



Balcones Forge Dispatch

President's Corner

February 2016



Greetings!

A few years ago Balcones Forged teamed up with HABA and traveled to the town of West in North Texas to visit the historic Snokhous blacksmith shop. Someone remarked to our host, Ray Snokhaus how lucky he was to have spent all of his child-

hood working in a real blacksmith shop with his dad, Ray responded with "It's a place where everything you touch is either too hot or too cold." I can relate.

We had a very good turnout for the January meeting/workshop at John Crockett's shop in Marble Falls. Thanks to John for hosting and to William Bastas for teaching the workshop and showing ten students how to build and maintain a coal fire. All the students learned to forge weld, including my grandson Andrew. The workshop fee of \$125 per student which went to William was promptly refused and donated back to Balcones forge. Great job William!!

Do not miss the annual February combo demo at the Lee Brother's Steephollow Forge in Bryan on the 20th. Alan and Jeff have been doing this for a number of years and each year it gets bigger and better. We will see smiths from all over Texas and Louisiana and even Mississippi that represent several blacksmithing organizations. There will various forged items on display as well as food, music and some home brew beer. Come early, stay late and try to bring an item for the auction to help support this event. We could also use some help setting thing up, manning work stations and auction runners, and clean up. Ask Alan, Jeff or one of the board members what you can do to help.

President's message continued on page 2.

Meeting Date is February 20



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President's message continued.

The March meeting is the annual Bluebonnet demo at John Crockett's Sycamore Creek Ranch Forge. Our demonstrator this year is world famous blacksmith, Daniel Miller. His work can be seen in the Winter 2014 edition of the Anvil's Ring. The demo is on Saturday, April 2nd with a dinner and auction in the evening. Daniel will be teaching four workshops on March 31, April 1st, 3rd and 4th, with ten students each day. In the workshops the students will learn the proper use of a flypress while each will be completing a Daniel Miller original piece of functional art. The workshop fee is \$140 which includes material. This is also our big money maker. We rely on your auction donations and purchases to keep Balcones Forge operating throughout the year. To sign up for the workshop call Daniel Harrington at 512-549-9601. All workshop slots must be paid in advance.

We still want to hear from you. Do you want to host a meeting or demo? Who and what do you want to see. Want to help out with some of the Balcones functions? We can always use your help.

See ya'll in Bryan

Jerry Achterberg
President Balcones Forge



SECRETARY'S REPORT

The Balcones Forge workshop occurred Saturday January 9, 2016 at the Sycamore Creek Ranch hosted by John and Carolyn Crouchet. William

Bastas generously donated his valuable time and invaluable skills to serve as class instructor. The class of 10 students were verbally instructed on the skills and knowledge on how to start a coal fire and then maintain a quality fire in order to assist them in forging as well as welding iron & steel. Obtaining quality bituminous coal is usually a trial and error effort on behalf of the blacksmith but once a source has been identified as a supplier of coal that produces the fewest klinkers, it's best to stay with them. Complicating factors cannot be avoided because all coals do not act the same, even coal mined from the same seam often burns differently from each other. There are but a few businesses that offer coal for sale in south Texas but Centaur Forge in Austin is centrally located and usually has a good quality coal. Will pointed out that the center of focus for all blacksmiths is their fire, and if all the participants learned this day was how to build and maintain a quality forging fire, then and only then, can they take the glowing iron out of the fire and forge it into a masterpiece -- well, it might take several tries. As Jerry Achterberg once told me when I asked what he was making, he said not sure yet, we'll see when I'm finished.

