

# RAM

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NEWSLETTER of the BLACKSMITHS ASSOCIATION OF MISSOURI

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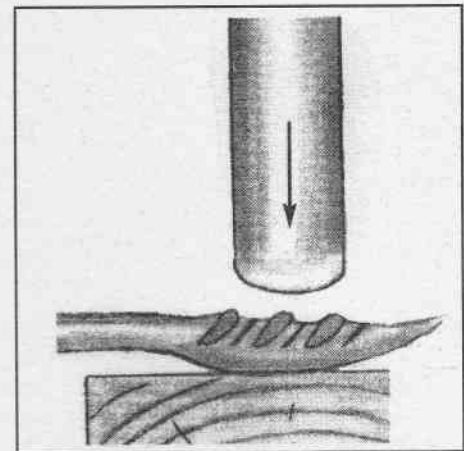
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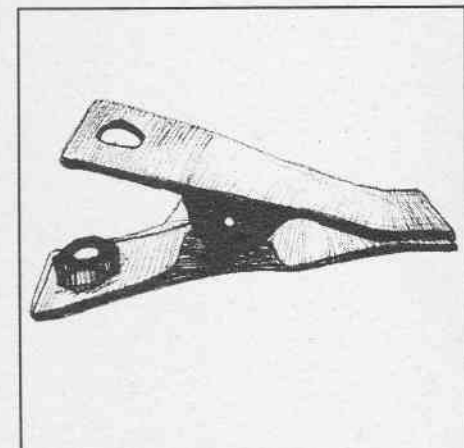
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**Newsletter of the  
Blacksmiths  
Association  
of Missouri**

*Volume 17 No. 3  
July—August 2000*

*Our cover: Pat McCarty wraps joints on a railing he made for his brother Brian's new house in Wardsville, Mo. Photo by Jim McCarty.*

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

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\_\_\_\_\_  
\_\_\_\_\_

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*See reverse*



Send this form in an envelope with your payment to:

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

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

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SEND RENEWAL TO:

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P.O. Box 816 Farmington, Georgia 30638

Dues Distribution:  
1 year subscription Anvil's Ring: 68.5 % \$24  
Adm. offices & other ABANA projects (Conferences, etc.): 31.5% \$11



**ABANA**

## Editor's Anvil

Hello Bammers,

If I hurry and get this issue out we will be officially up to date, at least for a week or two. That would be a nice change. Am sorry for falling so far behind but sometimes forces of nature conspire against you. Anyway, I hope you find this issue worth the wait. Wish we could hold on to summer just a little while longer.

But then again the cool fall weather should make it a lot more pleasant in the shop.

Haven't made any of the summer meetings, in fact haven't been to a meeting since Tom Clark hosted us back in March. I hope the demos have been good. I keep tabs on most of the other chapters and I think our group can stand tall with the best of them. Would like to see us get some kind of a project going like the headboard we did many moons ago.

We are overdue for some workshops too.

I am finally getting a little shop time, always have to squeeze that in between deadlines. I started making a stand for the bell in the Father Helias Museum here in Taos. Father Helias was the founder of this and 6 other central Missouri towns. He died while ringing the bell. It's a great honor for me to make this stand.

I am using heavy oak timbers 3" x 3" for the frame. It is mortise and tenoned together and I have in mind some flowers as wedges to hold the tenons together. Also plan some scrolls on the side to lend support — am guessing this bell is 400 pounds or so.

I need some nails to hold escutcheons on and so one weekend me and my son James forged nails. He's getting pretty good at it though like his dad he often cuts them too short and doesn't have enough stock to make the head. He has a sure enough Tom Clark Hofi Hammer scaled down to his hands.

The scrolls are going to be a little trouble. I'm not real good at making scrolls so I made up a few jigs to bend

them on. Unfortunately, when the state fair rolled around I turned a bunch of leftover scrolls into a BAM sign.

Looks like several of the scrolls were my jigs so now I have to do it again. Oh well, that's a good way to learn.

Speaking of the fair, BAM had its most impressive turnout ever for the 2000 event. I lost my list of those who took part and would hate to leave anyone out so I won't try to wing it. But many thanks to all of you guys and gals. There was more than enough people there on most days so that no one got too hot or tired. This time it seemed the crowds were waiting for us before we could get set up. There were mobs of people especially on the weekends. I don't think anyone made a lot of money, it's kind of hard to walk the huge fairgrounds with a piece of iron in hand. But I know we signed up some new members and generally got the word out that blacksmithing is alive in Missouri.

I have to relate one interesting incident. I was pounding away at the anvil when a man came up and watched me. "Is that a Hofi hammer?" he asked. Turns out he had read my article on Tom Clark's school in the Rural Missouri and remembered the hammer shape.

One of the items in demand by the crowd was hoof picks. The team penning was going on most of the time and it seems these guys got wind that Don Nichols could make them some nice hoof picks from horseshoes. We got some special recognition from the announcer.

Special thanks to Mike and Peggy Williamson who again made almost every day of the fair. Peggy is great at fielding the questions and when we got tired of hammering she did

some too. We had a young crowd working too. My sons Daniel and James came up, Kent Harbit had his son there and Don Carver had a couple of boys there that really knew their stuff.

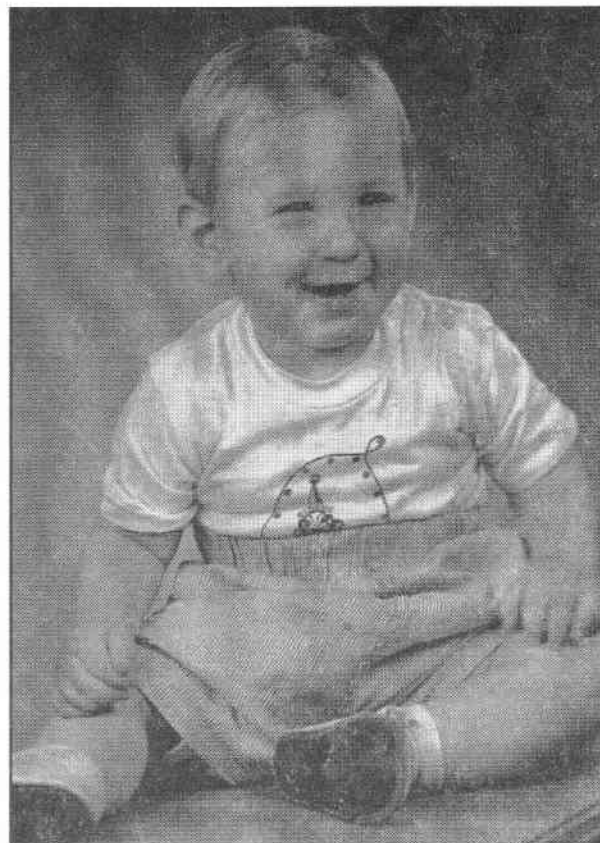
Make plans to lend a hand next year, it's a lot of fun.

Our president Bob Alexander has been real busy doing demos this fall. Brother Pat has had his hands full too. I will be at Hartsburg again unless my plans get changed. That will be the 5th or 6th year for this and I really enjoy the crowds.

Hope to see you all at Pat's meeting. He is adding on to his shop and it should be ready for the event. Lots of good demos planned and probably something hot and spicy to eat.

Keep your fires lit and cabins warm.

