



Sofa Sounds

Southern Ohio Forge and Anvil

Newsletter

MAY 93

MARK YOUR CALENDAR: Unless otherwise noted all meetings will be held at the Studebaker Frontier Homestead on St. Rt. 202 about four miles north of I-70 and two miles south of the intersection of St. Rt. 571 and 202. Please do not park in the grass or block access to a production area. Donations of items to support the newsletter are always welcome. Finger food and cold drinks provided on a break even, honor donation basis. The forges at the homestead are available before and after the meeting for individual projects. Bring and wear safety glasses. Demonstrations are open to the public and are no charge.

Upcoming Events:

June 5, 1993	SOFA meeting at Studebaker Homestead. Ron Thompson will demonstrate making a rose.
July 10, 1993	SOFA meeting at Studebaker Homestead. Scott Murray will demonstrate making a hose rack.
August 7, 1993	SOFA meeting at Studebaker Homestead. Ken Scharabok will demonstrate making a Ram's head poker.
September 18 & 19, 1993	Quad-State Roundup

President's Message:

Another month has gone by, Hans is putting out a newsletter, and I want to include some comments. The turn-out for the last meeting was excellent, especially for a warm weather meeting. We conducted elections and had 65 member voting out of probably 85-90 attendees to the meeting. The board positions for Ron Van Vickle and myself were slated for election. Nominations were received from the floor and the voting commenced by secret ballot. I am pleased to announce the results:

Doug Fink and Larry Gindlesperger were elected to the board in a very close election. The board now consists of these two gentlemen, elected for a three year term, Larry Wood and Brian Thompson who have one year remaining on their term, Steve Roth and Ken Scharabok who have two years remaining, and, of course, Emmert Studebaker who is Director Emeritus. This is an outstanding board and I'm looking forward to great things for SOFA in the future.

The elections also recommended the positions of President, Vice President and Secretary/Treasurer to the board. The officers to be presented to the board are:

President - Ron Thompson
Vice President - Steve Roth
Sec./Treas. - Ron Van Vickle

There is a board meeting held one hour prior to every meeting and this slate will be presented to the board at that time. We'll announce the results in the next newsletter.

The May meeting demonstration was presented by Richard Kern and was all you ever wanted to know about making screwdrivers, wrenches, and included a side benefit of using Richard's version of the kaowool-lined forge. Thanks for a great demo, Richard. For details, Hans will include a write-up and it was also captured on video, so Hank Steinmetz should have it available shortly. By the way, the club owes Hank a real thanks for his role as our tape librarian. He has really straightened out the tape situation (we have lost no tapes since he took over) and you don't realize how much time it takes to do the job. Next time you see him express your appreciation.

We have demonstrators lined up through August but I'd really like to see some of the people who have never demonstrated before get up there. You don't have to be an accomplished smith to demonstrate - I'm living proof of that - but we will also supply one of our good smiths to help if you will just pick a subject and get on the schedule. If one of the experienced smiths isn't available, I'll help you burn something up. Give it a try, you'll like it and the whole club will benefit. Besides, it makes Emmert very happy, and who wouldn't want to do that.

One more thing, we need items for the raffle. Look through your garage or barn and pick out some things to put on the table. Better yet make some tooling or a chisel, punch, hardy, or something and bring it to give away. Thanks.

DOUG FINK DEMO: During the April 3 meeting Doug Fink demonstrated making reposesse. He started with a piece of copper about 4 inches square and about 40 thousands thick. Using a pattern of a leaf from one of the Dover books he glued the pattern directly to the copper with a sprayex type glue. To start he used as a backing a piece of 3/4" thick hard felt. He outlined the pattern with a chisel that had a slightly rounded edge. Then, using a square tool cut on an angle like a deer's foot with again slightly rounded edge, further drove the edges inward. Then using square tools with slightly rounded corners further refined the leaf. He annealed the copper as required.

He then turned the pattern over and using potter's clay made a dam about 1/2 to 3/4" high all around the edge. He then melted lead and poured the lead inside the dam over the copper. Once the lead set up he then mounted the piece with the lead down on a 1/2" plate which had numerous holes drilled in it so that L-shaped bolts could be hooked over the copper and with nuts under the plate hold the reposesse in position. The 1/2" plate had legs on it so that the end of the L-shaped bolts would be up off the surface. He then continued to define the leaf with the slightly rounded edge tools using a small ballpein hammer.