Even though the day was gusty and cold, every one got a fire going. It was interesting to note that an atmosphere rich in cedar pollen does not effect the quality of a forge fire. Mr. Bastas explained that many blacksmiths do not know how much careful attention and deliberate effort is necessary in building and maintaining a forge fire. The fire tending methods must be followed with absolute care or the fire will quickly become inefficient or unusable. This is very important from the start, when one builds the fire to the end of the forging process. The heart of the fire is about the size of a grapefruit and is most efficient when located slightly above the tuyere. Once the initial coal starts to burn, giving off volatile black smoke, continue to force air into the fire which will consume the coal as it is converted into coke. Because the coke is

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constantly being consumed by the fire, the blacksmith must continue to feed wet coal into the fire. By raking and shoveling more coal from around the edges and then sprinkling it with an Arkansas water sprinkler will enhance the coal to produce a greenish-blue flame which indicates the coal is being turned into masses of coke. Care must be taken to avoid excess amounts of water because if it comes into contact with the hot firepot, it may cause it to crack.

Hot coke is necessary to bring the iron to a red or yellow heat (color of the sun, as Will explains) in order to be properly forged. Also, undesirable compounds in coal will adversely effect future welding attempts, yet another reason to turn the coal into coke. Coal will absorb heat, but when converted to coke it will reflect efficient and beneficial heat for forging. Keeping the coal raked up around the sides of the coke and then adding the coke as necessary to keep the center of the fire from hollowing out is a continuous and necessary effort for the smith.

As Will pointed out, a layer of coke surrounds the heart of the fire and the inch or two of coke insulates as well as reflect heat back into the heart. The fire is kept loose to allow free flowing air to pass from the turye through the coke. Continuous monitoring and replacement of coke is necessary to replace the consumed fuel to avoid substantial temperature drop thus adversely affecting desired heat for forging. The heart of the fire must maintain a white hot temperature and protective eye shading is advised.

Keeping the air blast evenly distributed will avoid hot spots and occasionally checking for clinkers is advised should one notice a decrease in air volume. The coke masses are very fragile so poor or rough methods of inserting iron are to be avoided. Excessive use of fire tending tools will break down the coke which may also restrict air flow through the fire.

When lunch break arrived, a fist size chunk of hardwood was inserted into the heart of the fire and with just a few blower handle turns after we

returned to the forge, we were able to resume making more coke.

Will demonstrated several methods of forge welding. Interestingly, a very small amount of flux is necessary to weld pieces together. Although I was quite busy with my own forge welding, it was quite evident most everyone was able to get the unique handle design Will demonstrated for us. The group was reassured that the center of focus for today's class was the blacksmith's fire and has been that way since the Iron Age. Whether a blacksmith is forging weapons, utilitarian objects, or artful creations, it's always the fire that allows blacksmiths to forge them.

Compliments to Laura Armstrong for arranging delicious BBQ sandwiches for our much needed lunch break. During this time, Jerry Achterberg reminded the group about the next upcoming event at Steephollow Forge in Bryan College Station at Jeff & Alan Lee's forge on Feb. 20, 2016. The details to this and following events are available for review in the email sent 1-10-16 by Jerry Whitley entitled "Balcones Event Calendar." The trade item for today's meeting was a flint striker. Of the more than half a dozen strikers presented, all were unique in design, size and shape, and all seemed to produce some quality sparks. Everyone got to tell the group how it was made and quench method used as well as demonstrate the striker's effectiveness. Everyone was excited about the event and the exchange graciously accepted and appreciated by the participants and spectators.

Thanks to everyone that participated in this blacksmithing event. It was very enjoyable and we all came away with fire tending skills that we never knew were so important. A very special thanks to William Bastas for his time and effort to put together such an important part of blacksmithing. Eventhough we were all tired and a little dirty, the group cleaned up after the meeting and rearranged John's forging area appropriately and John was certainly appreciative.