— Jim McCarty



*Too bad I didn't make the September meeting to remind everyone that brother Pat turned 50 on Sept. 18. Guess it's too late to give him a hard time...*

# ABANA

From page 10

The changes that ABANA is currently experiencing can lead to some questions amongst the membership. Questions regarding ABANA policy and other ABANA issues are best addressed to the Board, ABANA President Bill Fiorini or myself as Chapter Liaison if you do not know who best can answer your question. The Board is your working tool for the organization and only wants what is best for the entire membership; please contact the Board when you wish to bring up an issue for the betterment of the membership and organization. There is no hidden agenda, no ulterior motive, no shadow meaning behind any of the actions of the Board; what you see is what you get. The Board meetings are open to all, as dictated by Robert's Rules of Order; come see for yourself what goes on. Difficult decisions are made after sometimes contentious discussions, but in the end the decision is made and ABANA policy is set. Our responsibility as members of the Board is to professionally address matters of substance brought before the Board and then uphold the ABANA by-laws and policies that have been set. There are often times

when individual desires must be subservient to the differing needs of the entire organization, but we are charged to hold the entire organizations best interests in trust, for now and the future. This has never been an easy task, and will not be in the future. We beg your patience, understanding and overall support, even if you disagree with some of the policies. Thanks.

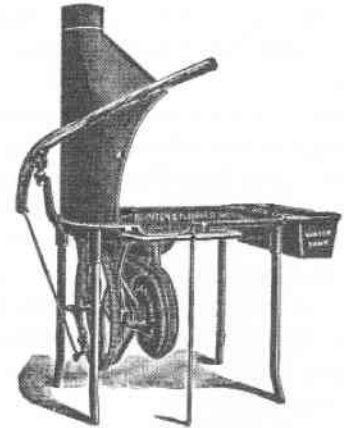
The weather is cooler, vacations are over, the children are back in school. Consider approaching your local school for an introduction to blacksmithing presentation to your child's or grandchild's class. Gone are the days that blacksmithing is a part of metal shop. Indeed, sadly metal shop is now a thing of the past in most secondary schools. As part of our education responsibilities, perhaps it is time for the ABANA chapters to ensure that all our children know an anvil as more than something that is dropped on the coyote or sits in a flower bed (two in my general area alone). At your public demonstrations, keep an eye out for that one child who never leaves. Pay attention to them, answer their questions, give them your demonstration piece, and ask them to come back again. Talk to their parents and make a good impression on the entire

family. That child may join your chapter and ABANA someday. We need them to, for the sake of the craft.

A quick thanks to the Upper Midwest Blacksmiths Association for their show of support for ABANA, I have included their letter as an extra mailer with this letter.

Safe and productive forging.

Doug Learn  
Chapter Liaison



## Share something!

Got a tip, technique, photo, or project to share? Send it to the editor Jim McCarty, 5821 Helias Dr., Jefferson City, MO 65101. It *will* help your forge welds stick.

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The best steel pattern always should be considered to avoid the loss of material and finished! It is also important that the pattern have a flat surface bottom. This is done by setting a filler over the top and back and pulling it in desired shape.

## Bob's Business

Some people may look at an object one way, while others will view the same object a completely different way, even though it's the same object. With this in mind let's consider why we would join a blacksmith club?

What do we expect to get out of this, what do we feel we should contribute to this. And how do we know when there is a balance of both of these? These may be some questions we should all be asking ourselves.

For a club to survive and for the membership to receive something from it, there needs to be input from everyone. Input in the form of money, information, demonstrations, education, etc. We as a club provide most of these needs but we need the members input as to what areas they would like to see improved.

We as leaders could implement our plans and changes as we see needed, but that may not be as you see them. Do we want more meetings, more group demonstrations, a

bigger library, workshops for special projects (gas forge - coal forge - treadle hammers)? What do we as a club expect from our bi-monthly meetings, an opportunity for education, a place to trade old iron, a time for visitation, or perhaps a blend of all of these?

Our club is made up of members from varied backgrounds with perhaps different needs from our club. Let's hear from some members and see if there is anything different that needs to be done. Let's all take our turn at bat (even if we don't consider ourselves a home-run hitter). Whatever we have been shown along the way, we in turn need to show to those following.

Now as I step down off of my soapbox I just want to say that to keep our club active and from becoming stale we owe it to ourselves to do our part with some input.

Keep on Hammering

— Bob Alexander



## Dear BAM

In the May-June BAM Newsletter you stated that Al Stephens bought my business. That is true but not the whole truth. Al did, in fact, buy my wholesale line of production ironwork, my customer list, good will and an intense training session to learn the Biz. Al did not buy any of my equipment or tools. I was very glad to pass the Biz on to someone like Al with his sense of quality and responsibility. I spent a number of years developing the line and customer base and I know Al will continue to forge on. I got out of art school in 1963 and received my MFA in 1968. I started teaching in 1968, quit in 1983, moved

to Lesterville and hung out my shingle. It's been a rat race since. The good part, it's been my rat race and I have loved every hammer blow. Now at 62 I can finally get back to what I trained for. For the first time since 1968 I can focus on art — full time — and it feels oh so good.

I gotta beat it.

— Doug (Dr. Iron) Hendrickson

*Editor's note: Doug's MFA is different than the one Thomas Moroni has on his hat.*

# BAM

## SEPTEMBER MEETING



by Pat McCarty

Rain, rain and more rain. That's what we had at the September meeting. I left Washington at 5 AM. 200 miles and 4 hours later I pulled into the sleepy town of Browning.

There was already a crowd at Ed Harper's new shop. After coffee and socializing, Bob Ehrenberger started the demonstrations with traditional joinery. He showed us his method of making tenons on the treadle hammer.

Then with his son, Daniel, striking he made a footed tenon to support the bottom of a gate. After lunch we had the business meeting, trade item drawing and the iron in the hat drawing. There was a large number of trade items, including a large Taz made by Ray Chaffin.

Ed has a fine new shop, I'm sure we'll see a lot of fine iron come out of it. See ya all at my shop in November, be sure to make a weapon for the trade item.

### Minutes

- Thanks to Ed Harper for hosting us.
- Minutes of last meeting approved.

### New Business

- Mike Williamson spoke on BAM's

coal supply.

- Joe Wilkinson spoke on newsletter business. Joe made a motion to increase the newsletter payment from \$150/ month to \$300/ month if delivered 2 weeks before the meeting. Motion made and approved.

- Lou Mueller needs to know if anyone can help with Octoberfaust this year.

- Bob Alexander has proposed the purchase of a second enclosed trailer to haul BAM stuff to the conference, etc.

- Maurice Ellis spoke on BAM's treasury.

- Maurice also mentioned that BAM meetings are scheduled through and including year 2001. He also said the job of scheduling is open, check with Bob if you are interested.

- Three new BAM members introduced themselves. Way to go!

- Bruce Herzog spoke on BAM's library.

- Bruce also spoke on the gas forge workshop, more to come. Bruce also showed a very well-made atmospheric burner, which will probably be used in the final design.

- Mike Williamson spoke on the State Fair. Bammers need to be thinking ahead to the 20001 fair. Volunteers are needed and it's a fine place to sell some ironwork.

- Bob Alexander is in charge of BAM's 2001 Conference. Call him if you have suggestions for demonstrators, etc.

Meeting adjourned.

