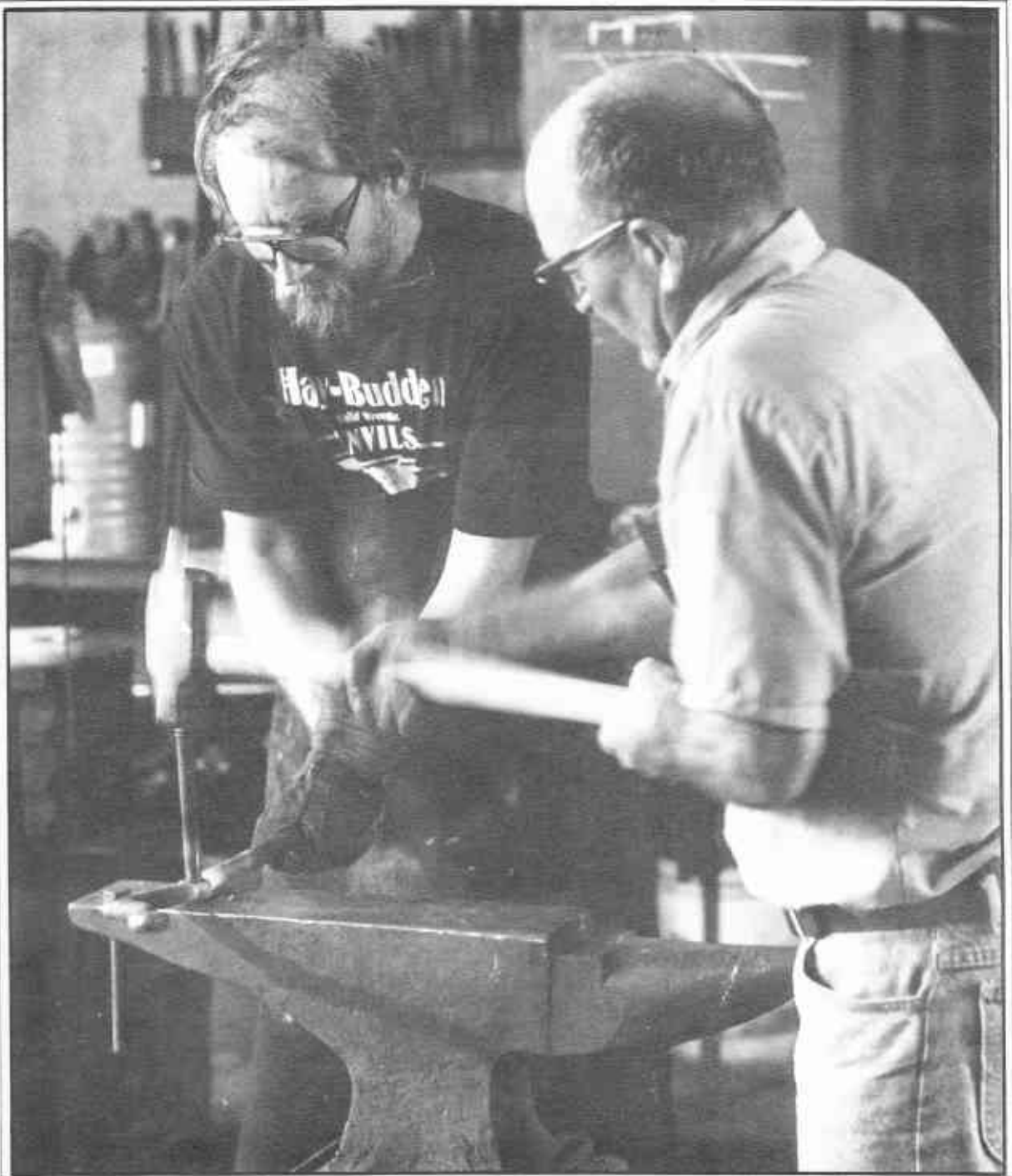


RAM



NEWSLETTER of the BLACKSMITHS ASSOCIATION OF MISSOURI

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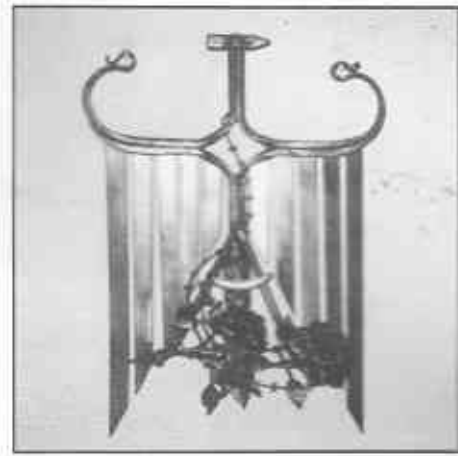
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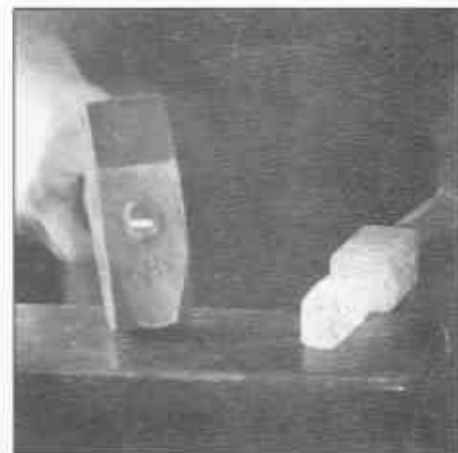
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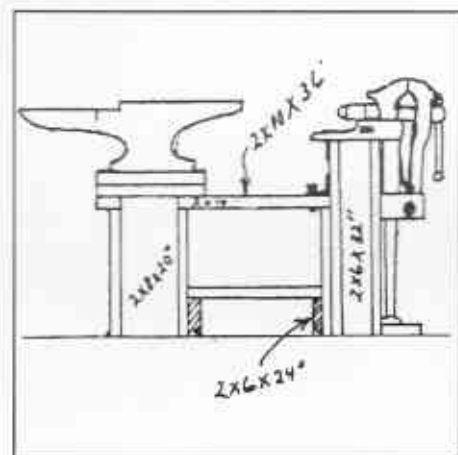
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Newsletter of the Blacksmiths Association of Missouri

Volume 9 No. 4

Our cover: Jerry Hoffmann and Tom Clark beat out a steady tempo while demonstrating at the first Blacksmiths's Journal workshop.

Editor

Jim McCarty

Contributing Editors

Doug Hendrickson
Pat McCarty
Tom Clark

Art Director

Jerry Hoffmann

Mailing Labels

Maurice Ellis

The Newsletter of the Blacksmiths Association of Missouri is published six times a year and is mailed to members of BAM. The annual fee for regular membership is \$20/year; a portion of this amount is for a subscription to this newsletter for one year. Editorial inquiries should be addressed to: Jim McCarty, Rt. 1 Box 20, Loose Creek, MO 65054 (314-897-4111). BAM membership inquiries should be addressed to: Steve Austin, 44 N.E. Munger Rd., Claycomo, MO 64119 (816) 781-1512). Occasionally some material will be copyrighted and may not be reproduced without written consent by the author. BAM welcomes the use of any other material printed in this newsletter provided the author and this organization be given credit.

BAM Membership Application

Name: _____

Address: _____

City: _____ State: _____

Phone: () _____ Zip: _____

New Member Renewal

How did you learn about BAM? _____

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

ABANA Membership Application

Name: _____

Address: _____

City: _____ State: _____

Phone: () _____ Zip: _____

New Member Renewing Member

How did you learn about ABANA? _____

- Regular Member\$35 yr.
- Family Membership (One Vote).....\$40 yr.
- Senior Citizen (Age 65)\$25 yr.
- Overseas Membership.....\$45 yr.
- Contributory\$100 yr.
- Library\$25 yr.

