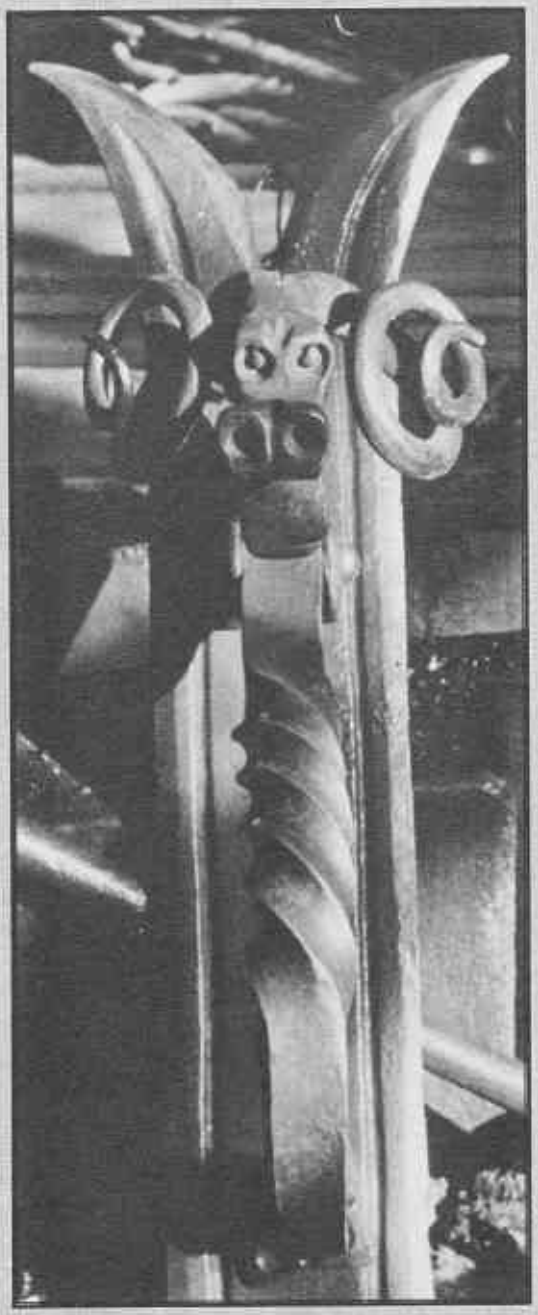
RAM

Nov. — Dec. 1994

INSIDE



NEWSLETTER of the BLACKSMITHS ASSOCIATION OF MISSOURI

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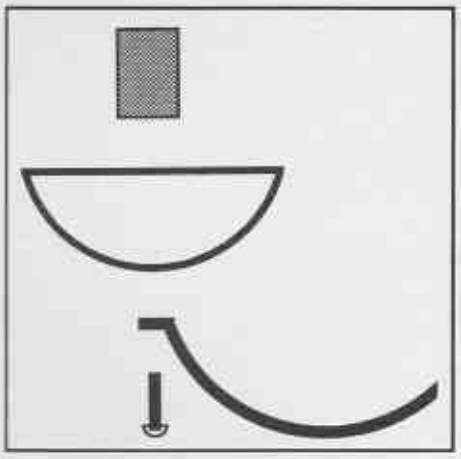

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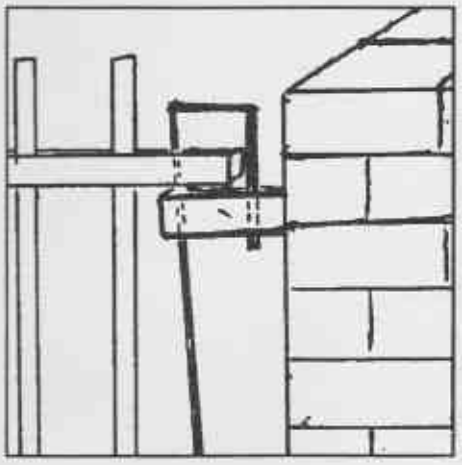

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Newsletter of the Blacksmiths Association of Missouri

Volume 11 No. 6

Our cover: This ram's head door knocker was forged by Darold Rinedollar. Photo by Jim McCarty.

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).

BAM Membership Application

Name: _____

Address: _____

City: _____ State: _____

Phone: ( ) _____ 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: _____ State: _____

Phone: ( ) _____ Zip: _____

❑ New Member ❑ Renewing Member

How did you learn about ABANA? _____

_____

_____

❑ Regular Member .....$35 yr.
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❑ Contributory .....$100 yr.
❑ Public library .....$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

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

MasterCard ❑ VISA ❑ Check/Money Order ❑

Card Number

Exp. Date (Required)

Checks must be in U.S. currency
SEND RENEWAL TO:
ABANA
P.O. BOX 1181, NASHVILLE, IN 47448 (812) 988-6919
Dues Distribution:
1 year subscription Anvil's Ring: 68.5 % $24
Adm. offices & other ABANA projects (Conferences, etc.): 31.5% $11

BAM

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.

Editor's anvil

A while back Bob Woodard was collecting blacksmith-related sayings. Here's a new one for you Bob — Breaking the ice. That surely must be a reference to what most of us have been doing before we can use our slack tanks these days.

The latest UMBA newsletter had a tip that might help for those cold winter days. They recommend adding some RV antifreeze (the pink stuff) to your slack tank. Even in the ridiculously cold northern climates (why do they put up with that?) It keeps things down to just a little slush. A warning however — don't use car antifreeze(the yellow-green stuff) because it is sweet tasting and poisonous and kids and dogs will swallow some and you will wish you had your ice block back.

You've all heard the story about how someone's grandpa was a blacksmith and a few others. Here's a story from Bill Miller in the California Blacksmith that will get you squirming. It's a good tale to tell to those pests who tell you their grandpa was a real blacksmith (he shoed horses).

This story was told to me by a friend of mine just the other night. I have every reason to believe it actually happened. He grew up in a little town with about 3000 people. Everyone knew everyone else.

"When I was a 15-year-old kid in Kilhowee, Mo., I used to hang around the village blacksmith shop, turn the blower and while away the time. One day, this old tobacco-chewing farmer came in, sat down, and pulled off one of his boots and took off his sock. I couldn't imagine what was going to happen next."

What followed took my friend by complete surprise. The old farmer put his foot up on the anvil and said to the blacksmith: "That damn corn in my little toe has been hurting me like hell for the last time. Cut it off!"

Without hesitation the blacksmith picked up a chisel, put it on the toe and with one blow of his hammer the toe was gone.

The old guy proceeded to take his cud of tobacco out of his cheek, put it on the end of the toe, pulled on his sock, put his boot back on and went on his way.

My friend later asked the village doctor about it.

"Huh!" he snorted. "Ain't nothing gonna hurt that old S.O.B."

As he used to say truth is stranger than fiction.

Pretty good tale huh? I think the town he is referring to is actually Chilhowee, located near Warrensburg in West Central Missouri. Here's another story related to me by the grandson of a long-dead blacksmith. I bought a few tools from the boy's mother.

He said his dad was trying to impress his father, who had been a blacksmith for years. He picked up a 12-pound sledge and held it out at arm's length. The old man snorted and repeated the feat, only he held the horn of a 150-pound anvil instead of the sledge. "Come see me when you can do that," the old man told his son.

Got any more good blacksmith stories to relate? Drop me a line. I like to hear them and I know others would too.

I've gotten in a little forge time despite my hectic schedule and the cold weather. I made Pat's wife Mary Jo an adjustable Colonial candle stand from a photo I saw in Country Living magazine. Naturally I didn't write down any of the measurements I used but if I can recreate them I will publish the plans.

I also made a piece of chainsaw Damascus and finished up a knife made from a piece of cable.

I'm getting close to the point where the iron actually moves in the direction I want it to.

