

RAM

INSIDE

May — June 1999

<i>The Champion 400</i>	6
<i>May meeting</i>	8
<i>Forging with Francis</i>	10
<i>Ozark Conference</i>	13
<i>Next meeting</i>	23



NEWSLETTER of the BLACKSMITHS ASSOCIATION OF MISSOURI

Contents

Editor's anvil

5 A plea for more material from our overworked editor and a reminder to stay cool.

Champion 400

6 Thanks to Tom Joyce we have a look inside the venerable Champion 400 blower.

Bob's business

7 Bob invites us to a July meeting minus the mud at his shop in DeSoto.

May meeting

9 We traveled to Lebanon, Mo. for a May meeting at historic Bennet Spring State Park.

Forging with Francis

10 Bob Woodard reports on the ultimate blacksmithing experience.

Bulletin board

12 Whatever you need — books, anvils, power hammers — we've got it here.

Ozark Conference

13 A look back at the 1999 Ozark Conference held in Washington, Mo.

Shop notes

20 We try out some questions and answers from the NC ABANA chapter.

Next meeting

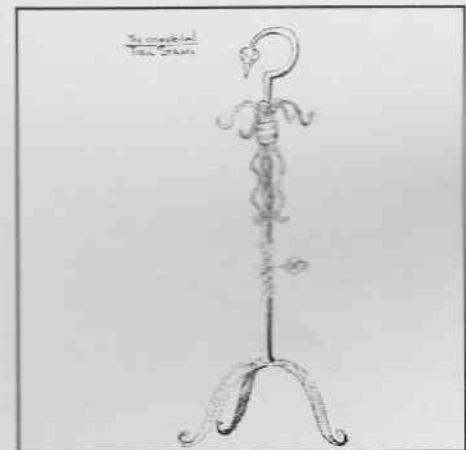
23 Bob Alexander's Scrub Oak Forge is the site for BAM's next event.



Page 8



Page 10



Page 17

**Newsletter of the
Blacksmiths
Association
of Missouri**

May — June 1999
Volume 16 No. 3

Our cover: BAM editor Jim McCarty finally appears in print, this time doing a demo for the Missouri Folk Arts Program's "Tuesdays in the Capitol." Jim demoed for a group of 80 school kids from Jefferson City. Photo by Jeff Joiner.

Editor
Jim McCarty

Contributing Editors
Stephen McGehee
Pat McCarty
Bob Alexander
Bob Woodard

Mailing Labels
Maurice Ellis

The Newsletter of the Blacksmiths Association of Missouri is published six times a year and is mailed to members of BAM. The annual fee for regular membership is \$20/year; a portion of this amount is for a subscription to this newsletter for one year. Editorial inquiries should be addressed to: Jim McCarty, 5821 Helias Dr., Jefferson City, MO 65101; (573) 395-3304. BAM membership inquiries should be addressed to: Maurice Ellis, Rt.1 Box 1442, Belgrade, MO 63622, (573) 766-5346. Occasionally some material will be copyrighted and may not be reproduced without written consent by the author. BAM welcomes the use of any other material printed in this newsletter provided the author and this organization be given credit.

BAM Membership Application

Name: _____

Address: _____

City: _____ State: _____

Phone: () _____ Zip: _____

New Member Renewal

How did you learn about BAM? _____

Do you need any tools? _____

Memberships are for one year from receipt of dues. Dues are \$20, which includes a subscription to the bimonthly BAM newsletter. Please make checks payable to Blacksmith Association of Missouri.

ABANA Membership Application

Primary ABANA Chapter Affiliation: _____

Name: _____

Address: _____

City: _____ State: _____

Phone: () _____ Zip: _____

New Member Renewing Member

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

- Regular Member\$45 yr.
- Senior Citizen (Age 65+).....\$40 yr.
- Fulltime student\$35 yr.
- Overseas airmail\$80 yr.
- Overseas surface mai\$60 yr.
- Contributory\$100 yr.
- Full time student\$35 yr.
- Public library.....\$35 yr.

See reverse

Editor's Anvil

What a strange deal — it's still June and I am working on the May-June issue. I'm not even late and there's no pressure yet from the July 10 meeting at Bob Alexanders. Looking ahead, I can see this is going to be a busy summer so I am trying to get ahead.

I need some stuff folks! Going through my files, I found almost nothing has been submitted lately. Stephen McGehee, Walt Hull, Bob Alexander, Doug Hendrickson, Doug Merkel and brother Pat have been the exceptions. While I can take material from the other chapter newsletters if we all did this the well would dry up pretty fast. We need to have at least one original piece in each issue. Please take a minute to send me something, even if it is just a photo of a new piece of your work.

Another suggestion: If you have a plethora of old tools in your shop you know you won't use why not advertise them for sale in the newsletter? BAM has a ton of new members following the conference. One thing they all have in common is the need for a good forge and anvil.

If you aren't quite ready to part with that old anvil consider loaning it to a new member until they can find one. The supply of old tools seems to be drying up. I still get a few calls from my Rural Missouri ad but for the most part these have either been a. people wanting to know what their stuff is worth and having no intention of selling, b. junk, or c. way too expensive. It's good to see some new anvils being made though I don't see who can afford them.

We are getting lots of response to the BAM web site. I know several of you have pointed out that the site needs updating. I actually had it current even before the newsletter was printed. However I am unable to access the server where the site is located to upload the new pages. I am working on getting this fixed but for now be patient.

Our web site was honored with an award from Links2Go, as was Jerry Hoffmann's excellent Blacksmiths Journal site. I will publish the info I

got from them. George Dixon was the one who originally designed this site. He sent it to me as a template and I added the BAM touches and many other changes. Hardly a week goes by that I don't get an e-mail from some prospective member, usually looking for coal.

Most of you know the ABANA office has moved to Georgia. Finally the phone company came through with the lines and we can now contact the office like we did in the past. I hope all BAM members who aren't ABANA members will consider joining. There's an application in the front of this issue.

There are a number of conferences coming up this summer. I hope someone will give me a report on them if you are able to attend. I don't think I will have any free time to take part at least until the SOFA conference comes around in September. That's a good one to make if you don't go to any others.

Thanks to a good auction and successful conference BAM has replenished its treasury. We need to be thinking of some workshops we want

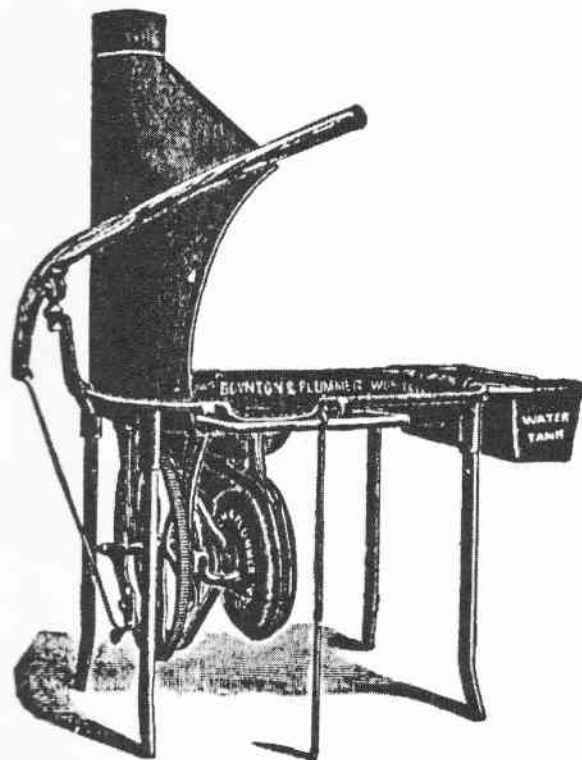
to do. Another idea would be to bring in some demonstrators for our meetings. If you have any ideas let our president know.

And speaking of presidents, we need to have an election at the next meeting. I am all for roping Bob in as president for life but he may have other ideas. We also need to replace Phil Williamson in the v.p. slot (as if that's possible). Keep in mind some good names to put into the offices.

Don't miss the next meeting, It will be at Bob Alexander's shop in DeSoto, one of the better equipped shops in the state. Bob has an opportunity to assist Jerry Darnell at the Folk School and will be leaving the day of his meeting. This is a great opportunity for Bob and also for us — bring your pickup truck and we will help "clean up" his shop.

While you are working in the shop this summer make sure you keep something cool at hand. It doesn't take long to get dehydrated and the best defense is to keep the liquids coming...but save the beer for later.

— Jim McCarty

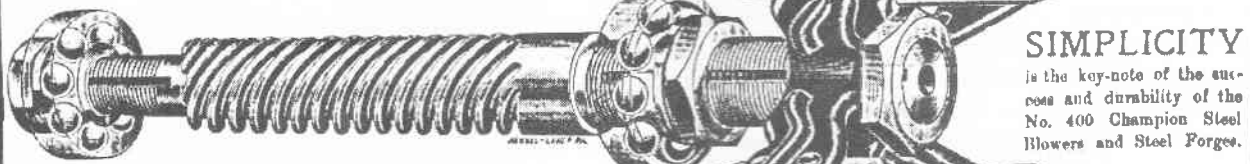


The No. 400 "Spiral Shaft"

shown on this page is precisely as it will be found in over 49,000 No. 400 Champion Steel Blowers and Steel Forges in use among Blacksmiths, Steam and Elevated Railroads, Boiler-makers, Bridge-builders, etc., whom we furnish as our best reference.

The No. 400 Spiral Shaft

with Fan Wing attached, as shown here, is the **ONLY ONE PART** of a No. 400 Champion Steel Blower or Steel Forge that runs at High Speed.

