

# SOFA SOUNDS



## SOF&A

SOUTHERN OHIO FORGE ANVIL CHAPTER,

Artist-Blacksmiths Association of North America

JUNE/JULY 1988

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### NEWSLETTER EDITOR:

Ken Scharabok (513-429-3967)

**MARK YOUR CALENDAR:** Unless otherwise indicated, all meetings will be held at the Studebaker Frontier Homestead on Rt. 202, four miles north of I-70 near Tipp City. Please don't park on the grass or block access to the production buildings. Donations of items for the newsletter support raffle are always welcome. Please bring your work or tooling to display. The public and guests are welcome. Finger food and cold drinks to be provided with a donation bucket.

June 4th, 1 PM

BUSINESS MEETING followed by an open forge session using air-hammer bits to make hardy tools.

July 16-18

1988 ABANA NATIONAL CONFERENCE to be held at the Sloss Furnaces National Historic Landmark in Birmingham, AL. For a registration package write to P.O. Box 11781, Birmingham, AL 35202.

July 9th, 1 PM

BUSINESS MEETING followed by a beginner's workshop to make chain links or punches/chisels from coils.

August 6th, 1 PM

BUSINESS MEETING followed by a demonstration T.B.A. Please volunteer to demonstrate by calling 429-3967.

September 3rd, 1 PM

### MEETING NOTES:

At the April 2nd business meeting, several items were discussed:

- Hans Peot announced he is now an A.B.A.N.A. Board of Director member to fill a vacancy.

- We are still evaluating submitting a proposal to host the 1990 A.B.A.N.A. Conference. Two criteria to be determined is an acceptable location and the committee manpower to arrange and then run it. The latter seems to be the overriding problem at present.

- A.B.A.N.A. now has pins for sell, illustrated actual size above. The group has ordered 50 of them for resell at our cost of \$5.00 per pin (or \$5.25 per pin by mailorder from the Editor). The proceeds from the sale of the pins



## Chapter of ABANA

will be used to produce a professionally prepared informational brochure, to be used in A.B.A.N.A.'s fund raising efforts from corporations and foundations. All A.B.A.N.A. members are encouraged to buy one of these identification pins.

- The group will have SOFA T-shirts available sometime this summer. A tentative design has been identified and permission is being sought to reproduce the artwork incorporated. When received, these shirts will be sold for about \$6.50 each.

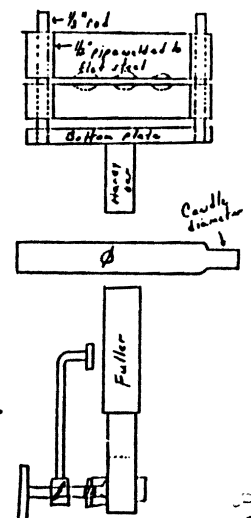
Following the business meeting the newsletter support raffle brought in \$71.50. Doug Fink won a length of flat brass donated by Ham Hammond, Bill Heileman won a small hatchet donated by Hans Peot and a pair of tongs from the SOFA supply, Jim Leistner won a spacula donated by Hans Peot, Tom Ziegler won a set of stamping dies donated by Henry Smith, Gary Ameling won some railroad spikes donated by Bob Wilson, J. Baker won drill bits donated by Jim Leistner, Ray Armstrong won twine donated by Dick Zellers, Dick Zellers won chalk donated by Ham Hammond, Homer Porter won a pair of gloves donated by someone, Tom Creech won rivets donated by the Editor, Hans Peot and Gene Shultz won steel plates donated by Emmert Studebaker, Bud Rolston won some air-hardening steel donated by Ron Thompson, Ralph Van Buskirk won one of the items from the demonstration by Peter Happny at the last Quad-State, Ed Rhoades won a wrench donated by Hans Peot, Carey Alexander won a hot dog roasting fork donated by Ralph Van Buskirk, Henry Smith won an old horseshoe donated by Emmert Studebaker, Tom Leimley won three lengths of rebar donated by Hans Peot, Don Dunbar won three wide sanding belts donated by Doug Fink, Owen Vance won a box of muffler clamps donated by Art Wolfe and Doug Fink won a lamp donated by Emmert Studebaker.

Following the raffle, three excellent demonstrations were put on by Bud Rolston, John Jacobs and Hans Peot and Larry Wood. For the folks who like to see tooling to solve a particular problem or for uniform production work, they had plenty to see.

Bud Rolston brought along his foot treadle powerhammer (usually called an "Oliver"). It flat could hit a square blow. His was portable by the addition of wheels on the bottom. He demonstrated the steps to make a candle holder with the various stages on a display table from stock to finished work. His handout contained in this newsletter will serve as my notes. Plans for a foot treadle hammer similar to Bud's are available from A.B.A.N.A., P.O. Box 1181, Nashville, IN 47448 for \$7.00 (postpaid).

Following Bud's demonstration, John Jacobs demonstrated the tooling he has developed for candle cups. He liked the guillotine fuller used by Peter Happny at the last Quad-State, but improvised on it. His guillotine fuller is similar to the one used by Doug Fink several meeting ago, except that instead of the interchangeable top and bottom dies sliding in side grooves, his slide over the uprights. We welded 1/2" rod to two sides of a bottom plate and welded on stock to go into the hardy hole. His dies consist of flat stock welded to 1/2" pipe on the ends. Then they readily slide up and down on the upright rods.

To form the flare on the cups, he used a length of round held in the postvise which had been machined on one end to the diameter of candle bases. He determined the average size of candle bases by measuring six different brands of candles and then dividing by six. To flare the cuts he drives pipes onto the end. This device can also be used to straighten up cups if they get a little off center when necking them down in the guillotine fuller. To keep the length of the cups the same, he developed a nifty backup clamping device as illustrated. The bottom clamped onto the hardy stem when it came through the anvil bottom (the hardy was lengthwise of the anvil top). He then had a sliding backstop which clamped



into the bottom clamp by the use of a butterfly nut. This way, he could vary the lengths of the candle cups by a 1/4" either way.

