

THE HOT IRON SPARKLE

NEWSLETTER OF THE NORTH CAROLINA ARTIST-BLACKSMITH'S ASSOCIATION OF NORTH AMERICA



Volume 32 Number 4

Fourth Quarter 2013



John Medwedeff producing a one day sculpture at his Penland School of Crafts masterclass

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A Message from our President

Prepping a new bed out by the drive to divide some raspberries and otherwise winterizing the place to settle in for a well-deserved hibernation. Been to the steel store and got enough to get to May to go with enough coal to last to March, maybe.

Reports from both fairs are in this issue and we should take pride in jobs well done. Both Al Andrews, master of the forge, and Eric Campbell, demo and sales coordinator, worked tirelessly throughout the NCSF to make a fine presentation which was noted by fair officials. Marshall reports a record turnout of members at the Dixie Classic Fair. Thanks to the many members who worked the fairs and pulled together giving the attending public a good show.



John Mathews has been working hard to organize the Q4 meeting. See the announcement in this issue.

Once again Oak Hill Iron and Big Blue will be hosting the Q1 meeting and The Triad Area Group will be hosting the Q2 meeting. Times and demos TBA. There is some desire to return to The Island Farm in Manteo for the Q3 meeting.

Steve Barringer will once again host a working/retreat board meeting in January at his shop in Mooresville where we will plot the course for all of 2014 and get a look at '15. If you have any issues, ideas or helpful criticisms please forward them to your Board Rep for consideration.

NC ABANA will once again be represented at Fire on the Mountain in Spruce Pine, NC the last Saturday in April. We will be taking a little bigger position in this evolving event.

As I come to the end of my first year as president, I am grateful for the cooperation and support from all corners of the organization. I believe that if we continue to work together, we can improve on our strong foundation and further the cause of blacksmithing.

Take care, get it hot and keep making fun stuff, as I remain,

Lyle Wheeler

President, NCABANA

Join NC ABANA

Annual dues are \$25 (inside USA), \$35 (outside USA). Make check or money order payable to NC ABANA and send it to:

NC ABANA c/o J. Phillips
97 Trinity Ridge Lane
Banner Elk, NC 28604

For more information email: northcarolina.abana@gmail.com
or visit the NC ABANA website: ncabana.org

NC ABANA Reports

Vice-president's Report



The fairs happened!!
The fairs happened!!
And if you were involved you are probably past the exhaustion and now in the afterglow from the experience. The fellowship of spending time with our fellow smiths and the travelers passing through has to be enjoyed to be understood. Our

mission in NC ABANA is education and there is no better way to educate than to demonstrate the craft to people who are thrilled to see it. Every time I took up the hammer I ended up fascinated by the people and their questions.

This year I had more interest than ever from the youth who were absorbed by the process and the shapes unfolding before them. I think the best and most penetrating questions came from the teens in the 12-16 year age range. They are just so focused on how the form is developing and how the mechanics of the process unfold. Several parents took me aside and asked how they could progress that interest and help their kids learn how. This was obviously thrilling that they wanted to enable their family to be both makers and to keeping history living and vibrant. The key point I made to each was that they had to be a partner and fully participate themselves. I also pointed out the obvious in that this craft has inherent dangers and I did not hesitate to point out the scars that I carry from my own learning's. Please make sure that at every meeting or personal lesson you give to someone under 18 includes the parent completely as a full participant – both so they can continue their encouragement and so they have full parental responsibility.

The Dixie classic fair was from all reports a smashing success. The turnout was tremendous with over 35 total demonstrators and 20 or more members coming out each day to demonstrate or just to hang out and enjoy the fellowship. Marshal Swaringen was more than ready to keep this purring along. He came out everyday, sometimes after a full day at work and then stayed to 11. They worked the equipment so hard they

have to retire Ralph Zimmerman's historic last anvil to their museum. From the sound of the menu it is no wonder that they kept on coming out – from roasts to fish fries to game – it was as much a dinner party as it was a blacksmithing demo. Marshal and the team are masters of cooking over the open fire and I am thinking we should have a second set of demo's next year at the Winston meeting – while we have hot iron going I need to get Marshall to teach me how to get some hot food going over a fire!

The NC State Fair has always been one of my favorite annual events and I was especially eager to join in the fun since I had to miss it last year because of my African travels. Little did I suspect my boss would call in the middle of one of my demos with news of a last minute trip that would cut my demo days short!! But I guess that is just part of that work thing - you retired guys listen up, we need you more than ever to keep this club chugging!

I can't figure out who I should compliment more – the two leads of the State fair both went over top this year with their commitment to the craft and the club. Al Andrews has been our shop manager for more years than I have been here and is tireless in his commitment. As far I can figure, he has just about built the shop one year at a time and can tell you the story behind every board. Al is there before the fair to repair and improve the shop, then to train the demonstrators and keep the shop safe. Every night he is there cleaning up way after closing. He was there behind me when I goofed up and helped me through it. Thanks Al.

Eric Campbell has given us a fresh commitment these last 2 years and is the sales side manager. Parks Low has been the cornerstone to that side of the shop for so many years only he could count them. Eric is grabbing the baton and running with it while Parks is catching some well earned recovery from his efforts. Eric has a team approach and has brought fresh energy to the event. His core team was there every day from dawn past dark working though the fatigue. There was a great outpouring of support as well with many club members showing up for the whole day every day. The supply of hand-made work from you the members was a record high this year and at the start of the fair it looked like a gallery with all the pieces of art, fine tools and cutlery. Check out Eric's report in this issue.

Hammer on!

Garret

Treasurer's Report



Business Checking Account	2013 YTD	2013 Budget
Dues	\$3,625	\$4,950
Heritage Forge at NC State Fair	\$885	\$918
Newsletter Printing and Postage	-\$1,105	-\$2,382
Newsletter Editor Fee	-\$600	-\$1,200
Insurance	-\$1,460	-\$1,180
State Wide Quarterly Meetings	-\$340	-\$1,000
SBA Madison Conference	\$1,539	-\$500
Other	-\$82	-\$300
Net	\$2,462	-\$694.00
Ledger Balance	\$11,753	

Money Market Account	2013 YTD	2013 Budget
Income	\$1,180	\$1,497
Scholarships		\$1,400
Net	\$1,180	\$97
Ledger Balance	\$5,155	

Jim Kennady, Treasurer of NC ABANA

Message from the Editor

This issue of THE HOT IRON SPARKLE marks the end of my first year as newsletter editor. Being editor has helped accomplished several of my personal goals for the year. I wanted to give back more to blacksmithing than I had been. Check. I wanted to get out more in the NC blacksmithing community to learn and share more locally. Check. I wanted to get more from my photography of blacksmithing. Check. I wanted to do more than just talk about the potential for NC ABANA but rather do something to further it. Check.

On other objectives as editor, I still have some room for improvement. Reduce the stress of publishing deadlines; ummm...not so much. Create some high quality "How To" articles myself; still in the works. Bring more people into the creative process of the newsletter; maybe some progress but lots more progress to be made.

It has been very personally gratifying to get four issues out the door for both NC ABANA and each reader that finds a useful article. Thanks to the support of all the NC ABANA board members who suffered my harassment about deadlines, to the scholarship recipients that followed through with great articles, and to all who took the time to contribute an article, photos or a report this year. It quite literally made my job doable and fun. I want to give a special thanks to Marty Lyons and Randy Stoltz who as former editors continued to provide me with materials and feedback.

Here's to an even better newsletter in 2014. Keep the information flowing!

Doug Wilson
Editor, THE HOT IRON SPARKLE



Oakland artist-blacksmith, Bill Roan, prepares to sculpt ABANA president, Dave Townsend, in iron at 2013 Bill Gichner Memorial Hammer-In

New Members

Barry Shelton	Raleigh
Benoit Sheehy	Raleigh
Bill Gintert	Gastonia
Colin Ceckhart	Raleigh
Don Waugh	Haw River
Drew Simone	Huntersville
Dylan Reed	Chapel Hill
Jacob Isaacs	Lexington
Jeff Davis	Raleigh
Josh Smith	Morganton
Justin A. LaQuay	Timberlake

Kay Lyerly	Durham
Larus Maxwell	Raleigh
Liam Hoffman	Newland
Maria French	Charlotte
Marty Campbell	Eden
Matthew Hux	Raleigh
Nick Glass	Cary
Rob Bratton	Rutherfordton
Thomas E. Johnson	Chapel Hill
Thomas Shelton	Raleigh
Willie Comer	Stoneville
Zack Rhoades	Lexington

2014 Quarterly Meetings

- Quarter 1 - 22 March
- Quarter 2 - 28 June
- Quarter 3 - 13 September
- Quarter 4 - 6 December

THE HOT IRON SPARKLE Publication Dates

- Quarter 1 - 24 Feb
- Quarter 2 - 26 May
- Quarter 3 - 11 August
- Quarter 4 - 3 November



Gift Making Workshop

Dixie Classic Fairgrounds
November 25th thru 27th

We invite you to join us as we open the blacksmiths' shop at the Dixie Classic Fairgrounds for a three day gift-making workshop on the three days leading up to Thanksgiving (November 25th, 26th, and 27th, 2013). If you want



to get in a quick project or spend all three days working hard on a masterpiece, we will be right there with you to help you along. This year Jen and I have been working a lot on our team forgings and are looking forward to working the carved flowers (that have become so popular) into some around-the-house gifts for friends and family. In years past, Monday and Tuesday are the slowest days with a good crowd on the last day. You don't have to RSVP, there is plenty of space. The shop is well stocked with tooling, steel, coal, and coffee plus there will be some of the latest tooling from Blu there too. Looking forward to a crowd.

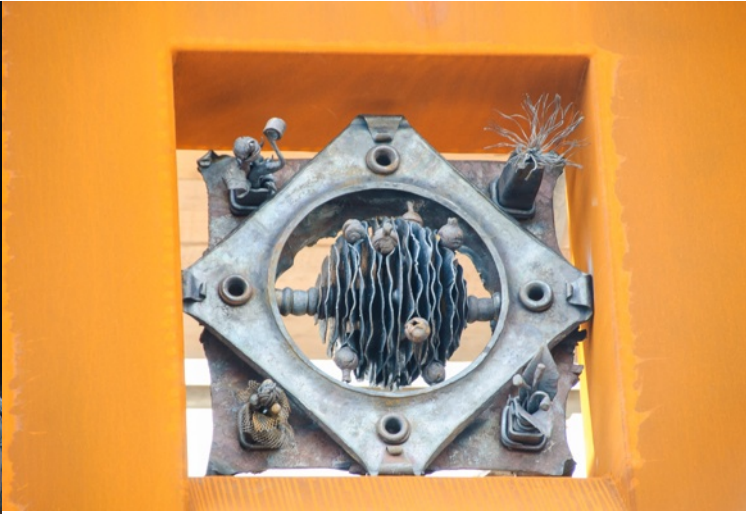
- Andy & Jennifer Phillips

2014 Bill Gichner Memorial Hammer-In

January 10 @ 12:00 pm until January 12 @ 4:00 pm

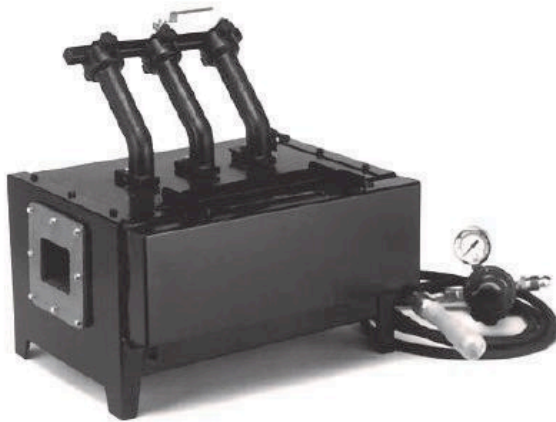
Come join us for the 2014 Bill Gichner Memorial Hammer-in. This year's event will be held on January 10 – 12. The principal demonstrator will be Sergiy Polubotko from the Ukraine. Check out his Facebook page at: www.facebook.com/sergiy.polubotko

Go to the masasmiths.org to register!



