



SOFA SOUNDS

SOF&A
SOUTHERN OHIO FORGE & ANVIL

DECEMBER 1991/JANUARY 1992

Artist-Blacksmiths Association of North America

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Ron Van Vickie (Secretary/Treasurer)

ACTING NEWSLETTER EDITOR:

Ken Scharabok (513-427-2447)

MARK YOUR CALENDAR: Unless otherwise noted, all meetings will be held at the Studebaker Frontier Homestead on Rt. 202, about 4 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 to the newsletter support raffle are always welcome. Please bring your work or tooling for display. The public and guests are welcome. Finger food and cold drinks provided on a break-even donation plate basis. The forges at the homestead are available before and after meetings for individual projects. PLEASE BRING AND WEAR SAFETY GLASSES.

December 7th, 1 PM

Demonstration by Ron Thompson and Ron Van Vickie on making and tempering springs.

January 4th, 1 PM

Demonstration by Bob Cruikshank.

February 1st, 1 PM

Demonstration by Hans Peot on making window grills.

March 7th, 1 PM

Demonstration by Larry Gindlesperger on scrolls.

April 4th, 1 PM

Demonstration by Hank Steinmetz and Don Munford on fixture bending.

May 2nd, 1 PM

Demonstration by Mike Dowler.

VCR TAPES:

Frankly, we haven't had much success in getting VCR tapes lent out on the honor system back. Therefore, this service is suspended until we find someone willing to be a VCR tape librarian with responsibility to track any tape loaned or donated to SOF&A. I'm extremely disappointed in having to do this, but... This is a valuable service so if you're willing to volunteer to be the librarian, please let us know. If you have one of these tapes, please return it at the next meeting or mail it to Ron Van Vickie, 1121 Central Ave., Greenville, OH 45331.

Chapter of ABANA

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 November 1991

Dear Fellow Blacksmiths,

In many parts of the country, the trees are displaying a panoramic view of color and the cooling temperatures invite us into our forges with renewed enthusiasm. I hope you are taking advantage of this wonderful time of year!

The election ballots are in and the final votes have been tallied. I want to thank all of you who voted within our pressing time frame. 24% of the membership voted this year with a total of 692 ballots that were postmarked by the October 10 deadline. The results are:

| | | | |
|---|-------------------|-----|-----------------------|
| * | Bill Callaway | 628 | Those that have an |
| * | Toby Hickman | 582 | asterik are the new |
| * | Jim Ryan | 560 | ABANA Board Members |
| * | David Norrie | 551 | and will join us at |
| * | John Pollins, III | 542 | the November board |
| | Joel Schwartz | 477 | meeting in Tipp City. |

Congratulations to those who will be taking their places on the ABANA Board. Thanks to all the running candidates in this election. We would like to see more candidates on the slate for next year, so please be thinking about nominations from your chapter's group who might be interested in running.

The drawing from the ballots for a free ABANA membership resulted in a winner from Mooresville, North Carolina; Rick Hartline, a member of the North Carolina Chapter of ABANA and the Alabama Forge Council. Congratulations Rick! We have extended Rick's membership to include a free year of benefits and subscription to The Anvil's Ring. Rick didn't think he'd ever win anything from a drawing but we're glad he sent in his ballot anyway!

There will be more news in the winter issue of The Anvil's Ring about the upcoming 1992 ABANA Conference being held June 18-22 at Cal Poly University in San Luis Obispo, California. Previews of demonstrators, lectures and events will give you an idea about this exciting and valuable opportunity next summer. We are looking forward to being within a ten minute drive of the ocean this time. You may want to consider ABANA's national event, located in an area of great sight-seeing, to be included as a part of your family vacation planning. If you think you may be taking family members to the conference, don't forget to renew your ABANA membership at the Family Member rate to get a discount at registration.

We will be giving you a summary of the ABANA Board Meeting in the next chapter mailing. Thanks to the ABANA Chapter officers who have given their input to the Chapter Liaison Committee for this meeting.

Warm regards,

Dorothy Stiegler
ABANA President

DES/jgf

MORE MISCELLANEOUS:

H&K Publishing/Printing, P.O. Box 284, Xenia, OH 45385 - 513-372-9100 is coming out with two items which should interest you powerhammer owners. The first is a book titled "Rebuilding the Powerhammer" which will cover complete restoration of powerhammers plus a history of the Little Giant Company. Prepublication price is \$24.95 (postpaid) before 12/31/91 and \$29.95 (postpaid) after that date. The book was prepared by SCF&A member Richard Kern. The second item is a bi-monthly newsletter titled "The Powerhammer" which will cover powerhammer use, tooling, repair, types of hammers, bladesmithing, history and the people associated with them. Richard will also edit this newsletter. Book look just what is needed to keep those mechanical powerhammers going for many more years.

FOR SALE: 50 lb powerhammer, no name, very good working order, brass bearings, includes many extra dies (drawing, split, texturing, oper face, forming tenons, etc.). Also includes a 3hp single phase motor, belt drive system. In current operation. \$1,500. Contact Kaviar Forge, 147 Stevenson Ave., Louisville, KY 40206 - 502-561-0377. (This is a very heavy-duty hammer for a high-ceiling shop - ed).

WANTED: BLACKSMITH APPRENTICE. Shop produces forge iron and bronze furniture, candle holders, architectural elements and sculptures. Work would include: grinding, welding, forging (both by hand and by powerhammer), finishing (patina and painting), general maintenance and perhaps travel to shows. Sale \$150 per week. Minimum one-year commitment. Contact Craig at Kaviar Forge, 147 Stevenson Ave., Louisville, KY 40206 - 502-561-0377.

FOR SALE: Three gas furnaces reasonably priced. Contact Bo Weaver at 404-455-4032.

WANTED: 6B Nasal Air Hammer. Contact Fain Edwards, Edwards Steel Corp., 4 O'Connell, Jacksonville, AL 36265 - 204-435-8484.

If you helped set up or take down Quad-State '91 and have not received your registration refund, please contact Ron Van Vickie at 513-548-8408.