Respectfully submitted,

John Murray, secretary

Trade items were made by:

Katie Carpenter  
Maurice Ellis  
Don Nichols  
Emil Bubash  
Pat McCarty  
Ed Harper  
Shane Hartsoff  
Bob Ehrenberger  
Ray Chaffin

Thanks to the following for their Iron in the hat items:

Daniel Ehrenberger, bee's wax  
Bob Ehrenberger, bee's wax  
Maurice Ellis, steel and copper bowls  
Pat McCarty, mouse  
Don Nichols, H-13 steel  
Ray Chaffin  
Ed Harper, rivets

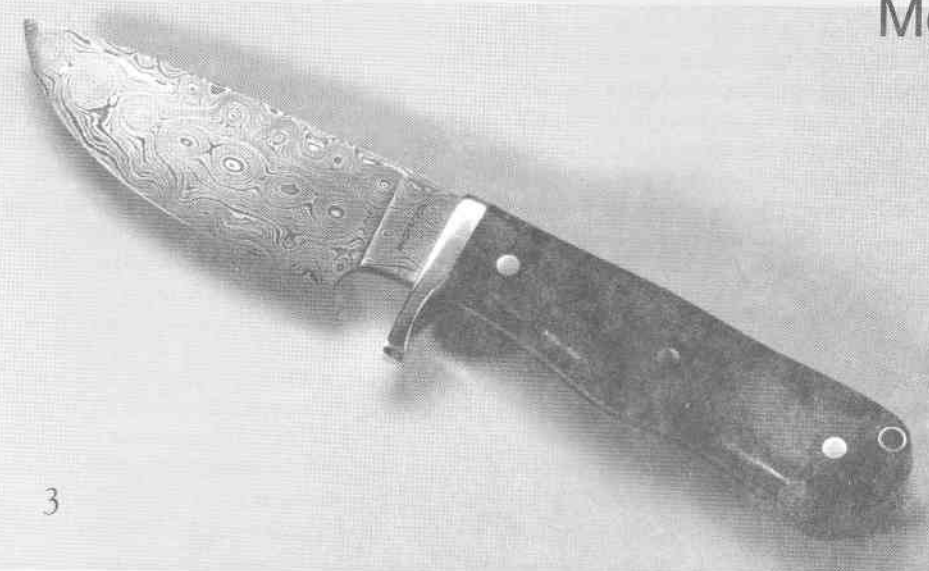




1



2



3

## Some knice knives by

# VJ

McCrackin

*#1: Damascus Bowie knife, 384 layers of 0-1 and 1018 steel, random pattern, blued steel guard and butt cap, maple handle. Blade is 9-1/2" long.*

*#2: Damascus Bowie knife, 384 layers of 0-1 and 1018 steel, random pattern, nickle-silver guard and pin, hippopotamus tooth handle. Blade is 9-1/2" long.*

*#3: Damascus hunter, 203E and 1095 steel, raindrop pattern, stabilized maple handle. Blade is 4-1/2" long. Brass guard and pins.*

*Photos: Jeffrey M. Bruce*



# ABANA

## ABANA Chapter Liaison Letter October 2000

A busy summer comes to an end, and an equally busy fall begins. There are many local and regional blacksmithing venues planned across the country, with good demonstrators and blacksmithing fellowship. My must-attend event will be the Pennsylvania Artist-Blacksmiths Association event featuring Peter Ross on October 7<sup>th</sup> (sandwiched into a Boy Scout camping weekend). The latest edition of *The Anvil's Ring* has a great listing of events, as does the events calendar on the ABANA web site. Check into one or two events in your area and have fun attending.

There are fall festivals where chapters are demonstrating to the public. These events are great opportunities to spread the word to the general public that blacksmithing is alive and growing. If you are attending such a festival, introduce yourself to the demonstrators. You may end up joining another chapter and making another friend or two in the blacksmithing community. Bert Smith, Editor of the "Hot Iron Sparkle" asked that this message be passed along. There was a missing graphic on page 15 of the last issue of the "Sparkle". It was a picture of Bartolucci to balance the picture of Bob Patrick on Page 14. If you would like to use those two pages and would like Bert to send you the missing graphic, contact him via e-mail: [omnismith@compuserve.com](mailto:omnismith@compuserve.com), or write, 821 Meade Drive, Greensboro, NC 27410.

This letter is a fast way to communicate such items to the membership. Please send such items to me and if I can do it they will be included in the next letter.

One of the spontaneous moments at Flagstaff was the posters that attendees signed for Bill Gichner. Many members know Bill, an early and continuous supporter of ABANA and blacksmithing, not only from his tool sales, but his conference sponsorship at his shop and his quiet

behind the scenes support. We were all disappointed that he was not at Flagstaff, and thought it appropriate that our appreciation be shown. The Arizona group donated two conference posters that were placed in front of the dining hall during the conference and many attendees signed them. ABANA Board member Jack Andrews delivered the posters to Bill at his Ocean View, Delaware shop on September 6<sup>th</sup> (coincidentally Bill's birthday). Bill was deeply touched by the expression of respect and honor, and passes his sincere appreciation to his friends who took the time to miss him and to say so. A picture of the presentation to Bill is posted on the ABANA web site [www.abana.org/about\\_abana.html](http://www.abana.org/about_abana.html).

The final books for the conference are close to being closed, and the figures look very good. Not only was the conference an educational and social success, the financial picture is very bright. Once the books are closed the information will be posted on the web site and announced here. The fall ABANA Board Meeting is slated for November 16-18 in La Crosse, Wisconsin. There will be more information on the exact location and the agenda in the next letter.

Will Hightower, ABANA Treasurer, has re-organized some of the ABANA checking accounts into interest-bearing accounts and made some other changes in the account structure to make better use of ABANA's resources. His efforts to better control and use the contents of all ABANA accounts is on-going. This is one example of the quiet, behind the scenes yet critical efforts that is necessary to make the mechanics of the ABANA organization work.

The Central Office received over 1,385 ballots, including a good number from our overseas members. The following ABANA members were elected to the Board of Directors for a three-year term; Dorothy Stiegler, Scott Lankton, Dan Nauman, Bob Fredell and Jerry Kagele. Congratulations to the winners and thanks

to all those that ran for positions. Also thank you to all the members who voted, your participation in the process is appreciated.

One of the least-used aspects of the ABANA Scholarship program is the support for chapter demonstrators. There is up to \$400 available for supporting a demonstrator at a chapter event. The Central Office has the scholarship forms. Follow the directions and fill the application out correctly and completely. Additionally, the present ABANA Scholarship application is in review and will be updated at the November Board meeting. The results of that update will be announced in the December liaison letter. Until the end of the year the present application will be official. Speaking of scholarships, check out Kate Dinneen's article in the latest issue of *The Anvil's Ring*, (Summer 2000, page 37). Kate was awarded a scholarship for her trip to Israel, and she more than fulfilled her commitment to ABANA with this wonderful article describing her experiences. Thanks Kate, you did a great job and I am glad that I got to know you during that fun-filled smoky class with you back in 1997. We all would like to see more articles in *The Anvil's Ring* from scholarship winners.

I broke my folding knife a couple weeks ago and returned it for repair to its creator Don Hanson, River Bluff Forge Council member and ABANA member. Upon its return Don included a copy of *Knife World* that featured his work. This article prompted me to review the showcase in the past several issues of *The Anvil's Ring* and several contemporary smithing books that feature knives. The design and craftsmanship in the knife world exhibited in these examples shows how far Damascus pattern development and application has come, both in the steel itself and its incorporation into a knife. This is truly an art form and one that I will be paying more attention to in the future.

*Continued on page 6*

# BAM

## Bulletin Board

For sale: Throatless sheer, probably 16 gauge, motor missing, \$100. W. Tim Griggs, Stewartville, MO, (816) 424-3301.