Sergiy Polubotko tweaks his sculpture at the 2007 BABA conference

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www.appalachianblacksmiths.org

Main Demonstrators

Brian Brazeal: Tool Maker, Artist

Elmer Roush: Lock Making, Viking Ax

MINI DEMOS

Dave Smucker: Metallurgy / Heat Treatment

Lonnie Farmer: Frying Pan Forging

Broadus Weatherall: Cowboy Hat, Cross, Door Pull

Mike Rose: Layout & Design

John Williams: Joe Humble Door Knocker, Stories

Gary Bowman/Jason Bivens: Knife Handle Making

Regional Reports

Wilkes Teaching Forge

Report from Lyle Wheeler

Wilkes Teaching Forge – WTF – met on Tuesday, 10th Sept at the Mulberry forge, hosted by David Baker and his sons, Tyler and Collon. They had a portable coal forge set up outside the shop that the boys soon had lit and ready to go through basic leaf-making practice.

Inside the shop, Dave was set to show off his newly acquired tire hammer. This piece is a modified design with upgraded braking and hammer springs from the Anvilfire school of thought. Jock Dempsy was the special guest and was on hand to watch the new hammer put to work by those ready to give it a whirl. We were impressed with the braking mechanism and how it added to the precision and control of the hammer.

Plans were reviewed for the upcoming demos at Stone Mountain State Park, 9/27 and the Brushy Mountain Apple Festival, 10/5.

Wilkes Teaching Forge met on Tuesday, 8th Oct at the Wilbar Forge, hosted by Gary Roath. New members Seth Borders and Dudley Barlow were welcomed. Dudley showed his progress in making leaves after an inspirational demo of a Ginko leaf by master Roath. Seth began his forging experience with group tutelage of his first hook. David Baker worked on jaws for some new power-hammer tongs.

Reports were given on the aforementioned demos and the next meeting was postponed until 19th Nov at the Wilbar Forge due to the teaching obligations at JCCFS of Mr. Roath and Mr. Wheeler.

Wilkes Teaching Forge meets the 2nd Tuesday of each month at 7 pm. 336/838-2284 or 336/984-9786 for location and confirmation.

Tire Hammer Plans

Send check/money order for \$30 to

Clay Spencer
73 Penniston Pvt. Drive
Somerville, AL 35670-7013

Includes postage to US and Canadian addresses. Other countries e-mail clay@tirehammer.com for price. **256-558-3658**.

Tire Hammers for sale contact me for current price.

Beverly Shears Sharpened

\$41 includes return shipping in US. Remove blades and ship to address above. Extra cost for deep nicks or blades sharpened at wrong angles.

Triad Area Blacksmiths

Report from Marshall Swaringen

As usual, our fall season has been a busy one with our smiths working at several area events in our local communities.

Our biggest event of the year is the Dixie Classic Fair which started on October 4th and ended on October 13th. Our shop has two forging stations which were going full blast from 9:00 am (or earlier) until 11:00 at night, with two smiths working doing demonstrations while two other smiths were talking to the people watching the demos; explaining what was going on and listening to stories from the people about relatives who were Blacksmiths in years gone by. Our members came out in full force to work at the fair, with an average of 17 smiths on hand everyday to help do their part and support the shop by cooking, doing a live demonstrations or “Just kicking back” at the campfire.

The highlight demo was done by Billy Phelps as he was interviewed by our local TV station. The News lady even tried her hand at forging a hook. She made a comment that she “didn’t really feel like a blacksmith that something was missing.” With that said – Billy wiped coal dust on her nose and everybody got a good laugh.

As far as the food goes, if you went hungry, it was your own fault. Every day was a food adventure with everything from chicken stew to fish, pinto beans, BBQ, pork loin, rabbit, venison, cornbread and homemade biscuits, not to forget all the pies, cakes, cookies, brownies and cobblers every day.

When we weren’t demonstrating in the shop or helping cook, many of the resting smiths could be found around the campfire picking a little music or just telling stories, which managed to get bigger and bigger. With the sounds from the shop and the laughter around the campfire, the fair really was a ten day family reunion.

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Triangle Area Blacksmiths

Report from Randy Stolz

On August 3, 2013, Dick Snow and myself demonstrated at the 30th Anniversary Founders Country Fair held at the Tobacco Farm Life Museum in Kenly, NC. The day was spent in the blacksmith shop on the museum grounds forging and answering people's questions. Each time we have demonstrated at the Tobacco Farm Life Museum, we have made tools for the blacksmith shop. This time we finished up the forge poker/rake tools. Additionally, we made brackets using mule shoes to hang up two wagon wheels for display and several items to sell in the souvenir shop.

On August 17, 2013 Dick Snow and myself set up two portable forges and demonstrated for the Burlington Makers Faire held at Holly Hills Mall. Despite the day long rain, we had a good turnout and a lot of interest. Additionally we had a number of new members joining NC ABANA.



September 21, 2013 the Triangle area blacksmiths participated in the 8th Annual Fall Harvest Celebration at Historic Yates Mill County Park in Raleigh, NC. Eric and Marion Campbell brought their period shelter and side blast forge, complete with two stage bellows, for the event. Setting up in site of the restored historic mill we had a steady stream of visitors.



On August 24, 2013 the Triangle Blacksmiths Guild met at Heritage Forge on the NC State Fairgrounds with a good turnout of members and guests attending. A number of new members joined NC ABANA and attended the meeting after seeing us at the Maker's Faire in Burlington or the Harvest festival at Yates Mill County Park. Since we had a number of new / beginner members at this meeting, we set up portable forges and did some one-on-one basic blacksmithing training. While the new members got some experience hammering, other members worked on making repairs and improvements to the fairgrounds forge.

On October 5, 2013 the Triangle Blacksmiths again met at the Heritage Forge on the NC State Fairgrounds. At this meeting, we reviewed and discussed safety issues while demonstrating at the State Fair. Following the safety demo, we fired up the coal forge and let people practice. Additional gas forges were set up outside for the newer members to get some hands on training and instructions on basic blacksmithing. While all this was going on, other members worked on setting the shop in preparation for the 2013 NC State Fair.

Tool Steel for Sale

After supplying the materials for a recent tire hammer & tool build, I am now offering competitively priced tool steels to the local blacksmithing and horseshoeing communities. I have a small inventory of S-7 and H13 rounds in stock. Other sizes, shapes, and tool steel types can generally be delivered in about a week.

Contact *Walt Beckwith* for a quote or more information c/o

Woods Edge
3745 Swarthmore Rd.
Durham, NC 27707
1-919-309-5667 or by e-mail at: wbeckwith@mindspring.com

Event Reports

John Medwedeff Masterclass Penland School of Crafts

Article and photos by Doug Wilson

It is worth remembering that ABANA starts with A for “Artist’s” and taking the time to get back to the artistic foundation of the organization. There is no better place to do that than Penland School of Crafts. Every year a guest artist is invited to give a day long masterclass followed by demonstrations the next day at Fire on the Mountain blacksmithing festival at Spruce Pine. This year the guest artist was Illinois sculpture and blacksmith, [John Medwedeff](#). John’s blacksmithing roots connect with Jim Wallace at the Metal Museum and his art training was under Brent Kington at Southern Illinois University in Carbondale where his shop is still located.



Paul Garrett & LeeAnne Mitchell listen to John’s description of his design approach. Three 1:12 maquettes are in foreground.

John shared his approach to design which hinged on the use of large rolls to form spiral elements in bronze plate for his sculptures. Even on the large scale of his public works, his approach was limited by his tools just as it is for every blacksmith. He had just taken delivery of a new set of larger rolls that would allow him to expand his repertoire.

His designs are demanding to fabricate in a cost effective way. John emphasized the planning, preparation and testing that went into his works. Starting with CAD models, he builds 1:12 and 1:4 maquettes of his piece using each to further refine the design and work out the fabrication. Working in bronze, his materials costs for a finished piece 20 or 30 feet tall is substantial so he cannot afford to make mistakes at the final stage. Attention to detail in the fabrication often saves substantial

costs. For example, careful MIG welding using bronze wire on a bronze sculpture can minimize distortion and grinding costs.

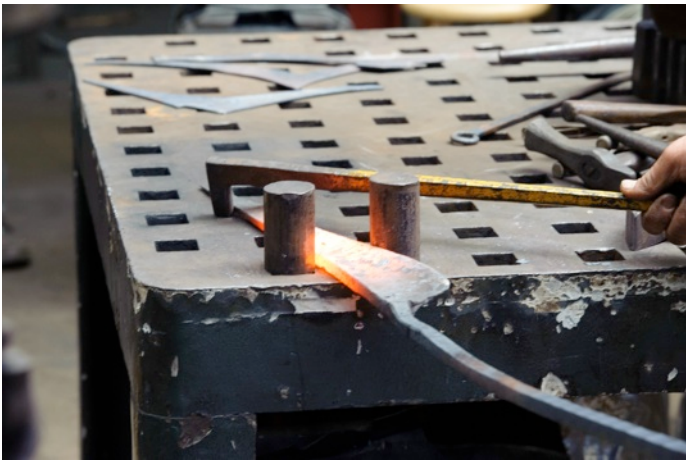
The challenge for the day was to produce a complete sculpture. He had sketched a design in the car ride from Illinois the previous day and it was that sketch drafted to full scale in chalk on the table top that was the guide.



