

Mississippi Forge Council

The MFC is very proud to announce that Terry Vandeventer is the first Mississippian to receive the designation of 'Master Smith' from the American Bladesmith Society. Terry, shown below receiving his certificate, is one of only 112 bladesmiths worldwide, living and deceased, to earn this designation.

Congratulations Terry.





These are the knives Terry Vandeventer submitted for the Masters Test
See story on next page.

THE ABS AND RANKING SYSTEM

The American Bladesmith Society was founded in 1976 by five well known bladesmiths with the intent of preserving and promoting the craft of the forged blade. This is our 30th anniversary! One of the problems they faced was establishing a ranking system for bladesmiths of varying abilities. They developed a testing system with a three tiered level: Apprentice Smith, Journeyman Smith, and Master Smith. The latter two require testing for promotion.

For the highest level of Master Smith, the applicant must build a 300 layer damascus steel knife which will demonstrate function and edgeworking ability. It must cut a free-hanging one inch diameter hemp rope cleanly with a single stroke. Then it must chop completely through a pine 2 X 4 stud twice. After each hurdle the blade is inspected by an established ABS Master Smith for chips or dulling of the edge. The blade must then shave hair cleanly along its entire length. The last part of the examination requires bending the knife to ninety degrees with out breaking or delaminating. This is a destructive test and the now bent blade must be presented with a certificate from the Master Smith in attendance when the candidate appears in Atlanta for the final stage of testing.

Each year the ABS tests Journeyman and Master Smith applicants in Atlanta, GA at the annual *Blade Show*. Journeymen must submit the bent blade plus five additional finished pieces representing their finest work. One of these pieces must be a European Quillion Dagger with a blade no shorter than ten inches and made from at least 300 layers of damascus. It must have a fluted carved handle with twisted wire inlay. This is the most important of the five knives submitted for review. It represents all of the blade making techniques mastered over the years, brought together in a single work of art. My dagger at the top of the photograph is 300 layers of "Gordian's Knot" damascus steel in the blade, damascus guard and fittings, ancient walrus ivory handle, and 14K gold twisted wire and trim.

Six ABS Master Smiths serve as judges. Six candidates submitted their work and four passed, bringing the new total of ABS Master Smiths worldwide (living and deceased) to 112 (I think I said 114 in my earlier email).

Terry was passed by all six judges and is now the first ABS Master Smith to represent the State of Mississippi.

**Officers and Board of
MFC**

President

Bill Pevey
1021 Pevey Lane
Crystal Springs, MS 39059
601-892-1867
WBPevey@aol.com

Vice-President

Steve Norquist
3433 Lanell Lane
Pearl, MS 39208
601-939-5227
Miwde3derj8@aol.com

Secretary

Steve Paulson
2007 Pleasant Gift Rd.
Canton, MS 39046
tpaulson@jam.rr.com
601-859-3855

Treasurer

Jon McIntosh
2454 N. Cheryl Dr
Jackson, MS 392111
601-316-3388
jmcintosh@dis.umsmed.edu

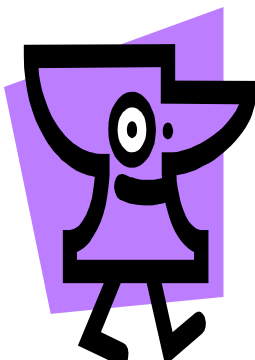
At Large Board Members

Benny Crevitt
1573 Marion Russell Rd.
Meridian, MS 39301
601-483-7025
crevtrad@bellsouthnet

Max Goodman
404 Parkway Rd.
Brandon, MS 39042
601-992-0383
ogremax@msn.com

Editor

Jim Pigott
136 Munich Dr.
Madison, MS 39110
601-540-6030
jpigott@jam.rr.com



Presidents' Message

The Mississippi Forge Councils' annual conference was a success and I would like to thank each of you that participated for making it happen. Dr. Batson's demonstration was really enlightening in many respects. Thanks also go out to Glenn Jarreau for his excellent demonstration.

We have five demo events coming up at the Mississippi Agricultural and Forestry Museum. They are listed as follows: Sept. 8,9,10 Celtic Fest. Oct. 19, 20 Pumpkin Picking. Oct. 30, 31 Halloween. Nov. 8,9,10 Harvest Festival. Please let me know when you will be able to help with demonstrations at these events.

The September meeting has been changed to the third Saturday so that those who want to go to Tannehill can do so on the 8, 9,10th of Sept. Our own Stacy Stegall will be teaching a class on the making of hummingbird feeders. We are proud that he was invited to participate at the Alabama Forge Council Conference.

The August meeting was held at Steve Norquist's shop. He gave us an overview of the various ways available to weld and cut steel and other metals. We thank him for the hospitality of inviting us.

A schedule of upcoming meeting activities is to be found else where in the newsletter so you can plan on attending. Let me know if you have any ideas for additional demonstrations that we might add to these meetings. We have several new members fo make them welcome and help the in any way that you can.

Congratulations are in order for Terry Vandeventer earning the designation of Master Smith from the American Association of Bladesmiths. Terry has always represented Mississippi and the MFC with class.

The MFC is your organization. Let's all work together to make it better during the coming months.

Bill

MEMBERSHIP RENEWAL

ALL MEMBERSHIPS IN THE MFC RENEW ON JANUARY 1 OF EACH YEAR. IF YOU HAVE NOT RENEWED YET PLEASE DO SO. WE WILL BE PURGING THE MAILING LIST AFTER THIS NEWSLETTER AND WE DO NOT WANT TO LOSE YOU OR YOUR SUPPORT. IF YOU JOINED LATE IN THE YEAR YOU CAN EITHER WAIT UNTIL NEXT JANUARY OR YOU CAN MAKE A LITTLE EXTRA CONTRIBUTION TO THE GROUP AND RENEW NOW.

Subject: [TheForge] Pickling steel with sodium bisulfate– Bruce Freeman

I've been an advocate of using vinegar to pickle scale from steel. One downside to this is that vinegar is volatile, and the smell gets bad (metallic) with steel pickling inside.

So, I finally got around to trying a sodium bisulfate pickle. Sodium bisulfate is available at pool supply stores for keeping the pH of pool water neutral. It comes as fine white crystals, packed in one- or two-quart containers.

After some experimentation, I used about 1 to 2 cups per gallon of water. (I used a rectangular plastic storage box - available in NJ from Cost Cutters - as my vat.) The crystals go into solution fairly easily, producing no discernable heat on dissolving. (Strong acids produce lots of heat when mixed with water.)

Much of the scale soaked off the steel within a couple hours. Some was more persistent, but came loose with overnight soaking. The resulting steel was nearly charcoal gray in color. Where it was not under the solution, the steel acquired a lovely rust patina - probably more from the humidity than anything else - but this largely sponged off. The scale did not completely dissolve. Much of it simply fell to the bottom of the vat. I plan to filter this off through a cloth when I transfer the acid solution to a jug for storage.

I did this on my kitchen counter. There was virtually no odor. Once or twice I splashed a little solution on my hands. I rinsed them soon after, and experienced no problems (acid burns). I DID wear glasses, however. I don't care to get this stuff in my eyes.

**NATIONAL ORNAMENTAL METAL MUSEUM
REPAIR DAYS WEEKEND
OCTOBER 13-15
MEMPHIS, TN
901-774-6380, WWW.METALMUSEUM.ORG**

TOM CLARK'S

Ozark School of Blacksmithing, Inc.

Tom Tongs are here!

22 different designs, 138 different sizes.

**Ozark Pattern Anvil 265 lbs.
\$1500. \$2000 with stand, tool tray,
bending fork and hardy.**

**The Balanced Hand Hammer
100% hand-forged quality
Under 3 lbs \$100
Under 6 lbs \$125
Over 6 lbs \$150**

SPH-50 & 60

**Self-Contained
Pneumatic Forging Hammers**

**Complete with base,
combination drawing and flat dies.
These hammers have unbeatable control!
SPH-50 110 lbs. \$8495
SPH-60 130 lbs. \$9995**

**Ozark School of Blacksmithing, Inc.
20183 West State Hwy. 8 • Potosi, Missouri 63664
Phone: 573/438-4725 • Fax: 573/438-8483 • E-mail: ozarksch@therural.net**

Meeting Demonstrators / Demonstrations

Note: Unless otherwise noted; the Mississippi Forge Council meetings are held at the Agricultural and Forestry Museum on Lakeland Dr. Hwy 25, in Jackson, MS. on the second Saturday of each month, except June. Meetings start at 9:00 am. We never know how long we will be there so be prepared to feed yourself if necessary. Snacks are available at the General Store.