- TAKING IT EASY: Being a new blacksmith, I do have some good advice to all would be blacksmiths just starting out. What little material I have read on blacksmithing I haven't seen any articles from the master smith as to the physical condition of us amateurs. About two months ago I decided to pound out a set of campfire irons. I ran out to my shop, built a nice fire and heated up a piece of 1/2"x1/2" bar stock. When it appeared to be hot enough, I picked at a 5 lb crosspeen and began to taper the end. Suddenly, after about 4-5 strokes, I felt a terrible pain in my right arm. Being a real estate agent, so a lot of hard work is not required in my occupation, my muscle is flabby and not real strong. I realized I had pulled a muscle and couldn't go on with the project that day. Now, two months later, I'm still having problems and not back to normal. If I would have used a smaller hammer for a little warm-up session before picking up the larger one, it would have saved me from all the pain and I could have finished my project sooner. I'm not sure, but this would be good advise to you masters also, after all there are bigger hammers which would put a strain on you too. Take time to warm up your muscles before putting a strain on them. Know your limitations. Don't exceed them and enjoy your blacksmithing experience. Remember "take it easy". (By Joe Donathan from the newsletter of the Arizona Artist Blacksmith Ass'n). ((Joe pulled a muscle, but you can also develop a condition locally called "Blacksmith Elbow". It is similar to "Tennis Elbow" but apparently different tendons are involved. Both Hans Peot and your editor developed it and both took six months to one year to completely recover. Take it easy - ed)).

Blacksmithing Notes

by Ned Edelen The Blacksmiths' Guild of the Potomac, Inc. Newsletter

Hans Peot Demonstration

Mid-Atlantic Smiths Association

Delaware Agricultural Museum 9-7-91

Making Tools from Scrap Steel

Hans Peot of New Carlisle, Ohio is a retired Air Force officer. He is currently the secretary of ABANA. Hans has been blacksmithing for eleven years. He has made his own Little Giant style power hammers from scrap steel and surplus parts. He also made most of the machine tools used to make the hammers. He is very good at toolmaking. Hans is also known for his knifemaking skills, especially damascus.

Hans likes to make many of his blacksmithing tools from 5160 scrap steel which is a chrome alloy with 60 points of carbon. It can commonly be found in scrap yards as heavy truck springs, Chrysler Corp. torsion bars, and in auto and truck coil springs. Torsion bars are easy to work with because they are already straight.

Hans cuts his 5160 spring steel by heating red hot, straightening it, annealing in Duralite or a similar medium to soften, and cutting into sections with a power hacksaw.

To make hammer heads or hardy tools, Hans uses 4140 steel found in truck axles. This is likewise heated to red, annealed, and cut with a power hacksaw or band saw.

Look for scrap steel with painted ends. The painted ends usually indicate it is tool steel. You will have to experiment with spark tests, magnetic tests, and quenching in air, oil, and water to determine the approximate grade of steel you have. Many metal-working books have spark charts. Some metals such as titanium can give false readings with spark tests. Non-magnetic steels can indicate stainless grades. Checking hardness with a file after air, oil, and water quenching can indicate grades. If you have A__ or S__ grades, they will air harden. O__ grades should harden in oil. W__ grades will harden in water without cracking.

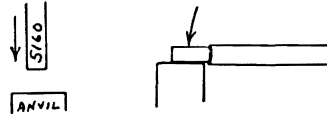
Wear proper protective clothing when blacksmithing. Wear cotton clothes, safety glasses, an apron, and closed-top shoes. Kevlar gloves won't burn or retain heat.

Hot Cut Chisel from 5160

Chrysler torsion bars are about one inch diameter round with 1.5 in hex ends, and they are about four feet long. Auto recyclers will remove them from autos by torch-cutting the bar about six inches from one end. The hex ends then pull out easily from their sockets.

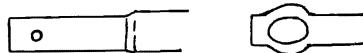
Heat the bar. The bar can be heated to a low yellow, but don't overheat. The torched end can

be squared up by driving down on the anvil. Very rough ends should either be hacksawed square or ground smooth before forging further.



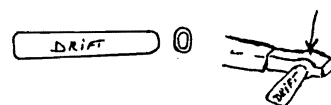
Form the end into a square cross section with a heavy hammer. Square up about 3 to 4 inches. Use a lighter hammer to refine the square section.

This will be a handled hot cut chisel. Leave just enough metal past where the hole will be to form an end to hammer on. Mark the spot at a black heat if necessary.



Reheat the bar to orange or low yellow. Punch a hole at your mark, or about an inch from the end. After several blows, remove the punch. Quench the punch to keep it cool. Have a can of finely powdered coal dust close by. Dip the punch end in the coal dust before punching. Coal dust will lubricate the punch and make it easier to remove. Reheat the bar as necessary. When the punch resistance increases, turn over the bar. Punch out the plug from this side. The bar can be at a low red or black heat. Check to see if the hole is perpendicular to the bar. If not, correct as you drift the hole larger.

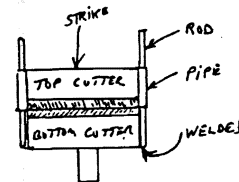
Reheat and drift the hole larger from both sides with a tapered punch. Hammer on the sides of the hole with the punch or drift in place to straighten and smooth the sides of the tool. Release the punch after hammering on the sides of the drifted hole. The drift is made oval to match the shape and size of the hammer handle you plan to use. A small handle is sufficient. Hans makes his drifts from 5160 also. Drifts need to be very smooth. Use a sanding disk to polish.



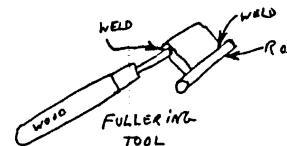
Cut off the tool from the rest of the torsion bar. Hans likes to use top and bottom cutters to get a smooth cut. When working alone, Hans has

a tool that attaches to the anvil. This tool has the top and bottom cutters in alignment.

One unfortunate part of Han's demo was that he allowed others to strike him even though he had brought his own one-man tooling to the demo. Since most of us work alone, it would have been better for him to demonstrate all of his special tooling. Below is a typical cutoff tool, but not Han's exact style tool which I didn't see.



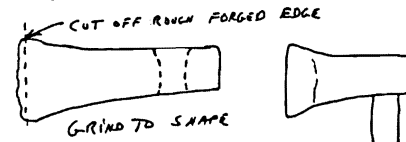
Fuller the cutting end of the tool to pull it out lengthwise. A fullering tool is faster than using a crosspeen hammer. Pull the end out wider also by holding the fullering tool at an angle to the hot cut. Hans says to keep handles loose in tools that you hit. He fits a wooden handle loosely, and fills in the spaces with silicon rubber.



Forge the cutting end of the hot cut with a hammer. Hammer the sides smooth.



Cut off about 1/8 inch of the edge of the hot cut with another hot cut chisel. Cool the tool slowly to anneal. This may take an hour or more.