RICHARD KERN DEMO: During the May 8 meeting Richard Kern did a demonstration on making screw drivers and wrenches. He showed the carbon content of different steels using a grinder - the more carbon the greater break-up or blossoming of the sparks off the emery wheel. When making screw drivers he pointed out the need for making the screw driver fit the screw, especially in gun smithing. If the screw driver doesn't fit the screw the screw can be easily damaged. The universal screw drivers that are available through the hardware stores will not fit the screws properly since they taper to the point and, therefore, cannot properly grip the screw. The screw driver that best fits the screw is one where the flat end is parallel and just fits the screw. He demonstrated making one from a push rod from a car engine. He makes his own handles, sanding them down on a disc grinder to fit his hand. For a ferrules he uses a short piece of aluminum tubing. He squares the end of the shaft that fits up in the handle and then heats the end to a good heat and drives the handle on to the shaft.

He also demonstrated making a box-end wrench by first drifting it with a punch and then driving a hex nut through the hole to put in the gripping edges.

To temper the wrench he heats it to a red heat, quenches it in water and then cleans off the surface. Next, he heats a piece of square bar red not in his gas forge and then lays the wrench on the hot bar and watches the color change. When it turns blue it's removed and quenched in water.

ARC WELDING STEELS

Hans Peot

Source: Metals Handbook, 8th Edition, Volume 6, Welding and Brazing

Classification of carbon steels:

The specific carbon content that separate low, medium and high carbon steels are arbitrary.

Low Carbon steels are those that contain less than 0.25 per cent carbon. These steels can be welded by any arc welding process. Welds of acceptable quality can be produced without need for preheating or post-heating.

Medium Carbon steels are those that contain 0.25 to 0.50 per cent carbon and can also be satisfactorily arc welded. But because of the formation of martensite in the weld effected zone require preheating and post heating depending on the thickness. The cold metal acts as a water quench right at the interface of the molten metal from the arc and the metal. As a result a very brittle layer of metal lies between the weld and the metal that cracks very easily.

Selection of electrodes for arc welding becomes more critical as the carbon content of the steel increases. Steels with higher carbon content are more suseptable to cracking caused by hydrogen. Therefore, low hydrogen electrodes should be used. These rods have to be protected from moisture absorbtion because it's the hydrogen in the moisture that contaminates the weld. Since A-36 can have as high as 0.29 per cent carbon, it is on the ragged edge of acceptable weldability for thicker sections. It should be at least 50 degrees F. to weld successfully. If not it should be preheated to 50 degrees F. for thicknesses up to one inch. Above one inch preheating is required.

High Carbon steels with more that 0.50 per cent carbon are difficult to weld because of their susceptibility to weld cracking. Again for best results use a low hydrogen rod or an austenetic rod like Weld-Mold 880 or Hobart 312 stainless rod. Both preheating and post weld stress relieving are required. Since the temperature is above normal tempering temperature retempering will be required if the end product is too hard.

The addition of silicon, manganese, chrome, molybdenum or other alloying metals have the same effect as adding more carbon. Therefore, the preheat and post heat temperatures will be higher than plain carbon steels. Figure 7 shows amount of preheat required to different thickness of metal and carbon content.