See reverse

BAM

Send this form in an envelope with your payment to:

BAM, c/o Steve Austin,
44 N.E. Munger Road,
Claycomo, MO 64119

Officers:

President
Tom Clark

Vice President
Pat McCarty

Secretary-Treasurer
Steve Austin

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

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

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

MasterCard VISA Check/Money Order

Card Number

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Exp. Date (Required)

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Checks must be in U.S. currency

SEND RENEWAL TO:

ABANA

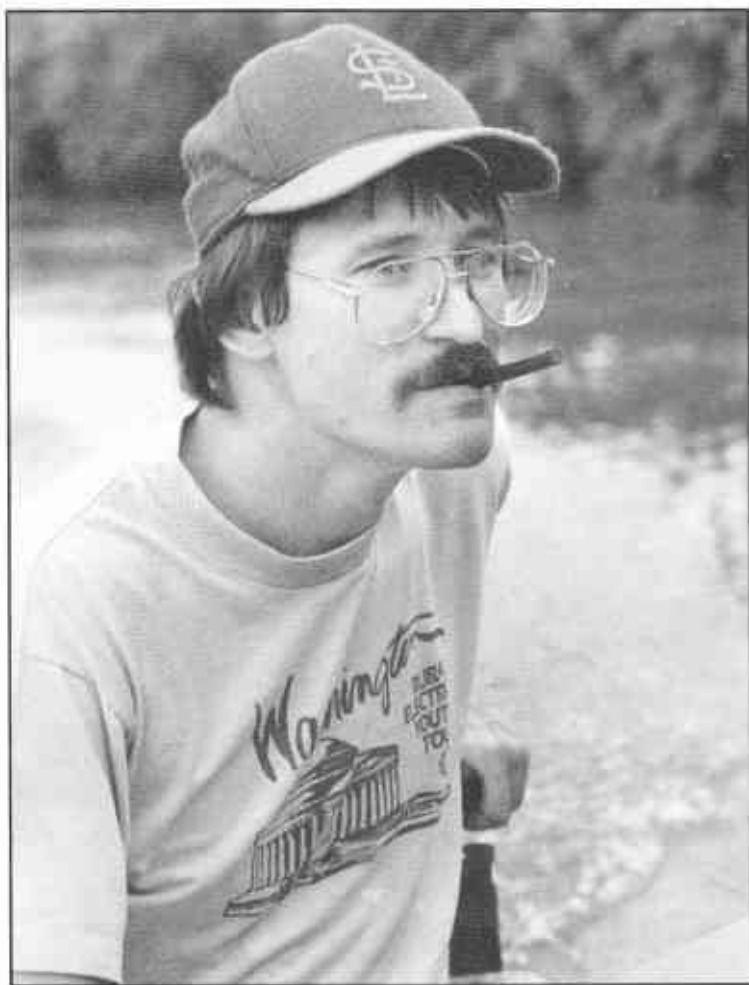
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Dues Distribution:

1 year subscription Anvil's Ring: 68.5 % \$24

Adm. offices & other ABANA projects (Conferences, etc.): 31.5% \$11

Editor's Anvil



The most editorial photo of myself I could find.

1860s. While remodeling I discovered this fact in the form of smoke-blackened rafters and a scrap of a shingle with the smith's prices (he spelled it prisses) for sharpening plows.

Later they moved the shop to the false-fronted garage where I work wood. Sadly, the only reminders of the building's former life are an iron ring set in the log floor joists (no doubt the hold-down for his wagon tire fitter) and a hole in the wall where the masonry forge sat.

I'm told the former occupant of the shop is one of the men pictured on the wall at a Bonnot's Mill restaurant. It shows two of the surliest men I've ever met in what looks like my shop. On the wall is a sign that says something to this effect: "No credit ever given so don't never ever ask" — or something like that.

I am brand new to blacksmithing, but I'm no stranger to editing a newsletter. I have a degree in photojournalism from the University of Missouri and about 10 years experience as a professional wordsmith.

Hopefully I can swap some of this experience as my dues for an education in iron.

I've already picked up a wealth of information in the short time I've spent with BAM. I'm also amazed at the reception I've had from BAM members, especially Walt Hull, Tom Clark, Jerry Hoffmann, Bernie Tappel and my brother Pat.

Many thanks to the members of BAM for your faith in me and your assistance in setting up my shop. Thanks also for the scholarship to the John C. Campbell Folk School, donated by Clay Spencer and offered to me at the last BAM meeting.

I hope I can count on your support, at least every two months when deadline time rolls around again.

—Jim McCarty, editor

Way back in the spring of 1986 I was looking around for a story idea when I heard about a fellow named Darold Rinedollar. Darold then was earning his living pounding out iron in the historic town of Augusta, Mo.

I was working as assistant editor of *Rural Missouri* magazine. At *Rural Missouri*, when we did a story on a blacksmith, it had to be *the* blacksmith. My boss was somewhat skeptical, so he put in a call to Bernie Tappel, who gave the Augusta smith a rousing endorsement.

Up to that time I thought blacksmithing was a lost art. I had no idea what was going on in the forges scattered across the state. BAM was in its infancy then, so it's likely few others knew any better.

I was amazed at what I saw in Rinedollar's shop. He used a 1700s vintage bellows and the biggest anvil I had ever seen. He was a real stickler for historic accuracy (although I saw him use an electric drill.) He also had the history of blacksmithing down pat, and didn't mind sharing it.

I left Augusta wondering if I could learn to be a smith, and even toyed with the idea of an apprenticeship through the Folk Arts Apprenticeship program sponsored by the Mo. Cultural Heritage Center.

While working on that article I picked up a copy of the BAM newsletter. That led to another article I did when the club met at Stan Winkler's shop.

I tell you all this as my way of introducing myself as the new editor of this newsletter. Just a little bit of info about myself — I live 15 miles east of Jefferson City in the little town of Loose Creek, with my wife Janice, son James and Gumby the beagle/basset.

Fate may have brought me to BAM, because I live in what was once Carl Schmitz' blacksmith shop in the

Dear BAM

At the meeting on August 1st it was stated that a library be set up for the use of our association members and a librarian was appointed namely myself, Ray Chaffin.

This library will be a library of donated materials, these materials will be shared with members of our association only.

The question was asked at the meeting, "What type of materials will the library handle?" I have comprised a rough list to answer this question.

VCR Tapes (Instructional, Demonstrative, as well as a "Show of Vares").

Newsletters (Both past and current; ours as well as other local associations; of course the National Association too.)

Magazines (By donation.)

Catalogs (By donation.)

Books (Instructional, Demonstrative and Historical.)

Hopefully soon all of this material or at least part of it will be transferred to IBM compatible computer 3.5 or 5.25 diskettes for use by our association members with IBM computers.

By using the computer to catalog and transfer this material I believe that I will better be able to help our members to find precisely what they are searching for. This will keep them from having to read the whole book when they are interested in only one chapter.

All of this will be possible as the donations allow. I will keep the association comprised of the status with a list as the materials increase.

Sincerely yours,

Ray Chaffin, B.A.M. Librarian, RR 3 South, Box 279, Warsaw, Mo. 65355

Editor's note: Ray volunteered to start a library for BAM at the August meeting. If you have anything to donate send it to him at the address above. Thanks.

I am seeking a long term apprenticeship with a Mastersmith of Architectural Iron and am willing to relocate anywhere in the U.S. Cooperative and willing to abide by stipulations needed for this type of

arrangement. Will provide a resume for interested persons upon request. Would also appreciate feedback or suggestions from blacksmiths reading this notice. Thank you for your consideration.

Orlando Martinez, 520 Fountain, Ann Arbor, Mich. 48103

I recently completed a treadle hammer made from the ABANA plans and found these plans to contain a considerable number of errors.

BAM members may be interested in the following list of corrections and comments:

Page 3, Bill of Materials

Part #4 Dimensions are OK, but they don't match the photographs on pages 9, 10, & 11, which show angles with longer legs.

Part #15 Treadle side tube size should read 15" instead of 12 1/2".

Part #17 Note that the trade designation "G-1" is the most important spring information.

Part #22 These treadle rod end yokes result in machine shop operations which may be more complicated than needed. Only one end yoke is needed and it can be more simply constructed.

Part #23 Head spring rod clamp size should read 2" instead of 3".

Page 4, Bill of Materials

Part #24 Rod connector size should read 3/8 x 1 1/2 x 1 1/2. Also, quantity of 2 is required instead of 1 in order to match photo on page 11.

Note: Other sources for springs than the one listed are available and at lower prices.

Page 5, Plans

Note: Top view of pedestal strike plate and base plate is inaccurate.

Note: 3/8 x 2 x 18 dimensions for pedestal vertical column connectors conflict with Bill of Material which calls for 3/8 x 2 x 17 1/2. Should use 17 1/2.

Page 6, Plans

Note: Height of the head tube in the drawing should be scaled to 12" instead of 14". This makes the top of the head tubes level with the head spring connectors.

Note: Scale of the holes in the head spring connector is inaccurate. The 2 1/4 and 10" dimensions are correct.

Note: Scale of lips on the spring saddle is inaccurate. The 1" dimension is correct.

Note: Paul Marx recommended the following changes to the connecting rod drawing:

—Eye to eye dimensions of 43 1/2 instead of 42 1/4.

—A slight kink or bend in the middle of the rod to help control the flex.

—Change one end yoke to match the photo on page 11.

Page 7, Plans

Note: Connecting rod clamp should show 2 rod connectors to agree with photo on page 11.

Note: To preclude confusion, the treadle drawing should be labeled "Bottom View."

Note: Treadle drawing should show treadle pivot tubes (#16) with rounded ends at pivot, not square.

Page 8, Construction Note

Total weight of head assembly should read "55-60 pounds" instead of "60-65 pounds."

Additional Comment:

I was able to avoid welding the leaf springs by ordering them with formed eyes from Champ Spring Co., St. Louis, Mo. Tel. (314) 231-7570. Cost was \$22 each including steel bushings.

Sincerely,

Bob Woodard

The National Ornamental & Miscellaneous Metals Association will hold their 35th Exhibition and Convention in Lexington, Ky. on March 2-6. The exhibition will feature the latest products and services from nearly 70 suppliers around the country. Featured products will include welders, power hammers, saws, metalworking equipment and other items. To get on a mailing list to receive more information about the show, call NOMMA at (404) 363-4009.

Sincerely,

Todd Daniel, publications manager

Tom's Turn



July, August and these first few days of September have been busy and fun times. Not only have I gotten my firewood business back on track after a very mild winter, but I found time for a little blacksmith activity.