Submitted by Tim Tellander
Balcones Forge, Secretary

THE STEEPHOLLOW FORGEWORKS

COMBO - DEMO

FEB. 20TH 2016

BLACKSMITHING DEMONSTRATION
&
METALS ARTS EXHIBITION

FEATURING

Live demonstration of
FORGING by

- ▶ **WILL FRARY**
- ▶ **JOHN RIGONI**
- ▶ **STAN BRYANT**
- ▶ **LYLE WYNN**
- ▶ **JOHN MCGEE**
- ▶ **GERALD FRANKLIN**

**IRON SMELTING WITH
TOM WALKER**

BLACKSMITHING

One-Day blacksmithing
classes with
**Lyle Wynn Blacksmithing
AND Stan Bryant**
FEBRUARY 15-19

METAL ART

EXHIBITION
featuring functional and
sculptural metal arts
Contact

INFO@STEEPFORGE.COM
with questions



www.steepforge.com

@steephollowforge

IRON COMPETITION

**Item: Decorative or
Functional Vessel.**
Participants are to bring their
completed project for
exhibition and judging
FEBRUARY 20TH.
Winner will be announced after lunch.

LOCATION: STEEPHOLLOW FORGEWORKS, 7286 MESCO DRIVE BRYAN, TEXAS 77808

SPECIAL THANKS TO

ANYANG POWERHAMMER • BALCONES FORGE • HOUSTON AREA BLACKSMITH ASSOCIATION
NORTH TEXAS BLACKSMITH ASSOCIATION • LOUISIANA ARTIST METAL SMITHS • GOLIAD BLACKSMITHS
MISSISSIPPI FORGE COUNCIL • BACKSTAGE SOUND & LIGHTING • ARTS COUNCIL OF BRAZOS VALLEY
SALTFORK CRAFTSMEN • FRIENDS • FAMILY • VOLUNTEERS

The 6th annual Combo-Demo: Blacksmithing Demonstration and Metal Arts Exhibition will be February 20, 2016 at Steephollow Forgeworks in Bryan, Texas. This celebration of Blacksmithing.....a combined meeting of all the clubs in Texas and Louisiana, will feature “up and comers” and old reliable smiths. This year welcoming members of the Mississippi Forge council and they will do a demo. This one-day event FREE-OF-CHARGE will also include an iron smelt, tailgating, vendors, live music, food, art displays, live and silent auctions. Come early or stay late. Artists are welcome to display, sell, or promote their work. The public is invited to come see what Blacksmithing is all about. Blacksmithing is not dead it's ALIVE at Steephollow Forgeworks February 20, 2016.

This year's COMPETITION ITEM is a “vessel”. Start now to create your masterpiece. This friendly competition is always incredible for its varied entries. The winner will be crowned “the best of the best” (for one year).

An IRON SMELT led by Tom Walker from Louisiana will begin on Friday with the construction of the furnace. The smelt will be scheduled to be finished by 4pm Saturday. If you would like to be involved, just let us know.

VENDORS like James Johnson with Anyang Hammers will have one of his hammers available for a test drive. He is also a Chili Forge dealer. Find him at AnyangUSA.net. Richard Epting- knife maker. Eptingknives.com

Day long CLASSES with Lyle Wynn and Stan Bryant will be offered from Monday (2/15) thru Friday (2/19). Monday is a beginner class but Tuesday thru Friday will be hammer making classes. Make a hammer or the tools to make the hammer. All classes are \$135/day. The hammer classes are going fast. Reserve your spot today thru Steepforge.com or call 979-776-2864.

The DEMONSTRATIONS will feature:

- Stan Bryant- Mississippi Forge Council- making a Flatter
- John Rigoni- HABA, BABA, ABANA- making a colonial axe
- Will Frary- NTBA, HABA, Balcones, ABANA- Making a rose. Making a poppy from a bolt from the Battleship Texas
- John McGee- HABA, ABANA. Making tongs
- Gerald Franklin- Saltfork Craftsmen, ABANA. Making a bootjack from an old rasp
- Jeff Lee-HABA, Balcones, LAMA, ABANA. TBA
- Alan Lee- HABA, Balcones, LAMA, ABANA TBA

