Saltfork Craftsmen
Artist-Blacksmith Association
October 2020

More Devil's Grille...

The Eight Bar Pass Through Grille Saga Continues. This Version is by Mike Mumford from the California Blacksmith's Association. See Mike's Additional Notes and Lessons Learned on Page 18!

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Editor's Notes:

Thanks again to those of you who have sent in your projects for the newsletter!

You never know what inspiration your project may trigger for others.

And a special thanks goes out to Mike Mumford, newsletter editor for the California Blacksmiths Association. Mike provided a follow up to last month's article by John Taylor on the Eight Bar Pass Through Grille.

Mike saw the John Taylor article in our ABANA affiliate shared copy of our September newsletter and wasted no time forging his own grille. It looks great!

Mike was kind enough to share his insights gained from making the grille and mounting it in a square frame so we all benefit.

See Mike's article on page 18.

Thanks Mike!

-Russell Bartling, Editor

The Saltfork Craftsmen Artist-Blacksmith Association, a non-profit organization Our purposes are the sharing of knowledge, education and to promote a more general appreciation of the fine craftsmanship everywhere. We are a chapter of the Artist-Blacksmith Association of North America.

Visit our Saltfork Craftsmen Website:
www.saltforkcraftsmen.org

President's Notes:

Well another month is about over. A new year will be here before you know it. I hope everyone is doing well and I hope everyone is honing their skills - even if its just telling stories.

I think everyone needs to communicate in some way. Some of our members have decided to call off their meeting and some have decided to go ahead and have one. Who knows what to do lately. Some of the people I have talked to are getting together in small groups and I think that is good for your brain.

If you are meeting in small groups, Russell would like for everyone to send photos to him of your gathering and the projects you might be working on so he can put them in the newsletter. And if you are working alone, he would like any other photos of your projects for everyone to see.

We have been having really pretty weather the last few weeks it looks like we might be going to have a good fall this year. I hope. We have been going from summer to winter the last few years it seems to me.

Don't let your shop get too dirty when you're not having meetings.

Thanks, - Mandell

All Regional Meetings are Free to Attend and are Always Open to Any Member or Guest…

New to Saltfork or just want to check out Blacksmithing but don't know where to start? These meetings are a great place for new members or guests who just want to see what it is all about to come network with like-minded people. If you want some pointers on how to get started, there is always someone happy to help get you started hammering. And guests are always welcomed.

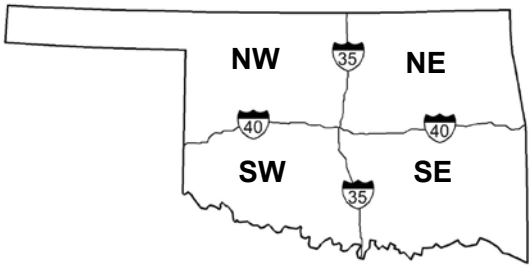
Want to host a meeting? The meeting hosting form can be found on the last page along with membership application form. If you want to host a meeting in any area, please fill out one of the host forms on the website under the calendar section or in the newsletter and e-mail the information or mail the hard copy form in as soon as possible. If you mail a form, please call or e-mail to verify that it is received. E-mail is the most convenient for me, but you can also phone in the information if you prefer. The sooner the meeting is scheduled, the more time there is to get the word out to potential attendees. -Russell Bartling 918-633-0234 or rbartling@ionet.net

What's My Region?

The four main regions are currently defined within the state by being separated by I35 and I40. (For example, the NW region is anything north if I40 and west of I35.)

All meetings are encouraged. These boundary definitions and regional meeting dates are a suggested framework to facilitate orderly meeting scheduling, planning and promotion with a minimum of overlaps and a maximum exposure to the greatest number of members. Not all meetings fit precisely within a rigid boundary definition and members in an area may want to hold meetings on a date that doesn't match their physical region or at a location other than their own region. This may be especially true in the center of state for areas that are close to the I35 and I40 boundary crossing. Special events such as shows, fairs, etc. may also dictate adjustments to the meeting dates within a region.

SCABA Regions



The regions are meant to be a simplification and clarification to the regional boundaries rather than a rigid restriction to any meeting scenario. ***Saltfork members all belong to one club.*** Regional boundaries are not intended to imply division within the club, but are intended to help spread distribution and promote monthly meetings.

Safety

Blacksmithing can be an inherently dangerous exercise. There is no substitute for personal responsibility and common sense and no list of safety rules can adequately cover every situation. Every person who attends a meeting, demonstration or event sponsored by the Saltfork Craftsmen Artist Blacksmith Association (SCABA) or its members does so at their own risk and assumes all responsibility for their own safety needs. The SCABA organization, its officers, members, demonstrators, volunteers and guests disclaim any responsibility for any damages, injuries, or destruction of property resulting from the use of any information or methods published or distributed by SCABA or demonstrated at workshops, meetings, conferences or other events. SCABA recommends proper attire and safety gear and standard shop safety procedures appropriate for blacksmithing and shop work during any event where blacksmithing and other related methods are involved. Safety attire includes, but is not limited to, appropriate clothing, eyewear, hearing protection, gloves, and face shields when appropriate. It is every individual's responsibility to provide for their own safety, to determine what safety gear is appropriate for each situation and to provide, maintain and use that gear as appropriate for each individual situation.

Correction:

In the September 2020 newsletter, I inadvertently left a couple of references to "Part Two" of the John Taylor 8 Bar Grille. The title of the article includes "Part One" which implies a part two. There is also a reference to completing the ring assembly in part two on the next to last page of the article. I had originally asked John and there is no Part Two. He did let me know that the joinery for the ring frame was done with rivets. (If you think about it, joining the grille to a round frame with fixed tenons would be very difficult if not impossible. Clay Spencer has demonstrated the surprising holding power of blind hole rivets at our Saltfork Conference. That method should be more than adequate for securing a round frame if you choose. - Editor

Coronavirus Safety Concerns/Event Cancellations:

With recent developments concerning COVID19, a large number of blacksmithing related events have been canceled for safety reasons. It will be more important than ever to stay posted with websites, social media, etc. and to double check before assuming events will be held.

-Russell Bartling, Editor

Membership Dues:

Thanks to Eric Jergensen, starting with April, **your membership expiration date is now printed on the back of the newsletter.** Memberships are no longer limited to the March to March duration but are a full year from the date of registration or renewal. So, the back of the newsletter will now be a quick reference to check your renewal date. - Editor

2020 Workshop Schedule

Currently no workshops are scheduled but a beginner class is planned for November. See page 10 for details.

Have an idea for a workshop or class? If you have an idea for a workshop that you would like to attend (or teach), please let the workshop coordinator know so that details for time and place can be worked out.

Mandell Greteman is the SCABA Workshop Coordinator.
Contact Mandell at 580-515-1292.

2020 REGIONAL MEETING SCHEDULE

NE Region (1st Sat)	SE Region (2nd Sat)	SW Region (3rd Sat)	NW Region (4th Sat)
Jan 4th (Open)	Jan 11th (Byron Doner)	Jan 18th (Open)	Jan 25th (Rory Kirk)
Feb 1st (Open)	Feb 8th (Byron Doner)	Feb 15th (Open)	Feb 22nd (Monte Smith)
Mar 7th (Open)	Mar 14th (Open)	Mar 21st (Bruce Willenberg) CANCELLED	Mar 28th (Mandell Greteman) CANCELLED
Apr 4th (Open)	Apr 11th (Open)	Apr 18th (SCABA Picnic) CANCELED	Apr 25th (Don Garner) CANCELED
May 2nd (Open)	May 9th (Open)	May 16th (Ricky Vardell) CANCELED	May 23rd (Terry Kauk-CANCELED)
			May 23rd (SW-JJ McGill Boy Scouts-CANCELED)
Jun 6th (Open)	Jun 13th (Open)	Jun 20th (Jim Obenshain -CANCELED)	Jun 27th (Everett Timmons)
Jul 4th (Open)	Jul 11th (Open)	Jul 18th (Open)	Jul 25th (Mandell Greteman-CANCELED)
Aug 1st (Open)	Aug 8th (Open)	Aug 15th (Open)	Aug 22nd (Open)
Sep 5th (Open)	Sep 12th (Open)	Sep 19th (Ricky Vardell - JJ McGill - Sulphur Tractor Show) **CANCELED**	Sep 26th (Ron LehenBauer as Host - Don Garner as Contact Person)
Oct 3rd (Open)	Oct 10th (Open)	**Oct 17th (Diana Simon)**	Oct 24th (Rory Kirk-CANCELED)
Nov 7th (Open)	Nov 14th (Bill Phillips-CANCELED)	Nov 21st (Open)	Nov 28th (Bob Kennemer-CANCELED)
Dec 5th (Open)	Dec 12th (Open)	Dec 19th (Open)	Dec 26th (Open)

2020 Fifth Saturdays:

February 29th (Tong Making Class in Elk City - See Workshop Schedule)
May 30 (Open)
August 29th (Open)
October 31st (Open)

October 2020
NE Regional Meeting October 3rd: Open.
SE Regional Meeting October 10th: Open.
SW Regional Meeting October 17th: Will be hosted by Diana Simon and the Cherokee Strip Historical Society at the new Blacksmith Museum and Shop. 2617 W. Fir Ave, Perry, OK 73077. The shop is located approximately 1/4 mile east of Exit 186 from I-35 on north side of the road (Hwy 64 or Fir St.) The meeting will run from 10:00 to 4:00. The trade item is anything you would like to make or bring. Lunch will be on your own but several food choices are located nearby. Contact Diana Simon at 580-572-8290 or dsimon@okhistory.org if you have questions.
NW Regional Meeting October 24th: CANCELED

November 2020
NE Regional Meeting November 7th: Open.
SE Regional Meeting November 14th: Open.
SW Regional Meeting November 21st: Open.
NW Regional Meeting November 28th: CANCELED.