Hank Knickmeyer and I went to Gallatin, Tenn. to the July meeting of the Appalachian Area Chapter. It was hot but we had a great time. The meeting was held at the Sumner County Museum and there were five or six forge stations going all the time.

Billy Green was the host and said he was having this event in the northwest part of the state to entice some of BAM's members to attend. Lots of tools were on display and many were for sale. Don't miss this one next year.

Our August 1st meeting at the Fishers on the lake had a large turnout. There were about a dozen of our members and friends from Arkansas present. Forges were going inside and out and a good time was had by all. Best corn on the cob I have ever eaten. Officers were elected and the only change saw Pat McCarty become V.P.

Newsletter editor Walt Hull passed his duties on to Jim McCarty. Our

newsletter from its humble beginning has improved with each new editor. It is one of the leading chapter newsletters. Walt Hull has worked hard and improved the coverage without flaw and promises to do as others before him to help the new editor carry on the tradition.

Jim McCarty is the first professional journalist we have had as an editor. With help from Walt and others, who knows what the future holds.

A change has been made in the newsletter coverage periods. The new schedule will shift one month so the last issue of each year will be November and December. I asked for this change and Walt, Jerry and Jim agreed it would be less confusing.

Jerry Hoffmann's Journal workshop was the best single day one could have. Jerry went all out with one demo after another. I am not going to tell you what you missed because you should have been there.

There were more out of state people there than BAM members. Don't miss Jerry's next workshop — it is the best way we can thank him for all the free demos he gives us at each of our regular meetings. Thanks Jerry! Everyone who attended the meeting either was or no is a BAM member. One new member, Paul DiFrancisco, and his wife came from Utah. They also went to Stan Winkler's shop the following day to attend Lou Mueller's ABANA Conference Committee meeting.

Charles Schultz who works in an industrial forging shop in Beaumont, Texas was also at Jerry's. In the shop they have, as Charles puts it, "one smaller hammer and the larger one." (5,000 and 10,000 pounds). He said that all of their work was done with open dies (flat top and bottom). Next stop, Beaumont, Texas.

Actually my next stop was a visit (long overdue) to Harry Stoekle, you know the Bammer who donated the tire bender for BAM's Ozark auction. Dr. Stoekle went to auctions for years and bought old blacksmith's tools as a hobby. He has sold many of them but still has more. Thanks Harry for the tire bender, it brought a nice price and lots of excitement at the auction.

I also paid a visit to Jim May. Jim makes knives. He has a good shop with a 50 pound Little Giant. He makes some good looking knives. While I was there I met Corbin Newcomb, another maker of fine knives from Moberly, Mo. He is now a BAM member. Welcome aboard.

There was a rain day so I loaded Ken Markely's old 25 pound and Jim May's old 50 pound (both had broken frames) and headed for Stone County Arkansas. Had a nice visit with David Matthews, Dallas Nichols, Bob Patrick and crew. A day at Stone County Iron Works is always a treat. They are so busy, back orders big time. The Arkansas smiths are talking about starting their own chapter. I promised our support and said we would print a special Arkansas section in our newsletter if they would send the material, until they get their own going. They would like us to plan another BAM meeting at Stone County soon.

Did I say something about a big hammer in Texas? Well on my way there I spent a day with Herbert Thibodeaux in Lake Charles, Louisiana. Herbert has a nice shop with 25 and 50 pound Little Giants and a I.B. Nazel. He does mostly hog blades and jack hammer bits. He builds his own gas forges which are very impressive. He also makes his own hammer dies and has some clever ideas. Someday we will have him up for a visit and maybe a demo.

My visit with Charlie Schultz at Eastland Forge was an awesome experience. While sitting in Charlie's office the whole building was bouncing up and down. "Godzilla" was at work. Boys and girls, you would have to see it to believe what size pieces they were forging and punching holes in. Charlie is sending me a video. I hope to have it by next meeting.

Don't forget to vote for the ABANA board members coming in this issue of the Anvil's Ring. People like Clay Spencer, Tim Ryan and Pete Brandesburg are proven good workers and could use your support.

I had better shut it off, there's wood to be cut.

— Tom Clark

BAM

JULY MEETING

The July BAM meeting is always billed as a fun time, and this year's was no exception. On Aug. 1 (only a day late for July) about 40 members ventured to Vern Fisher's lakeside retreat to practice a little blacksmithing.

Vern has a well-organized shop and one of the best views on the Lake of the Ozarks to go with it.

President Tom Clark arrived early and quickly had his portable crank forge fired up. When he wasn't passing out BAM membership forms Tom knocked out a quick leaf just to show he still knows how.

Doug Hendrickson showed up with a challenge: duplicate a piece of windmill hardware. The simple piece proved harder than it looked. Tom was the only taker — his attempt ended up in the scrap heap. Doug was kind enough to show how it was done, a smug look on his face while he hammered.

Vern and Eunice had quite a feed for us, including sweet corn cooked in Bernie Tappel's iron pot. There were no leftovers.

After lunch we got down to business. Tom called the meeting to order and had everyone introduce themselves. A lot of new members joined, including several from Bob Patrick's Stone County (Arkansas) Ironworks.

Some of the business covered included:

- Tom led a discussion on the content of old (circa 1974) Anvil's Rings compared to recent issues. He feels the new issues don't offer the membership enough nuts and bolts information. He also wants to see regional workshops covered by the Anvil's Ring, even if this means finding someone to cover it.

- At Tom's suggestion, the scholarship to the John C. Campbell Folk School donated by Clay Spencer was awarded to BAM's new editor Jim McCarty with unanimous approval by all present.

- Chairman Lou Mueller reported on the progress of the 1994 ABANA Conference set for St. Louis. All of the subcommittees are in the early planning stages and nothing of substance has developed. Lou has

many irons in the fire and is in constant touch with the folks at Washington University and the subcommittee chairs.

- A treadle hammer workshop with Clay Spencer is going to happen, although no date has been set. Clay is going to donate his services in exchange for a treadle hammer. The workshop should cost no more than \$300 for materials. If you're interested contact Tom Clark ASAP.

- Jerry Hoffmann became the first member honored with the Bob Patrick Founder's Award. Jerry was nearly speechless as Tom presented the brass anvil award to him. The award will be presented annually in April at the Ozark Regional Conference to a BAM member for their contributions to blacksmithing. Each recipient will have their name stamped on the trophy.

- Officers were voted on, with Tom Clark nominated by David Hoopes and reelected president and Steve Austin nominated by Walt Hull and staying on as secretary/treasurer. Doug Hendrickson called for Pat McCarty to replace Colin Campbell as vice president, and he was elected.

The projects made that day, some books donated by Walt Hull and the trade items were turned into "Iron in the Hat" and BAM picked up some change to use at a later date.

With that Tom adjourned the meeting and we all headed our separate ways.

Raffle Winners

Books, donated by Walt Hull, went to Jim Thomas, Lou Mueller, Bud Mitchell, Bert Elliot

Basting fork, donated by Doug Hendrickson went to Jim Thomas
Hooks, donated by "the Georges" and Red Dog Forge went to Gene Briggs and Ray Chaffin

Weenie Roaster, donated by Jerry Hoffmann went to Bill White

Anvil cone, donated by Walt Hull, went to Tom Marlen

Demo piece from May meeting, donated by Steve Austin, went to John Sherwood

Tool steel, donated by Tom Clark, went to Mike Olive

Anvil tool, donated by Jim Waller, went to Kenny Valdejo



Above: Jerry Hoffmann graciously accepts the Bob Patrick Founder's Award at the July BAM meeting. Jerry was the first person honored with the award, which will be presented each year to a BAM member for their contributions to blacksmithing.

What a deal!

Tom Clark and Doug Hendrickson, brainstorming about how to use the conference to recruit more members, came up with the following idea:

BAM will offer memberships at 25 percent off the regular dues of \$20 to first time members. With the large body of smiths present at Potosi some attempt should be made to sign them up. BAM's officers were polled by phone and agreed to implement this one time only \$5 discount.

Plans set for '93 Ozark Conference

by Doug Hendrickson

Plans for an exciting conference are well underway. Tom Clark laid the ground work for this annual conference by single handedly putting on the 1992 event last April.

President Clark's initial work and

April 24-25, 1993

ideas have made the planning of the 1993 conference much easier and I will not have to reinvent the wheel.

Here's where we stand at this moment:

1. The dates are April 24-25.
2. The place will again be the Potosi Lions Club facility.
3. Our feature demonstrators will be Daryl Neier of Carbondale, Ill. and Doug Wilson of Deer Isle, Maine. Doug is an experienced demonstrator who has taught at Penland, Haystack and the Campbell Folkschool and the ABANA conference in California this summer. Doug has not been seen in the Midwest and will present an exciting and educational program. Daryl, as most of us know, is America's leading expert on pattern welded steel. The spring 1992 Anvil's Ring has an article on his Bowie knife which was presented to President Bush. Daryl's demo will be of interest to many. It must be seen to be believed.