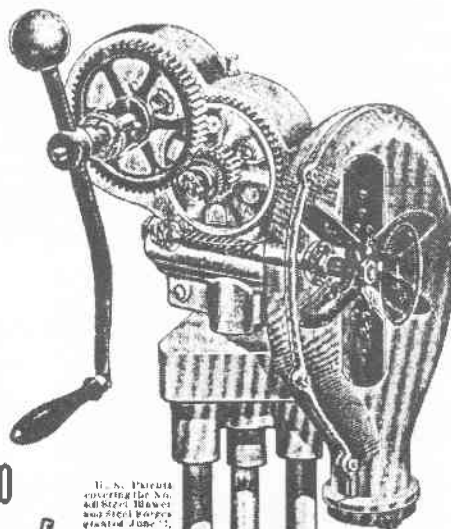


SIMPLICITY

is the key-note of the success and durability of the No. 400 Champion Steel Blowers and Steel Forges.

The No. 400

Is now
In its
4th year,
with over
49,000
in Use



In its
4th Year,
with over
49,000 in use

The No. 400 Champion Steel Blowers and Steel Forges are now backed by over 49,000 of the staunchest friends the world has ever known.

The fact that many of these friends are the mechanical brains of this great and prosperous nation gives the No. 400 Blower a backing

of intelligence that no other tool can boast, and we thus furnish as our best reference, as we always before have done, the great army of users of the No. 400 who are now scattered in every nook and corner of this great land.

The No. 400 Blower

is fact is known not only to all blacksmiths who have used it, but to all the jobbers, as

the Blower which has completely revolutionized the Blacksmiths' fires of the world. It is unquestionably the marvel of the century, and there is no more comparison between any other method of producing hand blast, and that of the No. 400 Champion, than between the old mail coach of the plains and the lightning express of the present. The one is of the past, the other, the No. 400, is of the present. The only Blower, in brief, that can meet the high standard requirements of this intelligent age—an age that has never been equalled or even approached in the matter of mechanical discovery, since the world began.

Write for 212-Page Catalogue

illustrating the largest and most up-to-date line of Lever and Crank Blowers and Forges, Blacksmith Post Drills, Screw Plates, Tire Sanders, Tire Riveters and Welders, Power Blowers, etc., manufactured under one cover in the world.

BY SENDING
YOUR ADDRESS

on a postal we will forward you a Souvenir Button of the No. 400 Blower.

U. S. Patent covering the No. 400 Steel Blower and Steel Forge granted June 11, 1892, No. 541,141, and 4,201,131, 1907.
Patent Numbers
655,722 51,524
638,124 51,525
607,764 51,526
57,143 51,527
61,551 51,528
Also, Great Britain Patent No. 1,460, 1895 D. 1895.

Champion Blower & Forge Company

LANCASTER, PA., U. S. A.

Bob's Business

Well, Summer is just around the corner and so is the closing of most schools. As I am writing this, I had just finished preparing the Mobil Blacksmithing shop for another school demonstration.

I enjoy demonstrating for school classes and look forward to their many questions. Not only do I demonstrate for schools but also Scouts, Living History Days and fairs. In doing so, not only does one spread the work that blacksmithing is alive and doing well, but also a person can hear a lot of stories from the old timers, and get leads on some blacksmithing equipment.

There's a need for volunteers at the Missouri State Fair so if anyone is interested contact Jim McCarty.

This past weekend was our May BAM meeting. It was hosted by Fred Weisenborn. Fred is an employee of Bennett Spring State Park and he reserved a shelter house for our meeting place. The weather was fine, the turnout was fair and all seemed to enjoy the demos. I was hoping to demo my payback for a scholarship I received last year to attend a class with Jerry Darnell and do this concurrently with my newsletter article but it failed to appear in our last issues (again). Perhaps next issue!!!

The meeting was a little delayed because the park ground fault breaker did not like our BAM forge blower motor, but this was to most people's advantage because of late arrivals. I brought the anvil, vice, etc. and enough material to demonstrate a J hook, plant hanger with a hand forged leaf, a forged knife from a railroad spike, a snake from a horseshoe rasp, A Tom Clark horseshoe, some nails and a combination bottle opener-corkscrew with a knot in the middle that I learned from Mr. Hofi.

In between all this, Jim demonstrated a mouse key chain that he learned from Clay Spencer, I think. Several people stepped up to the anvil and using Jim's mouse die made them a mouse to take home. Thanks to Fred and all who helped for making this

meeting work.

Next meeting is in July at the "Scrub Oak Forge" in DeSoto, Mo. Rumor is that if things work out, the owner may be leaving for J.C. Campbell Folk School on the same afternoon as the meeting but that shouldn't pose a problem. The McCarty brothers mentioned that they might stay after I leave to clean the shop up or was that to clean the shop out? If at the next tailgate sale they have some newly acquired tools

that look like mine I will know what they meant.

If anyone is planning to get more than a couple of bags of coal at the next meeting, please notify me so we can have plenty of coal bagged.

See you in July at the next meeting. (HOPE THERE'S NO MUD!)

Keep on hammering,

— Bob Alexander



BAM

MAY MEETING

by Jim McCarty

BAM's May meeting was held for the first time ever at Bennett Spring State Park near Lebanon. The site is one of the most beautiful state parks in Missouri. Fred Weisenborn had one of the stone

pavilions made in the '30s by CCC workers reserved for us and it was a fitting setting for the BAM forge.

The pavilion is in a valley surrounded by the spring-fed beginnings of the Niangua River. I know a lot of members spent the weekend here and I understand Vernon Fisher actually caught some trout.

I had my 3-year-old daughter Emily with me so didn't get to take part as much as I wanted to because she was a crab. However Tony Smith took over for me and I did manage to get in the fire. More on that later.

The demonstrations were a little slow getting started which didn't bother me any since it was almost 10 am before I arrived. About 40 people made it to the meeting, including several first-timers.

It seems the breakers at the park didn't like the motor circuit on our forge, but that was finally fixed.

The day belonged to Bob Alexander who put on quite a show. Bob made a J hook, plant hanger with a hand forged leaf, a forged knife from a railroad spike, a snake from a horseshoe rasp, a Tom Clark horseshoe, some nails and a combination bottle opener-corkscrew with a knot in the middle that he learned from Uri Hofi.

His one break came when I took over and showed off the mouse die I had made from a sample Clay Spencer gave me at the Ozark Conference. With some striking assistance from Bob I made two mice from the die and then offered its use to anyone who wanted to make themselves a pattern for a die. I think at least two people gave it a try.

There was an excellent showing on the trade item, which was something to do with a

fish. The most unusual was the hammerhead shark, made from a railroad spike of course. I also liked brother Pat's rooster tail lure made on a scale that would land sharks or maybe even a whale at the Whale Watch in Memphis.

As is typical when we have a nice day and a nice setting, we did more talking than work. I enjoyed lunch in the park's dining room where they have old chandeliers with jumping iron fish made back in the '30s. I have a pattern of the fish supplied by Fred, hope to publish that.

All in all it was another great meeting. Thanks to Fred and for the rest of the park employees for letting us using the facilities.

Minutes

Thanks to Fred for having us down.

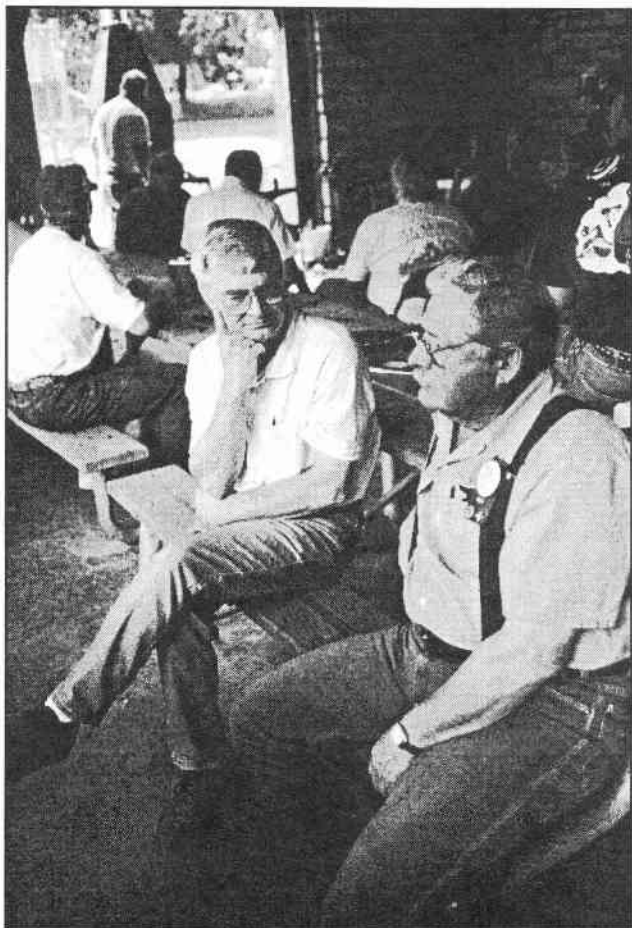
No old business.

Maurice commented on the conference — he said we have had better and worse events. This one made \$7,000 counting the auction proceeds.