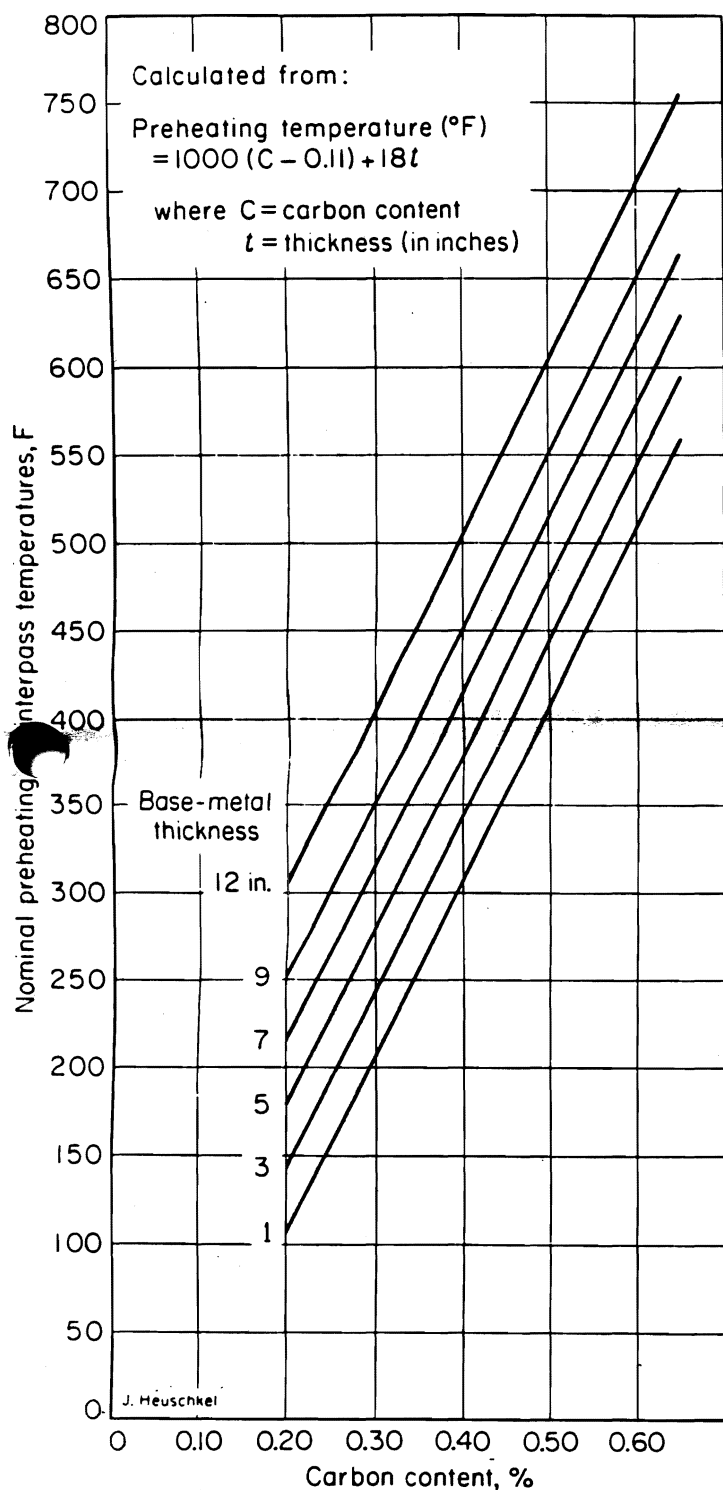
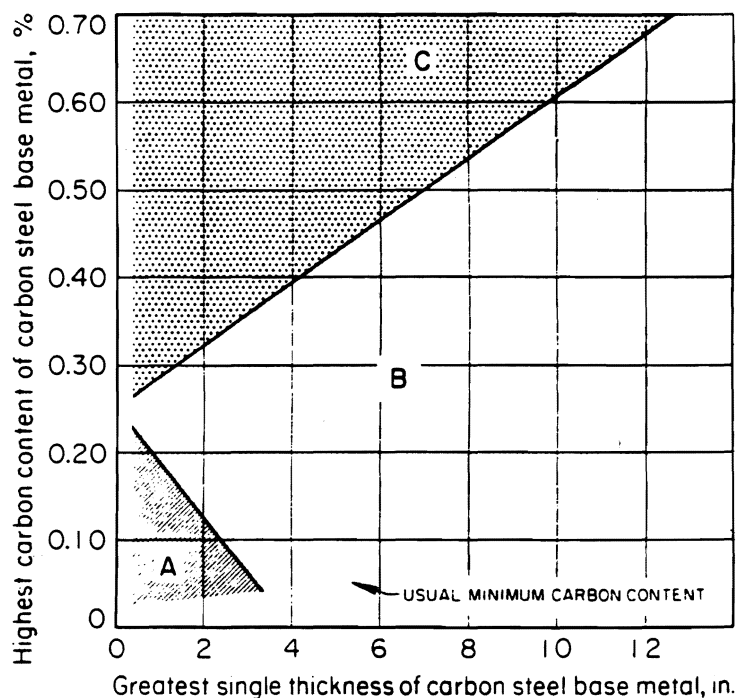


Fig. 7. Effect of base-metal carbon content on preheating and interpass temperatures for six section thicknesses of carbon steel welded by the shielded metal-arc process

Table 20. Suggested Preheat and Interpass Temperatures for Various Alloy Bar Steels

Steel	Preheat and interpass temperature, F. for section thickness of:		
	To ½ in.	½ to 1 in.	1 to 2 in.
1330	350-450	400-500	450-550
1340	400-500	500-600	600-700
4023	100 min	200-300	250-350
4028	200-300	250-350	400-500
4047	400-500	450-550	500-600
4118	200-300	350-450	400-500
4130	300-400	400-500	450-550
4140	400-500	600-700	600-700
4150	600-700	600-700	600-700
4320	200-300	350-450	400-500
4340	600-700	600-700	600-700
4620	100 min	200-300	250-350
4640	350-450	400-500	450-550
5120	100 min	200-300	250-350
5145	400-500	450-550	500-600
8620	100 min	200-300	250-350
8630	200-300	250-350	400-500
8640	350-450	400-500	450-550



- A**—Neither preheating nor postweld stress relieving is usually required.
- B**—Preheating is usually required; postweld stress relieving is not usually required.
- C**—Both preheating and postweld stress relieving are usually required.

Preheating: Suggested preheating for different alloy steels as shown in table 20. These temperatures are based on the use of low hydrogen or austenitic rods. If local preheating is to be used the metal should be heated to the temperature shown to at least three inches back from the welded area. Drafts of cold air impinging on the weldment while it is cooling should be avoided. For complete stress relief the weldment should be heated to 1100 - 1250 degrees F and held at that temperature for one hour per inch of thickness. If heating to this temperature is impractical, satisfactory stress relief can be achieved by heating to 900 degrees F.