John brought along a beautiful five candle table center piece he had made. I sure hope he displays it the next time we hold a Quad-State.

Following John, Hans Peot and Larry Wood make a sword blade out of a short length of two inch diameter steel cable. They forged the round cable into a rectangular bar, cut it in half, faggot welded it and then drew it out into the blade shape. When finished, the blade will have Damascus-like lines on it from the individual strands in the cable.

\* \* \* \* \*

At the May 14th business meeting:

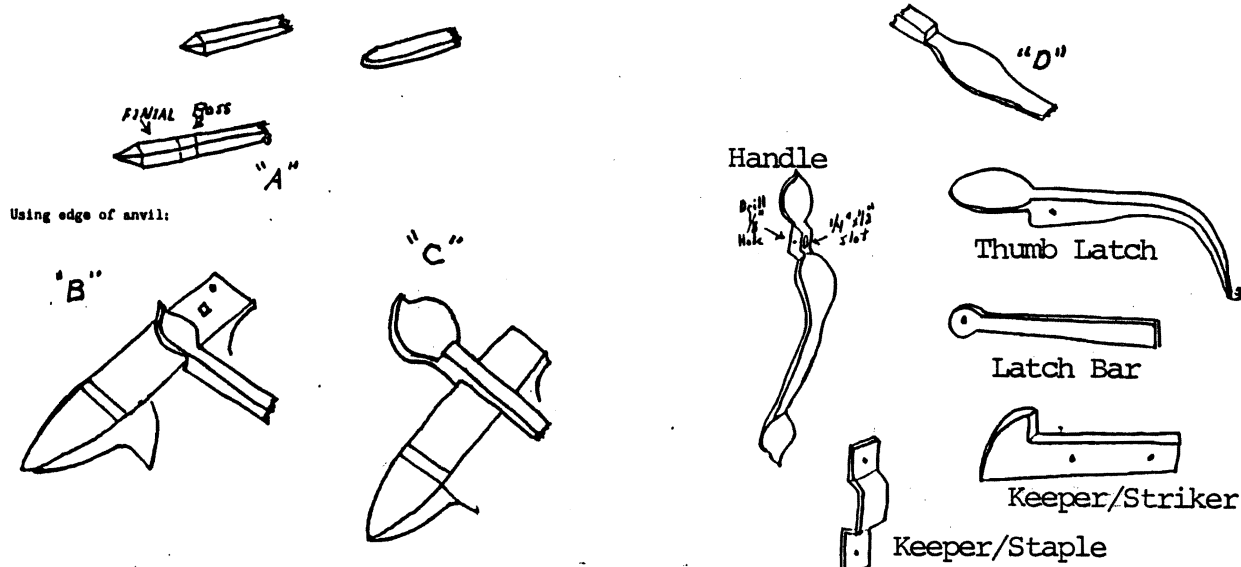
- Ron Van Vickle and Larry Wood were elected to the board of director and Ron Thompson was reelected. They will serve a two year term. The board will meet on June 4th for the nomination and appointment of officers.

- The board announced a \$200.00 donation from the group to Francis Whitaker's project to set up a blacksmithing school in Colorado. See letter in this issue. Further individual donations would be appreciated by Francis.

The newsletter support raffle brought in an additional \$56.00. Major items won were: Ham Hammond won a brass slack tub dipper donated by Keith Sommer; Larry Gindlesperger won some 1010 cold rolled donated by David Clouse; Ham Hammond won sanding belts donated by Doug Fink; Ron Thompson won a demonstration piece by Peter Happny from the last Round-Up; Dick Franklin won a paper drum; and Ron Van Vickle won 50 lb of coal donated by Ron Porter. Thanks to all who donated items. The raffle supports about 50% of the newsletter cost.

Following the business meeting, Ron Thompson and Ron Van Vickle put on their usual entertaining and informative demonstration. They were demonstrating a Suffolk-style door latch they learned to make at the last Conner Prairie Workshop. These workshops are held in the early Spring and have been praised by all who have attended.

They recommended 18" to 24" long stock to eliminate the use of tongs. Material dimensions are determined by the size and shape of latch desired. Some examples



are: 3/8" x 1", 5/16" x 1", 1/4" x 1", 5/8" square or round, 1/2" square or round, etc. To start, make a short taper or round one end for the finial as shown in the top left illustration. Measure back 1 1/2" to 2" depending on size finial desired AND another 1" for a boss. See "A". Using edge of anvil forge shoulders for finial and boss as shown in "B" and "C". Note shoulders on opposite sides. Shape handle as shown in "D". Now shape bottom finial making it smaller than the one at the top after having cut off the handle leaving enough stock on the original bar or make the size bottom finial desired. Punch a 1/4" x 1/2" slot in the boss and drill a 1/8" hole through the side (centered) for a pivot point. The pieces required to complete the latch are shown at the bottom right.

One final item, the Board voted to not submit a proposal to host the 1990 national conference due to the lack of a good site and the need for someone to work almost full time on it for a year prior to the event.

HEAR YE! HEAR YE! HEAR YE!



A listing of 550 shops which purchase handcrafted items is available for \$5.00 from Bernu, 802 Country Road 69, Bivey, MN 55709.

POSITION AVAILABLE: Advanced blacksmith for lead position in ornamental and architectural ironworks. Permanent, full-time employment guaranteed. Requirements: good social skills; clean work habits; ability to enjoy company framework. This is a very desirable opening for the right person. Please send letter of introduction along with photos of work to Stephen Marquardt, Great Southern Metal Co., P.O. Box 1242, Fayetteville, AR 72702 - 501-521-3166.

