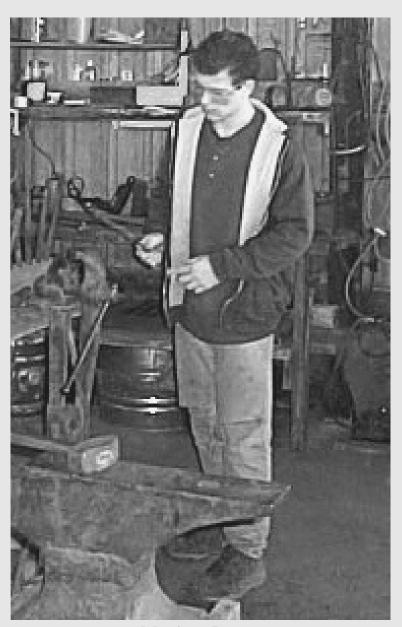


November-December 2006



Matthew Burnett

www.bamsite.org

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# Newsletter of the Blacksmiths Association of Missouri

Volume 23 No. 6
NOVEMBER-DECEMBER
2006
Editor

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Ned Digh Dan Sisk Stephen McGehee

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Bruce Herzog

The Newsletter of the Blacksmiths Association of Missouri is published six times a year and is mailed to members of BAM. The annual fee for regular membership is \$25/year; a portion of this amount is for a subscription to this newsletter for one year. Editorial inquiries should be addressed to: Bob Ehrenberger 6192 Hwy 168 Shelbyville, Mo 63469;(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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Memberships are for one year from receipt of dues. Dues are \$25, which includes a subscription to the bimonthly BAM newsletter. Please make checks payable to Blacksmith Association of Missouri.

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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've had some questions recently about the timing on the newsletter. The typical question is, "The newsletter has been up on the web site for a while, why haven't I gotten my printed copy? Did you get my address mixed up?" It usually takes one to two weeks after a meeting for me to put together a newsletter. I transfer the newsletter to the publisher's web site and in one or two days they post the proof pages for me to approve. These are in low resolution pdf format. I download the proofs which I review. If they are OK I send an approval to the publisher and the low resolution pdfs to Ed Harper to post on the BAM web site. It then takes the publisher two weeks to actually work our job into their schedule to print and mail the newsletter. So, right off the bat, you can view the newsletter two weeks before it is printed, then it depends on how long it takes for bulk rate mail to get to you from Jeff City. It usually takes over a week for my newsletter to get to me after it is mailed. To further complicate things in the fall, the publisher and the mail are clogged up with political stuff, so the September newsletter doesn't come out quite as fast as usual. Finally, membership information is handled by the treasurer (currently Bruce Herzog) and address information needs to be run by him. Please check the roster that came out in September and verify that your information is correct.

Here at Ehrenberger Forge we had a horrible spring and summer. The crowds were down and the sales were down. Then when the price of gas dropped right before Labor Day, it all turned around and we had an excellent September and October. With the strong finish, we are grateful to be in good shape going into winter.

On the sad side, I had a personal tragedy in that my Dad died October 16. He had been ill for several years so it was no surprise, but even at that we were not completely ready. Some of you may have met Dad as he had come to some BAM meetings with me. He had been a machinist

most of his working life and had been a model maker for the Square D company making prototypes for them for 28 years. Even though he knew more about metal work than I ever will, he was fascinated with my blacksmithing and especially liked to watch Daniel make damascus. He said that when he served his apprenticeship, the machine shops usually had a blacksmith on staff to rough forge parts which the machinists would then finish. Before Dad got sick, he would usually come and spend a week with us in the spring. Mom would help Jan get the garden in and Dad would help me with a project around the farm. One of the projects that I'm most proud of,



Frank Wm Ehrenberger 1923-2006

is making a jig saw from scratch with mostly scrap materials.



Home Made Jig saw

Doug Hendrickson put on a workshop November 11th. Due to the short notice I was unable to attend, but Kirk brought back a report from the event in the president's message. Thanks Doug, for sharing your vast experience.

I had a pleasant surprise this week as Stephen McGehee contacted me with several very well prepared pages of illustrations for the newsletter. He had received a BAM scholarship several years ago and was fulfilling his payback obligation. Stephen told me that he regretted that it took so long, but he really appreciated the class and it was a great experience for him.

I would also like to thank Ned Digh and Dan Sisk for their submissions. It really makes my job a lot easier when BAM members jump in and help with the writing. Ned tells me that now that he is no longer the editor, it's easier to get motivated to write about the things that he's interested in.

If you made a gambrel after receiving the September issue of BAM. Please send me a picture, preferably with deer attached.

The submission deadline for the next newsletter is January 27 one week after the next meeting. This may get moved up if the March meeting is early in the month.



# Minutes BAM meeting 11/4/06 By Peggy Williamson

Held in Cameron, Mo.

A big THANKS to the Burnett family for hosting the meeting.

Next meeting Jan 20 at Ozark, MO.

Financial Report- Still looking for a new treasurer 568 members in March 555 members now

There is a new BAM information sheet put together by Don and Jeannette Birdsall. This has an BAM application on one side and details about BAM on the other.

Ned Digh said they are trying to organize a tire hammer workshop for 2007. Contact Ned if interested.

Doug Hendrickson is putting on a lecture and art class workshop next Saturday 11/11 at Doug's shop. Bring your own lunch. We need someone to video tape the event.

MTS - At Ray Scott's. Dates are in the newsletter. You need to pre-register with either Ray Scott or Don Birdsall.

We are already signing up workers for State fair 2007. Contact Peggy Williamson if interested.

It's time to start working on projects for Conference Auction and Boutique.

Check the roster that came out in the September newsletter and make corrections with Bruce Herzog.

Meeting adjourned.

### **Trade Items** were made by:

Bjorn Sparrman, Don Nichols, Ed Claxon, Don Anders, George Rousis, Mark Lawson, Matthew Burnett, Dave Smith, Pat McCarty, Harry Webber, Esther Digh, Ned Digh, and Duke Skelly.

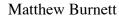
### **Iron in the Hat** items donated by:

Matthew Burnett, Pat McCarty, Fred Arnhold, Esther Digh, Bruce Herzog, Richard Kamp, Harry Weber, M Stubrith, Ed Harper, Michael Camden, Don Nichols, Ned Digh, Don Muler, Joyce Nichols, Peggy Williamson,



Phil Cox

Working on spur in vice



At forge with helper running the blower.





Kirk Sullens getting ready for the drawing

### A Word From El Presidente

by Raoul (Kirk Sullens)

El Presidente Raoul aka Kirk Sullens

I suppose you're all wondering.... I've just gotten home from the workshop/art lesson at Doug Hendrickson's in Lesterville. I'm sorry more of you couldn't come, because it was a great weekend! Doug started us off with a slide show and commentary about what makes some smithing work so much better as art than other smithing work. Then, we proceeded to the shop, and started enthusiastically cranking out pieces under his sage direction, to be assembled into two, or perhaps more, art pieces. It was an incredible bustle of activity, with elements being forged and fabricated at multiple work stations, with three forges going, and me running from one to another trying to catch it all on video.

