

BAM

JULY-AUGUST 2007



Portable Forge Cart
made by George Lewis

www.bamsite.org

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**Newsletter of the
Blacksmiths
Association
of Missouri**

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JULY-AUGUST

2007

Editor

Bob Ehrenberger

Contributing Writers

Julie Clark
Brian Gilbert
Bob Patrick
Ned Digh

Photo Contributions

Bob Ehrenberger
Scott Stager
Julie Clark
Bruce Herzog
Ned Digh

President's Message

Kirk Sullens

Mailing Labels

Bruce Herzog

The Newsletter of the Blacksmiths Association of Missouri is published six times a year and is mailed to members of BAM. The annual fee for regular membership is \$25/year; a portion of this amount is for a subscription to this newsletter for one year. Editorial inquiries should be addressed to: **Bob Ehrenberger 6192 Hwy 168 Shelbyville, Mo 63469; (573)-633-2010 or send e-mail to bameditor@centurytel.net** BAM membership inquiries should be addressed to: **Bruce Herzog, 2212 Aileswick Dr., St. Louis, MO 63129; (314) 892-4690 or send e-mail to bjherzog@msn.com.** 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.

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Web site
www.bamsite.org

Web Master
Ed Harper
aramed@grm.net

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

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From the Editor

By Bob Ehrenberger

I had hoped to have an article on getting my new air hammer set up and running. But that isn't going to happen this time. First, since this is my busy season, I haven't had the time to put into getting the hammer running that I had hoped. There was more work involved in setting up the hammer than I first thought. Finally, the BAM camera is broken so I haven't been able to take step by step pictures of the process. Sony says that the camera problem is a known defect and they will fix it for free. When I get it back in two or three weeks, I'll try to get some nice pictures and bring the whole thing up to date. One good thing to come out of the project so far, is that I had to build a gentry crane to unload it. This is something that has been on my to-do list for several years, the air hammer project brought it to the top of the list. I bought the "I" beam for the crane from Doug Clemons 5 or 6 years ago. Doug, I bet you thought I'd never get it done.

Gratefully, the summer hasn't been as hot as some years. Please take precautions when working in the heat to get enough fluids into you. While sports drinks can help with some things, the best drink is still water, lots of water. Alcohol is always bad for you when you are working. Save the beer for when you are done for the day and relaxing in a cool place.

While at conference, I purchased a couple DVDs from Roger Degner (UMBA). Roger told me that he can always tell when the BAM newsletter comes out because he gets a flood of requests from Missouri. Well I hope that the trend continues, these DVDs have got to be one of the best bargains in blacksmithing. The disks hold 6 hours of video and Roger fills them up. If the demonstration doesn't last 6 hours, he adds in additional footage to fill the disk from other

demonstrations. Now these aren't professional productions, they are all shot at conferences and hammer-ins, so you get what you would if you had attended the conference. You also get the ability to back it up if you missed something or if it doesn't make sense the first time through. So improve your blacksmithing while helping to support UMBA, add some of these DVDs to your library.

I had a good response to the What-Is-It in the last newsletter. The most popular guess was that the tongs held plow shears for sharpening. This is a pretty good guess, but wrong. The tongs were designed to hold angle iron. We had one correct response, Ethan Lee of Sturgeon



got it right and has already received his free pair of tongs from Tom Clark. Because the BAM camera is in the shop I can't include a picture of them holding the angle iron. Maybe in a future issue.

At conference, there was some concern that BAM members were not well enough informed about the availability of scholarships. So here is a reminder that the **scholarship committee awards scholarships every quarter**. I have the submission deadlines listed on page 27 in the upcoming events section.

The scholarship guidelines and application form can be found on the BAM web site (bamsite.org), they are also printed in the January newsletter each year, or you can contact scholarship chairman, Don Birdsall, and work out the application process. So take a blacksmithing course, let BAM help you with the cost, and then share what you learned with the BAM membership by demonstrating at a meeting and writing an article for the newsletter.

The September BAM meeting (September 15) is at Foxfire camp near Boonsboro. Dale Gilman, our host, wanted to make sure that everyone knew that they were invited to come on Friday to camp. You are invited to have dinner with the Gilmans Friday night. He will also show the film "How to build a flint lock rifle" and have a game of "no-peek bingo". There is also a great fishing lake on the grounds for those of you that would enjoy that. Dale and his wife Patricia would like to invite the campers to have breakfast with them. Dale has three demonstrators lined up for the meeting: Ed Harper, Doug Clemons, and Joe Wilkinson. While the men are watching the blacksmith demonstration, Fatham Claxon will lead the wives in a jewelry making class. It should be a fun and informative day. The trade item will be a lawn ornament.

Help needed. I have a conflict with the September meeting and need someone to take pictures and/or do a write up on it.

The next Newsletter submission deadline is September 18. I know that this is only 3 days after the next meeting but there are only 7 weeks between the September and November meetings and I have to get the newsletter to the publisher 6 weeks before the meeting to insure that you all get your copies in time.

Minutes BAM Meeting

7/14/07

By Bob Ehrenberger

Held in Eldon, IA.

Thanks to Larry Crow for hosting the meeting. Thanks also to Esther Crow and Dave Wright for providing the food.

Kirk talked about plans for the 2008 BAM conference. We have several domestic demonstrators lined up. Darryl Nelson, Bob Patrick, the team of Michael Bendele and Joe Bonifas, and the team of Steve Mankowski and Shelton Browder from Colonial Williamsburg.

We are in negotiations with 3 international demonstrators, nothing is final yet. ABANA will sponsor one of the international demonstrators. ABANA will also run promotional material in their publications.

We still need a knife maker to demonstrate.

We will have 3 full days of demonstrations instead of our usual day and a half.

We will still have beginning blacksmith and knife-making classes. Plus we want to have an education area up and running all the time where attendees can go and get some hands on experience, possibly with the demonstrators who are not currently busy with a demonstration.

We hope to encourage attendance by having a graduated registration fee with large discounts for early registration. The proposed fee schedule looks like: \$60 if before Jan 1, \$80 if before April 15, \$100 if after April 15.

The current conference budget is such that we will break even at 350 registrants which is just a little higher than our typical conference. Most believe that it is not unreasonable to expect 500 or more.

Kirk is hoping to get someone to handle the conference finances and not add to Bruce's treasurer load. We are still looking for a replacement treasurer.

We have gotten lots of encouragement from neighbor-

ing blacksmith groups. Kirk will look for firm commitments as the conference gets closer. He would like BAM members to have a chance at comped positions before making them available to the blacksmithing community in general.

There will be a ring project. We will complete the panel that was designed for the New York conference which was canceled. Look for more details on this later.

We also discussed the auction and catering. Kirk is looking to get input on these topics. With the possibility of a broader audience we would like to see higher priced items in the auction.

Bob Alexander is planning on holding a treadle hammer workshop. The date hasn't been set yet but he is looking towards August. So if you are interested get hold of Bob right away. Early mornings are best, his shop number is 636-586-5350.

Scott Stager gave an account of the tire hammer workshop held at Ned Digh's in June. All the hammers were completed, tested, and loaded for travel. Only one hammer had a minor problem, which Clay was able to fix. Clay is selling the plans see page 24.

There was no Iron in the hat this time.

Trade items were made by:

Larry Crow, Don Nichols, Bob Ehrenberger, and Ed Harper.



A Word From El Presidente

by Raoul (Kirk Sullens)

Hi, BAMers,

The 2008 conference situation is what has been most on my mind since our last conference, and I'm sure many of you are wondering about it, too. Here's the current situation:

First, time was too short to wait for a meeting in July to vote on conference plans. I made a decision to go ahead, and things have been set in motion.

We are NOT changing the dates for our conference (beyond adding an extra day). It will be held May 1, 2, and 3, 2008 at the Swine Pavilion in the State Fairgrounds in Sedalia. We have our North American demonstrators lined up, and they are-Darryl Nelson, Bob Patrick, the team of Michael Bendele and Joe Bonifas, and the team of Steve Mankowski and Shelton Browder from Colonial Williamsburg.

Josef Habermann, Fred Habermann's grandson, has agreed to be one of our foreign demonstrators, and we're still negotiating for a second one. More details on that as I can give them.