Ray Chaffin has a new computer operated plasma cutting system that can cut anything out of metal that can be programmed into the machine such as horses, birds, flowers, leaves, signs or your design. Use them to make weather vanes, gates, window guards, lawn and garden ornaments, hardware for cabinets or chests or whatever. Your design or mine, just 15 cents a cut inch — 14 gauge or thinner metal, 11 gauge or heavier 15 cents an inch plus cost of the metal. Mail, call or e-mail your design for a price quote. Guaranteed quote in 10 days or less and delivery in 30 to 45 days or it's FREE on small orders, large orders — we'll talk. Also I have hardwood for sale. Good for knife handles, wood turnings or accent pieces with your iron work. Blocks 2-2 1/2" x 12-14" are \$5 each in curly maple, straight maple, English walnut, birch laminated in brown and white and blue and white. Smaller sizes are \$2.50 each in walnut and other woods. Contact Ray Chaffin, (660) 438-6720 or e-mail to ray's@dam.net or send designs to Ray's Welding, RR 3, Box 279, Warsaw, MO 65355.

Heavy duty frying pan blanks: Steel, approximately 9 inch in diameter with 2 inch sides. 12 gauge thickness.

Available with or without two 3/16 inch holes for handles. Now tumbled clean. 1-4 \$9 each; 5-9 \$8 each; 10 or more \$7 each. Shipping \$2.50 plus \$.50 for each pan. Contact: Bob Tuftee, 3855 Aspen Hills Dr., Bettendorf, IA 52722.

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

FOR SALE: Custom-built air hammers. 6# table top model \$1200; 20# table top model \$1800; 20# floor model \$2100; 40# floor model \$2500. Some modifications to the basic hammers can be made to your specifications. Also custom metal spinning in copper, brass, pewter, and steel. Contact Maurice L. Ellis, Rt. 1, Box 1442, Belgrade, MO 63622-9709. Phone: 573-766-5346. e-mail: mbellis@therural.net.

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

Kayne and Son Custom Hardware, 100 Daniel Ridge Road, Candler, NC 28715. (828) 667-8868 fax (828) 665-8303, email: kaynehdwe@ioa.com, website: www.kayneandson.com. Offering Big Blue 100 ram air hammers, Peddinghaus 2 horn anvils, Offcenter tongs and swages, etc, hammers, tongs and more. We ship and accept Visa and Mastercard. Steve Kayne, 100 Daniel Ridge Road, Candler, NC 28715. (704) 667-8868 or 665-1988 or fax

(704) 665-8303 or e-mail: kaynehdwe@ioa.com. Check out the web site at www.kayneandson.com.

Tom Clark has expanded his line of hand forged Hofi style hammers to include a nice rounding hammer and punches, drifts, tongs etc. He's also importing a new line of air hammer, the Sayha from Turkey and just got a shipment of punches, shears and gas forges. For more info on the tools and his Ozark School of Blacksmithing contact him at (573) 438-4725. His 2000 schedule includes classes taught by Uri Hofi, Bill Bastos, Bob Patrick and Jerry Darnell.

Power hammer history! *Pounding out the Profits — A Century of American*

[www.artist-blacksmith.org](http://www.artist-blacksmith.org)  
It may be the only address you need.

*Invention* by Douglas Freund (hardbound, 317 pages, profusely illustrated) is available for \$32.50 plus \$4.50 shipping and handling through Minus Mountain Machine Works, PO Box 532, Jerome, AZ 86331.

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

George Dixon is offering a new line of tools called "The Old Philadelphia Tool Co." He offers a brochure if you send him a stamped, self-addressed envelope to: The Old Philadelphia Tool Co., 1229 Bee Tree Lake Road, Swannanoa, NC 28778. He is also starting a new blacksmithing publication called "The Traditional Metal-smith". For \$28 you will get four issues of how-to information.

Need something or got something for sale? Send it to the editor and he will get it in the newsletter. BAM classifieds are free to members and anyone with something to sell to a member.

# The Scroll

George Dixon, Metalsmith  
www.traditionalmetalsmith.com

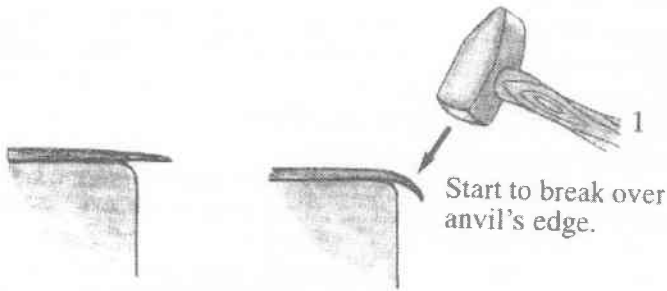
The first step in forming a scroll is to forge the end of the stock into whatever prep shape you want to use. In most cases this includes forging a taper on the bar. The length of the taper has a big impact on how graceful the scroll will appear. The taper and the ever-smaller inward turn of the scroll relate visually. Too little taper and the scroll will appear awkward. So start far enough back to give the taper a long transition.



Too little taper.

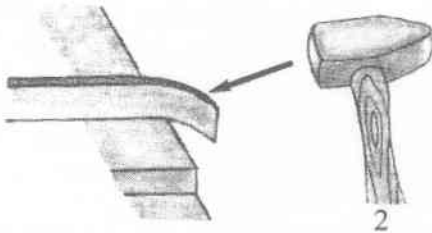


Gradual taper.



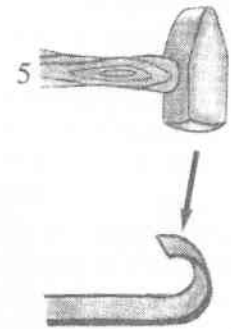
1  
Start to break over anvil's edge.

Once the stock is tapered take a forging heat and extend the taper out into space over the anvil's edge by about 1/4". Begin to break the tapered bar in short increments as it is progressively extended past the anvil's edge. Keep the hammer blows light. As the curve of the scroll develops increase the length of each increment to create the ever increasing diameter of the scroll. If the bar kinks or the progression seems awkward, either flatten it slightly or open the kinked area with a bending fork and/or wrench.



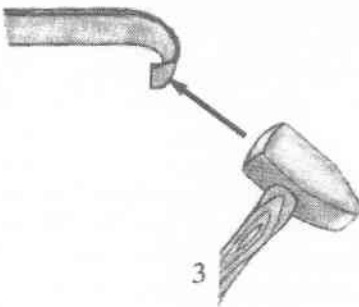
2

The arrows indicate the direction to strike the scroll in order to develop the effect gradually. Whether the scroll is on its side or back, the direction to strike from is the same.



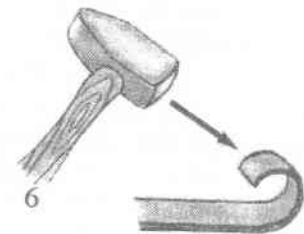
5

The angle of the hammer blow controls the curvature and progression of the scroll. No matter how detailed the written explanation, there is no substitute for trial and error and correction when learning a process. Using scroll templates to visually compare the progressing scroll to helps.