One project was a reliquary to enshrine a memento from a trip to Graceland. While not entirely convinced of the "saintliness" of the article (sacrilege, I know), the pyramidal vessel is going to be pretty cool when it's finished.

The second project was a metal bowl with a wide flanged lip, and lined with steel tiles into which impressions of almost every interestingly textured piece of anything in Doug's shop were made. We were hammering wires and washers, bolts and screws, tools, forging samples, and anything else that wasn't nailed down, into heated squares of 1 1/2"x1 1/2"x1/4" steel.

We'll be planning a time after the first of the year to meet at someone's shop to complete the projects.

My thanks go to the Burnett clan, who hosted a good meeting on a beautiful day at their farm near Cameron. Thanks especially to the Burnett women, who provided us with a delicious lunch (even if I didn't get any of the pan-bread, which was so good it was all gone before I could get to it).

Enough people have expressed interest in rescheduling the spare-tire hammer workshop, that Ned is trying to work out a date with Clay Spencer and Lou Mueller to do that in the spring, possibly at the Memorial Day weekend. Bob Alexander is also willing to get us going on a treadle hammer workshop, if enough people are interested. If you fit into either of those "interested" categories, please let me know asap.

I hope to see many of you when we meet in January. It'll be a new shop for most of you, at Tom McGinnis' shop in Ozark, Mo. It's about 6 miles from the Bass Pro metal shop, and easy to find. Tom has a nice bladesmith school there, with an excellent facility, where we'll see mosaic damascus demonstrations. Lunch will be provided, and the trade item is a kitchen knife.

I'm sure I'm forgetting something here. That's what you get for hiring such a scattered president. If what I've forgotten is noteworthy, please call me and take me to task for my oversight. I'm trying very hard to learn to write everything down, but I keep forgetting my notebook.

I'll see you in the forge, El Presidente Raoul aka, Kirk www.kirksullens.com (417)863-8628 NOVEMBER-DECEMBER 2006



# A DAY WITH THE BURNETT FAMILY

By Ned Digh

The November 4<sup>th</sup> BAM meeting was held at the Burnett Farm near Cameron, Missouri. For a number of years BAM members have been observing young Matthew Burnett, now age 17, progress in blacksmithing skills. One cannot know Matthew without knowing the family. Until Matthew got his driver's license, someone in the family always accompanied him to the BAM meeting and often the whole family came.

About two years ago, the Burnett family moved to what had been Matthew's grandparents and great-grandparent's farm. This 160-acre farm has been in the family since 1815. This was a fortuitous move for Matthew because he then had space to set up his blacksmith shop which is "The Braided Cross Forge". Matthew participated in the BAM Spare Tire Power Hammer Workshop and it is a prominent piece of machinery in his shop. He uses a coal forge and has a noticeable range of tongs and other blacksmith tools and equipment.

Matthew's family consists of his Dad Duane, sisters Sara and Hanna and together they farm and operate a catering business. Matthew's Mom, Charlotte, was also a frequent attendee at the BAM meeting until her untimely death. The farming operation presently sells chickens and eggs and they have plans to expand into a dairy operation. They are also looking forward to the family farm soon being designated as a "Missouri Century Farm".

The demonstrator was Phil Cox, a long time BAM member who lives nearby. Phil and Margie Cox raise and train mules. They frequently show their mules and participate in parades. Phil says he now has a wagon with a four-mule hitch and is working on a 6 hitch. In addition to being an excellent blacksmith, Phil is a machinist and rebuilds Little Giant Power Hammers. Many of

you may have seen or used the 25-pound Little Giant in my shop, which was rebuilt by Phil. Our Editor, Bob Ehrenberger, covered Phil's demo and will describe that elsewhere in the newsletter.

Matthew has been home schooled and is presently taking correspondence courses from the University of Kansas. He is at the high school junior level and his future plans include college. Matthew received a BAM scholarship and which he used at Tom Clark's school. Tom was so impressed with Matthew that he also awarded him a scholarship. Matthew is holding that scholarship in reserve until Bob Patrick teaches a power hammer course at Tom Clark's school. Presently, Matthew is commuting to Ed Harper's shop in Browning periodically for apprenticeship experience with Ed.

Thanks to the Burnett family for hosting the BAM meeting and our best wishes to Matthew in his pursuit to improve his blacksmith skills. The future of BAM certainly looks promising with the involvement of Matthew and other young people with an interest in blacksmithing.

### Editor's Note:

In addition to Phil Cox making a spur, Gary Ellis showed how to make a hot cut chisel from a horse shoe rasp. After making the chisel he hardened and tempered it, and then tested it by cutting the rasp in half with it. Gary also did a horse head hoof pick and a hummingbird. I didn't actually catch him making them, but saw them with his stuff later. I did see him doing a brass tone finish on one of the pieces.

Matthew Burnett spent some time at the anvil, I think he made a steak turner.

Then, after the business meeting Phil Cox helped the young lady that had turned the blower handle for him get into the fire. I didn't see what she made.

