THE HOT IRON SPARKLE

Newsletter of the North Carolina Artist Blacksmith's Association of North America



Volume 35 Number 3

Third Quarter 2016



Paul Spainhour demonstrating forged bamboo at the 2nd guarter NCABANA meeting

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A Message from Our President

Greetings All,

Even though the calendar sent the dog days out several weeks ago it appears they didn't get the memo as the heat and humidity has continued unabated. At least the mowing is about over. With the fall season of events upon us we look forward to another good run of fairs and festivals.

We had a great turnout for the Q3 meeting hosted by Blacksmith's Depot in Candler, NC. It had been a while since we met there and David and the crew put on a



29th SEP 2016

Millers Creek, NC

fine meeting. I was particularly impressed with seeing a whole lot of members we don't normally see. As part of my remarks during the short business session I encouraged the formation of a local group in that area.

The Brasstown meeting is set for November 4th and 5th at the Spencer Forge hosted by Paul Garrett. Friday night will be devoted to a hammer-in where the entire facility will be abuzz with activity creating items to be placed in the annual Folk School Blacksmith's Auction the following evening. Tim Ryan, assisted by Pattie Bagley, will be serving up his famous stew. Saturday's meeting will feature Mike Dixon as the demonstrator. This is a shared meeting with the Appalachian Area Chapter and we look forward to the comradery.

Our last meeting of the year, Q4, will be held at Roger Barbour's shop in Clayton, NC on December 3rd. Jerry Darnell is set to demonstrate and will wow us once again. We are continually grateful and thankful to Roger for hosting this event.

Our annual planning/board meeting is set for January 7th 2017 at Steve Barringer's shop in Mooresville, NC. Steve has been gracious to host this important meeting that allows us to conduct a majority of our annual business at one sitting and plot and plan for the future. If you have any concerns to be addressed by the Board please contacts your local

leader for inclusion and discussion.

At the Q2 and Q3 meetings nominations were held for President and Treasurer of NCABANA. I was nominated for another term as President and Jim Kennady was nominated for another term as Treasurer. With no other names proffered for nomination we were seated by acclamation for another two years. Thank you for your trust and support.

Throughout the year your generous donations to and support of Iron-in-the-Hat will have produced enough income to fund two scholarships. This important part of our program is underutilized and I encourage any member who qualifies to seriously consider making use of this benefit. This program is ably administered by our VP Garret Dunn so contact him directly or any Board member to facilitate application. The up-coming Dixie Classic and NC State Fairs will be our biggest opportunities to demonstrate our trade to the public. The Triad group will start off with their run in Winston-Salem followed closely by the NC State Fair in Raleigh the next week. Thousands of people get exposed to our trade at these two events and our demonstrations are a big draw. Jim Kennady has supplied a large spike that will be at the State Fair's Heritage Forge in memory of Parks Low, who recently passed away, for members to add their touch mark. Parks was a fixture at the forge there for many years and instrumental to its establishment and operation. The rebuild of the Heritage Forge is progressing well and we will do the best we can with what we have to work with for this year and improve upon it for the future.

I am honored to serve as president of this organization for another term and flattered by your confidence. I am continually grateful for the dedication and support of the membership, officers and area leaders. A chief is only as good as his Indians. Keep those hammers moving.

Lyle Wheeler, President NC ABANA

Join NC ABANA

Annual dues are \$30 (inside USA), \$40 (internationally) starting January 1st, 2016. 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: www.ncabana.org

Opting Out of a Hardcopy

Due to the increasing prices of postage and printing costs, NCABANA would like to make receiving a hardcopy of the "Hot Iron Sparkle" optional. Some members have expressed an interest in the preferred online copy because it is in color and better for the environment. If you would like to receive your "Hot Iron Sparkle" newsletters via email instead of receiving one in the mail, please email Jennifer Phillips, the secretary for NCABANA at:

northcarolina.abana@gmail.com

Member List Publication

This is a notice of intent to publish the membership list for NCABANA in every third quarter "Hot Iron Sparkle" newsletter. The following information will be published: name, address, and phone number. If you would like to optout in part or in whole, please contact Jennifer Phillips, the secretary for NCABANA at:

northcarolina.abana@gmail.com

Treasurer's Report



The 3Q2016 financial summary for NCABANA is presented below. Overall we are in a good financial state. The increase in annual dues from \$25 to \$30 was made at the 2015 Board Meeting. This increase was necessary to support the print-

ing and publication costs of The Hot Iron Sparkle newsletter. Each year we spend ~\$3000 on printing and mailing the newsletter. I would like to encourage everyone to consider the option of receiving the newsletter by e-mail only in an Adobe PDF format. This could dramatically reduce our expenses. Simply e-mail Jennifer to opt out of the printed version. Our Scholarship fund is above target for the year to date. We have awarded a \$1000 scholarship to Matthew Clark for a class in October at the John C Campbell Folk School. With the generous donations so far, we may be able to offer additional scholarships this year.

Business Checking Account	<u>YTD</u>
Dues	\$3,690
Newsletter Printing & Postage	\$(2,377)
Newsletter Editor Fee	\$(1,500)
Insurance	\$(1,460)
State Wide Meetings	\$(754)
Postage	\$(144)
Other	\$(663)
Heritage Forge Net	\$481
Net	\$(2,727)
Balance	\$15,026
MMA - Scholarship Account	YTD
Income	\$1,798
Scholarships	\$(1,000)
1	
Net	\$798

Jim Kennady, Treasurer of NC ABANA

Balance

\$6,913

Secretary's Report



The business meeting of the NC ABANA chapter was held at the second quarter chapter meeting at the Dixie Classic Fairgrounds in Winston Salem, NC on June 25th, 2016. The meet-

ing was led by President Lyle Wheeler.

New lifetime members from the annual Board meeting were announced. These include Cindy Alexander, Larry Crews, and Tommy McNabb. Many thanks to them for their contributions to NCABANA.

Discussions were held in regards to the NC State Fair renovations. More information on these can be found in the State Fair article.

Forge-Aprons donated a brand-new apron for this meeting. An advertisement for their products can be found in the "Calendar" section of this issue. We appreciate Forge-Aprons for their superior craftsmanship and thank you again for this generous gift.

An additional business meeting of the NC ABANA chapter was held at the third quarter chapter meeting at the Blacksmith's Depot in Candler, NC on August 27th, 2016. The meeting was led by Vice President Garret Dunn.

Both meetings opened nominations for the positions of treasurer and president. Jim Kennady and Lyle Wheeler were nominated for the positions, respectively. No other nominations were presented thus continuing their roles through acclamation. NCABANA will have its 4th quarter meeting at Roger Barbour's shop in Clayton, NC on December 3rd, 2016.

Jennifer Phillips, Secretary of NC ABANA

New Members

Arthur Iron	High Point
Barry Greene	Boone
Billy Kiker	Monroe
Chris Salley	Charlotte
Christopher Mullen	Roanoke, VA
Daniel Mrotek	Durham
David M. Hayes	Salisbury
Forrest Dyer	Charlotte
James Nicolazzo	Highlands
Jay Close	Clover, SC
Jeremy Gantt	Candler
John Freas	Traphill

John Summers	North Wilkesboro
Ken & Mary Lou Zitur	Avon, MD
Ken Thomas	Sevierville, TN
Levi Smith	Candler
Michael Thompson	Wilkesboro
Nate Butler	Durham
Ronald L. Goins	Stoneville
Ross Marshburn	Gastonia
Sam Freeze	Raleigh
Shawn Ellis	Pickens, SC
Tom Anderson	Denver
Tom Kopp	Asheville

Publication Deadlines

	Deadline to Submit Content	Estimated Dates Arriving to Members
4 th Q 2016	November 26, 2016	December 18-31, 2016
1 st Q 2017	January 28, 2017	February 19-28, 2017
2 nd Q 2017	April 29, 2017	May 21-31, 2017
3 rd Q 2017	July 29, 2017	August 20-31, 2017
4 th Q 2017	October 28, 2017	November 19-30, 2017

Regional Reports

Wilkes Teaching Forge

Report and Photos by Dave Baker

Wilkes Teaching Forge has met consistently for the past few months with good turnout, tonight (May 17, 2016) was no different. We met at Gary Roath's Forge in Wilbar, NC.