If there are new members or visitors interested, we will generally have a 'green coal' beginner's class after the demonstration. This usually lasts about 3 hours. Be sure to check out the MFC schedule on the web site www.msforgecouncil.com any late changes in the meeting plans will be announced there.

**ALSO: IF YOU ARE NOT GETTING OUR EMAILS PLEASE CONTACT
JPIGOTT@JAM.RR.COM AND LET US GET YOU ON THE LIST.**

Meeting Schedule

NOTICE: THE SEPT. MEETING WILL NOT BE ON THE SECOND SAT. WE ARE MOVING IT BACK A WEEK TO THE 16TH SO WE CAN ATTEND THE ALABAMA CONFERENCE AT TANNEHILL STATE PARK FOR MORE INFO ON TANNEHILL GO TO <http://afc.abana-chapter.com/>

September 16 – Jim Pigott will make a wizards head and a rams head and the tools required.

October 14 – Lyle Wynn will teach basics of knife making

November 11 – Tommy Ward, Brazing and file work. This meeting will be held at Walters shop in Oxford, MS. More details to come.

December 9 – Christmas Party at James and Laura Monday's in Canton, MS

January 13 – Randal Minton will demonstrate Metal spinning. This will be in his shop in Abbeville, MS just north of Oxford, MS.

February 10 - Ricky Wynn will show us how to use a sheet metal brake to make copper items.

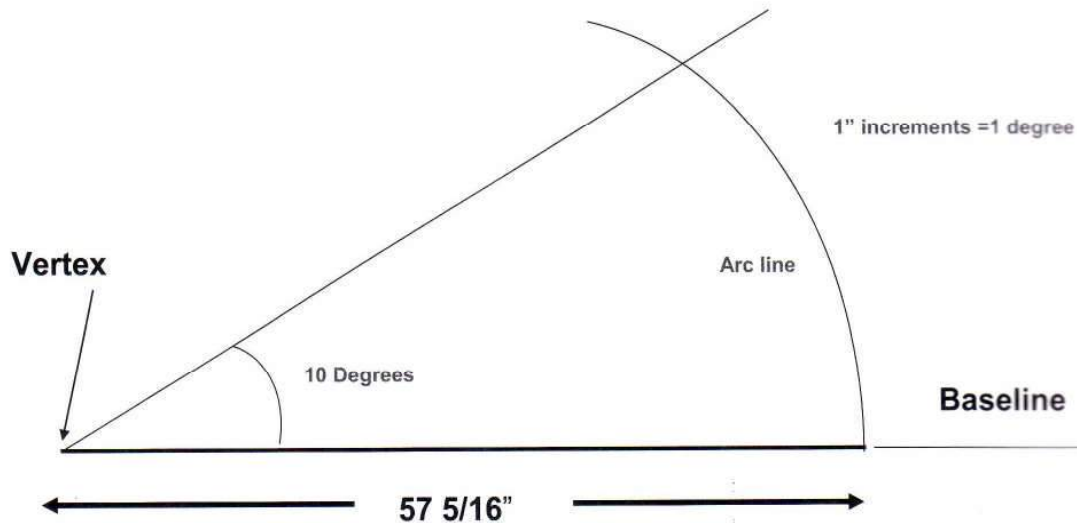
March 10 - Ed Wozniak will demonstrate how to make copper moldings. This meeting may be at his new shop

April 14 – Ernie Dorrill will demo decorative leaf work.

Bituminous Bits

Journal of the Alabama Forge Council

Received from: Rick Hartline

An easy way to lay out angles

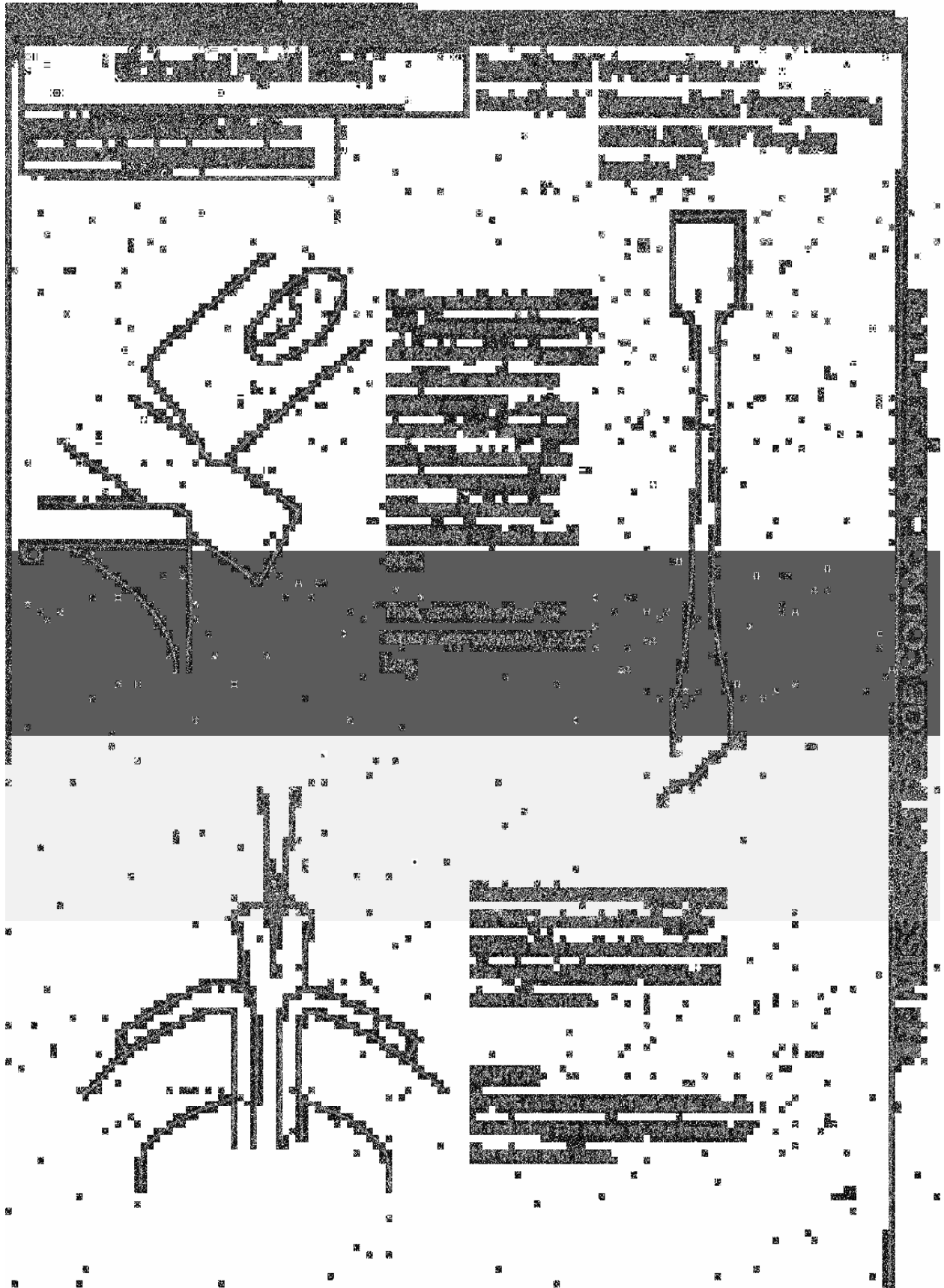
You want to lay out a 10 degree angle for a project. Mark a point on your layout table or floor where the two angles intersect along the baseline, (vertex). Measure 57 5/16" from the vertex along the baseline. .Swing an arc line starting from the vertex crossing the baseline at 57 5/16" . Use a set of dividers set at one inch. Step off with the dividers along the arc. Each one inch step of the dividers equals one degree. A 10 degree arc would require 10 steps of the divider. Mark the line between the vertex and the point along the arc to establish your line for 10 degrees. Information taken from the Upper Midwest Blacksmith Association news letter.