Bob

Calculations for figuring the Stock Length of Rings Inside Stock Size				(Inside Diameter + Stock Size) * 3.14						
Diameter	Radius	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1	
1/2	1/4	1.96	2.35	2.75	3.14	3.53	3.93	4.32	4.71	
3/4	3/8	2.75	3.14	3.53	3.93	4.32	4.71	5.10	5.50	
1	1/2	3.53	3.93	4.32	4.71	5.10	5.50	5.89	6.28	
1 1/2	3/4	5.10	5.50	5.89	6.28	6.67	7.07	7.46	7.85	
2	1	6.67	7.07	7.46	7.85	8.24	8.64	9.03	9.42	
2 1/2	1 1/4	8.24	8.64	9.03	9.42	9.81	10.21	10.60	10.99	
3	1 1/2	9.81	10.21	10.60	10.99	11.38	11.78	12.17	12.56	
3 1/2	1 3/4	11.38	11.78	12.17	12.56	12.95	13.35	13.74	14.13	
4	2	12.95	13.35	13.74	14.13	14.52	14.92	15.31	15.70	
4 1/2	2 1/4	14.52	14.92	15.31	15.70	16.09	16.49	16.88	17.27	
5	2 1/2	16.09	16.49	16.88	17.27	17.66	18.06	18.45	18.84	
5 1/2	2 3/4	17.66	18.06	18.45	18.84	19.23	19.63	20.02	20.41	
6	3	19.23	19.63	20.02	20.41	20.80	21.20	21.59	21.98	
6 1/2	3 1/4	20.80	21.20	21.59	21.98	22.37	22.77	23.16	23.55	
7	3 1/2	22.37 23.94	22.77 24.34	23.16	23.55	23.94	24.34	24.73 26.30	25.12 26.69	
7 1/2 8	3 3/4 4	25.54	25.91	24.73 26.30	25.12 26.69	25.51 27.08	25.91 27.48	27.87	28.26	THE LAY
8 1/2	4 1/4	27.08	27.48	27.87	28.26	28.65	29.05	29.44	29.83	Editor's Note:
9	4 1/2	28.65	29.05	29.44	29.83	30.22	30.62	31.01	31.40	
9 1/2	4 3/4	30.22	30.62	31.01	31.40	31.79	32.19	32.58	32.97	I made this chart to
10	5	31.79	32.19	32.58	32.97	33.36	33.76	34.15	34.54	keep in my shop so I
10 1/2	5 1/4	33.36	33.76	34.15	34.54	34.93	35.33	35.72	36.11	
11	5 1/2	34.93	35.33	35.72	36.11	36.50	36.90	37.29	37.68	wouldn't have to do
11 1/2	5 3/4	36.50	36.90	37.29	37.68	38.07	38.47	38.86	39.25	the math when making
12	6	38.07	38.47	38.86	39.25	39.64	40.04	40.43	40.82	rings.
12 1/2	6 1/4	39.64	40.04	40.43	40.82	41.21	41.61	42.00	42.39	111165.
13	6 1/2	41.21	41.61	42.00	42.39	42.78	43.18	43.57	43.96	
13 1/2	6 3/4	42.78	43.18	43.57	43.96	44.35	44.75	45.14	45.53	If your ring doesn't hit
14	7	44.35	44.75	45.14	45.53	45.92	46.32	46.71	47.10	one of the dimensions
14 1/2	7 1/4	45.92	46.32	46.71	47.10	47.49	47.89	48.28	48.67	listed you can make
15 1/2	7 1/2	47.49	47.89	48.28	48.67	49.06	49.46	49.85	50.24	
15 1/2 16	7 3/4 8	49.06 50.63	49.46 51.03	49.85	50.24 51.81	50.63 52.20	51.03 52.60	51.42 52.99	51.81 53.38	some simple adjust-
16 1/2	8 1/4	52.20	52.60	51.42 52.99	53.38	53.77	54.17	54.56	54.95	ments.
17	8 1/2	53.77	54.17	54.56	54.95	55.34	55.74	56.13	56.52	For an additional:
17 1/2	8 3/4	55.34	55.74	56.13	56.52	56.91	57.31	57.70	58.09	1/4" diam. add 3/4"
18	9	56.91	57.31	57.70	58.09	58.48	58.88	59.27	59.66	1/8" diam. add 3/8"
18 1/2	9 1/4	58.48	58.88	59.27	59.66	60.05	60.45	60.84	61.23	
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20	10	63.19	63.59	63.98	64.37	64.76	65.16	65.55	65.94	I couldn't figure out
20 1/2	10 1/4	64.76	65.16	65.55	65.94	66.33	66.73	67.12	67.51	how to convert to
21	10 1/2	66.33	66.73	67.12	67.51	67.90	68.30	68.69	69.08	
21 1/2	10 3/4	67.90	68.30	68.69	69.08	69.47	69.87	70.26	70.65	simple fractions 1/2,
22	11	69.47	69.87	70.26	70.65	71.04	71.44	71.83	72.22	1/4, 1/8, 1/16. I'm sure
22 1/2	11 1/4	71.04	71.44	71.83	72.22	72.61	73.01	73.40	73.79 75.36	a macro would be
23 23 1/2	11 1/2 11 3/4	72.61 74.18	73.01 74.58	73.40 74.97	73.79 75.36	74.18 75.75	74.58 76.15	74.97 76.54	76.93	required. But decimal
24	12	75.75	76.15	76.54	76.93	77.32	77.72	78.11	78.50	-
24 1/2	12 1/4	77.32	77.72	78.11	78.50	78.89	79.29	79.68	80.07	mode is pretty easy to
25	12 1/2	78.89	79.29	79.68	80.07	80.46	80.86	81.25	81.64	work with.
25 1/2	12 3/4	80.46	80.86	81.25	81.64	82.03	82.43	82.82	83.21	
26	13	82.03	82.43	82.82	83.21	83.60	84.00	84.39	84.78	Bob Ehrenberger
26 1/2	13 1/4	83.60	84.00	84.39	84.78	85.17	85.57	85.96	86.35	Boo Emenoeigei
27	13 1/2	85.17	85.57	85.96	86.35	86.74	87.14	87.53	87.92	
27 1/2	13 3/4	86.74	87.14	87.53	87.92	88.31	88.71	89.10	89.49	
28	14	88.31	88.71	89.10	89.49	89.88	90.28	90.67	91.06	
28 1/2	14 1/4	89.88	90.28	90.67	91.06	91.45	91.85	92.24	92.63	
29	14 1/2	91.45	91.85	92.24	92.63	93.02	93.42	93.81	94.20	
29 1/2	14 3/4	93.02	93.42	93.81	94.20	94.59	94.99	95.38	95.77	
30	15	94.59	94.99	95.38	95.77	96.16	96.56	96.95	97.34	
30 1/2 31	15 1/4 15 1/2	96.16 97.73	96.56 98.13	96.95 98.52	97.34 98.91	97.73 99.30	98.13 99.70	98.52 100.09	98.91 100.48	
	13 1/2 DECEMBED		70.13	20.34	70.71	99.SU	27.1U	100.09	100.48	•

# Phil Cox DEMONSTRATION MAKING A WESTERN SPUR

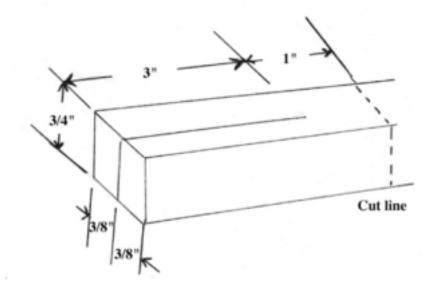
4 November 2006

By Bob Ehrenberger

Phil started out by showing us some examples of spurs made by him and his father. He pointed out the key elements and how they were supposed to fit on the boot. He had a stainless steel heel band of one that was in progress and pointed out that in many cases it was faster to forge a spur than to weld one together because of all the time required to clean up a welded spur.

For his forged spur, he starts out with a piece of 3/4" square mild steel long enough to hold onto without tongs. He marked out a 3" cut cold using the vice and a piece of 3/8" stock to locate the center line.

While splitting the stock, Phil uses a piece of chain through the pritchel hole as a hold fast. He puts the stock under the chain and then steps on a loop that goes nearly to the ground. It is important to split from both sides so that the cuts line up. It is also important to keep the piece clean of scale while working, as any scale that gets hammered into the surface will cause flaws that will have to be ground



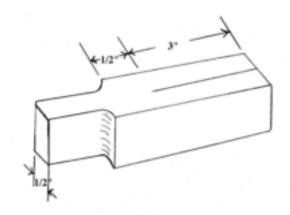
and sanded out of the finished spur. To clean the scale off the piece Phil would leave the cut off hardy on the anvil and drag the piece over it before working. When splitting the heavy 3/4" stock, Phil starts with a fairly heavy chisel and big hammer. When the two cuts are nearly through he switches to a very thin chisel and a lighter hammer. This makes it easier to cut through the thick material because the thinner blade doesn't displace as much material.

