noon: Anvil shoot

1 pm to 5 pm: Clay Spencer on the treadle hammer

6 pm: Banquet, followed by the auction with the illustrious Tim Ryan

Sunday schedule

Lions Club breakfast 8 am to 10 am: Bob Patrick 10 am to noon: Jerry Hoffmann

> Cost of this year's conference BAM (current members will get a year's extension). Those value). Workshop fees are \$20

> > (Clay's wife) will descope workshop for spouses. Class will be limited to first 20

people. Each person will build a polished brass kaleidescope. Materials furnished, price is \$10 per person.

### More info

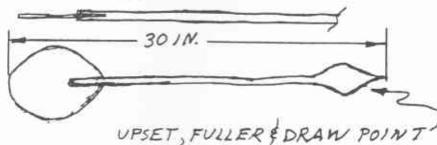
For more information about any aspect of the Ozark Conference contact Tom Clark, chairman, at (314) 438-4725.

	ne: !ress:
	one:
	BAM member?
	attending:
	ant to attend the following
	conference workshop: Difton Ralph
	Clay Spencer
	Bob Patrick (Please indi-
cate	e which day:
	☐ Thursday ☐ Friday
Mo	al tickets required:
Fric	•
	Fish Fry (\$5 each)
1	w many:
	urday
	Supper (\$5 each)
	w many:
	nday
	Breakfast (\$2.50 each)
	w many:
	want a spot in the
spc	ouse's workshop.
Nai	me:
	ase fill out form and retur
it b	y April 28 to: Tom Clark,
Oza	ark Conference, HC 87,
Box	5780, Potosi, MO 63664

### WEATHER VANE

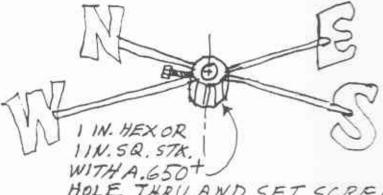
1/2 IN. SQ. STOCK FOR ARROW SHAFT LAP WELD TO GET MATERIAL TO DEVELOP PADDLE END (POWER HAMMER RECOMMENDED)

IF YOU HAND FORGE A DISC OF SHEET STEEL CAN BE INSERTED WELDED



UPSET, FULLER & DRAW POINT

DETERMINE LOCATION OF YOUR FAVORITE ANIMA ON ARROW SHAFT HORSE FIND BALANCE POINTEMARK THEN WELD A 3/8 BLACK I RON PIPE WELD BELOW THE BALANCE POINT AS SHOWN.