Around the State...

NW Region August Meeting: No Meeting was held.
NE Region September Meeting: No Meeting was held.
SE Region September Meeting: No Meeting was held.
SW Region September Meeting: No Meeting was held.

BEGINNER'S BLACKSMITH WORKSHOP

SATURDAY, NOVEMBER 14, 2020

MULDROW CITY PARK

8 A.M. to 3 P.M. $40 Per person, all tools and materials provided.

We will be learning to taper, draw, twist and heat treat. If time allows we will also cover forge welding. Projects will include:

- An "S" hook
- A leaf
- A hot cut chisel

If time provides, we will also work on a flux spoon.

We will be working with VERY hot steel so please wear denim, or cottons, and sturdy footwear. Eye Protection is required, if you wear glasses, they will be fine. Leather gloves are optional. (but bring a pair, just in case) We will be working in teams of two. Limited slots available so please get yours early, as we usually top out. Payments may be made the day of the event, and cash is preferred. Lunch will be provided. For reservations please contact Brad Nance at 918 774 4291, or email at bradley.nance@cnent.com

NOTE:

Federal, State or Local COVID Safety requirements may be in place at the time of this event. There is no way to know for sure this far in advance what requirements will need to be followed. Common sense will be a minimum requirement but be prepared to follow the directions of the instructors at the time of the class. - Editor

Donation Opportunity:

Saltfork Members:

Did you see the article about Black Horse Forge helping veterans in the Summer 2020 Hammer's Blow? If you did not get the ABANA magazine, you can read up on Black Horse Forge on Facebook at:

https://www.facebook.com/search/top?q=black%20horse%20forge%20for%20veterans

and at their website: www.BlackHorseForge.com

I'm thinking we can all help this work by saw cutting blanks for Chris Friedrich crosses and sending those blanks to Black Horse up in Virginia.

As you know for a Friedrich cross, the cutting of the blank is what takes the most time.

I'm thinking each of us in Saltfork that has a saw could make 10 to 20 blanks and put them in small USPS flat rate boxes easily. I like the ones best that I make from 5/16" and 3/8" stock. Everyone has a slightly different pattern (cut lengths) that they like, so that would make this an even better project.

-Jim Carothers

Member Gallery

Miner's Candlestick by Gerald Stroup

My name is Jerry Stroup and I am new to blacksmithing. I took the tongs class last February and had a blast! I took my grandson on the Silverton/Durango narrow gauge railroad last month and picked up a piece of scrap metal 2"×2-1/2"×1/2" that was laying by the rail bed in the campground by the tracks. I want to clarify that I did not remove anything from the Railroad Tracks. No railroad track, spikes, plates or other parts of railroad property. I found a square rusted and broken chunk of metal beside the railroad bed. My initial thought was to pick it up and toss it in the trash so that nobody would run over it with a mower and then thought it might make a keepsake for the grandson.

I thought I would try my hand with a miner's candlestick so I watched Mark Aspery's YouTube demo and Black Bear forge's also. I finally learned how to control my coal fire better so I heated the block up this morning. I used an eight pound sledge to get it down to about 5"x1"x5/8" and then used Aspery as a guide. Four hours and this is what it turned into. No cold shuts and no welds. Taking the item to my grandson this week, it will go well with the penny we put on the track and the flake of gold we panned at the Argo Mine.

Member Gallery (Continued)

Gazebo by Gerald Brostek

This Gazebo measures 10ft. X 10ft.-8in. tall. Made of mild steel from Mexico. The 32 scrolls and the roof were hot forged. The rest of the steel was cut-fit- weld construction. (Continued on following page...)

Member Gallery (Continued)

It is mounted on a 6 in. wide foundation of concrete. The floor is of natural limestone. These culls were picked from the scrap pile of the quarry at Silverdale, Kansas. I could have saved a lot of work by getting pre-cast concrete pavers from Lowes or Home depot, but I wanted natural stone. The limestone culls had to be cut to shape and fitted into the random pattern pictured. This was very time consuming. After fitted they were sanded with a belt sander to smooth them and to bevel the edges with 40 grit belt. The spaces between the pavers were filled with polymer enhanced sand and sealed.

The steel is finished with oil based paint. Dark bronze color. The seats are made of Ash. Ash logs that I salvaged from the aftermath of the 2017 tornado near Fort Gibson. This Gazebo is not yet complete. The arched windows will serve as the frameworks for metal artworks that I plan to create in the future. Such as leaves, vines, birds, butterflies, flowers and such.

Note* I have for sale several large slabs of Ash lumber both air dried and some kiln dried. These slabs range from 1-1/2 to 2-1/2 inches thick and from12 to 26 inches wide and 6 to 8 ft long. Ash is a heavy hard wood commonly used for furniture, tool handles and baseball bats. It makes great table tops and looks fantastic when combined with hand forged iron work. - Gerald Brostek

Sheet Metal Table Saw

By Gerald Franklin

Here is another project that I have been meaning to get to.

This old saw has been with me for close to 50 years. Its much heavier than today's saws so I decided to convert it to a sheet metal table saw.

The table, legs, etc are pieces of scrap plate and pipe that were also in the way. I'll add an in-line switch soon. Its kind of open but maybe OSHA won't shut me down. - Gerald

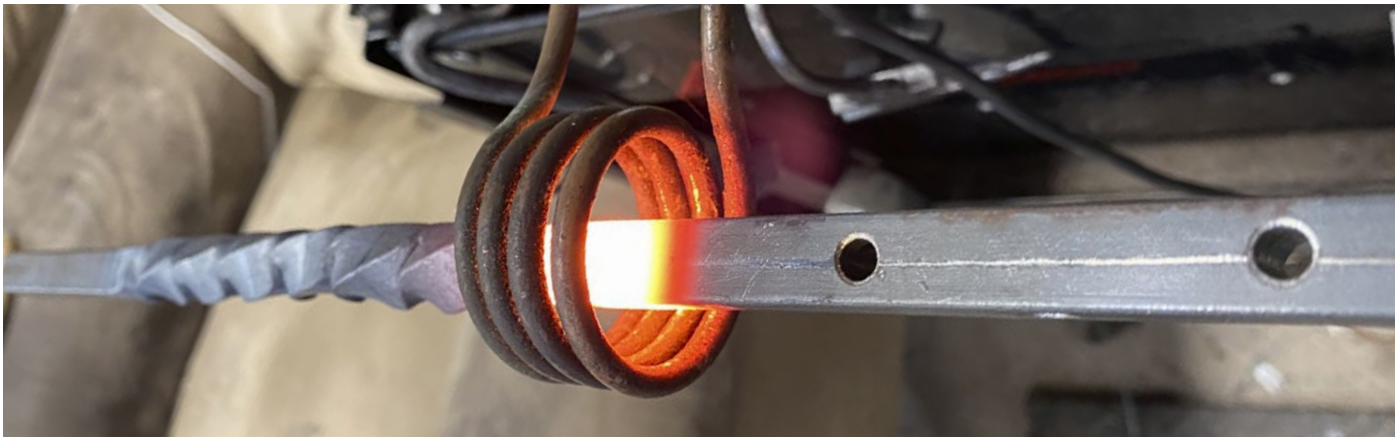
Obviously, this saw is a custom design and does not have the same guards and safety features that might be found on a mass produced tool. Safe operation depends on the user. If you are not sure how to operate something like this safely, you should probably not build one. Operating any type of rotary grinding equipment has inherent dangers that always need to be considered. If you keep those in mind and remain attentive, this could be a very useful tool. - Editor

A Different Twist

By Jason O'Dell

Sample Twist: This was demonstrated by John Switzer at Black Bear Forge on his YouTube channel a couple months ago. The twist intrigued me so I decided to play with it for a project I'm working on for a client. It took many fails to finally come up with a plan that works.