There are going to be lots of things that need to be done, from assistance organizing to grunt work, and I'll need help at all levels. If you're willing to help, please contact me. We've been offered help by all the ABANA affiliates surrounding us, and a few from farther away, and I hope to use that help so that BAMers get a chance to see some of the conference, and don't have to work the whole time and miss everything.

BAM is NOT borrowing any money from ABANA to run this conference, but we're gratefully accepting their assistance in sponsoring one of our foreign demonstrators, and in advertising our conference. Clare and the ABANA board have been very supportive, and I thank them for being behind me on this.

Phil Cox will be organizing a display of "The History of the Power Hammer", and we expect to have quite a variety of old hammers. Sid Sudemeier of Little Giant Power Hammer Co. will be bringing the first and last 25# Little Giant's ever made to celebrate the 100th birthday of the 25 pounder.

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There'll be a lot going on, but the demos will be organized so that attendees will be able to see every demonstrator there.

Rome Hutchings will be overseeing the ring project, and we'll be publishing more info about that project soon.

There will be much more information to pass on to you as the year goes on, but for now I think things are happening quickly but smoothly.

We all missed the May meeting at Don Asbee's, but many of us went to Lesterville for a farewell party for Doug Hendrickson. Those of us who knew him will miss him. Those of you who didn't know him, well... you missed something!

The July meeting was held at Larry Crow's in Eldon, Iowa. About 18 of us made it there, which was good for me because I found a good, big leg-vise and a machinist's tool box on a tailgate, and nobody got there before me for a change! Larry showed some cool jigs and specialty tools that demonstrated excellent problem-solving ability on Larry's part. We topped it off with a great, chuck wagon prepared lunch, with peach cobbler and ice cream for dessert. And to top it all off, I got to play with some horses, which I recently discovered I like a lot.

Don't forget to call Peggy Williamson and sign up to demo at the State Fair in August, and come to the September meeting at Dale Gilman's at Boonsboro, MO.

See you at the Fair!

El Presidente Raoul
Kirk Sullens
kirk@kirksullens.com
h:(417) 863-8628
w:(417) 225-7538

Please put "BAM" in the subject line of any e-mails you send me.

Larry Crow Shows his Stuff

By Bob Ehrenberger

We had a fairly small gathering at Larry Crow's shop in Eldon IA., with only 15 or 20 in attendance. A lot of these guys were from Northern Missouri and Southern Iowa and have a hard time making it to meetings in the lower part of the state, so this gave them a rare chance to participate.

Larry started out by giving us a little background on who he was and how he got into blacksmithing. He used to be a salesman and auctioneer, a real suit and tie sort of guy. Like a lot of us, he started out as a hobbyist, and then started to sell a few items. Finally he hit a point where he started to think, "I could really make a living at this." His wife Esther was not all that sure and sometimes misses the man she married, especially when he comes in from the shop covered in coal dust and sweat. Most of Larry's business is from his web site and custom work. He also has a small blacksmithing school where he can take on 3 or 4 students at a time.

Larry has a practical view of blacksmithing as a business. He uses whatever tool or jig will get the job done the fastest. As an example of that, he told us how he used to clean the scale off of chain for his pot racks using a bench grinder with a wire wheel on it. Then one day the wheel got a hold of the chain and started whipping it around. It ripped Larry's glove off and he nearly lost a finger. Before he cleaned another piece of chain he built a tumbler by gearing down an old cement mixer. Now all small objects get cleaned in the tumbler, which not only saves him a lot of time, but does a better job. Likewise, when he started to sell a lot of paper towel and TP holders he made a jig to bend them on so they all came out the same, straight and level.

Larry built an old style Smith'n Magician (SM) which he likes more than the new version because it has a more open design. The SM is permanently mounted on a small anvil surrounded by tons of special tooling. He has used his SM so much that most of the top dies have had to have new tops welded on to replace the sections that had become mushroomed.

Larry has incorporated a simple leaf into almost all of

his products. It doesn't take that long to make, and the products sell better with a leaf on them than the plain versions. He can also charge a little more for things that are dressed up.

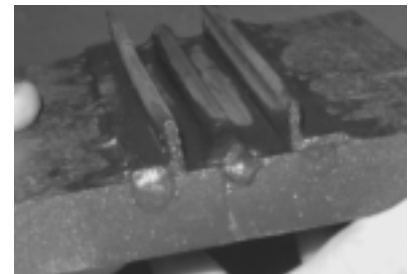
The shop forge is run on coke, not nut coke like Tom Clark gets, but great big chunks of the stuff. Larry's brother-in-law got a deal on the stuff which he passed on to Larry. In order to burn it, it has to be broken up into a more reasonable size. A special crusher was built for the purpose, a steel box with a heavy grate in the bottom. The chunks of coke are driven through the grate with what looks like a soil compactor into a bucket below.

Larry started out his demonstration by making a decorative handle. He started with a piece of 1" 11ga. square tubing. He heated each side with a torch and then systematically collapsed the tubing using a special jig and his treadle hammer.

After collapsing, the piece had an "X" cross section.

Four pieces of 1/4" round were then tack welded into the creases of the piece. The ends were fluxed and forge welded into a solid piece.

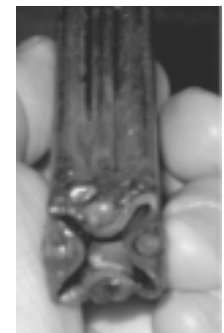
The whole piece was then heated and twisted giving the appearance of a bundle of 8 small pieces twisted together. At this point, the piece can be used as a component in a larger item, or the ends could be forged to make it into a door handle.



Jig to collapse tubing



Tubing after collapse

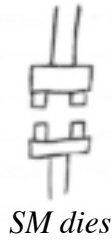


Tubing with rods added

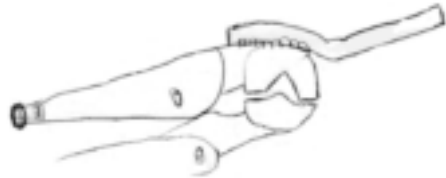


Finished piece

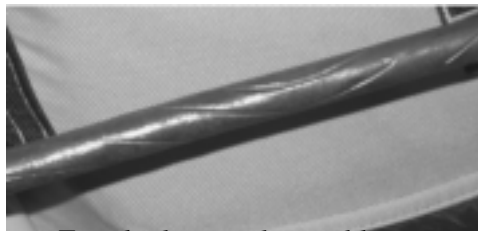
The next demonstration was doing a decorative twist on a round bar. A special Smith'n Magician tool was used to score four lines on the bar at once. The tool consists of 4 short pieces of 3/8" square, 2 on top two on the bottom. Care must be taken to line up the grooves since the tool only marked a short section each time. The idea was to have four continuous lines on the bar. He then heated the whole bar and used a special twisting wrench to twist it that he had made from a vice grip designed to grab a nut. It made a very attractive piece.



SM dies



Twisting tool



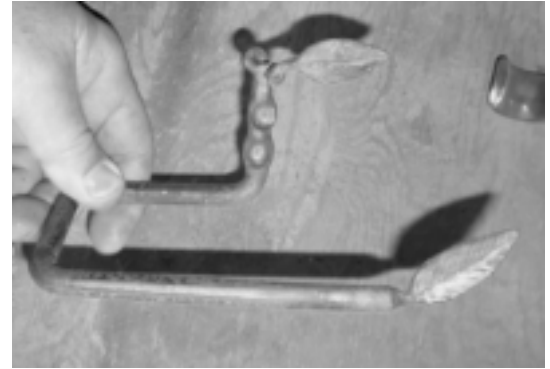
Finished twisted round bar

The next demonstration was one of his TP holders. Larry started out by making a simple leaf on the end of a 3/8" round bar. To make the leaf he forges a point on the end of the bar, then uses fulling dies in the SM to create a shoulder to terminate the leaf. He tapers the back of the leaf so there isn't too sharp of a shoulder. The body of the leaf is flattened out, and then the tip is flattened out. He uses a blunt chisel to make a vein down the middle and then textures it cold with a sharp cross pein hammer. Some leaves he leaves flat and some he curves. When he wants to curve a leaf he again uses the SM with a "V" block on the bottom and a small fuller on top. After the leaf is done, he draws out a 2" or 3" stem. He uses a ball punch in the SM to make two depressions where he later drills screw holes. A right angle bend is made just below the screw holes. The piece is then clamped to his bending jig where the two corners are made



SM with V block and fuller

by spot heating them and bending around the jig. An empty TP tube is used to determine the final length of the holder, room is left for the finishing leaf. The bar is heated and cut using the SM. Then a leaf is made on the end. The final step was to use a torch to twist the stem of the first leaf into an attractive shape.