Grind the edge to the proper shape and sharpen. Smooth up the sides of the cutting edge. You may leave the tool soft, or you can harden it

by reheating and quenching in oil. Tempering are better to use than new or used motor oil or transmission fluid. This is not because they work better, but because they are non-toxic. Used motor oil is considered carcinogenic and a toxic substance. Used motor oil can also have variable flash points because of excessive volatiles.

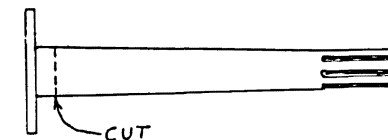
This is not a recommended procedure, but Hans tends to harden many of his tools made with oil hardening steels by heating only about 3/16" of the working edge, and quenching it in water. He is experienced at this, and it works for him. It may work, but it isn't a recommended method of hardening and tempering tools that you will sell or let others use.

Generally, no tempering is done, but the tool could be slowly heated until a straw, bronze or blue temper color runs to the edge. Follow with a quench to stop the tempering. If you don't know what color to temper a chisel or hammer to, temper very slowly and test the edge often with a file until you get the softness/hardness you desire. Quench immediately thereafter. If you are inexperienced, Hans recommends that you test the hardness of commercial hammers, chisels, etc. that are hardened correctly for their purpose. Do the file test on these to get a feel for how the file catches or slides on the hard surface. Note that commercial tools are often tempered softer than desirable so that there is an extra margin of safety for users. This avoids lawsuits.

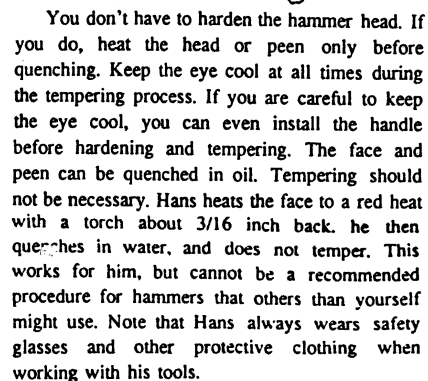
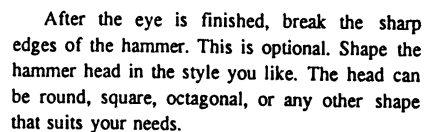
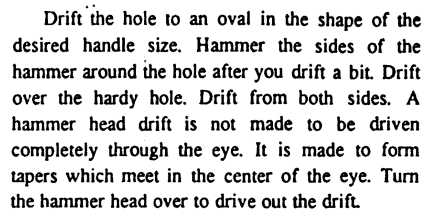
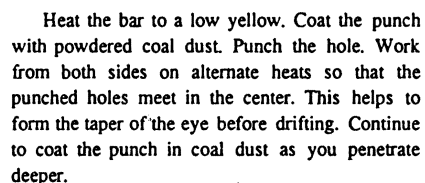
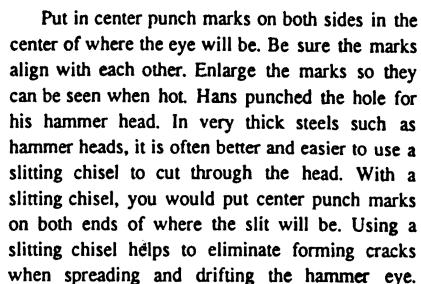
Hammer Head of 4140

Heavy truck rear axle shafts are a good source of 4140. Axles come in various diameters. Select a size that fits your needs. Car axle shafts are better for very light hammers.

Heat and anneal the axle. Cut the large hub end off with a power hacksaw to get a square end.

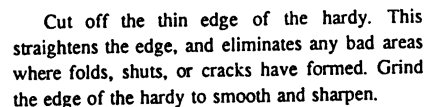
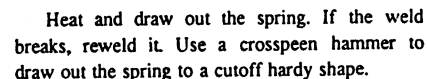


Heat the large end. Forge down to a square cross section to a size appropriate for the hammer you need. Generally, you only need to forge about six inches of the axle to a square shape. Cool to a black heat, or allow to anneal and cool fully. If you are making a crosspeen hammer, you can form the peen before cooling.



Hans Peot says that you can take a 4140 truck axle, spend all day forging on it, and end up with a nice cutoff hardy. He prefers a quicker, easier, and just as satisfactory method using 5160 truck leaf spring.

Weld a short section of 5160 truck spring to a square shank that is the right size to fit your anvil's hardy hole.

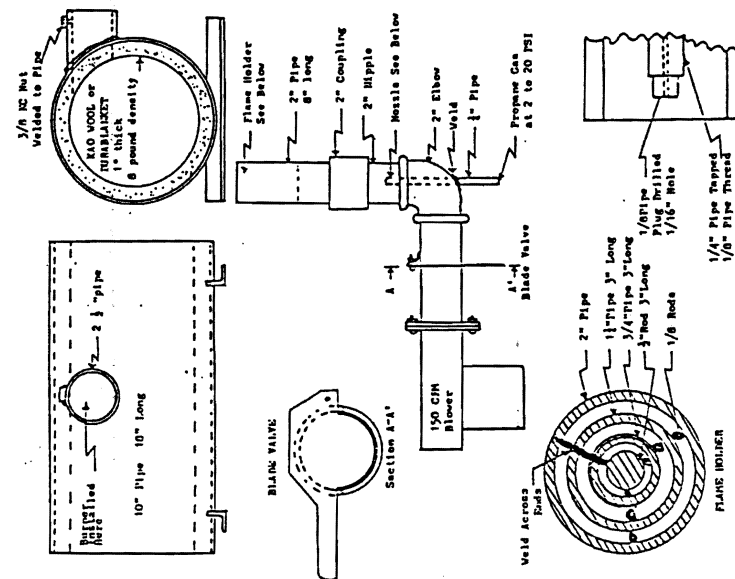


PEOT'S GAS FORGE

The forge is made from 10" pipe with a hole cut close to the top such that when the burner is installed the flame will just touch the top of the Durablanket. A piece of 2½" pipe is welded at this position with a 3/8 NC nut welded to the top to accept a set screw to hold the burner in place. The Durablanket is installed and a long knife is used to cut a hole where the burner is installed. Fire bricks can be placed across the ends to control the size of the openings or close off one end completely. A one-inch thick fire brick 4½" X 8" is placed in the bottom of the forge to protect the durablanket.

To start the forge close off one end with brick. Turn on the electric blower and open the air valve slightly. Now light a piece of paper - holding it in a pair of tongs and standing away from the end turn on the gas. The gas pressure should be controlled by a regulator that provides 2 to 20 psi. Once the burner starts adjust the air flow for minimum noise. Once the forge has been operating for a few minutes the gas and air can be adjusted for maximum heat. This is accomplished by adjusting the air flow to give maximum brightness of the Durablanket. This should be done every time the gas pressure is adjusted. Maximum heat is provided with maximum gas pressure.

