

Saltfork Craftsmen Artist-Blacksmith Association

January 2020



Discover Oklahoma Interviewing Saltfork President Mandell Greteman at the Route 66 Museum Blacksmith Shop for an Upcoming Spot to Air in February (See Page 14.)

**Saltfork Craftsmen
Artist-Blacksmith Association
Officers and Directors**

President/Workshop Coordinator:

Mandell Greteman 580-515-1292
409 East Broadway
Foss, Okla. 73647 mandell01@windstream.net

Vice-President/Conference Chair:

JJ McGill 580-369-1042
5399 Pete Nelson Rd.
Davis, OK 73030 jjmcgill88@yahoo.com

Director:

Byron Doner 405-650-7520
6520 Alameda
Norman OK 73026 byrondoner@esok.us

Director:

Ricky Vardell 580-512-8006
P.O. Box 461
Temple, OK 73568 Rickyv.vardell@gmail.com

Director:

Don Garner 580-302-1845
23713 E 860 Rd
Thomas, OK 73669 Call or Text

Director:

Eric Jergensen 405-414-8848
625 NW 18th
Oklahoma City, OK 73103 gericjergensen@gmail.com

Director:

Russell Bartling 918-633-0234
70 N 160th W. Ave
Sand Springs, Ok 74063 rbartling@ionet.net

Assignments:

Secretary:

Carol Doner 405-760-8388
PO Box 6057
Norman, OK 73070 caroldoner7@gmail.com

Treasurer:

Teresa Gabrish 405-824-9681
P.O. Box 18389
Oklahoma City, Ok. 73154 tgabrish@gmail.com

Editor/Regional Meeting Coordinator:

Russell Bartling 918-633-0234
70 N 160th W. Ave
Sand Springs, Ok 74063 rbartling@ionet.net

Webmaster:

Dodie O'Bryan
Pawnee, Ok scout@skally.net

Librarian:

Don Garner 580-302-1845
23713 E 860 Rd
Thomas, OK 73669
Call or Text. If you get voice mail, please leave a message.

Editor's Notes:

These last two months have been exceptionally busy for me with the "real job." As a result I got this month's newsletter done a little later than normal. I'm sure you noticed.

I also didn't have enough time available to put together any demo articles from the 2019 conference. We had some great demos from Peter Ross and Ken and Mary Lou Zitur.

I plan to summarize some of those demos in article form when I get a chance. We also have video that will be available to members once edited. Neither one of these formats is even close to the experience of being there in person at the conference but they will give some idea of the processes and tips involved if you missed out.

Other than regional meetings and workshops, the next big Saltfork event will be the Picnic in April. Stay tuned for details...

- 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.

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Visit our Saltfork Craftsmen Website:
www.saltforkcraftsmen.org



President's Notes:

Well here I am on a cold and nasty day, watching U-Tube. Yes I watch and try to learn something new. I have been watching some lately that are from overseas and it is a lot of fun to see some of the old shops for me, anyway I don't think I will ever learn how to speak German. I am German and the only German I know is the curse words.

Some of us were at the Route 66 Museum blacksmith shop in Elk City on 12.13.19. There was a man who came in from Maine who said he was a blacksmith. And from talking with him I am sure he was by the way he talked. He said he has traveled the world and USA touring blacksmith shops and talked to lots of blacksmiths. He said that they're all the same when you start talking to them. They just keep on working but when you tell them you're a blacksmith they throw down their hammer and show their shop off. He was really impressed with the little giant casting patterns and molds at Elk City.



We were contacted last week, on short notice, to come to the blacksmith shop in Elk City. Discover Oklahoma was in town and filming the farm and ranch building and the blacksmith shop for great state of Oklahoma. So some of us were able to come to the shop for the filming. They filmed us making some things, and photographed some items that we had made. They did an interview with me also and took a lot of pictures of the items we made. It is supposed to air in February. I tried to get a plug in for SCABA they asked about doing a story on SCABA and I told them to give me a call. Maybe we could have a meeting that day.

I hope you got a new tool for Christmas

- Mandell Greteman

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.

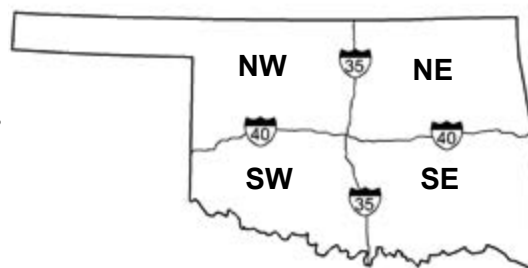
Want to host a meeting? The meeting hosting form can be found on the last page along with membership application form. If you want to host a meeting in any area please fill out one of the host forms on the website under the calendar section or in the newsletter and e-mail the information or mail the 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 of 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.