Finished TP holder

Larry's final demonstration was showing how he makes the bend on a three legged base. His jig has a 102°. He clamps the leg to the jig, heats it with a torch and then bends it to match the angle of the jig. The third leg is welded onto the center of the bend.



Group watching the demonstration

Larry Crow Getting the fire ready



Student forging area

Some Memories of Doug

By Bob Patrick

I met Doug Hendrickson when he and his friend, Lee, were looking to move to Missouri and they were looking at various areas. Doug stopped in my shop, and I knew he was different because he was not nearly as interested in the hinges I was making for a client, as looking at the junk pile in the back of my shop!! This was about 1979 or so. Anyhow, I don't remember how long Doug visited, I remember that and finding out that he had been an art instructor and had done bronze casting, as memory tries to serve me at this date, doing a lot of casting lettered plaques.

Not too long after this, I was at a festival or something of the sort and either Steve Austin or Don Asbee (I think it was Steve) told me that they were having blacksmith get-togethers. So, I went to some get-togethers at other people's shops and had some at my own shop and Doug was at some of these. It was apparent that he was a pretty entertaining fellow. We started having parties at some of these Blacksmith meetings and Doug was definitely the life of the party. He played his White Lady Banjo, and I would try and play guitar and fiddle, some of the other members played as well. In 1982 there was an ABANA Conference in Ripley, West Virginia, and Doug was there along with some of the other blacksmiths that had been getting together in Missouri. I remember he had a little too much beer and could not get his banjo, which he was carrying all over the place, tuned. At this Conference, I met Bill Callaway, from Arizona, who had just started an ABANA Chapter, and he helped me get connections, which eventually led to BAM being founded.

We had some incredible meetings and parties. It was so exciting to find others into blacksmithing that were talented. My favorite memory of Doug at a party was the occasion we had the Tablet Dance, which Doug improvised, I think at Steve Austin's. There was some multi colored paper tablet and with the music from either a tape deck or record blaring, Doug did an absolutely hilarious dance we dubbed the Tablet Dance. I was to make hardware for a band-sawed wood box Doug made, but the tablet got lost and I never did get the hardware made. About 1985, we had Francis Whitaker do a workshop at Lost Valley resort, where he guided us as a group through making two entrance grills Jerry Hoffman had designed. While we were making these grills, Doug got a little wild with a rosebud torch, waved it in front of my face, and when I burned the nose hairs out of my nose, informed me that I should not have been standing there working. Doug was at the founding of BAM at Culver Stockton College sometime around then with Bonnie, his wonderful wife. Bonnie and Don Asbee were talking together while we were trying to come up with a name for the blacksmith organization, and came up with BAM. It was a great name that immediately stuck.

In 1986, a bunch of BAMers went to the ABANA Conference in Flagstaff, AZ, and Doug was one of them. We all went to the Grand Canyon and one morning went to see the sunrise at the canyon edge. A woman tripped and hurt her leg badly. Grady Holly and I went to get help and Doug, who had been a medic, gave the woman first aid and comfort. I saw a deep kindness in Doug I never have forgotten. No one could have been better.

I became involved with business problems, had a bad, unhealed, broken hip, was not in touch with BAM much, and moved to Arkansas to work, to save money for surgery. I don't think there was ever a time I thought of BAM that Doug's face did not pop up in my mind. When I went to a meeting at the Bass Pro Metal Shop that Kirk Sullens held, Doug told me he had decided to become a "nicer" person and not have the "tough" humor we were all accustomed to from him. When last I visited Doug and Bonnie they were wonderful hosts. I often regret that I now live where it is hard for me to make BAM meetings, as some of the folks there are the very heart of blacksmithing and I have lost touch with many of you. But I know Doug had a special place with everyone who knew him, and he flavored the art of blacksmithing in ABANA and BAM.

Editor's Note: Thanks Bob for sharing your memories of Doug and the early years at BAM. I, too, wish you still lived in Missouri since Bethel is only 7 miles from where I live. I'm sure all of BAM would benefit from your participation.

You can find more memories of Doug at (driron.blogspot.com) and (www.peolavalley.com).

A Better Fireplace Poker

As I mentioned in my editorial, I really enjoyed the DVDs that I got from UMBA. Watching the Bob Patrick forge welding video lead to me changing the way that I make fireplace pokers, and the following exchange between Bob Patrick and myself. (Bob gave me permission to include this)

My initial e-mail was a comment on seeing a new type of weld. A side by side flat bar weld. Here is Bob's reply.

Subject: Re: side by side flat weld

Hi Bob. A side by side flat weld would be used in a job where you were going to have say 4 bars that were not split out come from another bar. I thought of this application when looking at some of the Yellin work on the National Cathedral, though without taking it off the doors, who knows? There are many ways to do the same thing in blacksmithing. Anyhow, this was an interesting way to have several flats together at a transition. If you have long sections, splitting can be very tedious and time consuming.

Bob

Subject: side by side flat weld / poker

Bob,
When I finished watching the demonstration, you used the side by side flat weld to make a big strap hinge. Pretty neat.

Also on the demo, you showed using a split weld to make a fireplace poker which is different than the way you showed us in our class. Since I'm getting ready for a show this weekend and I needed to make fireplace tools, I gave it a try today and I think it does make a nicer poker than the one where you fold the bar back, weld, and then cut the loop.

I wish the guy running the camera had gotten more close ups of the scarfs and welds, but this DVD is turning out to be very worth while.

Bob Ehrenberger

Subject: Re: side by side flat weld / poker

Hi Bob. The poker tip weld was shown by Francis

Whitaker when I was at a couple of different demonstrations he did including his first BAM one. I asked Francis' advice on a demonstrator and he said to get the best one I could, so I asked him and he graciously accepted, but I saw him do it first in 1979 at Cedar Lake, Wisconsin. There was a very good smith there, Leon Piwani (Sp?). He made a poker tip by splitting a piece of flat stock and forging the hook, then welding it to the handle. Francis showed the split weld as an alternative. He showed it to Ward Brennagar for a different application on another fire tool, but I can't remember off hand what it was, though I watched Ward do it in 2001. I have used it myself a lot as it will not "peel" like the weld where you bring the bar back on itself and weld it and cut the loop.

I'll try and remember what Ward demonstrated. It is important to pass information along as often as we can, so it does not become forgotten. Films and videos and DVDs are wonderful, for even if they lack detail, you get the basic idea and can learn it again. Unfortunately, we do too much for entertainment and not enough for education and archiving stuff.
Bob

Subject: the other split weld

Hi Bob. I just remembered what Ward Brennagar demonstrated. It was the same basic weld but on a log handling fork- Ward forged this out of I think 1" square. The larger section was left as a handle, the shank then drawn down on a power hammer. The front part tapered to a little over 1/2" round, and the tines were 1/2" round drawn to a point and folded, then the split weld made. I will include a sketch as a .jpg, hope it opens ok. The handle was grooved and twisted, then the very back drawn down into a smaller size made as a round, then forged into a hook to hang the tool by. Ward did an absolutely beautiful job making it. He would be a good demonstrator for a BAM conference.

Bob

This is just a rough sketch. The fork was also shaped so that from 90 degrees it was scooped to hold the log properly. As this was 6 years ago and I didn't take notes, I have no real dimensions other than the finished piece was about 42" long. It was heavy duty for a large fireplace for a mansion.

Ward Brennegar Log Handling Fork

By Bob Patrick

Written instructions for this project are on page 11.



Split Weld Poker

By Bob Ehrenberger

1) Start with about 4" of 1/2" round.

2) Draw a long taper on both ends, leave about 1 1/2" in the middle unforged.