Beverly Shear Blades Sharpened \$35.00
Workshops for building Tire Hammers

Contact: Clay Spencer
934 Partridge Lane
Murphy, NC. 28906

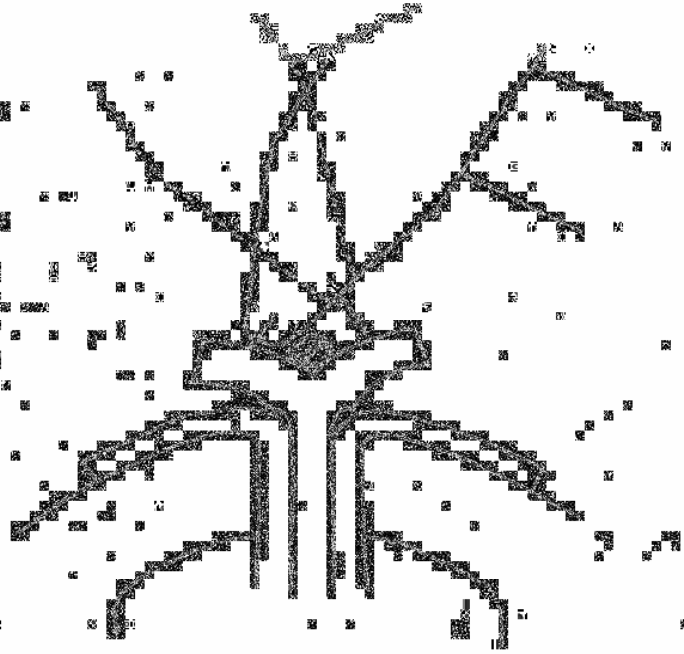
Phone 828-837-0708 Email: clayms@brmemc.net

Roller Blade Treadle Hammer Plans have been donated to ABANA

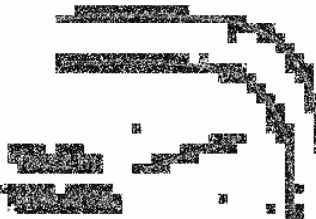


SECRET

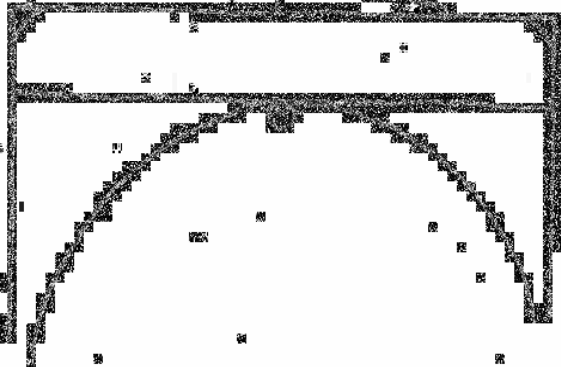
[REDACTED]

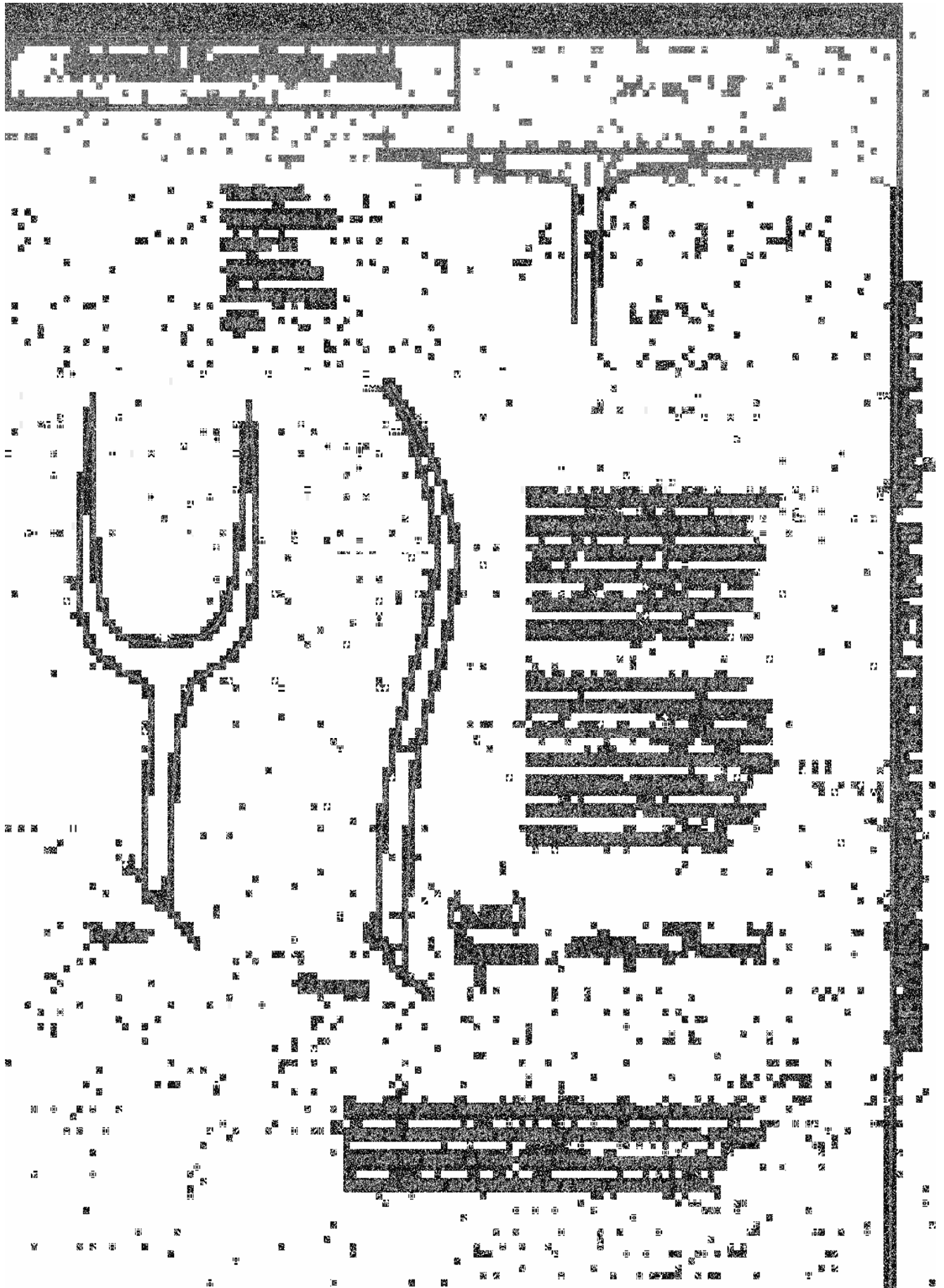


[REDACTED]



[REDACTED]





THE McINTOSH FAMILY REUNION AT THE AG MUSEUM ON MAY 27TH WAS A SUCCESS. ON BEHALF OF THE McINTOSH FAMILY, I WOULD LIKE TO THANK YOU FOR ALL THE GROUP FROM THE MISSISSIPPI FORGE COUNCIL THAT WERE THERE AND FOR THE ONE THAT DEMONSTRATED TO THE FAMILY AND THE CHILDREN HOW TO MAKE IRON WORK AT THE BLACKSMITH SHOP. I WAS NOT PRESENT FOR THE ENTIRE DEMONSTRATION BECAUSE MY BROTHER, MELROY, WAS NOT FEELING WELL BECAUSE OF THE HEAT, AND I WENT WITH HIM TO COOL OFF IN THE MUSEUM. PLEASE TELL EVERYONE HOW PLEASED WE ARE WITH ALL THAT YOU AND THE FORGE GROUP ARE DOING WITH THE McINTOSH BLACKSMITH SHOP. THE IRON GATES AT THE ENTRANCE ARE ABSOLUTELY BEAUTIFUL AND WE ARE VERY GREATFUL TO EVERYONE THAT TOOK PART IN MAKING THAT HAPPEN. PLEASE LET THEM KNOW HOW PROUD WE ARE OF THE GATE IRONWORK.

FROM THE McINTOSH FAMILY, WE WANT TO THANK YOU FOR YOUR HARD WORK AND DEDICATION TO THE McINTOSH BLACKSMITH SHOP.

*The McIntosh Family
by: Doris Warren*

Revell

HARDWARE & INDUSTRIAL SUPPLY

**FLORENCE/
RICHLAND**
1899 Hwy. 49 South
932-2690

BYRAM
5726 Terry Rd.
at Siwell Rd.
371-8429

CLINTON
120 E. Northside Dr.
at Pinehaven
924-4510

JACKSON
3876 Terry Rd.
at Savannah St.
372-5534

PEARL
2509 Hwy. 80 East
at Bierdeman Rd.
939-2861

**"IF IT'S
HARDWARE,
WE HAVE IT"**



*Serving
Central
Mississippi
Since
1950*



The Almost 300 LB. Mousehole Anvil

There comes the time in the life of every blacksmith when he or she must ask themselves the ultimate blacksmithing question, "Do I need a bigger anvil?" I had asked myself that question about a year ago. And the answer was a resounding "Yes". However, answering the question and having the funds on hand to make an actual purchase were still somewhat apart. So I saved until I had what I thought was an appropriate amount ratholed (or should I say Mouseholed) away.