POSITION AVAILABLE: Resident blacksmith position available. For information contact Peters Valley Craftsmen, Inc., Peters Valley, Layton, NJ 07851.

POSITION AVAILABLE: Full-time metal worker/blacksmith. We are looking for experienced workers, as well as apprentices. If you have aspirations to work in a learning and historical environment, please send resume with your phone number to: Clare Yellin, Samuel Yellin Metalworkers Company, 5520 Arch St., Philadelphia, PA 19139.

For a copy of an article on using copper water piping (up to 3" in diameter) to make two sets of entry gates, send me a SASE with 25¢ postage. Copper was used since they are in an ocean front setting.

The newsletter of the Florida Artist-Blacksmith Ass'n reported that "...the Mid-East Manufacturing Co. is looking for someone to make damascus-pattern knife blades for them. They want 20-30 blades per week. They have 58 different shapes they want, and the blades are to be rough ground. Money-wise these are worth \$20 - \$75 per blade depending on the shape. Blades to be made from L6 Tool Steel and 1020 mild Steel with random 512 layers. These people have been selling blades for awhile and seem to know what they want and need. So if you are so inclined and want to set up a small production shop, here is a good chance. Contact: Steve Kundrat - 305-724-1477."

For you folks interested in making knives out of cables, I have available two articles out of the newsletter of the Inland Northwest Blacksmiths Ass'n. The first is by Hugh Eddy on making cable knives using the Damascus-pattern type of folding to get approximately 1000-1500 individual wires in the blade. Some beautiful samples of his work were shown. The second article is by Richard

mesky on examining photomicrographs of a cable blade knife. For a copy of either send a SASE with 25¢ postage (25¢ also for both).

The March/April 88 newsletter of the Rocky Mountain Smiths contains four articles on gas forge/furnace (Yes, I learned from the last issue of The Anvil's Ring) advantages, construction and use. For a copy send a SASE with 45¢ postage.

The tentative plans for a display of hand wrought ironwork from the area (at the art gallery of the Miami Valley Arts Council) have been dropped due to lack of interest. Only four members expressed any interest. We needed about 12 to 15 artists to make it feasible. We might have been able to pull it off, but frankly I didn't feel like beating people over the head and shoulders to cooperate. We missed a good opportunity to display our work and for potential sales. If someone would like to take on this project, let me know.

FOR SALE: 25 lb Mayer (Little Giant) with 1 1/2" hp motor (like new - 110/220) \$900 (without motor \$800). Runs like a sewing machine. It's great. Contact Joe Bonifas, 9090 Spencerville Rd., Spencerville, OH 45887 - 419-647-6598.

The most current SOFA membership list is available from the Editor for a SASE with 25¢ postage.

The March 88 newsletter of the Guild of Metalsmiths contained an interesting idea. Many cities have home shows which included interior designers completely furnishing a home for display. Contacting them may result in their incorporating some of your work, thus increasing the opportunity for sales.

If any of our members are starting to build a treadle hammer from the ABANA plans, contact Pete Stanaitis, Rt 1, Box 171B, Baldwin, WI 54002. He recently participated in the building of six of them and has started a series of articles in the newsletter of the Guild of Blacksmiths to help an amateur (or a more experienced metalworker) through the plans. I suspect for a couple of bucks to cover copying and postage, he will send you a copy of the current and future articles. Comments correlate to part numbers on the plans.

The gate for the Flood Memorial Park to be built in Dayton will be on display at the Dayton Art Institute's Experientcenter Gallery through July 4, 1988. This gate was built during a Francis Whitaker Masters Workshop at the homestead about two years ago. Funds for the park are being raised through a "Buy-a-Brick Campaign". Donation requested is \$25.00 per brick. For further information contact the Miami Valley Arts Council at 228-0737.

"ABANA stands for ALL BLACKSMITHS ARE NOT ARTISTS" (from the newsletter Appalachian Area Chapter - ABANA).

POSITION AVAILABLE: Cambridge Village Forge is looking for one of American's best blacksmiths to work in their 3-hearth forge located in a rural setting, 20 minutes east of Madison, WI. You'll use creative skills to produce historic early American products, such as those in the Colonial Williamsburg collection. Contact them at 404 England St., Cambridge, WI 53523 - 608-764-5435.

The Rural Smiths of Mid-America is dedicated to preform an in-depth study, preservation, and recreation of all early rural farm, industrial, and home items made by the local general blacksmith. Their tri-annual publication, The Traditionalist, is a well illustrated, step-by-step write-up of products such as hay hooks, barn door handle, horseshoe hinger, pitch forks, wagon wrenches, etc. Cost is \$25.00 per year to join. I understand they are having a regional gathering (open to non-members) in July. For further information contact Fred Caylor, 3602 S. 800E, Zionsville, IN 46077 - 317-769-6537 (shop) or 6351 (home).

FOR SALE: Anvil, forges, leg vises, blowers, hornstake, misc. forging hammer dies, large two-screw parallel jaw leg vise, 4' section rollers, misc. hand tools and more. Contact John Kosirnik at 517-456-7122. (Michigan).

FOR SALE: 50 lb and 25 lb Little Giants (no motors), \$875 and \$775 each, respectively. Lincoln 250 amp AC/DC reverse polarity welder on towing trailer - \$625. Contact Jerry Underwood, 9190 Edgewater Dr., Stanwood, MI 49346 - 616-972-2713.

THEN AND NOW is a combination buckskinning and blacksmithing magazine, 6 issues year, \$15.00 from P.O. Box 842, Mt. Vernon, WA 98273. Publication schedule is erratic but you will receive six issues for the subscription.