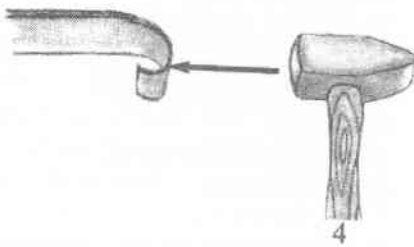


3

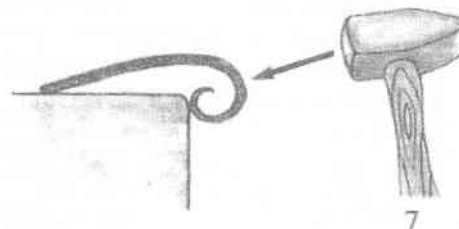
Working with light, repetitive hammer strokes cannot be over-emphasized. Like drawing a curve with a series of dots, each hammer stroke breaks the flat plane of the bar locally into a continuous curve. To few hammer strokes will give a faceted scroll with each bend appearing as a kink. The same error can be caused by hammer strokes that are too hard.



6



4



7

To tighten or adjust a part of a scroll that is too difficult to reach with a hammer it works well to back-up the part to be adjusted with the anvil while striking the opposite side of the scroll.

# Scroll Templates

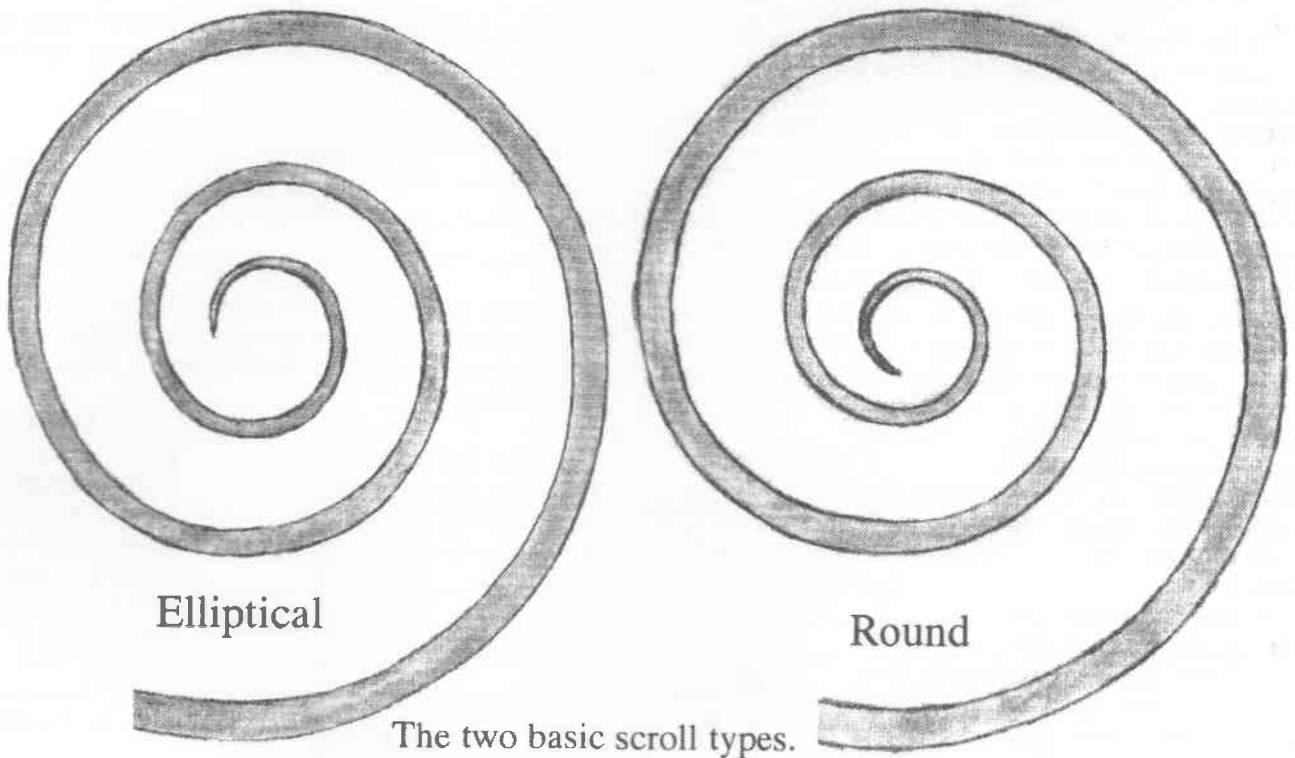
George Dixon, Metalsmith  
www.traditionalmetalsmith.com

These scroll templates can be traced or photocopied and sized to fit your design requirements. They can also be used to compare a master scroll forging against before it is welded to a plate in making a scroll jig.

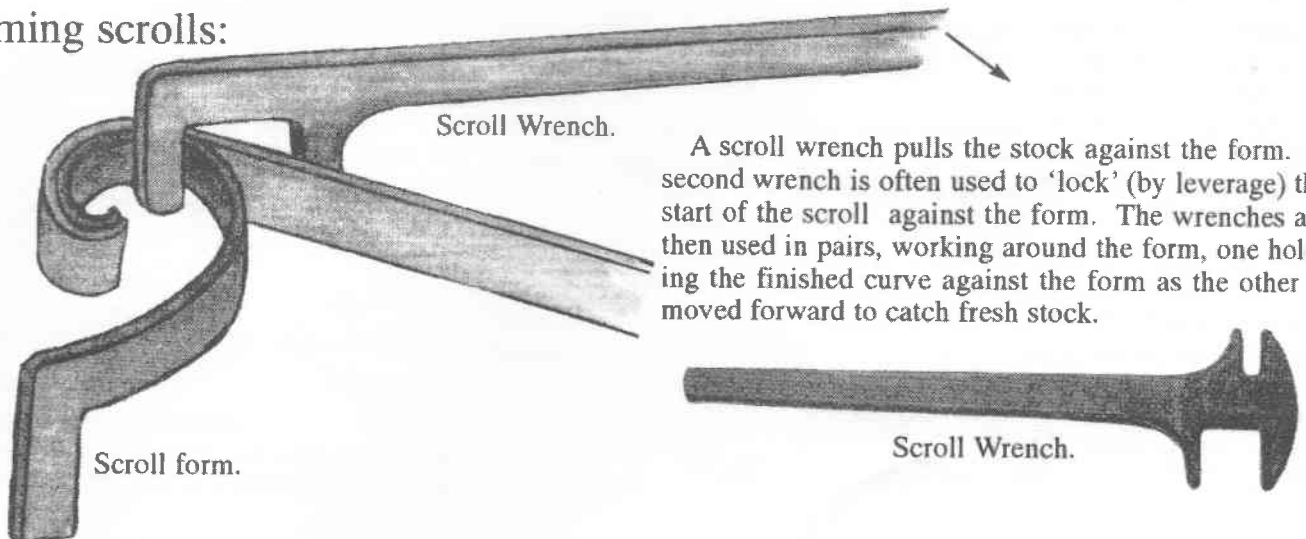
To transfer these patterns onto a sheet of steel, first copy and size. Then rub soft chalk powder onto the back of the scroll pattern paper and lay it face up - chalk side down onto a sheet of steel. If the steel version is to be just a comparative 'chalk jig plate', one that is used to check freehand scrolls against during the forging process, 1/8" to 1/4" thick steel is sufficient. However, if the steel plate is to form the base of a hot-work scroll jig then it should be a minimum of 3/8" thick. This type of scroll jig has the master scroll form welded to it.

Never quench your jig plates or scroll jigs, let them air cool. If they are quenched hot, they will soon warp and become useless.

There are enough situations that require short runs or require scroll-like endings, on leaves for example, that it is important to learn to scroll metal freehand and by eye before you become dependent on jigs. A freehand scroll can also become the comparative 'visual jig' for a subsequent short run just by doing each of the run in sequential stages that are held against the first, or master scroll as they are formed and adjusted. This skill will save a lot of time when a large number of parts is not required and thus a jig would not be cost efficient.