One end element is isolated from the stock



A piece is measured against a full-sized drawing



Bending a curve on the flat



John's assistant, Megan Robin-Abbott, strikes



Forging an upset square corner under the power hammer



Bending in the vise



Refining a curve under drawing dies



Flattening the bend into a classic Art Nouveau element



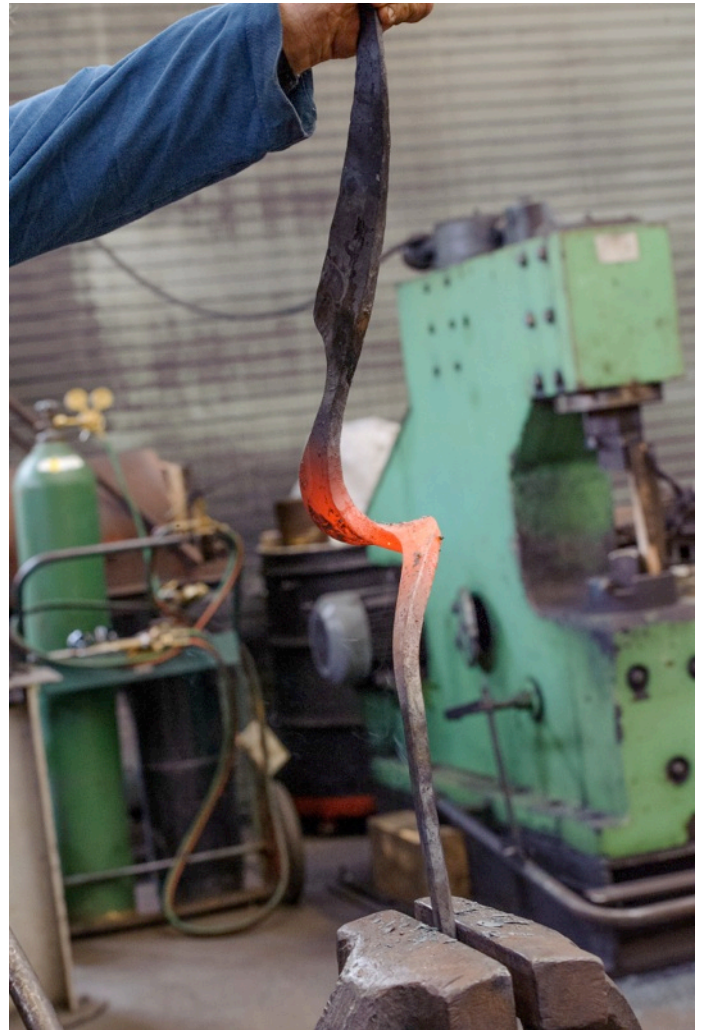
Core element ready for the final bending



Catching up with Bill Brown who happened to drop in



Bending a smooth curve under the flypress



One element complete



The artist, John Medwedeff, and the one day sculpture

NC ABANA at Island Farm in Manteo, NC

Article by Lyle Wheeler, photos by Randy Stoltz

NC ABANA's Q3 meeting was held at the Island Farm Museum in Manteo, NC on 14th Sept. The previous Friday night the group attended an open house and reception at the Kill Devil Hills Artist's Cooperative and Studios. The KDH Coop markets an eclectic blend of art and craft from their storefront/studio location.

Early arrivals assisted Randy Hodges and his wife Maryann in completing the set-up, iron in the hat, tailgating and registration. Randy had two portable setups available for general use and demos throughout the day with one featuring the Alex Bealer anvil.

The meeting started about 9:30 with welcoming remarks by Randy and Lyle Wheeler, president. After a lunch count and orders were taken care of, Doug Merkel started right in with some nail making on the Bealer anvil.



Doug Merkel looks to sell nail headers to Jim Kennady and Garret Dunn

Randy Hodges then commenced his demonstration on "Blacksmithing as Performance Art". He fired up the forge at Island Farm with an introduction to all the parts: a double action bellows, 2 anvils, post vise, fire pot in a wood stand, tongs and basic forge tools, and continued with a discussion of the basic layout. This was followed by information on the history of blacksmithing on Roanoke Island and in Dare County, NC from census records.

Randy then progressed to naming the parts of the anvil and telling their potential uses and inserting vocabulary words to give the audience something to remember. He then went into nail making as a quick, easy demo to convey the work involved in making a common object that everyone can relate to. In two heats an object is made, and possibly given away, showing

several skills tied together gracefully. Randy continued this demo with hooks and other quick to make object from horse shoes. According to Randy, you are engaging as many senses as possible right up to the sizzle of the quench.



Host Randy Hodges presents as Eric Campbell listens

This was a very informative program on how to capture and hold an audience with an interesting demonstration. "Give the audience something to remember – a snippet of information to keep them engaged"

After lunch there was an unguided tour of the entire farm. Iron in the Hat was conducted by Garrett Dunn. This raised \$378 for the scholarship fund with 45 donations of items.

A short business meeting was held and the floor was opened to nominations for VP and secretary. Since there were no further nominations, Garrett Dunn will remain as VP and Jennifer Phillips will remain as secretary. Both were elected by acclimation and will serve another two years.

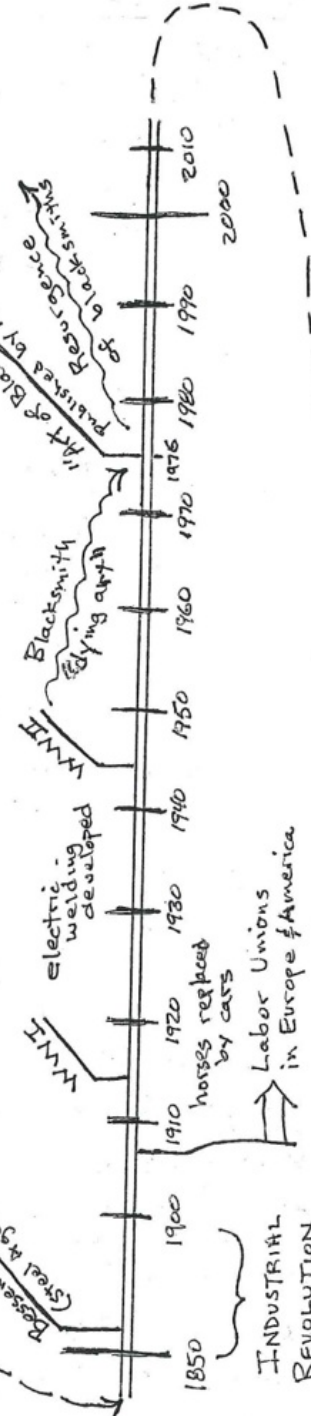
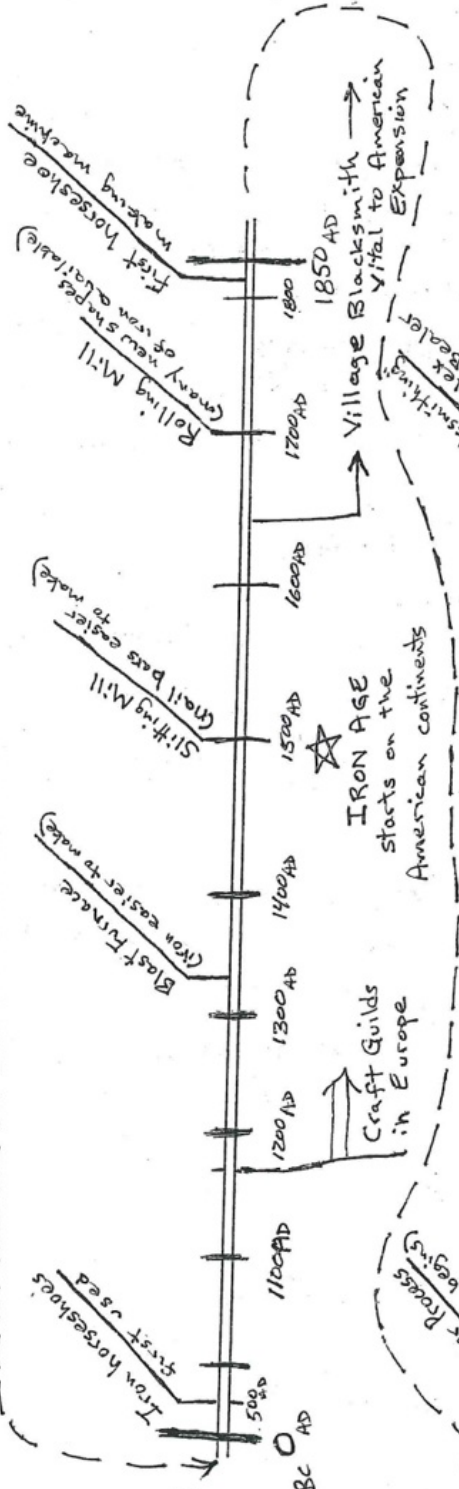
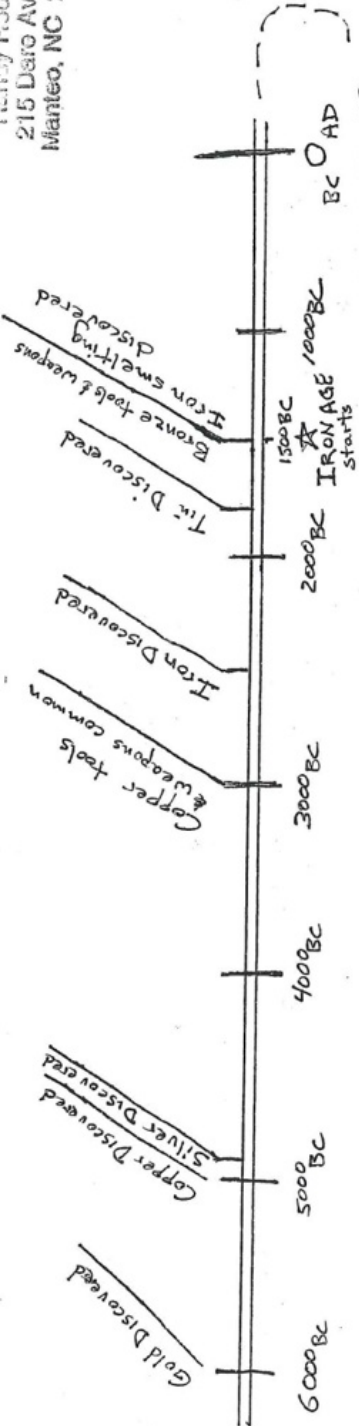
The afternoon activity was a demonstration on tong making by Rick Morrison and Elton Etheridge from their scholarship supported class recently with Peter Ross. Both had story boards to go along with their demos which clearly showed the steps in making tongs and were a benefit to the flow of information. See the next story for the details

Finishing out the day was a short presentation by Randy Hodges discussing a timeline he has developed detailing the history of metals and metalwork. A copy is on page 16.

Thanks to Randy and the staff at The Island Farm for hosting a fine meeting.

IRONWORKING TIMELINE

MANTO BLACKSMITH SHOP
 Fairly Hodges
 215 Daro Avenue
 Manteo, NC 27954



--- onto the digital age

Tong Making

ScholarShip Report by Elton Etheridge

I would like to thank the NC ABANA board of directors and the W. Dean Taylor Memorial Scholarship fund for allowing me to take a day class on tong making with Peter Ross. I would also like to thank Amos Tucker for providing the forges, anvils and equipment that we used in the class.

Peter went over some of the history of tong making. He feels the mass produced tongs on the market are often not as good a quality as the tongs you can make yourself especially once you get the mechanics and technique down. After about an hour of discussion on tongs he made set for the class. He used $\frac{5}{8}$ square for the tong head and $\frac{7}{16}$ round for the reins. He also discussed how using square stock over flat bar gave more strength in the tongs. He discussed making tongs to fit in the hand you would hold them in left or right. The tong should be a little thicker near the rivet and then taper down the reins.

When he forged his tong blank, he flattened the end on the near side of the anvil to about $\frac{1}{2}$ the thickness of the stock. This flattened about $1\frac{1}{2}$ to 2 inches being slightly thicker near the rivet. He then moved to the far side of the anvil turning the bar to the left and at about a 30 degree angle and flattened the jaw with half on/off hits. After another heat, he turned the stock to the left and flattened about an inch out to form the boss and then started drawing out toward the rein end.

Once he had drawn the rein end down, he cut it off about 4 to 5 inches long and then prepared a scarf end. He upset the $\frac{7}{16}$ round bar and prepared a scarf. Peter demonstrated forge welding one tong head and then the other rein was drawn out on the power hammer. He also said $\frac{3}{8}$ inch square could be used for the rein material and drawn out to octagonal and continue rounding.

Peter discussed the importance of upsetting the rein material so when the two pieces were joined and then hammered out you had extra material thickness. This kept your reins from becoming thinner than your round stock. He then hot punched and forged the two tongs blanks and, after some file work, reheated to fit the size stock to he held. This completed the tongs. The biggest part of the day was spent trying to get good tong heads.