(The illustrations below reflect Hans' changes to the design originally in the newsletter of the Western Canadian Blacksmiths Guild. Ceramic blanket material can be located by looking under the "Refractories" heading in the local Business-to-Business Yellow Pages. Two sources in the Dayton-area are Frank W. Schaefer, Inc., 1500 Humphrey Ave. - 253-9356 and HI-TEQ, INC., 3820 Keenan Ave. - 275-3522. Hans says this forge will operate for about 11 hours on a 40 pound tank of propane. - ed).

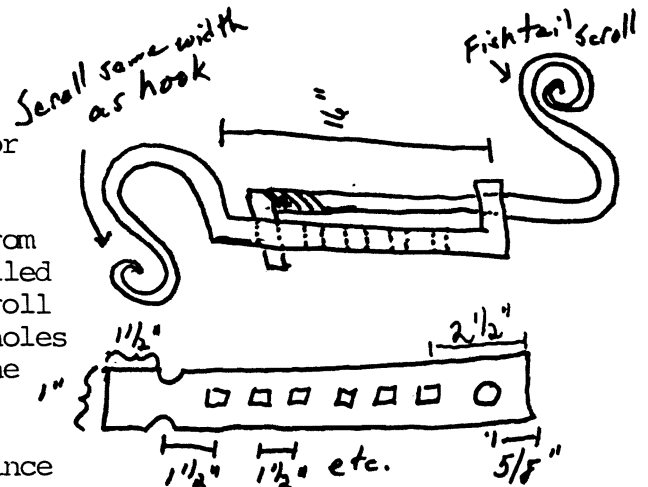


MEETING NOTES:

For the November demonstration, Hank Steinmetz and Don Munford made a trammel hook for a campfire tri-pod.

Stock: 1/4"x1" flat stock and 5/16" square stock. Length of stock: 8 1/2" for a three hole trammel and add 1 1/2" for each additional hole.

The flat stock is necked down 1 1/2" from one end and the end is then tapered, scrolled and bent for the upper hook. Note the scroll width is same as the hook width. Square holes are then punched every 1 1/2" back from the neck start with the last one 2 1/2" from the end. The holes were about 3/8". The final hole at the end is punched larger since the adjustable hook goes through it.



The adjustable hook is made from the 5/16" flat stock. One end is tapered and bent over at more than a 90° angle and the other end scrolled and bent. They used a fishtail scroll on this end.

WRITE-UP OF DOUG HENDRICKSON'S DEMONSTRATION AT THE 1991 QUAD-STATE: (Submitted by Greg (Little Smitty) Rauh - Age 12)

Doug has been a hobbest blacksmith since 1972. In 1983 he turned professional. He was a teacher in sculpture, design and drawing before turning to blacksmithing. He makes his living today by attending two trade shows per year. He sets up a booth and displays a catalog with his work. People order from his catalog what they want. He then fills out an order form and sets a delivery date. He also welds canoes for a local livery.

Tips from his demonstration: About the fire, if you pile coal in the middle to start it, it will smoke up. Feed green coal in from sides, it then cokes up and keeps your fire clean. If coal burns too fast, you can wet it with a little water. The hottest part of the fire is where the blast comes out. Keep a heavily coked up fire - more fuel than air - this keeps your iron from scaling off. Oxygen = oxide = scaling. About the anvil, a nice height for the anvil is to stand with your arm straight down at your side and make a fist, this is called knuckle height. A dirt foot is best for your anvil. Let your anvil do its share of the work. Tips on forge welding: It is probably one of the most difficult things to do. You need a clean, coked up, clinker free fire to weld. When edge of iron is the same color as your fire, it's time to weld. If it starts to spark you've heated it too long. Miscellaneous tips: Most shops are one man shops so you need to invent your own tools to aid you. Soak hammerheads in antifreeze periodically to swell so they will stay on the handle. Use olive oil on food product items as a finish. Heat this on stove top in your home. Correct little problems as you go along.

Doug left me with an inspirational poem for a beginner: "Come to the edge, we might fall. Come to the edge, we might fall. They came to the edge, he pushed, they flew." (The point being you have to go to the edge and push in order to fly beyond the everyday and ordinary. If you don't go to the edge, you'll never fly. ed).

NOTE: Following his demonstration I received a note from Doug providing additional information requested by attendees at this demonstration. He obtains the annealed stainless steel wire for his cheese cutters from the Brookstone

Tool Catalog. The source for the non-tempering, water-hardening tool steel he uses for punches and hot cuts is Atlantic 33 and the funny shape is called Flutagon. You have to buy a 20' length but they will cut it into four five foot lengths for UPS shipment. It runs about \$150 for one length of 3/4" Flutagon. Brookstone's address is: 5 Vose Farm Rd., Peterborough, NH 03460-803 - catalog on request. For a three page brochure on Flutagon send me a SASE with 29¢ postage.



Nickel-plated horseshoe nail rings are available in volume from Bob Hanson, Rosebud Forge, P.O. Box 127, Monte Vista, CO 81144.

Here's a message which was originally in the newsletter of the Florida Artist-Blacksmith Ass'n: Farriers are encouraged to bring used horseshoes to meetings for sale or for the raffle table. They are in demand by members for such things as bootscrapers, trivets, etc.

This nifty little powerhammer was built by B. L. Donathan of the Arizona Artist-Blacksmith Ass'n. Note that it uses two I-beams and just a few moving parts. The head looks like it might even be a section of RR track.

BLACKSMITH-related tools and equipment for sale, wide assortment. Contact Jerry Gier, Harpster, OH - 614-496-2532.