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Balcones Forge 2016

February 20 - Steephollow Forgeworks in Bryan, Texas with Alan and Jeff Lee
Competition Item – A “Vessel” of some sort
Lyle Winn & Stan Bryant – workshops prior to event \$135.00 each
Tom Walker (Louisiana) – Iron Smelt

March 31 – April 4 – Bluebonnet Demo – Sycamore Creek Ranch – Marble Falls, Texas
Workshops Thursday, Friday, Sunday & Monday
Demonstration on Saturday – Daniel Miller & Monica Coynes
No “Trade Item” – Make something nice to support the Auction & Balcones

April 30 - Mary Jo Emrick – Welding techniques – Georgetown, Texas
“Trade Item” – To be announced

May Annual Country Swing Music Festival – On the Square
“Trade Item” – To be announced
Date to be announced

June Jim Schmidt is looking into the Tech Shop located in Round Rock, Texas

July & August-These two months are usually too hot to forge in Central and South Texas. We are again looking into a “Field Trip” type of meeting. This time we are hoping to get a guided tour of the Institute of Texas Cultures. Remember, it is air conditioned (YEAH!)



photo from the January meeting by David Guerrero

LEARN HOW TO MAKE YOUR LITTLE GIANT POWER HAMMER WORK HARDER THAN EVER!

Please join us for the 23rd annual Little Giant Rebuilding Seminar! Although we did pass ownership of Little Giant to our machinist Roger Rice in 2013, Sid Suedmeier will continue teaching the rebuilding class at his shop at 420 4th Corso in Nebraska City.

We carry on the tradition of our good friend Fred Caylor of teaching how to make Little Giants run well and hit hard. The 2 ½ day class is a hands-on format. You will help transform a 25 LB Little Giant hammer from functional but sloppy condition into a well tuned, quiet, hard working hammer. Sid Suedmeier, former owner of Little Giant, will share all his knowledge and experience gained from working with Fred and from 24 years of repairing and rebuilding Little Giants.

An old style 25 LB Little Giant will be rebuilt during the class, and a new style machine will be on hand to demonstrate proper assembly and adjustment of both styles.

The class is held in Sid's shop in historical Nebraska City, Nebraska. The city has a wide variety of cafes, outlets (including Pendleton Woolen Mills), antique and gift shops, orchards, wineries and museums.

IF YOU HAVE A LITTLE GIANT, THIS CLASS IS FOR YOU!

No experience is required to attend this class. Past classes have been comprised of students, retirees, artists, welders, doctors, farriers ... anyone who wants to learn will benefit from this class. We approach the rebuilding process using tools that can be found in the average home workshop.

If you are in the market to buy a power hammer, this class will make you an educated shopper. If you already own a Little Giant, or any other brand of power hammer, this class will teach you how to get the best performance possible.

The class costs \$95, refundable up to 7 days prior to the class; advance registration is required. We limit each class to 25 participants. The classes start at 9 AM sharp on Friday, and usually end by Saturday evening. The schedule runs Sunday until noon in case we encounter any exceptional problems in rebuilding, and to answer remaining questions.

When we receive your registration, we will send you a city map, along with travel and hotel information. Airports are located in Omaha (45 miles north), Lincoln (50 miles west) and Kansas City (125 miles south).

March 11-13, 2016 REGISTRATION

Name: _____
 Business name: _____
 Address: _____
 Telephone: _____
 Email address: _____

PAYMENT

Check enclosed
 Visa
 MasterCard
 Discover
 American Express
 Number: _____
 Expiration Date: _____

POWER HAMMER INFO

Brand: _____
 Size: _____
 Serial Number: _____

Please call or email if you have any questions, or prefer to register by phone. You can reach us at 402.873.6605 or SidsShop@windstream.net. Suedmeier Enterprises, 420 4th Corso, Nebraska City, NE 68410.

An added bonus this year will be a discounted price on the Little Giant Rebuilding DVD set that we had filmed several years ago. Regular price is \$95; it will be offered to class members for \$50. One set per class member.