I've done even better on the tool search. In November a woman called and left a message with my wife for me to call her when I got in. Turns out she was moving and had a bunch of rusty tools that she wanted to see put back to work. I ended up getting about 30 pairs of tongs and 20 or so handled tools and two hardies that actually fit my anvil.

I also ventured far south to pick up a truckload of junk that I am still sorting through. I promise to bring my extras to the next meeting so that no one can accuse me of hoarding.

Sounds like the First Fires workshop was a huge success. I missed both that and the December meeting due to some outpatient surgery my wife had.

Lou Mueller phoned to give me the details of the workshop. He said there were 23 attending, including 7 new members and four young women. At least half of those at the workshop had never hit a piece of hot metal.

Lou thinks we may have created a monster in one Bess Ellis. She was the first one to sign up. By the end of the 2 days Bess was advising Maurice to get some different hammers. No doubt Maurice will be looking for a shop of his own soon and Bess will take over those big anvils he thought he owned!

Lou is already working on plans for the next one.

Believe it or not, it is time to be thinking about the Ozark Conference. Tom Clark has been hard at work on it and has a good list of demonstrators coming. What you need to do is forge something for the auction. I am telling you now so you can't say I didn't have time.

Gotta go — see you at Jerry's in January.

— Jim McCarty

Here's a shot of the colonial candlestand I forged for Pat's wife. The part holding the candles slides up and down, sort of a primitive dimmer switch.

Dear BAM

Dear Jim,
I am also looking for blacksmith tools to use. I've got an anvil and a very funky forge that I picked up at an auction recently. If you have any extra or duplicate tongs, hardies or swages I'd really like to discuss some kind of trade or deal with you. I also need the spring and mounting bracket for a floor vise. I picked up a real nice one several years ago and now that I've got a place to set up shop, I'd like to set it up. Most important though is coal. Where do you get yours? The only source I've been able to find is Centaur Forge out of Wisconsin — $18 for a 75 pound sack plus $25 shipping! Cheaper per pound, of course, if you get several hundred pounds. I've been doing small iron sculpture off and on for years, primarily using oxy-acetylene equipment. Since I've moved here I've entered several in the Ava Art Guild shows. I am currently working on my first restoration project, some grill work for an old fashioned bank Teller's cage. No forge work, fortunately, since I haven't got it set up yet. What kind of work are you doing? Is there a market for iron sculpture up there? My work is half way between abstract and fantasy — three legged birds, dragons and so on.
Yours truly, Brandon Smith, Mansfield, Mo.
Editor's note: I get many letters like this from people who haven't heard about BAM yet. If you've got anything to share with Brandon give him a call at (417) 924-8021.

Dear Jim,
Hope things are going well for you. I'd like to thank all of you for your hospitality this summer at the conference. I had a great time with bunch of good folks. I'm not too sure about Memphis but I do plan on making it down for Potosi. Looking forward to some tailgating, hammering and shooting the breeze.
Mike Dominas Bassett, Wisconsin

Dear Mr. McCarty,
I enjoyed my first fair, as director, very much and now find time to reflect and review. Thank you for presenting the demonstrations of traditional blacksmithing during the 1994 Missouri State Fair. Realizing that 1994 is very quickly drawing to a close, it is time to begin planning for 1995. The Missouri State Fair administration felt that the relocation of the Mo-Ag Theatre onto an all-weather surface was a great advantage to all concerned. With the changes in traffic flow and the locations of permanent barricades the "new" location was easier accessed. All indications are that attendance to the attractions were normal or possibly better than past years. Although this was your first year in the Mo-Ag Theatre, I would appreciate any input you might have regarding the 1994 location. I welcome any other suggestions that would help to make the 1995 Missouri State Fair the best ever! Again thank you for your participation.
Sincerely, Bill Arthaud, director, Missouri State Fair.

Editor's note: Please drop me a line about your feelings for next year and I will forward our comments to the director.

Pat's place

Jennifer Flores (background) and Bess Ellis get into the swing of things at the First Fires workshop in December.

I was looking forward to attending the workshop put on by the Illinois Valley Blacksmith Association at Mt. Vernon, Ill., for a couple of reasons: One was the trip through Illinois to see the fall colors. Also, I thought it would be nice to go to one workshop just to sit and watch.

The Pioneer Village is a great setting for a workshop. There was plenty of camping space and other old buildings to inspect. They have the old county jail (with wrought iron bars), a log church and two log houses. They also have an old school house, print shop, and an old general store stocked with old goods and signs. The blacksmith shop is a newer building donated to the village.

They hold monthly meetings here and have invited all to attend and demonstrate. The dates for the next few meetings are Jan. 14, Feb. 11 and Mar. 11. Call John Lovin for more information.

Roger Lorance and Gary Jameison turned out to be quite a pair of demonstrators. Both are members of the Illinois Valley Blacksmith Association.

They amazed us with their various tools and techniques. Starting with some basic techniques, like drawing a taper and then using that taper to make a fork, we went into some wild tube forging techniques. For some interesting shapes try pointing the end of a piece of tubing, then fuller it twice behind the taper to about this shape, then cut in half lengthwise. You will see what happens inside the tubing when you forge it.

I've got enough notes and ideas now to keep me busy all winter.

The food was great. Ken Markley had his bean pot going over an open fire and we had stew on Saturday.(All the Illinois members scrapped something off the road and put it in the pot for added flavor), weenies for supper and bean soup. The weather was very pleasant and the tailgaters were out in full force. There were a lot of items for the iron in the hat, from books and hooks to a pair of BAM coffee mugs and a pair of baby booties.

My thanks to John Lovin for inviting me to attend. You can be sure I'll go back.

It looks like winter finally found us here in Missouri. The weather was perfect for Hank's meeting on Dec. 3 and a large crowd was on hand. Hank impressed us with his amazing press and mosaic work. He's in the process of closing in his shop but I don't think he'll have room for his large collection of tools.

We also had good weather for the demos at Faust Park on Fri, Sat, and Sunday the first week in December. We put on a good show until 9 p.m. each night and had a lot of visitors through the shop. Faust Park has a collection of old houses and buildings that they've saved from demolition. The theme was the Village by Candlelight, but we were allowed 1 flood light in the shop to work by. We made a lot of candleholders to brighten the dark corners.

I think we may have found an excellent place for our St. Louis area members to work. We signed up Dave Norvell, who works in the park and Russ Hall from Marthasville. These two new members were also at our First Fires Workshop held on Dec. 10 and 11. The weather was cold with some snow blowing around, but with 11 forges going in the shop we weren't cold for long. Lou Mueller did a great job setting up this workshop. Lou started the workshop with an intro on fire, tools, steel and history. Then Tom Clark demo'd how to light a coal forge. John Murray instructed on drawing out and cutting on the hardy and turned every one loose at the fires. The hammering was tentative at first, but soon they were all pounding away. 22 hammers at once sounded great. Each station had an experienced helper to guide them along. It was hard to get everyone to stop for the next instructions or even lunch. By the end of the class everyone was trying various techniques combining the basics they just learned. I saw some leaves and pokers, wall hooks and a nice bracelet by Jennifer Flores. Scott Stager was making a nice handle for the frying pan he bought at the ABANA Conference. Everyone seemed to enjoy themselves. The class was so successful, what do we do next? Another First Fire or move on to Second Fire or advanced training? You can be sure something will always be happening in BAM country.

—Pat McCarty

BAM DEC. MEETING

Minutes, Dec. 3 BAM Meeting

Fourteen people took part in the trade item, which was a pair of tongs. They were: Pat McCarty, Kenny Valdejo, Bill Miller, Bob Woodard, Doug Hendrickson, Andy MacDonald, Maurice Ellis, Walt Hull, Phil Cox, Kate Dinneen, Phil Williamson, Ed Harper, Bob Alexander and John Stovesand.