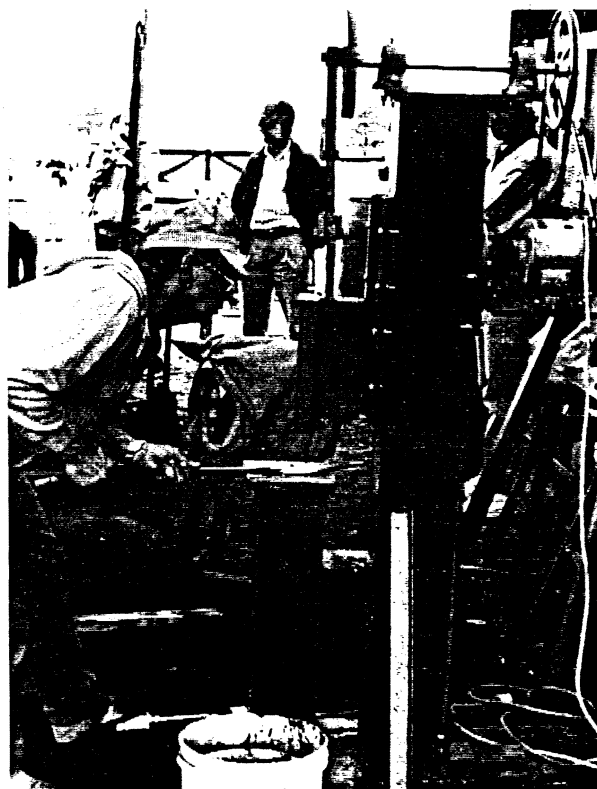
DEMONSTRATORS WANTED: With the growing interest in blacksmithing, Dick Franklin fairly regularly receives calls from festivals, etc. looking for someone to demonstrate blacksmithing. If you are interested in having your name put on a call list, please call Dick at 233-4878.

The August/September 1991 issue of the newsletter of the Blacksmiths's Ass'n of Missouri contains an eleven page article on powerhammer tips and techniques from workshops conducted by Clifton Ralph. For a copy send a SASE with 29¢ postage.

FOR SALE: Phase Converters to operate 3-phase equipment off single phase outlet. Contact Allied Electric Motor Service, 3022 3rd Ave. S., Birmingham, AL 35233 - 205-326-0212.

The next Biennial ABANA Conference will be June 18-22 at California Polytechnic Inst., San Luis Obispo, CA. Emmert Studebaker would like to team up with someone to share a rental car and possibly motel. If interested call Emmert at 667-4451.

Blacksmithing theme T-shirts and sweatshirts are available from The Matlin Group, P.O. Box 143, Wickatunk, NJ 07765-0143. Themes are an anvil surrounded by various tools, anvil with the word 'Smithy' and Anvil with the words 'Hand Forged'. Call 908-591-9877 to receive brochure. Also has woodworking themes.



ATTENTION ALL LITTLE GIANT OWNERS: Copy the following name, address and phone numbers down and keep with other Little Giant information. Harlan "Sid" Suedemeier, 420 4th Corso, Nebraska City, NE 68410, 402-873-6603/4372 purchased all remaining parts, patterns, tooling and production and sales records from the Little Giant factory in Minnesota. They sell rebuilt and used Little Giant/Mayer Brothers powerhammers and replacement parts for 25-500 lb hammers. Plus, if you furnish a self-addressed stamped postcard along with the size and serial number of your Little Giant, they will send you the date it was shipped and to whom.

FOR SALE: 50 lb Little Giant in excellent condition. Contact Emmert Studebaker - 513-667-4451. \$1,900.

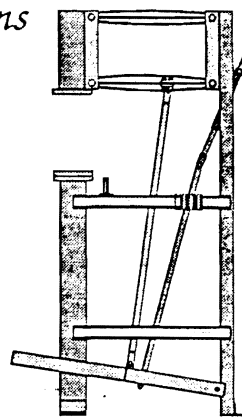
Little Tree Designs

28800 Pine Crest Road
Willits, CA 95490

TREADLE HAMMER PLANS and KITS

designed by
Jere Kirkpatrick
Valley Forge & Welding
Willits, California

Take advantage of our quantity discount by getting five or more people together and having a Treadle Hammer making workshop.



Name _____
Address _____
State _____ Zip _____
Telephone _____

Make checks payable to:
Little Tree Designs
28800 Pine Crest Road
Willits, CA 95490
(707) 459-1934

☐ No. of plan sets at \$12.75 _____
☐ Number of kits at \$475.00 _____
☐ Five or more kits at \$465.00 _____
Subtotal _____
CA residents add 7.25 % tax _____
Total _____

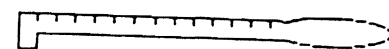
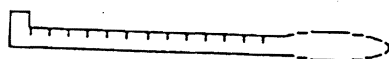
(Shipped F.O.B. Willits, CA)

How old is your Peter Wright Anvil? According to an article in the Inland Northwest Blacksmiths Ass'n newsletter, the anvils made by Peter Wright and Sons of Dudley prior to 1850 were made from several pieces forge welded together. From 1850 to 1910 they were two pieces welded together at the central block with a top plate and included "Peter Wright Patent-Solid Wrought" as the trademark. After 1910, while still the same construction, the word "England" was added to the trademark. Thus, all of the Peter Wright anvils I've seen were made after 1910.

Blacksmith Wanted: Villa Iron in Sacramento, CA needs an experienced blacksmith-artist for custom projects. Excellent compensation package. Call Rich or Wendy Villa at 916-457-2605 days or 916-685-4492 evenings.

Russ Svaren (11182 S.E. Tyler Rd., Portland, OR 97266 - 503-775-4082) has started a fund to buy blacksmithing books for Soviet blacksmiths since they do not have access to them. If you would like to help, send a donation or used blacksmithing books to him.

This knife turned up missing from the display are at Quad-State '91. If you should happen to see this pocket folding knife, please advise Chuck Patrick at Rt 1 Box 89-A, Brasstown, NC 28902.

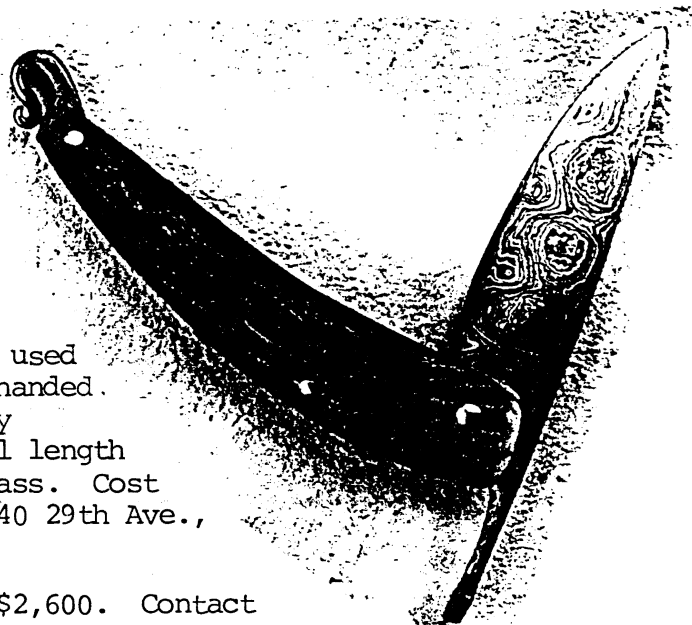


INSIDE/OUTSIDE BRASS RULER

Blacksmith's hook rule used to measure hot metal. Can be used right or left handed. 12" of scale by 1/16ths. Total length 18". Solid brass. Cost

is \$45.00 pospaid to C. G. Metal Works, 1440 29th Ave., Oakland, CA 94601-2309 - 510-533-6739.