1/2 inch square bar: Mark or scribe a center line on 2 sides. Center punch then Drill 7/32 holes every 2 inches on one side. Center punch then Drill 7/32 holes every 2 inches on other side staggering with the holes on other side. Debur the holes.



Heat: Heat at the hole every inch. Small heats work much better to control the twist and not break the bar.

Making the Twist: Twist 3/8 turn or until 7/32 hole closes. I line up so that I am facing a single side of the bar such as in the picture. I do a quarter turn and then I turn it half of a quarter turn. This typically closes the 7/32 hole.

Straightening and Finishing: Straighten the bar while still hot with a wooden mallet or by just tapping it straight against a hard surface like the anvil face.

Then apply a finish. The sample at the beginning of this article is a light touch of brass on the high points then coated in boiled linseed oil.

- Jason L. O'Dell, 405 Forge

Thoughts and Notes About Making a Devil's Grille

Mike Mumford, Ridgecrest

Oh By The Way: Grille is correct. I had to learn this recently, when working on the Level III Grille articles.

Sometimes I just can't resist a challenge.

This grille was shown in the Arizona Blacksmith's Association "Anvil's Horn," a picture of the grille made by Juan Ocampo during Jerry Coe's Buenos Aires trip. Then, the Saltfork Craftsmen published a how-to article by John Taylor. So, I just grabbed the article to give it a try.

As a matter of scope, it took me 3 ½ days to make this. 1 ½ days to make the inner grille section (including making the punches and drifts), another 1 ½ days to make the frame, then a half day of tweaking, aligning, and cleaning.

I followed John Taylor's instructions: they are well-written and clear. I won't say that I followed them closely: I made too many mistakes as I went. Usually, my mistakes involved putting a bar in backwards, or getting the numbers out of order.

My first step was tooling - I made a 1/2" slot punch, 1/2" round drift, and 1/2"-plus square drift. The slot punch was some leftover air tooling, I think it's S-5. The two drifts were 4130. I made the square drift 1/32" oversize, i.e. actually 17/32".

One of the things that I learned was to make the holes a bit oversize, so that I could wiggle the bars around. At times I wanted to be able to let the bars flop sideways.

My next step was to do some test punches: using the idea of measuring a test bar, punching and drifting three holes, then measuring the extension. This measurement turned out to be un-needed, but it was good practice. It also let me check the drift, to make sure I had a loose fit.

Start by numbering all 8 bars. On both ends, and in such a way that they are visible from various sides - I always seemed to have the number on the shaded side of the bar. Murphy was an optimist.

What is surprising is that all 8 bars are measured and punched the same! It doesn't look like that when you just glance at the grille. However - pay attention to the order to punch and drift. Read and follow the instructions!

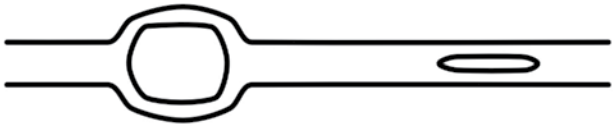
Watch out for mistakes!

FYI: I used a gas forge for all of this.

Another OBTW: it was 116° in the shade when I was making this.

Again: Watch out for mistakes! I say this because I made plenty.

One thing that I learned from my mistakes is that I could heat up one of the punched holes, collapse it so I could withdraw the bar, then re-drift. From this insight, I later made both punched holes in the outer bars, drifted



one and collapsed the other. It is easier to punch a bar by itself, rather than as a partially installed bar with the rest of the grille flopping around and getting in the way.

If I did this again, I would slot-punch both holes in all the bars before starting any assembly.

Watch out for the slot punch upsetting. It took a lot of abuse, since I was drifting against an aluminum plate. If it upsets (and starts sticking), go dress the punch.

I found that it was easy to make the mistake of assembling/inserting a bar backwards. So, pay attention. Once I started adding the four outer bars, it became more obvious how to proceed.

You eagle-eyes out there will probably also notice that I didn't follow the outer assembly order. That was another mistake, but as it became clear how to assemble this, it didn't matter.

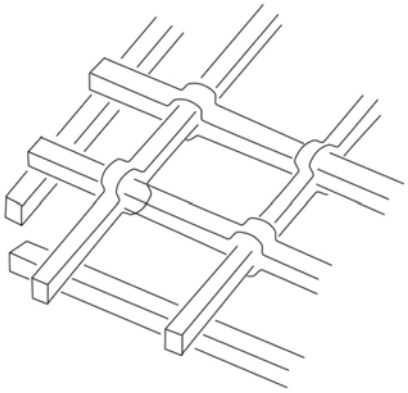
The original Saltfork Craftsmen article showed the assembly process using soda straws. I took photos as I assembled, which are attached following this article. However, I found the soda straw images quite readable.

With sufficient looseness in the drifted holes, I didn't have to bend the bars to assemble. The bars are weak through the drifted holes, so it's probably better to avoid any bending. I did have to do a lot of wiggle and persuasion. Keep an eye on alignment as you wiggle and persuade: it's easy to let the bars get out-of-line.

Outer Frame

I didn't recognize out how John riveted the inner bars to the frame, and I didn't want to make a round frame. So, I made a square frame, with upset square corners, using 1/2" x 1" stock.

What I should also have done is to make a layout frame, pieces of stock that I could set the inner structure on to check precise tenon layout and position. The problem was that I had to measure and make the inner-structure tenons before I made the tenons on the outer frame. Which meant that the outer frame bars were a little cattywampus, making it hard to precisely measure the inner tenons. So, I ended up with some measurement errors.



I wish I had done this to mark the tenons

The other advantage if I had a layout frame would have been the ability to clamp everything down. The inner frame is loose, and it was easy to knock it askew.

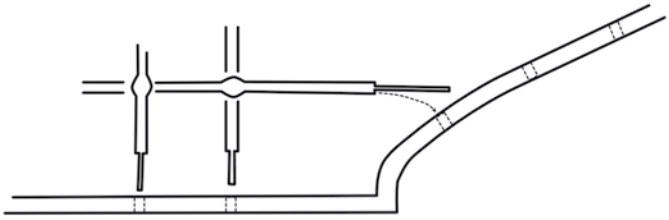
Following John's instructions, the inner bars started as 24" of 1/2" x 1/2". The outer frame ended up approximately 21" x 21". Once you have everything aligned, make the tenons on the ends of the inner bars.

Grille Notes

So, my first step for the frame was to cut the two pieces, mark and make the upset square corners. Then figure out where the tenons go and drill the tenon holes. To help assembly, when you make the tenons on the inner bars, make them slightly undersize, and drill the holes slightly oversize. It helps to have a bit of extra wiggle room.

Next, similarly to a CBA Level II grille, make the tenons for the frame. However: don't set the tenons now. The inner bar assembly needs to be added.

You have this nice square frame with straight legs; now go bend one leg back out of the way.



Pick one corner of the frame, and start wiggling and persuading the tenons into the holes. I used a torch to help bend the tenons so that they can be aligned with the holes. A leather mallet also helps persuade things together.

After you get one side into the frame, start bending the tenons and the frame back together. By having the tenon holes a little loose, you can gain a little space by wiggling the inner bar assembly back a bit. Once all the tenons are in their holes, do any straightening needed. This is all torch-aided.

If I had to do this in production, I think I would make the frame with tenons top and bottom, not worry about the upset square corners - it took a bit of work to get the frame sides back into alignment.

Once I got the frame into one side, I made a similar bend in the other frame piece, inserted the frame tenon, then began again the process of wiggling bar tenons into the frame.

Set Tenons

Once all the bar tenons are together and the frame tenons are inserted, make sure that everything is aligned.

Now set the tenons: I started at one corner, and worked along the outside. It might have been better to do one side, then the opposite. But going along the outside worked for me.

Tweak

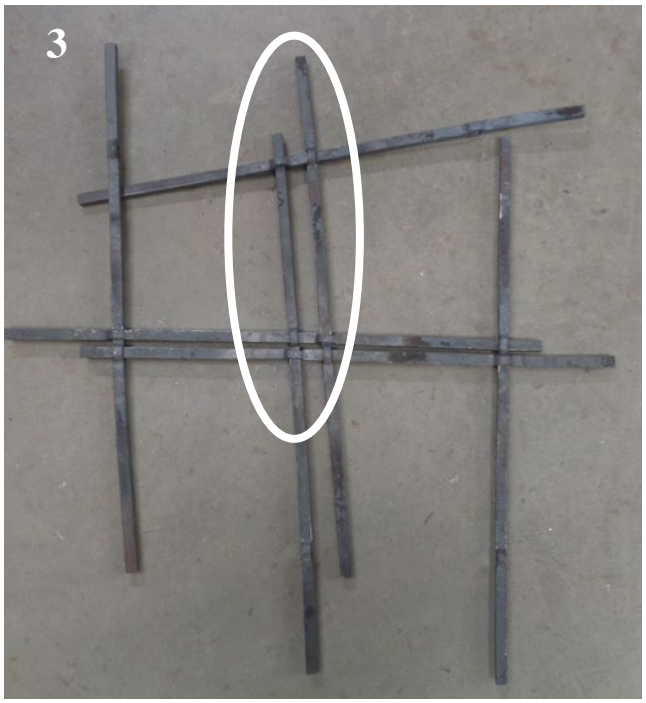
I had a mis-measurement on the upset square corners, and had to move the upsets a bit. The inner bars also needed a bit of re-alignment.