4. Walt Hull is heading up a demo station manned by BAM beaters.

5. Ken Valdejo and another group of Bammers will be running demos on his period forge.

6. We'll have other events including: the world's largest bonfire, tailgaters, banquet, auction (featuring Tim Ryan again), booksellers, contests and much, much more.

7. Watch this space for more details.

Doug is chairman of the 1993 conference.

ABANA News

President's Message July 1992

Dorothy Stiegler formally addressed the ABANA board in our meeting at San Luis Obispo with her decision to step aside as ABANA president. Though I am sad to see her relinquish this position, I am honored to have been elected as the new president of ABANA to fill the remaining time for this office until the November board meeting. At that time, there will be another election for this position to be filled for the two year term. Ron Porter was elected to the first vice president position and Jim Ryan was elected to serve as second vice president.

It was great to see many of you again at the June ABANA Conference in San Luis Obispo. This was an outstanding conference by any measure. The ABANA Conference Committee Chairman Mike Bondi, and the Site Committee Coordinators Robert Owings and Chuck Simonian have a lot to be proud of. They put together a program that included several new features, including a knifemaking program organized by Phil Bladwin, a beginners workshop (with no less than 17 workstations!) organized by George Dixon, and an expanded business lecture program organized by Joe Pehoski. All of these programs could not have been pulled off without the dedicated efforts of Toby Hickman's volunteers wearing the green hats, self-described as the "green slime!" These folks bent over backwards to make sure everything was ready and running smoothly.

A special thanks to the following companies for donating equipment for use at the sites: Centaur Forge, Ferrobrar Inc., Nesco, Powcon, and Stephen Bayder. Devon Shearer and all the folks at Cal Poly's Housing and Conference Services were invaluable for coordinating services provided by the university. There are many others who selflessly contributed their time and energies to make this a first class international event. Congratulations to all, you did good.

Summer is definitely here, and with it a host of activities guaranteed to keep your chapter busy! Don't forget to keep reminding your members about eye and hearing protection.

Blessings to all,



Clayton Carr
ABANA President

ABANA Liaison

Good News and Bad News — First the bad news!!! ABANA has run out of some of the back issues of the *Anvil's Ring* and we are running low on a lot of others. Don't wait too long to order your back issues or you might be left out in the cold. Now for the good news!!!! We have 1992 conference memorabilia in the form of bandannas, T-shirts and a few other items that I have not heard what they are. ABANA also has a new set of books on cast iron forgings that was originally printed around 1881. These were a hot item at the conference and you will be hearing more about them in the near future. If you are interested in more information contact Janelle at the ABANA office and ask about the MACFARLANE books.

Supply Directory — The chapter Liaison Committee is continually looking to update its supply directory. If you know of a business that would like to be included please send that info to the ABANA office.

New Chapter! — Congratulations to the Louisiana Metalsmiths Association, ABANA's newest chapter. These folks already have plans in the works for a joint conference with the Mississippi Forge Council at LAMA President David Mudge's shop in 1993, and it sounds like they have a great group started. Look for the addresses in the presidents/editors list. Welcome to ABANA, LAMA!

Good News for NC — Another bit of good news in the latest newsletter from the North Carolina Chapter of ABANA was that the North Carolina Department of Agriculture has agreed to build a new blacksmith shop for the state fair, and for the use of association members. Construction is expected to start within two years.

And I thought it Grew on Trees — The latest newsletter of the Pittsburgh Area Artists Blacksmith Association reports that former president John Steel is planning a gas forge building workshop soon. It was also reported that John's advance research and legendary

acquisition skills have led him to the source for the expensive refractory materials: a mud pit on the Limpopo River. Good job John, I always wondered about that.

Listen Up, There will Be a Test — There was a great write-up in the last newsletter of the Minnesota-based Guild of Metalsmiths on a class taught by Jim Blackburn on plate and bowl forming. What made this class unique was a test at the end of the class! There were 30 questions presented about plate and bowl forming that you should have known the answers to. Relax, the test was just for fun. The article included two pages of excellent illustrations. (Hat's off to "MB" whoever you are!)

Great Ideas — The Northwest Blacksmiths Association has a great idea they are going to try out at their Fall Conference this year in order to get more auction items. They will be awarding prizes for the auction items in the following categories: Best Forged Piece, Best Other Craft Piece, Best Food Item, Best Tool, and Chintziest Piece. The last prize won't be awarded unless there's a "real deserving" entry.

Finishes and Patinas, Part II — Once again, the Upper Midwest Blacksmiths Association newsletter was blessed with an article from Nana Schowalter on finishes and patinas. Nana took up from where she left off in the last issue, and covered patinas for copper in blues and greens, as well as some silver brazing techniques. These articles sum up what she learned at the John C. Campbell Folk School.

Baby's Teething Ring, Part II — From the Florida Blacksmith Association comes further clarification on the proper tempering procedure for the baby's teething ring made from a railroad spike. It seems that a proper heat treating flux consists of sugar and water, and after an hour or so in a boiling pot the piece must be removed and air dried leaving as much flux on as possible. Thanks to FABA member Clyde Payton for this important tip.

Too much to see at 92 gathering

BAM members take notes at ABANA Conference

by Pat McCarty

After an exhausting flight and tour of three airports we arrived in San Luis Obispo. The shuttle bus driver gave us a short tour of the area including a long stretch of fence with old cowboy boots nailed on the posts. We checked in, dumped our bags in our rooms and went exploring the campus of Cal-Poly.

How to choose which demo or lecture to attend was a real chore. With nine demos and 4 lectures starting at 8:00, I decided to watch Daryl Nelson. He demonstrated large animal heads, starting with a ram's head. He used 1 1/2 inch square to start a bear head and then switched to 3 inch square stock to show detail. Very impressive. He showed various ways to make eyes with different punches.

After lunch I watched Joe Bowifas. He showed tooling for the power hammer. Joe wears an electrician's tool pouch with tape measures, soap stone marker, center punch and small hammer. This way

he doesn't have to hunt for them when he needs them.

I caught the end of George Nixon's demo at the 17 station teaching area. A lottery was held each morning for the positions. George was very informative and gave a lot of good pointers.

Friday morning I watched the two women smiths from England, Cana Frost and Claudia Petley. I enjoyed watching them work and loved their accents. Friday afternoon I toured the Hearst Castle. I saw some very old examples of forged iron from all over the world. I also took lot's of photos for my "idea" scrapbook.

Saturday morning I watched Rob Gunter demo on the Sandia Gas Forge. He made a chili pepper from tubing. After lunch I watched Doug Wilson forge a bell from 1/8 inch plate. I was very excited about this project and had to try it out at home.

The food in the cafeteria was great. There was plenty to eat and a large variety at each meal. I'm still not sure what the "Freddy Fenders" were that we had for breakfast one

day — scrambled eggs with taco chips — but it was good. The barbeque was interesting, as they don't use sauce like we do in Missouri. Not near as messy.

There were plenty of neat displays in the gallery. It's amazing what some smiths can come up with to make with hot iron. The auction was stunning. Over 200 items ranging from a miniature Damascus horse-shoe to large items like a 6-inch-long pig pot rack. Tim Ryan outdid himself again and pulled in a lot of money for ABANA.

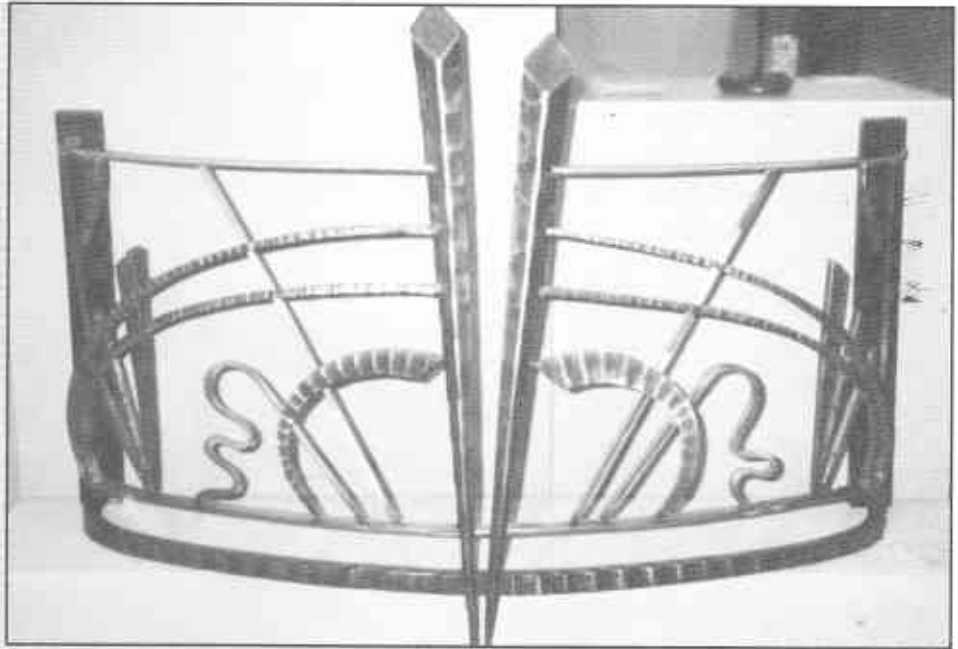
The trade show was a big hit. You could buy a book from Centaur, Norm Larson, or Jack Andrews. Our own Jerry Hoffman was selling the *Blacksmith's Journal*. You could buy T-shirts from ABANA, Jerry, The Alabama Blacksmiths and many others. Metal finishings, tools, and the people from NOMA and the Farrier's Association were on hand.