POSITION AVAILABLE: Lead blacksmith at Conner Prairie Museum to work within existing historical program. Experienced blacksmith would work extensively in the reproduction and production development areas. Also will aid in the technical training of existing apprenticeship programs. Contact John Schippers, Supervisor of Crafts, 13400 Allisonville Rd., Noblesville, IN 46060 - 317-776-6000.

The June 4th demonstration will be a workshop to make hardy tools or hand punches or chisels from old airhammer bits. Last year several members made nice little hardy mandrels while others made cut-off tool. We could use a few more bits if anyone has surplus. These will also be tempered.

The July 9th (second Saturday) demonstration will be a beginner's workshop to make chain links or punches, chisels or drifts out of old automobile coil springs. We need someone to donate a 1/2" or so coil spring.

DEMONSTRATORS needed for the August 6th and September 3rd meetings. If you would like to demonstrate, please call the Editor at 429-3967. The demonstrations don't have to be either elaborate or complex as we learn something in every demonstration.

FOR SALE: 500 lb Boudry powerhammer in excellent condition - \$3,000. Contact Clifton Ralph, 4040 W. 47th Ave., Gary, IN 46408 - 219-980-4437.

Kraus Skies, Inc. (140 W. 25th St., NY, NY 10001 - 212-242-3730) publishes the annual edition of "The Guild: A Source Book of American Craft Artists". It is a 460 page book of the work of artists and goes to some 16,000 interior designers, architectural firms, art consultants, artists' representatives, collectors and galleries. Full page ads are \$1,400 (\$1,120 before July 15th).

FOR SALE: 50 lb and 100 lb triphammers. Call for details and price. Bob Medemach, Indianapolis - 317-251-8452.

December 30, 1988 is the deadline for entries for the national juried exhibition of "Animal Imagery: New Forms, New Functions" sponsored by the Arrowmont School of Arts and Crafts in Gatlinburg, TN. The exhibition will be juried from 35mm slides. Artists working in any medium, whose artwork employs animal themes, are invited to submit up to three pieces. Artists must reside in the U.S. Cash awards will be given, and Arrowmont School will select a purchase award. A non-refundable entry fee of \$15.00 should accompany the slides. For information and/or a prospectus write Arrowmont School, P.O. Box 567, Gatlinburg, TN 37738 or call 615-436-5860. Exhibition dates are February 24 - May 20, 1989.

POSITION AVAILABLE: Stonefield Village, Wisconsin's state Historical site in Cassville, WI has an opening for a blacksmith for the summer season. There is a partially equipped shop and coal available. Good chance for someone looking for a summer job.

POSITION AVAILABLE: Apprentice to the blacksmith at the Warner Robins Air Logistics Center (the Air Force aircraft overhaul facility at Warner Robins, GA - near Macon). Contact WR-ALC/DPCS, Robins AFB, GA 31098.

FOR SALE: Castiron forge, 3'x4' with blower, hood and new firepot - \$350; twisting forks - \$1 each; Tongs - \$3 to \$5; railroad irons 12" long - \$5; brass, steel and assorted metal and slate for laying out patterns. Contact Mark Cucac, 5410 W. Bausman Rd., Piqua, OH 45356 - 513-473-2149.

FOR SALE: 50 lb Boudry powerhammer in excellent condition. Contact Robert Wozniak, P.O. Box 3501, E. Chicago, IN 46312 - 219-397-5218.

FOR SALE: Heavy-duty, castiron firepots. \$125.00. Contact Bob Zeller, 849-1771.

Carriage Hill Blacksmith Shop needs weekend volunteers. Contact D. Franklin at 233-4879.

FOR SALE: 50 lb Williams-White powerhammer, completely restored, \$1,850. Wheelwright mandrel about 40" high, \$200. Contact Emmert Studebaker, 513-223-3202.

FOR SALE: Detailed and illustrated plans for a homemade 50 lb powerhammer. \$4.00 postpaid. Contact Hans Peot, 6425 S. Scarff Rd., New Carlisle, OH 45344.

BOOKS ON BLACKSMITHING are available from: Norm Larson, 5426 Hwy 246, Lompoc, CA 93536, Jim Fleming, 156 Country Road, Beckenridge, CO 80424 and Centaur Forge, 117 N. Spring St., Burlington, WI 53105.

Reminder that classified ads for blacksmithing-related items in this newsletter are free. Send in your ad to buy, sell or swap.

I received a letter from Ruth Cook asking that I publish a correction to the comment in the last newsletter that she was offered continuation of her position as ABANA Executive Secretary at the same salary. She pointed out she was offered a \$4,000 reduction in salary while at the same time the ABANA board created a totally new job description for the position which changed the duties and increased the functions of that position. Thus, the offer was a significant increase in work at a significant decrease in salary.

POSITION AVAILABLE: Full-time production blacksmith at the Rose Ornamental Company in Cleveland. Contact Melvin Rose at 216-881-3355.

Received a note from Dow Van Arman that he has forsaken the Dayton area for the sunny South - that rascal! His new address is RR #2, Box 366, Micanopy, FL 32667-9611.

POSITION AVAILABLE: The Edaville Railroad is looking for a smith or smiths to work as interpretative persons in their turn of the century blacksmith shop. The ability to talk to people and explain smithing and turn of the century New England is more important than experience or skill. Contact Mack Phinney at 617-295-4225 or Jim Tomkinson at 617-295-0030. (Eastern Mass. area)

SHOP AVAILABLE: The New Hampshire Farm Museum is a non-profit organization dedicated to preserving, understanding and carrying forward New Hampshire's agricultural heritage. They are located in Milton, New Hampshire. They recently relocated a completely outfitted blacksmith shop to their site and are interested in seeing it used, free of charge. No commission would be charged on sales to the public. Contact Melissa Walker, Rt. 16, Plummer's Ridge, P.O. Box 644, Milton, NY 03815 - 603-652-7840. Apparently you furnish your own stock and coal.