Once here, clean it, apply your favorite finish. Then step back and enjoy!

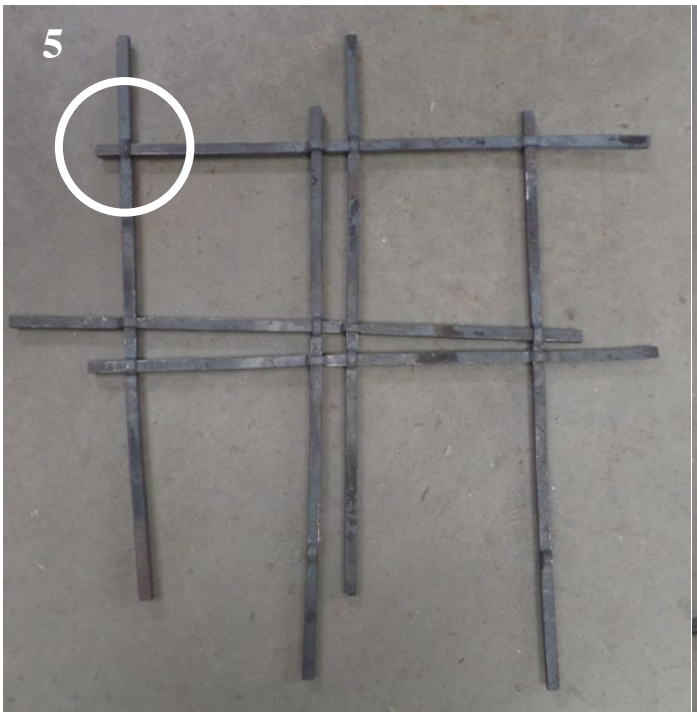
Appreciation

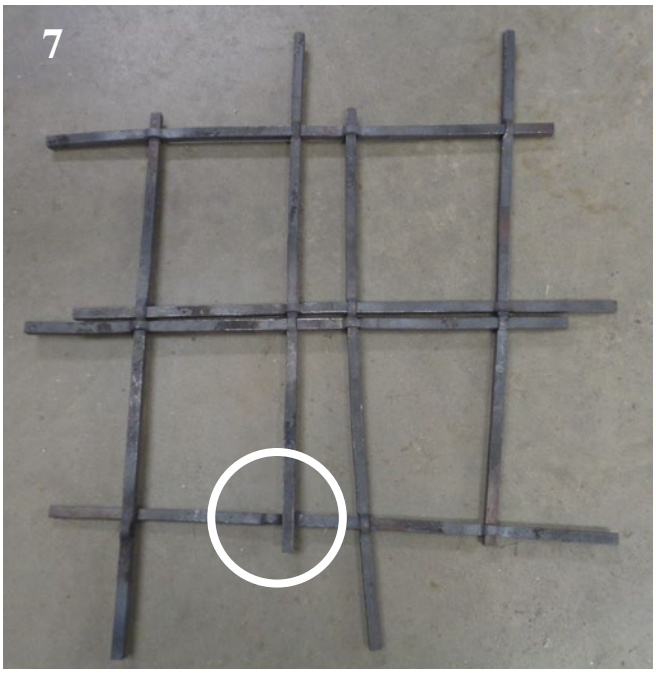
My thanks go to John Taylor for his instructional writeup, Juan Ocampo, and to the Saltfork Craftsmen for publishing John's article. Also the inspirational photo in the Arizona "Anvil's Horn."

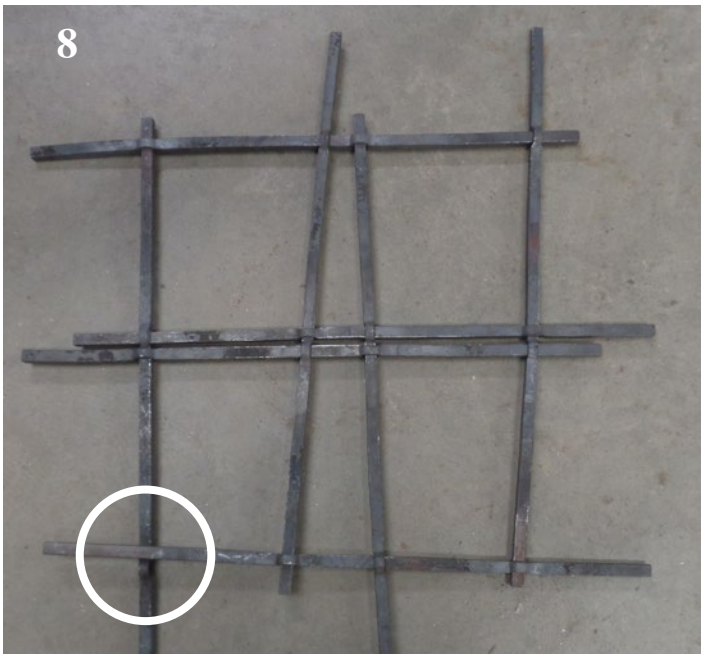
Outer Bar Sequence



Outer Bar Sequence







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Forging a Pair of Open-Jaw Tongs

John Graham, Sacramento.

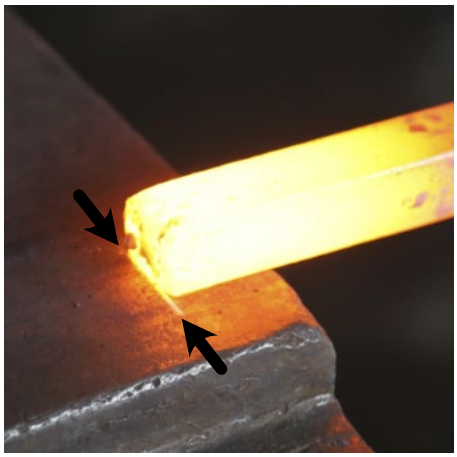
The photographs below are of Mark Aspery conducting a tong-making class at the California Blacksmith Association's instructor training class. The class is held at the annual Weaverville Hammer-in, each March.

Mark starts his open (flat jaw) tongs by laying off 1⅛″ from the nearside edge of the anvil face. He used ¾″ square stock for the jaw and boss assembly and ½″ diameter round bar for the forge-welded reins.

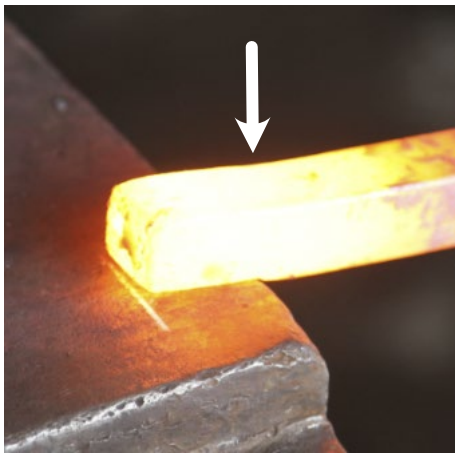
Watch for a CBA Zoom on forging tongs!

This tong article is presented here to complement a CBA Zoom tutorial. Victoria Ritter has given a number of CBA Zoom tutorials recently (Check the events menu on www.calsmith.org) and is currently working on a Zoom tong tutorial for CBA members. CBA is committed to continuing its educational mission during these difficult times.

Instead of the usual turn left or turn right, Mark states that you need to constantly turn the top surface of the stock away from your hammer-hand to make a pair of tongs to fit your tong hand. Turn the top of the stock towards your hammer-hand if you want to make a pair of tongs to be held in the hammer-hand for use at the power hammer.