Once the bar is split, Phil filed and cut off any rag edge that was left where the two cuts met. He also finished the cut straight down with the bar held in the vice. After cleaning up the cut, he closed it back up into it's original shape and cut the bar off a little over an inch past the end of the slit.

Continued on the next page

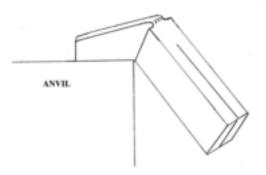
### Continued Making a Western spur.

After cutting the piece off the main bar, Phil fullered down a section 1/2" from the cut down to 1/2" thick. He did this by holding the piece at the edge of the anvil and hitting right at the edge of the anvil with the edge of his hammer. This is the piece that will eventually become the shank of the spur. This could also be done with a smithin magician or a spring fuller. Phil uses an open end wrench as a gauge on the thick-



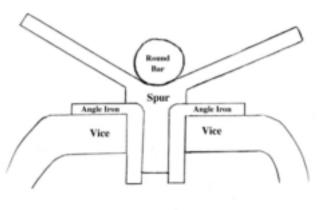
ness. (Why make a special tool when these are already the right size? He said that he had a whole set of them for various sizes)

After squaring up the shank, he turns it 90 deg and uses a half-on half-off strike to angle the shank. This must be done early in the process because later you just can't get the leverage against it without distorting the rest of the spur. This angle is important because if you go straight back, the rowel will hit the ground when you walk and trip you up. (After looking at a lot of spurs on



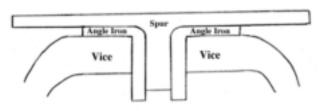
the internet, I noticed that some don't follow this rule. I can only conclude that these are for riders that seldom get off their horse.) The shank is also tapered down to about 3/8" at this time, while maintaining it's 1/2" thickness.

After getting the shank angle set, the spur is turned around again and the slit is opened up. Phil uses a pair of angle irons with a smooth radius on the inside corners for the next couple steps. It is important to maintain a nice radius between the shank and the rest of the spur. Once opened up Phil creates a radius at the bottom of the cut by driving a round bar into it. He first uses a small bar (1/4" or 3/8") and then a larger bar (3/4"). If there are any sharp edges that don't come out with the fullering they must be filed out before proceeding. It is very important that the inside of the spur is perfectly smooth.



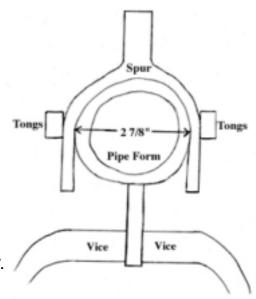
continued on page 12

Once there is a nice radius on the inside of the spur, the area is hammered flat. The area is hammered down to a uniform thickness of about 1/4". It is OK to let it spread a little since the heal band needs to be about 13/16" wide. Phil again uses an open-end wrench as a gauge.



At this point, each of the heel bands needs to be flattened out to a uniform dimension of 1/4" x 13/16" x 4" long. This will look a bit thick, but Phil assured us that the extra material will be filed and sanded off in the finishing process. Once the heel bands are the right thickness he uses a flatter to remove any hammer marks or imperfections in the surface. It is important that they are straight and smooth before the next step.

The heel bands are then bent into shape over a form made by welding a 3" piece of 2 7/8" pipe to a piece of flat stock. Don't get in a hurry here, it is important to keep the shank centered on the form. Once the heel bands are bent straight down (don't over bend) he grasped them with a special pair of tongs big enough to go over the spur while on the form. Make sure that you grab at the widest point of the form to keep from bending the bands in. While holding the spur on the form with the tongs hammer the bands near the shank down tight to the form. Make sure the shank is pointed straight up. After the bands are bent make sure that they are parallel with each other. Note: The form has a flat disk welded inside each end so the pipe can be hammered on without distorting. Phil said that this form makes spurs which fit most men's boots.



Once the heel bands are bent and straightened out, it is time to finish the shank. Cool the bands and take a localized heat on the shank. Phil uses a gas forge at home so he heats the whole spur and then cools the bands



before forging on the shank. The shank is drawn out a little more and curved down slightly. This is what they call a goose neck shank. Continued on next page

Continued.... Making a Western Spur.

Once the shank is the shape you want, you need to cut a slot in it for the rowel. To do this Phil mounts the shank in the vice with a small bar under neck of the shank to support it. He uses a chisel to mark the center line of the shank. He then cuts the notch with a hack saw. He said that if he just tries to saw it he has a hard time staying centered, so the chisel mark helps get the saw started straight. Saw through so the cut goes straight up and down while the spur is laying flat, this leaves clearance for the rowel to spin.

After making the cut, you need to size the notch. Phil uses a piece of flat stock the same thickness as the rowel with a radius ground on one end. Heat just the shank (be careful not to burn the thin sections) with the pipe form in the vice put the spur over the

pipe and drive the radius end of the flat stock into the bottom of the cut to remove any sharp edges. Then while the flat stock is still in place move to the anvil and hammer the split section back together and a uniform distance apart. Make sure that the shank and rowel slot are straight and lined up and let air cool.

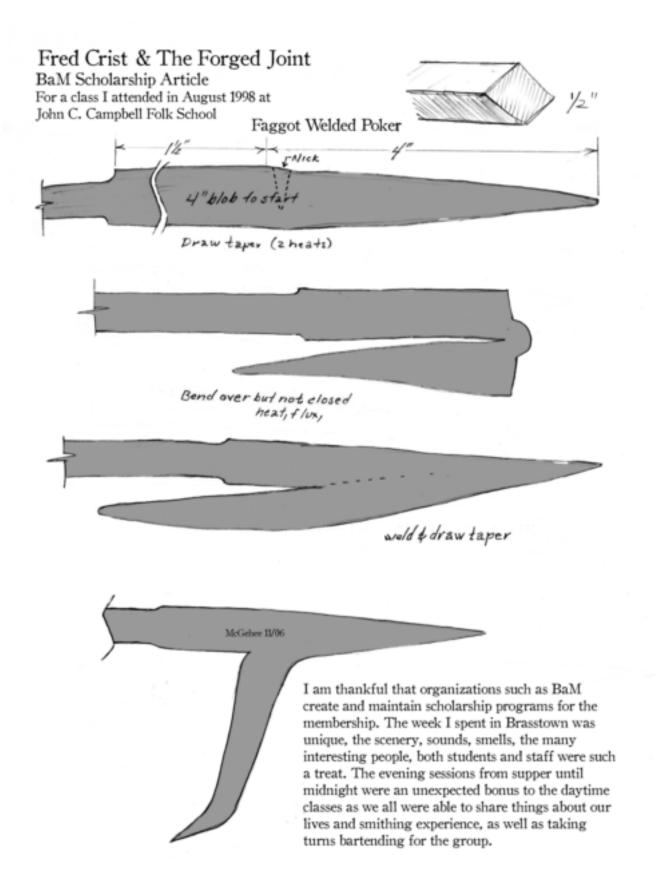
Measure the heel bands on a pair of boots and mark them 1/2" to 3/4" short of the end of the heel