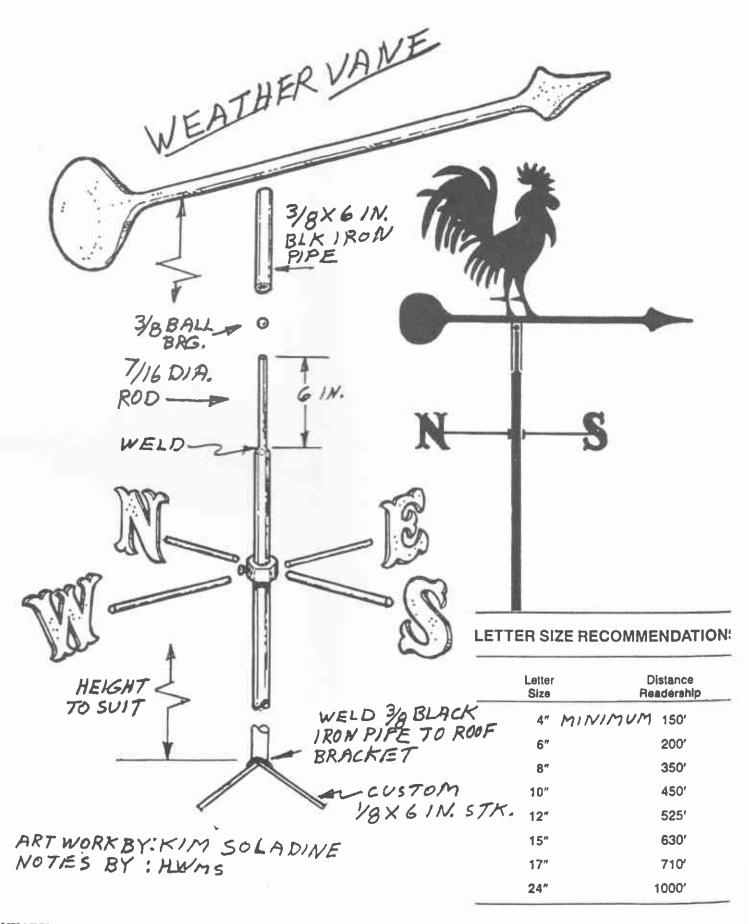


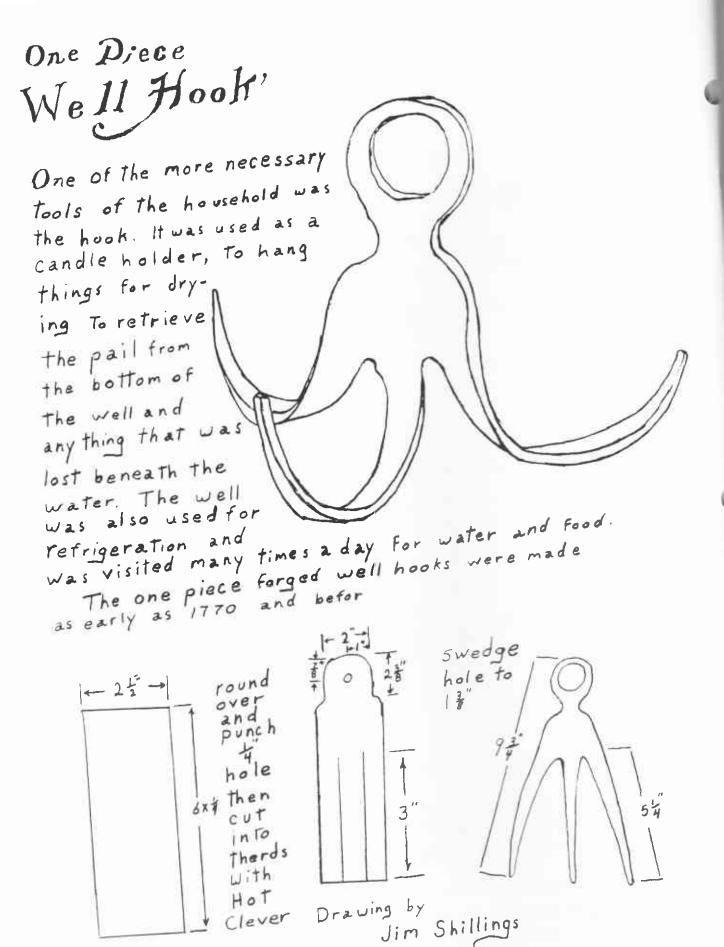
HOLE THRU AND SET SCREW AS SHOWN

PAUL HUBLER SHOWED US SOME OF HIS IDEAS AT GEORGE SAUCERMAN'S SHOP NOV. 6+4 1993 THANX PAUL FOR BRINGING THE ARROW.