FOR SALE: 100 lb Little Giant in EC - \$2,600. Contact Kammie Allen, Rt 6, Box 893, Brookhaven, MS 39601 - 601-833-7720.



Good news on flux: The Superior Flux Co. thinks they have solved the problem with E-Z Weld Flux being unreliable for the past several years. If you are repurchasing flux, try to determine if the manufacturer date is after about the summer of 1991.

NEW ANVILS FOR SALE, while they last, cast steel. 265 lbs, 1.5" hardy hole and 5/8" pritchel hole - \$425. 135 lbs, 1" hardy hole and 1/2" pritchel hole - \$250. Contact Scar Hill Forge, 3447 Scar Hill Rd., Greencastle, PA 17225 - 717-597-9736.

WANTED: Tire Bender. Contact Roger M. Scott, P.O. Box 180, Union, KY 41091 - 606-384-4122.

FOR SALE: Cone 21 1/4" high tapered from 6 1/4" - 14", \$95.00. two cast iron shop forges, one cast iron portable forge, two steel shop forges, Mankel two burner shop forge, \$200, cast iron blowers, singe and double screw vices, 30" sheetmetal shear, \$350, Single torch panagraph-magnet tracer, \$1,500, 32 oz Vulcan ballpeen hammer heads - three for \$10, handcrank drill presses, Greenlee portable pipe bender 1 1/4" & 1 1/2", \$375, plus lots of miscellaneous. All itams for sale or trade. Contact John Kosirnik, Box 396, Clinton, MI 49236-0396 - 517-456-7881/4494.

The 1992 International ABANA Tour will be to the Light Industries and Handi-craft fair in Munich, Germany on March 15-22. If you are seriously interested in participating, send a business-size SASE to Lenard Masters, P.O. Box 343, Crompond, NY 10517 for complete details. Mr Masters is a great tour organizer.

The Tucker-Jones House iron puzzles are being sold locally by Hank Steinmetz, 1175 Union City Rd., Greenville, OH 45331 - 548-9984. These would make great Christmas gifts.

For attaching ironwork to a concrete surface, a great product to use is Rockite Anchoring and Patching Compounds by Hartline Products, 2186 Noble Rd., Cleveland, OH 44112 - 216-451-6573. Poured around an anchor bolt or pin, it sets up in about 15 minutes. In addition to its own strength, it expands while drying providing a locking effect. It is available at many hardware and building supply outlets.

Reminder to pick up coal before SOFA meetings if possible. Load what you want and then pay Emmert (or Larry Gindlesperger in Emmert's absence).

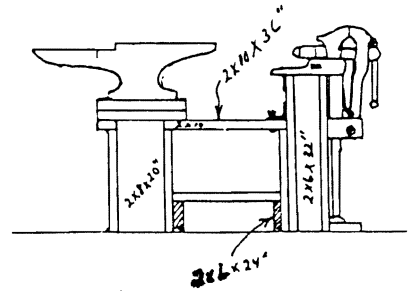
ABANA MEMBERSHIP: On the back of this newsletter is an application form for ABANA. We encourage all SOF&A members to also join ABANA. For the membership fee, you get a quarterly high-quality magazine and help to promote blacksmithing throughout the world. As Emmert has pointed out several times, it ABANA had not been formed it is unlikely there would have been a SOF&A and the interest in blacksmithing around the country would be no where near what it is today. We owe a lot to ABANA, thus please support it through your membership.

SHOP TIPS AND TECHNIQUES: The following were, for the most part, paraphrased from other ABANA Chapter newsletters. While the information presented herein, and elsewhere in this newsletter, is believed to be accurate, neither SOF&A nor ABANA assume any responsibility for the accuracy, fitness, proper design, safety or safe use of any information, technique, material, tool design, use, etc. USE IS SOLELY AT THE USER'S OWN RISK!

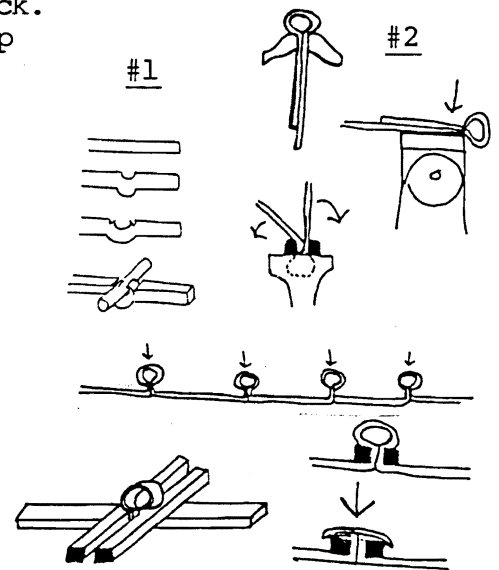
- SHEARING LIGHT PLATE: Shearing light plate in a vise can be crudely down by using a cutting chisel edge held/struck on one side of plate as close the the jaw line as possible. Use the cleanest portion of vise jaws. When chisel is struck, the shearing action should cut effectively. This method should serve you well - until you can afford a plasma cutter. A far more sensible way of doing cleaner cutting. (From the newsletter of the Northwest Blacksmiths Ass'n).



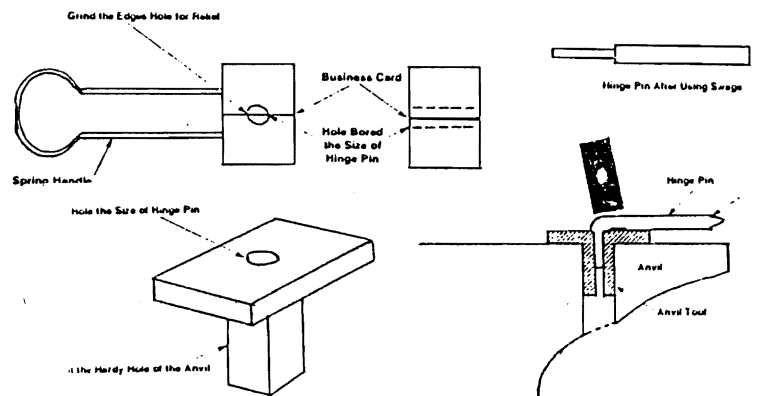
- **PORTABLE ANVIL STAND:** I use two portable stands which have an anvil and vise attached. One holds a heavy anvil and 6" vise. The other has a lighter anvil and 4" vise. The vise and anvil can be removed and the stand partially disassembled. This allows each shop arrangement and the stands are great to take to demonstrations. The anvil holds down the stand such that the vise is very stable. The stand for the heavy anvil is height adjustable by the addition or removal of 3/4" boards or 1 1/2" planks. (From the newsletter of the California Blacksmith Ass'n).