Scott and William Hoover tried their hand a bottle openers. Punching methods and practices were discussed. Fire tending was reviewed.



Scott Hoover punching

Lyle discussed the benefits of joining NCABNA. The upcoming events and meetings were announced and invitation was given to attend was given.

The June meeting was held at Gary Roath's Forge on the 21st. Dave Baker demonstrated a new type of leaf, at least it was new to some of the group. He also brought in a mailbox post for show and tell.



Dave's mailbox post John Freas demonstrated a cylindrical towel holder, he had been needing to make. Good job John. It has become a custom for anyone wanting to demo to just speak up and the opportunity is given. Lyle reviewed the upcoming events and the need to reserve a few Saturdays for work days at the new forge being built on the fair grounds.



John's towel holder



John using a piece of pipe to create his towel holder

The July meeting was held at Gary Roath's forge on the 19th. With it being vacation season the attendance was down some. Dave Baker demonstrated making an eye punch and Gary Roath talked the group through tempering and oil quenching.



New leaves Each member of the group made a punch. Plans were made for the next meeting in August.



Southern Foothills Blacksmiths

Report and Photos by Ray Clontz

We continue to have visitors drop by to see if they want to get into blacksmithing, some come back We have quite a few who have some don't. joined NCABANA and are now the in process of getting their equipment and supplies. It is advantageous for anyone interested really in blacksmithing to join an ABANA group for information on acquiring tools and supplies. Our group is diverse in the different skills of the members, some forge knives, some tomahawks, some are good at designing and making tooling. Many have made their own power hammers, belt grinders, and forges. Many forge items for outdoor fire pits and outdoor cooking items. So, there is always someone in our group that can help with a project. The following are some pictures of members working on their projects



Max Gray working on his tooling project



David Hayes forging a knife blade



Denny Maloney forging a tomahawk from a ball pein hammer



Duke Baxter forging a drift



Brian Swink working on a big camp knife



Jim Perry forging his first hook

Triad Blacksmiths

Report and Photos by Marshall Swaringen

The second quarter was an interesting one. The Second Quarter NCABANA was attended by about 75 people. Paul Spainhour had a great demo for the morning and Ian Thomsen entertained everybody in the afternoon. Special thanks to everyone for a successful "Iron in the Hat". The BBQ must have been good, it was sold out. Thanks to everybody that helped to make this a great day!!

As a group, we need to work on taking pictures and doing a small write up on our outings and our meetings in the shop.

We had an outing for the Forsyth Sherriff's department Explorer group. Drive hooks, S hooks, Tripods, leaves, and camp utensils were made. The boys and the leaders learned fast and did well.

Marshall Swaringen and Richard Howard demonstrated for two days over the July 4th weekend at Mocksville Antique Tractor Show. It seems that every kid wants to know if we will teach them how to make a sword. It would be nice if the video games would teach the kids (and adults) something useful. Had a lot of people watch and ask questions. It gave us an opportunity to invite new people to the world of blacksmithing.



Richard Howard demonstrating at the July 4th event



Selling wares at the July 4th event



Richard still working hard on July the 4th

August 20th was the Honey Bee Festival in Kernersville, NC. Joe Allen, Keith Roberts, Richard Howard, Chris Mullen, Ronnie Nifong, and Chris Towels represented the Triad Area Blacksmiths. They had multiple forges and anvils in use. Once the crowds arrived at the park, there were many visitors watching.



Joe & Keith entertaining at the annual Honey Bee Festival. Now that is a full house!



Another demonstrator at the Honey Bee Festival



Keith getting up close with the crowd to show 'em how it's done.



So many helpful demonstrators at this annual event. Thanks again to all that came!



And Richard again. He helps the Triad group at every turn.

Our Tuesday night demonstrations are going well. The September demonstration will be "Demonstrations". We will be showing how we work at the Dixie Classic Fair. Maybe Keith will have a new true lie to try out. Come and join us. You may have a suggestion that we can use to improve the experience for the fair goers.

Speaking of the Dixie Classic Fair, it is just around the corner. Keith Roberts will hand the scheduling on the forges, Ronnie Nifong and Billy Phelps are head cooks, and the rest of us are the support staff. If you want to attend, send me and email (marshall@swaringen.com) and I will make the arrangements for you to park and enter free.

NC ABANA Member Classifieds



OAK HILL IRON is an award-winning metalworking shop unlike any other. We are one of the largest artist blacksmith shops in the country and we take on projects from around the world. Built on a firm foundation, our business has been in operation for over thirty years. Over that time, we have built a crew and shop that is the envy of our competitors. We build and manufacture our own line of blacksmithing tools that are used by thousands of other blacksmith shops.

Our team consists of a hand full of choice-picked artists and craftsman, many of which came to us with little or no experience. We have a solid work structure with many opportunities for advancement through exposure to world class metalwork, on-the-job training, and even afterhours opportunity for self-training and group workshops. You don't need to have a lot of

experience; we just want all our employees to show up to work on time with a good attitude and have the passion to create with them every day.

If this sounds like a place you might want to work, then email your resume and a brief description of yourself to O.H.I.agent@gmail.com and let us know why you want to be part of the Oak Hill Iron family. Be sure to include the serial number in your email found at the bottom of this advertisement and your phone number as well as the best way to contact you so that our hiring agent will get back to you within 48 hours. Thanks!

4815162342

Cindy Alexander has a few items for sale.

First is a 5' x 9' Trailer with a built on mobile home axel, 16" sides and a 2" ball for \$500. She also has aluminum ladders from firetrucks. The 16' is extendable to 28' and is for sale at \$200. The one piece 12' ladder is \$75. If you are interested, please call Cindy at (919) 740-8692.

NCABANA Library Item Loan Form			
Name:	Date of Request:		
Address:	City, State:	Zip:	
Telephone: ()	-	
Email Address: Item Code (If Known):		-	
Title/Author:			
Email this request form to John McPherson trollworks@hotmail.com with NC ABANA in the subject.			
Return Items To:	NCABANA C/O John McPherson 3031 Chenango Drive Charlotte, NC 28212		

Event Reports

NCABANA 2nd Quarter Meeting

Photos by Patricia Spainhour Article by Jennifer Phillips

The Triad Blacksmiths at the Dixie Classic Fairgrounds hosted the NCABANA second quarter meeting on June 25th, 2016. The morning demonstrator was Paul Spainhour. He showed everyone how to forge bamboo-looking ripples out of steel. These were modeled after the typical acorn forgings that you see at this time of year. Ian Thompsen was the afternoon demonstrator and while he was entertaining as always, I was so captivated by his forgings that I forget to make a note as to what they were. Sorry Ian.

Thanks again to the Triad Blacksmiths for hosting this annual meeting. The BBQ was amazing as always, Marshall. We look forward to seeing you all again at the 2017 second quarter meeting on June 24th.



Paul Spainhour using a guillotine-style blacksmithing tool to work on his forgings. It was affectionately dubbed a Smithin'-magician by Keith Roberts.



In the foreground is a bamboo-lamp to show off the type of forgings Paul is working on.



Paul used an oxy-acetylene set up to localize the heat.



Closer view of the bamboo details and the process that goes into making them.



Break for lunch and business with a meeting held by our chapter president, Lyle Wheeler



lan forging



lan making a small copper leaf



lan working hard



Ronnie working hard too



Currently searching for world-class bladesmiths, weapons experts, and enthusiasts to create some of the most iconic edged weapons and armour from history!

> For more information or to speak with a Casting Producer, please email: Natalie.Sgro@leftfieldpictures.com

NCABANA 3rd Quarter Meeting

Photos by John Matthews Article by Jennifer Phillips

The Kayne family with Blacksmith's Depot hosted the NCABANA third quarter meeting on August 27th, 2016 at their shop in Candler, NC. The morning demonstrator was John Gruber, head armorer of Surly Anvil. He demonstrated a 15th century elbow armor joint, which is similar to the work he makes professionally for jousting and the like. The afternoon demonstrator was Doc Cudd of Barnardsville Ironworks. Unfortunately, I didn't get to see this demo since it was my oldest daughter's birthday and we had to get to her party.