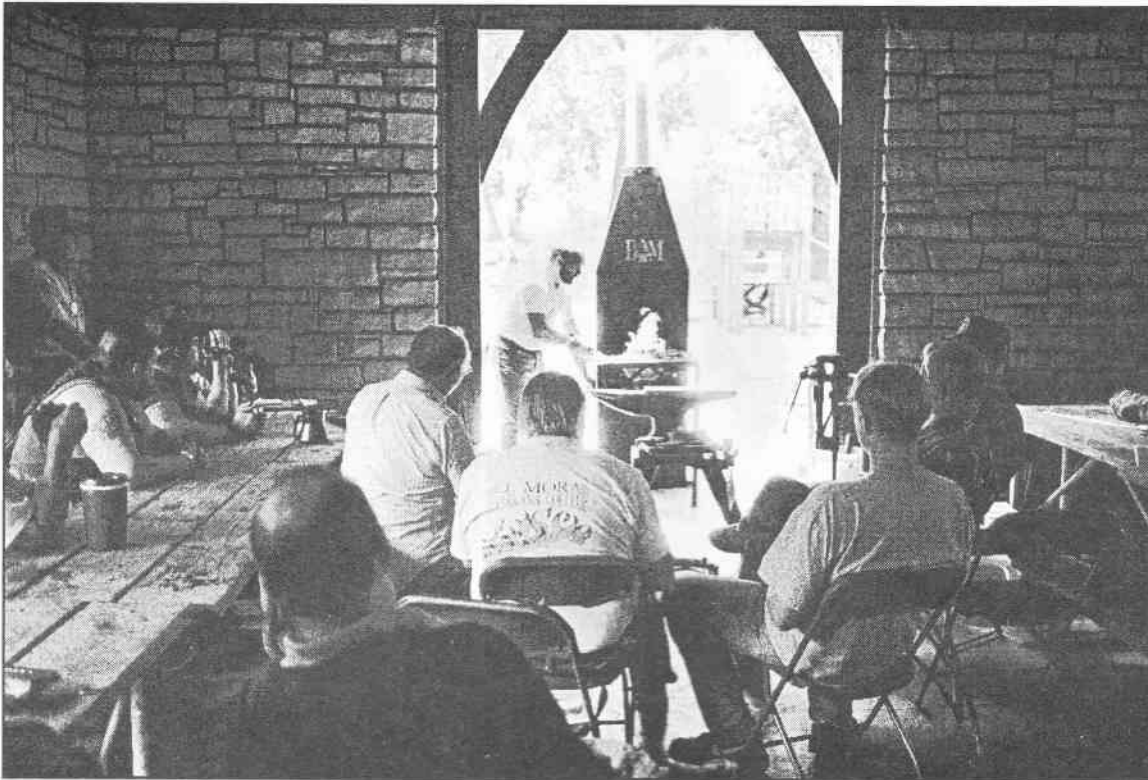
Maurice also commented on the newsletter mailing. He said the printers used an old list and some people most likely did not get their copy. He also said he has discovered that they haven't been mailing copies to our comp list, which includes the other ABANA chapters. He has merged the two lists into one so that won't happen again. If anyone didn't get the last newsletter contact Maurice for a copy.

Emil Bubash asked whether the newsletter could come out earlier (most people got theirs the day before the meeting). Editor Jim McCarty commented that he was doing the best he could but that the dates for the next three meetings are published in all newsletters. Please mark your calendars.

Maurice asked for volunteers to host next year's meetings. He has them scheduled through November but needs 6 hosts for next year. Contact Maurice if you want to do this.



Maurice Ellis and Joe Wilkinson take it easy under the shelter at Bennett Spring.



Left: Bob Alexander was the main demonstrator at the May meeting. Below: Pat McCarty's trade item would have landed whales.

New business

The BAM boutique made \$900. Bob Alexander suggested having some workshops to make items to restock the boutique. These need to sell for under \$20. Joe Wilkinson volunteered his shop for this — date to be announced, most likely winter.

Jim McCarty announced that BAM was invited to a hammer-in at Summersville, Mo. June 4&5. Jim had details available.

Jim also commented on the state fair set for August 16-22 in Sedalia. He said he needs volunteers to demonstrate on all days. Contact Jim if you want to do this.

Bob Alexander reported on a letter he got from the Touchstone Center for Crafts. They are opening a new shop on their campus.

A good turnout for trade item and iron in the hat, which brought in \$158.

There being no further business we adjourned.

Respectfully submitted,

MAY — JUNE 1999

Jim McCarty for John Murray, secretary

Iron in the hat

Kent Harbit donation went to Don Nichols

Anvil's Ring magazines donated by Jim McCarty went to Joe Wilkinson, Don Birdsall, Rick Gordon, Ed Harris, Mike Williamson, Ray Chaffin and Fred Weisenborn.

Ray Chaffin donation went to Don Birdsall

Anvil Magazine donated by Rob Edwards went to Ray Carpenter
Bob Alexander hammer handles went to Dane Shepard

Maurice Ellis spun copper items went to Bob Stormer

Bob Alexander hammer handles went to Doug Clemons

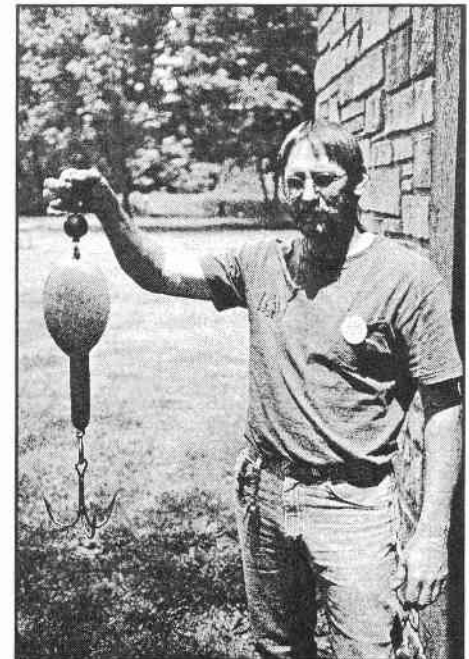
Maurice Ellis bowl went to Jim McCarty

Fred Weisenborn donation went to Kent Harbit

Superman with blacksmith picture donated by Jim McCarty went to Ed Harris

Kent Harbit donation went to Doug Clemons

Joe Wilkinson donation went to Bob Alexander



Trade items

Trade items (a fish) were made by Mike Nave, Ray Chaffin, Maurice Ellis, Joe Wilkinson, Shane Hartsuff, Kent Harbit, Doug Clemons, Pat McCarty, Don Nichols, Ed Harris, Wayne Wilson, and Rick Gordon

Forging with Francis

Bob Woodard gets a chance to learn from the master

by **Bob Woodard**

Recently, a chance to spend two weeks in Carbondale, Colorado, prompted me to contact the Colorado Rocky Mountain School and I was delighted to learn that Francis Whitaker (age 92) was holding a seven day class during the time I'd be there. I immediately applied to him for a space and submitted the required information about my work and the project I wished to work on. He accepted me into the class, but clearly saw that the project I proposed (pages 80 and 85 in Otto Schmirler's book — upset corners on the diamond, pierced

holes on the diamond and on an angle) was way over my head and something "only a complete master with all the tools required would tackle." I agreed. I then submitted the picture of an early Renaissance grating door from page 18 in Julius Schramm's book as a point of departure for a study piece. He accepted that and after the class started, with guidance from Francis, I ended up selecting an oval frame on the flat 5/16" x 1" with 7/16" square bars (2 vertical, 3 horizontal) half-lapped and rivetted at the crossovers and ends. Oval rosettes would cover the half laps on the front side.

The class was packed full of inspi-

ration, technical information, philosophy, challenge and hands-on experience. My ability to absorb was stretched to the limit. One other regular student was enrolled, Dan McNeil, from Golden, Colorado. His project was to forge a wide assortment of tongs and other tooling. His quality and productivity was astounding and Francis didn't hesitate to pronounce that Dan was the hardest working student he has ever had.

James Honig from Hondo, Texas, came up to serve as assistant to Francis and worked on a pair of door handles in those rare moments he wasn't helping Dan or me. Dave Powell, an



Bob Woodard, center, gets some help from Francis Whitaker, right and James Honig. the work in progress is a hammer head.

engineer from Carbondale, came in periodically to continue work on a complex grill he had started during an earlier class. Also, Allison Finn came in to put some more time in on her long-term project, a lovely fan grill. Brenton Curtis was in the shop off and on, refining some techniques under the guidance of Francis. Brenton had just returned from nine months in Europe with the aid of scholarships from the Whitaker Foundation, The Rocky Mountain Smiths and ABANA. It was a treat to hear him relate some of his blacksmithing experiences in the various European shops.

Francis was in his shop every morning by 8:30. I was continually amazed at his unceasing involvement as a teacher . . . he never stopped! There are six forging stations in the shop and Francis didn't miss a thing. He could guide me through a forge weld at one end of the shop and spot an error in the chucking of a drill bit at the other end. He personally stepped to the forge and demonstrated technique countless times. Many of these will be added to the revised cookbook he is compiling. A juice break about 10:30 and a "beer-30" break about 4:30 every day were not only a break in the forge work, but provided a pleasant opportunity to kick back and talk about anything on our minds.

We took about an hour off for lunch and the food at the school dining hall was outstanding. Class broke for supper about 6:00 and the shop was open through most evenings. On two of the evenings, Francis showed slides of ironwork (Spain and Salzburg) at his home which is next door to the shop.

I had requested an opportunity to enhance my forge welding, rivetting and coal fire management skills and I had plenty of opportunity for all these. I learned a lot, but at the beginning, I felt like a real klutz. I think the "chance of a lifetime" reality for me was somewhat intimidating at first, and in my excitement, I did most everything wrong. I learned that although a blacksmith's memory is short, mine is particularly short. I unsuccessfully tried to blame it on the altitude. My first neat trick was returning the 7/16" square stock to the



There are six forging stations in the shop and Francis didn't miss a thing. He could guide me through a forge weld at one end of the shop and spot an error in the chucking of a drill bit at the other end.

wrong rack. Then I didn't write down all the layout test dimensions after being reminded by Francis how important it was. I couldn't deliver a straight hammer blow, which didn't help a lot of things. I burned off about 20 percent of my oval frame in the fire, but got some practice forge welding the repair.