Lay off 1⅛″ from the near-side edge of the anvil



Use half-faced blows initially

Walk the hammer towards the end of the bar

Draw to ½-bar thickness. Turn the top of the bar away from your hammer hand

Hold bar at an angle to the offside edge and draw down the boss

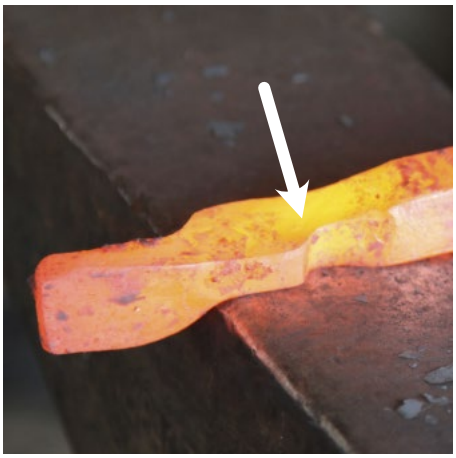
Use half-faced blows here. Dig in to the parent bar with the heel of the hammer

Tongs Photo Essay

The boss is half the parent bar thickness for at least the width of your hammer

Again, turn the top of the bar away from your hammer hand

Use half-faced blows to define the rear of the boss



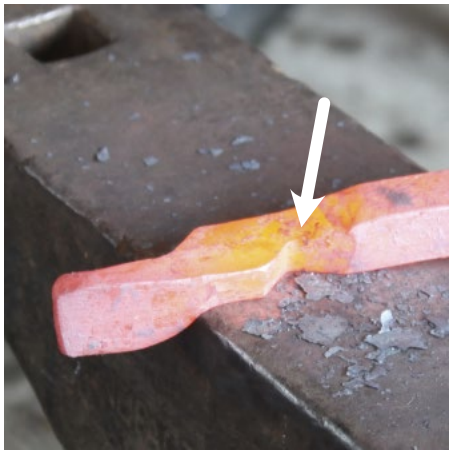
Dress any lipping and cupping as it occurs

Dress the front of the boss over the offside edge of the anvil

Mark likes a parallelogram-shaped boss to prevent the reins from swinging open

Work equally from all sides of the boss

Cycle through each step a few times



Dress any lipping and cupping as it occurs

Tongs Photo Essay

Mark likes to work over a round edge of the anvil face to prevent any cracks from forming at the transition points. The boss is drawn to a parallelogram to prevent the reins from swinging open if one rein is dropped during use. Any lipping or cupping is dressed quickly to prevent cold shuts. Leaving it to develop can cause problems.

The end of the jaw is tapered to help the tongs navigate through the coals of a fire and aid in stock pick-up.

The jaw is laid off the offside edge to start the punching process for the rivet hole. The hole is back punched on the anvil face and drifted to size over the pritchel hole. The jaw/boss assembly is cut from the bar allowing enough stock to draw a short rein for forge welding purposes. Leave the parent bar with an square, un-forged end.

Protect the boss as you draw down the rein. The cut is made from the flat side of the jaw/boss assembly to aid in forging the scarf for forge welding on the reins.

Strive for 1″ between both sets of flats

The second set of flats shown

Now dress the sides of the jaw—taper the end slightly

The end is drawn to a slight taper

The taper helps the tongs slip past coals in the fire and pick up stock

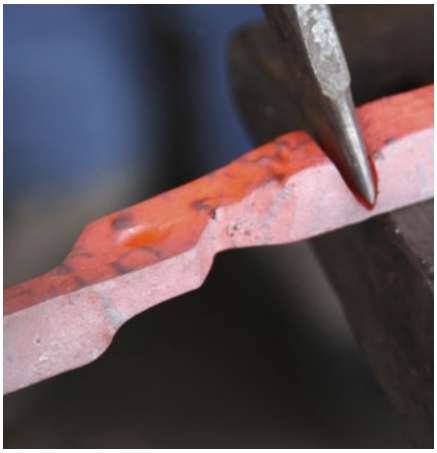
Place the jaw over the offside edge to begin your punched hole

Tongs Photo Essay

Back-punch on the face of the anvil with the jaw protected from damage

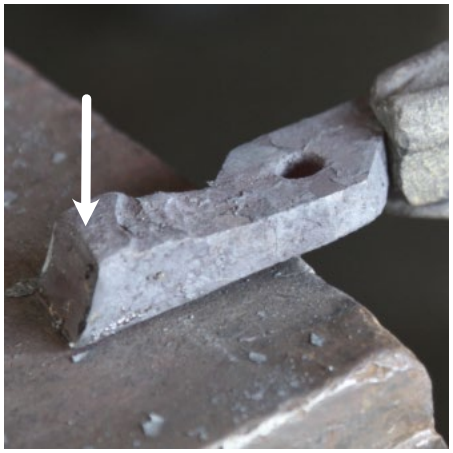
Drift to rivet size over the pritchel hole

Slope the chisel to maintain a vertical cut to the parent bar



Sever the jaw and boss assembly from the parent bar

Protect the corner of the boss as you draw down the rein



Also preserve the slope of the cut to help with the weld scarf as you work

Working from just two sides helps preserve the slope and makes an easy scarf prep

Create the step of the weld scarf

One of the secrets to forge welding is to make sure the scarfs fit before welding

Tongs Photo Essay

The scarfs should fit together with minimal gap between them—allowing for an easier weld.

A pair of box-jaw tongs are shown in the last three photographs, but the steps are the same for open-jaw tongs.

A piece of ⅜″ diameter round bar was used for the rivet. A spacer—in this case a ⅝″ nut, was used to center the rivet during the riveting over of the first side.

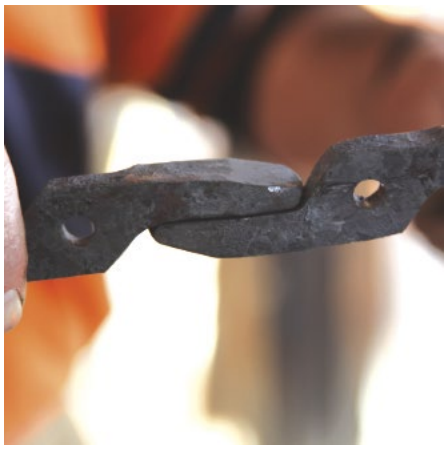
Using a short piece of stock of the required size for the finished tongs, the jaws were adjusted first. Remember that the short piece of stock is now quite hot!

The jaws, boss and rivet are cooled and the reins adjusted to suit your preferences. A vise can be used at this point.

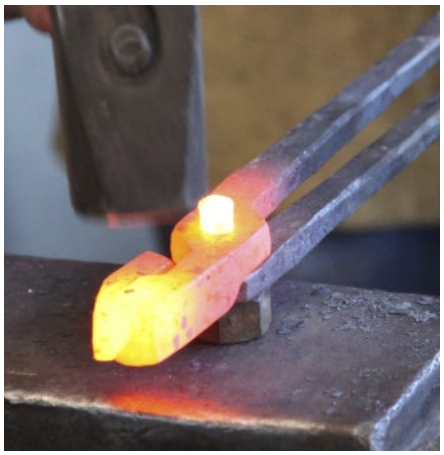
23 instructors had completed multiple styles of tongs at the end of the day. Thanks go to the CBA educational team for putting on the training as well as to the Weaverville smiths for hosting the event.

Make the weld, ensuring that the toe of both scarfs are blended into the other stock

Draw down the reins over the bick for efficiency and dress on the anvil face



If you are consistent in your work the jaws should fit together without modification



Round bar will serve as a rivet, with a spacer (nut) to help with even distribution

Adjust the jaws of the tongs by using the appropriate sized stock and closing the jaws

Once adjusted, quench the jaws and adjust the reins to suit your grip

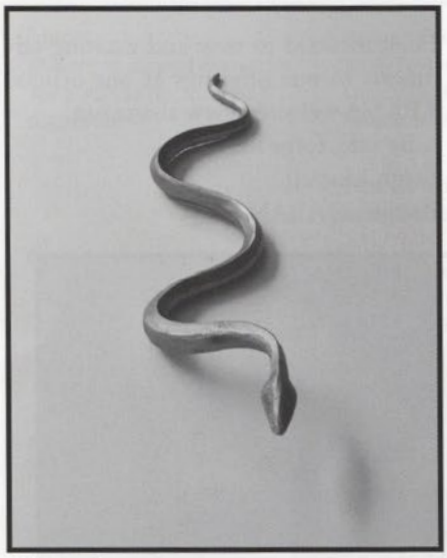
This article is reprinted with permission from the California Blacksmith Association Online newsletter Sep-Oct 2020.

MAKE A SNAKE!

By John Dittmeier
Silver Spring, Md.
fontanaforgellc@gmail.com

With only a forge, an anvil, certain hand tools and an optional post vise, you may quickly create this sinuous snake. Emphasis is on the snake’s spine and the finish.

For this snake, use 17 inches of hot-rolled ½-inch square bar. Before any heating, stamp your initials and year at the midpoint and near the edge—on what will be the underside or belly of the snake.



Note that the snake is representative, without scales or eyes; a viewer will readily recognize the form and overlook the absence of details.