AUCTION

BLACKSMITHING TOOLS - SAW SHARPING - MISC.

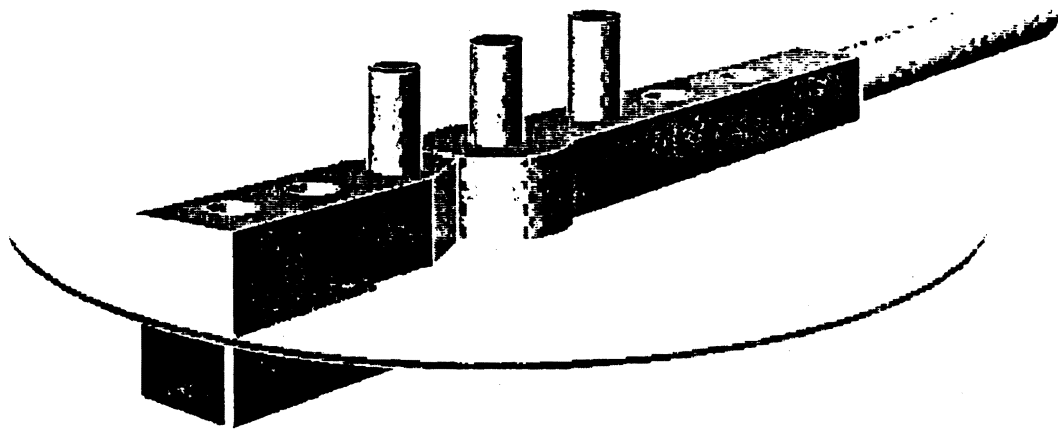
31 JULY 1993 - 10AM - SIGOURNEY, IOWA

ONE BLOCK WEST OF "CASEYS" ON #92 THEN NORTH

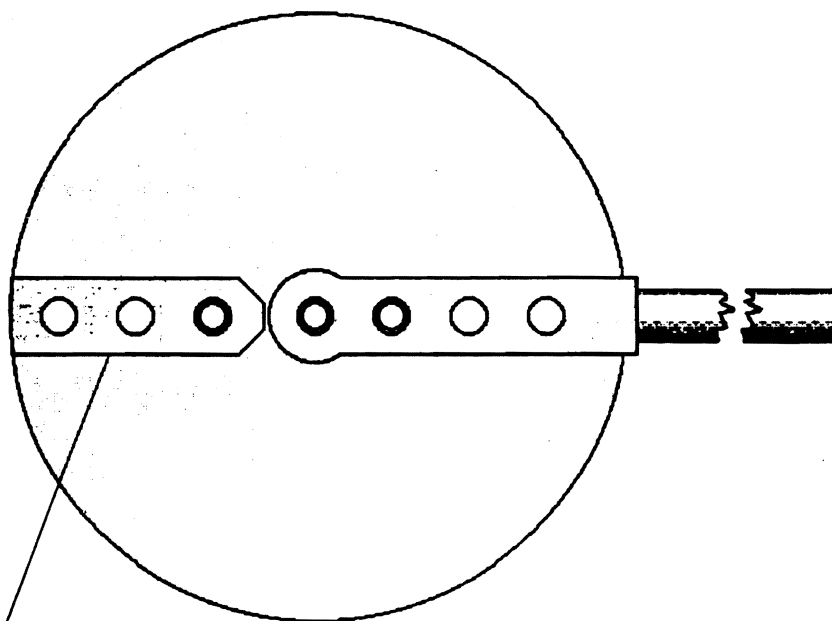
SALE TO SETTLE THE AFFAIRS OF THE LATE TERRY WILKENING

**HOSSFELD BENDER #1 WITH DIES - RAIL BENDER - POST DRILLS
LOTS OF FORGE BLOWERS - #400 - CANEDY OTTO - ETC.
SEVERAL FORGES - VARIOUS CONDITIONS - NEW FORGE POT
LEG VISES - TIRE ROLLER - FORGE LEGS
150 LB TRENTON - 125 LB [PW] - 140 LB MOUSE HOLE ANVILS
AMERICAN AND BUFFALO BIG BLOWERS - TONGS
1000 LB +/- OF BAGGED FORGING COAL - 14" JEPSON CHOP SAW
5 25 LB LITTLE GIANT TRIP HAMMERS - 5 NEW SPRINGS
DRILL PRESS-ROCKFORD-#4 MORSE-24"ROUND TABLE-30"THROAT
3/4" JACOBS CHUCK-PLUS BIG BITS
DRILL PRESS-CHAMPION-#3 MORSE-20"THROAT
SWAGE BLOCK - GRINDER ON STAND - PLATFORM SCALE
DAKE #1 1/2 ARBOR PRESS - ANVIL SHEAR/COMPOUND ACTION
2 #2 WHITNEY HAND PUNCHES - LEAD POT BURNER
LP GAS HEATER - 4 LP TANKS - 155000 BTU CHAMPION HEATER