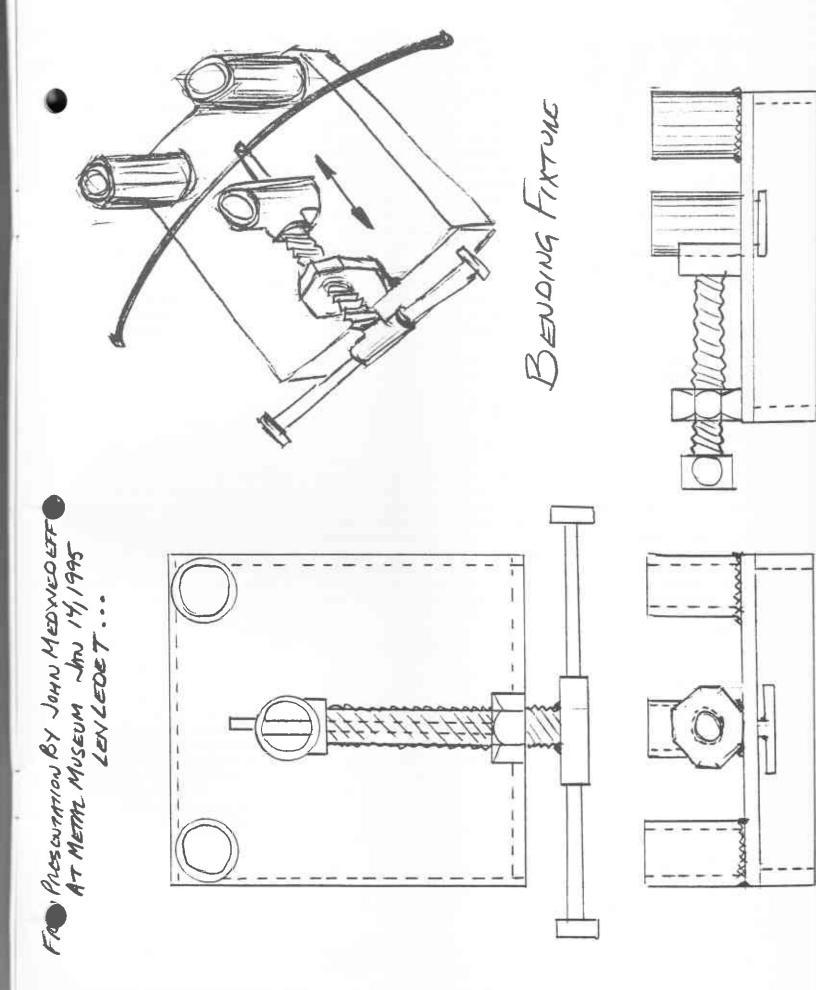
HWILLIAMS

Reprinted from the Traditionalist, a publication of the Rural Smiths of Mid-America





Reprinted from the Traditionalist, a publication of the Rural Smiths of Mid-America



# BAM Shop Notes

Got a tip to share? Jot it down and send it to the editor, Jim McCarty, Rt. 1 Box 20, Loose Creek, Mo. 65054

The newsletter of the Southwest Artist Blacksmith Association showed a drawing and gave instructions on how to make this interesting gadget. This retaining ring has several positions to hold the reins of your tongs tightly together.

The instructions called for the ring to be cut, drilled and filed from 1/4 inch plate. However, using the drawing as a pattern I made a ring out of a I inch washer as shown in the drawings. First I drilled 3/8 inch holes as indicated in the drawing A. Then cut and file to shape as in drawing B. This saved a lot of work. I have made the drawings full sized so that you may use them as a template.

— The Iron Trillium, Ontario Artist Blacksmith Association

### Power hammer belt woes

I constantly had trouble keeping the flat belts in working order on my 50 pound Little Giant. Finding flat belts is not easy today without a lot of expense. After finding the belts, then you have to find the correct lacing for that size belt and pulley. When using a pulley of less than 4 inch diameter the lacing will not last long. I am using a 3 horse motor with 1,750 rpms, so I reduced the pulley size to 2 1/2 inch diameter to slow the hammer speed down. This corrected my problem with lacing.

To correct the belt problem I went to the auto parts store and bought a flat belt with the five grooves (7/8 x 113 inches), the longest belt listed for a car engine, a micro-V belt made by Gates, parts no. K061130. Then I took the 2 1/2 inch motor pulley to the lathe and cut the grooves to match the belt (you can go ahead and cut 2 sets of grooves at the same time just in case you would need to or want to add another belt). The grooved belt and pulley will not slip as easy under load as the old style belt. Also the more distance you have between the motor and the clutch pulley the smoother the clutch will operate. I did not cut grooves in the clutch but let it remain flat. The cost of the new belt was \$33. There are also belts for large truck engines at 1 1/4 inch wide and the cost is about \$140.

—Richard Sheppard, Pittsburgh Artist Blacksmith Association

### Low-bucks cone

Some time ago I had to replace the front end of a 430 John Deere tricycle tractor, and noted that the replaced part could serve as a cone mandrel because of its shape. So, by welding to the bottom side a square tang to fit my hardy hole I now have a simple way to form various ring sizes. By checking with tractor dealers, these cones could be available for little cost, if not free.

-Al Cannella, Appalachian Area Chapter

### Metal stamps

The T.xS. Tool and Supply Co. located at 1154 Clarion Ave. in Holland, Ohio phone (419) 866-5507, has a supplier who can furnish metal stamps of many stock designs. Available in many sizes from 1/16 inch to 5/8 inch. An example of individual prices would be 3/32", \$17.10 each, 1/8", \$15.94 each, 3/8", \$28.00 each. The catch is, a minimum order of \$75.00 is required.