All in all it was an excellent conference. I met lots of good people and hope to see them at the next conference.

Right: Doug Wilson forges a bell from 1/8-inch plate.



*Some
scenes from
the 1992
ABANA
Conference*



Above: First place screen by Michael Bondi, conference chairman. Left: Gallery exhibit by Dorothy Stiegler, former ABANA president.



Photos by Pat McCarty



Above: BAM members Steve Steffan (left) and Steve Austin take in the sights. Left: Jerry Hoffmann signs up new members for his Journal at the trade show.

A weekend at Jerry's

First BSJ workshop draws blacksmiths nationwide

by Jim McCarty

BAM members were in the minority when Jerry Hoffmann's first *Blacksmith's Journal* Workshop got under way. Before the one-day class ended August 8 nearly everyone was a BAM member — and a better blacksmith.

With nearly 90 percent of the 20-odd people in the beginners category, Jerry stressed fundamentals, a topic where even the seasoned veterans learned some lessons.

People came from Texas, Utah, Oklahoma, Illinois, Indiana and of course Missouri for the workshop. Tom Clark was the striker for Jerry, and Jim Waller and Pat McCarty also lent a hand.

Jerry started at the very beginning — with the fire. He showed how to get a good fire started and, most importantly, how to control it with water to get the heat you need.

Then he moved on to proper shop layout. Jerry positions his anvil 90 degrees to the forge, and his vise 90 degrees the other way. The power hammer is 180 degrees to the forge. Mixed around this layout is a swedge block, his blacksmith's helper and an extra anvil. He also has a large log placed on end that he uses to back up punch work.

Three hammers do most of Jerry's work — 1 1/2, 2 1/2 and 3 1/2 pound cross peens. To round out your arsenal Jerry recommends a flatter and a hot cutter.

Jerry grinds a crown on the face of his hammers using a belt sander. "A flat hammer causes edge impressions. (Having a) radius on the face also



Above: Jerry pounds out a piece on his Hay-Budden anvil.

spreads the metal quicker," he says.

Here's where the day got serious — Jerry started talking about tongs. Most smiths scrounge tools at flea markets and auctions. That's OK for things like hammers and anvils, but not for tongs, Jerry says. "I see a lot of people without the right tongs for what they do. The trouble is you get someone else's idea of what a tong should be."

A better idea is to make your own tongs. That way you get the right tool for the job and learn some of the more important skills at the same time. Take the auction tongs apart

and rework them to your own needs.

Jerry has over 40 tongs and that's not enough, he says. His favorites are round nosed tongs, since these will hold round and square stock.

While the fire was getting warm, Jerry demonstrated, using a bar of lead. The soft lead forges just like hot iron, and is a good way for anyone to practice a new technique. When you are done, the lead can be remelted in the forge and cast into a new bar. (Jerry wore a glove on his holding hand — lead can be nasty stuff.)

Some smiths would cringe if they saw Jerry making horseshoes, a throwback to his previous occupation. The horseshoe demo covered upsetting, punching and led to some scrolling techniques. Jerry always kept a piece of iron in the fire, never wasting a minute waiting for a piece to heat up.

One of the projects he had going was a stand for a stone sink, made for a man with more money than sense. While Jim Waller bent rings for the unusual design, Jerry showed how the legs were made. He had a full-sized pattern and jigs to keep all four legs the same.

The rings held the four legs together through holes punched in 3/4 round stock. These holes required careful positioning to be accurate.

Punching these holes was an impressive piece of work. First you have to figure the width of the punch you need. The punch width should be

40 percent of the circumference of the hole you need. For example if you need a 1 inch hole find the circumference (diameter x 3.14 = 3.14) x 40% = 1.25 or 1 1/4 inches.

You also have to compensate for shrinkage. To do this mark a test piece of stock in two places and measure the distance. Punch the hole and check it again. Jerry found a 1/4 inch difference in his piece.

Another good point when punching — punch down until you feel the metal bottom out. Then pull the punch out and drive it through from the other side (you need to mark the stock on both sides.) If you keep driving the punch will heat up, lose its temper and turn into a rivet. "Then you have a nice piece of art." Jerry says.

Also, a bit of fine coal dropped into the hole will lube the punch, helping it come out easier. Beeswax works too on smaller holes.

One of the most interesting demos was with channel iron, a Jerry Hoffmann original. I won't get into this much because it's all laid out for you in the September 1990 *Blacksmith's Journal*.

One other tip worth sharing. Jerry had some tips for the blacksmith's nemesis — forge welding.

First he forges a scarf on two pieces of stock, leaving a small tip on both pieces. He puts borax on first to help his precious supply of EZ Weld flux stick. But he keeps both scarfs up in the fire until the last minute while bringing it up to welding heat. This keeps scale from forming on the welding surface. It's scale that causes most welds to fail, he says.

A year from now, everyone will forget where they learned these important skills, because hopefully they will be second nature.

We'll never forget Karen's fine



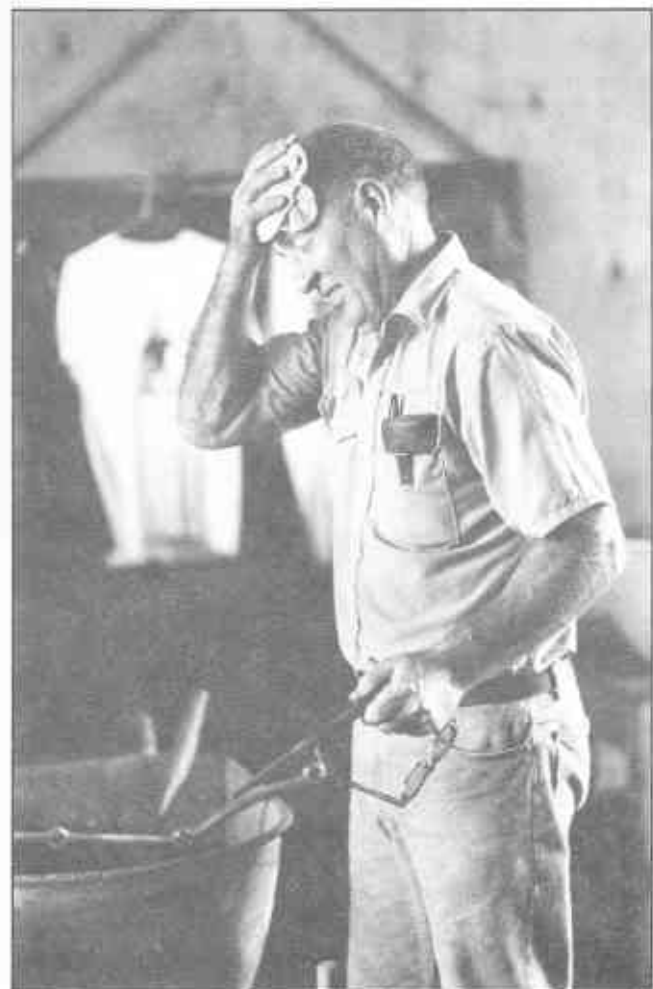
Above: Those who attended the first Blacksmith's Journal Workshop came from all over the country, including places like Utah, Texas, Indiana and Oklahoma. Here they pose for a group shot with Jerry's nearly finished sink. Below: BAM President Tom Clark got just a little hot striking for Jerry in the August heat.

cooking however.

BAM made some new friends and gained some new members thanks to the *Blacksmith's Journal*. Our thanks to the Hoffmans for a great workshop.

Before the workshop ended Tom auctioned the iron Jerry had made. Here's who bought what:

- Dick Obermark, scroll, \$11.
- Dana Swinney, double scroll, \$7.
- Don Neuenschwander, twist, \$7.
- Mark Laiben, scroll hook, \$10.
- Paul DiFrancenco, finial kit, \$55.
- Charlie Schultz, horseshoe, \$12, punch, \$45.
- Pat McCarty, hammer kit, \$23.



It's not hard to handle

by Tom Clark

Replacing a handle in a hammer is a simple process, but if not done properly can result in handles that won't stay tight.

Before we start with handling it may help to understand something about handles and hammers and wedges and drifts.

First about the handles. Figure 1 shows a description of the areas of a typical handle.

Handles are graded by type of wood, weight, type of grain, white color and defects. For blacksmithing I suggest only hickory, all white, heavy weight, and straight grained. (At one time straight grain was further graded as bastards and up and down grain. Most, if not all, manufacturers no longer make this distinction.)

Straight grain means the grain runs

from the knob through the eye as shown in Figure 2. Other grain patterns are also illustrated in Figures 3 and 4.

There are many types of hammers but for this writing we will talk about hammers most used by blacksmiths, of which there are two basic types: striking and struck.

The handling procedures for both types are the same but historically less attention is given to handling of struck hammers, such as top fullers, swedges, punches and chisels.