My everyday use anvil is a 77-kilo (169.4 LB.) English made Brooks. According to Richard Postman's book it was manufactured in the 1930's. It has been a great anvil. One of the only drawbacks I have ever found with it was that the hardy hole is 1 ¼. So now all my hardy tools are 1 ¼ and I knew that I wanted an anvil with at least that size hardy hole. Fortunately, this turned out not to be a problem.

I looked at more than a few anvils on ebay and followed up on several leads in Mississippi, Alabama and even Texas. I was never satisfied with the anvils (badly damaged, deeply scarred faces, broken heels etc...) that were being offered, the travel distance was too great to make the trip worthwhile, or in the case of ebay, the shipping costs would have been astronomical. So I was patient, waited and knew that "my" anvil was out there somewhere.

Finally around the 4th or 5th of May I saw an anvil on ebay that was what I had been looking for. The owner had it listed as "HUGE 285# BLACKSMITH ANVIL, MOUSEHOLE ANVIL". The serial number on the left front foot was 321986. Across from that on the right foot was the number 5. The stone weight on the Mousehole is 2.2.12, making it 292 Lbs. It was 30 inches in length, with the horn being 11 inches of that. From the pictures the face did not have any major flaws and nothing seemed to be broken off, horribly disfigured or missing. The ebay advertisement said that the anvil was located in Tennessee. I thought that Tennessee was not too far to have to drive so I fired off an email to the owner.

The anvils owner (Davis Burkhalter) got back to me by email and told me that he and the anvil were in Nashville. Since my sister lives in Collierville, TN, I thought that I might get the anvil shipped to her house cheaper than shipping it to me in Meridian and then pick it up from there. I had signed the email to him, Vance Moore, Whynot Forge, Meridian, MS. Davis replied to me that he was from Meridian, and then asked me if I lived in Whynot, and that his wife was from the Whynot area. I got back to him as soon as possible and advised that I live in downtown Whynot.

As it turned out, Davis and his wife were coming home to Meridian May 18th-21st. He assured me that if I won the ebay auction he would bring the anvil to me. Since that was the cheapest shipping I could hope for, there was no way I could not bid on the Mousehole.

I had to wait for 5 more days for the auction to end on a Sunday night. So in the mean time I was looking in the seat cushions for spare change and counting the pennies in my fruit jar to see what was the absolute maximum I could bid on the Mousehole. I told my wife and kids that Sunday morning that there would be no lingering after church that night, we were coming straight home. I even set the clock in the church ahead 15 minutes to make sure that any long-winded Baptist preaching that night did not make us late getting home (not that any Baptist preacher ever paid any attention to a clock).

We got home about 45 minutes before the auction ended. I immediately went on line and started watching the bidding. When the auction had less than a minute to go, I bid my maximum and waited, sure enough I got it!

It seemed like a month before Davis arrived in Meridian, but it was actually only four days. I went over to Davis's in-laws house after work and got my first glimpse of it. Davis had transported the Mousehole in the back of his truck tied down and resting on a sheet of cardboard.

The table had some scarring from some type of heavy forge work and the face edges had a few dings, but all in all it was what I expected. Together Davis and I lifted it from his truck into mine. We started talking and I asked him how he came about the anvil. He said that he collects old, cast iron three legged pots. For some reason he has recently come across a lot of big anvils (I wish I had that type of luck). My Mousehole was found in North Carolina by a friends of Davis's who just bought it on a whim and took it back to Nashville for Davis (I also wish I had some of his friends).

Davis also gave me Richard Postman's address and phone number. So I had a way to contact Richard and maybe find out some more about the anvil. After payment was made I took off for Benny Crevitt's house to show him my new prize. Benny and Linda were just fixing' to leave the house when I

(Continued on page 13)

caught them. So I only had a little chance to gloat to Benny. Then I ran it over to Harold Mazingo's for the same reason and Harold was not home. So I just took my new anvil and went home.

Now the only problem was unloading it. So I called Ricky Roy Shirley and he and I got it unloaded and up onto the welding table in my shop. Ricky Roy told me what type of rods I needed to repair the table. The next day I went and bought ten Lbs. of Hardalloy 118. After that it was just weld and grind and weld and grind to get the table filled in and smoothed off.

On Saturday I called Richard Postman and woke him up from his afternoon nap. He told me that the Mousehole was made about 1915 or 1916, just a few years before World War I. Richard gave me his address (320 Fisher Court, Berrien Springs, Michigan, 49103) and I sent him a check for \$25.00 for a copy of his Mousehole Forge book. It is a really interesting book that any blacksmith would enjoy.

I did find a few particularities about the Mousehole while I was working on it. The hardy hole is slightly angled toward the bottom. I don't know if this was deliberate or a factory mistake. So I have had to grind the ends down on all my hardy tools to fit. The pritchel hole is 7/8, and that has taken some getting used to. Once I got an anvil stump cut out and the base routed, the Mousehole has been serving me well. I am glad the Mousehole has found a home where it will be appreciated and used. Stop in sometime and we will do some blacksmithing on it.

Vance Moore
Whynot Forge
Meridian, MS
Southpilo2@aol.com



Blacksmithing and Safety



Spray Cans in the Shop

by Dave Smucker

At the request of David Oliver, Ed Caflisch of Bristol Forge sent me the following information.

"About six weeks ago Dave Oliver learned a lesson the hard way and hopes other blacksmiths will learn from him. Wanting to use his large shop that was rather cold, he used his new large gas forge to warm it. Then after allowing the forge some time to cool, he happened to want to do some spray painting. Because everything in the shop was still cold, he placed a cold spray can on the forge.

He had done this many times before but this time he let the can pick up too much heat.

When he picked up the can in a cloth and shook it the can exploded. The explosion pushed his thumb back very hard and propelled the can through the shop roof.

David was lucky, as it could have gone through him. After seeing doctors, he wonders if he will ever be able to use the hand to hammer with again."

This is not a first for this kind of accident - Tom Clark did a similar thing - his paint can just exploded and put paint all over everything. He wasn't shaking it at the time.

Many of us work in unheated shops or at least shops that are heated only when we are using them. Materials in these shops are often cold and we want things like spray cans at "normal room temperature." What can we do?

The safest thing to do is to take the can in the house and let it warm up to room temperature over time. If you just must warm it faster, use luke warm water, **not hot water.** In no case is a paint can designed to get warmer than 120 F. You are working with a small bomb.

The other lesson here: "**He had done this many times before**" Many times this is what gives us the real problems - we got by doing something unsafe and weren't caught. It is amazing how many times I have heard this and even how I have done it myself.

I hope we all learn from David's mishap and sure hope that his hand is getting better.

The above thoughts are the opinions of the author and not the position of the Appalachian Area Chapter of Blacksmiths. Remember you are the one responsible for your safety and the comments recorded here are intended for you to think about ways in which you can limit your risk and exposure to the hazards associated with the craft of blacksmithing.

Cross Peining Fingers

By: D. Gillett, MD

Let me first say, it is not a recommended procedure...cross peining your finger, that is. At the end of a long day you were tired, and just needed to tweak your masterpiece a little...and it just happened. What happens next is characterized by animal behaviorists as "hard wired". It involves some sort of hopping type dance step, up on your toes grimacing, often jumping side-to-side and or twirling. The affected limb is either shaken violently or cradled close to the body. All this is accompanied by loud verbalizations, always in the speaker's native language, and usually both. What adaptive advantage all this has is not clear to me, but it obviously must have some.



At three AM you are experiencing a symphony of exquisite pain from the now blackened fingernail, keeping time with the beat of your heart. It is an extremely sensitive barometer, able to detect the slightest change in position. Sleep is out of the question, so what do you do now?

First of all, you should have kept ice on the finger starting immediately after the event. The problem is that the tissue under your fingernail can't expand, so any further swelling just increases the pressure. That's what hurts. Ice helps prevent swelling, but since you didn't do that (or even if you did and it didn't work all that well) you now need to release that pressure. Get a paperclip; unfold one end, and holding it with pliers, heat the end red-hot using a flame. Wipe the fingernail with rubbing alcohol, then with gentle downward pressure use the red-hot wire to make a small hole in the center of the nail. It does not require more than very gentle pressure and happens very quickly if the wire is red-hot. Pain relief is instantaneous.

You should not do this if you have a laceration on the affected finger, if you think you fractured the bone of your finger or you have bleeding problems (e.g. on blood thinners). In this situation you need to get medical attention. You should have gone to the Emergency Room eight hours ago when your wife first told you to go. You can tell the ER doc that you have a "Subungual Hematoma" (sub-UN-gwal HE-ma-TOW-ma). They will be impressed with your diagnostic acumen...if not your hammering accuracy.