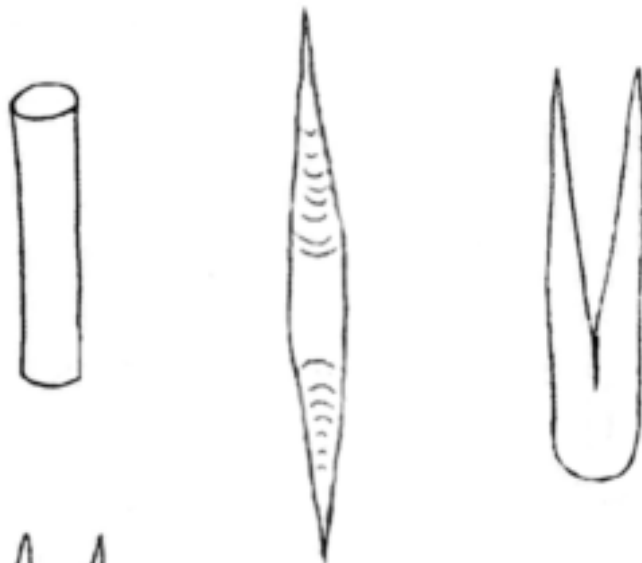
3) Fold the bar in half so the points line up.

4) Make a scarf at the base of the bend. You don't need to upset this because it is already twice the thickness of the bar you are welding it to. You basically just put it on the edge of the anvil and pull a scarf out like making a clip.

5) To make the handle, I use about 30 inches of 1/2" round. I cold texture the bar under the power hammer and make whatever grip I want on one end.

6) I trim the bar to length, figuring the tip will add 3" or 4" (You can measure the tip you just made). The end is then upset and scarfed. I do a fairly heavy upset because the place where it is being welded is pretty big.

7) The scarf is split from the point with a hot cut while it is being held in a vice. Take care to open the split up enough so that each point lines up with the center of one of the sections of the tip when the two scarfs are held together



8) Do a drop tongs weld to join the handle to the tip.

9) Form one of the tapers into a hook.



This is one of my finished pokers. Sorry about the poor picture, the camera is in the shop and I used the scanner to get these.

Basic Blacksmithing Scholarship Report

By Bob Ehrenberger

First off I'd like to thank Tom Clark and BAM, who's combined generosity enabled me to attend this class. I would also like to thank Tom's office manager Tom Misbauer for transferring my conference pictures from my camera to a CD so that I didn't have to make a special trip home just to do that.

The class started the Monday after the BAM Ozark conference, so I drove straight from Sedalia to Potosi. It was nice to have a chance to clean up and relax. After 4 days of living in my van I was in need of a shower and a good night's sleep.

Tsur Sadan was our instructor and covered a lot of the same material that he covered in his demonstration at conference. Tsur is every bit as good of a teacher as he is a demonstrator, he really did a good job of breaking the lessons down into small enough components that the students didn't get overwhelmed. The course was classified as a beginner / intermediate skill level, so technically speaking I may have been overqualified for the class. But because it teaches a whole new method of forging, most of what I had learned before didn't apply.

Because I covered the basic hammering technique that Tsur teaches in the last newsletter, I'll just summarize it here. The Czech method uses a short, fat, balanced, hammer so that they can use the corner of the face as a fuller. They also start their tapers where the taper will end not the tip of the bar. This allows them to preserve the heat in the end of the bar and get more work done with each heat.

While some classes are project oriented, Tsur's class is skills oriented. In a project oriented class they use the

goal of making something to learn the skills involved. In a skills oriented class you learn the basic skills first, and then learn how to apply them to a project. We spent the first 2 or 3 days just learning hammer control, we drew long and short tapers on round, square, and flat stock. We didn't just do it once or twice, we did it over and over, we generated a lot of scrap. After that we had a pretty good feel for how much material to start with and how much to taper the piece at each step along the way. We also made several different types of hooks which were also just cut off when completed. We learned early on how to make nails, Tsur encouraged us to spend time every day making



Tsur making tongs

nails to improve our hammer control. He said that when he apprenticed with Uri Hofi he had to make 30-50 nails each morning before their normal work started. It wasn't until his third year that Uri thought that his hammer control was good enough to suspend this exercise. I would bet that after a couple weeks Tsur could make nails with the best of them, but only through repetition do you truly master a skill, Uri knew this and forced this discipline on his students.

Another basic skill that is often neglected is cutting material on a hardie. The method that Tsur taught was to hold the piece where you want it cut on the hardie and 90° to the hardie. You tap it lightly and then roll



Tsur watches as students work

the bar on the hardie keeping the edge of the hardie in the cut, tap it again, roll it again, if you stand where you can look directly down on the hardie after two taps you will pick up the cut line and can make sure it is going to line up with the blade as it comes around. This assures that the cut will be square with

the end of the bar. Once you have the cut line all the way around the bar, you can tap it harder as you roll it over the hardie. When it is finally cut through, there is a small nub in the very center of the bar as if it were cut off on a lathe. If the cut is done with the bar level each side will have a taper on it equal to half of the taper on the hardie blade. If you want to have all of the taper on one piece and the other one flush,

once you have the initial line around the bar, you can raise or lower the end of the bar to match the angle of the hardie while you complete the cut. When you do this it makes it very clear that the thinner the hardie the easier it will cut and the less taper it will leave on your piece. Cutting square sock is about the same, except you can pick up your mark after only one tap.

It is also easier to get it crooked if your initial position is not exactly 90° to the hardie. Looking straight down on it while cutting will help you get it straight. Cutting flat stock is about the same as cutting square, it is even more critical to get the first mark straight. But with flat, once you get the bar marked all the way around, you do all the cutting from the two thinner sides.

Not only is it easier to cut when standing on edge it is easier to keep the cut straight. So with flat you just alternate between the two thin edges until the section left is the same as the thickness of the piece, at which time you can finish all 4 sides equal.

Tsur's method of punching a hole was slightly different than what I had learned before. The way I had been taught was to drive the punch a little over half way through the piece, to the place where you can see a dark spot on the back side. At that point you turn it over and sheer off the slug. What was different about Tsur's method was he wanted you to drive the punch in as far as possible, compressing the material against the face of the anvil. He would then cool the punch and drive it back down into the same hole to get the slug absolutely cold. Only then would he turn the piece over and sheer out the slug. The slug that Tsur got out is wafer thin, only a few thousandths thick, as opposed to the conventional slug which is about half the thickness of the material.

Something else that was different was the way that he slits and drifts holes. Actually the technique is about the same it's the tools that are different. Tsur takes a lot of care when making his slitting chisel and drift. If

the chisel is the same width as the diameter of the drift there will not be a cut line left when done and the bar will not change length. If the bar shortens, then the chisel is too big for the drift. If the bar lengthens, then the chisel is too small for the drift. This is important because if care is put into getting your chisel and drift matched up properly, you can mark several holes on

a bar while it is cold, and when you are done making your holes the bar will be the same length and all the holes will be in the right place. That's a lot easier than trying to figure the stretch factor and then laying out your project + or - X" for every hole (which is what most are teaching).



Tom Clark making tong clips

Now for figuring out what size to make your drift. If you want the final hole to be exactly the same as the pass through bar, you make the drift 1.5% bigger than the final hole. If you want the hole to be big enough for the pass through bar to move easily, you make the drift 3.0% bigger than the pass through bar, then when it is cool it will be the right size. So once you know whether you want a tight fit or a loose fit, you make your drift either 1.5% or 3.0% bigger than needed. Once you have the drift, you make a chisel to go with it. Make some test pieces and adjust the chisel until the test piece doesn't change length. Now you have a perfectly matched set of tools and can proceed to make your holes.



Tom's latest project

We did make some useful projects late in the week. We made an upset end chisel, a small hammer head, a cold chisel and a pair of tongs. But only the cold chisel was made from tool steel so the first two were just to practice making the form. The tongs have been very useful. Also, we each made a set of tong clips to take home, which I really am trying to use.

Everyone in the class had a great time and we all really improved our forging skills. Thanks again for helping with the cost.

Tom Clark's Nail Header

By Bob Ehrenberger

We all know Tom's enthusiasm for making nails. Nail making contests appeal to Tom's competitive nature, and the process of making nails helps to develop hammer control. At the Ozark conference, Tom not only showed how he makes nails, he showed us how he makes nail headers.

Start with a piece of leaf spring $3/8"$ x $2 1/4"$ x $5"$.

Before you heat it, measure in $1 1/2"$ from the end and mark on the hardie so you can find the location when hot.