## Forming scrolls:

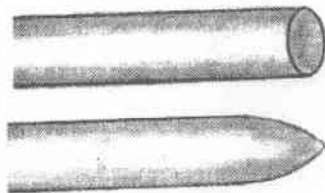


# A Simple Leaf

George Dixon, Metalsmith  
www.traditionalmetalsmith.com

Stock: 1/2" round steel or bronze.  
Tools: Hammer, anvil, tear-drop punch, chisel, top and bottom fuller.

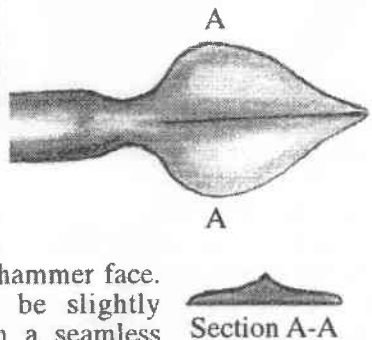
Take a forging heat (orange to orange-yellow) on one end of the stock. Forge a blunt point. The longer and thinner you forge that point the more narrow the leaf will appear. As with all blank forms, leave this one thick.



Fuller in the shoulder of the leaf blank. Either use a top and bottom fuller or a spring fuller and rotate the stock as you set the shoulder. Do not get the fullered area, which will become the stem, too thin at this point. If it is too thin too soon, it is liable to break off during the forging and decorating cycles that are to follow. When all of the leaf-work is done, the thick stem will be forged down and refined into a graceful stem.

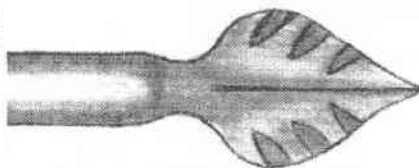


Cross-peen and spread the leaf blank. Take it down some and then flip and finish spreading it. This approach helps keep the forging symmetrical. Use the rounded edge of the hammer face to develop a ridge down the center of the leaf blank. Again, keep the leaf blank thick (3/32" to 1/8" at the side edges) to allow for sinking the tear-drop punch.

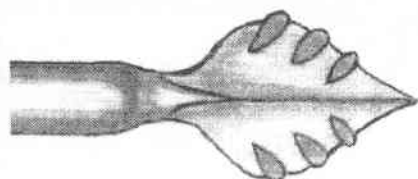


Refine the shape on edge using the horn of the anvil and a well configured hammer face. The hammer face should be slightly crowned in the center with a seamless transition from face to side.

Layout the leaf blank, cold, with the tear-drop punch. Use the tapered leading edge (toe) of the tear-drop punch on up to the entire tool, depending on the size of the leaf blank and the desired effect. Angle the layout towards the stem.

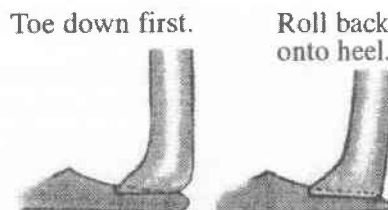


At a forging heat, sink the tear-drop punch into the layout marks on the leaf blank. Since the tool is the same for layout and hot work, it will 'feel' the layout positively even when the blank is too bright to see the layout.



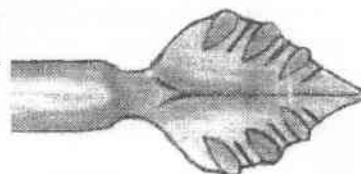
Set the toe of the tear-drop punch down into the hot metal first. As it is struck with steady and moderate strokes, rock it back onto its heel. This will push the metal under the tear-drop punch both down and out towards the back of the tool (heel) and thus outward from the edge of the leaf. This gives the finished leaf a scalloped silhouette and more visual interest.

This tool action moves the hot metal down and outward.



Another surface effect can be achieved by using the chisel to incise a line between each tear-drop impression.

This chisel cut will contrast and enhance the tear-drop effects.



Finally, take a heat and place the leaf, face side down, onto a block of hardwood. Set a ball-end tool centered on it and drive the tool down, cupping the body of the leaf.

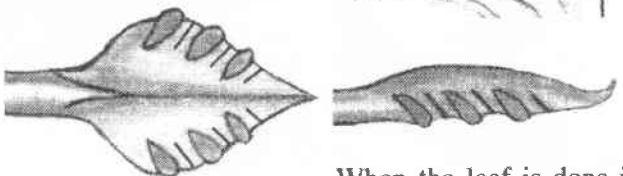
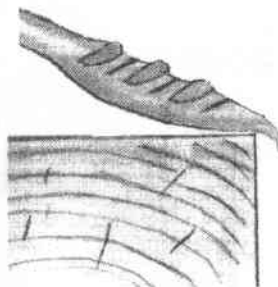
Drive the hot leaf into the hardwood block to cup it.



The hardwood gives under the tool pressure while it, being softer than hot chased metal, protects the surface work in a manner that a metal form can not. As the final



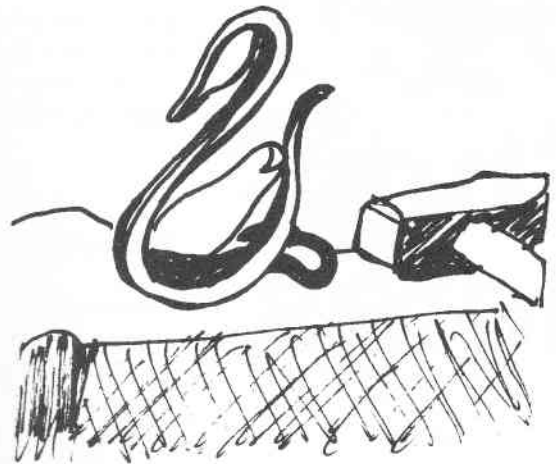
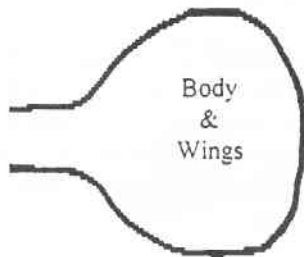
effect on the leaf, extend the tip past the edge of the wood block and lightly hammer the leaf's tip back over the leaf's face.



When the leaf is done it is time to draw out, thin, the stem. Do so with care to avoid marring the shoulder of the finished leaf.

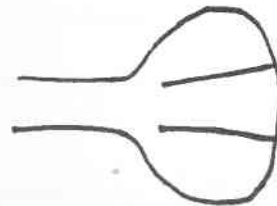
## Making the Zimmermann Swan

- 1 Upset end of 1/2" x 2" bar
- 2 Flatten end of bar to get this shape



- 3 Draw out neck to 1.3x length of body/wings segment and leave a knob on the end which will turn into head (1/2" x 1/2" at base tapering to 3/8" x 3/8" at base of head).

- 4 Split the wings out of the body and wing segment



- 5 Scroll the tail under.
- 6 Point the wings and gently curve them over horn or in swage block.
- 7 Then sink the base of the wings into a bowl to get them to curve up and over the body segment.
- 8 Smash the bill out of the head knob and taper it toward the end.
- 9 Curve the neck at the base of the head first then curve it back over the body.
- 10 DONE!

It makes a nice "pretty".  
Or a card holder if you must be functional.

Reprint from:  
NRBA News Fall 2000

# BAM

## Shop Notes

### Formulas from the past

This was given to me by Ron Kellogg. He is a guy I work with. He got it from his grandfather who was an instructor at Rankin Technical in St. Louis. Notice the date it was typed (June 28, 1920).