Reprinted from Forge (Vancouver Island Blacksmiths)

Killer Pipe

Joe Donathon emailed me about the death of his friend and noted blacksmith Jim "Paw Paw" Wilson from zinc fumes. It seems Mr. Wilson was burning the zinc off several short pieces of galvanized pipe in his forge. The fumes enveloped the entire shop and filled Paw Paw's lungs. He died a week later.

Many of us who know better get complacent about the hazards involved with heating and welding plated and coated materials. Paw Paw certainly knew better.

This should be a wake up call for all of us. Never put galvanized pipe or sheet or any plated material in the forge. The zinc burns off so quickly that you can't escape fast enough to avoid the fumes. Usually you will just become sick (sore throat, nausea, headache - sick enough that you might wish you were dead), but obviously in some circumstances it can kill you.

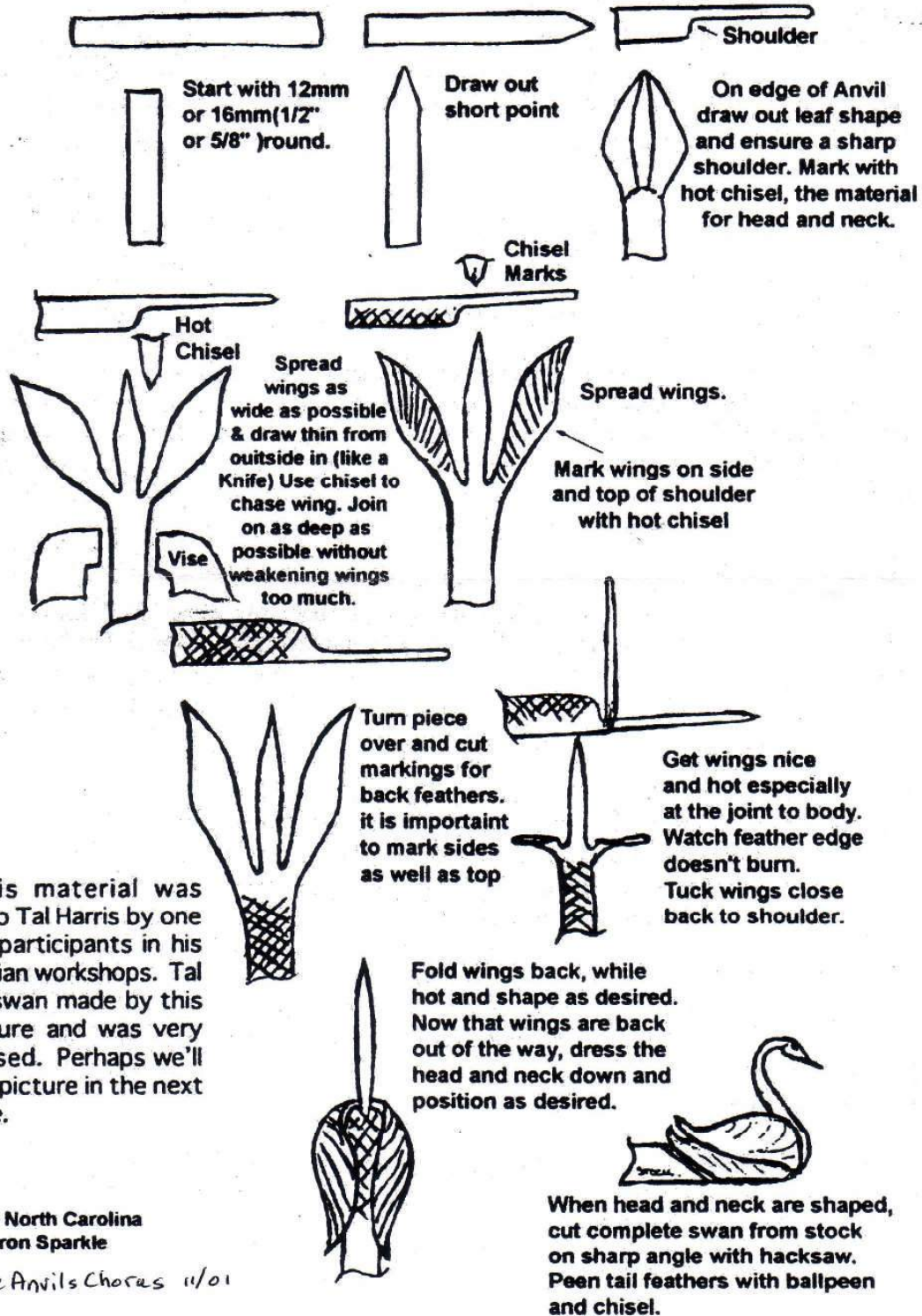
Welding galvanized pipe also is an extreme hazard. If you mistakenly feel you must weld it, ventilation is the key, have lots of air blowing away from your face. Even so, the fumes will still probably make you feel ill enough that you will wish you hadn't done it.

Zinc isn't the only hazard blacksmiths and welders should be cautious of. Cadmium plating is even more hazardous than zinc. Metal soaked with oil and solvent, painted metal, and lead can all put out fumes that may sicken or kill you.

Many of us use acid to remove zinc, rust and oil. The acid also requires caution. Many acids will react violently with some materials (aluminum is one) creating fumes that will burn your lungs and cause death or permanent damage. White vinegar (from the cleaning section of the grocery) or even tea is a safer idea, even though it may be slower than pool acid.

For more information about Mr. Wilson and safety in handling plated material, check out Anvilfire.com.

Forging a Swan, by Burke Hobba, Queensland, Australia



This material was given to Tal Harris by one of the participants in his Australian workshops. Tal saw a swan made by this procedure and was very impressed. Perhaps we'll have a picture in the next *Sparkle*.

From the North Carolina Hot Iron Sparkle

and The Anvils Chorus 11/01

Nickel Silver Brazing Alternative to MIG

By John Emmerling

Several years ago I began to look for alternatives to tig and mig welding in the construction of lighting and components. Since joinery cleanliness and ease of cleanup is paramount, mig and tig welding did not always work to my advantage. I wanted to use as little filler material as possible and have a strong joint that required minimal cleanup. So, I began to explore brazing. I first used coated brass rod. The brazing worked well, but I did not like the excess flux on the brass rod while brazing because I couldn't see the joint clearly, its cleanup seemed excessive, and the strength was not up to expectations. Next, I tried low fuming bronze bare rod and dipped it in the flux as necessary. It worked well and was an improvement over coated brass rod. However, there were two drawbacks: one, the strength, while generally adequate, was not always so, and two, if the finish of the piece was to be natural buffed iron, the bronze color was a detriment.

After searching the internet, I found a nickel/silver rod that works well. Allstate II comes in 1/16th and 3/32nd bare rod. Its equivalent is Harris-Welco 17. (Harris-Welco 17 is not available in 3/32nd bare). The strength of these nickel/silver rods is 50% greater than low fuming bronze and the color, while warmer in tone (platinum colored) than buffed iron, blends in nicely when buffed. Since it is stronger than low fuming bronze, a smaller amount is needed which helps in color blending. Also, these rods have excellent capillary action and tend to follow the heat readily. A fillet can be obtained by simply pulling back on the heat source, adding more filler rod, and gently washing the joint with heat. Cleanup is minimal.

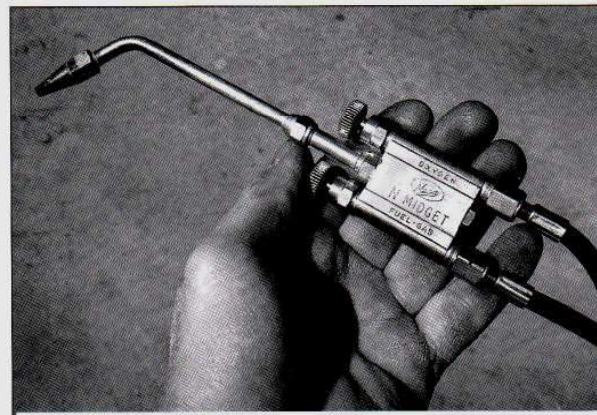
The flux used is boric acid. I bought the Allstate recommended flux, read the label that said it was boric acid, and began using the same boric acid I use in mixing forge welding flux. I bought the boric acid at Nuremberg Scientific in Portland, OR. The boric acid is wetted and applied to the parts to be joined with an acid brush. Only a very dilute solution is needed. The flux can be removed with warm water and/or use of a wire wheel.