My crowning glory was when I tried to cut off some hot iron with the power hacksaw after Francis told me to let it cool first. I know better! He stopped me as I was reaching for the switch and was ready to send me home for the rest of the day (this was in the morning). He let me off with writing my lesson 100 times and accepted my penance after 76. In spite of these and other shortcomings on my part, I achieved innumerable successes and my oval grill passed muster. It is a

treasured possession. I also came away with a beautiful 1-1/2 pound hammer, parts for a grader blade bridge anvil, tooling for 7/16" square half laps and several pot hooks.

The walls of the shop offered many bits of wisdom. Some of the sayings I copied down follow:

There is no "Try". It is "Do" or "Not Do".

Art is long, life is short, get going.

There is never anything that will not be seen. (J. Schramm)

For there is nothing covered that shall not be revealed, if hid, that shall not be known. (New Testament)
Some additional wisdom:

There are all kinds of ways to do things wrong; only one way to do it right.

Nylon reinforced tape wrapped around soapstone keeps it from breaking.

Blacksmith's go to Hell for not getting it hot enough and not charging enough.

In the steel rack, put the cut end out so you'll know it's a short piece.

Add iron to the fire from the top — don't slide it through.

The forge table is not a coal bin — keep it for tools.

After the workshop was over, I visited the three independent forges in town. Piñon Forge operated by Will Perry, Roaring Forge operated by Ken Riley, John Hoffmann and Joe Burleigh; and Blue Heron Forge operated by Steve Lock and Franz Froelicher. Located within two blocks of each other, they are all busy doing fulltime quality ironwork. They form a very strong network of smiths, they express a mutual respect for each other and they could not have been more welcoming to me.

Carbondale surpassed my wildest expectation. It is truly a blacksmithing Mecca. If you like working iron and have a chance to go to Carbondale, I strongly recommend that you don't pass it up.

For information on attending the school write to: Francis Whitaker, c/o Colorado Rocky Mountain School, 1493 County Rd. #106, Carbondale, CO 81623.

BAM

Bulletin Board

For sale: 75-pound Mayers Brothers power hammer converted to an air hammer. Located in west-central Tennessee. Can load, \$2,000. Ken Scharabok, (931)296-3793.

Wanted to buy: 8-inch leg vise. Contact Rick Scarlet at (660) 263-8982 or Rt.1 Box 220C, Moberly, MO 65270 or e-mail to rscarlet@missvalley.com

Cast iron forge with Champion 400 blower, measures 23 x 34, \$250. Lancaster blower, no stand, \$50. Harold Weber, (816) 697-3462.

Video tapes of the 1998 ABANA Conference, and others, are now available. Full length videotapes from \$24 give you the opportunity to learn from the best artist/blacksmiths in America. Free catalog. Phone orders welcome. Rocky Comfort Forge & Video Production, Rt.3 Box 3678, Quincy, FL 32351; (850) 627-7949.

If you don't already subscribe to Jerry Hoffmann's Blacksmith's Journal consider doing so. The Journal is published monthly and a one-year subscription totals about 190 pages. There are over 1,200 pages already published and back issues are also available. If you haven't seen it, call or write for a free sample. Cost is \$32 per year. Call 1-800-944-6134 for credit card orders or write to: Blacksmith's Journal, PO Box 193, Washington, MO 63090.

For sale: 70-pound air hammer, \$2,800. 40-pound air hammer, \$2,300. Also custom spinning in copper, brass, aluminum, steel and pewter. Maurice Ellis, (573) 766-5346.

50-pound Little Giant, \$2,500, 25-pound Little Giant, \$1,800, Pexto 36-inch pneumatic bench shear with extra set of blades, \$1,700, all parts for Clay Spencer-style treadle hammer, \$400, 5 fly presses from \$1,800 to \$2,500, 225-pound Hay-Budden anvil, \$400, heavy duty floor crane, \$400. Andrew MacDonald, 401 E Kenicott, Carbondale, IL 62901; (618) 549-1954.

BAM members, time is money. I have a CNC plasma cutting system in my shop in Columbia and will offer my services to BAM members at a 10 percent discount. I will cut anything you desire. Flowers, leaves, custom designs. CNC plasma cuts parts fast. From art to parts I do it all. Call (573) 474-8749 and ask for William Irvin for more details.

Hammers, tongs, fullers, flatters, cutters, chisels, punches, swages & blocks, cones, firepots, hand vises, pliers, coal and more. The finest smithing tools in the world. Tool list available upon request. We ship and accept Visa and Mastercard. Steve Kayne, 100 Daniel Ridge Road, Candler, NC 28715. (704) 667-8868 or 665-1988 or fax (704) 665-8303 or e-mail: kaynehdwe@ioa.com

For sale: Large cannonball stove from the old Washington Forge. Actual blacksmiths stood around this stove warming themselves and occasionally spitting on it. \$200 or trade for pony. Pat McCarty, (314) 239-3814.

Charles McRaven's classic "Country Blacksmithing" is back under a new title, "Tools and Processes of the County Blacksmith." McRaven ran a school near Branson for many years and much of the material reflects his time in the Ozarks. The book has been out of print for some time. Price is \$35 plus \$3.50 shipping and han-

dling, from Ravenoak Press, PO Box G, Free Union, VA 22940.

New Heller Brothers cast steel hot-cut hardies produced for the war department for WW II. 3/4-inch shank, 3-1/4 inches tall. \$20 plus \$4 for shipping. Andrew Morrison, 2197 N. Allen Ave., Altadena, CA 91001; (626) 798-6588.

Donnie Briggs has coal for sale in the Linn Creek (Lake of the Ozarks) area. Call (573) 346-6023 for details. Call after 4:30 pm or leave a message.

Power hammer history! *Pounding out the Profits — A Century of American Invention* by Douglas Freund (hardbound, 317 pages, profusely illustrated) is available for \$32.50 plus \$4.50 shipping and handling through Minus Mountain Machine Works, PO Box 532, Jerome, AZ 86331.

For blacksmithing books contact Norm Larson, 5426 E. Hwy. 246, Lompoc, CA 93436 or call (805) 735-2095. Ask for his catalog — he offers hundreds of books on blacksmithing and related topics and is a real nice guy too.

Colonial Wrought Iron is a photographic record (506 pictures) and descriptive text of the wrought iron items that have been forged by blacksmiths during the colonial period in America. The book was inspired by the collection of James Sorber and was written by Don Plummer. To get your autographed copy, send check or money order for \$44 plus \$4 shipping for each book to: James C. Sorber, 1105 Wilson St., Pottstown, PA 19464.

Ozark Conference

'99 event features Jeff Mohr, knives galore, Michael Saari and more

by Jim McCarty

Perfect weather, a new location and some wonderful demonstrators made the 1999 Ozark Conference a huge success. We had a crowd of about 170 registered for the event. While it rained hard all week the clouds parted Friday and stayed that way all weekend.

Things got underway Friday night with a slide lecture by one of the demonstrators, Michael Saari. Michael has done it all. While he specializes in reproduction Colonial hardware, whenever he felt he had a technique mastered he headed in another direction. For example, he spent three years in Germany working with Manfred Bredohl. He also did graduate work at SIU.

For this reason he is as comfortable doing massive sculptures and contemporary furniture painted orange as he is forging Suffolk latches or laying down gold leaf.

Reuben Funk followed Michael with a lecture on basic metallurgy for blacksmiths. This is an area we often overlook and Reuben's effort was relevant and well prepared.

Rounding out Friday night's program was the Thread the Needle contest which required punching a hole in 3/8 inch round and then drawing out the end and poking as much as possible through the hole. This was a difficult challenge but a surprising number tried it with Pat McCarty edging Tom Clark for first place — a John Murray hammer.

Saturday dawned sunny as the day before and we got down to serious business. We had the Knights of Columbus pavillion divided into two

forging areas and Jeff Mohr took one end while Michael Saari held court in the other.

Jeff was unbelievable, doing more work in a few hours than most people could do in a day. Before the auction was held Saturday night he had a complete set of fireplace tools, each with a different end treatment.

Michael did a tremendous job too. He started with a Colonial latch, sketching each step along the way so that we could hopefully duplicate his efforts. He was ever ready to stop what he was doing to answer questions. Before we broke for lunch he had most of the work done on a one piece "tasting" spoon which he finished later in the day.

Meanwhile the knifemakers had their own site going under a tent. Guy McConnell was the Saturday demonstrator and he kept a steady stream of Damascus billets coming. He also did some cable Damascus. Ken Markely took over on Sunday but didn't need the fire. Ken showed the not-so-much-fun part of knife making, grinding.

Ed Caffrey, a Montana knifemaker who is doing some time at Ft. Leonard Wood, made it to the conference and was a big hit showing off his knives and answering questions.

Another unscheduled demo took place just after lunch. Michael turned over his forging site to Alexander Romanoff, a Russian smith who is part of a team demonstrating at Silver Dollar City. He forged a beautiful rose using flat stock that was fullered and then forged into a spiral flower.

Our auction was another huge success thanks to the efforts of Tim Ryan, who worked around the "voice of God" which was a class reunion held upstairs and patched into the

speakers where the auction was held. This had to be one of the strangest auctions Tim has conducted.

Before the bidding started John Murray took the microphone to pass on BAM's highest honor, the Bob Patrick Founder's Award. He presented it to the late Phil Williamson, and Mike and Peggy accepted it on his behalf.

The auction brought in \$6,700, thanks in large part to our Russian friend who gave us a dragon candleholder that prompted lively bidding. Other big numbers came from Bob Alexander's lamp and Pat McCarty's BAM box.

One strange bid came from Doug Hendrickson, who paid nearly \$300 for a bottle of hot sauce. At least that's what we're going to tell Bonnie.

On Sunday the demos continued with Jeff Mohr doing a nice candleholder and showing us how to tie brooms, something he once did to earn a living. Michael made dovetail hinges, forge welding the thin stock.