Iron-in-the-hat brought in $261. Items went as follows: Steve Stunkel candleholder went to Tom Clark. Bob Woodard rake rack went to Tom Clark. John Murray bronze forging went to Andy MacDonald. Kenny Valdejo candle cups went to Phil Williamson and Mike Burch. Jim Pittman tongs went to Scott Payne. Tom Clark leaf went to Dan Scholz. Phil Williamson cannon ball went to Mike Burch. Phil Cox Barbecue set went to Steve Stunkel. Tom Rowland saw blade went to Tom Gipe. Tom Rowland band saw blade went to Al Zuger. Jim May steel went to Fred Ellis. Tom Rowland S-7 steel went to Ed Stewart. John Murray S-5 steel went to David Hoopes.

Above: Is this what they call pattern welding? Below: Hank is surrounded by a crowd that is interested in learning how he makes Damascus. The meeting he hosted drew a large crowd. Photos by Bob Woodard (Thanks Bob!).

Minutes from last meeting accepted as published in the newsletter.

New business:
Current demo (Dec. 2,3, & 4) at Faust Park. Pat McCarty is demonstrating. All BAM members invited.

Pat suggested name tag buttons to help identify new members, etc. Pat showed a machine we can buy to make our own buttons. It will cost about $100 and will be brought to the meetings.

Suggestion made to have names permanently tattoed.

Motion to buy button machine passed.

Doug Hendrickson will demo at Bill Manley's shop at Kingston, Tenn. the weekend of Dec. 10 and 11.

Bonneville Forge Council will raffle off a treadle hammer on Jan. 1. See Pat for details.

Jefferson County (Ill.) Pioneer Days discussed. Dates and details in newsletter.

Lou Mueller spoke on ABANA Conference
- Generated a profit of $60,438.18.
- BAM got $3,000 cash and the forges we built, which we are selling (Sold $3,000 so far).
- One forge donated to agricultural forge shop in Central America.
- St. Louis conference set records for attendence and profit.

Send applications for Tom Clark Fellowship to Maurice Ellis.

Tom Clark spoke about Ozark Conference.
- Date set for first weekend in May.
- Clifton Ralph and Clay Spencer will demo on Saturday. Hank Knickmeyer, Todd Kinniken, Jerry Hoffmann and Bob Patrick will demo on Sunday.
- We will set up on Friday morning. There will be teaching stations in the afternoon and contests in the evening.
- Auction items were encouraged.
- Conference fee will be $15 for members and $40 for non-members.
- More to come.

Meeting adjourned.

BAM Bulletin Board

Got something you need or need to sell? Just jot it down and send it to the editor, Jim McCarty, Rt. 1 Box 20, Loose Creek, Mo. 65054. Be sure to let me know if you want to run it again. All Classified ads are free.

For sale: Two 200 pound steam/utility hammers. One 30 hp LeRoi Rotary screw air compressor, two cast iron blacksmith tables with round holes — one is 28" by 78" (1,700 pounds), the other is 28" x 48" (1,300 pounds). Call Mike Dominas at 414-877-3728, PO Box 93, Bassett, WI 53101.

Good stuff — I have the following items for sale: Champion 400 blower, $50; Buffalo Climax blower $50; (Both blowers in good shape, stand tall on metal legs) 18" round rivet forge w/clinker breaker, no blower, $30; post vise w/4" jaws $35; Buffalo post drill, perfect shape $35. Small bench vise $10. I also have misc. hammers and tongs, good starter stuff for beginners that I will sell cheap. Jim McCarty, Rt. 1 Box 20, Loose Creek, MO 65054 (314) 897-4111.

If anyone is looking for an electric blower there are four of them for sale at the flea market located on Highway 63 north of Cabool. These are the ones we have been buying at Hood's for $15 — they are priced at $5.50 here. I am using one on my coal forge and Pat has one on his gas forge with satisfactory results.

Free forge: Well sort of a forge. I have the beginnings of a good forge. It is about three feet off the end of an old boiler with a piece of heavy gauge pipe running through it for an air supply. Just needs some clay or refractory cement dumped in and a blower to make a decent forge. Yours free for the asking. Contact Jim McCarty, (314) 897-4111.

25 pound Little Giant, good shape, needs motor. Old style manufactured around 1914, has metal to metal clutch. $700. Jim McCarty, (314) 897-4111.

For sale: Diacro Spartan Roller, Model #4, 24-inch $350. Niagra 30-inch slip joint brake $325 or make offer. Homemade 30 inch brake, needs some refinement, $50 or make offer. Emil Bubash, (314) 892-4086, 3151 Lin-Tel Rd., St. Louis, MO 63125.

For sale: Small Buffalo Forge in good condition with attached hand blower similar to (or identical to) one pictured in March-April Bulletin Board page 17 for $100. Also 150 pound anvil for $150. Harry Stoeckle, 2226 Sheperd Blvd., Columbia, MO 65201 or 314-449-6363.

From my Rural Missouri ad comes the folowing (tell them Jim McCarty sent you) For sale: Tiger blower, has 5-legs, $100. Some small tools also. Norman Hughes, Ozark, MO (417) 785-7649.

For sale: Heavy duty post drill, excellent condition. Has a flat flywheel that can be used with a belt. $50 (firm) Raymond Peters, HC Rt. 81, Box 8189, Cassville, MO 65625. (417) 847-3628.

For sale: Forge blower on stand, dated around 1900. Make offer. Bruce Wright, HC 71, Thornfield, MO 65762 (417) 265-3588.

Another post drill: Looked like a Champion to me — real good condition. Asking $50. Lavon Ernster, Buffalo, Mo. (417) 752-3374. (Editors note: LaVon was moving when I bought some stuff from her in November. She may have some other stuff she has uncovered. This is a real nice drill.)

For sale: 25-pound Little Giant, completely rebuilt, $2,000. Jim Hunt, 230 NW 11 St., Warrensburg, MO 64093. (816) 747-7965.

Good old forge for sale, cast iron bowl, blower mounted underneath, wood handle over the top, good condition. Will throw in 2 tongs. $100. Tom Carman, Rt. 2 Box 140-A, Marceline, MO 64658; (816) 272-4452.

Classified ads are free to BAM members and anyone who has something to sell to a BAM member (which should cover just about everyone). Send your ad to the editor, Jim McCarty, Rt. 1 Box 20, Loose Creek, MO 65054. Ads will be run one time only unless you tell me to run it again.

ABANA Artist-Blacksmiths' Association of North America

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

December, 1994

Dear ABANA Chapters,

The ABANA Board once again held its annual Budget Meeting in November at Emmert and Jane Studebaker's remarkable facility in Tipp City, Ohio. It was an excellent meeting! For the first time since its inception, the Hammer's Blow is "paying for itself." We are no longer funding it as a special project, it is a regular part of the budget. And that is not all! From 1995 on, the Hammer's Blow will not only be mailed to the North American members, but the entire ABANA membership. There are many other exciting things to look forward to in the coming year!

Just prior to the annual meeting, ABANA Board member Tom Clark found it necessary to leave the Board, due to problems with home and business. We wish Tom the very best of luck in all his endeavors, and thank him for his energetic efforts on the Board in service to the ABANA membership. The Board, in accordance with its by-laws, moved to fill the position without delay. Please join me in welcoming Charlie Schultz to the Board! Charlie will fill Tom's unexpired term.

We have a new ABANA President! Joe Harris from Elkview, West Virginia brings with him a wealth of knowledge and experience. Joe has a strong background in business and finance, and is well familiar with the business of the organization. All this adds up to a very highly qualified and competent leader. It has been my pleasure and honor to have served the ABANA membership in my capacity as President to this point, and I look forward to using my own special skills to help ABANA in brand new ways during my remaining tenure on the ABANA Board.

We would be pleased if you could begin sending ABANA's new president
your chapter newsletter in place of my complimentary subscription:

Joe Harris, ABANA President
1 Maple Lane
Elkview, West Virginia 25071

This is my last opportunity to remind you that our most precious resources aren't coming out of the kitchen tap. Our most precious resources are our eyes, ears, hands, feet, lungs; all those things that make us the vulnerable humans that we are. It is up to us to protect those precious resources with everything we have at our disposal. Ours is a craft that has been called the "king of the crafts." It deserves respect! Please, for your sake, for the sake of your family; wear and use all the protection available to us today.