— Gary Kobermann

### Tempering carbon steel

Chlorate Potash 1 oz.  
Nitrate potash 1 oz.  
Sulphate of Zinc 1/2 oz.  
Lump alum 1/2 oz.

Get all chemicals in lumps or crystals, then powder all separately and mix thoroughly together and keep air tight. Heat drills to cherry red, applying chemicals to point. return drill to fire. Heat to cherry red and quench in water or linseed oil, proceed to use. Use cold water for drilling.

### Hardening compound

5 lbs. comon yellow soap  
1/2 lb. resin

1/4 lb. lamp black

3 teaspoons sweet milk

Use small amount of water and melt soap, add resin stirring thoroughly then add 1/4 lb. lamp black and stir until neutralized, remove from fire and add milk and stir thoroughly.

Tempering in water: Drills, hammers, axes, stone tools of all kinds — cool in water and draw to first blue, lay tools to straw color, cold chisels to second blue.

Tempering in linseed oil: All kinds of fine edge tools, cool in oil and draw to a straw color. Mill picks, dies and razors, cool in oil and draw, no temper. Springs: cool in oil and blaze off over fire.

Welding compound: To one pound of Borax, add four ounces of sal-ammoniac, 2-1/2 oz. appriciate of potash, 1 oz. resin, pulverize then add 1/3 pint water. Use same as Borax.

### Heat sink

By laying a piece of fire brick on flat bar stock it will keep the heat from traveling to the end of your handle. To hold round stock cut a notch in the fire brick.

— Ray Chaffin

### Decorative stamp

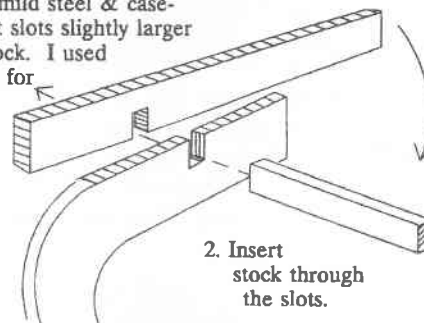
You can make a nifty decorative stamp by cutting off the guide tip from a drill press chuck key. If you need a handle you can drill a hole in the end of a short rod. I tried it and left about 1/32nd of the stem, then ground a dimple in it. Most keys seem to be made of mild steel. That makes sense because it is easier on the chuck and the keys are easy to replace. You may want to give them Robb Gunter's quench.

*The Pounder's Press*

### Shear Ingenuity (thanks to Lester Hollenbeck)

Use leaf springs (or mild steel & case-hardening) & cut out slots slightly larger than the intended stock. I used 5/8" x 2" leaf springs for shearing 1/2" x 3/16" stock.

1. Place lower bar in a vise.



3. Rotate downwards 90 degrees while pressing the arm to the shear base.

You can cut multiple slots for a range of stock sizes as long as the bars are not weakened

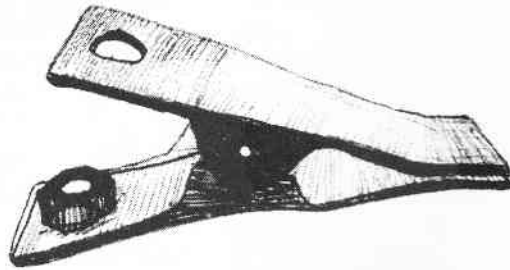
Copyright (C) 1990 - S.A. Bloom (IronFlower Forge)

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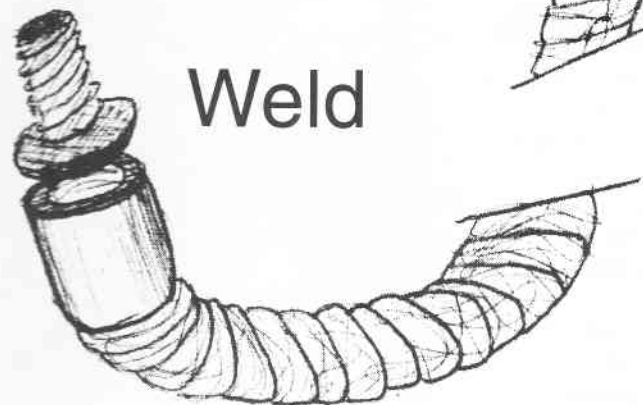
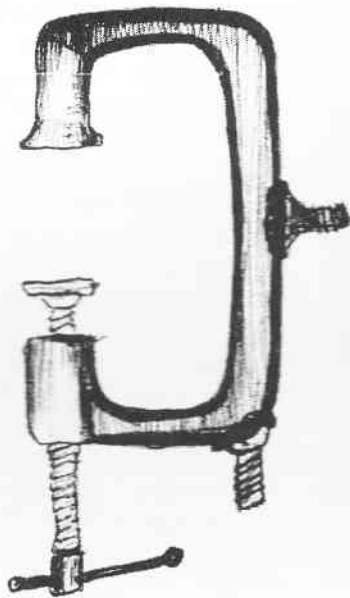
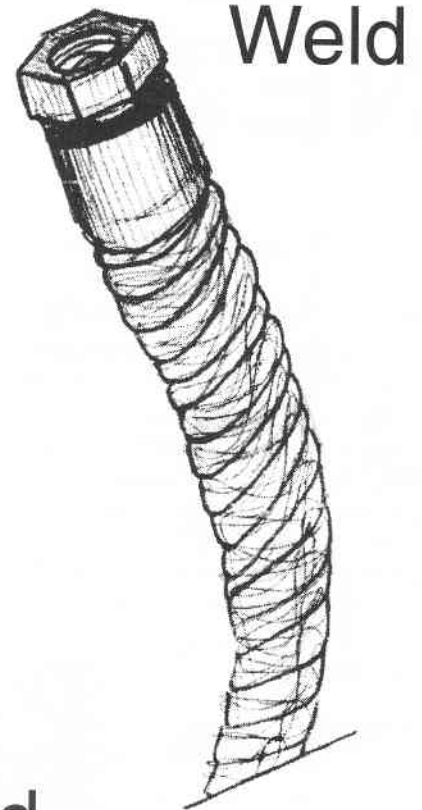


# 3<sup>rd</sup> HAND Welding Clamp

by Chris Rand, Guild of Metalsmiths



For strong welds, grind off the chrome from both ends



**O**ur bodies are excellently designed to handle a multitude of tasks. However, when working alone in the shop, I need an extra hand to hold parts while welding. The “third hand” is fashioned from a positionable goose neck available from old lamps and musical instrument stores (Music Go Round sells a 19” neck for \$6.99). If the thread size in the neck is not standard, weld a 1/4 20 bolt to either end. Opposing nuts and bolts can be welded to vise grips, c-clamps, spring clamps or any other base. The third hand is highly positionable and will carry the ground for welding parts in mid air or at any angle.

# BAM NEWS

## Got coal?

If you would like to buy coal from BAM, please contact Bob Alexander. He can sometimes bring it to the meetings, saving you a trip or can arrange to be on hand when you come calling. Bob may be contacted by writing to him at 14009 Hardin Road, DeSoto, MO 63020-5586, or by phoning him at his shop at (636) 586-5350. Coal is \$7 per 50# bag to BAM members. Bob says there is plenty left.

## Pitch pot supplier

Kirsten Skiles told the audience in Warrenton that she would send her pitch pot supplier address to us for the newsletter. He is Keith Johnson, a blacksmith in Bemidji, MN. Phone is (218) 751-9433.