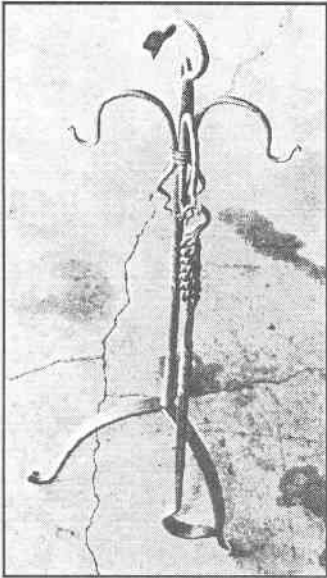
Maurice Ellis's air hammers got a lot of use and I could see a number of people taking notes. We were all amazed at how little air they required.

Once again we sponsored a family program with my sister Mary Laubinger teaching how to make a blacksmith bear and Leigh Funk doing stained glass. Lee also demonstrated glass bead making when her class was finished.

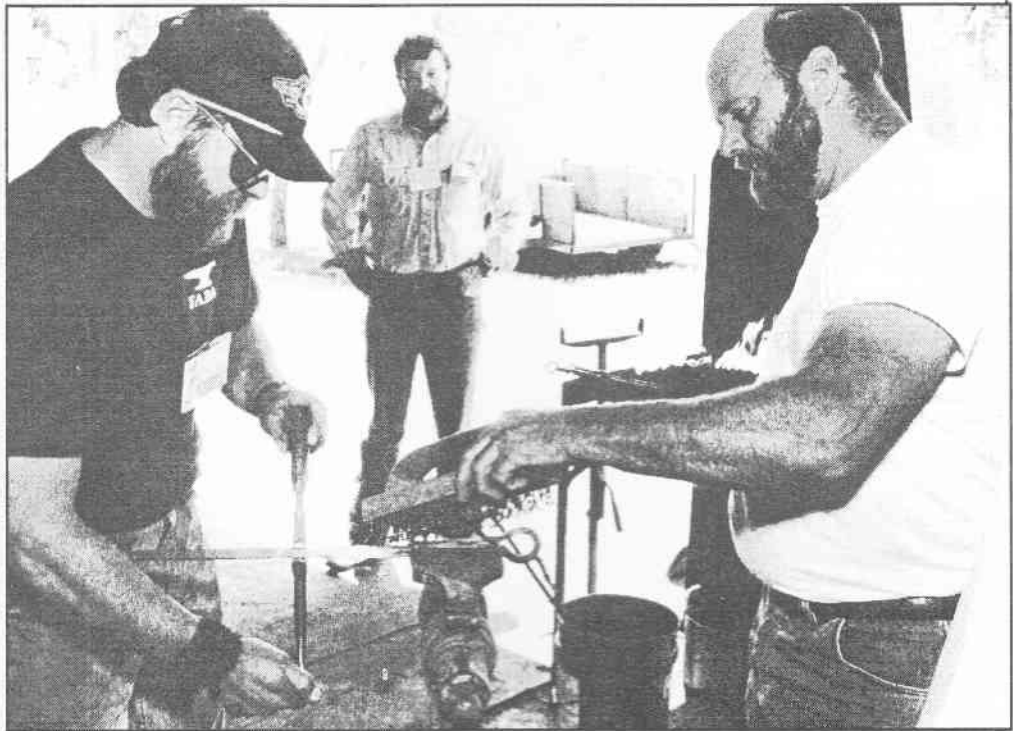
The tailgate sales were strong and lots of stuff changed hands. Some folks never got out of the tailgate area.

All in all, it was one of our better efforts. Thanks to Maurice, Bruce Herzog, Pat McCarty, Lou Mueller and Bob Alexander, the committee that put it all together.

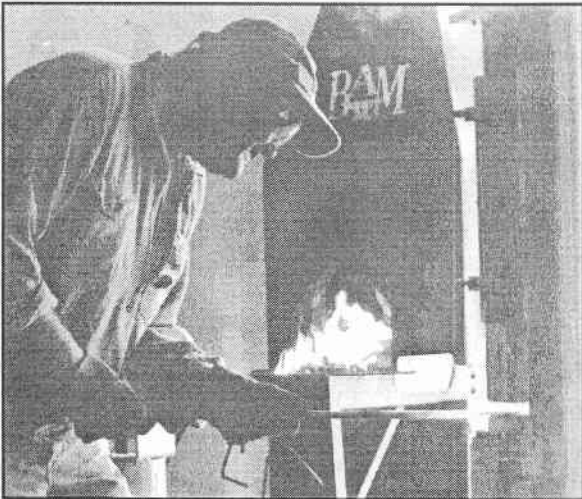
Conference Highlights



Above: Jeff Mohr's fireplace set. Below: Michael Saari slaves over a hot forge.



Above: BAM President Bob Alexander (right) gives demonstrator Jeff Mohr a hand with the wire brush while Jeff puts one of many twists on his fireplace set.



Right: The knifemaker's station was a big hit with lots of knives, finished and otherwise, on display.



Photos by Jim McCarty

MAY DAY

THE FIFTH YEAR BEGINS
from
JEFF MOHR down Tallahassee
way

WASHINGTON MISSOURI

are welded center

FIREPLACE TOOL STAND

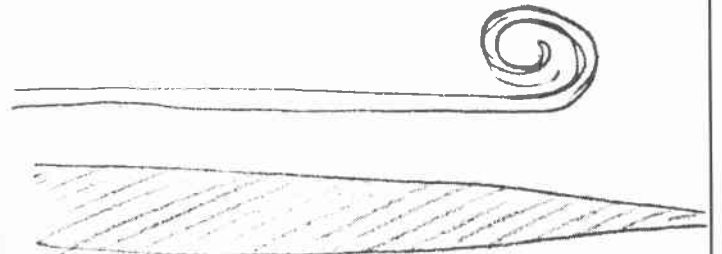
$\frac{3}{8} \times 1 \times 12$ each leg

- * HE USES $\frac{1}{2}$ " FOR TOOLS, $\frac{3}{8}$ FOR STAND
- * TRUST YOURSELF
- * LEAVES SELL WELL

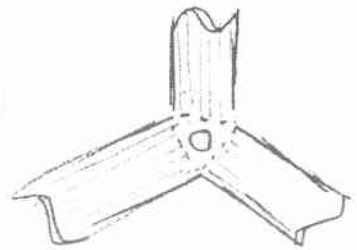
The OZARK CONFERENCE

1999

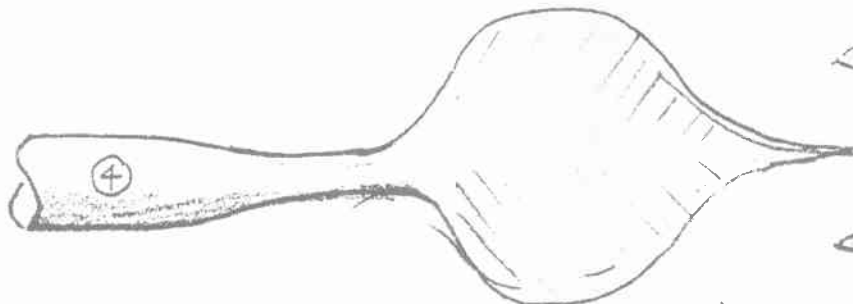
"INVEST IN YOURSELF
NOT IN JIGS"



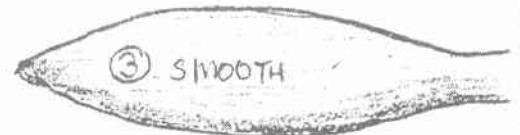
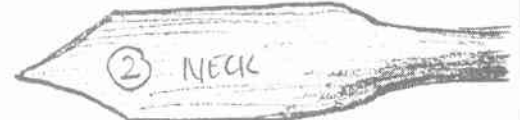
- even taper, maintain constant thickness
- chamfer edge
- texture all surfaces evenly
- one show in ohio - he takes 4 fig. sets.



LEAF FORGING SEQUENCE :