I also purchased a Henrob torch several years ago and had been using it regularly. Anyone who has used a Hen-

rob to braze with knows that after a period of time the weight of the torch and the ergonomics of the pistol grip become tiring. Not long ago I discovered the Meco Midget torch and its lightweight hose (Fig 1). This little torch is amazing for its size, weight (6 oz.), maneuverability, and heating capacity. Tips available go from a zero to #3. I use the #2 and #3 tips most frequently. At a cost of \$105.00 for the torch and \$8.00 for each tip, I consider it a good bargain. For info on this torch, go to: www.tinmantech.com. The Harris-Welco I7 brazing rods were purchased thru Quimby Welding in Portland, OR. at \$54.00 per 5 pounds of 1/16th bare rod. They are a special order item and can be drop shipped for minimal delay. I use more of the 1/16th in general and occasionally 3/32nd for larger gaps. Info on Allstate II can be found at: www.fredparrcycleddesign.com.

John Emmerling
Gearhart Ironwerks
Gearhart, Oregon

John is a member of NWBA and has graciously submitted this tech tip to the AH. This article may appear in the Hot Iron News or in other publications.



Meco Midget Torch, available from Tinmantech.com

Easy as ABC – The Collaring Tools of Brian Brazeal

story & illustrations by Eden Sanders, San Andreas, California

In July 2005 Brian Brazeal and Shawn Lovell hosted a workshop at Shawn's shop in Oakland. At that time they introduced some of Brian's blacksmithing shortcuts and sold some tools and jigs so that Shawn could go to Czech Republic and Austria for a class and a blacksmithing festival. Of the many jigs Brian uses, three speed up the process of making and attaching multiple collars of the same size. The first two tools are adjustable for various sizes of collars.

A is a cold-cutting tool that allows for quick cutting of flat bar into equal lengths for the collar pieces.

B is for bending collars into a U-shape.

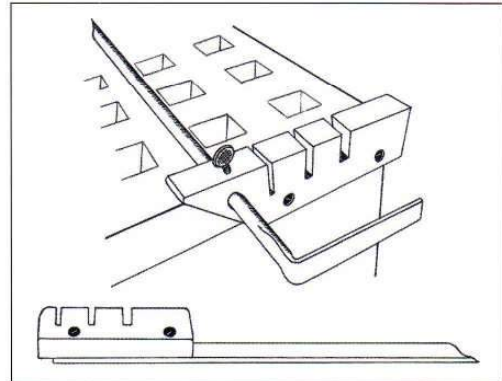
C is a jig for holding pieces and collars in place during assembly.

The **A** tool is actually two pieces. The main tool is mounted at the edge of a table. It has an adjustable stop that is set for the desired collar length. The bar stock fits through the appropriately sized slot as far as the stop. The second tool is also suitably slotted for grabbing the stock and is used to snap off the proper length of stock with a lever action. This assembly accommodates stock up to $\frac{5}{16}$ " thick. Many pieces can be cut to length quickly.

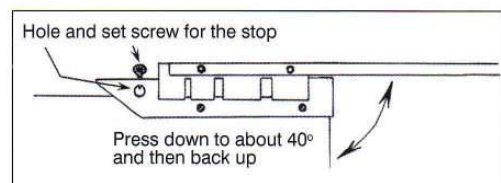
The **B** tool is also a two-piece tool. The bottom part becomes the cradle where the first two bends of a collar are made. The second piece is placed on top of the hot collar stock and when struck, sinks the stock into the cradle, forming a U-shape to the size of the pieces to be held together.

The **C** tool is a holding device. You need as many of these as there are collar joints for the section you are working. Lay out your pieces, face down. Fit the U-shaped collars around the pieces at the points where they will be collared together, thus holding together all the pieces at each joint. This procedure holds the entire assembly in place and allows for all the collars to be quickly closed cold with a hammer.

Once you have made and used these jigs, your designing possibilities will flourish.

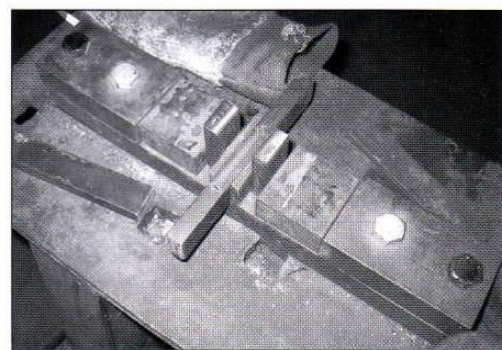


A-1. The tool is mounted to an acorn table using countersunk bolts. Make the stop bar long so that it will stay balanced at the set screw. The collaring stock lies on the table on edge and fits in the appropriately sized slot. The stop ensures the proper length of the piece to be cut off. The leverage tool is shown with the countersunk bolts (or rivets) on the side that faces the mounted tool.



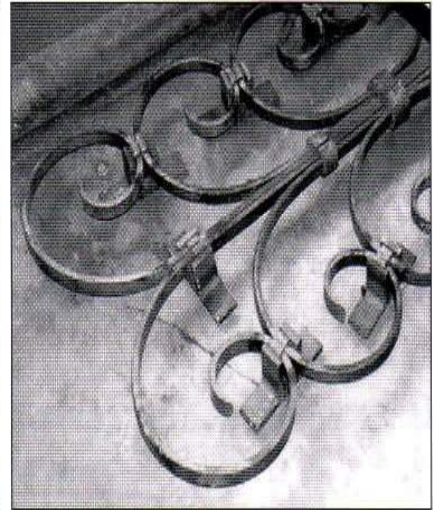
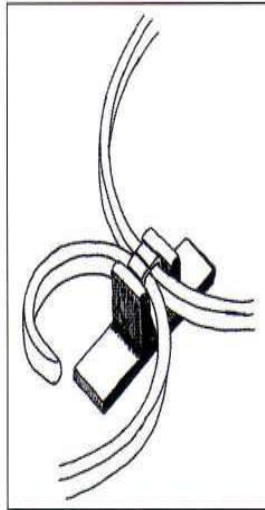
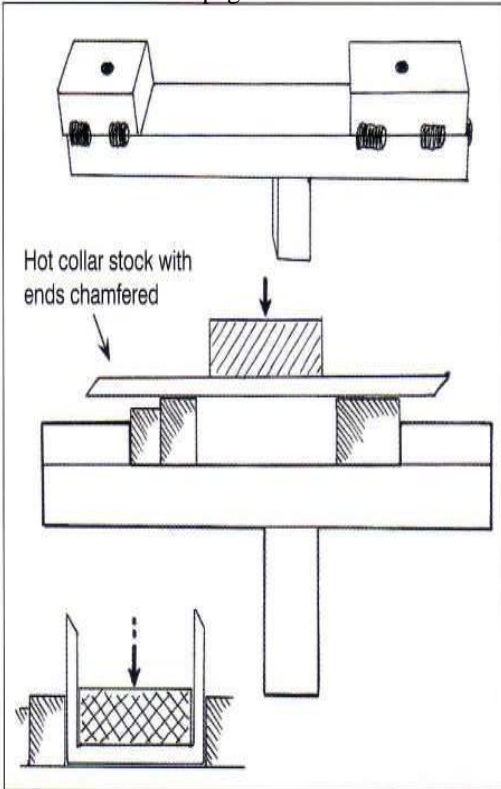
A-2. The two tools line up. The hole for the stop bar shows the set screw point. You can put a punch mark at various stops by removing the set screw and punching the rod through the set screw hole with a nail. Note that the mounted tool is set so that the bottoms of the slots are flush with the table surface.

B-1. Brian's collaring bending tool shows here that adjustments can be made with various pieces of steel blocks. Two taller steel blocks straddle the space where the collar will be bent. The top tool, lying across the tool, is another piece of steel, sized to the inside dimension of the collar. Two collar pieces lie on the table. Photo by Tom Laman



Easy as ABC

Continued from page 18



C. The jig holds the collar in place around two pieces. The upright pieces of the tool must be equal to or less than the finished dimension of the closed collar. To close the collars, Brian heats them to dull red with a torch before tapping them closed. Photo by Phil Manning

For more of a forged look, chamfer the ends of the collar piece – on opposite sides – before it is bent in the B tool (see B-2).

B-2. These figures show Mark Aspery's hardy-tool version of this tool, and the tool set up for use.

The photo shows several C jigs hold everything together, face down, thus speeding up the assembly. Photo by Phil Manning ♣

Lauren Osmolski forwards this information from a flyer that was provided by Jay Burnham-Kidwell at a past NWBA Conference where he demonstrated furniture building.