(Continued on next page)



# CANDLE SCONCE AND FULLER TOOL by Bud Rolston (Not to scale):

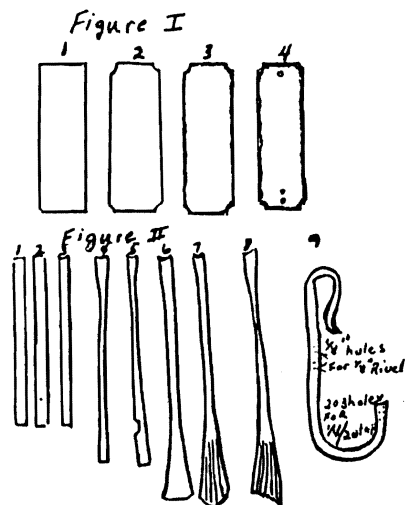


FIGURE I - BACKING PLATE

1. Material: 1/8"x2"x9". 2. Cut four corners 45° radius or use round cut. 3. Hammer edges with ballpeen or cross pein. 4. Drill two holes to mount element (1/8") and one 1/4" hole at top center to mount on wall.

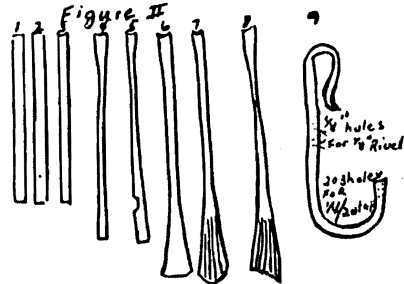


FIGURE II - CANDLE HOLDER ELEMENT

1. Material: 1/2"x12" square. 2. Center punch one end two inches from end. On opposite end, use a large round punch and upset so drip pan has a depression to set on. 4. Fuller and size down about 8" from drip pan end. Piece should now be about 13 3/8" long. This is worked on all four sides in square. 5. At opposite end (on 2" center punch), fuller down to 3/16" thick. 6. With crosspein, spread last 2" from fuller mark to shape of fan. 7. Put lines or design of choice on straight side of fan. 8. Finish fan end as to cutting off or leaving straight. 9. Form drip pan end to shape of fishhook. Form opposite end to desired shape. 10. Drill drip pan depression with 203th drill and tap for 1/4/20. Drill two 1/8" holes to mount as desired on plate.

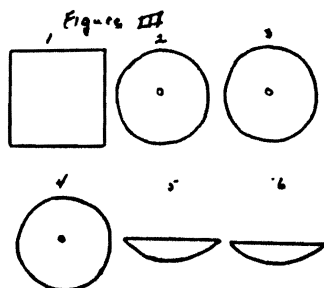


FIGURE III - DRIP PAN

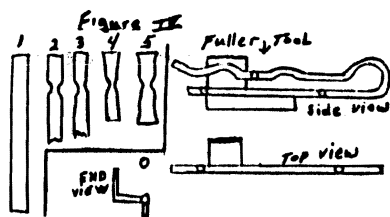


FIGURE IV - CANDLE CUP

1. Material: 3/4" Schedule 40 pipe. 2. Take fullering tool and fuller pipe to a little smaller than 1/4" at inside where fullered. 3. Flair end of pipe over end of anvil horn. 4. Cut off pipe so you have equal lengths on each side of fuller section. 5. Flair remaining end. 6. Drill inside fuller section with #203th drill and tap with 1/4/20. 7. Cut in center of fuller section to equal lengths. Not shown: Connect drip pan and candle cup with 3/4" of 1/4/20 all thread. Connect candle holder element to backing plate with 1/8" rivets.

## FULLER TOOL:

Candle cup fuller made of uncoiled car spring with 1/4"x1"x6" welded underneath to hold in vice. Piece of 1/8"x2" angle iron welded on backside to give length to candle holder cup.

HEAR YE! HEAR YE! HEAR YE! (Continued)

The John C. Campbell School (Brasstown, NC 28902 - 704-837-2775/7329) conducts almost continuous blacksmithing classes from beginning to masters-level from May thorough November taught by some of the finest blacksmiths available. Contact them for schedule and fees.

SHOP AVAILABLE: Use of shop and house about 30 miles from Atlanta, GA in exchange for caretaker services. Contact Jim Brazell at 404-255-3688.



Hardwick Pines State Park (in Upper Michigan) would like to invite blacksmiths to participate in Black Iron Days, August 27-28, 1988. For additional information contact the Park at Rt 3, Box 3840, Grayling, MI 49738 - 517-348-7068.

The newsletter of the Tullie Smith House Blacksmith Guild (Mike Shaffer editor) is one of the best in the country. Each issue usually contains 5-7 demonstration write-ups (well illustrated) on items someone with basic blacksmithing skills and equipment could make, as well as a sprinkling of items for the more advanced smith. Mike has put together all of the 1987 newsletters into a book available from him at \$10.00 per copy at 4600-D E. Ponce de Leon, Clarkston, GA 30021. I personally guarantee the book is worth the break-even charge. Membership cost for the guild is \$3.00 per year (an outright bargain!!!!), c/o Clay Smith, 3007 Leafwood Drive, Marietta, GA 30067.

Wood-Met Services (3314 W. Shoff Circle, Peoria, IL 61604) offers a number of how-to plans for building various items of shop equipment (e.g., air compressor made from a used airconditioning compressor and two used freon gas tanks). Individual plans are \$4 each with additional plans discount. Send business-size SASE (with 25¢ postage) for current catalog.