SPREAD + VEIN

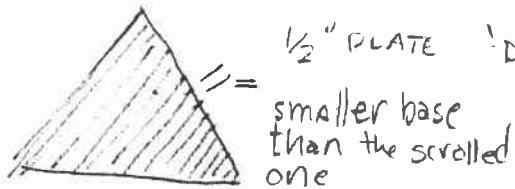
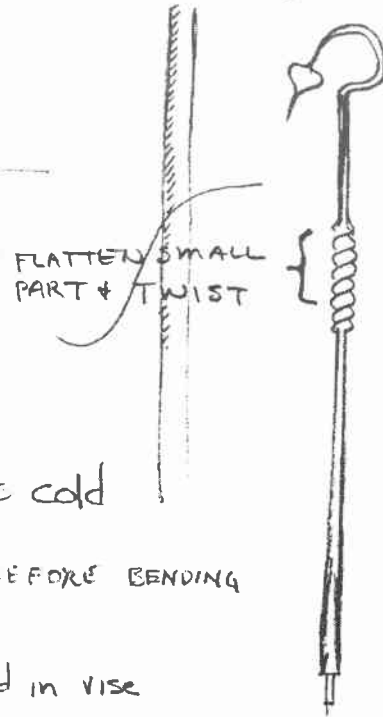
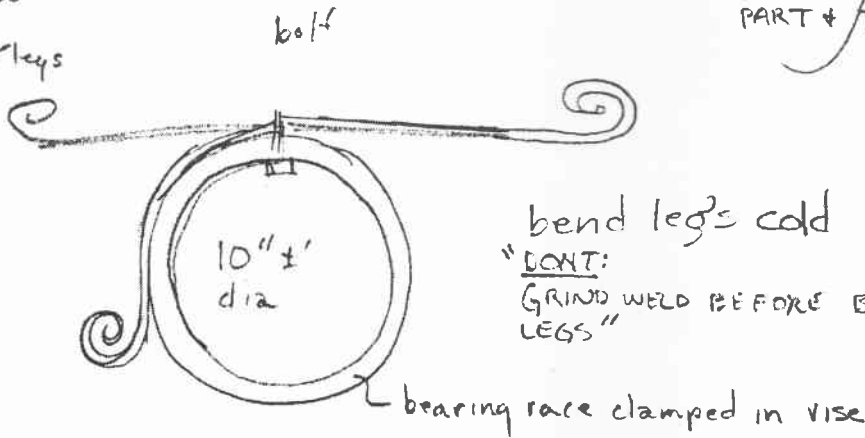
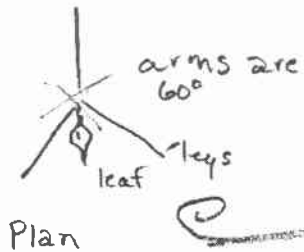
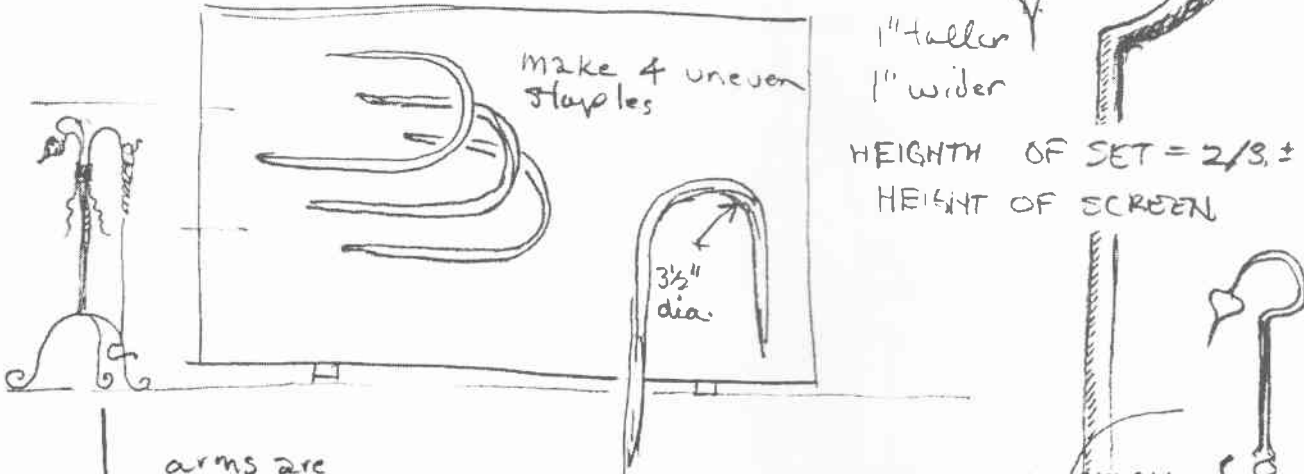


GROOVE +
TREAT EDGES

HE TRIES TO PLEASE HIMSELF AS HE
MAKES THE SHAPE

FIREPLACE TOOL STAND CONTINUED

SCREEN

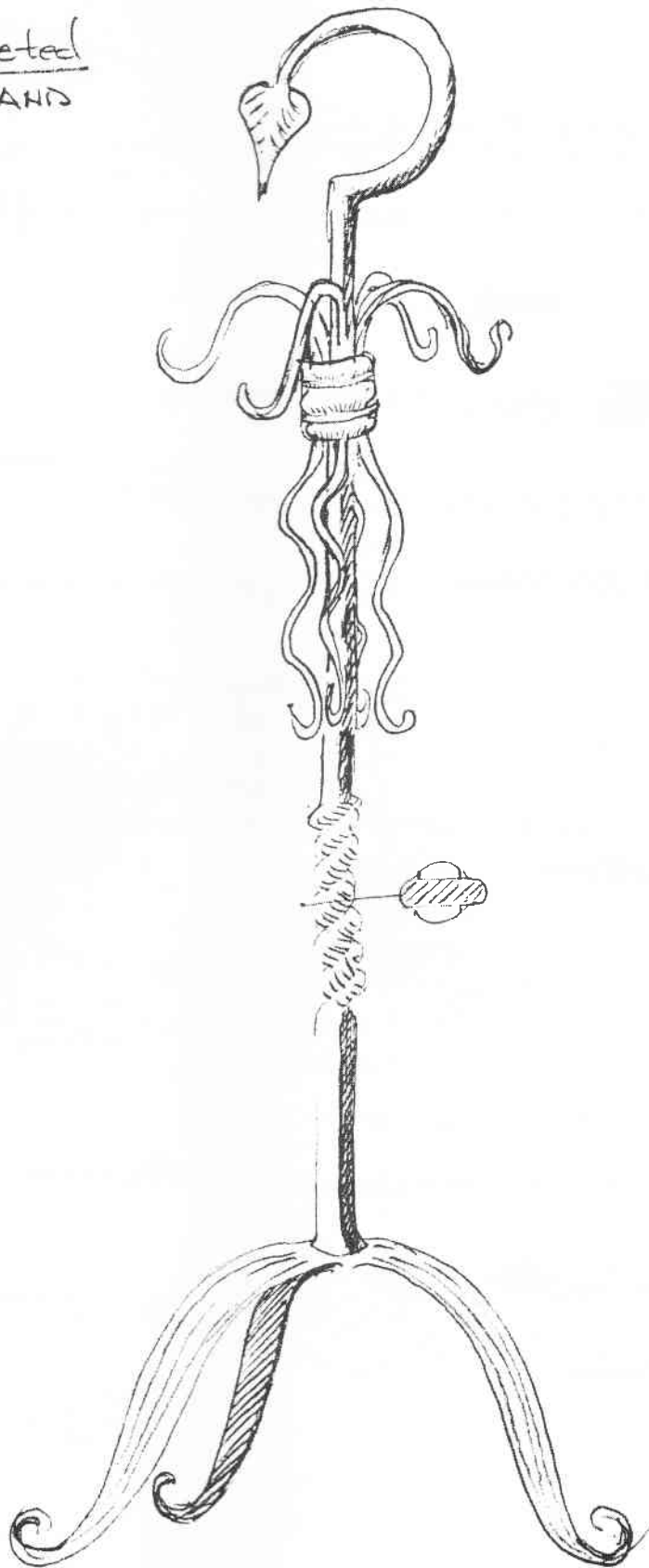


ON RAILINGS:
MAKE A FRAME TO FIT THE HOUSE, THEN BUILD THE RAILINGS TO FIT THE FRAME

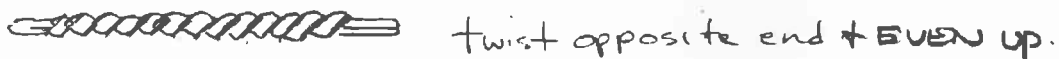
round stand upright
he uses arms
IF SQUARE, he uses arms



The completed
TOOL STAND

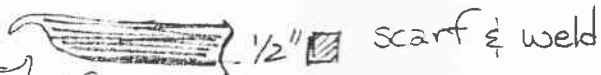


THE KNOBBY FOKER HANDLE



bundle together - make sure ends & twists are the same length weld each end
Twist the opposite direction as the individual components To finish the handle

To determine collar length - he wraps a piece of solder around the piece to be collared.



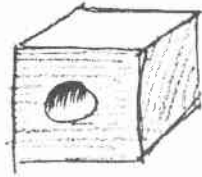
if one of the pieces turns black first, you did not stick it properly.

it takes him all day to make 4 tools

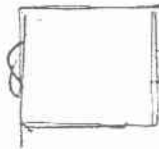
twist it far enough to make the pieces disappear into the pattern



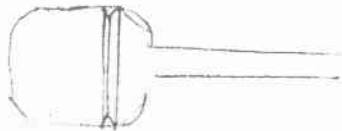
ON ACORNS



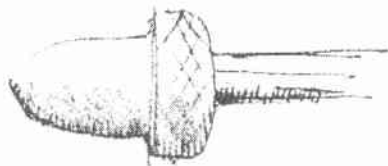
$\frac{3}{4}$ " cube w/ $\frac{1}{4}$ " hole drilled through



Insert $\frac{1}{4}$ " stem in hole, weld on
outside end



round corners
GROOVE AROUND CAP



Smooth up & texture
DRAW OUT NUT.

ON PRICING:

ESTIMATE TIME
ADD 20% time FOR
ARRANGEMENTS
- figure \$200-400/day

MAKE SPOTS IN THE DAY
THAT ARE FUN

BAM

SHOP TIPS

Got a tip to share? Jot it down and send it to the editor at the following address: Jim McCarty, 5821 Helias Dr., Jefferson City, MO 65101 or FAX to (573) 395-3201 or e-mail to jimmac@socket.net

Editor's note: The following questions are from the Hot Iron Sparkle, newsletter of the North Carolina Chapter of ABANA. If any BAM members have a question we could do something similar. Send your questions to the editor and I will find someone to answer them.

Q: I've made several dozen hooks, and I am sort of satisfied that each one is better than the previous one. One of these days I'll make one that is good enough to show off to someone that isn't a blacksmith. A problem I have that comes and goes is right at the tip. I draw out the metal to a sharp point and then scroll it over. Sometimes I have a very pretty scroll that comes down to a sharp point. Other times it splits into a little feather shaped tip that spreads out as I scroll it over. What am I doing wrong? I have not noticed a differ-

ence in my procedures between getting a good sharp point and an ugly, splintered one.

—Mike Kirkpatrick

A: That problem really sounds familiar. It troubled me for several years before I realized what caused it. It is surprising how some very simple and basic techniques can slip by you when you're starting out. Even good teachers can fail to explain a point adequately because it is so basic they assume everyone knows it. In drawing out metal to a point you must keep it square until you have the size you want, then go to octagon, then round. Remember S-O-R — square, octagon, round. Drawing the metal to a point when it is round sometimes results in the frayed end that you spoke of. I can't remember that I've ever had a frayed end since I realized what I was doing wrong.