— Paul Davidson, Northwest Ohio Blacksmiths (

### Texas tips

From the newsletter of the North Texas Blacksmiths Association comes the following tips taken from a Dorothy Steigler demo at their fall workshop:

- Make leaf patterns out of copper or brass. This avoids using the pattern during a project.
- Stamp name or touchmark on leaves while still flat.
- Titanium causes a serious illness when worked above 1800 degrees F. The fumes are toxic.
  - Pre heat the anvil and vice with a large chunk of metal to allow more working time on thin stock.
  - When folding a leaf to make a center vein, do not hit the crease line. Use the rounding face of the hammer and stay back from the edge.
  - There is a fine line between Godly and gaudy. Use the brass brush sparingly.
  - Three steps to welding: 1.Tack with Sureweld and a light hammer;



Retaining ring revisited

20

NEWSLETTER of the BLACKSMITHS ASSOCIATION OF MISSOURI

2. Weld with Borax and a heavy hammer; 3. Repeat 1. Dorothy slings the hot flux and slag off the piece with a rapid downward sweep between the legs.

• When sighting down a rod to make sure it is straight, use both eyes or it

will be off by 4 degrees.

• To make a handle use four pieces of 5/16 inch square and four pieces of 1/2 inch angle iron. Weld the ends and twist. It makes a nice shape to grasp.

• Use small coil springs for tongs;

they are light and strong.

• Twist angle iron and it forms a nice twist shape with a hole down the center. This is excellent for lamp wires. A 40 inch piece of angle iron (1/2 or 3/4 inch) ended up 28 inches long after the twist.

### **Etching knives**

Most knifemakers usually develop their own preferred method of etching patterns on knifeblades. Having gone through a good number of trials, I've found the following does a good job:

I use commercial sulfuric acid purchased at a local drug store in 1 pound bottle. At 90 percent solution this is very strong, so I reduce it down by adding 1 part acid to 5 parts distilled water. (Always add the acid slowly to the water, never in the reverse order.)

Do not use a plastic container. The mix will get real hot when first combined and may melt the container. I always use a glass container. Before etching, I always warm the solution by placing it in a sink of warm water; it works faster this way. About 15-30 minutes is required to etch a knife blade. After the blade is etched, place it in a pan of baking soda to neutralize the acid, then wash off with warm water and dry clean.

Acid can be very dangerous, so be careful. I always do mine outside on the ground with the baking soda very close by. If you get any acid on you, cover with baking soda, then wash generously with water.

—Don Fults, Appalachian Area Chapter

**Drill press safety** 

Nehum Hersom's shop in Boise, Idaho, is full, full of equipment, supplies, patterns, pictures, tools and more tools, stacked under, next to or on top of something. A fire marshal might die at the sight, but Nehum knows where almost everything is. Safety is apparent, with adequate light and working space. But when he operated the drill press, I was surprised. It had a foot switch. (I understand this is common in industry, but this was new to me.) What a deal! If something goes wrong, move your foot and the power is off.

He made his foot switch using a micro-switch (these switches are available up to 25 amps.) A friend of mine suggested using a momentary push switch (nonlocking) which sounded cheaper. A 20 amp switch was less than \$3. I used an electrical box (with cover) and a hinged plate to step on, to press the switch. Remember the ground wire.

I have many people in my shop, so I wired the foot switch in series with the drill switch. (That is, both switches must be on to operate the drill.) This way, if anyone accidently steps on the switch (with the drill switch off) nothing happens.

Yes, my eyes are still wide open from seeing all the stuff in — and around — Grandpa's shop.

—Bob Thomson, California Blacksmith

### 5 cents worth on Nickel

I was looking for sources for nickel for Damascus work and posted the question on the Internet. These two responses came back: For nickel (Nickel 200,201,205,270) and a lot more to boot, try Southern Tool Steel. They carry all types of non-ferrous as well as tool steels and they have no minimum or cutting charge. 1-800-647-5188.

- George Dixon

I sometimes use nickel arc welding rods. I find that with a little luck I can get them pretty cheap. Sometimes they have been lying on the shelf a while and the company will let you have them at the old price. Nickel is a bit expensive. They are easy to use,

# BAM Bulletin Board

For sale: Atlas Bench Lathe, 10 inch by 54 inch with bench, standard change gears and Timken bearings. Completely rebuilt including new gear case, lead screw and reversing motor. Also milling attachment, 2 chucks and misc. tooling. \$1,950 firm. (314) 334-9406.