Thanks again to everyone who made my tenure as President so rewarding!

Warm Regards,

Clayton Carr
Outgoing ABANA President

New beginnings for Tom Clark

Former President Tom Clark may have slipped into the background at BAM, but he's not out of the picture. A blacksmith course, the Ozark Conference and getting a loose screw tightened are just a few of the things he's working on.

by Tom Clark

When I first got bitten by the blacksmithing bug some 25-plus years ago I bought tools from an old shop near me. The blacksmith had died a few years earlier.

I was always fascinated by a man hammering a hot piece of steel on an anvil. I had vague memories of my father doing these things when I was very small, but had no real contact with the craft. So with my newly required toools I took it upon myself to make something and the frustration started. I like to have never gotten the fire started and when I did I couldn't get the big piece of railroad track I was going to make a set of fireplace andirons from hot enough to forge.

I head about a new book by Alex Bealer. I bought a copy and heard about a new group of blacksmiths who had just met in Georgia snd started a new club called ABANA. I sent my five bucks and started getting their newsletter.

These things helped but I was still having a hell of a time getting anything done. I could go on but you get the drift.

About two years ago I started working on a plan to help people learn the things one needs to know in order to forge steel into a desired shape.

This is in no way a new idea; however earlier attempts have had the effect of trying to classify people rather than teach them the things they needed to learn.

I have labeled this project "a study guide". I see it as an attempt to explain the beginning through advanced procedures.

There will be three categories as follows: Beginning, Intermediate and Advanced. Things outlined will be how to build and maintain a fire through the most difficult forgings.

While this will not classify anyone it will give a study course that can be used to determine one's skills. This can also be used by instructors in schools or at workshops. This way a class teaching any level will attract people who are ready for that phase of learning.

It is by no means easy to learn blacksmithing. However, we can understand the value of demonstration. Anyone who belongs to a chpater today is getting the benefit of blacksmith knowhow from across the country and around the world. Anyone who doesn't belong to both a chapter and ABANA is missing the boat. People like Francis Whitaker, Carl Jennings, Jud Nelson, Jim Batson, Daryl Meier, Hank Knickmeyer, Tom Joyce, Peter Ross, Ed Grove, Jerry Hoffmann, Doug Hendrickson and Stan Winkler and the list goes on have shared their skills with the world.

In belonging to a chapter and ABANA you receive the benefits of not only the regular newsletter-magazine but sharing all this knowledge. If you are not a member please join today. (There's an application in the front of this newsletter.)

If you haven't heard by now I have resigned from the ABANA board. Charlie Schultz, Woodville, Texas, was chosen by the board to take my place.

Some have expressed concern that I may be burned out after being president of BAM, working on the 1994 ABANA Conference and being on the board.

That is not the case at all. In the past two years I have taken too much time away from my business and I need to put myself into that hard and heavy for awhile.

Also, I am having a problem with my right arm. One of the screws holding a plate has come loose (so it is confirmed Tom has a screw loose) and that may require fixing.

In the meantime I am chairing the 1995 Ozark Conference which will be held May 5, 6 and 7 1995.

The three main demonstrators—Clifton Ralph, Clay Spencer and Bob Patrick — will each have a two-day hands on workshop Thursday and Friday, May 4 and 5 prior to the conference. Jerry Hoffmann, Doug Hendrickson and Hank Knickmeyer will also be demonstrators.

Complete details of this expanded 1995 Ozark Conference will be in the next newsletter and will also be sent to all chapters in the form of a flier.

Some Notes on Finishing Arc Welded Joints

by Walt Hull

Some of us fell into a discussion at Pat McCarty's place back in March about the admissibility of arc welded joints in decorative iron work, the case in point being the rings submitted for the ABANA conference project. I found myself saying that the standard should be the same as for forge welds: a weld is by definition the union of two pieces into one, and ideally it should not be possible to tell whether there is a joint or the piece is forged from the solid. An arc weld should not be betrayed by lumps, spatters, undercuts or grinder scars, and a forge weld should not show as a thin place covered with excess fire scale and hammer marks and marked by cold shuts. In neither case is the desired result particularly easy to achieve. Both welds must be properly designed, prepared, executed and finished. The following is a description of some of the techniques I use to finish arc welds. This is not the only way to do it, or even the only way I ever do it, but there may be something here you can use.

The object is for the welded area to match the adjacent stock in contour, texture, and color, in that order.

Designing the joint. Some joints are easy to grind, and some are impossible. If you have any choice about how the weld is located, think it over. Here are some examples: (See Illustration #1)

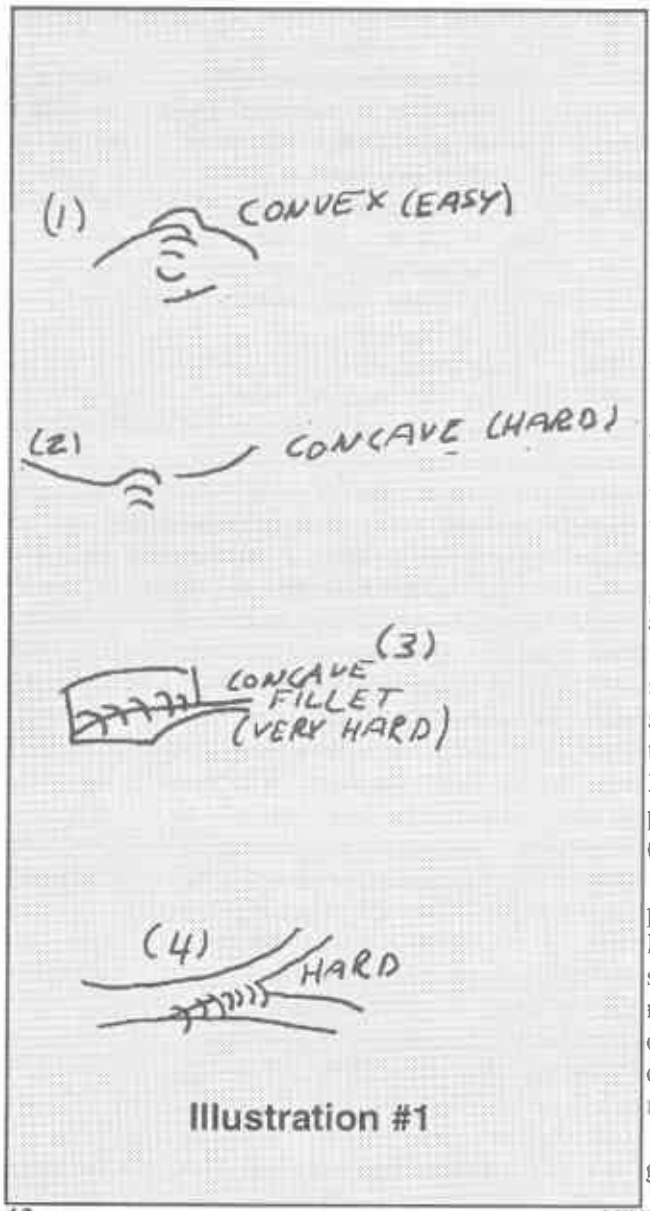


Illustration #1

Preparing the joint. Just as it is necessary to upset before forge welding to insure that thickness is maintained after the weld is made, we need to be sure that there will be enough material to permit grinding away the part of an arc weld bead that lies above the surface and still have enough left below the surface to hold the two pieces together. If the stock is very light, say 1/8" or even 3/16", it is generally possible to achieve full penetration without preparation. If the stock is 1/4", a gap should be left between the two pieces, and if it is 3/8" or larger, a grooved preparation is required: (See Illustration #2).