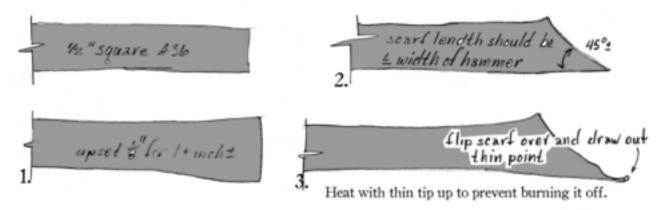
at the instep. Reheat the bands and cut on the hardie. If you cut from both top and bottom it will start the radius that you want on the end of the band. Make sure that everything is straight and let cool.

Phil makes a little bracket that holds the strap button and is riveted on after the spur is sanded to the final finish. It is important that the button is higher than the band so that it pulls right when the spur makes contact with the horse. Phil also puts a chain on the spur that goes in front of the heel in the instep. These are called tie-downs, only about 10% of the spurs that I looked at on-line had tie-downs so it may depend on your riding style whether or not you need them. (I'm not a horseman and don't have a clue, Phil rides and uses tie-downs on his personal spurs.)

When finishing the spur make sure there are no sharp edges on the inside of the heel band to mar the boot. It is also important to make both spurs at the same time so they match when done. It is really hard to make them match if done individually. Phil buys the rowels from a Western wares supplier, I found several on the internet \$4-\$25/par.



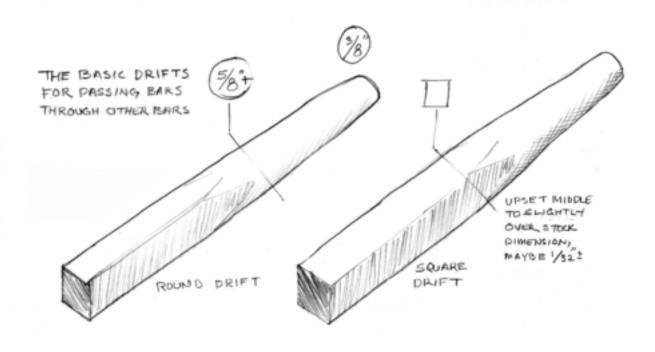
### Fred Crist & The Forged Joint Basic scarfing & forge welding of 1/2" bar



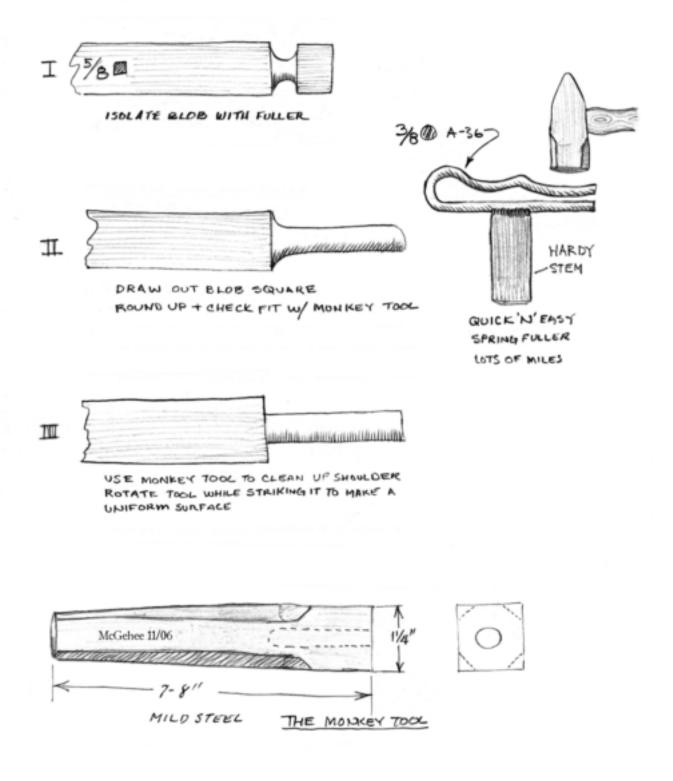
As you get close to welding temprature, increase blast slightly.



Position of pieces as the weld is struck.



### Fred Crist & The Forged Joint Second day, tennons & such



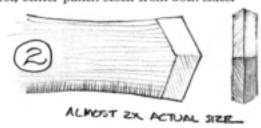
### Fred Crist & The Forged Joint

### Slitting & Drifting Large Holes

"A key to good holes is accurate layout"

"Layout time is just as critical as forge time"

First, center punch stock from both sides.



MARKING CHISEL

DEEPENS CENTER PUNCH MARK SHOWS UP BETTER ON HOT STOCK

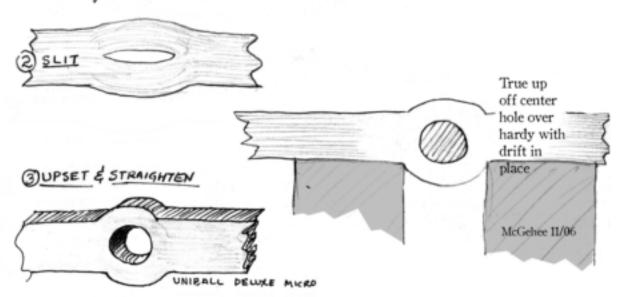




MARKING + SLITTING

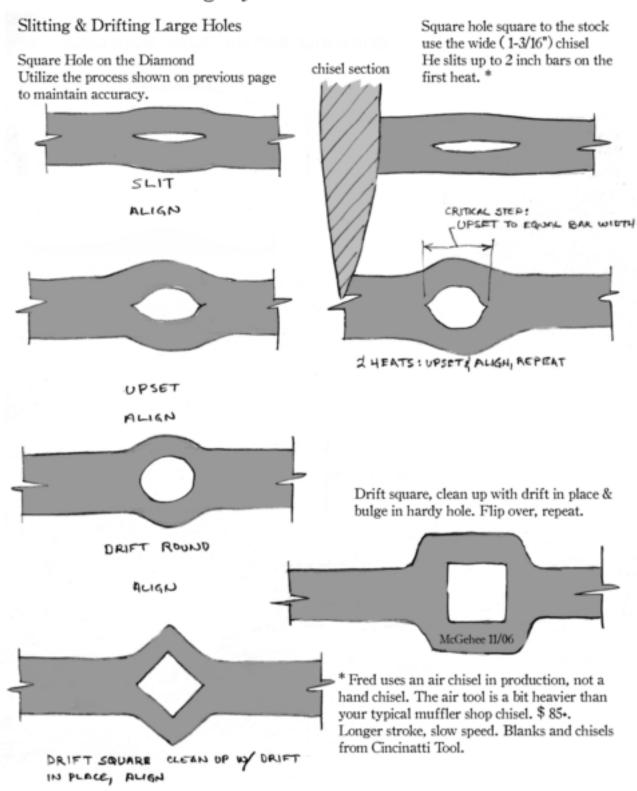
To pierce 5/8" stock for 5/8" round hole:1-1/8" slit width.
To " " " " square ":1-3/16" " ".