Thanks again to the Blacksmith's Depot for hosting this meeting. It was nice to see some unfamiliar faces and we hope to get a local chapter started in the area to have more meetings like this one.



John Gruber demonstrating an elbow guard



A blacksmith admiring a helmet John made



Plans for the State Fair renovations were discussed during the morning demo.



Close view of John's hardy hole tool used for the repose work.



John said during his demo that he uses duct tape to make molds for his customers. Looks like this test fit is coming along well.



Everyone's attentive during the short business meeting led by NCABANA President Lyle Wheeler.



Ferrous & Aeris Phillips blow out the candles on their CandyLand birthday cake as everyone sings.



After lunch, the Kaynes did a small demo on their massive press.



Afternoon demonstrator Doc Cudd describes the project he is going to build.



Sparks fly as Doc demos



Looks like a small leaf is forming

Dixie Classic Fair 2016

Photos & Article by Marshall Swaringen

The 2016 Dixie Classic Fair had a great start. The weather was great and the crowds were steady. It rained one day and there wasn't almost anybody there and we closed early. The next days were sunny and cool and the crowds returned.

As a club, we had a great part of us missing this year. Billy Phelps was not able to attend this year. His guidance and mentoring was greatly missed, also his biscuits. Hopefully his schedule will allow him to join us next year.



Roger Abrahamson and Bernd Mergener relaxing by the fire





Ronnie Nifong tending the fire



Even the big kids are having fun

Ronnie Nifong was head cook with assistance from Marty and Brenda Campbell and Paul Spainhour, and all of the deserts sent by the wives. Here is a list of the foods we cooked and enjoyed: hot dogs, barbeque and slaw, French fries, pinto beans, fried crappie, fried shrimp, hushpuppies, slaw, fried tenderloin sandwiches, fried turkey, white chilly, meatloaf, cabbage casserole, chicken stew, and teriyaki sirloin steak tips with peppers and onions. There were pies, cake, cobblers, cookies, stuffed pepper, and candies all week long. Hot dogs, French fries, and tenderloin sandwiches were repeated many days. Ronnie's goal was to add ten pounds to me during the fair. After eight days, I was up nine pounds and refused to weigh the last two days. After two weeks, I am still up five pounds. More work to be done!



Young smith demonstrating



Even the security officers at the fair appreciate the blacksmiths' shop



Full crowd watching the demonstrators

There were a lot of folks interested in learning blacksmithing. Everybody was given information about our meetings and joining NCABANA. About ten new people were at our Saturday meeting after the fair. If the numbers keep growing, we may have to add a second Saturday meeting.



Blacksmith forging a small snail

Special thanks to Keith Roberts for running the forges. Great job of keeping them busy and entertaining the crowds. There were new stories and the old ones are still great.



Blacksmith forging in the foreground while Keith narrates behind her, probably telling one of his famous long tales.

Thanks to everybody that brought stuff to sell. Most visitors were able to find the small souvenirs they wanted. A lot of large items were also sold; tripods, camping tables, fireplace sets, large flowers, and some knives.



Everyone's tired at the end of the fair week

Only eleven more months until we can do this again. Any NCABANA members can join us at the fair so place the 2017 Dixie Classic Fair on your schedule. You will go home tired after Keith keeps you on the forge, but you will not go home hungry.



Anvil pie, just to leave the readers drooling

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.

www.millcreekforge.com Mill Creek Forge Jerry Darnell 4512 Busbee Road, Seagrove, NC 27341 E-mail: forge_on@rtmc.net Phone: (910) 464-3888 (Shop) (910) 464-2636 (House)

NC State Fair 2016

Photos by Eric Campbell Article by Jennifer Phillips

The NC State Fair was a whirlwind this year. With the renovations barely finishing up as the fair started and even continuing afterwards, everyone did a wonderful job of making sure that demonstrators were swinging hammers and that there were anvils there for them to swing the hammers on.

Again, a big thank you to all the smiths that volunteered to demonstrate along with setting up the shop. We had over \$30,000 worth of sales this year and I hope everyone had fun in process. We hope to see you all again in 2017!



[name] in the foreground working hard with Dick Snow in the background team forging



Campfire tools for sale



Full sales area



With eager sales associates



Outside of the shop is gorgeous



Blacksmiths hard at work



Randy Stoltz keeping the shop open late



Railroad spike merchandise is in full swing



Heritage forge sign



The shop was full almost the whole week with blacksmiths around the clock. Check out how much bigger the blacksmithing area is this year. The forge set up was also a huge improvement with the dual-forge system making elbow room available to everyone. For the future, there is even room for anvils to be set up off the back of the forges, not that any additional smiths are needed. Thanks again to everyone who volunteered! We'll see you all next year!

Featured Articles

I have struggled over the last 16 days to find the words to talk about my father in context to NCABANA. I have plenty of memories of Dad and I talking about everything you could imagine two people could talk about. Tonight, I was looking through my call history on my phone and saw the last time I talked to Dad. It was 4:57 pm on Wednesday, August 10, 2016. He called and asked me to pick up a set of barber's clippers for him. Earlier that day, he asked me to bring back his knife sales catalog. The last day I talked to him reminds me of Dad's true spirit. Dad had a can-do attitude and thought he would get better and would be able to continue to buy and sell knives (despite the fact, that he had officially "handed me the keys to the kingdom" at the end of the previous gun show.)

Somehow looking at his last days reminds me of who Dad really was throughout his life. He taught me that you could do anything. You just had to think about it a bit and maybe think a lot out of the box. Sometimes that meant letting it stew for a week or so. The solution always came to me and I would gladly share my solution with Dad. He thought I was crazy a lot, but when I showed him what I had accomplished, he would simply nod his head. To me, that nod was magic. It meant that he was proud of me. It meant that he believed in me all along. It meant that he knew I could stand on my own. His passion supported my family and helped forge the best father-daughter relationship for which I could ever dream.

Although I have only recently become a member to NCABANA, I feel like the blacksmith community has always been a part of my extended family. I remember running around when I was little and Dad working in the shop. Dad would yell at my brother and I to be careful because we could get hurt. Before Dad started helping with the building of the blacksmith shop at the NC State Fair, he would attend craft shows around the state. From looking at old pictures, he was selling his work before I was born. I think that foundation going around the state may have been what inspired him to pursue the shop at the NC State Fair.

Despite his reasons, it is clear that this decision to bring this ancient art to the general public every October since 1985 was a great decision. His insight into educating the public undoubtedly inspired many smiths throughout the state. My memory is fuzzy in the early years mostly because I was more interested in the rides, than I was in the shop. However, as the years progressed, I realized how important the summers are to a blacksmith that produces goods for the NC State Fair. Dad would spend hours in the shop making all sorts of really interesting things from his dinner gongs, to ornamental work to his last passion, knives. If I was available and not too full of myself, Dad would occasionally have me help paint hooks, dinner gong ringers and whatever else he could pawn off on me. Then the transition began ...

In 2013, I was asked to help with the dinner gongs. That day started me on a journey I won't ever regret. I was truly introduced to Dad's passion. Learning about metal structure, heat treatment, forging, purchasing steel, and hammer selection were just the tip of the iceberg as I began to learn. I was the only person

Parks Low Remembered

Photos and Memories Provided by Jeanette Low

that Dad had the patience to teach and sometimes I think that was trying. His love for knives was inspired by his love of blacksmithing.

Since Dad's passing, many smiths have approached me and told me about a time that Dad helped them. Whatever memories I have of my dad, I know his true legacy with NCABANA is not with the introduction of the blacksmith shop at the fair, but with his desire to educate future smiths. Just as he taught me to stand on my own, he taught others how to use resources to solve their problems. This teaching tool is invaluable.

Dad's love of blacksmithing inspired many who met him. While Dad wasn't the most talented smith out there, I do think he was one of the most resourceful. Hopefully his resourcefulness will be what people remember the most about him.

**NCABANA would like to say a special thank you to the members who donated to the scholarship fund in Parks name. With your generous gifts, NCABANA can continue to educate young smiths around the state so that the art of blacksmithing is passed on for generations to come.