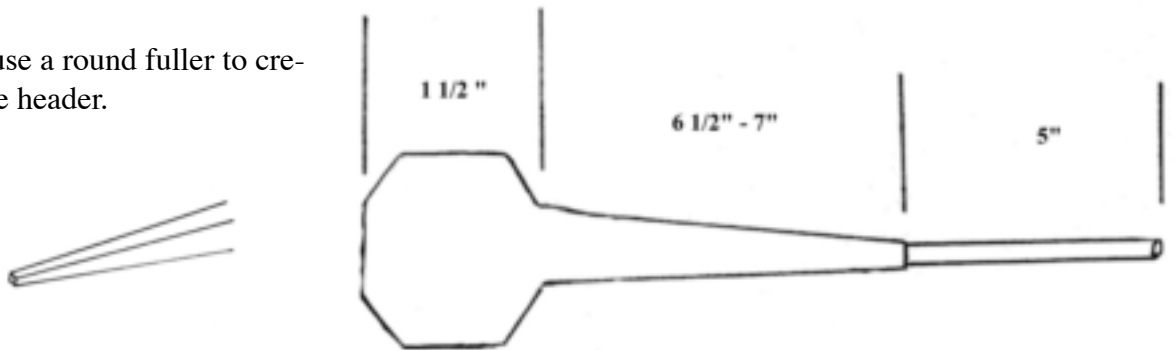
When at a high forging heat, butcher in at the marks $1/2"$ to $3/4"$ on each side.

Draw a long taper from there to the end, you want to make a handle that is $6 1/2"$ to $7"$ long with a $5"$ section at the end that is $1/4"$ round. If you don't have a power hammer, this will be a lot of work, Tom did it in just a couple heats.

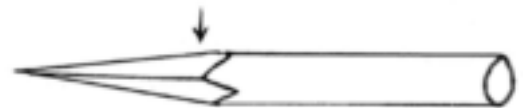
Round up the end that you sectioned off, by the time you forge the corners in it will be $2"$ to $2 1/4"$ round.

In a dish swage use a round fuller to create a dome on the header.

Make a square ended punch / drift with a long taper like a nail.



Make a test nail out of the stock you will be using to make nails. Tom always uses round stock to make his nails. Leave the nail connected to the bar.



Punch a hole in the header starting on the back of the dome and finishing on the front. Test the nail in the hole. Slowly increase the size of the hole until the nail fits up to where it starts to transition to the original stock, marked with the arrow.

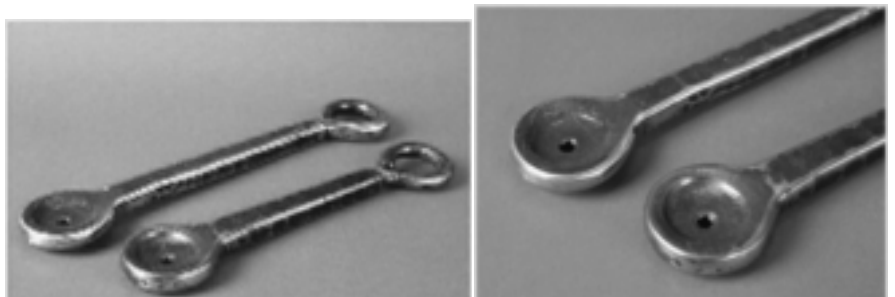


Clean up the header with thin strips of emery cloth.

Make a loop on the end of the handle.

Tom just normalizes the headers for heat treat.

Tom's finished headers



Brian Brazeal's Animal Heads



Brothers Ed and Brian Brazeal

By Brian Gilbert

Chattanooga, Tennessee

The brothers Brian and Ed Brazeal from Oklahoma are both very skilled blacksmiths, as they capably showed us at their demonstration at the 2006 ABANA conference. Brian led the demo, and Ed was assistant and striker. It was fairly obvious from the first moment that these two have spent quite a few hours working together at the forge.

Brian's demo was about making animal heads. He showed us how to make a horsehead from square stock, and several different critters from 1/4" x 1" flat stock. The techniques he showed could be easily adapted to many other animals. The tooling required was fairly simple... you've probably already got it in your toolbox.

For the demo, Brian used fairly large square stock, about two inches square. But the steps for a horsehead will be exactly the same in any size stock.



First, a blunt taper was forged on the end of a square bar.

Start by forging a short, blunt taper in the end. It's important to strike good, deep blows to get a rounded end on the stock; here's where a good, powerful striker like Ed comes in very handy. I asked, but Brian wouldn't sell Ed to any of us, but Ed said he was available for rent.

Next, refine the bottom of the horse's head. Brian was really quick when he did this, even on large stock. If you blink, you missed it. At the near edge of the anvil, forge the corner into the head around the base of the taper. Use half-faced blows... Brian said that nearly all animal head forging was a series of half-faced blows. It doesn't need to be too deep. This will be the horse's cheek.



Notching the cheek. First at the near edge of the anvil...



...then move to the far edge. Brian used a broad fuller, making half-faced blows.

Next move to the far edge of the anvil and do the same thing, only a little bit back from the tip of the stock. This becomes the area just behind the nose. Again, it doesn't need to be too deep.

To finish up the bottom, soften the edges by holding the stock at an angle. Naturally, this works both the top and bottom edges of the head at the same time, so you'll need to position the head at

Reprinted from Summer 2006 Hammer's Blow



The results of the first heat.



Next, the neck area was drawn out and rounded.

the same near and far edges of the anvil, but rotated 45 degrees or so. On this large head, Brian used a fuller with a very broad, smooth radius, though you could use a hammer when working alone. Using a fuller and striker, you have the advantage of nice, clean corners. Brian did all the preceding steps in a single heat.

Now it's time to refine the face. Take a good heat and clamp the head in the vise. Punch the eyes using an eyeball punch. (These are fairly easy to make if you don't have one—make a tool by rounding the end of a rod that's the same diameter of your desired eyeball. Forge down some tool steel until it's a little over-size, then heat the tip and drive it onto the rounded tool. Finish by grinding, then normalize, harden, and temper.) Punch the nostrils using a ball-end punch, then with a straight chisel, mark the location of the mouth and take another heat



Chisel in the suggestion of a mane before you curve the neck. A wooden mallet is good for coaxing the neck into a curve.



Brian punches the eyes.

Cut the horse's mouth by starting at the front and moving the chisel around to the sides. Punch nostrils with a simple rounded ball punch.

Cut the ears. Ed worked from the back, cutting towards the front, though others may cut them the opposite way.



Ed's finished horsehead at the auction.

Reprinted from the Summer 2006 Hammer's Blow

The next step is to work on the neck. Again, using half-face blows at the far edge of the anvil, forge the neck area down behind the cheeks. On Brian's example, the bottom of the neck is flat, but the top and sides are forged with the same broad radius top fuller, giving them a gentle curve. The ears on Brian's horses are cut from the back, cutting towards the face. Keep the chisel moving.

Now make a suggestion of a mane with a chisel. Brian accomplished this with a few diagonal cuts using a chisel.

To complete the horse head, bend the head down at the neck. A rawhide or wooden mallet is suggested to prevent marring the nose.



Starting a seahorse by forging a nose.

Profile Animal Heads from Flat Stock

Brian also demonstrated an effective and quick way to make animal heads in profile, using 1/4" x 1" flat stock. While these are mostly viewed on their side, there's enough thickness in the stock to give them some depth as well. The steps are similar... again they're mostly half-faced blows... the primary difference is the order of operations and the speed with which these are produced. Brian said he's often able to produce these in one heat.

Again, begin by forging a blunt taper at the end of a bar, and then go straight into the underside of the head. Half-faced blows



Rounding off the "tab" that will become part of the head.



Forging the tail area

refine the area behind the mouth and in front of the cheek. Finish these notches off by angling the stock a little to round the section you're forging.

Next, thin the neck with half-faced blows over the far side of the anvil. The eyes and nostrils are punched at the anvil, on the flat side of the steel. Soften the sharp corners by hammering at a bit of an angle. Finish by bending the neck—again, best done with a wooden mallet to prevent scarring the nose. The last step is to chisel in the suggestion of a mane.

A Seahorse From Flat Stock

Ed also forged a nice seahorse from flat stock. Again, these can be as complex as you like, though all of Ed's animals are highly stylized. (A little experimentation might suggest different ways of making all of these critters, as well as some new ones.)

To start a seahorse, Ed notched the end of a flat bar at the near side of the anvil. Since this will grow, you only need a little notch, maybe 3/8". Forge out a snout, then forge down a neck just behind it. This leaves a little tab of steel, perhaps 3/4" long. Round the corners so the tab looks half-round.