The Univ. of WI will conduct a Basic Budget Blacksmithing Class, June 24-26. Cost of \$135 includes material and three nights lodging. Contact Center for Craftsmanship, University of Wisc. at Stout, 245 Tech Wing, Jarvis Hall, Menomonie, WI 54751. Instructor will be Daniel Butt.

The School of Homestead Living will conduct a beginning blacksmithing class June 13-17. Cost is \$140. Lodging is available for an additional \$55. Instructor will be Bill Preston. Contact R.G.C., Box 878, Rio Grande, OH 45674-9989 - 1-800-282-7201, Ext. 325 (in Ohio) or 614-245-5353, Ext. 325 (outside Ohio).

FOR SALE: 25 lb powerhammer, ready to go, 220v single phase, \$1,000; anvils; vises; and misc. tools. Contact Joe Abele at 276-2977 or Steve Roth at 836-8520.

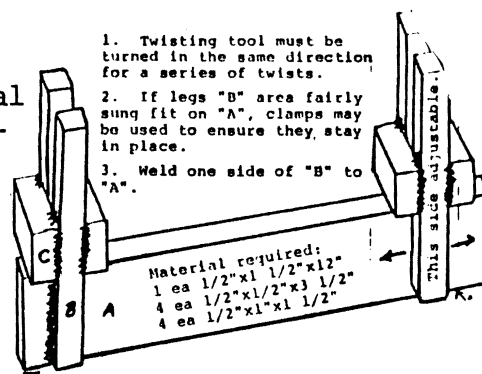
SHOP TIPS AND TECHNIQUES: While the information provided in this section, and elsewhere in this newsletter, is believed accurate and safe, neither S.O.F.A. or A.B.A.N.A. bear any responsibility for any adverse results which may occur.

- PUNCH MARKS: Don't be afraid to mark most of your bends and twists with a prick punch; it insures a neat job and is very traditional. (By David Keller).

- REMOVING BROKEN STUDS: To remove broken studs on bolts which are protruding, first of all patience is required to remove these stubborn bolts. Apply liberal amounts of good penetrating oil and then heat cherry red. Keep reheating until you feel heat has completely soaked into the bolt. After each heating, once the red color has gone away, tap bolt on end with light rapid blows. Bolt should come out with a good grip on it. Should you have a blind hole and no room to grip the bolt, drill a 1/8" hole to the cavity at the bottom through the bolt. Then drill enlarged hole for a Easy Out stude extractor (not all the way through) and then soak good with penetrating oil. Heat as described above and then use Easy Out carefully and the bolt will come out. (By Danny O'Brien). ((Some time back there was an item in this newsletter with a similar process. It involved centering a bolt nut over the broken off stud and welding (with a high heat at first) the nut to the stud shaft. The welding heat helped loosen the stud and the nut helped in its removal -ed)).

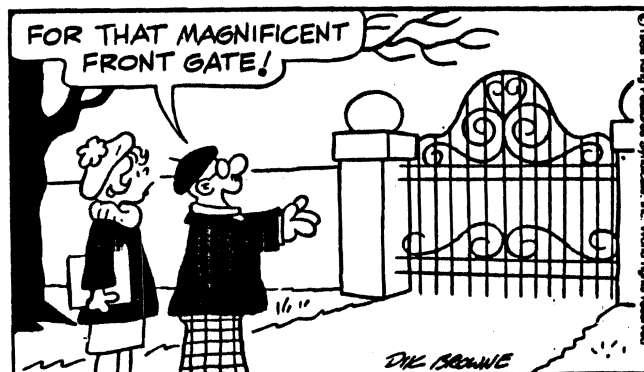
- SOUND-DEADENING ANVIL STAND: Here is a technique I used to give my anvil that nice dull solid sound. The log was cut to length with a chainsaw. I put the best side down so it stood solid on the floor. I then nailed a piece of 1/2" plywood on the top, shimmed it to make it level first, keeping the nails out from under the anvil. I put the anvil on the plywood and marked the outline of the base and

- **REVERSE TWIST JIG:** For a recent production job requiring reverse twists, I decided to make a tool to assure all twists were even and correctly spaced. Total twist length was 10" with one full turn in each direction using 1/2"x1" stock in a steps railing. I built a tool similar to the one in my illustration except the verticals (B) were welded to the support bar "A" which was held in a post vise during the twisting with a 10" spacing on the inside edges. In the drawing pieces (B) are welded to pieces (C) to form two "H" patterns which can be adjusted for any length of twist depending on the length of bar (A). Be sure to use 1/2" spacers plus a thin piece of cardboard to allow for the heat expansion of the stock to be twisted. Obviously this will for 1/2" material and spacers must be used for other sizes (e.g., 3/8" would require a 1/8" spacer). If the four pieces (B) are rounded on their inside edges where the heated metal will make contact, and by using a twisting tool with similar radius, a series of reverse twists can be made in succession on any length of material. My twisting tool has rebar. This method takes a little more beef because a double twist is being made. Reverse twisting is time consuming and not always easy to keep accurate. I can assure you that using this tool you will have exactly the same number of twists on each side and with a good heat they will be even. You also won't have water all over the floor and swearing is limited. (By Bernie Cler).