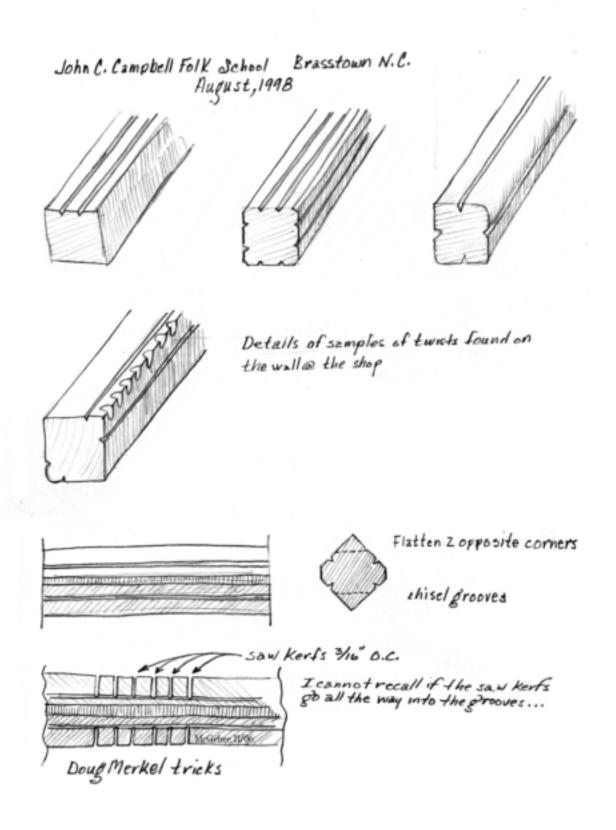
# 1. MARK/LAYOUT



- 4. Drift clean up align
- Reheat drift forge outside true clean up with drift in place

### Fred Crist & The Forged Joint





# Built a Shop, Made a Dream by Daniel Sisk AKA HL Malgar Thorvik

Like many blacksmiths, I was always drawn to the magic that comes with the art. More importantly, I am drawn to the atmosphere that comes with the shops I have seen at the renaissance faires I go to. When I began merchanting my leather work and chainmaille at the Greater St. Louis Renaissance Faire in 2000, I noticed their lack of such a shop. I spoke with the staff at the fair and they agreed that the need for a blacksmith shop was there. I told them I would build a shop attached to the building I had already built with the help of two of my apprentices in chainmaille.

This is where the story gets a little odd. I knew nothing about blacksmithing, other than, I really wanted to learn. I went to the State fair in Sedalia because I knew that BAM was there. I started to ask questions about finding a blacksmith that was willing to come to Wentzville for a few weekends a year and teach myself and my apprentices. A few looked at me as if I was a dreamer or talking for the sake of talking. Scott Stager however, jumped at the chance.

After conversing with me via e-mail, he realized that I, in fact, knew nothing about blacksmithing. He then went to BAM meetings seeking a more experienced smith to assist us. This is where Ken Jansen falls from the sky. Ken began emailing me about the show. He had never done a renaissance faire, but was willing to give it a shot. I had gotten his measurements, and set my mother to task making him clothing that would fit in at the show. I began to think....maybe we can pull this hair-brained scheme off.

Elda Haynie, and myself traveled to Wentzville from St. Joseph and Craig, Missouri to build the smithing shop. I had fine gravel brought in for the floor. We built a roof over the work area. We built a hand rail across the front to keep out the patrons. I even built a portable forge. Again I knew nothing of smithing. But a shop was being born.

During the days following the weekend, we built the structure, I had a massive attack due to Multiple Sclerosis. I lost the ability to control my legs and right arm. I was heart broken. Those around me began to tell me not to give up. Ken sent e-mails of encouragement even though we had never met. Our plans went forward. Elda and I traveled to the site Friday morning. The fair opened on Saturday. Looking around I saw the roof, the floor and the hand rail. I also saw the "forge" I had built. It now had a ten inch square hole in the middle of it. My hopes sank again. There was no way two guys with no blacksmithing knowledge could pull this off. Especially with me on two canes and struggling.



Exterior of Renaissance Faire blacksmith shop

That's when this large grey diesel pickup pulled up in front of the shop. I looked up and could not see above the nose of the driver. I knew Ken was six feet-six inches tall. This had to be him. He climbed out of the truck and started telling Elda to get his butt over there and unload this stuff. I liked him right away. I was unable to be helpful in the labor that soon followed. I quickly took stock of what we had going for us. A forge with a big hole in it. A roof, a floor, and a railing. We also had two men with no understanding of what we were doing and a tall man that we just met.

Continued on next page.

### Continuation ... Making A Renaissance Faire Blacksmith Shop

It all happened so fast. Before I knew it, Ken had dropped the missing piece of my forge into place. It was the firepot he had built. It was just a flat piece of steel when I built it. I went from knowing nothing about smithing, to knowing I didn't know anything about forge construction either. The two guys began working. I sat there with the understanding that this was a big mistake. But I had a roof. They were working on cutting a large hole into that. I decided that Ken must like to cut holes. He had made one in my forge and now my roof. The forge, he fixed. Now they were hanging the hood and chimney that he had brought in his truck. That hole was fixed. The only other hole that I had to deal with was in my heart. My dream had crumbled in a matter of a few weeks. Ken had put it back together in a matter of two hours. That is about how long it took, from Ken's arrival, for the first piece of glowing red steel to come out of the forge.



Forging Area

As I sat there watching a few sparks fly, I knew we had built a shop. Ken had made my dream come true.

The story doesn't end there. We opened the shop for the public the next morning. It went off without a hitch. We even won the most historical demo award at the fair. That was four years ago. I recovered from my MS attack. Ken has since bricked the forge into a double side draft masterpiece, with some help from Scott. Each year we have leaned on Ken to help us make the shop what it is today. Over the past years, Elda and I have learned many skills in smithing, thanks to Ken's teachings. I feel that Ken's assistance is

a prime example of why BAM is around. He truly is devoted to the preservation and advancement of blacksmithing.



Ken Jansen demonstrating in the new shop

### **SOFA Quad Four Roundup - 2006**

By Ned Digh

The annual Southern Ohio Forge and Anvil (SOFA) is held at the Miami County Fairground in Troy, Ohio. Four State Blacksmith organizations sponsor the conference and bring in several nationally known demonstrators. During the scheduled demo periods, there were several demos in progress.