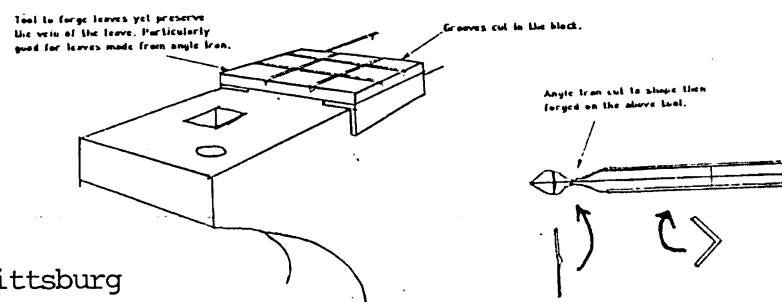
- **TWO METHODS USED BY TOM JOYCE TO JOIN BARS:** #1: Forge a depression with fuller over anvil hole or swage block. Hot chisel a notch on each side of the fullering. Tap down the notches to hold round bar in place for railing, grille, etc. #2: Mark with center punch equal distance for making loops in bottom rail. Make ring in vise jaws, using a mandrel for uniform size. Mark 1/2" from ring on both sides with hot chisel, 1/3rd through flat stock. Put two 1/2" square bars at sides of ring and bend. Make rings all across bottom rail - all are even because of center punching in the first step. Clamp down bar with rings, clamp 1/2" square bars in place, heat ring with a torch and hammer ring down and around square bars, holding them in place with flattened ring. (From a demonstration by Tom Joyce as reported in the newsletter of the Upper Midwest Blacksmith Ass'n - ABANA. Tom is considered to be one of the foremost artist smiths in the country and operates a five man shop in Santa Fe, NM.)



- **HINGE PINS:** To make a swage for the tenon insert a business card between the two blocks before drilling, then grind the edges of the hole for relief. To put the bend at the pin, weld a piece of flat stock to a hardy shank and drill a hole slightly larger than the tenon completely through. To make the pin, place in hardy tool, bend over above tenon and upset downward to form a base under the hinge pin. Taper and put barbs on the shank as desired. (From the newsletter of the Pittsburgh Area Artist-Blacksmith Ass'n).



- **ANGLE IRON LEAVES:** You can make a anvil tool to preserve the vein of the leaf make out of angle iron by putting one or more grooves in a piece of flat stock and then welding on side pieces to hold it on the anvil face. To make the leaf cut out the leaf to shape desired and then flatten leaf on the fixture. (From the newsletter of the Pittsburgh Area Artist-Blacksmith Ass'n).

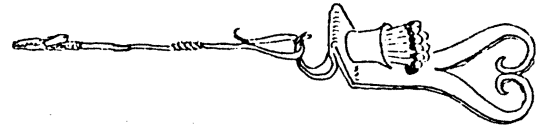
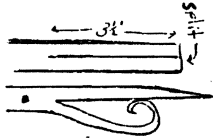


- WELDING ROD REFRIGERATOR HEATER: Light bulbs were designed to produce light not heat. Rather than replace them periodically as they burn out, pick up a curling iron at a flea market or garage sale and leave it set on the lowest setting (about 15 watts). Cheaper than a light bulb it lasts and lasts. (From the newsletter of the California Blacksmith Ass'n).

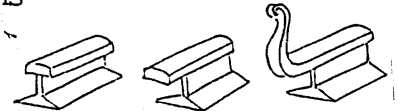
- MATCH HOLDER WITH STRETCHER:

Material: 1 - 1"x1/8"x8-9", 1 - 1" thin wall gas pipe about 1 1/4" long and 1 - 1/8"x1/8" about 15-17" long with alligator clip.

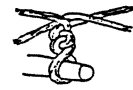
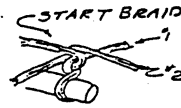
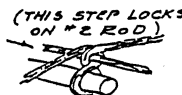
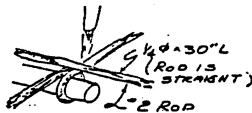
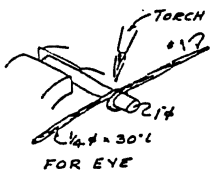
Split 3 1/2" of the 1"x1/8", taper and form into nice heart. Taper other end into hook and bend as illustrated. Put mounting hole(s) where they will be hidden by matches. Gas weld tube to platform. These sell well at fair's, B-B-Qs, etc. (By Lonnie Stafford from the newsletter of the North Carolina Chapter of ABANA).



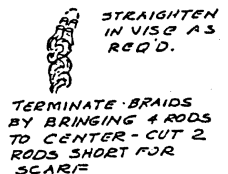
- RAILROAD TRACK ANDIRONS: To make a set of sturdy andirons which will not break or tip over no matter what size log you drop on it, obtain two lengths of track. Cut 6" of the web away, taper, bend and scroll as desired. (By Vern Smith from the newsletter of the Upper Mid-West Blacksmith Ass'n - ABANA).



- ON TRIVETS AND HEARTS: To make a simple trivet, fold a length of 1/4"x1/2" into a triangle, weld the two folds and overlap joint and fold down the points into legs. ---- To get the side of hearts even, fold over and do both at the same time. (From a demonstration by Ron Howard as written up in the newsletter of the Appalachian Area Chapter - ABANA).

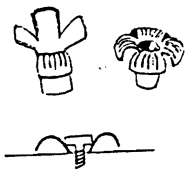
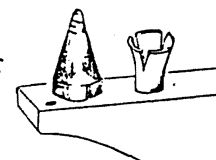


DO 7 BRAIDS (IT FEELS RIGHT FOR A GOOD HANDLE)



- BRAIDED HANDLE: (From the newsletter of the Alabama Forge Council). (Use a wooden mallet to tighten the knots and to do the final straightening. - ed).