Custom made leather blacksmith aprons can be bought from BAM member Randy Barringhaus. He does a real nice job and has several styles he can make for you. Best of all, he likes to trade. For more info call Randy at (314) 484-3061 or write to Rt. 1 Box 53, Leslie, MO 63056.

Got something to buy, sell, swap or give away? Send it to the BAM Bulletin Board at Rt. 1, Box 20, Loose Creek, Mo. 65054 or call me at (314) 897-4111.

because you just set out about four paralell beads, sand them down, fill in the gaps, then sandwhich in. The only real drawback is you get a different pattern due to the beading process. But it can be a bit interesting.

— Andy Quittner

# BAM NEWS

### Power Hammer rebuilding

Don't forget the power hammer rebuilding at Sid Suedemeier's Little Giant Automotive, 420 Fourth Corso, Nebraska City, NE 68410. The workshop will be held on March 3-5. At the 3-day seminar, a Little Giant hammer will be evaluated, dismantled, all repairs completed including the repouring of babbitt bearings, reassembled, adjusted and run before the end. Everyone participates. For more information call (402) 873-6603. instructor is Fred Caylor, fee is \$85.

### Claydon knot patented

everal publications have been Itelling about ways to use the Claydon Knot, which is formed by squashing a piece of pipe at the intersection of two pieces of round stock. The pipe forms a tight joint holding the two at right angles to each other. Unfortunately, it turns out the joint is patented by a British Blacksmith named Stuart Hill. His patent protects the commercial rights to the joint in the US., Canada and other countries. I'm no lawyer but I suspect personal use (no sales) of the joint are OK. For those of you who have a commercial or industrial use for the joint, Stuart would like to work with you. Please contact him at Claydon Forge, Suffolk 1P6 OAB, UK or phone 44 473-83100.

### Speedy Gonzales?

One of our members reports that he strikes like lightning. We

thought that meant he swung the hammer with blazing speed. He actually meant he can never hit the same place twice! (Also reported in Forge Talk).

### Gunter quench

I've had several requests for the Rob Gunter mild steel quench. Here's the recipe:

5 gallons water

5 pounds table salt

32 ounces Dawn dish washing liquid (blue)

8 ounces Shaklee Basic I (wetting agent)

Quench at 1,550 degrees F. (light cherry red). Expect 43 to 45 Rockwell. Rob says the Dawn blue turned a cruddy green when it no longer worked. The steel will scream when you quench it. I have a hardy tempered in this manner that has held up well except for the spot where I hit it with a sledge hammer.

If you are having trouble finding a Shaklee dealer call 1-800-878-6904 and ask for Marilyn.

### Hossfeld info

Here's the address for the Hossfeld Co., which makes benders: Hossfeld Manufacturing Co., PO Box 557, Winona, MN 55987-0557. They have two videos on using their benders. #05268, Metal Forming Processes (On the #1 Bender) and #42019, An

introduction to the Hossfeld Bender (On the #2 Bender). Both are \$22 which includes shipping.

### Forging at the Alexander Majors House

David Hoopes tells me (via the Internet) that there is still a hammer-in going on at the Alexander Majors House in Kansas City. David says sometimes they have a crowd of 7 and sometimes he is the only one who shows up. The group meets the first Sunday of every month. For those of

you up on your history,
Majors was one of the
founders of the Pony
Express. For more
info contact
David at (913)
541-8872.

Are your dues due? Check the roster in this issue to see the date they expire.
Send checks to Steve Austin at the address on page 3.
Thanks.