When joining two pieces of bar end to end, I like to use a "stump" (a scarf is sharp, this preparation is dull). Like most of my good ideas, this one came from Jerry Hoffman. (See Illustration #3).

This provides a vee-groove preparation and a little extra material for the grind in the same operation. When you weld you may find a little undercut at the edges, but there is also typically a little shrinkage of the material close to the weld, making it necessary to do extra grinding to get rid of the sharp transition between the bead and the parent stock. The stump avoids this problem.

Fitting the joint. All the time you spend getting a good fit you will get back grinding, and the less grinding you have to do, the less final finishing there will have to be. Wide gaps mean too much weld and distortion of the adjacent metal, welds "drawing" excessively, and so forth. Misalignment simply cannot be corrected, short of cutting the weld apart and starting again. If it doesn't fit when you weld it, it won't ever fit.

Welding. No matter how good a welder you are it is seldom a waste of time to start the job by running a few passes on some scrap of the same weight as the material you're going to be working on. Then if the welder's not set right, or you're out of shielding gas, or you don't have a good ground, or you need a new tip, etc., you'll find out about it before you make a mess. With the MIG process in particular it is important to have voltage, wire speed and stick-out balanced to get the best bead without undercut or cold-lapping or excessive splatter. Make it easy on yourself. Get in a comfortable position. Make sure your lens is clean. Plan your welds. Tacks make lumps under the bead when you go back over them, so put them where they'll be easy to grind away. Weld toward a strong tack or an earlier weld to limit distortion. Remember that vertical up gives better penetration, vertical down gives a smoother bead and concave fillets. Remember that the start of a weld is colder and tends to show a bulge while the end of a weld leaves a crater. Think ahead and you can use these facts to advantage.

Grinding. I do 90% of my finishing with a 7", 36 grit hard disk. To make this work you have to first do all of the stuff above. Though there's a time and place for everything I mostly don't

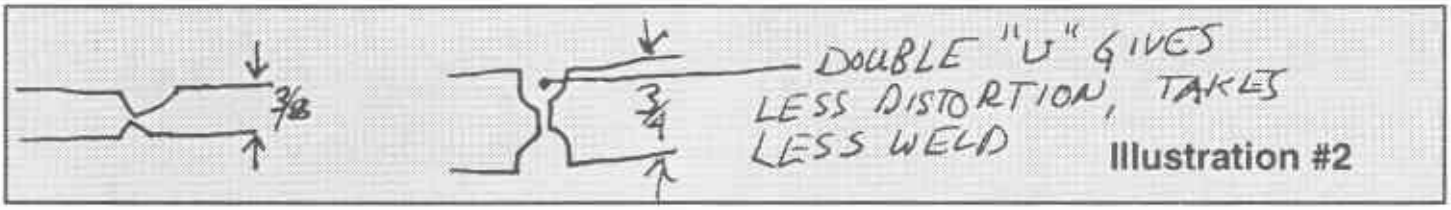


Illustration #2

think much of "blending" with a sanding disk. Usually it is used as a substitute for a good fit, and in that case it leaves dishes or "duck ponds" which will always show.

To get a decent job with a grinder you have to hold it flat to the work, or pretty close to flat. If you hold it flat, you will have to use more pressure to keep the stone cutting. How much pressure depends on a lot of things, including the hardness of the workpiece, which in turn is related to its temperature. I like to grind on a weld that's had a chance to cool a little because I find it a little easier to gauge the proper pressure. Too little and the abrasive particles will dull before they fall away, too much and the stone will clog and glaze up. With just the right pressure the stone will cut fast and surprisingly smoothly. It takes practice to find the sweet spot, but when you do, you'll know.

More important than holding the stone flat to the work is maintaining a constant angle so that the surface in contact with the workpiece wears flat. If the stone is allowed to become rounded it will be impossible to produce a flat surface.

Clamp the workpiece securely. My rule is, "if it weighs less than you do, clamp it down." This is not only safer, it's faster and gives a better job because you can keep the stone cutting and maintain proper angle without having to chase the work around the bench. When the grinder is cutting well it exerts considerable sideways pressure on the work and can push fairly sizeable pieces off on your foot.

The rotation of the cutting surface should be 90 degrees to the length of the weld bead. Exert pressure on the grinder as you pull it toward you, let up as you move it away. This makes it much easier to avoid gouging while still cutting rapidly.

Move the grinder slowly. The slower you move it the finer it cuts. Move just enough to let the work cool and to see what you're doing.

Perhaps most important, quit when you get done. All that material around the weld is already the way you want it. Grind as little as possible beyond what is required to remove all the weld bead.

Leave your welder running while you grind and fill in those little pits and undercuts as they show up. You can't grind out the low spots.

Final finishing. I usually follow the grinder with a file. If I've obeyed all the rules above and got a good grind I can often file out all the grinder scratches in fewer than a dozen strokes. I prefer the file to the sanding disk when I can use it because it is easier to file flat than to sand flat and the resulting texture is normally not detectable under paint. The sanding disk leaves a texture which is noticeably shinier than mill finish or forged surfaces and stands out, especially under glossy paint.

The only kind of file worth using is a sharp file. Lift on the return stroke, don't let your file bang against other files, and use the whole length of the file and they stay sharp quite a while. My favorite file for flat work is the Nicholson "Magicut" 10" flat file, which cuts almost as smooth as a mill bastard and much faster. If the file wants to skid on the work and not cut, slow down. As with the grinder, too much speed dulls the file, too much pressure clogs it. The file cuts much faster on hot metal (it does extremely well just as the iron goes to blue), but it dulls faster; heat is hard on those fine cutting edges. I try to turn the file over every stroke or two on hot work to keep heat from building up.

Matching color and texture. If the piece is not to be painted, then the ground/filed area must be heated to make it match the color of the adjacent stock. Heat it hot enough that scale flakes off it and wire brush as it cools if the neighboring area is mill finish. If the parent stock has been forged then the weld area must also be forged to make it match. In this case you should not grind down all the extra upset from your "stump;" hammer it down instead. Forging over the weld area is best done at a bright cherry or hotter.

Miscellaneous: For fillet welds I use a die grinder with a 3/8" solid carbide "tree" shaped burr and follow with a 10" round bastard file. For removing splatter I have two "BB boppers." One is about half of a 10" flat file ground like a wood chisel, and the other is about a 6" dagger shape forged from an old file (thanks to Jim Waller for this design). Both have handles welded on—1" round works well to give you something to hold onto and also to give the tool a little extra mass. I draw a little temper on the business end so they don't chip so badly. The chisel works well on flat surfaces and the dagger is good for concave areas, like the insides of scrolls. It works on fire scale, too. A knotted cup brush on the little angle grinder is good for splatter, but it won't reach the tight places.

There's more to this, but these are some things that work for me. Happy hammering, Walt

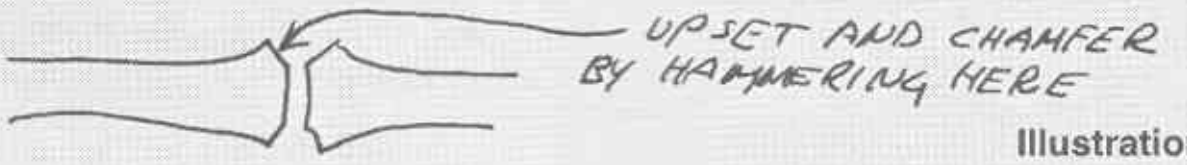


Illustration #3

1. Upset and scarf one end of a piece of 3/8 round, 2 feet long, then bend it into a loop that touches itself. Flux, bring the joint to welding heat and weld. Cut off 6 inches from opposite end, use to form hanger.