1 5/8" X 10' LINE SHAFT- CARRIER BEARINGS- WOODEN PULLEYS
EDWARDS #5 SHEAR - 3 HP 1PH MOTOR - MISC HARDY TOOLS
18" X 5' METAL LATHE-AMERICAN-CONE DRIVE-1 1/4" HOLE-
QUICK CHANGE-4 JAW-FACE PLATE- NO MOTOR
CRAFTSMAN WOOD LATHE-12X36
AIR COMPRESSOR-2HP 1PH-40GAL TANK-CURTIS
WELDER-WISC ENGINE-250 AMP-ON TRAILER
TINNERS STAKES-PLATE-ANVIL-ETC
CHAIN SAW SHARPENER - FOLEY FILER #200 AND #314 PLUS
MISC. SHARPENING ACC. AND SUPPLIES
MUCH MISC. SUCH AS - MOTORS - ENGINES - LUMBER -
3 SECTIONS OF ROHN TV TOWER - SCAFFOLDING - TRAILER
AXLES - CHAIN FALL - SCRAP IRON - RIVETS - HAND TOOLS
THIS LIST MAY CHANGE, TERRY'S SON, RICH, MAY KEEP A FEW ITEMS.
FOR INFORMATION CALL; RICHARD WILKENING 515-622-3947
AUCTIONEER - HAROLD PHIPPS 515-733-2827**

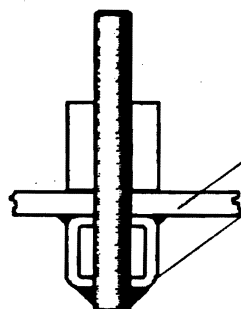
FROM GRAMPA'S TOY SHOP



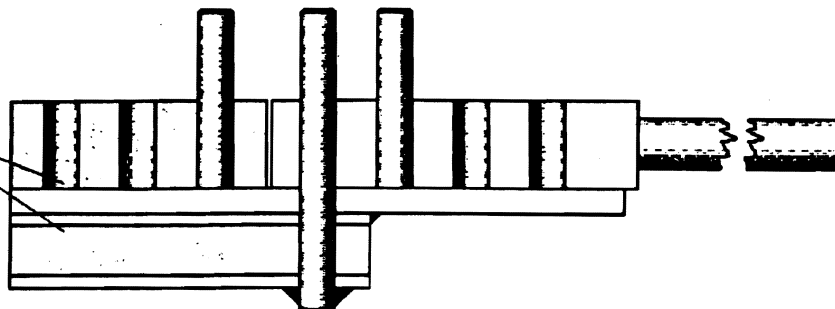
TOP VIEW



WELD



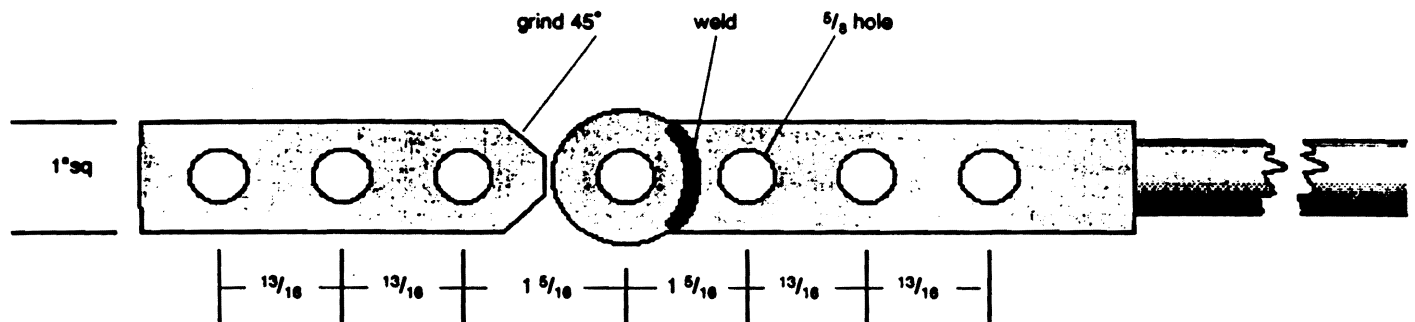
END VIEW



SIDE VIEW W/ CUT-AWAY

FROM GRANDPA'S TOY SHOP

"This is the handiest bender not only for scrolls but for other projects as well."