Standard Table Heights (As used in industry, USA)

Coffee Table	15"	Bedside Table	15-32"
End Table	20-24"	Work Table	27-36"
Corner Table	15-20"	Dining Table	27-32"

Heights may vary according to manufacturer, craftperson, client or usage. Table height may also be adjustable.

Measurements for tables and chairs are approximate. Build to the person you are designing for using your experience, common sense and artistic license.

Chairs and Benches (As used in industry, USA)

arm rest height at → or just below table height

recommended contour curve 94 degrees for persons of average height

general seat height → 16" → 14.2"

seat height for individuals taller than average → 17" → 15.2"

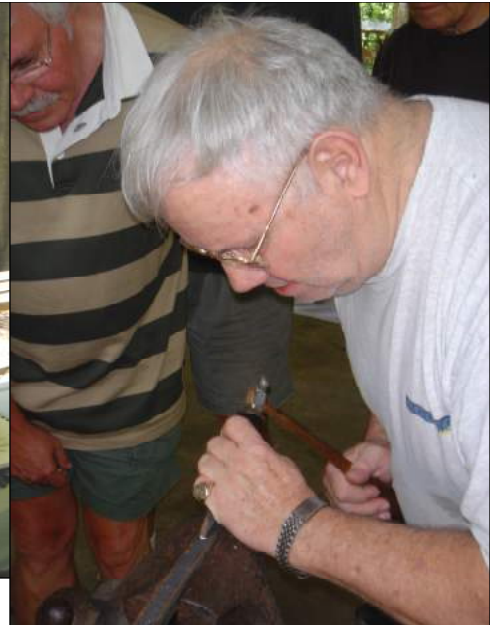
seat may extend 1.5" behind slant of chair back

From the Northwest Blacksmith Ass. 'The Hot Iron News' 2006/1

MFC 2006 Conference



The passing of the pencil, and eraser. Stacy Stegall passed the position of Treasurer to Jon McIntosh. Thanks Jon for volunteering, the gleam in your eye worries me though.



Dr. Jim Batson was a featured demonstrator for the 2006 conference. We could have stayed there for days, he had so much to offer. Above Dr. Jim demonstrates the art of



Joe Gilbert, above, was one of the several demonstrators at our conference. He does some wonderful flint knapping as displayed on the table left.



Conference Glenn Jarreau displays some of his excellent joinery work as he explains the techniques to conference participants.



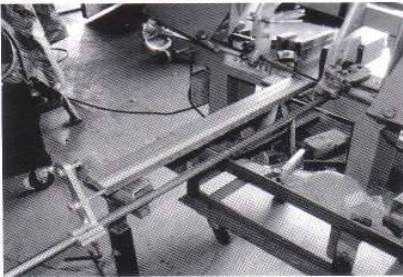
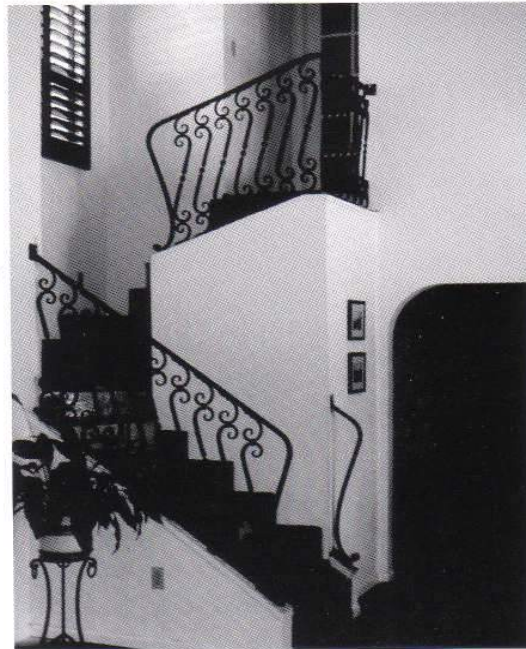
Top left, Christine Norquist did her typically excellent job of catering the wine and cheese party. Top Right- Glenn Jarreau taught us a good bit about traditional joinery. Bottom Left- Teresa Haygood displays some of her beautiful mosaic work and bottom right- Toney Harris and Susie Gee spend their third year with us as Toney demonstrated his lampworking skills. Many thanks to these folks and to Betsy Lyles, no picture, for contributing to a successful conference.

Forging to Size – Consistently. by Dan Jennings

Whether building balusters, gates or grilles, it often becomes necessary to make several parts the same length. The S scroll center sections of these balusters have several obstacles to getting consistent length. When forging the twist, the part grows, when twisting, it shortens. Forging the taper makes it grow; scrolling shortens it. Any variation in the cut length will add to the difficulty in maintaining consistent length.

This twist is one of the most difficult details to deal with for several reasons. Any variation in the thickness or length completely changes the look. The twist shortens the stock a lot. The resulting part is very weak and wants to go everywhere but straight. As it cools it has a tendency to untwist, which requires correction to get the ends in the same plane.

The following article shows how I dealt with these problems on a recent railing project.



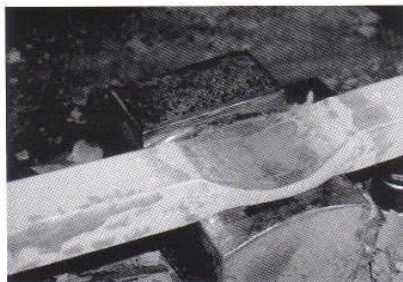
3/4" square bars are cut 3 at a time using a stop. Any variation in cut length will be make it harder to get consistent results later.



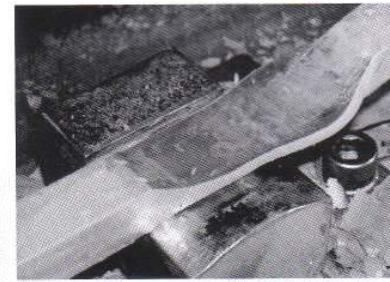
Cut bars are squared and the ends lined up. 28 finished balusters are needed, 33 were cut and forged.



The center line and lines 1 1/4" to each side are drawn. A square punch is used to put one dot on the center and two dots on the outside lines.



Radius dies with a built in stop block are used to control thickness and radius. Forging begins by putting center dot in the middle of the die and hammering down to the stop.



Forging continues by hammering to the stop before advancing. Stop at the dual punch marks. The tongs are holding the left end.



Swap ends and forge to the marks on the other side. If you were to pull the bar toward the unheld end, the radius formed by the dies would be on one side; not centered.

Dan Jennings is the Editor of The Anvil's Horn, the newsletter for the Arizona Artist Blacksmith Association.

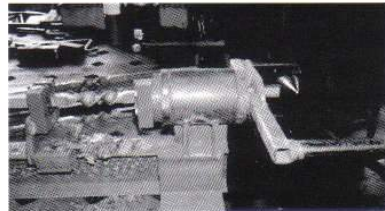


L: Consistent thickness and a radii are the finished result. Hopefully the length will be consistent ,too.

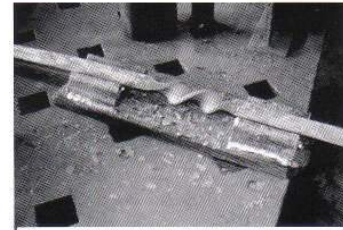
R: Twisting is easier if the bar is straight.



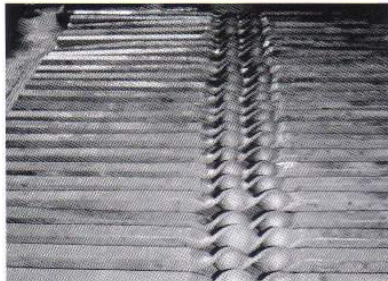
This twist can be done in a vise, but this manual twister helps keep the bar straight and speeds the process.



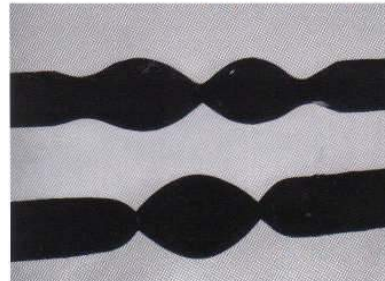
This twist requires one full turn. The material drops in the slots which centers left and right and up and down. Twisting takes about 30 seconds.



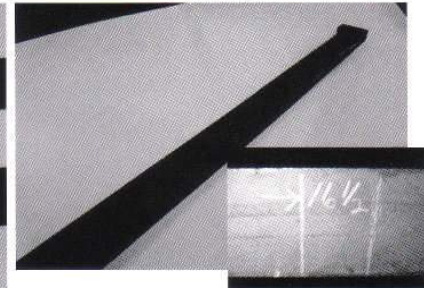
Quick and dirty straightening fixture was made from 1 1/4 angle welded to a 1/2 x 4 plate. The twist is hammered to center; ends are aligned.