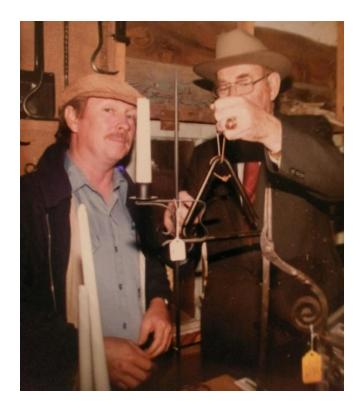




Photo Gallery Photos by Bill Clemens Commentary by Jennifer Phillips

This quarter's photo gallery is special as well. This year's ABANA Conference was in Salt Lake City, UT and I know it was a little far for a lot of you to travel so this photo gallery is pictures from the conference's art gallery. Bill Clemens with ABANA was kind enough to send me almost 300 pictures from the gallery alone. However, I don't know the artist's names for any of the pieces so I would like to take this opportunity to thank them for their contributions and apologize for not being able to give them the recognition they deserve.

If you would like to have some of your work featured in the next photo gallery, you can message my Facebook account (NC ABANA) or send an email to northcarolina.abana@gmail.com. I can also scan and upload any pictures mailed to my address (on Page 2). I hope you enjoy these pictures as much as I have and happy forging!



This first artwork is a masterpiece of repousse. Hand chiseled from a solid circle of plate of metal, the details around the eyebrows and goatee are most impressive on this lion's head. Even the snout has tiny strands of fur that accentuate the blacksmith's talent.





While many artists are skilled in glassblowing or blacksmithing, most are not accomplished in both. However, the creator of this piece, has combined some advanced glassblowing techniques with some higher end blacksmithing to create a beautiful vase.



I think this artist might be multitalented as well. While the realistic forged paintbrush could be a great work on its own, this blacksmith goes even further with a small canvased painting, all forged as well. This was surprisingly not the only forged paintbrush in the gallery.



I know that forging flowers is always a favorite but this particular one is a little different in that the stem and leaves are also forged copper. It might be difficult to see in the black and white version, which is why I always suggest viewing at least the gallery in color, but the leaves and stem have already adopted the verdigrey patina of aged copper. I am also fond of this rose because it is wall mounted instead of in the traditional vase setting that is common with most forged flowers.



This work speaks to me on many levels. The first and most obvious one is the color scheme of the sunset. Most likely made with a combination of heat treatments and paint, the subtle fade from blue to orange is what really sets this "painting" apart. I also really appreciate that is comes with its own handmade frame. As any painter can tell you, getting your work professionally framed can be half the struggle.



Another great piece of forged copper is this creature. While there was quite a discussion as to what it was, the main guesses were a horseshoe crab, something from the Alien/Predator movies, and my personal favorite and choice: Cthulhu. Whatever it is or isn't, is not the point. It is in this gallery because of the amount of work that had to go into forging copper in that manner. The chase work in particular that textured the center divider is most impressive.



A bracelet made from a box-end wrench.



This creative table has a spider chasing a fly. The corners use decorative cobwebs in the supports while the flat bar around the stone top has randomly spaced bumps that look like rivets. The combination of stone and metal make for a particularly durable table. The hands coming off the legs complete the perfect Halloween vibe just to give everyone a little inspiration for next year.





As we've seen before, forging aluminum is no easy feat so to forge an entire wine bottle holder must have taken some skill. The delicate twists down the main vine were probably the most time-consuming element. It is truly an inspiration to see the new ways other smiths come up with for storing wine bottles. A ceiling mounted display is definitely convenient if nothing



How about a grape bunch wine bottle opener complete with hanger to accompany such a fine wine bottle holder?



This whimsical crane is very imaginative. Feathered work always takes long hours to create but with added detail to the neck and stand for this bird, many more hours must have gone into it as well.



Another winged bird taking flight in the gallery. This time it's a duck!



I know a lot of smiths out there with a vase similar to this one at home and each time a niece or granddaughter has a birthday, they get to choose a gift from the vase. This particular one stands out first of all for how full it is but secondly, the colorful marbles on the ends of tendrils at a nice touch, especially for a younger gift receiver.



And who hasn't seen the classic steel violin! I like how this one comes complete with a bow. It looks like you could pick it up and play it at any second.



This piece is definitely unique with a copper devil stomping around rusted bird-like demons. Note how each figure has its own individual plinth to stand on.



This work of art is like the familiar mother nature inspired pieces. It has a very woodland feel to it and seems to almost float away with fanciful grace.



Taking a short break from some representational art, we have your typical highly ornamented railing. This one features some copper leaves and steel pine cones. Make sure to check out the small squirrel in the bottom left-hand corner.



Next up is one of the few pieces with a visible name. We have a wrought iron vessel by Rodger "Grizz" LaBrash. As many of you know, forging with wrought iron can be temperamental. How much patience did the guys at Grizzly Iron out of Phoenix, AZ have to have to make this? After a quick google search, a look at their website leads me to believe that forging wrought iron is their specialty. Maybe some of you would like a look as well: www.grizzlyiron.com



This chest was made specifically for the conference with ABANA 2016 proudly displayed on the side. It might be hard to tell from the picture but every square inch of it is textured with fine stippling. Also, all of the brackets and nameplates have a copper accented backer to add an element of detail. Last thing, I want to make a note of the rivets, see how they really stand out? Just some good ideas for your next work.



Check out this highly polished textured copper bowl. The stand itself also has some beautiful intricate twist elements in it that these pictures can't do justice to.



This Damascus patterned baluster is really a sight to behold. While I am a big fan of mokume-gane, Damascus is a close second for patterned metalwork. It took a truly talented blacksmith to create this post and the swirls of different metals in it were also no easy feat to make. I can count at least 5 different colors of metal.



Damascus hammers are also a favorite at these events. The left one even has a spiral in the face!



We've talked before about how difficult aluminum is to forge, a whole rose seems next to impossible to me. Make a special note of the texture on the leaves and petals. I even have a name for this artist: Phil Heermance with Art's Work Unlimited out of Miami, FL.



This heavy-duty pot rack with chain attachment can probably hold all of my cast iron skillets and Dutch ovens; however, I don't think there is a beam in my ceiling strong enough to support it all.



This bowl is unique for the stand that comes with it. It's not every day that you see a hand-forged bowl with a built-in stand. The organic flow of the copper tendrils really compliment the large texturing of the bowl itself. Below is a better angle of the bowl along with a few additional pieces by Wade Smith.





This lovely forged hummingbird is a good task for someone looking to up their blacksmithing game. While I have personally seen them used as wall darts (not recommended), this is a decidedly more beautiful display. Made by Joe Gentile, the paint job of the rose alone is worth downloading the online copy to see.



Chariots of fire are sculpted in this forged piece. I did a little background research on this one and the most prominent story of chariots involves a tale from the Bible and a man riding up to heaven on chariots of fire. I don't know if this piece is based on that story but it would fit the context very well.



A scrap metal Christmas tree! Tis the season for merriment and I can't think of a better tree. This one would certainly last a lifetime.



This last piece is special because it was made by Bill Clemens, the photographer that supplied all these pictures. Facebook is also on fire right now with young blacksmiths requesting blueprints to make their own jingle bells for the season.

If anyone would like to view even more of these pictures online, I encourage you to hop on Facebook and visit the Artistic Blacksmith's Association of North America under the Photo section see "2016 Conference Gallery" folder. Thank you for all the contributions and I'm sorry I didn't have the names of more artists.

Heritage Forge Reconstruction

Photos by Eric Campbell Article by Jennifer Phillips

I know that Eric Campbell has already given out many thanks for all the help in building the new Heritage Forge but I wanted to extend my gratitude as well. You guys didn't have much time to get everything ready but I know you must have pulled many late-night hours to have the shop open on the first day of the fair.

The following are just a few pictures of the progress of the reconstruction. I know that towards the end people were working so hard that no pictures were taken.

Again, thank you all for your countless hours of dedication to the craft. NCABANA, and a lot of spectators, is very appreciative.



The old building waiting to be torn down.



It's going down...



Gone!