I think everyone completed 7 or 8 tong heads and, unfortunately, there wasn't enough time for everyone to forge weld or use the power hammer to complete their tongs in a day. I think Rick Morrison was able to complete his tongs. Peter suggested that we all go back and practice making more tongs. So far, I

have made about 8 sets that were drawn out since my forge welding hasn't been too successful. All in all, it was a good class and we got some good information from it. Thank you again for letting me be part of the tong making class.

Rick Morrison and I did our tong demonstration at the 3rd quarter NC ABANA meeting hosted by Randy Hodges in Manteo, NC Sept 14, 2013. I donated the book *The Backyard Blacksmith* by Lorelie Sims for the iron in hat drawing.

Elton, September 17, 2013



Elton Etheridge & Rick Morrison demonstrate tong making.



Rick Morrison, Elton Etheridge and Randy Hodges at 3rd quarter NC ABANA meeting making tongs at the Island Farm in Manteo, NC

Dixie Classic Fair

Article by Marshall Swaringen

Dixie Classic Fair 2013, WOW what a ten day run. The Triad Area Blacksmiths (TAB) had more than thirty five different blacksmiths demonstrating this year. Many members were present every day.

TAB has a great relationship with the Dixie Classic Fair. The manager was asked if we need to change anything and he said we were one of the best attractions and receives a lot of compliments on our blacksmithing and campfire cooking.



Some of the foods we cooked were: biscuits, country ham, hot dogs, pork tenderloin with carrots, potatoes, and onions, crappie fish fry with hush puppies and slaw, new pinto beans, smoked rabbit, chicken stew, venison roast, and pork BBQ. Every day we had cobblers, pies, cakes, cookies, and stuffed peppers. It was not a place to be if you wanted to lose weight.

The local TV station, WXII, did a segment called I Dare Ya Ducoer: Dixie Classic Blacksmithing. Billy Phelps and reporter Nicole Ducoer made a hook. Billy was his normal self, if you can call him normal. Check it out at WXII.com.

Keith Roberts was the master story teller. Keith kept everybody laughing with his stories and demonstrations. Something about Lowgap, fishing, and an uncle kept the crowd interested and involved. Keith had plenty of help with speaking part this year and did not lose his voice as he did last year.

A special thanks to all the wives and mothers that support our blacksmiths.



Billy Phillips at the forge



Social Time



Joe Allen's Flower

NC State Fair

Article and photos by Eric Campbell

This year's fair ran for ten and a half days with wonderful weather. Our total sales were \$33,314.75 with the portion going to NC ABANA totaling \$4497.10.



Our volunteers this year were Al Andrews, John Fluke, Tom Watkins, Chris Dietz, Laura Abt, Randy Stoltz, Erika Price, Eric Campbell, Marion Campbell, Dick Snow, Parks Low, Jeanette Low, Colin Eckhart, Paul Tooley, Lyle Wheeler, John Broughton, Matthew Hux, Amy Hinson, Kenton Ebersohl, Rick Morrison, Larus Maxwell, Alyx Maxwell, Randy Betchel, Dan Ritchie, Dexter Langley, Robert Timberlake, Cindy Alexander, Garret Dunn, Lanny Moore, Andrew Phillips, Roger Barbour and Doug Merkel. We had 24 people bring items out for sale.

I would like to thank everyone for their participation and encourage everyone to make stock for next year for personal sale as well as donating items to fund the scholarship program.

We will be posting more photos at www.facebook.com/heritageforge

Thanks again
Eric Campbell



Featured Articles

Gna Gna Bell

By Bob Ehrenberger adapted from a Kirk Sullens demonstration and a Jeffrey Funk handout.

Originally published in FABBA, Clinker Breaker, October 2012

Search for [Conakry Bell Maker](#) on YouTube to see one of these forged in West Africa

Begin with a 7 1/2" piece of 3/16"x1 1/2" flat bar.

Mark @ 3 1/4" from each end on both edges, and dent on a sharp edge of the anvil.

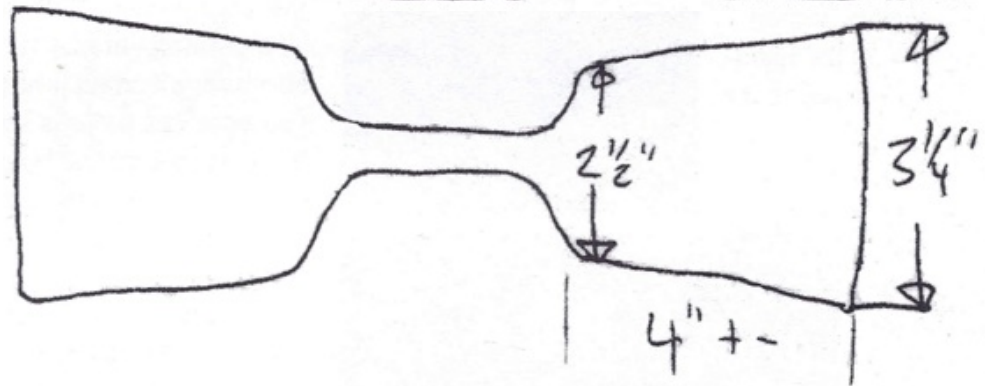
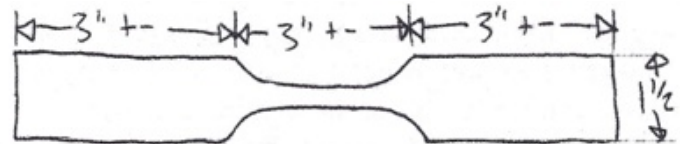
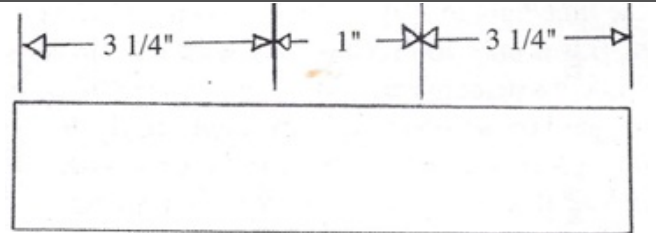
Forge the material between the marks to form the stem for the two bell halves, the handle. This can be done on the power hammer in two heats, or fullered by hand on the edge and horn of the anvil. Either way you should end up with an overall length of about 9 1/8" or 9 1/4", with the stem about 7/16"x3/16" +/-.

Now fuller the ends to shape and size with the power hammer or cross pein. The final widths about 3 1/4" at the end, and 2 1/2" at the stem.

This will lengthen the piece, which is fine. Uniformity of forging and bilateral symmetry is important here.

Now, with the textured side OUT, shape the bell ends over a swage block or the step of your anvil so it looks like this at the end.

After doing both ends, heat the stem and bend to create the bell with a 1/8" + space between the two halves.

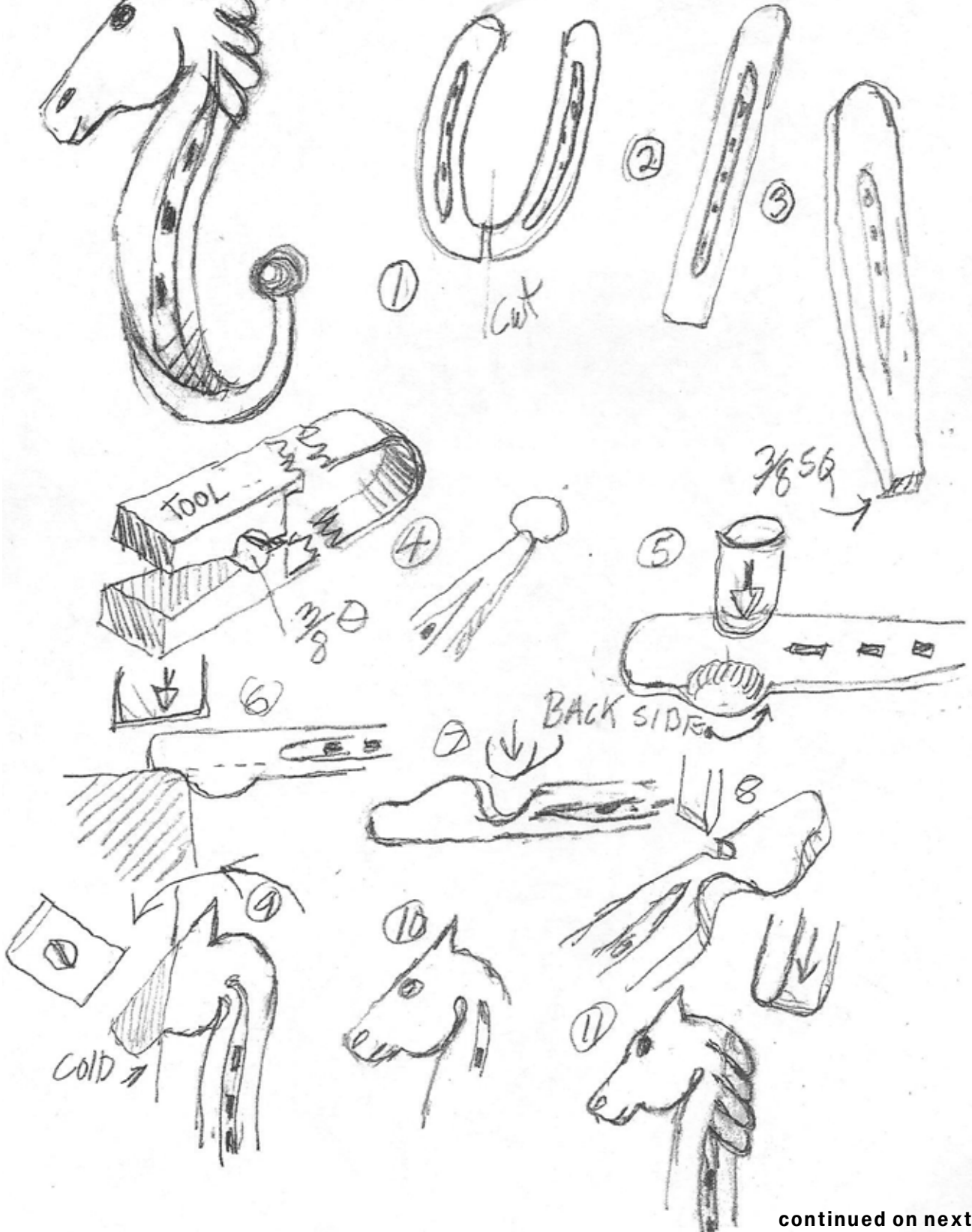


Kirk Sullens' finished bell.