There is one other factor that may contribute to your problem and that is working the metal too cold. Because you can move metal in a sharp point when it's cold, we sometimes fail to maintain sufficient heat in drawing out a point. I hope that this solves your problem.

—Bert Smith

Editor's note: Don't give up on the piece if you end up with a point like Mike's. Heat the tip to red, dip it in flux and bring to a welding heat, then lightly tap it back together. Just be careful you don't get it too hot. With a point this small you won't need much, if any, air.

Q: Is there a rule of thumb about coal consumption? I've been going through about 3 pounds of coal per hour of operation of my forge. Is that good? Or am I burning too much coal? My first 50-pound sack of coal lasted 17-18 hours (about a dozen fires, more or less.) Should it have lasted a little longer? Or a lot longer?

A: Most beginner's have too much coal on their forge table and end

up burning up much more than they need. Francis Whitaker has his students remove the excess coal and to save the extra coke in a different bucket. This leaves room for your steel, fire tools and other tools that may be needed on the forge. The coke is handy to start the fire in the morning or to add to parts of the fire when you are doing forge welds (green coal will pollute your weld.) Experience will tell you how much to leave on the table, too much and the fire will spread out the sides of the fire pot, burning excess coal, smoking up the shop and getting you hot and not the steel. You can use water to control the spread of the fire but don't pour water into the fire pot, this tends to crack them. Coal is a non-renewable resource so use what you need and conserve the rest.

How much should you burn? Is there a rule of thumb on usage? It all depends on how long and how high you have your air blast. Forging small items all day long, I may only use half a 5-gallon bucket, probably less. Heating, forging, bending 1-inch stock for a day or forging ship anchors and it is easy to go through a 5-gallon bucket. Remember to turn off the air, or shut the air gate, when you pull the steel out of the fire to forge. Turn it on or open the air gate when you put the steel back in the fire. This has saved me a bunch of coal and you don't have to rebuild and tend your fire as often.

The steel and coal you use are the least expensive parts of the whole operation. Use what it takes to get the job done properly, remove the excess from the forge table until needed. Stockpile a 5-gallon bucket of coke and use as needed.

—Doug Merkel

Q: I've watched metal being heated, then worked, then back into the forge for another "heat." Efficiency would require you to get all your work done to your material in as few heats as possible. I understand the problems associated with cold forging the metal, but I have never heard anyone mention the possibility of

damaging the metal by repeated heating. I have, on my first day at a forge, burnt my metal. But that is a different subject. Can I weaken the metal by accumulating too many trips into the fire with it?

—*Jim Kirkpatrick*

A: In a word, yes. You can definitely damage material by repeated heatings, especially if the amount of forging after heating is small. One reason for this is grain growth.

In general, metal off the shelf has been hot rolled from approximately a 5-inch square hot rolled form to its final size. During this rolling process the grains of metal are refined and become quite small. When the material is heated above a certain temperature (which varies from alloy to alloy) the grains begin to grow. Without further forging and subsequent heatings the grains will continue to grow larger and larger. Eventually the grains are so large that the boundaries between grains start to open and result in what appear as cracks in the surface. This is especially annoying when bending a piece that has been "over-re-heated" and it breaks off before your eyes.

When a piece is heated and forged, the grains that grew while heating are refined once again by the forging. This is one reason to get as much work done as possible in one heat. And so it goes, heat and refine, over and over.

One way to see this effect is to take a piece of coil spring and at a low heat straighten out a section about a foot long. Cut this in half. Put one piece in the forge and heat it to a near welding heat, being careful not to burn it. Hold it at this heat for a minute or so. Water quench the piece to cold. Be sure to wear safety glasses for this next part! Holding 2/3rds of this piece horizontally in the post vise, break off the short end (that was also the end in the fire) with a hammer you don't mind ding-ing up. Notice the coarse appearance of the fracture. Take the other 6 inches and heat it to an orange, quench and break it as the first piece. Notice the difference? One looks like corn-

bread, the other like satin.

Now, take the first piece, the one with the coarse grains, heat it to a forging heat and forge a taper in one heat. Heat it again to an orange, quench and break it again. The grains will be noticeably finer as a result of the forging. Mild steel behaves much the same, but will not harden like the spring and will be tougher to break if you want to see the grain growth.

This would be easy to demonstrate at a chapter meeting. There is also a technique for choosing the proper quenching and tempering temperatures for an unknown steel using a similar method.

This is a very good question. Understanding the material we work makes working it more enjoyable and less frustrating.

—*Tal Harris*

How hot is that fire?

Aboard Appointed to Test Iron and Steel, circa 1890, the greatest heat of a smith's forge (common) is 2,346 degrees F. Now when someone asks you how hot your fire is, you can give them the government approved, definitive answer.

—*The Hot Iron Sparkle*

Make yer mark

So that blade your worked on all morning is thin, thin, thin. How are you going to get the all-important touchmark into it before the anvil cools it? Gene Chapman says: Heat up a big chunk of stock, put it on the anvil, get the hot blade on it quick and make yer mark.

—*Hot Iron News, Northwest Blacksmith Association*

Fire scale removal

Try soaking pieces overnight in vinegar to remove fire scale. A 5 percent vinegar, which is good quali-

ty vinegar like the kind used for pickling, works well to clean pieces. It is especially effective in production work. I recently cleaned about 50 letter openers with little effort by soaking them overnight.

A product that works even better than vinegar is concentrated stop bath used by photographers to process film. It is the same chemical composition as vinegar (acetic acid), as cheap as vinegar, but has a couple of advantages. First, stop bath can be mixed in a higher concentration than store-bought vinegar. I used 2 ounces to a gallon of water. Also stop bath is colored yellow and will turn clear when it loses its effectiveness. That bright yellow color, however, may cause visitors to your shop to wonder what you are using to clean steel.

After soaking awhile, the steel may look black and yucky. When you remove the pieces, they must be rinsed well to stop the acidic reaction. The surface of the steel may get a brown film on it which is easily wiped away with an oil-soaked cloth or some steel wool. Once dried and clean, the steel is free of scale and ready to finish.

—*Pittsburgh Area Artist Blacksmith Association*

Dumb things not to do

Beware the black heat! Just because it isn't red, doesn't mean it isn't hot. There once was a blacksmith who disregarded this tenet of blacksmithing. He foolishly laid some hot iron on a table near his work space instead of on the floor. concentrating on his work, he forgot about it and a few minutes later, he walked too close to the protruding iron and suffered the consequences; holes in his trousers and scorch marks on his skin, not to mention the embarrassment.

—*Bruce Birtciel, Arizona Artist Blacksmith Association*

BAM NEWS

No newsletter?

Many people didn't get the March/April newsletter because it was sent out using an old mailing list. If you didn't get yours contact Maurice Ellis at (573) 766-5346. Maurice also discovered that the copies we share with other chapters haven't been getting out. BAM apologizes for the inconvenience. We have merged the two lists into one to simplify the process.

Host a meeting

BAM needs 6 members to step forward and agree to host a meeting for 2000. Maurice Ellis has meetings scheduled through November but needs to start all over for next year. If you would like to host a meeting please give him a call at (573) 766-5346.

You need to have room for up to 100 people (most meetings aren't that full) and the tools to do most projects. We can help with that if you need something.

It would be nice to visit some new locations next year. We always learn a lot seeing how people set things up.

State Fair demo

For the past three or four years BAM has been demonstrating at the Missouri State Fair. The fair gives us a large tent to work under. The farriers association kicks things off using the tent the first weekend and then we take over on Monday and work through the fair's end, which is on the following Sunday. We need at least 2 volunteers to demonstrate each day of

the fair. All you need to bring are your favorite hammers and tongs, and any stock you think might not be on hand. Jim McCarty will take care of the rest.

If you would like to demonstrate please let Jim know at (573) 395-3304 or e-mail to jimmac@socket.net. Jim needs to let the fair board know who is coming so they can send out parking permits and entry tickets.

You will be welcome to sell anything you make at the fair. It's not a real good crowd for sales although small items that can be easily carried move pretty good. We usually sign up a number of new members here and also hand out lots of business cards. Almost every year someone comes by with tools for sale.

Wanted: your ideas

So few submissions have come in lately that the editor must assume no one is doing any forge work anymore. If this isn't the case at your shop why not drop me a line with a tip, project idea or photo of a recent work? It's not easy filling this newsletter and anything you send in sure makes the job more pleasant. Plus, we are all desperate for new information and can benefit from your contribution. Send it to Jim McCarty, 5821 Helias Dr., Jefferson City, MO 65101. You can also FAX it to (573) 395-3201 or e-mail to jimmac@socket.net. Do it today!

Dues are due

Check the mailing label on your newsletter — it will tell you when your BAM dues are due. Please try to stay current. BAM depends on your dues money to publish the newsletter and to host workshops throughout the year. Dues are \$20, a figure which hasn't changed in 6 or 8 years. Please send all dues money to BAM Treasurer Maurice Ellis. His address is on the back cover.

While you are checking the date make sure we have your correct address. Many newsletters are not delivered because the post office can't find you. Maurice is also looking for e-mail addresses to add to the BAM database. If you have e-mail let him know.

Coming conferences

Caniron: July 2-4 Caniron II, Southern Alberta Institute of Technology, Calgary, Alberta, Canada, featuring Bill Fiorini, Kirsten Skiles, Charlie Sutton, Uri Hofi, Charles Lewton-Brain, Doug Newell, Mark Pierce, Susan Hutchison and more. Caniron, c/o Rob Sadowski, SAIT, 1301-16 Ave. N.W., Calgary, AB T2M 0L4 Canada or e-mail to rob.sadowski@sait.ab.ca.