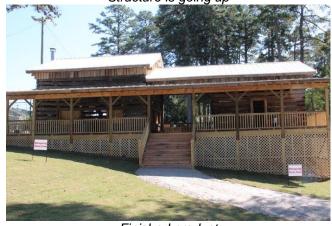
Starting to form slowly



Ariel shot during construction



Structure is going up



Finished product

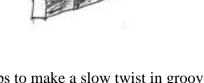
How to Make Iron Candy Canes

Reprinted from the Philip Simmons Artist Blacksmith Guild Newsletter

- 1. Start with ¹/₂" diameter round stock. Use a piece about 2 feet long to avoid using tongs.
- Heat the end and square up about $\frac{1}{2}$ " of the stock for 2. holding in vice.

At a yellow heat, groove 3 lines for 11 inches, using a chisel while placing the stock in a half round hardy or 3. swage block. Repeated heats will be needed. You will only get a few inches at a time.

- 4. Place the square end in a vice and use channel locks or vice grips to make a slow twist in grooved portion. Quench if necessary to keep the twist even. culoff
 - At a yellow heat cut twisted portion off on hardy while rolling piece to center. This keeps the stock round and looks more like an actual candy cane. Dress and round over ends to remove any sharp
- 5. edges.
- At a yellow heat use a wooden mallet to bend shape over 6. horn.
- 7. Clean up the candy cane with a wire brush or on a wire wheel. Apply wax or other finish.







A start

Keep it Simple, Make it Elegant! Two Candle Chandelier

Reprinted from *Forge Facts*, A Publication of the Rocky Mountain Smiths Article by James A. "Jymm" Hoffman



Many know me for doing historical reproductions and I want to make it clear that this chandelier design was given to me by Paul Browning of Sugar Grove, Ohio. I learned how to make it while working at Ohio Village in Columbus, Ohio in 1981. I am not sure when Paul came up with the design, but I do believe he created it. The only real change that I made is the candle holders. I used to follow his design of a Y shape, 3 leaf candle holder, until recently. I have found the 2-leaf design works fine and is much faster to make and uses less material. This is a great project for novices using a series of basic skills.

Materials:

- 3/8" Hot Rolled Round, 36" long, 1 piece for chandelier body
- ¹/₄" Hot Rolled Round, 8" long, 3 pieces for S hooks
- ¹/₄" Hot Rolled Round, 16" long, 2 pieces for Chain Bars
- 16 Gauges sheet: 2 disks, 4" diameter for wax catchers
- 16 Gauges sheet: 1" x 5", 2 pieces for candle holders

Forge shoulders on each end of the 3/8" x 36" chandelier body rod. Sometimes I punch holes in the flattened area at this time. Other times I wait and drill holes after the body is finished.







Bend and upset corners for the wax catchers and candle holders in the vise.



Heat and bend the rod in the middle, leaving enough room for $\frac{1}{2}$ " round rod to pass through.



Heat about 6 to 7 inches of the doubled over end. Try to get both sides the same temperature; I like a nice bright orange. Grip in the vise so that you hold both legs securely and twist fairly snuggly to the ½" diameter rod. This will help to make a nice round eye. I like to make the eye line up with both legs. If necessary, I will gently but firmly put the twisted part in the vise to adjust the eye, making certain the center of the eye is in line with the centerline of the body of the chandelier.

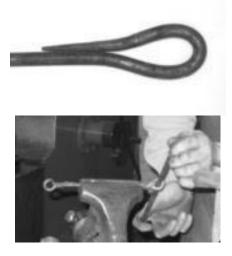




Curve one leg over the horn. If you do not want to make a jig, get one leg to the size you want, (mine are about a 4" diameter, making about an 8 inch spread) trace it on the face of the anvil with soap stone, and make the other one match. You can also mark your horn to help get it close. After this I move onto the decorative chain.



The decorative chain is 3 "S" hooks with two bars that have twisted eyes on each end to connect the hooks. The hooks are made from the $\frac{1}{4}$ " round, 8 inches long, and closed. When making them, leave hooks open enough to assemble, let air cool and you can close them cold on the final assembly. Each hook ends up being around 3 $\frac{1}{2}$ " tall.



The twisted bars in the chain are made from the ¹/₄ inch round 16 inches long. Do not make as fine of a point on the ends as when making "S" hooks, as too fine a point twists up unevenly around the eye. I use a 3/8 inch round rod for these twists, again twisting snugly to the 3/8 inch rod helps form a nice eye. I then gently, but firmly hold the twist in the vise to adjust the eye, normally by carefully hitting with my hammer, to bring the center of the eye in line with the center of the ¹/₄ inch rod. The twisted bars end up being about 9 ¹/₂" long.



For the wax catchers, I drill or punch the rivet holes first, or sometimes after forming the cup. In this case, it is for a 3/16 inch rivet. (I have nails, but they are a little harder than commercial rivets.) I heat the material for the wax catchers up and toss them into a swage block and form the cup, let these pieces air cool.



When making the candle holders I rough cut the leaf shape, not even attempting to cut the round section of the base with the shears. I use a sharp, (relatively new), 10 inch $\frac{1}{2}$ round file to remove the material to form the round base and thin the area for the leaf to fold up.



Once all of the burrs are removed, I heat the leaves up and put veins in them with a chipping hammer. An alternative to this would be to cold chisel veins from the backside into lead. While hot, I curl the tip and give the leaves some round shape either in the step of a London pattern anvil, or in a ¹/₂ round swage. Next, is to fold over a ³/₄ inch round bad held vertically in the vise, again allowing these to air cool.



Once all the "pieces parts" are made and cool enough to handle, I start assembling with the chandelier body and candle holders. With the ³/₄ inch round bar vertically in the vise and long enough to be on the screw, I rivet the candle holder, wax cups and body together. If you put a little dimple in the top of the ³/₄ inch bar, it will help hold and line up the rivet.

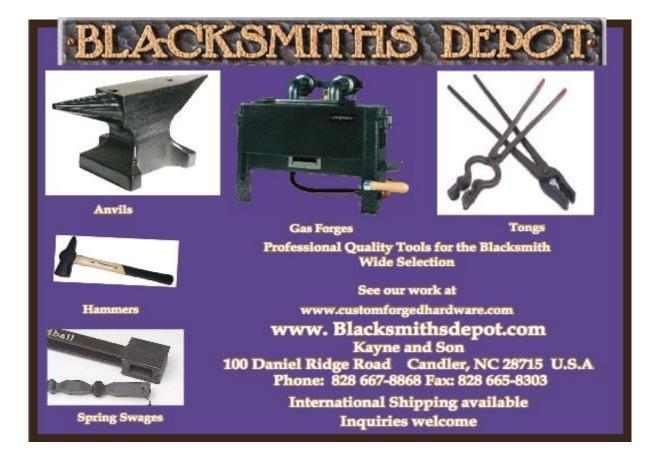


Once the candle holders are on the chandelier, I assemble the chain.



The last in assembly is the chain to the chandelier. Total length of the assembled chandelier and chain is about $38 \frac{1}{2}$ inches.

Depending on what I have on hand, time, and customer's preferences, I either wax, oil, or clear coat the final product. An alternative is to use tung oil on the chandelier, it gives a nice satin finish.



Iron Concepts 6: Community vs. Competition Article by Andy Phillips

This series is named in honor of a long gone blacksmith's shop in East Bend, NC. Iron Concepts was one of the first large blacksmith shops I had ever seen and to this day serves and an inspiration to me. I find myself still referencing what I learned there at NCABANA meetings years ago. It still holds a special place in my heart, hence an iron concept.

I also wanted to make a special note that while this is the sixth installment of the Iron Concepts series for the "Hot Iron Sparkle", this is the same topic that was discussed on the YouTube channel as the second Iron Concepts. At the time of this publication, the YouTube Iron Concepts series has twenty published videos. You can find those at www.youtube.com by searching for BigBluHammerMfg.

Think back to the first time you made a discovery. When you came up with a new way of doing something that saved you time or made it better, easier or both. Maybe it was a new fixture, a new tool or a whole new way of approaching a process. At that point you had made a leap forward and had information that no one else in the community did. So, what did you do with that information? Did you start planning your next demonstration at your local chapter meeting or did you hold that information close and keep it to give you the cutting edge? You may not have faced this situation before but chances are at some point in your career you will.