- ROSETTES FOR DISGUIISING BOLT HEADS: Using a piece of pipe longer than needed, saw a slot 3/4" to 1" deep through both sides, then turn the pipe 90° and saw another slot of equal depth forming four sections. Using a cone mandrel designed to fit into the hardie hole, place the pipe cut side down over the top and drive it downward bending the sections outward. Cross peen each section into a petal shape and texture. Reheat and again drive the flower downward to flare and curve the pedals. This will also form a taper at the base of the flower. Cut off the excess base. Use with a decorated bolt head. The taper will hold the rosette in place - or weld in place with any center of choice. (By Ken McGaha from the newsletter of the Guild of Metalsmiths).



- ANTIQUE WASH: An interesting finish for exterior ironwork is an Antique Wash. After the work is cleaned, primed, and painted, the wash is applied and allowed to dry. The wash is made of 8 ounces of latex paint to 1/4 gallon of water. The wash is sprayed on heavily. When almost dry, wipe off lightly. The best effect will be obtained from work that has been peened or pitted. A colonial green or blue color of latex paint makes a nice antique finish. (From the newsletter of the Blacksmith Guide of the Potomac).

- FINISH MISTER: If you use a liquid finish, such as turpentine and boiled linseed oil, salvage a household cleaner spray bottle, like Formula 409. These pump-action bottles can be adjusted from off to produce a fine spray and are heavy-duty.

- DANCING HARDY TOOLS: Where you want to stop hardy tools from dancing around in the hardy hole, forge an extra long shank and then slot it at the appropriate place for use of a wedge to secure it against the bottom of the anvil. (By Edwin Grove from the newsletter of the New England Blacksmiths.)

- SECURING LARGE PINTLES: Where pintles will support a large weight, such as a barn door, forge the pindle long enough to extend beyond the side support and then either forge a slot to accept a large washer and then a wedge or thread the pindle to accept a washer and bolt head. Both ways are appropriate and have been in daily use after more than 200 years of service. (By Edwin Grove from the newsletter of the New England Blacksmiths).

- BUSINESS RECORD KEEPING SYSTEM: Purchase an accordian folder to accommodate categories you designate. Example: Stock, office expenses, travel, vehicle, fuel, tools, repairs, etc. I require 12 pockets so I buy the folder divided by months and use gummed labels to label the categories. The outside of the folder should be marked with the year it represents as it is a permanent record and you will start a whole new record using a new folder next year. When you pay a bill by check the receipt goes into a temporary file folder. When the cancelled check comes back I balance my account and then staple each check to the appropriate receipt to be filed under the appropriate category. If your business is small, it may only take a couple of hours to total up the category amounts and figure your taxes. (By David Court from the newsletter of the New England Blacksmiths).

(Editor's Note: A similar system is to use a spreadsheet with the categories on the left vertically and the months on top horizontally. Each month add up the bills in each category and then staple them all together. Sales versus expenses would provide a running profit/loss total each month. At the end of the year, file the spreadsheet and the 12 monthly stacks of bills together).

- TOOL HANDLES: Replacing handles in tools such as hammers, axes, etc. can be time consuming. If a close fit is not obtained, the handle generally loosens. Much time can be saved by shaping the handle to the approximate size then coating it with Bondo (the auto body filler). After driving the handle into the tool head, one should dip the customary wedge in Bondo as well. When using this procedure, I've never had a handle loosen. (By Carl Gravelle from the newsletter of the California Blacksmith Ass'n.)

PIZZA CUTTER:

Ok guys - in order to keep getting those kitchen passes you need to make your spouse something every once in a while. Here's a pizza cutter from a demonstration by Steve Joslyn as reported in the newsletter of the New York State Designer Blacksmiths.

Stock required: 18-20" of 3/16" x 1 1/2" stock, 4" disk and 1/4" rivet.

Start by cutting your cutting disk out of about 16 gauge material. Steve's cutter was cut from the top of a 55 gallon drum. Disk size was about 4" in diameter. Drill a hole slightly over 1/4" in the center.

Stock length of 18-20" was used to provide a handle so tongs weren't needed for the slitting step. Put marks on at 4", 7" and 12" from one end. Slit to the 4" mark (Figure 1).

Figure 1

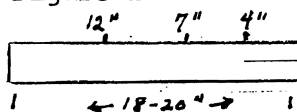


Figure 2

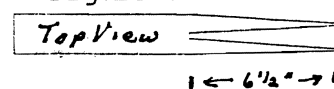
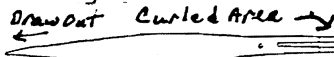
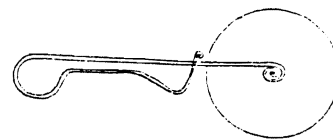


Figure 3



separate the two halves and fold one back out of the way. Draw the other half out to a long 6 1/2" taper. Fold the drawn out leg out of the way and taper the remaining side to match. Note the bottom of the slit needs to be squared a little. Next, using your disk as a guide, tightly curl the ends of the legs back towards the end of the slit. Stop curling when the disk centered in the curl comes near the back of the slit. (Figures 2 and 3).

Figure 4



The next step is to cut the metal off at the 12" mark and forge it out into a long taper which will become the handle. After drawing out the handle, use a swage block to dish out the bottom of the underside of the five inches between your former 7" and 12" marks to make it more comfortable to hold in the hand.

Next drill a hole just behind the split (Figure 3). The handle now has to be shaped to fit the hand with the tail of the taper threaded through the hole behind the split. A small scroll is formed and the end shaped as a thumbstop. Drill a 1/4" hole through the center of both curls. After cleaning and polishing all parts with a wire wheel, rivet the cutting disk in place such that it turns freely (Figure 4).

As with all food utensils, use a vegetable oil to finish. You should have a functional pizza cutter and a few more kitchen passes to attend blacksmithing events.

Note that in order to avoid ending up with a short piece of the flat stock, you could start with a 24" piece and put a split in both ends before cutting it off in the middle to make two cutters at the same time.

ABANA Membership Application

Name _____ ☐ New Member ☐ Renewal
 Address _____ Phone _____
 City _____ State _____ Zip _____
☐ Regular Membership-----\$35 ☐ Family Membership-----\$40 ☐ Senior Citizen-----\$25
☐ MasterCard ☐ Visa ☐ Check/Money Order
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 Mail application to: **ABANA, P.O. Box 1181, Nashville, IN 47448** Phone 812-988-6919
 Dues Distribution: 1 Year Subscription to Anvils Ring: 68.5% \$24.00, Adm. Offices & ABANA projects: 31.5% \$11.00

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