The best designed eye for any hammer is known as an hour glass. In this design the eye is tapered from both sides of the eye to the center. Figure 5.

This allows for a smooth entry of the handle into the eye and room for the wedge to spread the end of the handle, which locks the handle to the

hammer.

The first step in handling is to find a handle that is manufactured to fit without further stock removal. If this is not possible then a medium half-round wood rasp should be used. Be careful to remove an equal amount of wood around the handle to prevent high and low areas and insure a smooth radius where the handle drive line enters the eye.

In many cases the eye of the hammer will not be exactly the same from both ends of the hammer. For this reason it's a good idea to mark one side of the hammer head to assure the handle is fitted from the same end each time you check the fit. The handle should also be marked (pencil is fine) so that the same surface of the handle and hammer are matched each time the handle is removed for additional rasping or for



Figure 1



Figure 2



Figure 3



Figure 4

CROOKED GRAIN

cutting the excess wood that protrudes from the eye after the handle is driven to its final place in the hammer. (If an eye in your hammer is not symmetrical it will seat differently in each of the four ways it will fit on the handle.

Wedges are used to spread the end of the handles in the eye of the hammer and prevent it from coming out of the hammer in use.

When properly fit in an hour-glass shaped hammer it is best to use a wooden wedge in the slotted handles to spread the handle. The wedge works best if it's made from a softer wood and can expand and contract as the moisture increases and decreases in the handle. When wooden wedges are used it is best to also use a steel wedge driven in crossways. (See Figure 6.)

When the handle fits so tight that a wooden wedge will not penetrate one must remove the handle and increase the slot size or use two steel wedges at 90 degree angles to spread the handle in both directions.

There are also three sizes of oval steel wedges available. These oval steel wedges spread the handle in 360 degrees and are very effective. Oval wedges are also used with good results in handles that are not slotted for a wooden wedge.

Steel drifts are needed to remove the old handle from the hammer eye. You should have an assortment of drifts to remove handles from all sizes of hammers, sledges and axes.

A drift should be 6 to 8 inches long and forged or ground to near the shape of the eye and just a bit smaller than the eye so it will pass through without sticking. The business end (end that meets the wood) should be

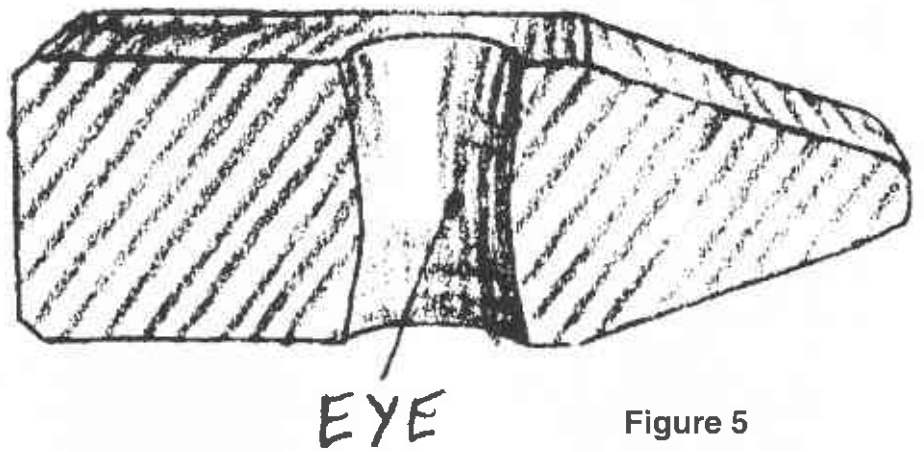


Figure 5

flat.

When proper drifts are used the handle can easily be removed from any hammer.

With this knowledge of handles, wedges, hammer heads and drifts we can now do a better job of fitting a handle to that prized hammer we have just forged, or maybe broken from an unchecked overswing.

Step 1. To remove the old handle it's best to saw off the handle as close to the head as possible. I like to use a coarse tooth hacksaw as it cuts well and will not be damaged if the teeth touch the head. (If you scratch the head it can be fixed with a fine file or belt sander.)

Step 2. Lay tool head across open vise jaws or a hole in a swedge block (handle side up). Drive out the remaining piece of the old handle, using a drift (flat punch) that is just small enough to pass through the smallest part of the hammer's eye. The drift should be flat faced to avoid spreading the wood.

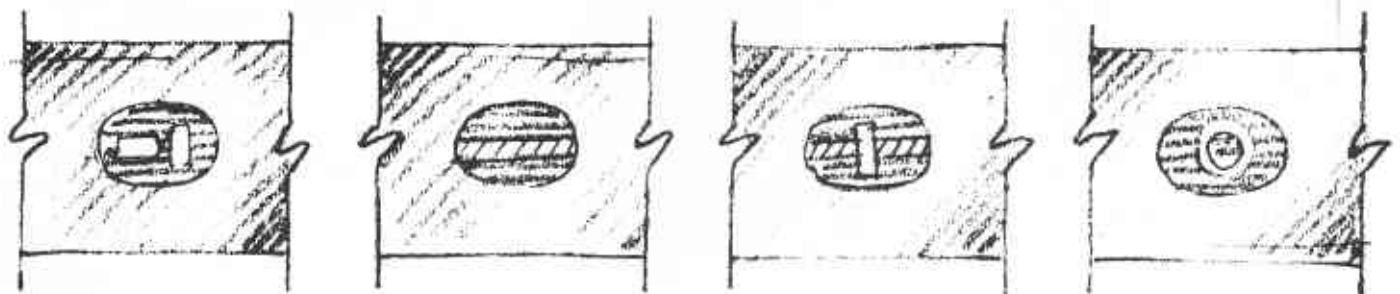
Step 3. Start the handle in the eye (file with the rasp if needed). While holding the handle in one hand with the head pointing down, strike the butt end to seat the head. The butt end should be rounded to prevent it from splitting when struck.)

It may be necessary to remove the handle one or more times to rasp for better fit. When you are satisfied with the fit take a pencil and mark the excess wood sticking through the hammer, remove the handle and saw off at the line. Make sure you put the handle back in the hammer the same way each time.

Step 4. Place the bottom end of the handle on a solid surface and insert wedges as needed. You can file the wedges or grind flush.

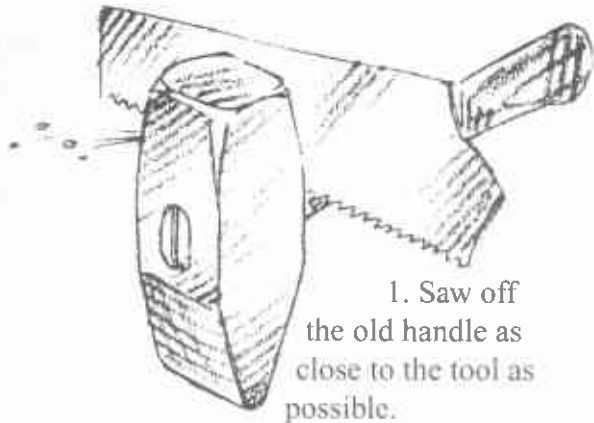
That's all there is to it. With a little practice you won't mind breaking handles as much anymore since you'll know how to repair the damage.

(More on next page)

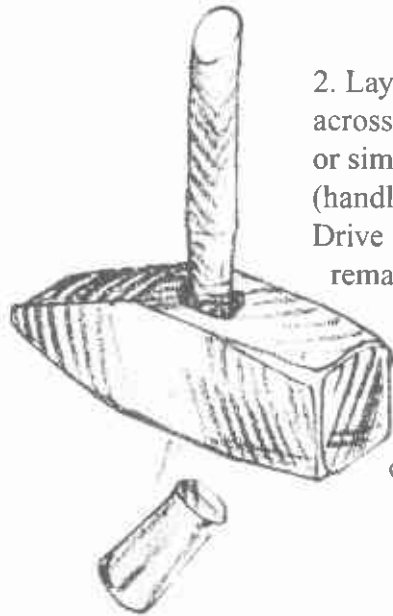


□ = STEEL WEDGE ▣ = WOOD WEDGE

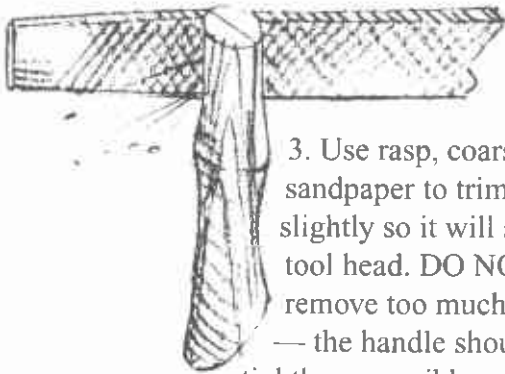
Figure 6



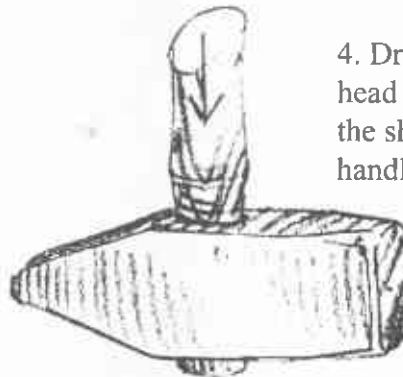
1. Saw off the old handle as close to the tool as possible.