While many of you may think that this question has a simple answer I will argue here that this may not be as simple as always sharing with the community and this decision requires deeper consideration that it often receives. In our trade, as specially, you should not take this lightly.

So let us first touch on the free market and how competition can work. In a competitive system, we all do our best to occupy the outer reaches of the trade and to do so as efficiently as possible. Thus, keeping the market stable and righting the market quickly in the event of disruption. What does this look like in a small artistic community, however, and does this work for us?

Now, of course, we are in a free market, and while socially we may self-regulate and there may be some back-room price setting in the end, there is no governing body that sets our prices and distributes work. In a market like ours though, there is a certain amount of front-end information exchange that must happen in order to keep strange things from happening as we all set prices. For instance, have you ever gone to a gallery or show and seen someone charging way more than you do for work that may not be up to your standard? This may have encouraged you to raise your prices, of course, but it also may have encouraged you to talk with this smith and see why they are charging so much for their work and if they are selling it. In a small tight knit community like ours, this is only natural. Of course, this can have good and bad effects both on how much we make and the way we do work.

When information flows too freely then there can be problems too. While it may not be your intention to sell every wizards head bottle opener nationwide through your Etsy account, the idea that there is a gentlemen's agreement to split the market evenly amongst every smith out there is a farce. We are only resigned to be good neighbors and stewards of the market because that is what is natural and that is only what is natural because of the underlying rules of the system. Thus, by assuming the system is truly spontaneous and naturally fair can undermine those rules.

In our community, part of what makes it beautiful is that there is no set path, no best way to go about things. If the answers on how to be successful in our trade were cut and dry, then they would not be near as much diversity and we would not have such a rich community. Of course, this would be an extreme, but as our community grows there is more and more demand for trend setters and leaders in both style and business model. This is where responsible sharing of information comes in.

The point is that as we grow and as more and more information is available the easiest path will become more apparent. More people will head down that path, this stifles innovation and will place our community in a state of fashion rather than true creativity. A system like this grows fewer leaders and the path of least resistance is the path most traveled. In a system like that, we lose our diversity.

So how can we stop this dystopian future for our trade? It's simple, by responsibly sharing. The best teachers you have ever had didn't just give you the answers, they ask you the right questions and helped you learn. So, the next time you find that awesome nugget of information, don't just rush on to YouTube or schedule your next demo. Think about how to present it thoughtfully and make sure that people take away more than just the next cool thing to make. If our community is going to stay as rich as it has been for the last decade, then we all will need to step up to the plate and be more than just good smiths. We are going to need good teachers.

Membership List

Organized & Maintained by Jennifer Phillips, Secretary

Years ago, NC ABANA used to publish its list of members every year to help each other stay in contact. With the presence of social media, most members have liked each other's Facebook pages or stayed in contact via email groups. And yet, there are many more blacksmiths out there to network and associate with in the real world. Because of the high demand, NC ABANA published the membership list in last year's third quarter *Hot Iron Sparkle*. There was a lot of discussion as to what was going to be published

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@otelco.net** 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.

but in the end, the chosen categories were name, address, and phone number.

We tried to give members enough time to respond to the opt-out option of not being published. Please let me know for next year if you were included but didn't want to be. Over the next few pages is the membership list, **organized by last name**. If you would like to make a suggestion for next year, please contact Jennifer Phillips, secretary for NC ABANA (contact info on page 2).

Full Name	Street	City, State, Zip	Phone
Roger Abrahamson			
Donald W. (Don) Adams			
Wesley Alberson			
Cindy Alexander			
Joe Allen			
Pat Allen			
J. Amburgey	🗌 Not Avail	able in Online V	Version
Casey Anderson			
Joseph Anderson			
Tom Anderson			
Al Andrews			
James V. Asbill			
Amanda Avery			

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Gil Aybar, Jr.		· · · ·	•				
Landen Bain							
Dave Baker	7						
Ellen Ball							
Roger K. Barbour			7				
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Ricky D. Knight								
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Jim Perry				
Lyle Petersen				
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Joseph Price				
Erika Price				
Norman Rabek				

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Marshall L. Swaringen Jr.]							
John W. Sykes]							

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Chris Taylor			
Braxton Tessheer			
Johnny Thacker			
Ken Thomas			
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Robert Timberlake			
Paul Tooley			
David A. Tosi			
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Robert Triplett			
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Daniel "Victor" Vicarel			
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Gail Wall			
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Jody J. Wetta, Jr.			
Lyle Wheeler			
John Whitener			
Joseph E. Whitford			
Christopher Williams			
Julia Wilson			
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Wayne Woody			
Russell Wrye			
Steve Young			
Ken & Mary Lou Zitur			

From the Shop of Samuel Yellin

Article by Doug Wilson Photos provided by Clay Spencer

I received a CD of images from Clay Spencer. On that CD were over 2,000 photos of works from Samuel Yellin's shop. These had been taken in the early 1970s by Jeff Graves, who was apparently working for a summer with George Dixon in the last days of the Samuel Yellin Metalworks shop. I will be sharing these photos in the coming issues of *The Hot Iron Sparkle*. The quality of the photos is not always the best. However, they are in many cases the only available documentation of Samuel Yellin pieces.







Hurricane Matthew Relief

Information Provided by ABANA

ABANA would like to make sure that any professional artist working in a craft discipline seriously affected by Hurricane Mathew is aware of the emergency relief assistance available from CERF+.

If, as an artist, you have suffered loss, please contact CERF+. If, as an arts organization representative, you know of artists in the disaster areas, or plan to correspond with your artist constituents in the near future, please pass this information on. If there are organizations that directly work with artists in your community that you think we should know about, please send them CERF+'s contact information.

Direct Assistance to Artists Working in Craft Disciplines CERF+'s programs include:

- Grants up to \$6,000
- No-interest loans up to \$9,000
- Booth fee waivers at craft shows
- Discounts on materials and equipment from suppliers and manufacturers
- Assistance with business development through referrals to consultants and other low or no-cost resources

For eligibility requirements and more detailed information, please visit the Emergency Relief section of our website or contact us at:

CERF+

535 Stone Cutters Way, Suite 202 Montpelier, VT 05602-3796 ph: (802) 229-2306 fx: (802) 223-6484 relief@craftemergency.org www.craftemergency.org CERF+ on Facebook

Additional Disaster Recovery Resources for Artists

Studio Protector: Emergency Preparedness and Recovery Information for Artists

The CERF+ Studio Protector website has extensive information and resources designed to help artists and those helping them in the disaster recovery effort, as well as disaster planning resources.

- Getting help from FEMA and other major relief providers
- Disaster aid provided by arts related organizations
- Managing disaster recovery volunteers and volunteering
- Tips for disaster clean-up
- Salvage and e-salvage tips
- Salvage mold-damaged artwork video
- Rebounding after a disaster
- Video interviews with artists who have been through disasters

Stay in Touch with CERF+

We rely on people like you to let us know when an artist has been affected by a disaster. Help us help artists in need by staying in touch with CERF+. Join our mailing list to receive these notices and other CERF+ information aimed at safeguarding and sustaining the careers of craft artists and providing emergency resources that benefit all artists.

Thank you for helping spread the word about CERF+!

Quarter Corner

Metal of the Quarter: A36

Reprinted from the Philip Simmons Artist Blacksmith Guild Original Article Titled "A36 vs Hot Rolled" by Bob Menard

I want to spend some time discussing that greatly maligned material we all seem to love to hate: good old A36 hot rolled steel. What is it? Where does it come from? How is it different from other common steels? You know, that stuff you call junk. I have heard some tales about someone who once knew someone who found a ball bearing in one piece. I have heard others swear about how bad it is compared to the good old steel we used to get. Others complain because they say it is imported. And how it is really hard to forge weld the stuff. Why is it called A36 anyway? Why not one of the 4 number steels?