1" square stock with 1 1/4" round boss welded on with 1/16" wall bronze bushing in center hole to take wear. Grind & weld boss deep and grind clean.

2. Bottom plate is a 1/4" x 8" circle with 1" tube x .125 wall welded to the bottom.

3. Center pin goes thru plate and 1" tube welded to bottom side. Lots of strain on center pin.

4. Bending pins made of tool steel - 2 1/2" - 2" long. I use potato digger bars 5/8" dia. which are already hard.

5. I used 1" square HR iron - maybe should have heat treated(lye) holes. May distort due to side pressures.

6. Drill holes with pilot drill - 9/16" or 19/32" drill. Then 5/8" drill. Grind corner off 1/8". Makes a type of reamer drill that works on movable arm. Leave a shelf on bottom of hole to keep pins from dragging.

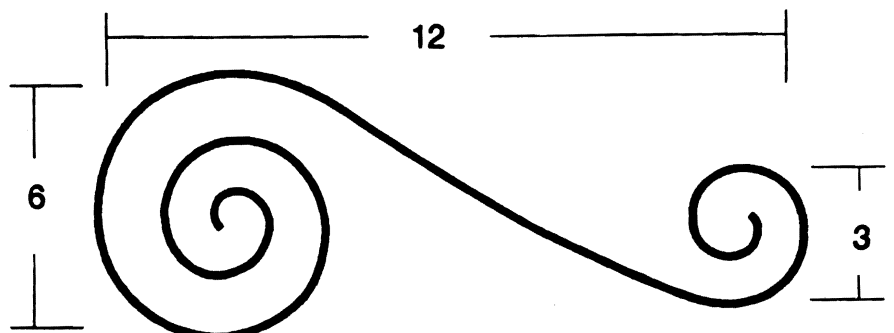


7. Weld 5/8" stub on movable arm. Put 24" long pipe over this for leverage.

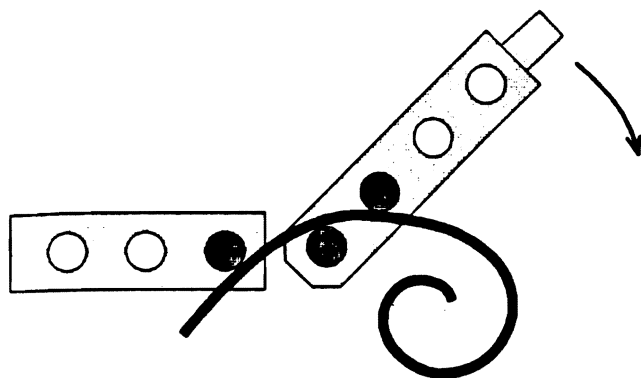
8. 45° angle on stationary block

lets movable arm go back past 90° to help pin clearance and increase chance to bend better, closer.

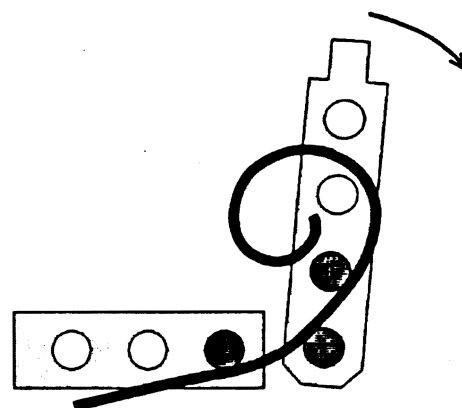
To bend scrolls I use scroll forms to get basic shape, then use 3 pin bender to



FROM GRANDPA'S TOY SHOP


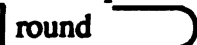



BEND



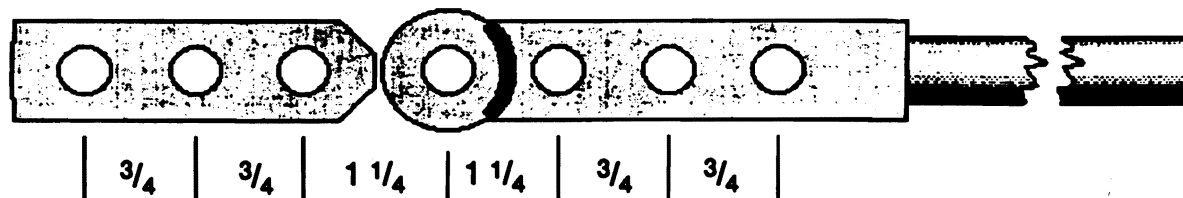
STRAIGHTEN

adjust scroll to proper width and length, etc.

I use a block $1 \frac{1}{4}$ " square with one square end and other end curved  over center pin. To bend parts square,  round  with pins outside hole. Can bend $\frac{1}{2}$ " square or round HR bar cold on large radius or small radius hot; 90° bends, etc. To cut down on clearance between pins use pipe or tube over pins or just the center pin.