A *fire steel* is a metal piece that you can strike with a piece of flint in order to start a fire. This design is based on historical research and learning done by Beth while living in Denmark.

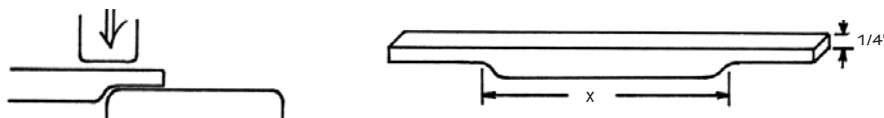
To make a good fire steel, you need a high-carbon steel, at least 1% carbon. For this demonstration, W-1 was used. 1095 will work, as will old files, but, it is important to grind off the teeth from any old file to avoid folding them into cold shuts, which will just break off. The idea is to forge the high-carbon steel and then rapidly quench it in water to form large carbon crystals. It is these rough crystals that will engage the flint to make the necessary sparks. Beware of highly alloyed high-carbon steels. They seem to make poor fire steels. You want high-carbon. It is the carbon that makes the sparks.

Working with High-carbon Steel

- It is tough, hard to forge even when hot.
- It has a low melting temperature, so don't get it too hot.
- Don't burn it! If it burns, you lose the carbon that you need.
- If you hit it too cold, it will crack.
- So go slow and watch your temperatures!

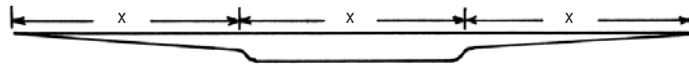
Stock. W-1 tool steel $\frac{3}{8}$ " round x 4" long.

1. Flatten the $\frac{3}{8}$ " round to about $\frac{1}{4}$ " thick, all the way down. Leave the cross dimension at whatever it naturally becomes. In other words, don't forge down the width.
2. Make a tongue on each end by using half-face blows on the rounded edge of the anvil, starting a scant 1" from the end. Make the tongue $\frac{1}{4}$ " x $\frac{1}{4}$ ".

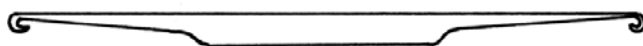


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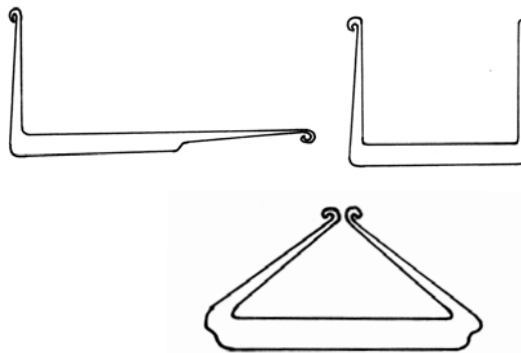
3. Measure the length x above. In the demonstration it was about $2\frac{1}{2}$ ". Use the $x=x=x$ method to scale this to your desired final size. **Note:** If you miss the length – if it's short – you can move the shoulder by using the rounded corners. If you use a sharp corner, you would most likely get a crack there.



4. Draw out each end to a nice taper of length x . The end is sort of a ribbon, tapering to a flat point. For hand comfort, you can soften the corners of the taper a little bit.
5. Scroll the tips into tiny tapers, curling *toward the bulge side*. Be careful to keep the tips hot. *It is easy to snap the tip off if it gets cool.*