First, it isn't a tool steel so the A doesn't stand for air hardening as it would if it was an A-2 tool steel. The correct name for this steel is ASTM A36. The steels listed by the Standard Specifications of the American Society for Testing and Material (ASTM) are those carbon and alloy steels that are commonly used, but have not been assigned AISI/SAE numbers. I quote from Engineering Properties of Steel by the American Society for Metals. Data that I present in this article is also mostly from that book. The common 4 digit numbers we use for many steels are the AISI/SAE numbers a unified system developed by the American Iron and Steel Institute (AISI) and the Society of Automotive Engineers (SAE) Why the ASTM specification and number system haven't been worked into the more common AISI/SAE number system, I don't know. Do any of you? As far as I know that 36 in the A36 is just a sequence number. One thing it isn't is a value for the carbon content, although I have seen that stated in a number of places. It does happen to be equal to the yield strength minimum in psi, but I can't find a good technical reference that states this as the source of the 36. As I said, it may be just a sequence number.

Well, what is this A36 stuff anyway? ASTM A36 describes carbon steel shapes, plate and bar of structural quality for use in riveted, bolted, or welded construction of bridges and buildings, and for general structural purposes. Interesting quote doesn't say for use by blacksmiths or for general forging work, does it? What it is, is the most common hot rolled steel for structural use by common fabricating methods. It is also low cost, not because it is junk, but because it is produced in very high volumes.

What does it have in it, What are its properties and how does it compare to 1018 or 1020 low carbon steel? Have a look at table 1 below. What this table shows is that the ASTM A36 family has more carbon, more manganese, silicon, and copper. Why? Let's take a look at the properties:

Name	Carbon %	Mn%	P max %	S max%	Si %	Cu%
ASTM A36 Shapes	0.26 max	0.85-1.35	0.04	0.05	0.15-0.40	0.20
ASTM A36 Plate	0.25-0.29	0.85-1.20	0.04	0.05	0.15-0.40	0.20
ASTM A36 Bar	0.25-0.29	0.85-0.90	0.04	0.05		0.20

More numbers. What do they all mean to me as a blacksmith anyway? Let's start with a review of the meaning of tensile strength and yield point. Tensile strength is the load value at which the material fails (breaks) in pounds per square inch based on the original cross sectional area. Yield point, on the other hand, is the load at which we exceed the elastic limit and the material becomes permanently deformed or yielded. Below the yield point, the material acts like a spring. Above the yield, it bends or deforms. Above the tensile strength, we have more than one piece. When we hammer cold steel and it changes shape, we have gone past the yield point. When we heat steel and get it good and hot, then we greatly lower the yield point or yield strength, so it is very easy for us to change its shape.

Ok, back to the numbers. What do they tell us? That A36 is stronger in both its tensile strength and its yield strength than either 1018 or 1020 steel in the hot rolled state. And for many structural applications this is what the end user is looking for. A36.

Fabricators can weld the hot rolled material and have a higher strength final product than if using 1018 or 1020. This means that for many things, they could use less material, which translates into lower cost. Not that it makes much difference to us as small time users because it is very difficult to find either 1018 or 1020 hot rolled material today.

	Tensile Strength PSI	
Name	(lbs per sq in)	Yield Point PSI
ASTM A36 Shapes	58,000-80,000	36,000
ASTM A36 Plates	58,000-80,000	38,000
ASTM A36 Bar	58,000-80,000	36,000
1018 (hot rolled)	55,000	30,000

Now look at the numbers for the 1018 and 1020 in the cold worked state, either from drawing or from cold rolling. This material is quite a bit stronger than the A36 in terms of yield point because of the effect of the cold working of the material. This makes the product good for many applications where someone is going to do machining on the steel.

If we take the cold rolled 1018 or 1020 and heat it in our forges and use it for forge work, then it will look very much like it was at the hot rolled state if we let it air cool when we finish our hot working of the item. I like to use cold rolled 1018, 1020 and buy it in the smaller sizes and find that it is easier to work with than the A36. But pound for pound it does not cost more. In very small sizes, under an inch, cold rolled is almost all you can find and it is very easy to find in round sizes.

The numbers also tell us that the A36 will not forge weld quite as easily as the 1020 because of the higher carbon content and the higher Mn and the addition to the Si and Cu. Also, the A36 will harden more if we quench it from above the transformation temperature because of the higher carbon and alloy content. Unless you are making tooling, etc., this is something that good practice would tell you not to do.

Well, where do all those tales of how bad A36 is come from anyway? I'm not sure, but I do know that when we are having a bad day it is easy to blame the steel. Also, there is some non-spec material that does find its way into the hands of blacksmiths. They have closed their retail sales now, but Knox Metals here in Knoxville used to sell off spec steel at their junkyard. As I best understand how this worked, it is that on start-up or if a mill ran an off-spec product, rather than scrap it and send it back to the melting furnace, they would sell it if it was close as non-spec second grade material to folks like Know Metals. (Knox Metals never claimed it was A36, just that it was some hot roll, not sure what it is.) Sometimes this material was also off dimension. I have brought ¹/₄ by 1 inch material that ran anywhere from $\frac{1}{4}$ by 7/8 to $\frac{1}{4}$ by 1-1/8. This material might be right from the standpoint of the steel properties but again was sold as seconds and came from the start-up of a run where the mill was being adjusted for size.

Also, A36, gets a bad rap sometimes by some folks because it is made mostly by the mini mills and almost 100% from electric arc furnace melting of scrap steel. Does this make it bad? In my opinion, no. The finest tool and bearing steels are also made almost 100% from scrap.

Now they do use very tight controls on the chemistry of these steels, but just because a steel uses scrap as the material source doesn't make it junk. A36 does have broad ranges in its chemistry and I think that this is one reason it sometimes seems to be different from batch to batch. What about the story of finding the ball bearing in the bar of steel? Yes, it is possible to have a ball bearing in the steel but it didn't come by way of the liquid steel coming out of the electric arc furnace.

If it got there, it is because it came out of a bearing in some of the equipment over the hot rolling mill. It fell on the steel and was rolled in. It is rare, but can happen. This is why, in the mills (aluminum) I worked in, we wire tied all bolts on equipment above pass line. Good old A36, the stuff most of us will use for most things because we like the price even if it really is intended for the weld/fab shop.

Tool of the Quarter: Smithin' Magician

The tool for this quarter is the smithin' magician. After Paul's demo at the second quarter meeting, I thought more people might like to know about this awesome tool. Pictured below is a smithin' magician that is available by kit.

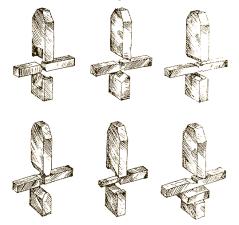


Kind of like your own mini-power hammer, the smithin' magician fits conveniently in your anvil's Hardy hole or in a post vise. After such a simple installation, you can heat up some metal and strike away. By using the guillotine-like dies to position the hot steel, you can strike on the top like a fuller to draw shoulders and grooves even quicker than by hand.



Most smithin' magicians can work up to a 1" piece of metal and there are multiple sets of dies for different textures and beads. It's like having a fullering tool set made especially for moving lots of material

quickly. It is also great for necking down pipe in an even manner. Pipe can be tricky on the anvil, particularly for an inexperienced smith, but the smithin' magician helps to provide a uniform necking down effect.



This is just another way to give the advantage back to a blacksmith working by himself. And I mention yet that they are relatively inexpensive as far as tooling goes? You can even get one at a discount if you choose the kit to assemble on your own versus buying one pre-made. I highly recommend you try one out if you are thinking about buying a treadle hammer or buddy.



Fun Blacksmithing Pic of the Quarter

Time for some fun for this issue. Our blacksmithing picture of the quarter comes from Jordan Graff out of Blue Hell Studio in Cincinnati, OH. When I first saw this picture, I thought it was a Santa beard. After talking some with Jordan, I found out that it was actually a trophy. Him and some of his friends did a competition to see who could raise the most money for a nonprofit that supported prostate cancer research and he won. That's a really cool story behind an awesome piece of metalwork. I would suggest more blacksmiths organize some friendly competitions for charities of their choice. I know we don't have any shortage of big-hearted blacksmiths with the photos I see all the time with volunteer demonstrations.