SOFA has a permanent shop building at the fairground with three bays, all have bleachers and equipment for instruction or a demo. For additional demo space, several demos were conducted in the open-sided fair sheds. These areas were partitioned off with plastic tarps to provide a classroom like setting and better sound control.

BAM Life Member, Tom Clark, with the Israeli team, Tsur Sadan and Amit Har-Lev, had the largest area. As always, Tsur and Amit did a quality demo of heavy striking. Tom also made two hammers using the power hammers he sells. Amit won a 150 lb anvil in the Iron in the Hat event and the moderator mentioned that he might have difficulty getting the anvil on the plane for his return trip to Israel. I should mention that I won 6 pair of Tom's Tongs in the Iron in the Hat drawing.

The Quad Four Roundup is known for the large tailgate sale. I don't know if it is the largest in the country, but it was the largest that I have ever seen, including the 2004 ABANA conference in Kentucky. The official conference registration starts at Friday noon, but tailgate vendors start arriving on Thursday and continued to arrive throughout the conference. There was a wide range of equipment, small, big, old, new, some pricey, and some at reasonable prices.

BAM Life Members Tom Clark, Jerry Hoffmann, and Clay Spencer were present, as well as BAM member, Don Neuenschwander, from Indiana. The fairground has plenty of hookups for travel trailers and grass area camping spots for tent campers. Demonstrations were conducted by Audra Draper, an ABS Master Bladesmith; Bill Epps of Texas and a former demonstrator at a BAM conference. Kim Thomas was the third demonstrator and he is well known for several areas of blacksmithing including: knife making, ornamental, repousse', medieval, early American, and contemporary. Currently Kim has been commissioned to do several restorations of ironwork made by Samuel Yellin.

There were several periods of rain during the conference, both day and night. The rain caused some inconveniences for the tailgate sellers, but they managed to keep the markets open and busy.



Audra Draper, ABS Master Bladesmith



Lantern
in SOFA gallery



June 29—July 02, 2007
Victoria, B.C. Canada
Vancouver Island Blacksmiths Assoc
www.caniron.ca www.viblacksmiths.com

Canada's biennial blacksmithing conference will take place this year in the city of Victoria on beautiful Vancouver Island. It will be hosted by the **Vancouver Island Blacksmiths Association**.

Featured demonstrators include;

Richard Bent FWCB, Paul Thorne, Jake James, Daniel Orton, Joe Delisimunovic, Peter Fuller, Al Bakke, Renato Muskovic, Tony Austin, Doug Newell.

We also have a hands on forging/teaching area, repousse' teaching station, demonstrations by the Western Canadian Farriers Association and the Western Canadian Wheelwright Association.

We have arranged for **hands on craft classes** for spouse/family members, including basketry, felt making, mosaic art, quilting, fragrant wreath making, broom making, traditional metis beading and glass bead making.

Camping & R/V parking will be available on site, offsite dorm rooms at the Royal Roads University, b&b's and hotel/motel rooms close by.

Test your skills at the standards of THE WORSHIPFUL COMPANY OF BLACKSMITHS!! (est. 1352) As part of CANIRON VI we will be hosting an ADJUDICATED GALLERY as well as a LIVE FORGING COMPETITION.

Check out the website http://www.caniron.ca/ for more info



26 - 29 July 2007 at the World Heritage site of Ironbridge in Coalbrookdale.

This will be a Conference like no other, and will revolve around working groups led by Master Blacksmiths, rather than following the conventional, 'watch a demonstration' format. It is all about hands-on involvement, providing participants with a rare opportunity to work alongside highly experienced blacksmiths with an international reputation.

The Conference venue is the site where in 1709, iron was first smelted commercially using coke instead of charcoal and where seventy years later Abraham Darby III erected the world's first iron bridge, which gave the town its name. This historic site will form a unique backdrop to the event. Much of the Conference activity will take place in the wrought iron rolling mill works, at Blists Hill, where forges will be set up near the huge shingling hammer. This hammer will be running during the Conference.

Here are brief details of a few of the Masters involved:

**Francisco Gazitua**, comes from Chile, and is an accomplished sculptor, producing powerfully expressive works in forged iron. He is a both a maker and a teacher, and has studied and worked in Britain. He lives and works near Santiago, Chile.

**Uri Hofi**, is known as Israel's leading blacksmith; is well known for his inventive and radical approach to the techniques of forging; and has demonstrated widely in America and in Britain.

Jim Horrobin is one of Britain's most eminent blacksmiths. He recently completed and installed the 8 metre wide, 3.5m high, Winston Churchill Memorial Screen in St Paulπs Cathedral in London.

**Sergei Polibotko** is a leading blacksmith from the Ukraine, where he runs a major blacksmithing workshop.

To register or to receive updated e-mail information. Contact Elspeth Bennie, elspeth@ironhorse-studios.co.uk



ancouver

### Buy, Sell, Trade

#### **Individual Classified ads**

Kirk Sullens has organized a group buy for gas saver valves. Because of his prior purchases the co. is extending the group price of \$136.25 (tax included) for the forseen future. If you can't meet with Kirk there may be additional shipping costs. (This is a shutoff valve with a pilot light that lets you set your torch once and then quickly relight for each use.)

If interested 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

Tire Hammer Workshops, Beverly Shear Sharpening I have donated my treadle hammer plans to ABANA and will not be selling plans in the future.

Beverly shear blades sharpened \$35 plus postage. I will be leading workshops to build 50 lb. Tire Hammers, contact me for details.

Clay Spencer, 934 Partridge Lane, Murphy NC 28906-6149, 828-837-0708 or e-mail to clayms@brmemc.net

### **Information / Education**

New email/web site for Tom Clark and the Blacksmith School

Tom: tclark@ozarkschool.com School: www.ozarkschool.com

**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) now has its video library back up and running. An index list can be viewed at **www.umbaonline.org** They are VHS or DVD-R Cost is \$5 each with \$2 per order shipping There is no return date, you keep the video for this price. All videos are made at group demos, no commercial titles.

#### **Blacksmithing E-books on CD**

TWO NEW/OLD E-BOOKS-Weiner Kunstschmiedearbeiten (1928) and La Fidelle Ouverture de l'Art du Serrurier, originally published in 1627. 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.

### **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. Available with or without two 3/16 inch holes for handles. Now tumbled clean. 1-4 \$9 each; 5-9 \$8 each; 10 or more \$7 each. Shipping \$4 plus \$.50 for each pan. 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.

### Buy, Sell, Trade, Continued

**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, email: kaynehdwe@charter.net, web site: www.blacksmithsdepot.com. Offering Peddinghaus 2 horn anvils, Offcenter tongs and swages, etc, hammers, tongs, the Fly Presses, Treadle Hammers, and Forgemaster gas forges. We ship and accept Visa and Mastercard.