## BAM's 2001 event

Here's the details so far on BAM's 2001 Conference:

Date: May 4-6, 2001

Location: Warren County Fairgrounds, Warrenton, MO

Chairman: Bob Alexander  
636-586-5350 shop, 636-586-6938 home; e-mail:  
scruboakforge@juno.com

**BAM 2000 Conference  
Treasurer's Report**

<b>INCOME</b>	
Registrations	\$6,451
Auction	5,774
BAM Concession	1,362
Family Program	2,45
Meals	1,075
Income Total	\$14,907
<b>EXPENSES</b>	
Demonstrators, Auctioneer	\$2,313
Lodging	729
Rent for Fairgrounds	875
BAM Concession	810
Family Program	245
Contest	300
Meals (caterer)	1,075
Supplies, Copies, Postage	420
Expenses Total	\$6,767
<b>Net Profit</b>	<b>\$8,140</b>

Thanks to all involved, especially chairman Doug Hendrickson, Registrars Maurice and Bess Ellis, contest person Walt Hull and Auctioneer David Cornett. Did I leave anyone out? Thank you too.

## Coming events

Appalachian Blacksmiths Association Fall Conference with Doug Merkel is set for Oct. 7-8. Contact Dave Allen (304) 624-7248 or e-mail to anvil-work@aol.com.

Banging on the Bayou 7 sponsored by the Louisiana Metalsmiths' Association with Japheth Howard and Barry Bailey will be held Oct. 7-8. Randy Ostendorf, 73408 Plantation St., Covington, LA 70433; (504) 892-7066; bigo@gulfsouth.verio.com.

Oct. 14-15 is the date for the Saltfork Craftsmen Conference, Guthrie, Oklahoma, featuring Doug Hendrickson and Uri Hofi. Bill and Diana Davis, Rt. 1, Box 1105 Fletcher OK 73541; (580) 549-6824; davis@sonetcom.com.

Florida Artist Blacksmith Association Fall Conference with Peter Happny, Tal Harris, Ed Halligan is set for Oct. 14-15. Karen Wheeler, 10250 NE 50th St., Bronson, FL 32621; (352) 486-4370.

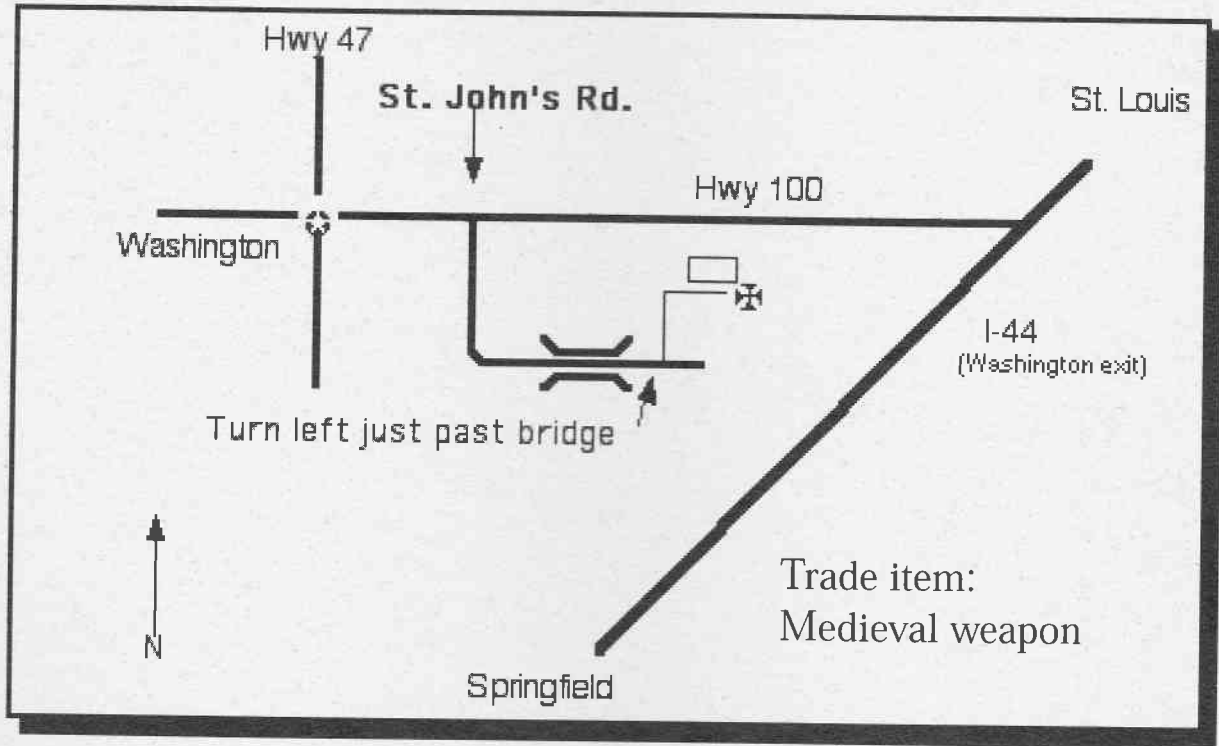
The Gulf Coast Blacksmiths Association is hosting a mini-conference November 11-12 featuring Frank Turley. The event will be held at Buddy Leonard's shop in Covington, Louisiana. For more information give him a call at (504) 892-1137.

The Kentucky Blacksmith Association is sponsoring "Forgin' in the Forest" to be held Nov. 3-5 at the Bernheim Arboretum & Research Forest, Clermont, KY. Demonstrating will be Doug Merkel (Colonial), Billy Merritt (knifemaking), and Craig Kaviar (furniture). There is a beginner's workshop, family program, auction and more. For more information contact Larry Zoeller, (502) 361-0706, Martin Lewis, (502) 245-0395 or Claude Stephens (502) 955-8512.

On November 4 there will be an auction of blacksmith items at the John C. Campbell Folk School, One Folk School Rd., Brasstown, NC 28902-9603. 1-800-FOLK-SCH.



# Next Meeting: Pat McCarty's Washington, MO November 11



Pat McCarty is the host for BAM's next meeting to be held Nov. 11 at his Washington, Mo. forge. He's not hard to find — just take Hwy 100 east of Washington to St. John's Rd. then follow St. John's until you cross a creek. You will see a 2-story yellow house, Pat's drive goes in between this and the creek. Turn left up the hill (lock in 4WD hubs here) and you are there. Watch for the signs.

Pat just put an addition on to his shop and with any luck should have it done in time. He has some interesting demos lined up. John Murray will forge an iron

arrowhead, fit it to an arrow and then shoot it through a steel plate.

Not sure what else Pat has in mind but it's bound to be good. Make sure you bring your rusty iron to sell, throw in something for the iron in the hat and make a trade item. This one should be fun. It's any kind of medieval weapon. Caltrops anyone? I think pike poles or long swords would be in style for this one. Also if anyone has any nice iron to show off bring that along too.

Hope to see everyone in Washington on Nov. 11.

**BAM**

## 2000 Schedule

### November Meeting

Pat McCarty  
Washington, MO  
Nov. 11

Trade item: Medieval weapon

### January 2001 Meeting

BASS Pro Shop  
Nixa, MO  
Jan. 20

Trade item: Drawer pull

### March 2001 Meeting

Maurice Ellis  
Belgrade, MO  
March 24

Trade item: Scroll



Pat McCarty puts the finishing touches on a railing he made for brother Brian (yep, there are more McCarty brothers). The railing used some techniques Pat learned in Jerry Hoffmann's *Journal*.

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