2. Use the horn of the anvil to center the loop you just made. Cut through the loop opposite the weld. true up the ends, taper slightly and bend 90 degrees apart. taper slightly and bend 90 degrees ap

3. On the opposite end taper and form a hook to hang it from, keeping the hook centered so it hangs balanced.

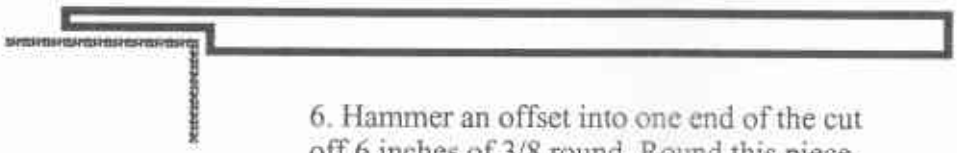
4. Form the rests for the candle cups by pressing one of the curved ends against a sharp corner of your anvil with 1/2 inch above the anvil and driving it flat against the anvil face. Drill for a 1/8 rivet.

5. Install two 2 3/4 inch drip cups and candle holders as shown below with a 1/8 inch rivet. set rivet with a piece of 3/4 round with a hole the size of a rivet head drilled in the bottom.

Quickie Candle Holder

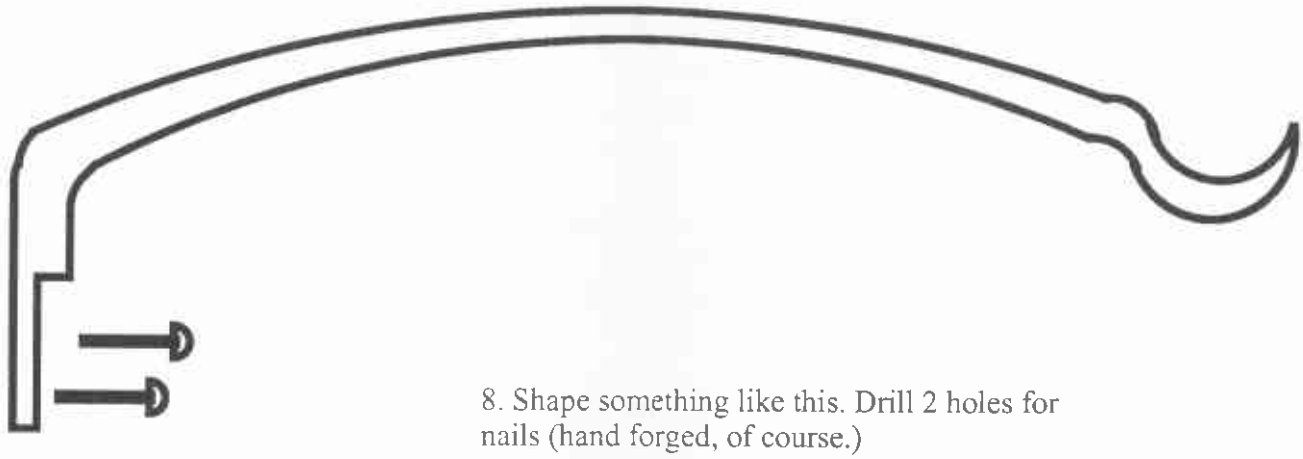
by Jim McCarty

This is another project I learned from Jerry Darnell during a class on Colonial Lighting he taught last summer at the John C. Campbell Folk School. He said these were originally ship lights but later came into use in homes where they were used to light stairways and corridors. He used one piece of 3/8 round that is about 2 feet long to make both the holder and the hanger. Jerry made this piece in about 15 minutes, not counting the cups and the assembly. It would make a good demo piece for craft shows and the like, assuming your road forge has a deep enough fire pot to weld in. Occasionally Jerry will flatten about 2 inches of the stem one third of the way from the top and put a barrel or other twist on it. To make the barrel twist flatten a section, get it hot and clamp in the vise, then twist while pushing towards the vise.



6. Hammer an offset into one end of the cut off 6 inches of 3/8 round. Round this piece into an oval shape like you were making a spoon.

7. Bend a hook on the other end.



8. Shape something like this. Drill 2 holes for nails (hand forged, of course.)

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

Sources

Spatz paint is available at Alpha Coatings in Washington. Mo. Call them at (314) 390-3903.
Laser etching can be done on your projects by Dan Fredrick or Jenny Thuli in Hermann, Mo. Call them at (314) 486-5500.

Bitsbars

I have searched for years for a solution to the perpetual problem of how to store short ends of iron. I have shelves, bins, buckets, and tins of every shape and sdescription filled with bits too long to throw away but too short to store properly. I tried all sorts of things but nothing seemed to work satisfactorily. I can never find a piece I know very well I've got, somewhere.

Then the idea of the bitsbar hit me. (Sometimes the power of my brain scares the hell out of me.) A bitsbar is simply a bar of bits. To make bitsbars you simply lay all of your short lengths of bar, angle, flat or pipe separately of course, in a length of angle iron to keep them straight and tack weld them into 6 foot lengths or longer if you want, and stand them in a rack. When you want a length of a particular size or section you can either break it off if you find the bit on the end is the right length, or you can cut the corrrect length off. If you have a bit over, tack weld it back on the end of the bitsbar. The shorts are always in sight and you always know how much of it you have left.

— Jo Mazzoral, Western Australia
Forge Talk

Stop the heat

Brownell's, the gun accessory company, has a product that might prove useful in the blacksmith shop. It's called Heat Stop and is recommended to keep heat from spreading when soldering, welding or brazing. According to the catalog description, the stuff is a paste that is used by paramedics to keep accident victims from being burned when they are cut out of a vehicle with a torch. They also claim you can heat a rod red hot and hold the treated end in your bare hand without feeling the heat. If that's the case it should work well for tempering knives without burning up the edges or for keeping the tip of leaves intact when you forge weld them to a stem. The stuff sells for $8.68 for a 1 pound jar. Call Brownells at (515) 623-5401. They also list a lot of other stuff that would be nice to have.

Finishing touch

Allen Kress uses an old towel rolled up and tied tight as an applicator for applying Dr. Iron type finish to his iron. He keeps the finish in a small paint can with a lid and the towel roll is sized to fit inside. For really tight places he had a piece of 1/4 inch round flattened and slit on one end. Into this he slid a piece of cloth about 1 inch wide and 3 inches long. This worked well for putting the finish inside candle cups, etc.

Cheap tool steel

Ever consider using railroad spikes for something more than wizards and knives? They should make excellent chisels and punches, since they are already close to the shape you need. You can cut the head off or leave it on for a larger striking surface. Look for spikes stamp with HC on the head for high carbon steel. The new spikes, I am told, have higher carbon content than the old ones because they are put in by a machine. I have seen some stamped with either a W or M, which could mean mild steel??? Anyway these spikes work much easier than the new ones which would support the lower carbon theory. If anyone is an expert on spikes drop the editor a line and fill us in.

Heat beats rust

Give Tom Clark credit for this one. When I asked him how to free up my new haul of rusty tongs he said to forget WD-40. Instead he recommended putting them in the forge and working them real easy once they got hot. This works great. I let them get cherry red and gently pried on the reins and they all popped loose right away. Be extra careful not to over heat or to bend or sheer off the reins, especially with tongs that are made from wrought iron. Another rust-removal method Colin Campbell swears by is to put the rusty iron in your rain barrel and just wait. I've been told the acid in the water does the trick. You will want to carefully dry and oil the tool after removing it from the water.

Safety tip

On the surface the drill press appears to be one of the least dangerous tools in your shop. This is true if you take a few precautions. The most important rule for drill press work is to always clamp the piece being drilled so it can't move. I don't know how many times I've seen people with bandaged fingers who thought they could hold a piece while drilling. Let the bit grab just once and you might lose a finger for your carelessness. Another must is safety glasses. Recently I had a drill bit grab and the bit exploded into three pieces, which I am sure breaks at least one of the laws of physics. Two of those pieces hit me in the safety glasses! When a drill bit grabs something has to give. It might be the belt, it might be a circuit breaker, but

chances are the bit will break or the piece will begin spinning around if the piece is not clamped.