Now forge another notch further down the stock; this will become the potbelly. Round off sharp corners, and bend the head down. Punch the eyes and chisel in some fins if you like.



Some finished animal heads from flat stock.

Reprinted from the Summer 2006 Hammer's Blow

New Annex for the historic Francis Whitaker Blacksmith Shop

Brasstown, NC. May, 2007

By: Paul Garrett

The John C. Campbell Folk School is proud to announce plans for an annex for the historic Francis Whitaker Blacksmith Shop. The old milking barn that is now the blacksmith studio at the school will have a new neighbor in 2009 when timber framers from all over gather at the school for an old fashioned barn raising.

The school has known for sometime that the blacksmithing program would eventually outgrow the Francis Whitaker shop - dedicated to Francis in 1993 in recognition of his two decades of teaching and demonstrating at the school, but knew that there had to be a way to expand without losing the existing structure which symbolizes the legacy of the "Dean of American Blacksmiths," who devoted his life to keeping the art of blacksmithing alive in this country. The solution came in part with an offer from the International Timber Framers Guild, and member Charles Judd, a professional timber framer who teaches at the Folk School where together, his classes have built several small structures on the campus.

Charles, seeing the need for the expansion as well, made the relationship between the Guild and the Folk School possible. He wanted to see a larger timber framed building done on the campus, one that would be a legacy for the school and to the craftspeople that made it. A few years in the making, the plan calls for a Guild rendezvous at the site in June 2008, when close to 80 timber framers will do a traditional barn-raising similar to those seen in Amish country. In preparation for the event, the Folk School will host Guild classes where all the timbers will be cut, pre-assembled, and staged on the building site. The frame will then be stood up in sections known as "bents" with levers, ropes, pike poles, and plain old human effort.

An agreement was made between the two parties in a December meeting at the school that included Charles, Guild president Joel McCarty, School Director Jan Davidson, resident blacksmith Paul Garrett, and architect Don Ihrig. The timing was perfect, and the school was grateful for the offer from the Guild that only does a limited number of these events, and only for not-for-profit organizations like the JCCFS. The existing shop is functional, but there is a definite need to spread out a bit for comfort and safety sake, give students more room for larger projects, and accommodate some of the areas that we currently cannot.

The new addition will be located right behind the existing shop and will be connected via a short vestibule. The design will include a clerestory roofline housing an air conditioned classroom that will allow natural light to pass through into the spaces below, and have full handicap accessibility. The two existing silos will frame a beautiful timbered entrance gable and house full rest rooms and some storage. There will be a room for the school's growing library of books and publications, a center for technical, safety, and design information, and resources to aid students in finding organizations, other smiths in their areas and help in locating scholarships. The size of the new building is tentatively at about 2,500 square feet.

The old shop will receive extensive renovations to reverse decades of wear and damage, and will be brought up to modern standards of comfort while retaining its' historic charm. It will be completely re-wired, re-plumbed, fitted with a sprinkler system, have improved ventilation and energy efficient windows. The plan will open up more room, and provide the space and equipment to accommodate an increasing variety of classes. At the same time, the Folk School is committed to respect-

ing the values of traditional blacksmithing that have made the program the most popular of some 50 program areas offered, and have helped spur the tremendous growth in smithing across the country as well.

The project will most likely be accomplished in three main phases, the raising of the timber frame and roof, the finishing and occupying of the annex, and the subsequent renovation of the Francis Whitaker building.

Fund-raising for the project officially began when longtime instructor Lou Mueller donated his honorarium for the class that he taught here last fall plus extra to make it an even \$1000. Clay Spencer, nationally known blacksmith and fixture at the school also donated \$1000. Not to be outdone, Don Neuenschwander, a long time student and friend of the Folk School from Indiana, donated \$5000! Donations have begun to come in as word of the new project gets out.

In 1925 a small rural community of individuals came together and offered whatever they could afford to build the Folk School. Today, more than 80 years later, the Blacksmithing community gathers in the same spirit. It is strong, and encompasses not only western North Carolina, but the entire country and beyond. It is resourceful, creative, and like the Folk School, dedicated to the spread of knowledge and education of blacksmithing. Already, there are groups across the country planning fund-raisers and auctions to help out with the effort. Any ideas or sources that you know of to help out with donations and publicity will be greatly welcomed. Together our community can see that this goal is achieved.

Although the full architectural plans are not yet finalized, early estimates for the amount of capital needed to realize this project are at \$500,000. We have a long way to go but have confidence that the school, which has had a positive effect on so many lives, will be able to raise the amount needed to ensure the program's health well into the new century. Donations are currently being accepted and are held in a restricted, interest-bearing fund set up specifically for the project. No amount is too large or too small, and can include gifts of cash, stock, or materials. The Folk School is a 501(c) (3) organization, so all contributions are tax-deductible.

Donations of \$500 or more will be recognized with a plaque in the new building, and opportunities to name the new spaces will be developed as soon as plans are finalized.

Please contact Susi Hall, Development Manager, at susi@folkschool.org or at 828-837-2775 ext.118 to contribute or to discuss making a gift and by all means contact me at pdg86@hotmail.com, or 828-835-8441 with ideas to assist with the project.

Thanks, and happy forging.

Paul Garrett
Resident Artist for the Blacksmithing Program

Book Review The Art of Blacksmithing (Revised Edition)

by Alex Bealer

By Ned Digh

It is beneficial to occasionally go back to the older blacksmith books and review the written works by those who have been significant figures in keeping our craft alive. Their written accounts and illustrations are valuable sources of education often overlooked or taken for granted. This is a comprehensive book, including the history of blacksmithing in America, the making of items from tools, kitchen utensils, arms and armor, as well as instructions on how to set up a blacksmith shop. The book has over 500 illustrations and it will bind the blacksmith to a habit of periodically returning to the book for continued learning and information.

Alex Bealer was an advertising executive by profession, but in the craft of blacksmithing, he is truly one of the historical gurus of American blacksmithing. As a teenager, he experimented with forging in his parents coal furnace and used a piece of iron for an anvil. It was not until years later when he was an advertising executive and had a family that he rekindled his interest in blacksmithing. He wanted to make a model Civil War cannon. He made a crude forge and found an anvil in a junkyard for starter equipment. When the model cannon was completed, Alex Bealer found that he had developed an insatiable curiosity about blacksmithing and he began to accumulate blacksmith tools and equipment.

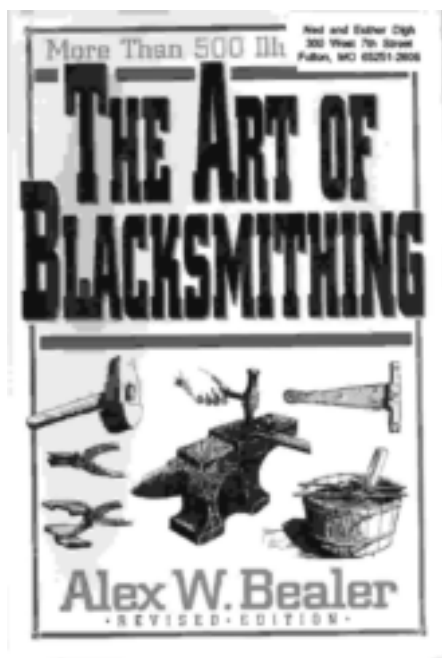
His journey to better blacksmithing led to reading available books, which he found to be few. He sought out practicing blacksmiths, both active and retired for increasing his knowledge. He gives credit by name to those who shared their knowledge and further whetted his desire for improving his blacksmith skills. He says that many of the old time smiths had little formal education, but most were very intelligent often with expertise in other fields or crafts. He tells of a blacksmith friend who was a Bible scholar and had taught himself Greek and Hebrew. At the time of this person's death he was developing his theory of a mechanistic pattern to the universe. This and other accounts illustrate not only the creativity of the makers of our blacksmith legacy, but the visualization ability that so many possessed.

The Art of Blacksmithing was first published in 1969; six years later he published a revised edition because he had learned so much more about blacksmithing. He expresses appreciation for the young artist who has been drawn to the medium of metal arts and their creativity in keeping the craft alive. He reflects pride in having been involved in the founding of ABANA. His hope was that the organization would continue to draw together

professional smiths, scholars, artist, and amateurs for a common purpose of promoting metal arts and education of those aspiring to improve their metal skills.