Horseshoe Horse Head Hook

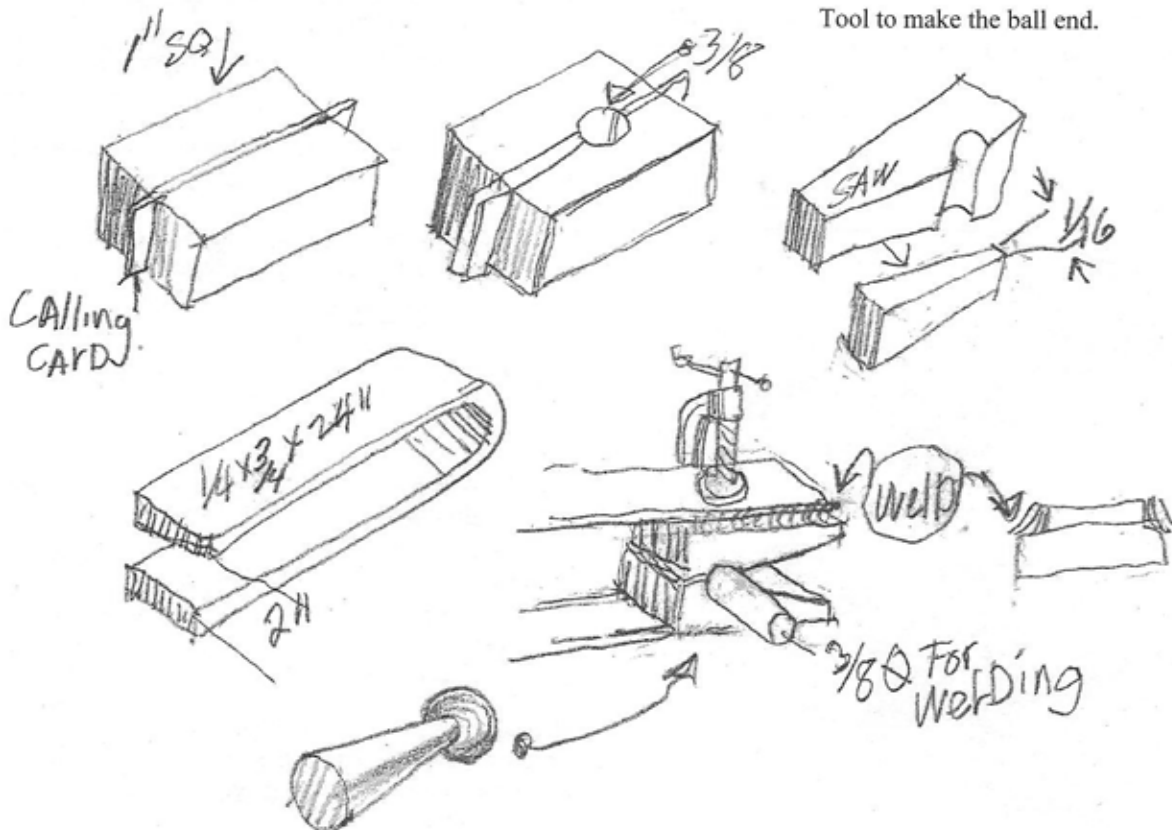
By Steve Alling, a MABA Member



continued on next page



1. Cut a horseshoe in half
2. Straighten
3. Draw the cut end to $3/8$ " square
4. Form ball on the end with tool shown below, or draw out to a point and make a traditional "S" hook end
5. Start horse head by drawing side of horseshoe out
6. Half on half off blows to reduce horse nose
7. Create a deep fuller behind horses head
8. Slit all the way through for ears
9. Cool horse face and bend almost all the way around, this will cause the ear to stand up
10. Add eyes nose and mouth to horse head
11. With a fullering tool add mane



Making a Basic 3 Leaf Compass Hinge with Peter Ross

By Francis (Trez) Cole

Originally published in FABA, Clinker Breaker, Jan 2013

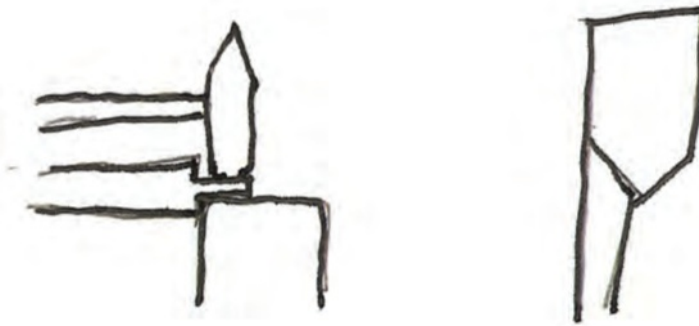
It was a great day in North Carolina. It had taken me about 11 hours to drive there from my home near Sarasota. Thanks to winning the Walt Anderson scholarship from FABA, I had come to take a blacksmith class that was offered through the Roy Underhill Wood Wright Shop School in Pittsboro N.C. Night temperatures were around 40 degrees and they were in the low 70's during the day. The weather was perfect for lighting the forge and doing some blacksmithing. Peter and his wife are wonderful hosts. The shop is a sight to see, 4" x 4" end sawed oak blocks pave the floor and he has many old tools. I had to laugh a little, he has an air conditioner in his shop. How many of us go without one down here in Florida? There were 5 of us in the class. We had coffee and a walk through of the shop. Peter started out by talking about historic examples of a hinge compass or divider, sharing references books and fine examples of well-made very old tools. Then the work began. He quickly and flawlessly hammered out one leg of a divider, going through the steps necessary to make the part and taking time to answer all questions. Part of the class requirement was to bring a portable shop and tools for the class. With lots of notes and rough drawings, we all went to our forges to make the first part.



The first step is to choose the proper size steel for the project. We will be using $\frac{3}{8}$ " square stock. Heat up your stock to a light yellow and, on the far side of the anvil with no angle, hammer half on and half off on the round edge with $\frac{3}{4}$ " hanging off the edge.



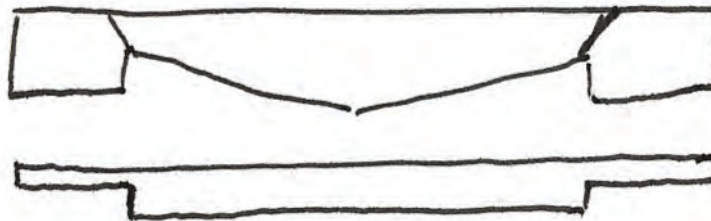
Turn the stock 90 deg. and, on the close edge of the anvil flatten down the $\frac{3}{4}$ " to create a shoulder. The angle should be enough to give the blade of the hinge and the leg of the divider strength. You will want the blade to be in the middle of the leg. A top tool or guillotine tool may be used to improve the establishment of the step. Draw out the blade to $\frac{3}{16}$ " x $\frac{1}{2}$ " x $\frac{1}{2}$ ". Now draw out the leg of your divider to about $2 \frac{1}{2}$ ". For this set a long thin 4 sided taper. Set aside and let cool, then file the shoulder square.



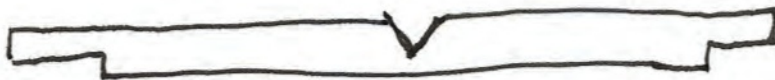
For the second piece of the compass take the same size stock and flatten to a rectangular bar $\frac{3}{16}$ " X $\frac{5}{8}$ " X $4\frac{1}{2}$." Divide it up into 3 parts marking $1\frac{1}{2}$ " from each end on your hot cut hardie.



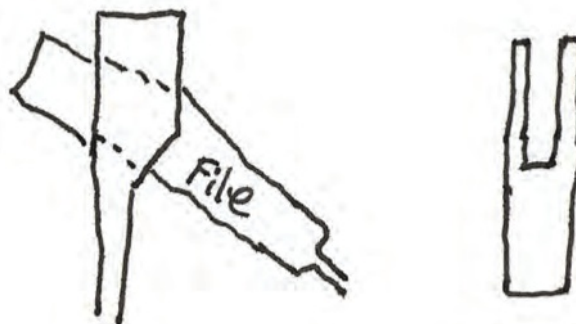
Heat the metal and, with the steel on the far side of the anvil, on the mark hammer down to $\frac{1}{4}$." Turn the metal 90 deg. and put the metal on the close side and establish the shoulder on the same angle as the first piece. Repeat the same thing on the other end with the shoulders on the same side.



Find the center. Cut about $\frac{3}{4}$ of the way through on the opposite side of the shoulder. Fold the piece of steel in half lining up the edges of the shoulders.



Forge weld the metal together. Draw to the same shape as the leg in part 1. File the inside edge of the shoulder square. File all blades so they are the same width on parts 1 and 2.



Assembly

Heat the second part with the 2 blades. Place the cold first part so that it fits into the slot and forge the two edges so the blades match up and are all even in width and height, length will not matter at this point. The length will be filed to match. Now heat both parts together. Draw out the second leg from the rear end of the part with 2 blades. Draw out that leg and the leg of the first part and shape them together to be even and matching up. This will give you the shape of the dividers.

Separate the 2 pieces. you may need a screw driver to pull them apart. Now file the flat surfaces of the center blade only just enough to take the edge off. It will have a tendency to thicken from the hammering and that will cause binding. Put the divider back together and drill your hole, then rivet. Now you can file and shape the legs. For mine I used a regular rivet. You can get as fancy as you like as with the legs and body of the dividers, it is just figuring out how you want yours to look.

Peter had many historical records to choose from. For me, I just wanted to get the process under my belt. I knew the frills of filing I could do at a later time. Here is the set of dividers I made during the class.



Peter offers 3 classes a year. It is well worth the trip and the experience to spend a few days with a Master Blacksmith. His teaching style is relaxed and he keeps an eye on what you are doing at your forge. If you get it, he gives you space to run with the task. I look forward to the opportunity to spend more time with him in the future.

Thanks FABBA and The Walt Anderson Scholarship,
Francis Trez Cole

Forging Colonial Ironwork

Jerry Darnell's new book *Forging Colonial Ironwork* is finally here. It is a compilation of over 22 years of teaching notes at John C Campbell Folk School and various conferences throughout the US. The book is about 120 pages both sides and divided into 4 chapters; Colonial Lighting, 18th Century Hearth Equipment, Early American Hardware, and Hooks and Hangers. There is a mix of 63 different projects from simple to advanced.

The cost is \$20.00 plus 6.75% tax and \$10.00 for shipping and handling. Order by phone, e-mail or visit the salesroom M-F from 10 to 5 and on Sat. 9:30-5.

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Ringing in the New Year



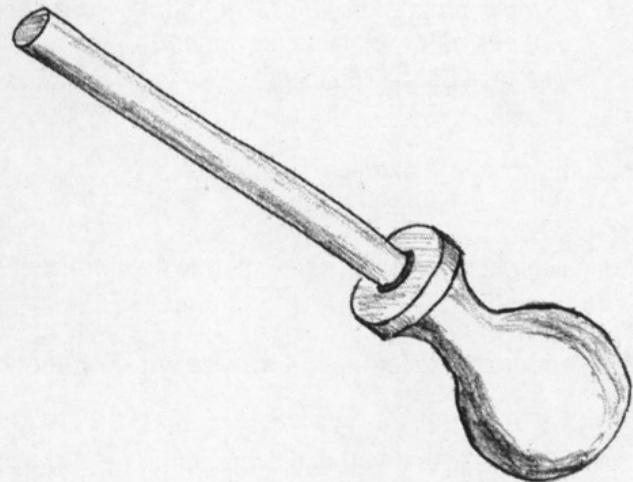
Two Bells made by Bill Clemens – large bell is approximately 2 1/2 “ and smaller one is approximately 1 3/4”

Article by Bill Clemens

I began experimenting with making these bells over a year ago when a how to article appeared in an affiliate newsletter.¹ I quickly discovered that cutting out the bell blank was a stumbling block in making them. I first tried making them from thinner material than called for and found out that they don't form well from thin material. I then cut, **ground**, and **filed** one from the right material and was able to complete a bell but wasn't happy with the top half which seemed to be flat bent petals on a round hemispherical base. I next got a dozen blanks plasma cut at a local metal supply shop that only required some grinding on one side to remove the flash. I subsequently have had blanks laser cut and now after having made several dozen bells think I have the “how to” down well enough to offer this article to all.