FOR MY SMALL BENDER

Same frame, $\frac{1}{4}$ " x 8" plate and 1" tube on bottom. Same as large bender.

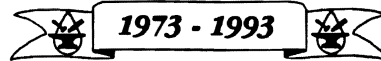


$\frac{3}{4}$ " square stock heat treat(lye), $\frac{1}{2}$ " potato bar pins, $1 \frac{1}{16}$ " round center pivot with $\frac{1}{16}$ " bronze bush. I put wooden dowels (short ones), in empty holes to keep scale out when hot bending.

Sincerely

Grandpa Heron

ABANA



The Artist-Blacksmiths' Association of North America now proudly celebrates its 20th year!

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

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

ABANA PRESIDENT'S MESSAGE May, 1993

Dear ABANA Chapters,

The long awaited ABANA Newsletter will be mailed to the membership around the middle of May. We are delighted that we are able to supply this exciting new service at no additional cost to you. This newsletter is the most visible indicator of the ABANA Board's commitment to continuous improvement in our services to the membership. As with any new service, we will be closely watching the reaction from the membership. The format is not cast in stone. We expect to add sections such as a calendar of events. Certainly, the ABANA membership will have everything to do with the content of the new ABANA Newsletter, just as the membership has everything to do with the content of the *Anvil's Ring*. Best to hang on to your copies as there will be virtually no back issues available. As a result, these early newsletters will be highly collectible. Let's all give ABANA's newest editor Jim Ryan our complete support in this important new endeavor. He deserves a hand!

This month, members of the ABANA Board will be contacting the Chapter Presidents as a part of our regular Spring Calls to the Chapters. We want to know how we are doing. There are other, more specific questions that *Chapter Liaison Committee* Chairman Ron Porter is lining up as well. If the month of May goes by without your hearing from the ABANA Board, call me. We want to hear what you have to say!

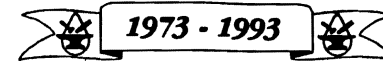
All around the country, regional conferences are under way. Age old techniques are being rediscovered over and over again by those just beginning in our ancient craft. Surely, the techniques you may have long since added to your own arsenal are a major "find" to those aspiring smiths on their way up. Your knowledge of the craft is one of the greatest gifts you can give to these people. The ABANA Chapters have made that environment available to everyone who wishes to come, through meetings, conferences, and the many open forges. The regional conferences are wonderful places to share that information with a large number of aspiring smiths. Through your selfless sharing of what you know, you help to guide the blacksmiths of the future. Think about that for a moment -- who showed you the way? Who was your inspiration? You may be standing right now where he was then.

Nothing feels quite as good on your feet as an old comfortable pair of sneakers! Unfortunately, just about every pair of sneakers on the planet are combustible. That can lead to some very unhappy feet in our craft. Purchasing a good pair of leather boots would be a wise investment, if you haven't already got them. If you have got them, but simply choose not to wear them, please reconsider! As is the case in most other crafts, we lead by example. It is hard to suggest that someone wear a good pair of leather boots if you yourself are wearing your PF Flyers. Besides that, it's difficult to concentrate on your work when your shoes are on fire. Let's hope that your next forge-in is full of happy feet!

Sincerely,

Clayton Carr
ABANA President

ABANA



The Artist-Blacksmiths' Association of North America now proudly celebrates its 20th year!

Ron Porter
(317) 689-8450

RR 1 Box 64
Bunker Hill, Indiana 46914

Chapter Presidents and Editors,

Another month has passed and we are getting closer to conference time for a lot of Chapters. I would like to attend each and every Conference but that is only a fantasy unless I hit the BIG LOTTO.

Any Chapter wishing to announce their conference, workshops or special events are welcome to send the information to me for inclusion in the Chapter mailing. Please allow extra lead time because not all Chapters have a monthly newsletter.

I received a letter from David R. Oliver (President of the Appalachian Area Chapter) requesting that all Chapters send their newsletters to him until a permanent editor is established. Any Chapter not presently receiving the Appalachian Area Chapter Newsletter should contact David R. Oliver, P.O. Box 3452, Bristol, TN 37625.

NEWSLETTER CLEARING HOUSE SURVEY

In January of this year the Chapter Liaison Committee sent a survey questionnaire to all ABANA Chapters for input on the feasibility of having a Newsletter Clearing House for the Chapters. Due to the lack of response received, this project had been dropped. It is still very important that the Chapters continue to communicate with each other so I urge you to continue trading newsletters if at all possible.