Today's blacksmith hears countless stories about a grandfather's blacksmith shop or the neighbor smith that could repair anything. The Bealer book not only gives tribute to the ingenuity of the blacksmith in our developing civilization, but also notes that most of the blacksmith's techniques are notable for their ingenious concept more than their effect. He says that each was developed from a vacuum of ignorance to fill a practical purpose. With this legacy, it is logical that the modern blacksmith takes great pride in making his or her own tools. Most blacksmith shops today have numerous tools made for one project or to improve on a design created by some other blacksmith.

Every new blacksmith would bode well to read the section on "The Blacksmith Shop". It provides a nostalgic review for old timers, or those with more experience, who will smile saying they knew that or maybe remember where they learned that skill. There is a discussion on anvils, including designs, mounting, height, log mounts, as well as an explanation of what he calls the illogical way of marking the weight of the anvil on the side. If you have forgotten, the first number represents the hundred weight (think 112 pounds); the second number represents a quarter or quarters of a hundredweight (a quarter being 28 pounds) and as a more practical method, the last number is in actual pounds as we know them on the American weight scale. An anvil with the numbers of 123 weighs (112 lbs, plus 56 lbs, plus 3 lbs for a total weight of 171 pounds. Some writers refer to this system as the English Stone Weight System.



This book is not only a walk through the basics of blacksmithing, it also takes you from the basics of hooks and pokers and to ambitious projects like different methods of making a gun barrel, and more, in a chapter titled "The Ingenious Means of Making Weapons". This book is not only for blacksmith history buffs, but it is a valuable resource for blacksmiths at all skill levels. If your blacksmith projects have become too routine and less challenging this is the book for you. The Alex Bealer book will introduce you to new projects, different techniques, and increase your motivation to fire up the forge more often and improve your skills.

Observers are frequently remarking that blacksmithing is a dying art, perhaps it was fading, but all present day smiths owe a debt of gratitude to the memory of Alex Bealer. His book is not only a historical account of American blacksmithing, but it is a superb instructional book for blacksmiths at all skill levels.

Tire Hammer Work Shop

June 8th-10th, 2007 by Julie Clark

I had several reasons for attending the recent tire hammer workshop held at Ned Digh's place in Ham's Prairie, Missouri on June 8-10th. It was led by Clay Spencer, along with the help of Bob Alexander. The most obvious reason I attended was the desire to add a power hammer to my ever growing collection of tools. But a couple of other reasons crossed my mind as I signed up for the class. For one, I knew it would be an incredible learning experience. Being in the company of such talented people who are so willing to share their wealth of information is invaluable and being involved with the assembly of the tire hammer would also be beneficial. In addition, I felt certain it would be gratifying to work as a team, constructing such a useful piece of equipment and a delight to spend a few days with others who share my passion for blacksmithing. All of my expectations were fully met and my impression from talking with the other participants was that we all shared similar feelings.

One of the things that I became fully aware of as the workshop progressed, was that much planning goes into the tire hammer class. Two pre-workshops were held to begin the long process of fabricating parts prior to the actual assembly dates. One of the pre-workshops was held at Bob Alexander's shop in Desoto and the other was held at Ned's shop. These participants

began the arduous task of pre cutting and pre-drilling many of the hammer's components. Upon my arrival at Ned's

shop, I saw these parts, along with bolts, nuts, motors, springs and much more, all laid out on shelves, so that



Julie Clark taking a break from welding

once the assembly process begins, everything is organized and easy to locate.

As each of us arrived at Ned's shop we were immediately given a job. If we were not sure what to work on, Clay would assign us a critical task. There were no idle hands and I use the word, critical, because everything that was done towards the assembly has its own high level of importance. It was truly remarkable how everyone worked together. Some were drilling holes. Some were welding, grinding, heat treating dies, melting lead. Some came around and cleaned up. A few worked on the tires, some measured and marked, and Eric, Ned's grandson, drove the Bobcat. He is only 19, but maneuvered it masterfully!

Once the main frame of the hammer was welded and was sitting up right on the base, you could see everyone's excitement as they began to envision the final product. This really held true when the tires and motors were added. All of the hammers were arranged around the shop and it was a site to see, but the real excitement came, when Clay plugged in the first one and gave a test run. He inspects each hammer with the utmost attention to detail.

He goes over the entire piece, checking joints, welds, and die alignment. By pressing the foot control and holding his hand on the hammer encasement, he can feel for any hesitation, looseness, or tightness. He listens for unusual sounds and watches the overall movement of the hammer's components to insure everything is in working order. He has gone through these steps numerous times. Any adjustments needed are made immediately and one could sense the sigh of relief from those of us watching, as he marks his seal of approval: OKCS!

Ned's offering of his fully stocked shop as our workplace was incredibly generous and he kept all of us up to date prior to the weekend. He worked tirelessly to get things ready for all of us....bum hip and all!! His wife Esther kept

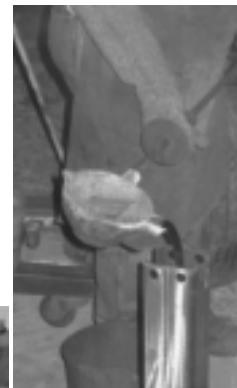


Clay making adjustments

us fed and hydrated all weekend. She was the perfect hostess, and although she may not have welded on the hammer; she worked as hard as anyone to insure a successful event. We were also treated to a campfire pot of beans and ham prepared by Scott Stager, aka Bean Man, who set up a really nice canvas tent, dug a fire pit and soak the beans over night, prior to the all day chicken stock simmer.

Bob Alexander, of course, spent countless hours involved in the pre-workshop. I feel certain he spent countless hours of his own time, getting up before dawn, working until late, to also insure we had everything we needed, all the way to the last day before he arrived, having made a substantial frame for a hoist we used to move the hammers around the shop. And Clay's dedication to the blacksmithing community is immeasurable. He wishes for all of us to have the things we need to be successful blacksmiths and his willingness to teach the tire hammer workshop is just another example of his devotion to the craft and to those who practice it.

It was a wonderful experience, and yes, I have a fantastic addition to my shop, but I came away with much more than just a piece of equipment. Every time I use my tire hammer, I will be reminded of the extraordinary process for which it came to be and how a group of 15 diligent blacksmiths guided by 3 altruistic leaders in a little town in Missouri, worked together as a team, producing 19 operational tire hammers.



Buy, Sell, Trade

Individual Classified ads

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

For Sale

25 lb. Little Giant, Serial No. 7881, first sold to a blacksmith in Athens, AL, then to Jim Batson, I bought from him in 1987. Excellent condition, reworked per Fred Caylor's instructions, Babbitt, bushings, pins, spring and drawing dies replaced while I have had this hammer. \$2800

Beudry No. 3 Champion Power Hammer, 75 lb., SN 1208, Beudry was Cadillac of PH, adjustable crank throw, adjustable hammer height, factory brake, slack belt idler clutch, large brass adjustable gib, converted to side motor mount, 5 hp, 240 volt single phase Leeson motor, less than 50 hours on motor. 2 7/8" x 5" flat dies, mounted on 9 1/2" riser base. Weight approximately 2800 lb. Excellent condition. \$3800
Clay Spencer, 828-837-0708, clayms@brmemc.net, will load on your trailer at my shop in Murphy, NC.

Spare Tire Power Hammer for sale for \$2500.

Made in the June 08 Clay Spencer/Bob Alexander workshop.
Ned Digh 573-642-8332 or 573-642-9502 Cell 573-220-0421

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

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

Large lathe and extras. \$800.00

200 Lb. Bradley Trip Hammer 1/2 round and flat die Looks very good. \$2750.00

100 Lb. Little Giant Trip Hammer 1/2 round and flat die Used very little. Looks good \$3000.00

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

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

Wane Holder 641-446-6225

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

Commercial / Resource ads

Services:

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

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

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

Beverly Shear Blades Sharpened. Remove blades from shear and ship to Clay Spencer, 934 Partridge Lane, Murphy, NC 28906. \$35 plus postage, additional cost for deep notches or blades previously sharpened at angle.

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

Information / Education

Ozark School of Blacksmithing - Tom Clark

Tom: tclark@ozarkschool.com

School: www.ozarkschool.com

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

Tong Making Class-Weekend Course

4 people per class - \$125 per person

Contact: Charles Comstock Rt.1 Box 20, Deerfield, MO. 64741 (417) 927-3499

Classes offered, The Ornamental Iron Shop

Contact the instructor to register and customize your class.