- **WIRE WHEEL SAFETY:** Nothing removes most of the remaining scale, tar or other grudge from forged iron like a good steel wire wheel. With a little extra brushing bright smooth areas take on a beautiful panina so that whatever the finish, short of a solid coat of paint, there is a beautiful contrast between the rough and smooth areas or a sheen all over if brushed enough. Dr. Carl Van Arnham, former ABANA treasurer and an eye surgeon, stated most of the eye injuries he treats are wire wheel injuries. Safety glasses alone are not adequate and a face shield should be worn. I have also picked many wires out of my clothes and occasionally one will puncture the skin on my belly. My purpose here is to discuss another kink of injury, that of items being grabbed by the wheel, especially when working in tight places such as angles, small radii or hooks. In a recent article for the newsletter of the I.B.A., I told of making some triangle chimes while demonstrating at a local grade school. I decided to take the chimes for some wire brushing and a coat of beeswax before giving them to the interested classes. The triangles were small, seven inches on each side and of 1/2" round stock. Knowing the hazards of this 8" stiff wheel, I took a firm grip with gloved hands while polishing the inside of each angle--so I thought. I remember hearing a loud boiiiiinnng and my head hurt like hell as blood started dripping from my eyebrow. I did not have on a face shield and thank goodness my glasses had plastic lenses for both lenses have scratches after I finally found them across the room. Evidently the triangle became locked on the wheel and after almost a full revolution left just as fast. My purpose is not to expose my stupidity but to warn others of the dangers with wire wheels. (By Bernie Cler).

## HI AND LOIS



Removed the anvil. Using my router with a long bit I removed the outlined area so that the post was cut 1/2" deep. Removing the plywood left a smooth, level base for the anvil and a lip to keep it from walking. I use no holddowns. (By Robert Behrendt).

- HANDY OIL CONTAINER: To keep Linseed Oil handy without drying out I use a recycled Johnston's Baby Shampoo bottle. It has a good press to open, press to close cap. (By Robert Behrendt).

- MARKING PENCIL: Good for marking cold or warm steel is a pencil available at art supply stores or office supply stores in the colored pencil section. You want silver - also good for marking blue prints. (By Charles Becker).

- SAFETY WARNING: Use caution when forging used hex-shaped stock as it might be jack hammer bit stock with a center air supply hole. C.E. Cooper of Tubac, AZ received eye damage when a piece with both ends closed ruptured in the forge fire. In another reported case, the center had become packed with dynamite (through road work) and exploded when hammered, causing serious injury to the smith. (By Bill Callaway from the Winter 1987/88 Anvil's Ring).

- SAFETY WARNING: Larry Wood was using his #100 powerhammer when the spring between the arms broke. Fortunately he was bending over or the spring might have caught him in the face or chest area. His replacement spring will be contained in a safety cage of sheet metal. He strongly recommends others also do so.

#### FORGING NON-FERROUS METALS: (By Dr. Michael G. Merickel)

In the February 1988 issue of Blade Magazine there was an article describing the work Buster Warenski did re-creating the King Tut dagger. This dagger is 32 ounces of pure gold. Mr. Warenski tried to use several methods of forging the blade starting first with a cast ingot and then with a rough cast blade. Each time the ingot or blade crumbled and disintegrated when struck hot.

The problems Mr. Warenski experienced arose because he was thinking like a blacksmith and not a goldsmith. Non-ferrous metals, particularly gold, silver, and thin section copper must be worked cold. These metals are all hot short and will crumble when struck at temperatures above a dull red heat. Whether forging metal down into a mold using copper or pewter or raising over a stake using gold, silver or copper, the traditional steps have been cold work a course, anneal, quench at a low red heat, pickle and work another course. Large pieces should start with a rough casting, then be worked with smaller hammers and a light touch to pack and refine crystal structure, anneal, pickle, cold forge to shape, then finish. Gold, silver and copper are very ductile, and cold work easily. Copper is prone to cracking in thin sections as it work hardens, so must be annealed often.

Don Witzler from up Toledo-way likes to hot work copper bus bar stock into tableware. Having watched Don do this, it is my observation he never strikes the copper above its critical temperature. Most of the time he is working at temperatures below a visible color and in essence is warm working the copper with frequent annealings at a dull red color.

Hammering down copper sheet to make hollow-ware, such as candy dishes, bowls, gongs, and weather vanes in fun and easy and might make a good demonstration for a SOFA meeting.

(Thanks Michael - is there a volunteer demonstrator out there? European blade-smiths encountered a similar problem when they brought back Damascus steel pucks (not pattern-steel) back from the Middle East and India. They tried to work it too hot and it crumbled so they gave up trying to duplicate Damascus swords. - ed.)

# ABANA

Artist-Blacksmiths' Association of North America



P.O. Box 1181, Nashville, Indiana 47448  
Executive Secretary, Janelle Gilbert

Office Hours: 7:30-11:30am & 1:30-4:30pm  
Phone: (812) 988-6919

## PRESIDENT'S MESSAGE TO THE CHAPTERS April 1988

Dear Fellow Smiths,

Well, one more month left until the big event. It's more than just another conference for ABANA. For those of you who do not already know, our organization has its roots in the south. The Artist-Blacksmiths' Association of North America was founded at the first ABANA Conference which was held at the Westville Historic Handicraft of Lumpkin, Georgia on March 17th, 1973. It grew in membership and the first Anvil's Ring publication was off the press in September of that year. The first President of ABANA was Alex Bealer, III of Atlanta, Georgia. Dimitri Gerakaris of Enfield, New Hampshire was ABANA's first Vice President. From the beginning, the roots were in the South and Alex Bealer and the other fine gentlemen who founded the Artist Blacksmiths' Association of North America helped a fledgling group grow from five members to over 2500 in number.

Alex Bealer spent his life giving to blacksmiths. He shared his talents at the anvil in several books about blacksmithing and in lectures and many hands-on workshops. Of course his most memorable legacy is his genuine outpouring of his love of the craft. Alex encouraged all of us who knew him and he degraded no man.

Alex Bealer died a few years ago and ABANA has never felt so great a loss. My only regret is that he will not be in Georgia to see ABANA today and to have his dream of nation-wide participation and his goal of 2,000 members realized.

For the rest of us, participation in this year's tremendous event will be our thanks to Alex.