Rocky Mt. Smiths: August 11-15 Rocky Mountain Blacksmithing Conference 1999, Carbondale, CO, featuring John Medwedeff, Roberta Elliott, Bill Fiorini, Tal Harris and Francis Whitaker. Rocky Mountain Smiths, c/o Dan Nibbelink (dan-nibb@csn.net, (970) 532-4387) or Eric Harmon (ejhotiron@aol.com, (303) 989-2694).

UMBA: August 14-15 UMBACON 99 at Baraboo, WI featuring Dorothy Steigler. Dan Nauman, 4190 Badger Rd., Kewaskum, WI 53040; (414) 626-2208.

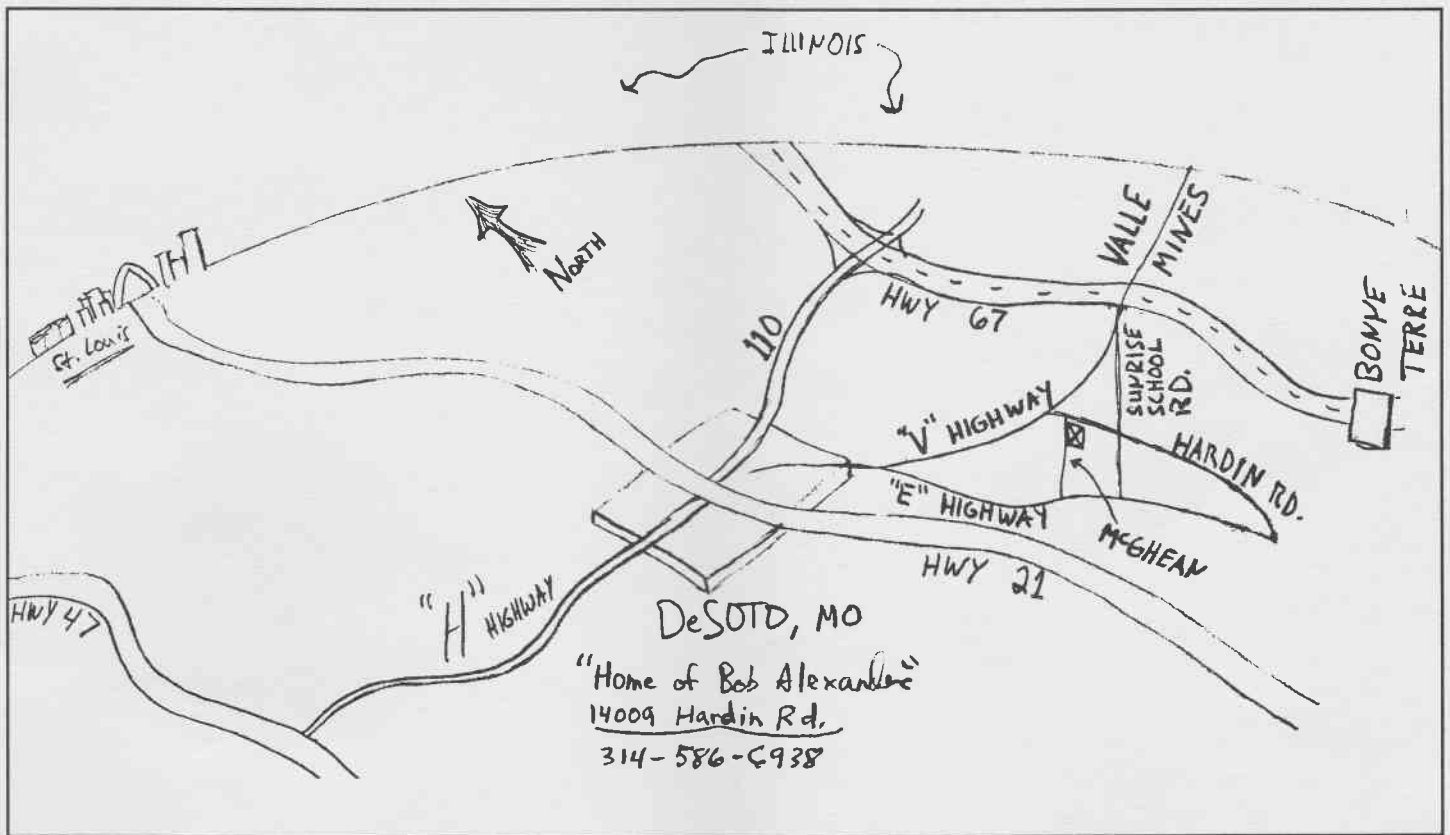
North Texas Blacksmiths: September 11-12 North Texas Blacksmiths Association 1999 Hammerfest featuring Michael Saari at the Sid Richardson Scout Ranch, Bridgeport, TX. Dorms and meals available on site. Verl Underwood, 613 N. Bailey Ave., Ft. Worth, TX, 76107-1005; (817) 626-5909, or e-mail vauder@aol.com.

Bighorn Forge: September 11-12 Bighorn Forge Conference, Kewaskum, WI featuring Doug Wilson. Dan Nauman, 4190 Badger Rd., Kewaskum, WI 53040; (414) 626-2208.

Quad State: September 24-26 SOFA'S Quad State Round-up featuring Daryl Meier with Howard Clark, Scott Lankton, Bob Patrick and David Pimeutal, Miami County Fairgrounds, Troy, OH.

Banging on the Bayou 6, October 2-3, featuring Bob Bergman and Jim Hirisoulus, world renowned bladesmith, Bogue Falaya Park, Covington, Louisiana. Contact David Mudge, (504) 735-0049.

Next Meeting July 10, Bob Alexander's, DeSoto, Mo.



BAM President Bob Alexander is the host for BAM's July meeting, to be held July 10 at Bob's Scrub Oak Forge in DeSoto, Mo. Bob has a new and well-equipped shop where he can make just about anything. He even has a casting operation set up and woodworking tools to complement his blacksmithing.

I think Doug Hendrickson will be doing his payback demo for the scholarship we gave him to attend Tom Latané's Locksmithing class.

Bob has also hinted he might do his hinge demo, another scholarship payback from the Colonial Hardware class Bob took under Jerry Darnell.

The trade item for this meeting is a corkscrew. You can make it with or without the bottle opener on the other end. The rules are, if you make one you get to take one home.

As usual bring something for the iron in the hat. This can be either something you forged or a tool or item desired by our members. If you can't bring something be sure to bring a full

wallet so you can buy many tickets.

Bob's forge also houses BAM's coal supply so if you need to restock your coal pile now is an excellent time. Bob does ask that if you want a large amount of coal that you call him in advance so he can have it bagged for you.

Just in case you get lost the phone number at the forge is (314) 586-5350. You can reach him at home at (314) 586-6938.

Hope to see you all Scrub Oak Forge in DeSoto on July 10.



1999 Schedule

July Meeting

Bob Alexander
DeSoto, MO
July 10

Trade item: Corkscrew

September Meeting

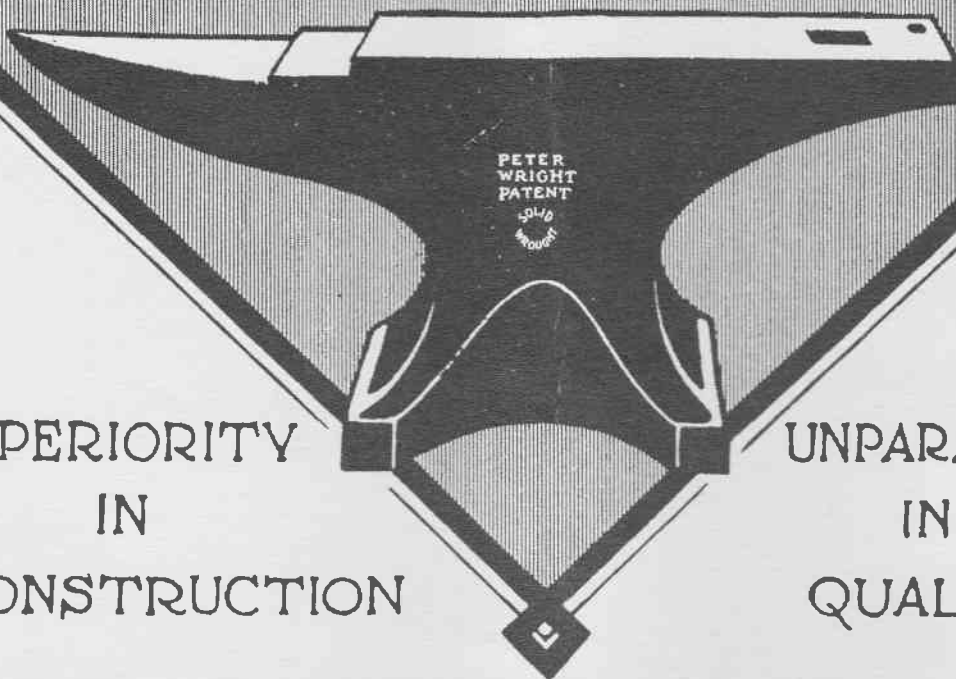
Ray Chaffin
Warsaw, MO
Sept. 11

Trade item: TBA

November Meeting

Andrew MacDonald
Carbondale, IL
Nov. 20

Trade item: TBA



SUPERIORITY
IN
CONSTRUCTION

UNPARALLELED
IN
QUALITY

PETER WRIGHT ANVILS

Agents for the Manufacturers

WIEBUSCH & HILGER, Ltd.

106-110 Lafayette Street
NEW YORK, N. Y.

BAM
5821 Helias Dr.
Jefferson City, MO 65101

First Class
US Postage
PAID
Washington, MO
Permit No. 343



Address Service Requested

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