Top tool tidbits

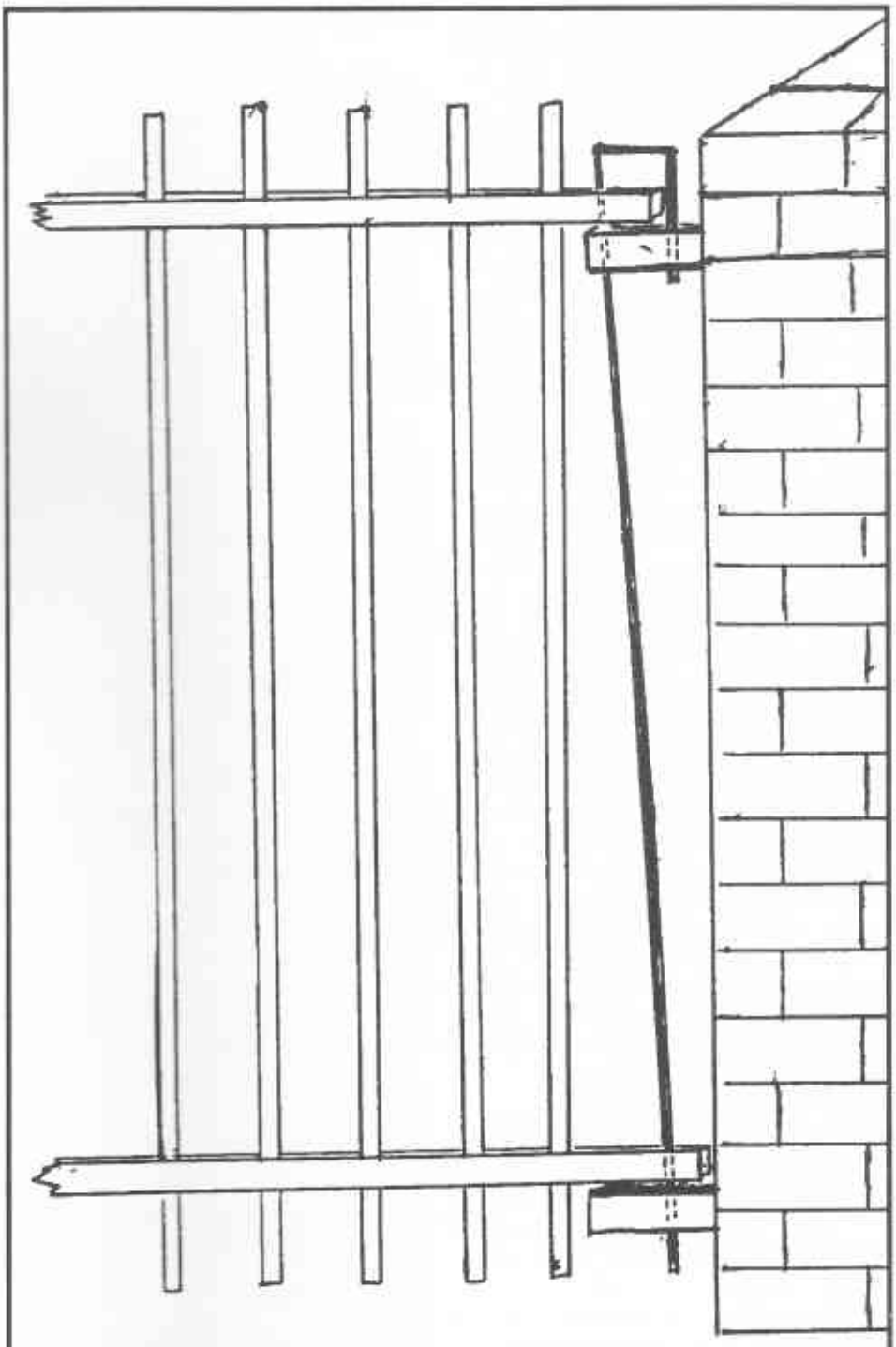
A large top tool has more inertia. If you strike that tool with a hammer, it will absorb the energy it needs to begin moving and then transfer whatever is left to the work piece. The bigger the top tool, the more energy it will absorb. The way to defeat this is to either strike the tool harder, get a bigger hammer or use a smaller top tool. Match the tool to the work you are doing — you just do not need a big chisel to split the end of a small piece of metal. A smaller top tool will permit you to use a lighter hammer and still get more work done with a lot less fatigue. This is important over the course of a full day's work. If you are working on big pieces that contain a lot of heat and are very thick, like drifting or punching the eye of a hammer, a large tool is the correct choice. If you are making a small hole, slit, split, groove or drift something under approximately 1/2 inch, use something smaller. There isn't enough heat in the piece to ruin the tool and you will complete the operation much faster. Trust me — try it you'll like it.

— Franklin Garland, UMBA

Vise hardy hole

Here is a jig that will let you use your hardy tools in the vise. I saw this used at the Early American Wrought Iron Conference in Dover, DE in Sept. 1992. Take 2 pieces of 2 inch angle iron, each as long as your vise is wide. Fabricate 2 spacers, such that when they are placed between the 2 pieces of angle iron you now have a hole which is the same size as your anvil's hardy hole. Weld the four pieces together. You might want to make a couple of these. If you already have come across anvil tools which have a shaft that does not fit your anvil you could still use them. Obviously this will not work with tools that need the support of the anvil's face, such as spring fullers.

—Albin Drzewlanowski, Blacksmith Guild of Central Maryland



Self closing gate

In my travels to Covington, Ky., I noticed a gate with a simple but different hinge. The gate was mounted straight to the post. To close up the space between the gate and the post the hinge pin was inserted on an angle. But when the gate was opened the top of the gate leaned forward causing the gate to fall to the closed position.

—Emil Bubash

BAM NEWS

BAMers doing demos

I see from some of the other newsletters that two of our members are doing demos for other chapters. Doug Hendrickson is the feature of the Appalachian Area Chapter's December meeting. Their newsletter says Doug is a professional artist blacksmith having practiced his craft since receiving his master of fine arts degree in 1968 from the University of Minnesota. And we thought you came by your skills honestly, Doug.

"Mr." Bob Patrick will be one of the demonstrators for the 1995 Indiana Blacksmith Association conference in June. Conference chairman Fred Oden had some nice things to say about Bob. By the way, their conference is June 3-4.

Museum trip is on

There's still time to take part in the BAM trip to the Metal's Museum Jan. 14 and 15. We will be taking part in a three state hammer-in featuring Steve Yusko, Jim Wallace, Jorgen Harle, John Medwedeff, Jerry Hoffmann and Charlie McKinney on Saturday. There will also be a discussion of the ABANA exhibit on display at the museum. On Sunday short, informal demonstrations by attendees and open discussion are planned. We will be car-pooling to the museum. For more info contact Pat McCarty at (314) 239-3814 ASAP.

Our sympathy to Clifton

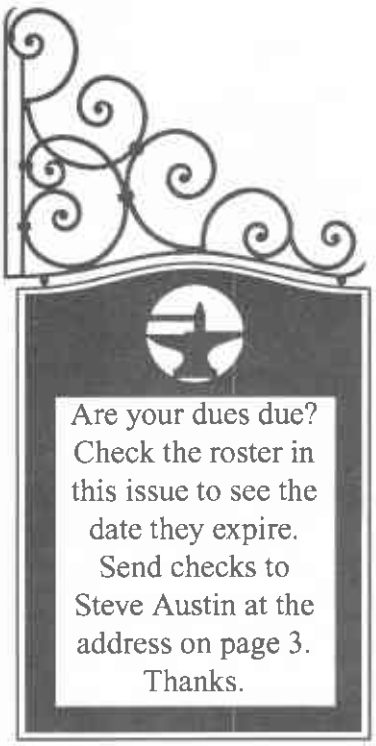
BAM extends its sympathy to Clifton Ralph, who lost his father to a heart attack in October. Clifton is one of BAM's lifetime honorary members.