Alright, enough prodding. Thank you for all your submissions and please keep them coming. I know next quarter is going to be fun as well, not just anvil surfing themed. Now enjoy!



Calendar for 2 Quarters

	September 2016						
Sun	Mon	Tues	Wed	Thur	Fri	Sat	
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4	5	6 *	7	8	9	10 *	
11 *	12	13	14	15	16	17 *	
18	19	20 *	21	22	23 ^	24 ^	
25 ^	26	27	28	29	30 ^		

*Local Chapter Meeting +Statewide Meeting

^Special Event

	October 2016						
Sun	Mon	Tues	Wed	Thur	Fri	Sat	
						1	
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16	17	18	19	20	21	22	
^	^	**^	^	^	^	^	
23	24	25	26	27	28	29	
30	31						

*Local Chapter Meeting +Statewide Meeting ^Special Event

	Speelui Litent					
	November 2016					
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*		*				*
20	21	22	23	24	25	26
	^	^	^			
27	28	29	30			
	•	•	•	-	-	•

6	Triad Blacksmiths 6:30pm
0	Winston Salem, NC
10	Triangle Blacksmith Guild
10	Raleigh area
11	Southern Foothills Blacksmiths
11	Mooresville, NC
17	Triad Blacksmiths 9am
17	Winston Salem, NC
20	Wilkes Teaching Forge 7pm
20	Millers Creek, NC
23-	Southern Ohio Forge & Anvil
25	Troy, OH
30-	Dixie Classic Fair
9	Winston Salem, NC

30-	Dixie Classic Fair
9	Winston Salem, NC
4	Triad Blacksmiths 6:30pm
4	Winston Salem, NC
9	Southern Foothills Blacksmiths
9	Mooresville, NC
13-	NC State Fair
23	Raleigh, NC
15	Triad Blacksmiths 9am
15	Winston Salem, NC
18	Brasstown Blacksmiths 9am
10	Brasstown, NC
19	Wilkes Teaching Forge 7pm
18	Millers Creek, NC

1	Triad Blacksmiths 6:30 pm					
1	Winston Salem, NC					
	NCABANA 4 th Q Extra Meeting 8am					
4-5	John C. Campbell Folk School					
	Brasstown, NC					
12	Triangle Blacksmith Guild					
12	Raleigh Area					
13	Southern Foothills Blacksmiths					
15	Mooresville, NC					
15	Wilkes Teaching Forge 7pm					
15	Millers Creek, NC					
19	Triad Blacksmiths 9am					
19	Winston Salem, NC					
21-	Christmas Gift Making Workshop					
23	Winston Salem, NC					

	December 2016					
Sun	Mon	Tues	Wed	Thur	Fri	Sat
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						+
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*						*
18	19	20	21	22	23	24
		**				
25	26	27	28	29	30	31

*Local Chapter Meeting +Statewide Meeting ^Special Event

		Janu	uary 2	2017		
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		*				*
22	23	24	25	26	27	28
29	30	31				

*Local Chapter Meeting +Statewide Meeting ^Special Event

	February 2017					
Sun	Mon	Tues	Wed	Thur	Fri	Sat
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19	20	21	22	23	24	25
		**				^
26	27	28				

*Local Chapter Meeting +Statewide Meeting

^Special Event

	NCABANA 4 th Q Meeting 9am
3	Roger Barbour's Shop
	Clayton, NC
6	Triad Blacksmiths 6:30 pm
0	Winston Salem, NC
11	Southern Foothills Blacksmiths
11	Mooresville, NC
17	Triad Blacksmiths 9am
17	Winston Salem, NC
20	Brasstown Blacksmiths 5pm
20	Brasstown, NC
20	Wilkes Teaching Forge 7pm
20	Millers Creek, NC

	New Year's Open Shop
1	Dixie Classic Fairgrounds
	Winston Salem, NC
2	Triad Blacksmiths 6:30pm
3	Winston Salem, NC
7	NCABANA Annual Board Meeting
/	Mooresville, NC
8	Southern Foothills Blacksmiths
0	Mooresville, NC
14	Triangle Blacksmiths Guild
14	Raleigh Area
17	Wilkes Teaching Forge 7pm
1/	Millers Creek, NC
21	Triad Blacksmiths 9am
21	Winston Salem, NC

	METALfab 2017
2-5	NOMMA Convention
	San Antonio, TX
7	Triad Blacksmiths 6:30pm
/	Winston Salem, NC
12	Southern Foothills Blacksmiths
12	Mooresville, NC
18	Triad Blacksmiths 9am
10	Winston Salem, NC
21	Wilkes Teaching Forge 7pm
21	Millers Creek, NC
21	Brasstown Blacksmiths 5pm
21	Brasstown, NC
25	Dan Boone's Pasture Party
25	Louisa, VA

	March 2017					
Sun	Mon	Tues	Wed	Thur	Fri	Sat
			1	2	3	4
5	6	7 *	8	9	10	11 ^*
12 *	13	14	15	16	17	18 +
19	20	21 *	22	23	24	25
26	27	28	29	30	31	

*Local Chapter Meeting +Statewide Meeting

^Special Event



7	Triad Blacksmiths 6:30pm
/	Winston Salem, NC
11	Triangle Blacksmith Guild
11	Raleigh Area
11	Fish Fry at Larry Crew's Shop
11	Boonville, NC
12	Southern Foothills Blacksmiths
12	Mooresville, NC
	NCABANA 1 st Q Meeting 9am
18	Big Blu Hammer & Oak Hill Iron
	Morganton, NC
21	Wilkes Teaching Forge 7pm
21	Millers Creek, NC

Annual Christmas Gift Making Workshop

Join Andy and Jennifer Phillips for three day of blacksmithing fun at the Dixie Classic Fairgrounds shop in Winston Salem, NC the week of Thanksgiving. They will be opening up the shop for anyone who wants to forge on Monday, Tuesday, and Wednesday (November 21-23, 2016). This is the 6th year for the workshop so if you can't make it this year be sure to mark it on your calendar for next. We hope to see many of you there! Happy Forging!



4th Quarter Meetings

November 4-5, 2016 Hammer-In starts Friday night at 5pm Demonstrations are on Saturday at 8am

December 3, 2016 Demonstrations start at 9am John C. Campbell Folk School Brasstown, NC

> Roger Barbour's Shop Clayton, NC



Local Group Meetings

Triad Area Blacksmiths

Dixie Fairgrounds, 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

Southern Foothills Blacksmiths

B² Designs, 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 2nd Saturday in odd # months at various locations

Brasstown Blacksmiths

John C. Campbell Folk School, Brasstown, NC Paul Garrett pgarrett286@gmail.com (704) 604-1777 3rd Tuesday in even # months, 5-8PM

Wilkes Teaching Forge

Lyle's Shop, Millers Creek, NC Lyle Wheeler ncchairmaker@gmail.com (336) 838-2284 3rd Tuesday of each month, 7PM

Blue Ridge Student Blacksmith Guild

Flat Rock NC John Matthews john.knox.matthews@gmail.com (828) 645-2109

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 Extra 2016 November 4-5, 2016 John C. Campbell Folk School Brasstown, NC
- 4th Quarter Meeting 2016 December 3, 2016 Roger Barbour's Shop Clayton, NC
- 1st Quarter 2017 March 18, 2017 Big Blu Hammer & Oak Hill Iron Morganton, NC

2nd Quarter 2017 – June 24, 2017 Dixie Classic Fairgrounds

Winston Salem, NC

Other Events

Christmas Gift Making Workshop – Nov 21-23, 2016 Dixie Classic Fairgrounds Winston Salem, NC

New Year's Workshop – January 1, 2017 Dixie Classic Fairgrounds Winston Salem, NC

METALfab 2017 – February 2-5, 2017 NOMMA Convention

San Antonio, TX

Dan Boone's Pasture Party – February 25, 2017 Louisa, VA

www.ncabana.org

North Carolina Artist-Blacksmith's Association of North America



The Hot Iron Sparkle Jim Kennady, Treasurer 1171 Cash Rd. Creedmoor, NC 27522-9246

Nonprofit Org. US Postage PAID Raleigh, NC Permit No. 1910

Dated Material Return Service Requested

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