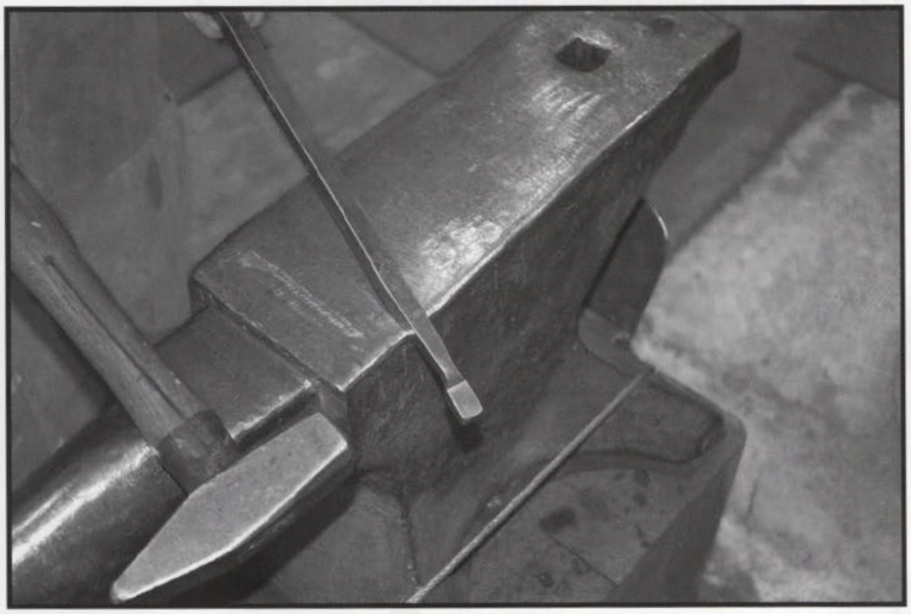
So all forged surfaces will be smooth, use a hammer with a dead flat face, with slightly rounded edges, to forge the snake head, to draw out the tapers, and to shape the body.

Shaping the Snake’s Head

With the stamped underside facing downward, begin to forge the snake head and neck as if making a blunt leaf with stem.

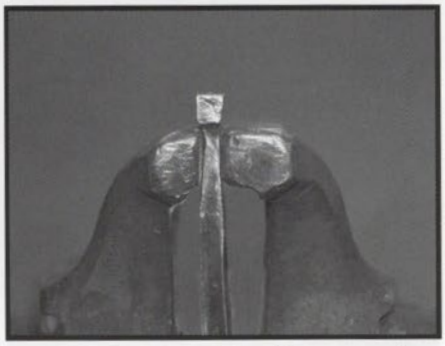
The first blow upon the neck is ‘deliberate’. Make a quarter turn for another deliberate blow.

Check that the two indents are aligned. Continue forging the neck of the snake as a square taper. This can be done in one heat.



After touchmarking, start forging the snake’s neck and head.

Optionally, upset the head in the post vise for a broad (poisonous) snake head. After the first set of blows, turn the head 90 degrees in the vise.



For wide (viper) head, upset the snake head in a vise.

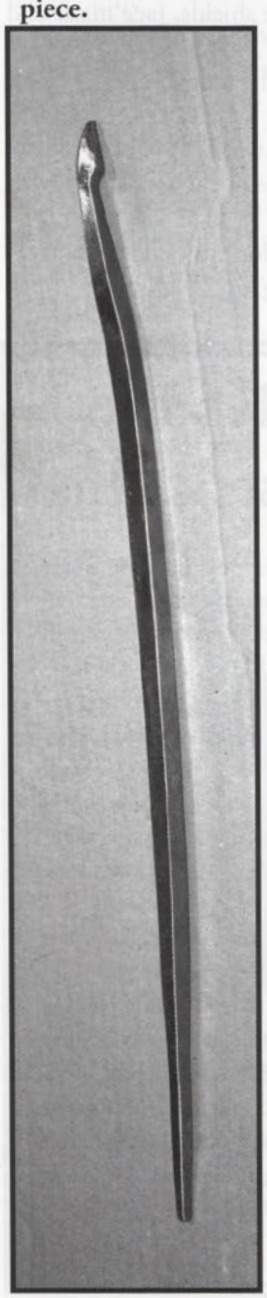
Complete the forging of the head into a blunt taper. The hammer blows should be towards the anvil, causing a slight upset while making the taper. Final blows are downward atop the snake head in order to spread it. This can be done in one heat.

At the tail end of the snake, forge a long, smooth, square taper. The total length now is 21 inches.

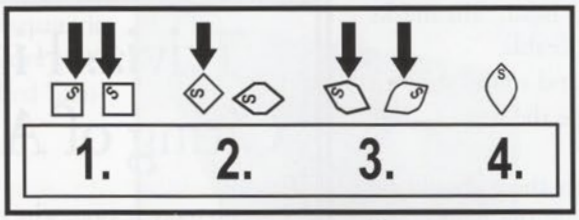
At a red heat, lightly hammer the top edge of the hot-rolled square bar, being the snake’s middle, to make it sharp; this sharp edge will become the spine of the snake’s body.

Return to the anvil to finish shaping the snake head.

After forming the head, the tail end should be drawn to a smooth taper, which should keep up the same angles established at the thicker middle part of the piece.



As shown in the forging sequence drawing, transform the square cross-section into a squashed hexagon and then into a "lens" cross-section. The "S" letters in the following drawings indicate the spine, or eventual top part of the snake's back. Make it sharp-cornered during the first step of shaping the body.



The forging sequence in forming a serpent-like body form: 1. Sharp-squaring the spine. 2. Flattening the sides. 3. Rounding the side flats. 4. Cross section of finished body shape.

The first new flat (Step 2) is about 3/16-inch wide. (A treadle hammer with flat dies is effective for these steps).

The forging of the snake body is complete. What remain are the bending and the "giving of life" to the snake.

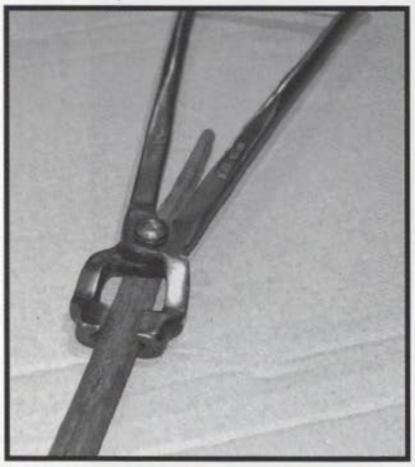
Bending the Body

For the bending steps, have ready:

- A wooden mallet
- A heavy wood block, such as two-foot length of a solid-core door, and
- A set of "Z" offset tongs, typically used for knife making. These will serve to protect the snake's sharp spine from dents.

Wooden pad and mallet protect the mild steel snake body from dings and scratches while adjusting its pose.

After each bending effort, use the wood mallet and wood block to flatten the snake's body.



"Z" offset (knife maker) tongs hold the work piece beside the reins, which lowers the chance of the jaws or pivot pin deforming the snake body.

Over the edge of the wood block, use the wooden mallet to raise the snake's head and neck so that the snake 'holds its head high' as if it is about to strike. Using a round-faced hammer, curve the body of the snake over the horn of the anvil, starting near the head. The marks of the round-face hammer will not be noticeable.

Having completed all forging, use flat and round smooth files to remove any roughness and to shape the head and its neck for symmetry.

Check the spine for any dents—though there should be none. Use a round smooth file to remove the dents. The power finishing that follows will remove the file marks.

"Raising" the snake's head.

Curving the snake body over the anvil's horn, using the round-faced hammer.

Acid bath and neutralizer speeds a shiny finish, ready for final coatings.

A Serpent's Finish

For the finish, first soak the snake for 12 to 24 hours in a pickling bath of food-grade citric acid or vinegar, in order to transform the scale to a dust.

Dip the snake in a bath of baking soda solution to neutralize the acid and then rinse in a clean water bath. Dry with a towel.

Once fully dry, ideally use an angle grinder with a knotted wire brush cup to remove the scale dust and polish what is now bare steel to a high sheen, one that reflects light. Any bare steel due to filing will now match the polished bare steel.

While power finishing, wear safety glasses with side shields, face mask and respirator.

Options to the angle grinder with brush cup are emery cloth and/or heavy-duty scour pads.

Coat with gloss clear acrylic, or with an oil-wax mix.

For a production run, one would create a bending jig.

Trivia: First Known Citing of Artist-Smiths

I see no more reason, why the sordidness of some workmen should be the cause of contempt upon manual operations, than that the excellent invention of a mill should be despised because a blind horse draws in it.

And tho' the mechanicks be by some accounted ignoble and scandalous, *yet it is very well known that many gentlemen... of good rank and high quality, are conversant in handy-works: And other nations exceed us in numbers of such.* How pleasant and healthy this their diversion is... and how harmless and honest... all sober men may judge!