2. Lay tool head across open vise jaws or similar opening (handle side up). Drive out the remaining piece of the old handle, using a flat-ended punch or short piece of dowel.



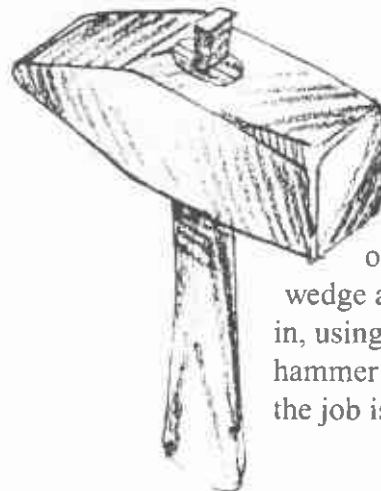
3. Use rasp, coarse file or sandpaper to trim handle slightly so it will start in tool head. **DO NOT** remove too much wood — the handle should fit as tightly as possible.



4. Drive handle into head to within 1/2" of the shoulder of the handle (3/4" on sledges & axes). Saw off excess wood protruding above tool head.

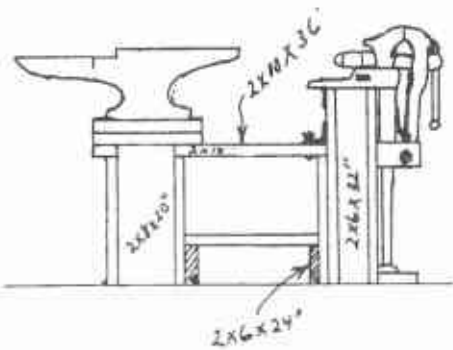


5. Place bottom end of handle on a solid surface, insert wooden wedge in slot, and drive it in as far as it will go. Trim off flush with head.



6. Place steel wedge crosswise on wooden wedge and drive it in, using light hammer blows, and the job is done!

When resurfacing the face of an anvil, resist the urge to polish it like a mirror. A polished anvil is a must for cold planishing nonferrous metals, but can cause trouble when forging hot steel. A bar at yellow heat will slip and slide on a polished anvil face, making it very hard to set a shoulder on the near anvil edge, or draw a point on the far one. My anvil sometimes gets a little too polished just from use and I give it a quick rub with coarse aluminum oxide cloth to give it some tooth. Do this by hand only as a sander or grinder will remove more metal than necessary.
—Bill Silberberg, *Blacksmiths' Guild of the Potomac*



Portable anvil stand

Use two portable stands that both a vise and anvil attach to. One holds a heavy anvil and 6-inch vise. The other has a lighter anvil and 4-inch vise. The vise and anvil can be removed and the stand partially disassembled for easy shop rearrangement. The portable stands are also great to take to demonstrations. The anvil holds down the stand so the vise is very stable. The stand for the heavy anvil is height adjustable by adding or removing 3/4-inch boards or 1 1/2-inch planks. See the drawing above for details.

—Ned Edelen,
Blacksmiths' Guild of the Potomac

Keep broken pieces of steel carpenter's tape measures and throw them in odd places around your shop. Then when

you need to check the size of that odd scrap of metal, you'll always find a measuring stick close at hand.

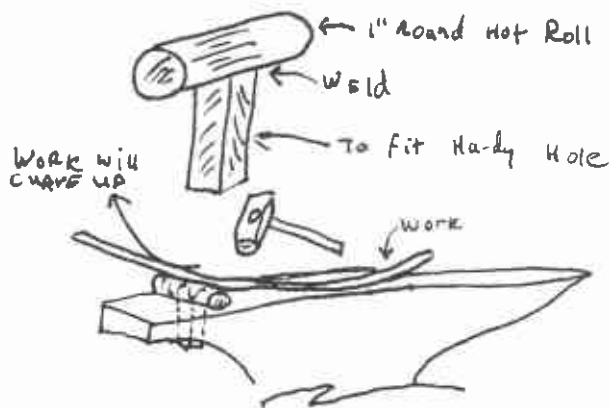
—Jerry Hoffmann tip, *Blacksmith's Journal workshop*

To get more uniform twists — keep a can of water near the vise. A pump type oil can works great for small stock. The water can be used to cool the hot spots which twist too tight. Use a small amount of water to cool the offending area (often toward the center of the area being twisted because wrench and vise draw heat from the edges) continue your twist and see what happens. It is usually necessary to reheat and re-cool several times to get a uniform twist over a distance. Twists of an inch or 2 can usually be done well in a single heat. The key is to watch the twist as it is happening and make the corrections as necessary.

—Don Dunbar, *Northwest Ohio Blacksmiths*

Bending large pieces on the anvil is usually done between the table and the cutting platform. This is sometimes hard to do if the piece is long or the bend is acute, as the horn of the anvil is in the way and has a tendency to make the work move side to side. The following jig will help you with these complicated and simple bends. And it works great for holding cold stock.

—Stan Strickland, from the newsletter of the Tullie-Smith House Blacksmith Guild.



BAM

Shop Notes

Got a tip to share with BAM members? Jot it down and send it to Jim McCarty, editor, Rt. 1 Box 20, Loose Creek, MO, 65054.

BAM NEWS

ANVIL offering

In the interests of sharing the news and views of the industry and expanding its readership, *ANVIL Magazine* is being offered at a big savings to members of BAM. Every member who subscribes to *ANVIL* through BAM will receive a one year subscription for \$30 instead of the going rate of \$40 — a 25 percent savings. To qualify for this arrangement, the subscription must be paid through Steve Austin, BAM's treasurer, who in turn will pay *ANVIL Magazine*.

The folks at *ANVIL* bill themselves as "The Voice of the American Farrier and Blacksmith." While the magazine is basically a farrier's book, they are moving towards more articles for the blacksmith.

The latest issue even featured an article by our own Jerry Hoffmann, a nice piece on the Smithin' Magician' and what you can do with it.

Other articles included one on the ultimate farrier's truck and a piece on the California Blacksmith Association's last meeting. Don't know why that one made it.

ANVIL is pretty slick, printed on high quality paper with nice black and white photos and artwork throughout. The July issue ran 46 pages.

Residency Offered

Peters Valley Craft Center announces an opening for a fine contemporary blacksmith, available in Spring 1993. Average residency is three years and offers studio, home at nominal cost, teaching and exhibition opportunities in exchange for programming and managing the Peters Valley blacksmithing studio. Application deadline: January 2, 1993.

For application contact Peters Valley Craft Center, Blacksmithing Residency, 19

Kuhn Road, Layton, NJ 07851, or call (201) 948-5200. Contact person ios Sandra Ward.

Arkansas Group

The word we got at the July meeting was that the Arkansas smiths are trying to start their own ABANA chapter.

BAM has many members south of the border and we applaud their efforts and extend a hand as they get started.

Many of the Arkansawyers are members of BAM already and we hope you stay with us.

For Sale

Got something you need to buy, sell or trade? Jot it down and send it to BAM, c/o Jim McCarty, Rt. 1 Box 20, Loose Creek, Mo. 65054

For sale: Dillon MK III torch, new, never used, with a full set of tips. Sells new for \$280, I'll take \$150. Call Pat McCarty, (314) 239-3814.