### BAM

### 1995 Schedule

### March 1995 Meeting

Maurice Ellis, Belgrade, Mo., March 25, 1995

Ozark Conference, Potosi, Mo., May 5-7

### May 1995 Meeting

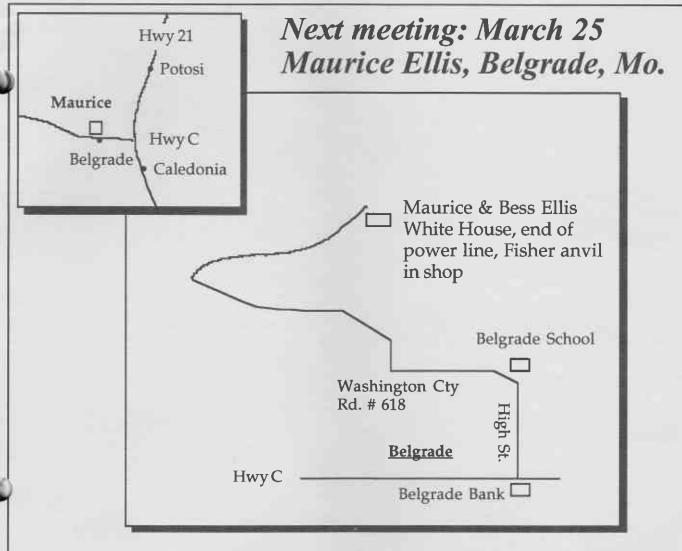
Walt Hull, Lawrence, Kansas, May 20, 1995

### July 1995 Meeting

Doug Hendrickson, Lesterville, Mo., Date not set

September 1995 Meeting John Stovesand, Cedar Hill, Mo., date to be announced

November 1995 Meeting Joe Wilkinson, Hope, Mo.



Take Highway 21 to Highway C just north of Caledonia. Take C to Belgrade. In Belgrade turn right on High Street until it turns into County Road 618 at Belgrade School. Follow County Road 618 for about 2 miles. You will cross 3 cattleguards and come to a gate at the top of the hill. The gate will be open. Go through it and follow the road to the end of the electric line. The white house on the right is Maurice and Bess. Phone (314) 766-5346 if you get lost.

Maurice Ellis will be the host for the next BAM meeting on March 25. Maurice recently moved to the country from St. Louis and this is the first time he has hosted a BAM meeting, so we are looking forward to seeing his shop.

Maurice built his own air hammer, which should be fun to play with. He has some real large Fisher anvils, or he did before Bess took up forging and took them away from him.

Maurice sent the following schedule: 8-9 am: Coffee and coffee cake

9-10 am: Bob Alexander demo

10-11 am: Andrew MacDonald demo

11-12 am: Jim McCarty demo

12-1: Lunch

1 pm: BAM business meeting

Open forges after the business meeting

Bob and Andy are paying their debt to society — both were BAM scholarship winners last year and a demo is part of their "fee." Bob took Clay Spencer's flower workshop at the folk school. I'm not sure what Andy did with his.

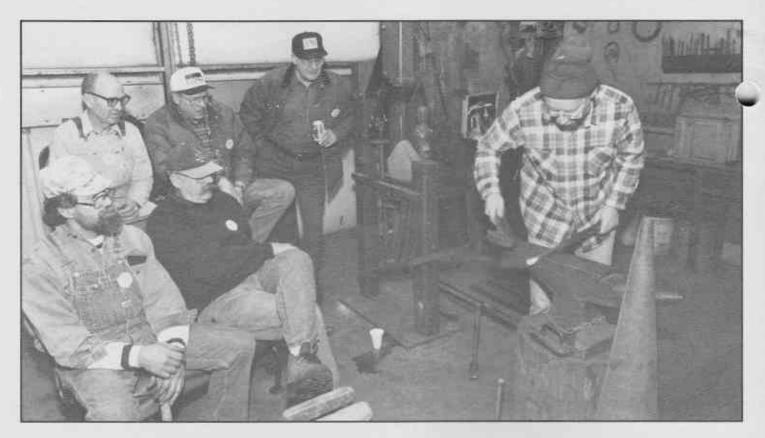
I am still trying to make up my mind what to demo — maybe we'll make that Damascus gate I've been talking about.

Beginners, be sure to come armed with your questions and things you want to try out because the afternoon is for you. There will be plenty of folks on hand to help you out.

Trade item is a spoon. Maurice says this can be anything, perhaps even a fishing lure?

Don't forget to bring something for the iron in the hat. We had a real good turnout last time.

See you in Belgrade March 25.



School was in session at the last BAM meeting as Jerry Hoffmann showed an alert class his braided handle technique

BAM Rt. 1 Box 20 Loose Creek, MO 65054

First Class
US Postage
PAID
Washington, MO
Permit No. 137

### **Address Correction Requested**

Please send changes to Maurice Ellis, Rt. 1, Box 1442, Belgrade, MO 63622