Tools

Top Swedge –Tailer hitch ball or ball bearing(2” for large bell 1 1/2 “ for small bell) with 10-12 inch 1/2 -3/4 stem welded on.

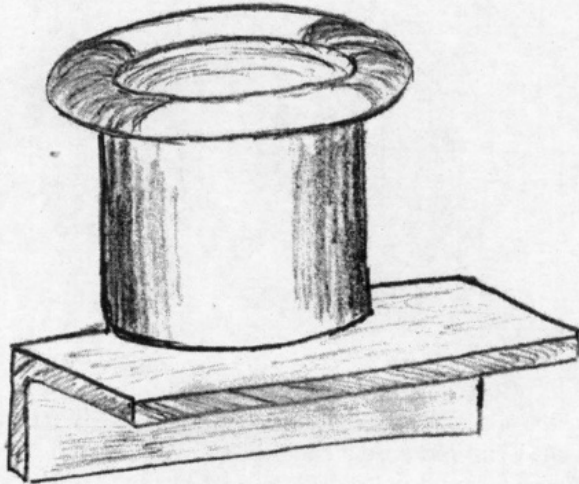


Bottom Swedge – Pipe with top end flared using horn of anvil

Large – ID ~ 2 3/8 “ (3 inch thick walled pipe)

Small – ID ~ 1 3/4” (2 inch pipe)

Add angle iron for use in vise or hardy stem for use on anvil.

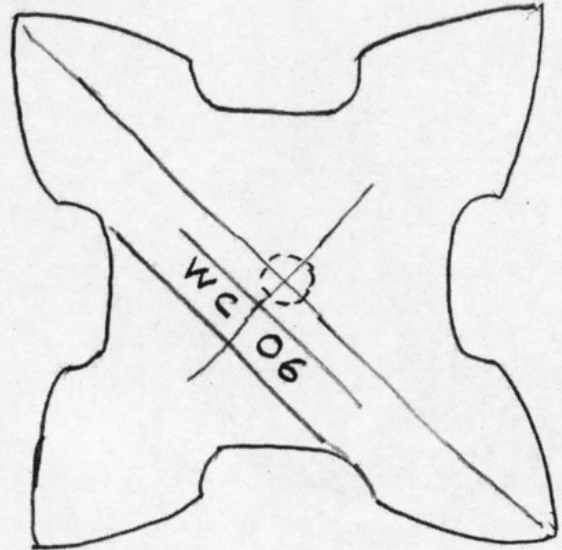


Shown below is a quick hardy stem made from flat stock 1/8-1/4” thick and the width of the hardy hole.

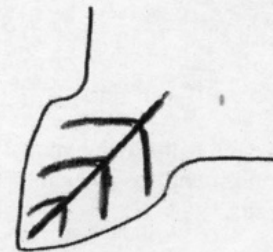


The space from the top of the flared pipe to the bottom of the tool needs to allow the bottom of the bell and ring to be inserted. This is a minimum of 2 3/4 “ for the large bell and 2 1/4” for the small bell.

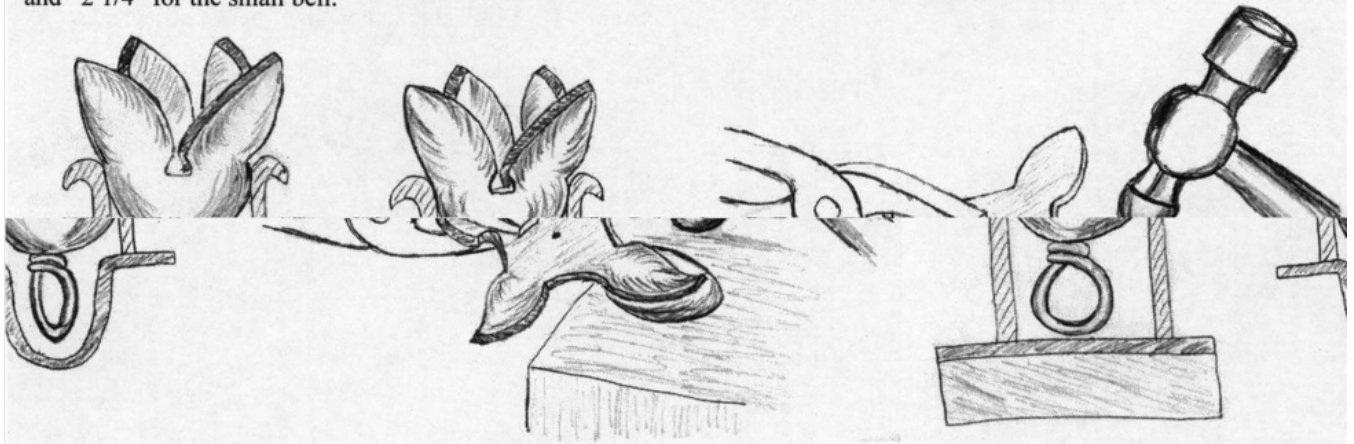
Bell Blanks – Cut (or have cut) bell blanks using the templates at the end of this article. Use 3/16” (or 7 Gage) for the large bell and 1/8” (or 11 Gage) for the small bell. Make a center punch hole on the inside of the blank for drilling the stem hole and touch mark the blank on the outside.



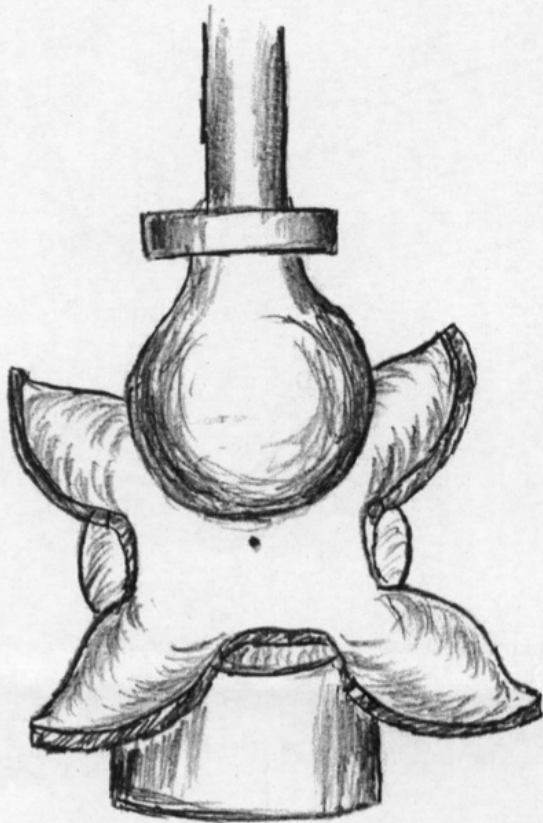
You may also decorate the outside of the bell at this point, such as adding leaf veining to each of the 4 petals of the bell as shown here:



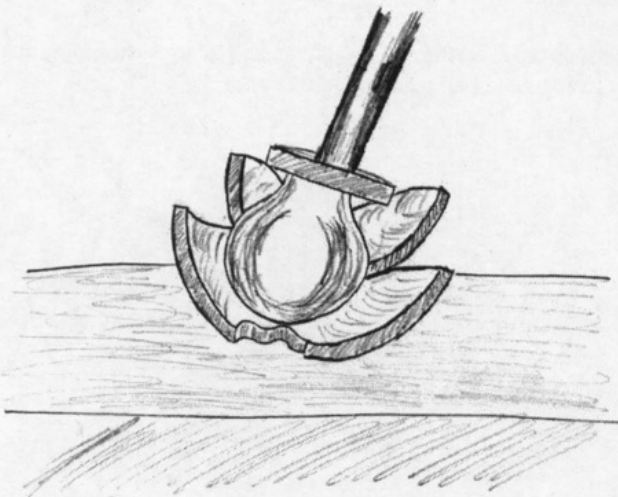
Dish each of the petals of the bell blank using a spoon swedge and ball pein hammer.



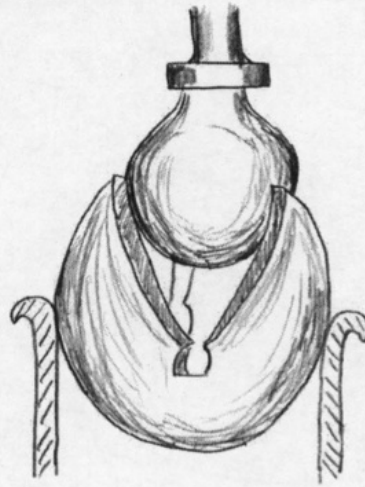
Form Bell – Heat the blank uniformly to a yellow heat and begin sinking it into bottom pipe swedge with the top ball swedge. This will take several heats as you are upsetting the material between the bell's petals.



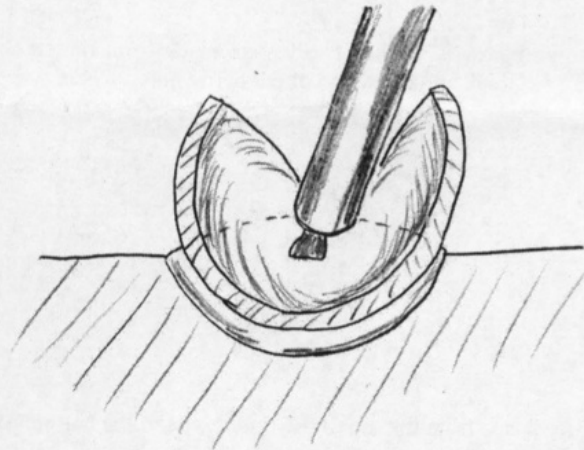
To help shape the bell use the top ball swedge on the anvil to smooth out and round the portion of the bell being upset between the petals.



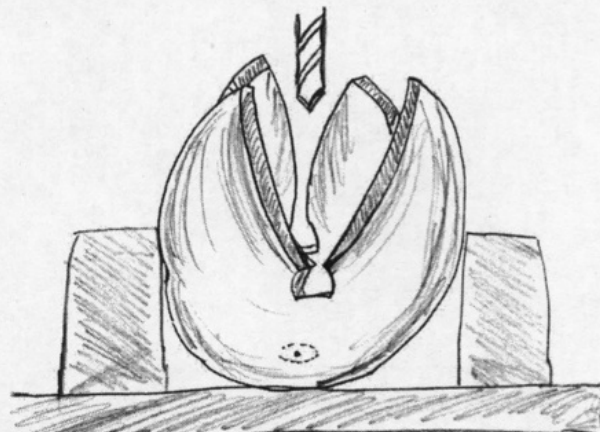
Continue sinking the bell until the ball swedge can just be removed from the bell.



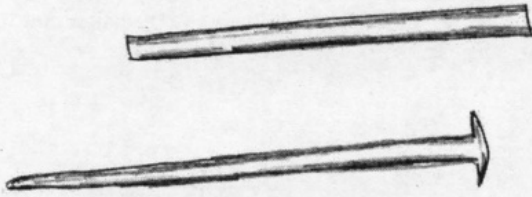
Use the smaller ball swedge on the large bell or a 3/4 inch rounded end rod on the small bell to round out the area between the petals into a ladle swedge block.