Consider: If we ourselves were the first men, what we should first need, and have recourse to.

I have considered, and answer that without the invention of smithing primarily, most other mechanic invention would be at a stand, the instruments or tools that are used in them, form'd by the help of iron. But pray take notice, that by iron, I also mean steel, it being originally iron.—Excerpts from the preface to *Mechanick Exercises, or The Doctrine of Handy-Works* (1678) by Joseph Moxon (1627-1691).

Where is YOUR Part of the Saltfork Gate Project?

This is a community project that is open to all Saltfork members. The project is a four-foot-high by sixteen-foot-long gate to be displayed outside at the Route 66 Blacksmith Shop Museum at Elk City.

Secure your place in Saltfork History FOREVER!*

**(This statement has not been verified by God, Mother Nature, Father Time, Current Scientific Understanding of Metal Oxidation, or the Elk City Museum Management. But probably for a long, long time at least. - Editor)*

Participating members will be given a steel ring that can be filled with any (family appropriate) forged work that will fit in the ring and be permanently attached to it.

Mandell Greteman is coordinating the project and will provide the standardized rings. All of the rings will be provided to ensure they are a standardized size. Once the projects are returned, Mandell will weld them into the gate to be displayed at the museum.

You can submit multiple entries if you would like. If the gate fills up and we have extra entries, we can do additional gates.

Your Facebook post will most likely be forgotten in two days but daily visitors from around the world will see your gate project for years at the Elk City Museum. Don't forget your touchmark!

Contact Mandell if you have any additional questions or to find out where to obtain one of the project rings: **Mandell Greteman 580-515-1292**.

2020 SCABA T-Shirts

For a LIMITED time, new 2020 SCABA T-Shirts are available. These were planned to be the Conference T-Shirts (an annual tradition) but since the conference is canceled, the design has been modified to acknowledge the reason for the cancellation. (And it infers how most people feel about COVID-19!)

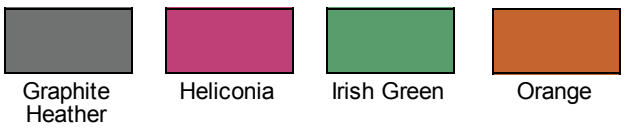
Gildan Adult Heavy Cotton™ 5.3 oz. Pocket T-Shirt

	S	M	L	XL	2XL	3XL
BODY LENGTH	28	29	30	31	32	33
BODY WIDTH	18	20	22	24	26	28
SLEEVE LENGTH	15.625	17	18.5	20	21.5	22.875

Fabric

- 5.3 oz., 100% cotton
- Saftey Pink, Safety Green, Neon Green, Graphite Heather and
- Heather Radiant Orchid are 50/50 Cotton/Polyester

Available Colors: View the Newsletter Online to See the Sample Colors Available



Remember When Choosing Your Colors: The Printing is Black and White so Lighter Colors Will Have the Best Visibility.

Example: Sapphire

Example: Graphite Heather

T-Shirt Order Form

First Name _____ Last Name _____

Address _____

City _____ State _____ Zip _____

Phone (Best Number to Contact) (_____)_____

e-mail _____

Size	Color	Quantity	Price Each	Sub-Total

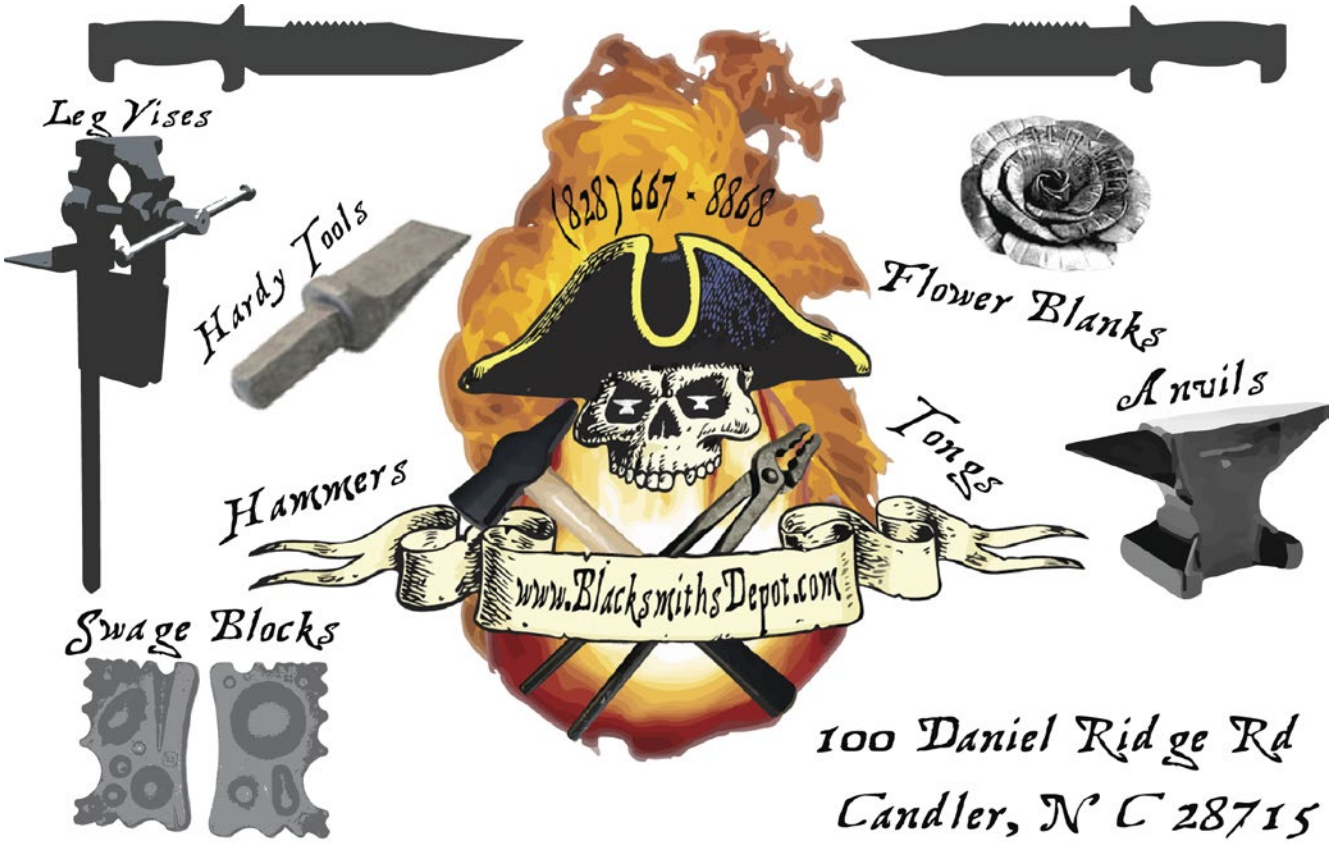
Shipping: $2:50 for first shirt plus $0.25 for each additional shirt:

Total:

T-Shirt Price:
Small to 3X: $15 Each
4X to 6X: $20 Each

Mail this form with payment to:
Teresa Gabrish
322 Washington
Blanchard, OK 73010

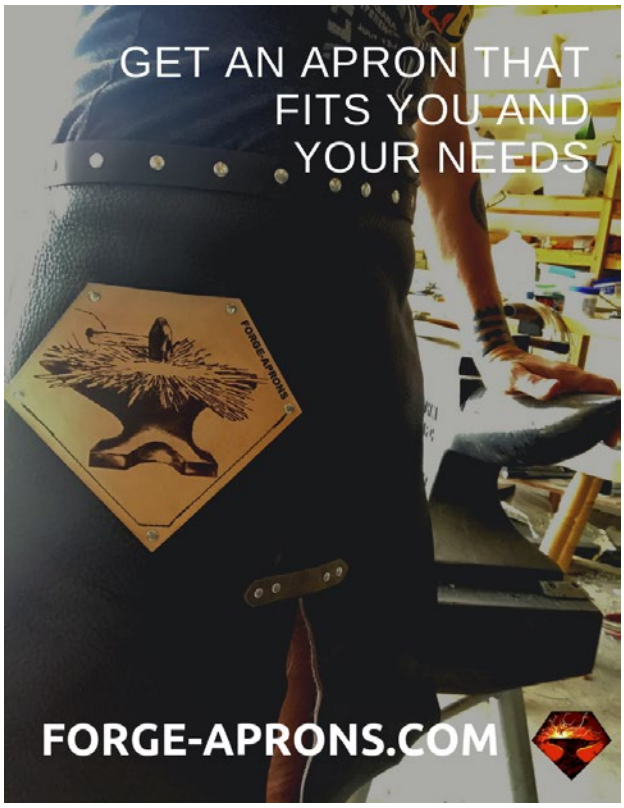
SCABA Shop and Swap



For Sale: 15 Lb Tire Hammers:

$1,200 for everything from the base plate up. Two rounding dies included as standard. Has 1/2 HP 115V Motor. Contact: David Barfield - 580-595-1476

SCABA Shop and Swap



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Their contributions helped to support SCABA. Please consider patronizing these vendors to return the favor!