The several chapters of the Southern area who have worked for nearly a year to bring this conference to us deserves our attendance at the event. The \$10,000 seed money from ABANA would still be a lump of cash without the hard work and the fellowship shown by Chairman Mr. Bill Manly and the chapters who have worked so hard. The Tullie Smith Guild, Appalachian Area, North Carolina, Florida, and the Alabama chapters -- our hats are off to you!

Alex Bealer - "We loved you! We are comin' home!"

Sincerely,

*Dorothy Stiegler*  
Dorothy Stiegler  
ABANA President

DES/jcg



The Colorado Rocky Mountain School  
1493 County Road 106  
Carbondale, Colorado 81623  
Phone 303-963-2562

March, 16, 1988

Dear Friends:

I am writing to ask for your assistance in helping me turn a lifelong dream into a reality: to establish a national school for the teaching of blacksmithing. This was also a dream of my first teacher, the great Samuel Yellin, who died before his goal was accomplished. There are a few blacksmithing schools in the country, but none in the Rocky Mountain area. Additionally, my proposal would be unique, combining a working shop with a school, making available to students not only the benefit of working with master smiths, but having all the tools, equipment and inventory that I have collected over 60 years.

Located approximately 25 miles from Aspen is the Colorado Rocky Mountain School (CRMS), in Carbondale. With boarding and dining facilities, as well as an auditorium and library, CRMS would be an ideal location for Master Classes for advanced students as well as for Regional Conferences. Other nationally known instructors may be invited to teach all phases of the craft. I am also interested in CRMS as a school because they are committed to giving students real life experiences along with a strong academic program. The school has been dedicated to the arts as well as other crafts since it opened in 1953. The Headmaster and Board of Trustees are interested in my plan plus the revival of the blacksmith program for students.

I have proposed to establish a national school for the teaching of blacksmithing at the same time allowing me a place to work on occasional fine commissions. I will donate all my tools, equipment, and inventory (valued at \$76,000), and \$20,000 toward a building for the blacksmith school which would be owned by CRMS. I would retain a lifetime interest use on the basis that it would not interfere with school use. The facility will be open to the students only under the supervision of a qualified instructor. I will teach classes in the summer.

We will have six fully equipped forges in the new facility. Also, in addition to Master Classes, there will be opportunities for one-on-one special classes, working on specific problems.

To accomplish this goal, I am working with CRMS to raise \$20,000 in matching funds to my contribution for the building. I hope you will consider helping me accomplish this most important contribution to the art of blacksmithing. Donations can be made directly to the Colorado Rocky Mountain School, 1493 County Road 106, Carbondale, Colorado 81623. Donations are tax deductible.

Thank you for helping in any way possible.

Sincerely,

*Francis Whitaker*  
Francis Whitaker

**BLACKSMITH**  
TOOL STEEL IDENTIFICATION  
CHARACTERISTICS

**RTS** - REAR TRUCK SPRING  
**CTB** - CHRYSLER TORSION BAR  
**UTA** - UNKNOWN TRUCK AXLE  
**OJHB** - OLD JACK HAMMER BIT  
**OJYS** - OLD JUNK YARD STEEL  
**FOP** - FOUND ON PILE  
  
**SOCS** - STRAIGHTENED OUT  
COIL SPRING  
  
**INSHBPH** - I'M NOT SURE  
(WHAT IT IS) BUT  
IT'S PRETTY HARD  
  
**YGGM** - YOUA-GUESS'-GOODA-MINE  
(ITALIAN TOOL STEEL)

Ron Thompson, et al

**BLACKSMITH**  
**GUARANTEES**

THIS WORK IS FULLY GUARANTEED

I GUARANTEE THAT I AM  
SELLING THIS TOO CHEAP.

I GUARANTEE IT WON'T BE  
READY WHEN YOU ORDERED IT.

I GUARANTEE IF IT IS SHARP  
IT WILL GET DULL.

I GUARANTEE IF YOU ABUSE  
IT, IT WILL BEND OR BREAK.

I GUARANTEE IT WILL RUST.  
IF IT DOES NOT, BRING IT  
BACK. I WILL MAKE YOU  
ONE THAT WILL.

Ron Thompson, et al

(NOTE: Full 8½"x11" size available from the Editor for a SASE with 25¢ postage)

BOOK REVIEW - "BEGINNING BLACKSMITHING WITH PROJECTS" Reviewed by Bob Morris

The other day I finished reading a book titled "Beginning Blacksmithing With Projects". The title is simple enough but somewhat misleading. Jim Converse, the author, not only covers such basic topics as setting up shop, basic tools, and working fundamental shapes, but also covers heat treating, rules for working to dimensions, special purpose tools, shackles, chains, rings, hooks and much more. All contents of this book is explained in great detail with many illustrations.

Jim Converse learned his trade on a cattle ranch in Southern Arizona. In the preface, Jim says, "My background is deeply ingrained in this book, and is the basis of my methods and teaching. Blacksmithing is a thinking game. If you can't think it out, you can't hammer it out. In this book, I will show you how to think it out and hammer it out."

A must have book for the beginner. There is much to be learned by all levels of smiths. It is available from Tab Books, Blue Ridge Summit, PA 17214 for \$12.95 plus S&H.

MEMBERSHIP APPLICATION

ARTIST-BLACKSMITHS' ASSOCIATION OF  
NORTH AMERICA

Membership in ABANA includes a subscription to The Anvil's Ring.

New Member      Renewal

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City: \_\_\_\_\_ STATE \_\_\_\_\_

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Mail to: A.B.A.N.A.  
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Nashville, IN 47448

Comments:

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SOFA SOUNDS  
c/o Ken Scharabok, Editor  
P.O. Box 33399  
Dayton, OH 45433-0399

Dick Franklin  
7158 Klyemore Dr.  
Dayton, OH 45424

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6/88

FIRST CLASS