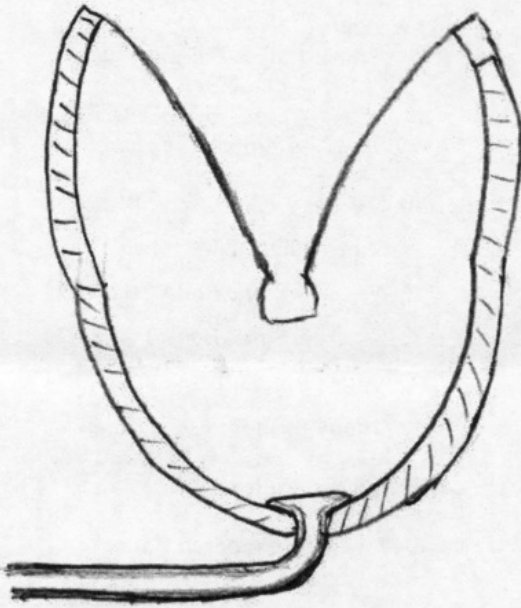
Stem – Drill 1/4" hole in bottom of bell to accept stem



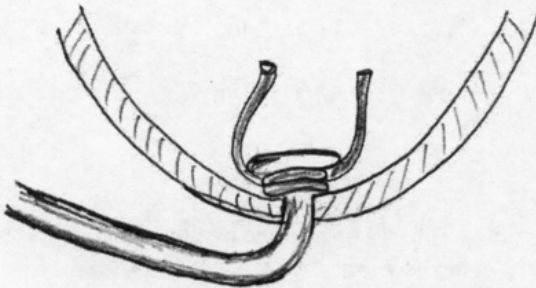
Forge stem from 6 inches of 1/4 inch round. Head one end and taper 1 1/2 inches of other end to a blunt taper.



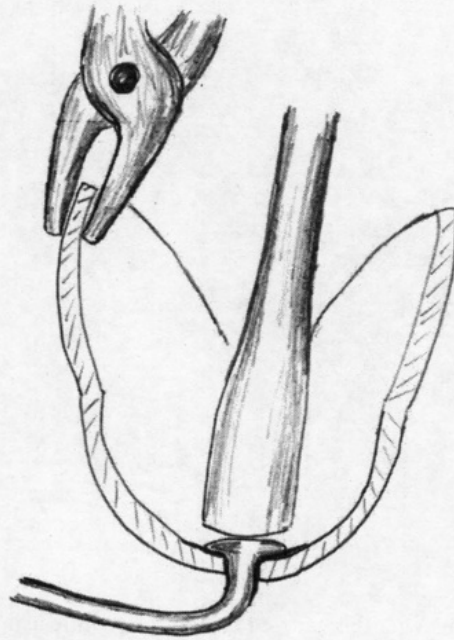
Heat the headed end of the stem and insert in the bell bending the stem at approx 90 degrees close to the bell.



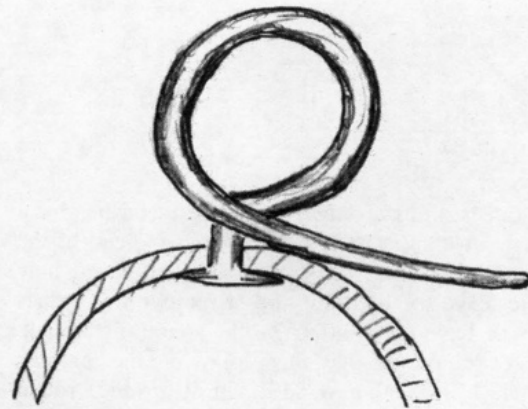
Heat and flux the stem head and then wrap with copper wire. Preheat the bell and then reinsert the stem. Heat slowly to near welding heat watching until the copper wire melts.



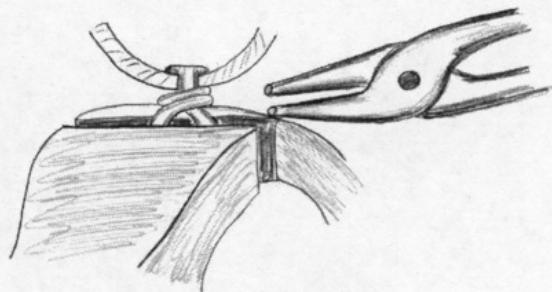
Remove from forge and hold head in place until bell cools and copper hardens.



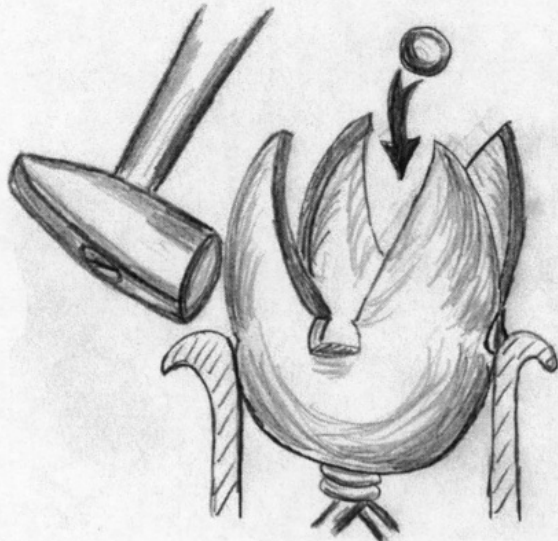
Heat stem and form ring with scrolling tongs. Take care not to overheat the bell and break the copper braze.



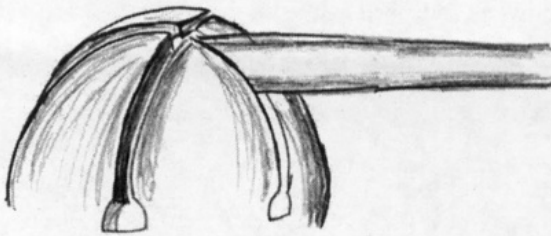
Heat tapered end and wrap around stem with scrolling tongs to finish ring.



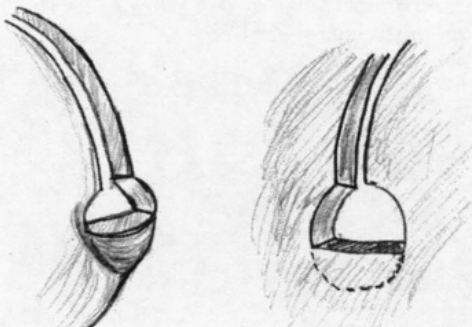
Place bell in forge with petals down and heat to bright orange. Set bell in pipe swedge, insert ball bearing (3/8 to 7/16" for small bell 1/2 to 5/8" for large bell) Hammer petals closed with gentle blows near their base.



Space petals with thin tapered chisel/fuller while using a hammer to close them.



Completed bell has a bulge where the metal has been upset between the petals and the hole at the end of the slots is not round but flat on the bottom. You may choose to leave the bell like this or remove it. It does not seem to have much affect on the sound of the bell. First file or grind the bulge flush following the contours of the bell. Next, with a round file or die grinder, round the bottom of the hole.



The bell should be heated again to critical temperature(non-magnetic) and quenched to improve its ring.

Options for the bells include using a nut and bolt in place of the ring to fasten the bell(s) to a leather strap. You could also drill and tap the base of the bell to accept a bolt for this same purpose.

Materials List for Bells

Tools

Top Swedge

Trailer Ball or Ball Bearing
Large Bell - 2"
Small Bell - 1 1/2"
10-12" 3/4 round for stem

Bottom Swedge

Pipe with top edge rolled
Large Bell - 2 3/8" ID
Small Bell - 1 3/4" ID
Angle Iron for base in vise
Hardy Stem for use on Anvil

3/4" round end Fuller

1/2 -3/4" wide thin tapered Fuller

Bells

Blanks cut using template on following page

6" 1/4 inch round for stem/ring

Ball bearing for Ringer

3/8 to 7/16" for small bell

1/2 to 5/8 " for large bell

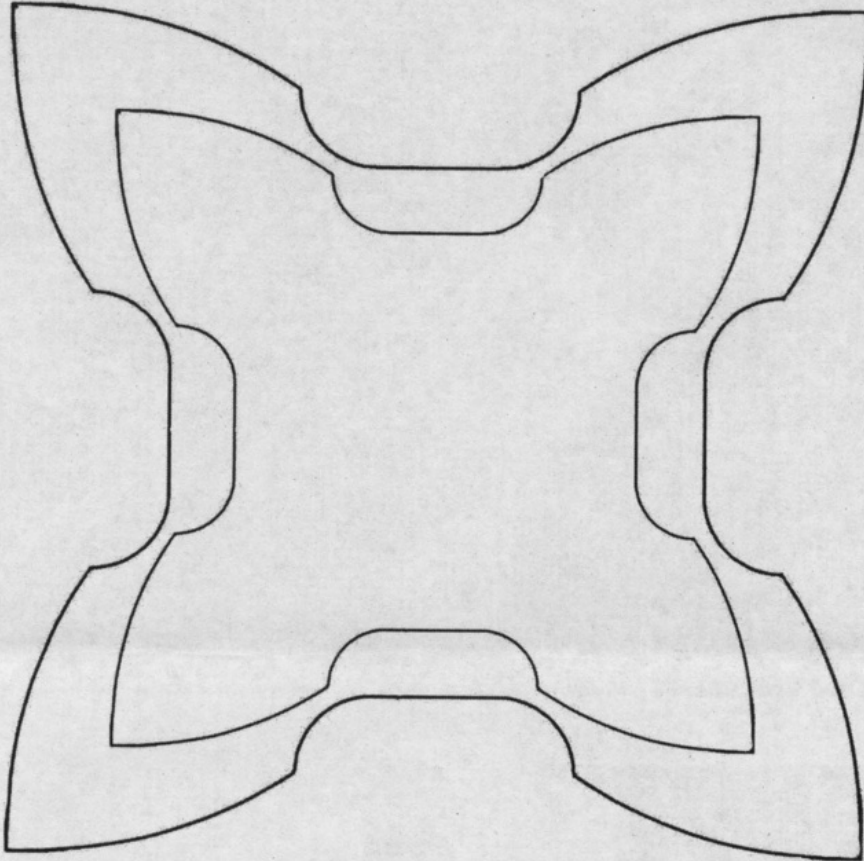
Copper Wire to forge braze Stem to bell

This article is based on a article by Steve Alling that appeared in the Nov-Dec 2005 issue of The Upsetter, the newsletter of the Michigan Artist Blacksmith's Association.

Scale Drawings for Bell Blanks

Large –measures 6 1/2 “diagonally corner to corner – use 3/16” (7 Ga) Stock

Small –measures 4 7/8 “ diagonally corner to corner – use 1/8” (11 Ga) Stock



3D Snowflake

As published in Indiana Blacksmithing Association, The Forge Fire Newsletter, 2009

3D Snowflake

Michael Wollowski

In this article, you will find constructions notes for a three dimensional snowflake. Don Neuenschwander showed me one that Ken Dettmer made based on Don's specifications. Don himself saw someone up north make one of these.

The snowflake is made from a 3" piece of $\frac{3}{4}$ " square stock. It needs to be cut it several ways. To start, make two $1\frac{3}{4}$ " cuts along one side, splitting the side three ways. From the opposite end, make two cuts that are $\frac{3}{4}$ " long, again splitting the side three ways. You will be left with $\frac{1}{2}$ " in the center that is not cut. The cut layout is shown on the left side in figure 1 below.