An invite from UMBA

UMBA, the Upper Midwest Blacksmith Association, welcomes Toby Hickman as their demonstrator for the quarterly hammer-in to be held on Feb. 4. The demo will be hosted by Bob Bergman at his Postville Blacksmith Shop in Postville, Wisconsin. Bob is 1 hour southwest of Madison. Toby is the owner of Waylan Smithy in Petaluma, California. His demo will include power hammer techniques on the 100 pound Bradly strap hammer and on the Nazel 1B and 3B. He will also cover hand tool techniques and discuss customer relations including running an idea into a dimensional drawing with a budget. There will also be a session on forge math and finishes. UMBA sponsors Toby's demo for a nominal fee on Saturday. Those wishing to see a second day will split the cost equally. For more information send SASE to Toby's Demo, c/o Postville Blacksmith Shop, N8126 Postville Rd., Blanchardville, WI 53516.

Historical hammer-ins

Here's the dates for the hammer-ins at the Jefferson County (Ill.) Pioneer Village: Jan. 14, Feb. 11, March 11. For more information contact John Lovin at (618) 756-2331. Those who made the last one said it was a real experience. For more of what to expect here read Pat's place column in this newsletter.



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

Metals Museum Trip
Memphis, Tenn.
Jan. 14 & 15

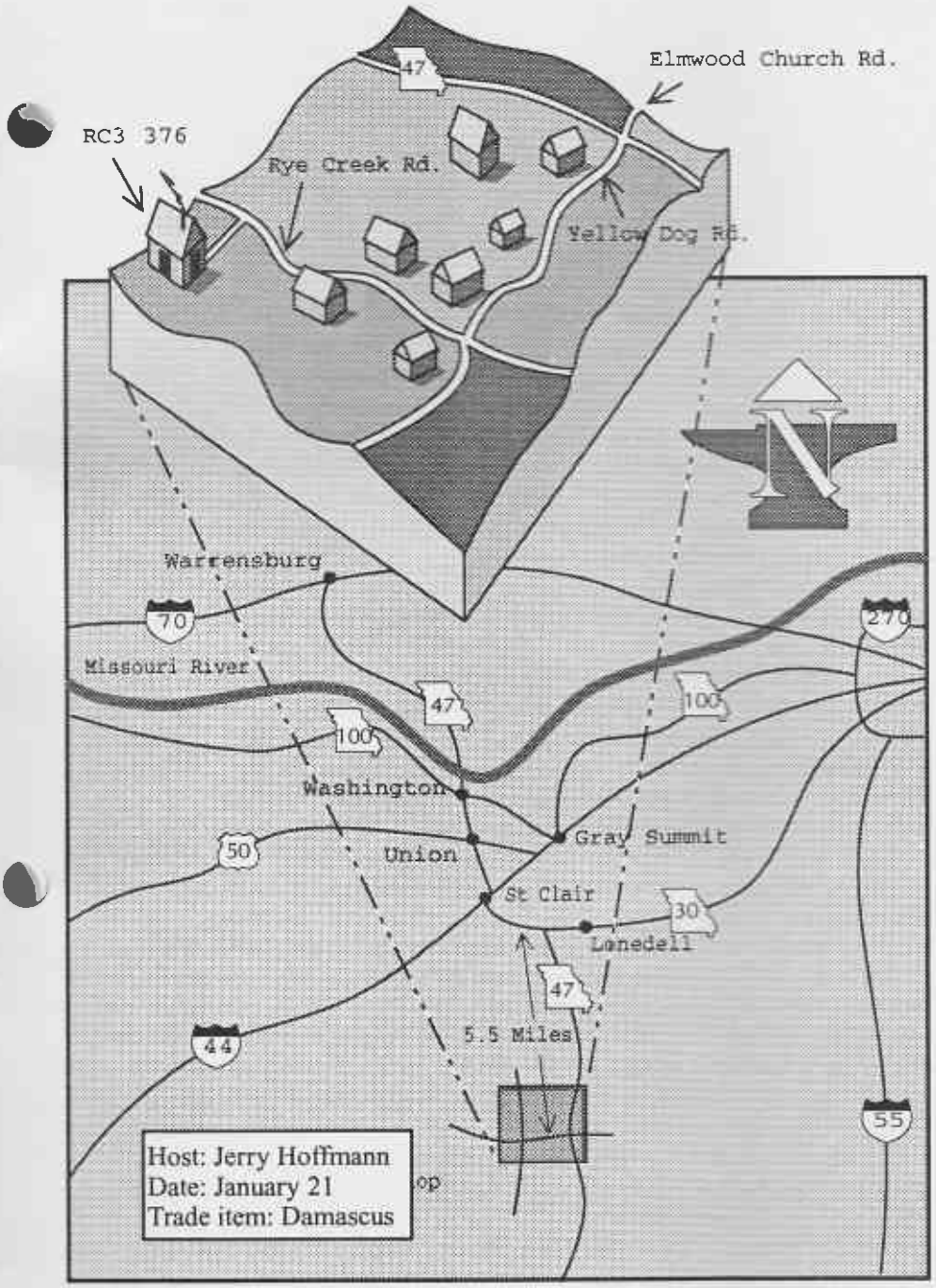
January 1995 Meeting
Jerry Hoffmann, Lonedell, Mo., Jan. 21, 1995

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



Coming attractions

Maurice Ellis is hosting the March 25 BAM meeting. This will be our first look at Maurice's shop since he moved out of the city. Maurice is located in Belgrade, Mo.

The Ozark Conference, May 5-7 in Potosi, Mo., is the next date on the BAM calendar following Maurice's meeting. This year the conference will be bigger and better than ever. Chairman Tom Clark has expanded the event from 2 to 3 days. It will start Friday afternoon. On Friday evening we will have the bonfire and contest, which will be a 2-man chain forging challenge. We'll also have the traditional world's largest bonfire.

Featured demonstrators will be Clifton Ralph, Bob Patrick and Clay Spencer. Pre-conference workshops will be held on thursday and Friday.

Expect a complete look at the conference in the next newsletter.

In the meantime, get started on your items for the auction to be held Saturday night.

Next meeting- January 21

Jerry Hoffmann is the host for the next BAM meeting. Jerry's shop is located near Lonedell, Mo. which is south of St. Clair, Mo. which is in between Anaconda and Moselle. That should narrow it down for you out state folks.

BAM president Pat McCarty has been working on a more structured agenda for this meeting. He says it will start around 8 am with the host doing some of his legendary forge work. Then Kenny Valdejo, (fireplace shovel end) and Tom Clark (Pineapple twist) will follow, never giving Jerry's Hay-Budden anvil time to cool down.

We'll break at noon for lunch and one of Pat's legendary short business meetings.

Hopefully Pat will get things wrapped up before the fire dies out. If not we'll build a new one and have an open forge, question and answer, beginners don't be bashful session at the forge.

Jerry is real good about posting signs to get you to his shop. He has plenty of room inside in case the weather is cold, but don't let frigid temperatures keep you from bringing your tailgate items for sale.

As usual, be sure to forge something for the iron in the hat. We have had a real good turnout for this so let's keep it up.

The trade item is something made from Damascus — knife, candle holder, trivet, ???? This is one you won't want to miss out on.

For the newcomers, the iron in the hat is a raffle. Items that are donated are placed on the table and you buy tickets for $1 that are placed on the item you want to win. If your ticket is drawn you get the prize.

The trade item works like this — at each meeting the host selects something to be the trade item. If you make one, you swap with someone else. This way you get a new piece of iron to study and apply your own idea to. If you don't make something — you get the picture.

Dennis Proksa forged the two pieces shown here at his Pocatella, Idaho shop. Dennis combines wood and iron in the furniture he sells. I "met" Dennis in the Cyberspace of America Online, a computer service that has over 100 people registered who list blacksmithing as an interest.

BAM
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