John D. Thompson – Metalsmith

3923 Hwy 25; Hodges, SC 29653 864-374-3933

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

The Bill Pieh Resource for Metalwork.

Call now for more information and to enroll:

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

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

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

The Upper Midwest Blacksmiths Assoc (**UMBA**) **video library**. An index list can be viewed at **www.umbaonline.org** They are VHS or DVD-R Cost is \$5 each with \$2 per order shipping There is no return date, you keep the video for this price. All videos are made at group demos, no commercial titles.

Buy, Sell, Trade, Continued

Blacksmithing E-books on CD

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

Ray Clontz Tire Hammer Plans by Clay Spencer

These plans are for a 50 lb. power hammer that uses the rear axle and hub from a front drive car and emergency spare tire and weighs about 700 lbs. It is powered by a 1 hp, 1750 rpm electric motor, 120 or 240 volts, runs about 250 blows per minute and uses a spring toggle mechanism similar to Little Giant hammers. The anvil is 6" solid round (minimum size) by 36" high and the frame is 5" square tubing. The plans are 40 pages, printed front and back on 20 sheets that include parts list, detail and assembly drawings, sources, notes, installation, adjustments and maintenance. Over 200 hammers have been built using these plans. Price is \$30US including postage to US and Canada, \$32US to other countries. Send check or money order to Clay Spencer, 934 Partridge Lane, Murphy, NC 28906. E-mail clayms@brmemc.net for info. Also, lead workshops for chapters or groups to build 15 to 20 hammers and have Tire Hammers for sale, \$2000. 828-837-0708

Products

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

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

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

Bells Novelty Casting is a foundry in Anniston, Alabama manufacturing blacksmiths' tools. We are currently looking for dealers to market our products. We have anvils of all sizes, swage blocks, hardies and drift pins. Call 1-877-FARMBEL. Web site www.bellsandmoe.com.

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

Persimmon Forge **PEDAL HAMMER** sit down treadle hammers for sale. Contact Dave or Betty Edwards by e-mail at djedwards@cableone.net, or write or call the manufacturer, Four Mile Carriage and Machine, at 3220 West 6th Ave., Emporia, Ks. 66801, (620) 342-4440.

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

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

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

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

Help Wanted:

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

Demonstrator List

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

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

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

On Saturday September 8th
On Saturday November 10th.
On Saturday December 1st.

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

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

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

Need Coal ?

Check on Availability

Coal Captain: Bob Alexander



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

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

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

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

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

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

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

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

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

Upcoming Events

September 7, 8, and 9, 2007 Tannehill Historical State Park, McCalla, near Bessemer, Alabama

Info: Bill Richardson, unclebill@pclnet.net 256-233-6189

September 8 - Hammer-in at Don Birdsall's Rolla, MO. (See details page 25)

September 15 - **BAM Meeting** Dale Gilman, Boonsburo, MO. (636)-447-6450 or (660)-848-2396 Food provided.
Trade Item: Yard Ornament (with moving parts if possible)

September 18 - **Newsletter Submission Deadline**

September 29 **MTS #1** Workshop (Basic BS) Dale Gilman, Boonsburo, MO. (636)-447-6450 or (660)-848-2396

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

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

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

November 3- **BAM Meeting** Wayne Holder's, in Leon, IA. (641)-446-6225

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

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

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

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

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

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

New Members

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

George, James
1910 S. 41st Street
St Joseph, MO 64507
jimmyg64507@yahoo.com
816-279*1202

MacDonald, Chris Blackwolf
744 W. Mill Street
Buffalo, MO 65622
blackwolf0567@yahoo.com
417-345-8695

Westbrook, Ray
3012 McNair Ave
St. Louis, MO 63118-1635
s.r.westbrook@world.net
314-772-4153

Horn, John
P.O. Box 17252
Little Rock, AR 72222
roho@hughes.net
501-868-8883

Slatton, Floyd
Rt 1 Box 1370
Thayer, MO 65791
floyfiar@hotmail.com
417-264-3022

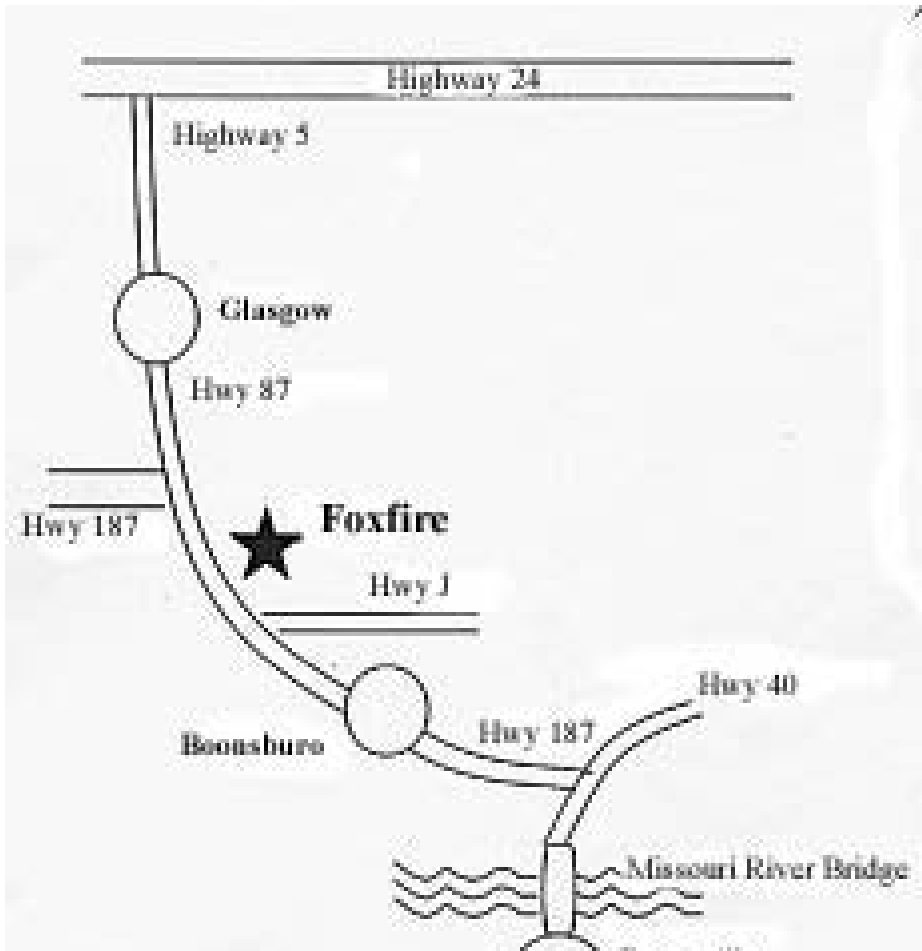
Wimmer-Brown, Rick
6178 Washington Blvd
St. Louis, MO 63112
rickwb@ethixs.com
314-726-1848

Note: Bruce was going to be out of town so I had him give me the list of new members a little early. If you are new and we missed you this time, you will be included in the September newsletter.

In March Bruce expressed concern that we were loosing membership. I had him give me a list of members who had recently dropped out of BAM. After calling several of the former members, I concluded that the main reason for the attrition was that most people were over committed and just didn't have time to pursue all their interests. Something had to be cut, and for many of them it was BAM.

On the outside chance that they were just being nice and didn't tell me their real reasons, I would urge our members to contact one of the officers if they have a grievance or don't like the direction that things are going. We can't fix it if we don't know that it is broken. It would also be helpful if you would convey your expectations for BAM, why did you join and what do you want to get from being a member.

Next Meeting: September 15, Boonsboro, MO.

**Location:**

1 mile North of Boonsboro on Hwy 87.

Host: Dale Gilman

Trade Item: Lawn Ornament.
(with moving parts if possible)

Lunch: Will be provided

Phone:

636-447-6450 or 660-848-2396

Demonstrators:

Ed Harper, Doug Clemons, and Joe Wilkinson

Camping:

Please come Friday night and camp with us. Dinner and a movie Friday night and breakfast served in the morning. Crafts for the ladies on Saturday.

BAM

2212 Aileswick Dr.,
St. Louis, MO 63129

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