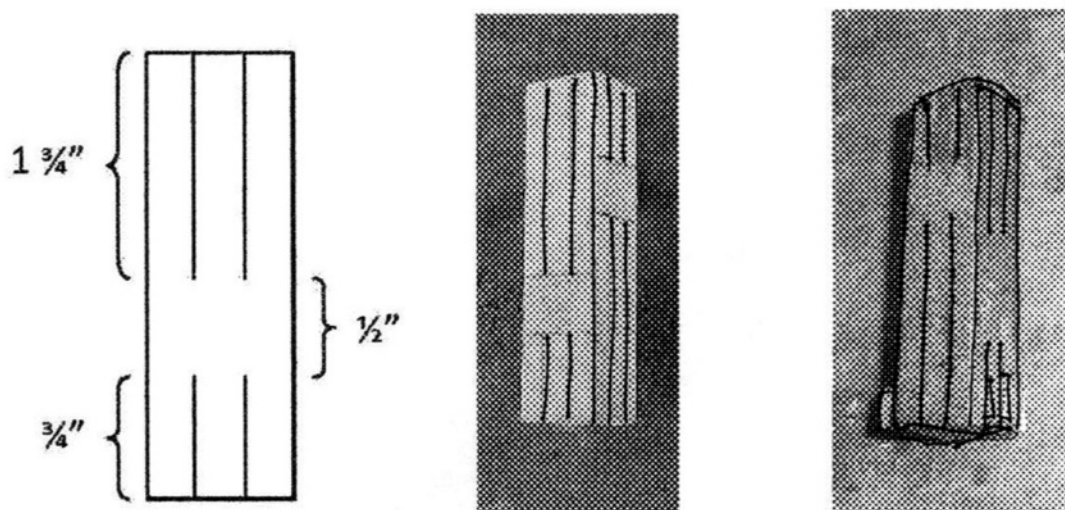


Figure 1: Cut layout (left), blank with marked cuts (center), cut blank with spacers (right)

Turn the bar 90 degrees and make the same cuts except from opposite ends. I like to put masking tape on the steel and draw my lines on it. The marked up blank can be seen in the center of figure 1. I insert some old saw blade pieces in the short cuts of one end. This is the end that gets to be put in the vise first. By placing the spacers in the cut, it is easier to open them up later on. The sawn blank, prepared for heating is shown on the right in figure 1.

In order to get the three dimensions, the primary bends are along the long cuts. When bending this piece, it is advisable to use tongs and a vise rather than a hammer and anvil, as the folds will be rather delicate and can easily be bent beyond repair.

To begin, heat up the bar and place the end with the saw blades in the vise so that the saw blades are parallel to the jaws. You need to place the bar in the vise so that the long cuts are about $\frac{1}{4}$ " proud of the top of the vise. This ensures that there is space for the jaws of your tongs. Bend down the outer two long sides. Before bending the long sides, it helps to open them up with a chisel first and then use flat tongs to grab a side and bend it out. You may have to perform a sequence of grabbing part of the side, bending it, grabbing some more, straightening it with the tongs and bending it. See about producing a nice bend, not too tight and not too wide. The picture on left side in figure 2 gives you a sense of the radius of the bend as well as how much the long cuts have to be proud of the top of the vise. If the arms are not straight, a chisel can be used to pry them off the vise jaws.

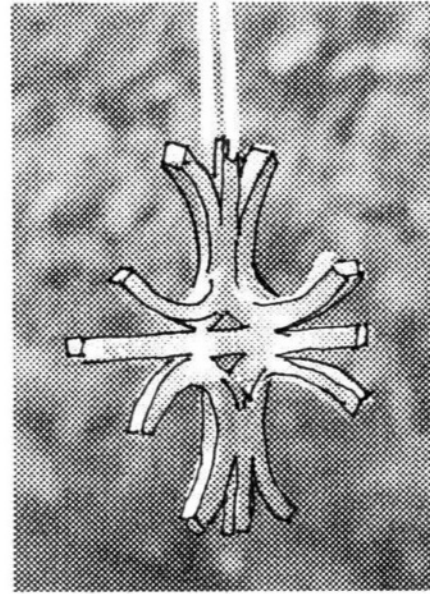
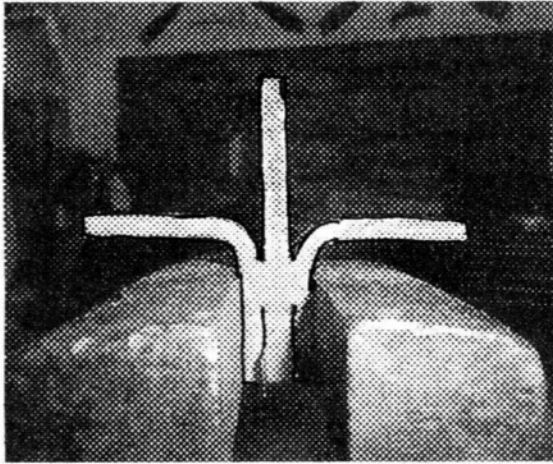


Figure 2: Blank after first set of bends, notice the spacers (left), finished snowflake (right)

Next, put a little bit of heat in the end that contains the saw blades and knock them out. Heat up the bar and cool down the center of the piece. Use a chisel to open up the long ends that are to be bent next. Put the piece back into the forge and heat it up. Now comes the hard part. The entire snowflake will be orange hot and any attempt to cool parts of it invariably cools down other parts that should not be cooled. Furthermore, any bending you do, will upset other parts of the piece. When opening up one of the hands, you will bend the snowflake out of shape, just ensure that when you bend the other hand, you bend it back into shape. You may consider using several heats to open up the two long hands.

The four bent arms should be in one plane. You may consider placing the piece in the hardy hole, placing a piece of pipe over the hands that need to be aligned and gently tapping on it. Notice that the sum of the two hands that have not been bent remains 3" long, yet the sum of the bent hands making up either of the two other dimensions are about 3 1/2" long. This is due to the fact that the outside hands are 1/4" off the center of the bar. The unequal length cannot be helped except for cutting 1/4" of the ends of each of the bent hands and then deepening the cuts by 1/4". You may consider hanging the snowflake so that the bent hands are vertical.

You are now left with having to bend the outside fingers made by the 3/4" cuts. If you split open the fingers with a chisel, you need to cool down the center of the snowflake as the hammer blows will compress the delicate bends at the center of the snowflake. You want to use some fairly narrow tongs to open up the fingers to about a 45 degree angle. Here again, consider using a process of repeatedly grabbing, bending, re-grabbing, straightening and bending. Notice that fingers of neighboring hands will end up parallel to each other.

I finished my snowflake by immersing it in vinegar overnight, brushing off the scale using a brush and water and polishing it with an angle grinder and the Dremel tool.



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 Inquiries welcome

4th Quarter Meeting at Blue Ridge Community College

Saturday, November 16, 2013

9am until about 4pm

Demonstrator To Be Arranged

Spearman Building, Welding and Blacksmithing Area

Blue Ridge Community College

Flat Rock, North Carolina

(Keep an eye on the NC ABANA newsgroup for the announcement)

Lunch can be ordered at the meeting from a local restaurant.

Questions? Contact John Matthews: john.knox.matthews@gmail.com or (828) 713-3925

From Asheville, NC

1. Go east on I-26
2. Exit I-26 at Exit 53
3. Turn Right onto Upward Road
4. Go about 1/2 mile
5. Turn Right onto S. Allen Drive
6. Go about 4/10 mile to BRCC sign on left
7. Turn Left at sign onto College Drive
8. Turn Right onto Campus Drive

From Spartanburg, SC

1. Go west on I-26
2. Exit I-26 at Exit 53
3. Turn Left onto Upward Road
4. Go about 1/2 mile
5. Turn Right onto S. Allen Drive
6. Go about 4/10 mile to BRCC sign on left
7. Turn Left at sign onto College Drive
8. Turn Right onto Campus Drive

Blue Ridge

COMMUNITY COLLEGE

Flat Rock Campus



Ⓟ Student/Visitor Parking

1. Continuing Education Building
2. Patton Building
3. General Studies Building
4. Arts and Sciences Building
5. Picnic Shed
6. Industrial Skills Center

7. Killian Building
8. Groundskeeping Building
9. Motorcycle Safety/Masonry Building
10. Maintenance/Storage Building
11. Fire Training Center
12. Spearman Building

13. Bullington Greenhouse
14. Sink Building
15. Thomas Auditorium
16. Technology Education and Development Center
17. Blue Ridge Conference Hall
18. Moreno Baseball Stadium

Local Group Meetings

Triad Area Blacksmiths (Winston-Salem, NC)

Marshall Swaringen
marshall@swaringen.com (336) 998-7827

1st Tuesday at 6:30PM for demos
3rd Saturday at 9AM for business and all day forging
Dixie Fairgrounds, Winston Salem, NC

Southern Foothills Blacksmiths (Mooresville, NC)

Steve Barringer
steve@powerhammerschool.com (704) 660-1560

2nd Sunday each month

Triangle Blacksmith Guild (Raleigh - Durham, NC)

Randy Stoltz
rhstoltz@gmail.com (919) 481-9263

1st Saturday in even # months at various locations

Brasstown Blacksmiths (Brasstown, NC)

Paul Garrett
pdg86@hotmail.com (828) 835-8441

1st Tuesday in even # months; 5 to 8 PM

Wilkes Teaching Forge (WTF) (Millers Creek, NC)

Lyle Wheeler
chairmakr@yahoo.com (336) 838-2284

2nd Tuesday of each month, 7:00 PM

You are welcomed to attend any of the local group meetings.
Please contact the host to confirm date, time and location.

NC ABANA Meetings

4th Quarter 2013 – November 16 at 9:00 A.M.

Spearman Building
Blue Ridge Community College
Flat Rock, North Carolina

1st Quarter 2014 – March 22

2nd Quarter 2014 – June 28

3rd Quarter 2014 – September 13

4th Quarter 2014 – December 6

Other Events

Fire on the Mountain – April 26, 10-4

Spruce Pine, NC
<http://downtownsprucepine.com/Festivals.html>

Dixie Classic Fair

Winston-Salem, NC
October 3 - October 12, 2014
www.dcfair.com

North Carolina State Fair

Raleigh, NC
October 16-26, 2014
www.ncstatefair.org

For the most current meeting and event information go to the NC ABANA website,

ncabana.org

North Carolina Artist-Blacksmith's Association of North America



THE HOT IRON SPARKLE

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680 Lichen Trail
Pittsboro, NC 27312

Non-profit Organization

US Postage Paid

Durham, NC 27705

Permit No. 344

Dated Material
Return Service Requested

THE HOT IRON SPARKLE is published quarterly by NC ABANA. Membership dues of \$25 per year (\$35 outside the USA) includes a subscription to THE HOT IRON SPARKLE. Any original material herein may be reproduced in any ABANA affiliate newsletter provided appropriate credit is given. All other rights reserved.

Fourth Quarter Meeting of NC ABANA

November 16th - 9 am
Flat Rock Campus
Spearman Building, Welding and Blacksmithing Area
160 E Campus Drive
Blue Ridge Community College
Flat Rock, NC

Demonstrator To Be Arranged

Lunch can be ordered at the meeting

- | | | |
|----------------------------------|----------------------------------|---|
| 1. Continuing Education Building | 7. Killian Building | 13. Bullington Greenhouse |
| 2. Student Center | 8. Blacksmithing Shop | 14. Sink Building |
| 3. Student Center | 9. Maintenance/Storage Building | 15. Thomas Auditorium |
| 4. Arts and Sciences Building | 10. Maintenance/Storage Building | 16. Technology Education and Development Center |
| 5. Picnic Shed | 11. Fire Training Center | 17. Blue Ridge Conference Hall |
| 6. Industrial Skills Center | 12. Spearman Building | 18. Moreno Baseball Stadium |