Persimmon Forge **PEDAL HAMMER** for sale for the more delicate work of chase and repousee, chisel and chase, leather stamping, some stone and wood carving applications, etc., in a comfortable seated position with minimal effort, maximum safety, and fast striking.

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 pot**s 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

### Wanted:

Articles for the BAM Newsletter. E-mail, bameditor@centurytel.net, or snail mail to Bob Ehrenberger, 6192 Hwy168, Shelbyville MO. 63469.

Demonstrator List Forming
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 can get you signed up.

### Shop Tip



Phil Cox demonstrates how to use a piece of chain through the pritchel hole to hold his stock while splitting.



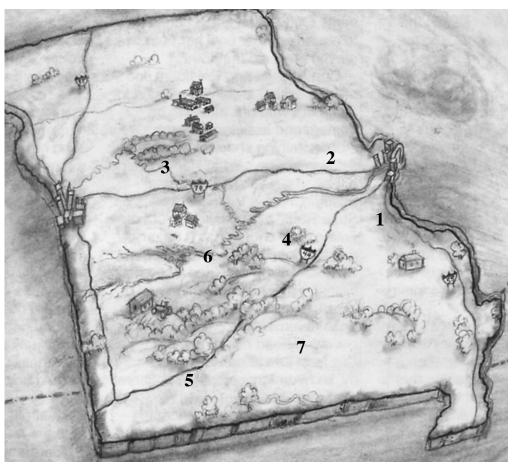


Monster hammer and Iron bridge near BABA conference site. see page 23 for details.

# Need Coal?

# Check on Availability

Coal Captain: Bob Alexander



- Bob Alexander (636) 586-6938
   14009 Hardin Rd,
   DeSoto, MO. 63020
- Ken Jansen, (636) 366-4353
   2257 Charter Rd., Moscow Mill, MO. 63362
- 3. Doug Clemons, (660) 595-2257 RR1 Box 124, Malta Bend, MO. 65339
- 4. Jerry Rehagen, (573) 744-5454 390 Bozina Valley Trail, Freeburg, MO. 65035

- Jeff Willard, (417) 742-4569
   P.O. Box 416,
   Willard, MO. 65781
- Denis Yates, (573) 286-5316
   343 Lamp Dr.
   Sunrise Beach, MO. 65079
- Mike Brooks, (417)-932-6644
   217000 C King Dr.
   Summerville, MO. 65571

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

# **Upcoming Events**

January 20 **BAM Meeting** hosted by Tom McGinnis at the Ozark Knifemaker's School. The trade item will be a kitchen knife. (417)581-6689

January 27- Newsletter submission deadline, this may get moved up if the March meeting is early in the month.

February 17 MTS workshop #1 Ray Scott, Eminence, MO.

February 24 MTS workshop #2 Ray Scott, Eminence, MO.

March 10 MTS workshop #3 Ray Scott, Eminence, MO.

Must have completed MTS #1 & #2 or have equivalent skill level.

March-BAM Meeting Stan Winkler's, St. Genevieve, MO. (573)-883-7670.

May 4-6 **BAM's Ozark Blacksmithing Conference**. Sedalia, MO. (new location)

May 12-BAM Meeting Don Asbee's, Hartsburg, MO. (573)-635-8363

June 29-July 2 CANIRON VI Victoria, BC Canada for information go to: www.caniron.ca

July-BAM Meeting We think Larry Crow will have this one, up on the Iowa border, Edlin, IA.

July 26-29 International BABA Conference 2007 Contact Elspeth Bennie, elspeth@ironhorse-studios.co.uk

September-BAM Meeting Dale Gilman has asked for this one again, Boonsburo, MO.

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

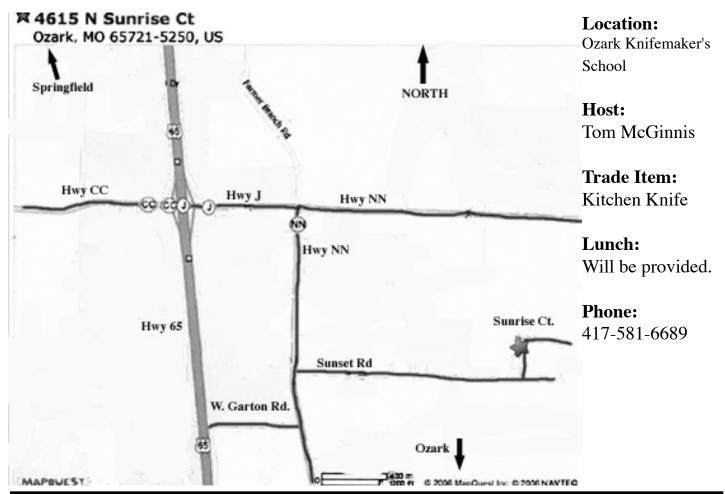
Note: For all MTS classes contact Don Birdsall to sign up (573)-364-7223

### New Members

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

Adams, Tom	Gipson, Kevin	Loyd Sr., George	Whiteman, Duane
8049 Whiskey Creek Road	1733 5th Ave SE	1402 Jade Road	1751 Kristi Lane
Union, MO 63084	Cedar Rapids, IA 52403	Columbia, MO 65201-1701	Pacific, MO 63069
tbarm@yhti.net	grizzly_teddybear@msn.com	573-474-5730	636-271-2480
636-583-2377	319-310-0263		
		McLaughlin, Mike	Willits, Don
Carpenter, Kerry	Hanback, Brian	122 Milwaukee	10234 Otter Ave
10470 W. State HH Hwy	27388 Worth Road	Lawson, MO 64062	Weatherby, MO 64497
Cameron, MO 66429	Sedalia, MO 65301	cowpie42@hotmail.com	660-334-0267
816-632-3213	bhanback@iland.net	816-580-3442	
	660-826-7246		Willits, John
Claxon, Sixx		Mosley, Darrel	11750 State Hwy KK
7317 NW Oak Drive	Harding, Douglas	4945 County Road 105	Weatherby, MO 64497
Parkville, MO 64152	3627 N. Utah Place	Fulton, MO 65251	816-632-8121
816-678-4330	St. Louis, MO 63116-4828	demosley@peoplepc.com	
	Douglas_Harding@nps.gov	573-642-7240	Zelch, Zeke
Claxon, Vernon	314-368-8852		214 E. Rosebud Ave
7317 NW Oak Drive		Sapp, Dale	Rosebud, MO 63091
Parkville, MO 64152	Knocke, Melanie	2655 Co. Road 4028	zzzelch@hotmail.com
816-678-4330	498 Angora Way	Holts Summit, MO 65043	573-764-4842
	Branson West, MO 65737	573-896-8046	
	jugglers@cebridge.net		
	417-338-2311		

# Next Meeting: January 20, near Ozark, MO.



### **BAM**

2212 Aileswick Dr., St. Louis, MO 63129

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