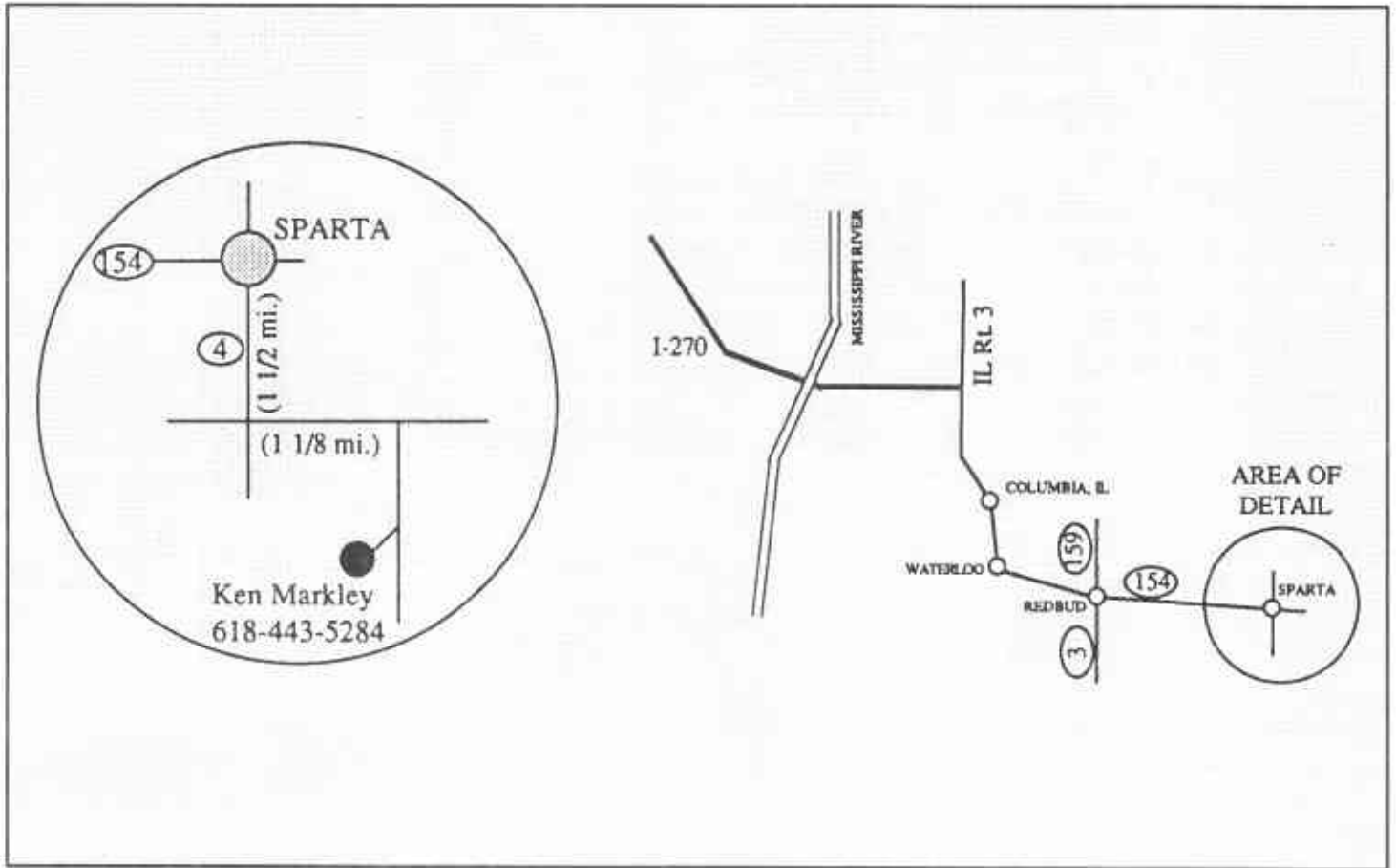
For sale: Many blacksmith items including a Champion crank blower on stand (\$55), large post vise (\$45), HD bench vise (\$28), Bay anvil, gas forge, and many other blacksmith tools including tongs and hardie tools. Kenny Young, Hwy. 19 & 54, Laddonia, Mo. 63352; (314) 373-5512 (shop) or (314) 685-2317 (home). I buy, sell and trade antiques, tools, and Indian artifacts.

Thanks, Walt

If you haven't already, drop Walt Hull a note and say thanks in a big way for his efforts as BAM's newsletter editor for the past two years. Walt did a super job getting us the news about our group and it would be a shame if we let him go without special mention.

Thanks Walt, hope we can count on you again. His address is 2043 Massachusetts, Lawrence, Kans. 66046.

Next Meeting



Ken Markley has agreed to host the next BAM meeting on Oct. 3 at his Sparta, Ill. forge. Everyone who went to Ken's last year had a great time, so you can expect great things this year too.

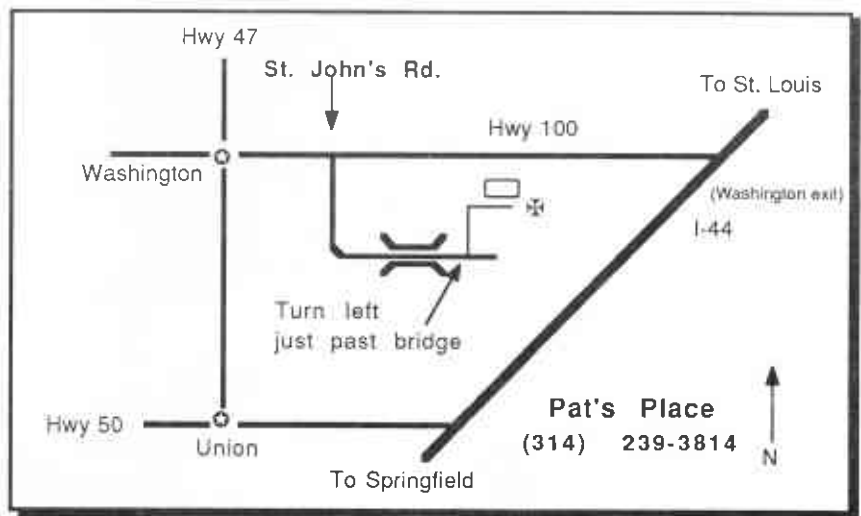
The trade item will be a top tool. Trade items were scarce at the last meeting, so get busy!

While you're at it, make something special for the "Iron in the hat". It's for a good cause.

See you in Illinois Oct. 3.

November Meeting

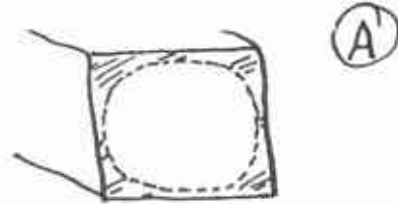
Pat McCarty will host the November BAM meeting. The November meeting will actually be held in November (bad precedent Pat), Nov. 28 to be exact, so that we can go deer hunting *and* make the BAM meeting.



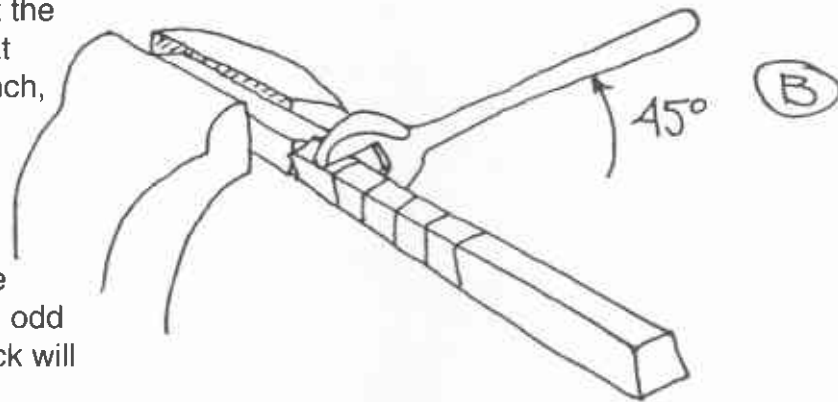
The Rubik's Twist

One of the highlights of Francis Whitaker's demonstration was the execution of the Rubik's twist, a title that was coined on the spot.

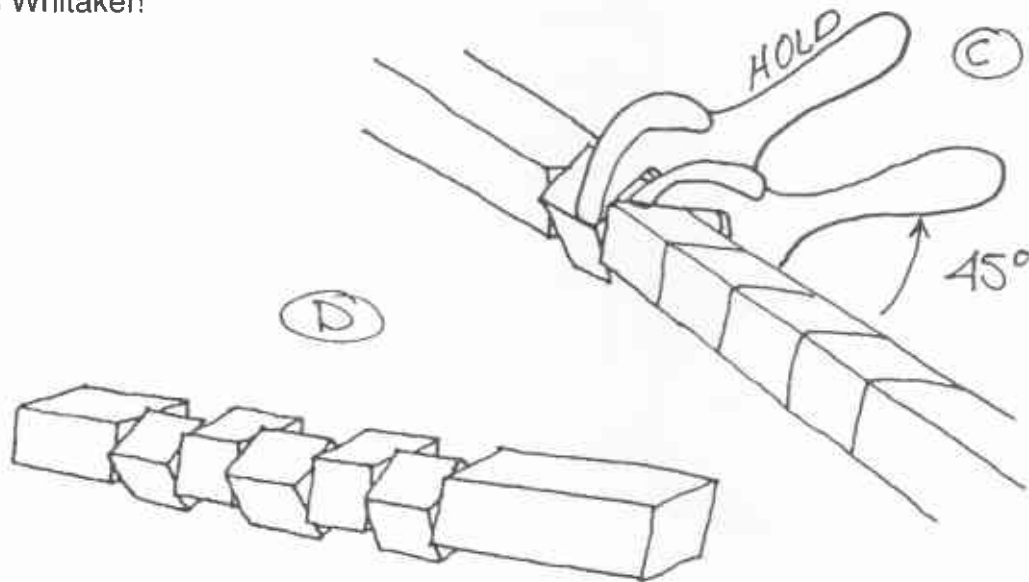
Starting with 5/8 inch square stock cut an even number of hacksaw cuts 1/16 inch deep all the way around and 5/8 inch apart, laying out the cubes (A) Cut into the corners to round out the cuts and to avoid a shear plane when twisting. Bring to yellow heat. (Mr. Whitaker likes to work hot and precedes each move by wire brushing all scale off.)



Clamping end of rod in vise, twist the first cube 1/8 turn (B) Holding that cube in place with a second wrench, twist the next cube 1/8 turn (C). Hold wrenches close together and avoid deforming cubes. Holding the last cube turned, proceed down the line until all the cubes have been turned. With an odd number of cubes, the square stock will line back up (D).



Thank you Francis Whitaker!



Stan McGee
Pine Forge 

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