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Bill Davis Forge Welded Tomahawk DVD

This DVD is now available to members for a minimal cost (cost of DVD's is minimal to cover reproduction and shipping if applicable.) Contact the SCABA Librarian, Don Garner, if you would like to get a copy of this DVD.
Don Garner: 580-302-1845
(Call or Text. If you get voice mail, Please leave a message.)

For Sale:

Tire Hammer Plans by Clay Spencer
Send a check or money order for $30 US to Clay Spencer, 73 Penniston Pvt. Drive, Somerville, AL 35670-7013. Or send $32 US to Paypal.Me/ClaySpencer. E-mail me at clay@otelco.net. PDFs will be e-mailed outside US. Phone 256-558-3658

Beverly shear blades sharpened
Remove your blades and send in USPS small flat rate box with check for $41 US to 73 Penniston Pvt. Drive, Somerville, AL 35670-7103.

For Sale: I have numerous old tools and collectible items of various kinds including blacksmith related tools and equipment. Too many tools to list them all. Inventory is always changing.
Contact: Craig Guy (SCABA Member), Piedmont, OK
Cell Phone: 405-630-7769 (Call or Text)

SCABA Shop and Swap

SCABA Library DVD's Available:

This is a partial list of the DVD titles available to members from the SCABA Library. Contact the Librarian (Don Garner) if you would like to obtain a copy of any listed title or if you have questions on any other titles that may be available. Additional titles are listed on the website. DVD's are available for a very minimal cost to offset the blank disc and cases or sleeves. Shipping cost applies if you need these delivered by mail.

- Robb Gunter Basic Blacksmithing parts 1,2,3 and the controlled hand forging series
- Clay Spencer SCABA conf.2013 pts. 1,2 and 3
- Jerry Darnell 18th century lighting, door latches and hinges
- Brent Baily SCABA conf. 2011
- Mark Aspery SCABA conf. 2011
- Robb Gunter SCABA conf. 1998
- Robb, Brad and Chad Gunter 2009 joinery, forging, repousse, scrollwork, etc.
- Bill Bastas SCABA 2002 pts. 1 - 6
- Jim Keith SCABA conf.2007
- Power hammer forging with Clifton Ralph pts. 1 - 5
- Doug Merkel SCABA 2001
- Bob Alexander SCABA 2008
- A. Finn SCABA 2008
- Bob Patrick SCABA 2004
- Gordon Williams SCABA 2010
- Daryl Nelson SCABA 2010
- Jim and Kathleen Poor SCABA 2001
- Ed and Brian Brazeal SCABA 2006
- Ray Kirk Knives SCABA 2002
- Frank Turley SCABA 1997
- Frank Turley SCABA 2003
- Bill Epps SCABA 2003
- M. Hamburger SCABA 2007

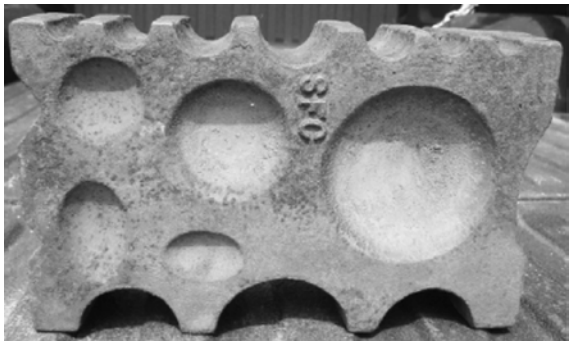
Librarian: Don Garner 580-302-1845 (Cell)
Call or Text. If you get voice mail, please leave a message.

Have an Item for Sale? Item Wanted?

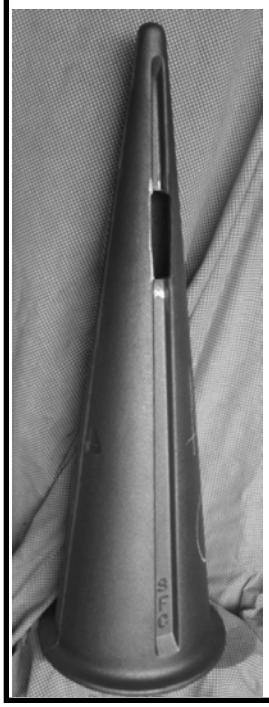
If you have any items that are appropriate for Blacksmiths that you would like to list in the Shop and Swap section (or items you are looking for), please send me your description, contact info, and any photos that you have.

SCABA Swage Blocks

$200.00 plus shipping.
(Same price to members and non-members.)



SCABA Floor Cones



$200.00 plus shipping.

(Same price to members and non-members.)

To order swage blocks or cones, contact our distributor:

Nolan Walker at Nature Farms Farrier Supply in Norman, OK.

405-307-8031

SCABA Shop and Swap

Club Coal:

Saltfork Craftsmen has coal for sale. Coal is in 1-2" size pieces. The coal is $140.00/ton or .07 /pound to members.
No sales to non-members.

NW Region coal pile located in Douglas, OK. If you make arrangements well in advance, Tom Nelson can load your truck or trailer with his skid steer loader for a fee of $10 to be paid directly to Tom. Tom has moved his skid steer and must now haul the loader to the coal pile to load you out, hence the $10 charge. You may opt to load your own coal without using Tom's loader. The coal can be weighed out at the Douglas Coop Elevator scales. Contact Tom Nelson (580-862-7691) to make arrangements to pick up a load. Do not call Tom after 9 PM!! Bring your own containers and shovels. Payment for the coal ($.07 per pound) should be made directly to the Saltfork Treasurer.

NW Region Coal Pile in Thomas:
Don Garner now has a new pile of club coal available for sales to SCABA members. The shop is at 23713 E 860 Rd in Thomas, OK. (One mile west, then one mile north of Thomas.) Contact Don at 580-302-1845 (Cell Phone) to arrange details for purchases.

NE Region coal location:
******NOTICE:******
Charlie McGee is no longer hosting the coal pile in the NE region. If you would be interested in hosting a location in NE, let one of the SCABA Board members know.

S/C region coal location: Club coal is now available at Norman at Byron Doner's place. Call Byron to make arrangements to come by and get coal.

SCABA T-Shirts!

2018 Saltfork Collector T-shirts are available with the 2018 Conference Logo. $20.00 (plus shipping if applicable.) Contact Josh Perkins to check sizes and quantities that are still available.

Legacy SCABA T-shirts and long sleeve denim shirts are also available on clearance while supplies last. T-Shirts are $5.00 and Denim Shirts are $10.00. (Plus shipping if applicable.) Contact Josh Perkins to check sizes and quantities that are still available.

If you would like to purchase shirts, contact Josh Perkins (918) 269-3523.

Have an Item for Sale? Item Wanted?

If you have any items that are appropriate for Blacksmiths that you would like to list in the Shop and Swap section (or items you are looking for), please send me your description, contact info, and any photos that you have.

SCABA Membership Application

For Annual Membership
(Please Print Clearly!) Date _____

New Member _____
Renewal _____

First Name _____ Last Name _____

Married? _____Yes _____ No Spouse's Name _____

Address _____

City _____ State _____ Zip _____

Phone (Best Number to Contact) (_____)_____

e-mail _____

ABANA Member? _____Yes _____No

I have enclosed $30.00 for dues for one year membership from the date of acceptance.
Signed: _____

Return to: Saltfork Craftsmen, 6520 Alameda, Norman, OK 73026
Note: Registration online by Paypal OR credit card is available from the website.
www.saltforkcraftsmen.org
You do NOT need a Paypal account to use your credit card and registration/renewal is immediate.

Saltfork Regional Meeting Hosting Form

Region: _____NE _____SE _____SW _____NW

Date: Month _____ Day _____ Year _____

Name: _____

Meeting Address: _____

Host Phone (Best Number to Contact) (_____)_____

Host e-mail _____

Trade Item: _____

Lunch Provided: _____ Yes _____ No

Please provide detailed directions and/or a map to meeting location if possible. Meetngs are schduled on a first come basis.

Return to: **Saltfork Craftsmen Regional Meeting Coordinator, Russell Bartling**
70 N 160th W Ave
Sand Springs, OK 74063

You can also send the information in an e-mail or text or fill out the online form available on the website in the top banner of the Calendar Tab: www.saltforkcraftsmen.org/Calendar.shtm

Saltfork Craftsmen Artist Blacksmith Assoc. Inc.
6520 Alameda
Norman, OK. 73026

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