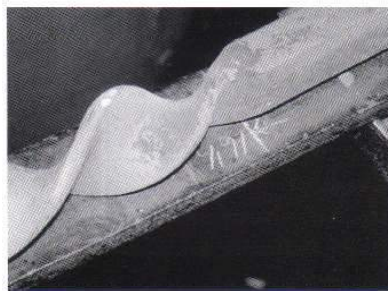
After twisting, the length varies +/- 1/8". Forging the part lengthened it by 2 1/4 ". Twisting shortened it 3/8". For a net increase of 1 7/8".



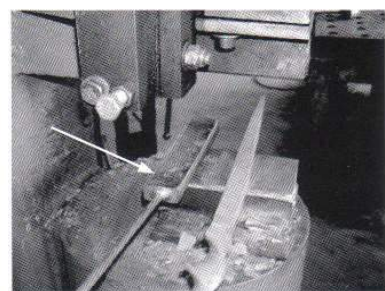
The twist is shown rotated 90 degrees. The profile on the bottom is the desired profile, so it is important to forge the taper on the correct side.



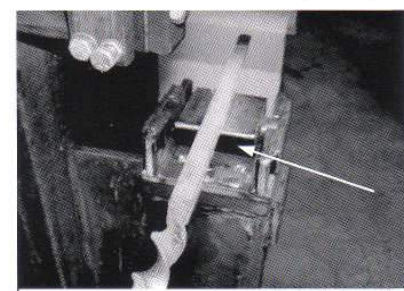
To forge the tapers the same length a gage is used. It is a piece of 3/8" x 1 with 1/2 square welded as a solid stop on the end. The length is marked in silver pencil. (insert)



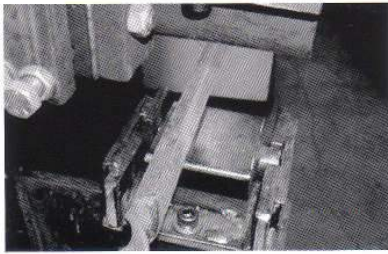
The dual punch marks should come exactly to the line. This one is still a little short.



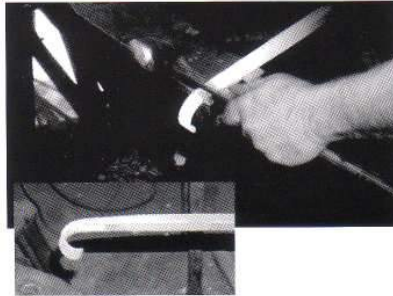
As the taper is forged, a stop block is used to maintain 3/4" thickness. Exact thickness will make applying the collars easier later on.



Flatter is used to smooth the steps created by the flat dies. (The bottom die has a radius that lets it conform to the taper.) Having two hammers is very helpful here.



The flatter die is also used to chamfer the corners. The taper was completed in one heat in under 2 minutes.



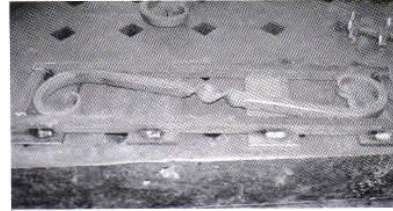
The scroll is started over the edge of the anvil.



A scroll tool was made for this job. Scroll tongs clamp the pre-formed bar at the proper starting position.



The tapered bar is wrapped around the tool, a bending fork is needed to keep from bending the bar at the twist..



A box fixture is made to gage the length and width of the scrolls.. 1/4 inch spacers under the gage are needed to allow for the extra thickness of the twist.

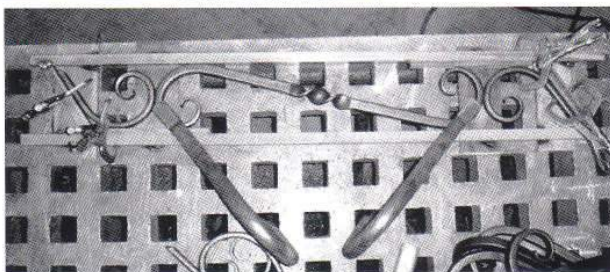


The idea is for the scroll to touch the fixture between the ends and all 4 sides. This scroll is too long.



L: One method of shortening is to put the hot end in the box and hammer the cold end into position.

R: This part was a little short and is being straightened to add length.



To assemble the balusters another box is made. The end pieces are at the same angle as the stair railing. The parts are clamped to assure proper alignment for welding. This is for the lower railing which is a steep 38 degrees.

The completed railing with all of the S scrolls the same length, and collars installed. Square head bolts hold the balusters to the railing. The bottom plate is mounted to the rough framing. Rock and plaster will bury the mounting plates.





Small Orders are welcome here. Laurel Machine and Foundry has been a strong supporter of the Mississippi Forge Council almost since our inception.. They are willing to fill small, and large, orders from our members. When you need material think about calling Ray Robinson at 601-428-0544, ext 2201.

ALSO

LMF makes the finest firepots available anywhere. Check out the blacksmithing equipment on their web site www.lmfco.com

Support those supporting us.

KAYNE & SON

Blacksmithing & Metalworkers
TOOLS - EQUIPMENT - SUPPLIES

100 Daniel Ridge Road • Candler, NC 28715
(828) 667-8868 or 665-1988
Fax: (828) 665-8303
Email: sales@kayneandson.com
www.kayneandson.com



BIG BLU

We carry the world's finest blacksmith's tools at affordable prices



Off Center Tools




PEDDINGHAUS
2 HORNED
ANVILS



BLU CRUSHER





ABANA

Name: _____

Address: _____

City: _____

State: _____ Zip/PC: _____

Country : _____

Type of Membership New Member Renewal

Regular - \$45.00 Contributing - \$100

Student - \$35.00 Library - \$35.00

Senior (65+) - \$40.00 Overseas Air - \$80.00

ABANA Chapter Affiliation: _____

Application may also be made at the ABANA web site:
www.abana.org

e-mail: _____

www url: _____

Phone: _____

Fax: _____

Credit Card Information

Visa Mastercard Expiration Date: _____

Card # _____

Submit check, money order (U.S. banks only), or by credit card:

LeeAnn Mitchell
P.O. Box 816
Farmington, GA 30638 Phone: 706.310.1030
Fax: 706.769.7147

M E M B E R S H I P A P P L I C A T I O N



Top Left to Right- Randal Minton, Carroll Ellis, Glenn Jarreau class, Tommy Ward hammering and Jon McIntosh has a big grin, he has the checkbook now.



Stacy Stegall and Ernie Dorrill doing some re-pousse' work. I believe that is some sweat on Stacy, above,
Right- A nice mirror, in the Peter Parkinson style, done by MFC President Bill Pevey, below, on the forge.



Left, candleholder seen in antique shop in Batesville, MS.
Above, fountain by Jim Pigott

Mississippi Forge Council Membership

Date -----

Name -----

Spouse -----

Address -----

City -----

State/Zip -----

Phone -----

E-mail -----

Make check for \$25.00 payable to
MFC and send to:
Jon McIntosh
PO Box 320744
Flowood, MS 39232

MFC is an affiliate of the
Artist-Blacksmith Association of
North America (ABANA) Dues are
\$25.00 per year and include
subscription to The Upset.

Disclosure

Blacksmithing is inherently a dangerous occupation. You are responsible for using eye, ear and respiratory protection and safe work methods. The Mississippi Forge Council, it's Officers, demonstrators, writers, editors and members specifically disclaim responsibility for any damages, injuries or destruction of property as a result of the use of any information published in the Newsletter, demonstrated at conferences or at meetings. Every effort is made to insure the accuracy and safety of information provided, but the use of any material is solely at the user's own risk.

NewslettePolicy:

Material is composed and written by the editors except as indicated. Unless otherwise noted, material herein may be reprinted without written permission provided proper credit is given. This is YOUR newsletter and contributions are encouraged and needed. A SASE should accompany any material you wish returned. Any suggestions or comments regarding the newsletter are welcome. Send contributions to:

Jim Pigott
136 Munich Dr.
Madison, MS 39110
jpigott@jam.rr.com
www.msforgecouncil.com

MISSISSIPPI FORGE COUNCIL
P.O. BOX 320744
FLOWOOD, MS 39232

Presorted Standard
U.S. Postage Paid
Jackson, MS
Permit No.80