CONFERENCE UPDATE

Illinois Valley Blacksmith Association 13th Annual Conference

Location:	Pontiac, Illinois	Date:	June 12-13, 1993
Time:	9:00a.m. to 5:00p.m.	Demonstrator:	Clay Spencer

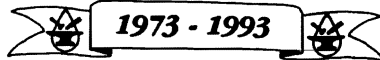
For more information contact Steve Parker, P.O. Box 45, Lane, IL 61750 or call 217-935-3043.

Sincerely,

Ron Porter
Chapter Liaison Chairman
RP/f

ABANA

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Press Release April 19, 1993

ABANA and the National Ornamental Metal Museum are sponsoring an invitational exhibit for ABANA members to celebrate ABANA's 20th Anniversary. The exhibit will be in Memphis December 12, 1993 through January 23, 1994. A photographic catalogue of the show will be in the *Anvil's Ring*.

The exhibit will present the works of ABANA members paired with work of individuals who have been their main influence. Jim Wallace (Museum Director) will select the ABANA members who will be invited to participate. It is sure to be a very interesting and revealing exhibit representing the past, present and future of ABANA in its 20th year.

PLEDGES: We have already received generous pledges from several ABANA Chapters and individual members. More money will be needed to cover cost of shipping, insurance and photography.

Please help to assure the success of the 1993 exhibit and aid in establishing member-exclusive exhibits around the country as an ABANA tradition. Contact Joe Harris, 1 Maple Lane, Elkview, WV 25071 or Elizabeth Brim, c/o Penland School, Penland NC 28765 for more information.

Elizabeth Brim
Exhibit Coordinator



CHAPTER LIAISON NEWSLETTER May 1993

SO YOU WANT TO BE A COLONEL: The Alabama Forge Council (AFC) will offer a Scholarship in 1993 called The Tim Ryan Auctioneer's Scholarship. Another great opportunity offered by the AFC. Looks like the price of blacksmithing tools will go up again. Wouldn't it be neat to have dueling auctioneers at the 1994 Conference in St. Louis.

ABANA RINGS COMPETITION FOR THE '94 CONFERENCE: Plans are in the works for each ABANA Chapter to make a ring. Design requirements are still in the planning stage but should be ready soon. This will be a great Chapter project that everyone can participate in.

PROFESSIONAL BLACKSMITH CHAPTER OF ABANA: Anyone interested in more information on this group should contact Charley Orlando, Ackerman Hill Road, P.O. Box 37, Belmont, NY 14813. At present this organization is in the planning stages and they are looking for interested individuals.

CHAPTER WORKSHOPS: The Blacksmith Association of Missouri just finished a side draft forge workshop where 25 members went home with new forges. This was quite an undertaking for BAM seeing as how they just finished a treadle hammer workshop. At this rate the BAM group will be the best equipped chapter in ABANA.

The Guild of Metalsmiths has just completed 3 classes for interested blacksmiths. A Beginning Chisel and Punch workshop, Women's Beginning Blacksmithing and Beginners Tong Building Workshop. Plans are under way for an extensive series of workshops to begin in the fall of 93. Way to go Guild of Metalsmiths!

FIBER AND METAL EXHIBITION 1993:

The Minnesota Craft Council will sponsor the 8th Annual Juried Exhibition October 2nd and 3rd, 1993 at the Fine Arts Center, Minnesota State Fairgrounds. Deadline for entries is June 1, 1993. For information send a SASE to Fiber Metal '93 c/o Sandra Stephens, 16029 Baywood Lane, Eden Prairie, MN 55346.

RAFFLE TICKET MANIA: Watch for Louisiana Metalsmiths Association members selling tickets for a Damascus knife (by Chris Marks) and Accent Table (by David Mudge). Total value of these prizes is \$800.00 and the drawing will be held Sept. 26, 1993.

FOR WOMEN ONLY: The University of Minnesota is sponsoring a conference entitled "Women, Fire and Iron", a National Conference on women in the foundry arts, May 21st thru 23rd, 1993. To register, write to the University of Minnesota, Professional Development and Conference Services, 214 Nolte Center, 315 Pillsbury Drive S.E., Minneapolis, MN 55455.

KEEP YOUR WITS ABOUT YOU: The Women of the Florida Artist Blacksmith Association (FABA) have created a group called WITS (Women Involved Together Successfully) and they will be creating a quilt to be raffled at the '93 Florida State Conference in October. Way to go ladies!

REPAIR DAYS IN ILLINOIS: The Illinois Valley Blacksmith Association will assist the Jefferson County Historical Society when they hold their First Annual Blacksmith Repair Day on May 8, 1993. Good Luck in this endeavor and we hope you have great success.

ABANA appreciates the Chapters that send their newsletters and updates so that we can keep the lines of communication open. The deadline for submitting information is the 15th of each month to guarantee it gets into the next Chapter mailing.

Send all correspondence to:

Ron Porter
Rural Route 1, Box 64, Bunker Hill, IN 46914

FIRST CLASS