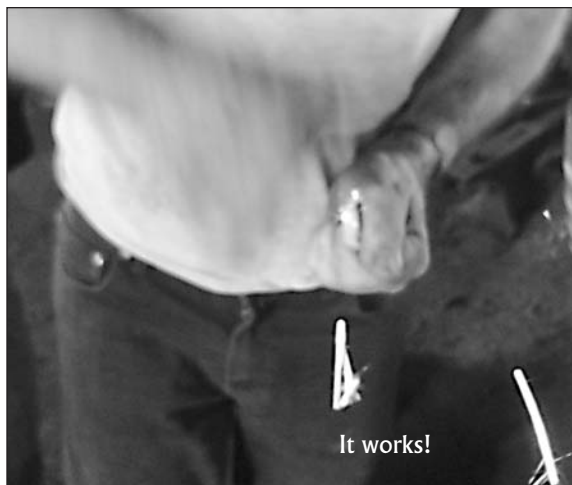
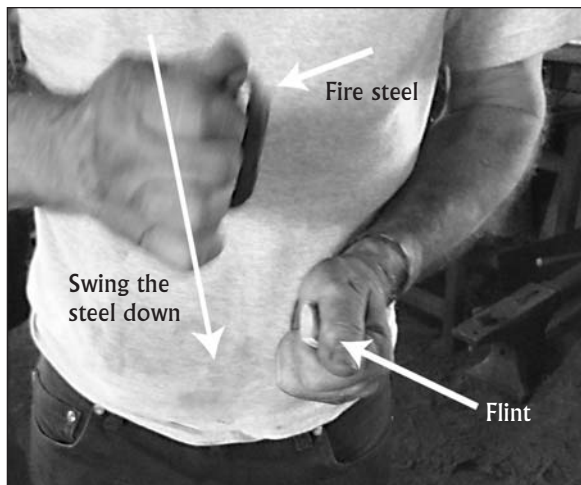


6. Heat at the transition from bulge to taper, and then bend the tapers away from the bulge until the two scrolls just meet. Bend one side half way, then the other, and then bring each side to center alternately. Keep the bends close to the bulge – you want the arms straight. Work from both sides to keep things symmetrical.
7. Adjust it to make it nice and flat.
8. Harden the steel: heat to a bright medium orange, and then agitate in water until cool.



Try it out!

all photos for this story by Beth Holmberg



One of the students at Hammerfest made sparks with the fire steel that he just made.

Other Fire Steel Designs



Viking C



Spanish Colonial

The fire steel, or flint and steel combination, was a common method of making fire for 2500 to 3000 years before matches came along. In the manifest records of an 1840s California trading ship, there were both fire steels and *lucifers*, i.e., matches.

In the Iron Age, people had both pocket-size and larger, kitchen-size fire steels. Kitchen-size or home-size fire steels were used from the Iron Age up through the 19th century, which saw the end of the fire steel era.

For the fire-starting demonstration, Beth had a bit of char cloth and a small pile of jute from an old rope. To start the fire, she started the piece of char cloth with sparks from the fire steel, then quickly dropped that into the ball of jute pieces. Gently blown upon, the jute quickly caught up. Then it had to be quickly dropped to start the larger fire.

Char cloth is a piece of cotton cloth heated in a small Altoids tin – closed off from the air – until it chars. The Altoids tin should have a small nail-hole in the lid to allow the vapors to escape – otherwise you can end up with incomplete char, or with tar stuff on the cloth.

The Spanish Colonial design came from pages 120-122 of *Southwestern Colonial Ironwork: the Spanish Blacksmithing Tradition*, by Marc Simmons and Frank Turley, Sante Fe, 2007. Available from Frank Turley. There are photos of maybe a dozen steels from archeological finds. ♣

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Workshop project for this year's
Bluebonnet

by Daniel Miller

Artist-Blacksmith's Association of North America

CASTING REALITY SHOW ABOUT FEMALE BLACKSMITHS

New York-based production company is searching for female blacksmiths between the ages of 21-40 for a series we're developing. We have worked with countless networks, including HGTV and DIY.

We're looking for outgoing and passionate people, who create unique works with their talent. If you're interested in submitting to the project and learning more, please send 1 recent photo of yourself and 2-3 photos of your work to carlyk@backroadsentertainment.com

To learn more about us, please visit our website: <http://backroadsentertainment.com>

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