2020 Workshop Schedule

Tong Making Class

**February 29th (9:00 AM)
Elk City Blacksmith Shop**

The tong making class has been scheduled for February 29th at 9:00 AM. Class will be held at the Route 66 Blacksmith Museum in Elk City. Cost is \$30. Materials and lunch are provided.

Contact Mandell Greteman to register or if you have any questions.

This intermediate level class will not have enough time to cover beginner blacksmithing fundamentals. Basic forging proficiency is required as a pre-requisite.

If you can handle a hammer to forge and you understand/can perform the basic forging steps, you should be able to complete this class.

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)	Mar 28th (Mandell Greteman)
Apr 4th (Open)	Apr 11th (Open)	Apr 18th (SCABA Picnic)	Apr 25th (Don Garner)
May 2nd (Open)	May 9th (Open)	May 16th (Open)	May 23rd (Terry Kauk)
			May 23rd (SW-JJ McGill Boy Scouts)
Jun 6th (Open)	Jun 13th (Open)	Jun 20th (Open)	Jun 27th (Open)
Jul 4th (Open)	Jul 11th (Open)	Jul 18th (Open)	Jul 25th (Open)
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)	Sep 26th (Ron Lehen- Bauer as Host - Don Gar- ner as Contact Person)
Oct 3rd (Open)	Oct 10th (Conference Setup Work Day)	Oct 17th (Conference Weekend)	Oct 24th (Rory Kirk)
Nov 7th (Open)	Nov 14th (Bill Phillips)	Nov 21st (Open)	Nov 28th (Open)
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)

January 2020

NE Regional Meeting January 4th: Open.

SE Regional Meeting January 11th: Will be hosted by Byron Doner at his shop located at 6520 Alameda, Norman, OK 73026.

The trade item is a "critter" (bug, bird, reptile, or some other animal or animal face.)

Lunch will be provided but please bring a side dish or dessert to help out. Contact Byron at 5405-650-7520 if you have questions.

SW Regional Meeting January 18th: Open.

NW Regional Meeting January 25th: Will be hosted by Rory Kirk at the Route 66 Museum Blacksmith Shop in Elk City, OK.

The trade item is an animal head fireplace poker. (Please put your touchmark on it.)

Lunch will be provided but please bring a side dish or dessert to help out. Contact Rory at 580-497-6426 if you have questions.

February 2020

NE Regional Meeting February 1st : Open.

SE Regional Meeting February 8th: Will be hosted by Byron Doner at his shop located at 6520 Alameda, Norman, OK 73026.

The trade item is "something Valentiney"

Lunch will be provided but please bring a side dish or dessert to help out. Contact Byron at 5405-650-7520 if you have questions.

SW Regional Meeting February 15th: Open.

NW Regional Meeting February 22nd : Will be held by Monte Smith at his shop at 8848 N. 2010 Rd, Hammon, OK 73650.

From Hammon, go 7 miles north on HWY 34 to E0880 Rd (There is a Moorewood Baptist Church sign) then turn west and go 3 miles. Turn south and go ½ mile to the entrance on the east side of the road.

The trade item is a froe. Lunch will be provided but please bring a side dish or dessert to help out.

Contact Monte at 580-497-6015 if you have questions.

Around the State...

NW Region November Meeting: No Meeting was held in November.

NW Region December Meeting:

The NW Region December meeting was held early this month on December 21st by Don Garner at his home shop:

We had 18 very brave and committed smiths that showed up on a very foggy day. They came from Ada, Oklahoma City, Cheyenne, Elk City, Muskogee, Okmulgee, and Leedey. These are some of the very committed people I have the privilege to know and have fellowship with them on a monthly basis.

We had a couple of new members and we had the opportunity to start them on the way to begin to discover what we have come to drive us on such a day to just enjoy each other's company.

We had a very neat group of trade items and a great deal of activity at the forges. Thanks for everyone who attended the meeting!

- Don Garner

Photography by Laquita Greteman













NE Region December Meeting: No Meeting was held in December.

SE Region December Meeting: No Meeting was held in December.

SW Region December Meeting: No Meeting was held in December.

Around the State...

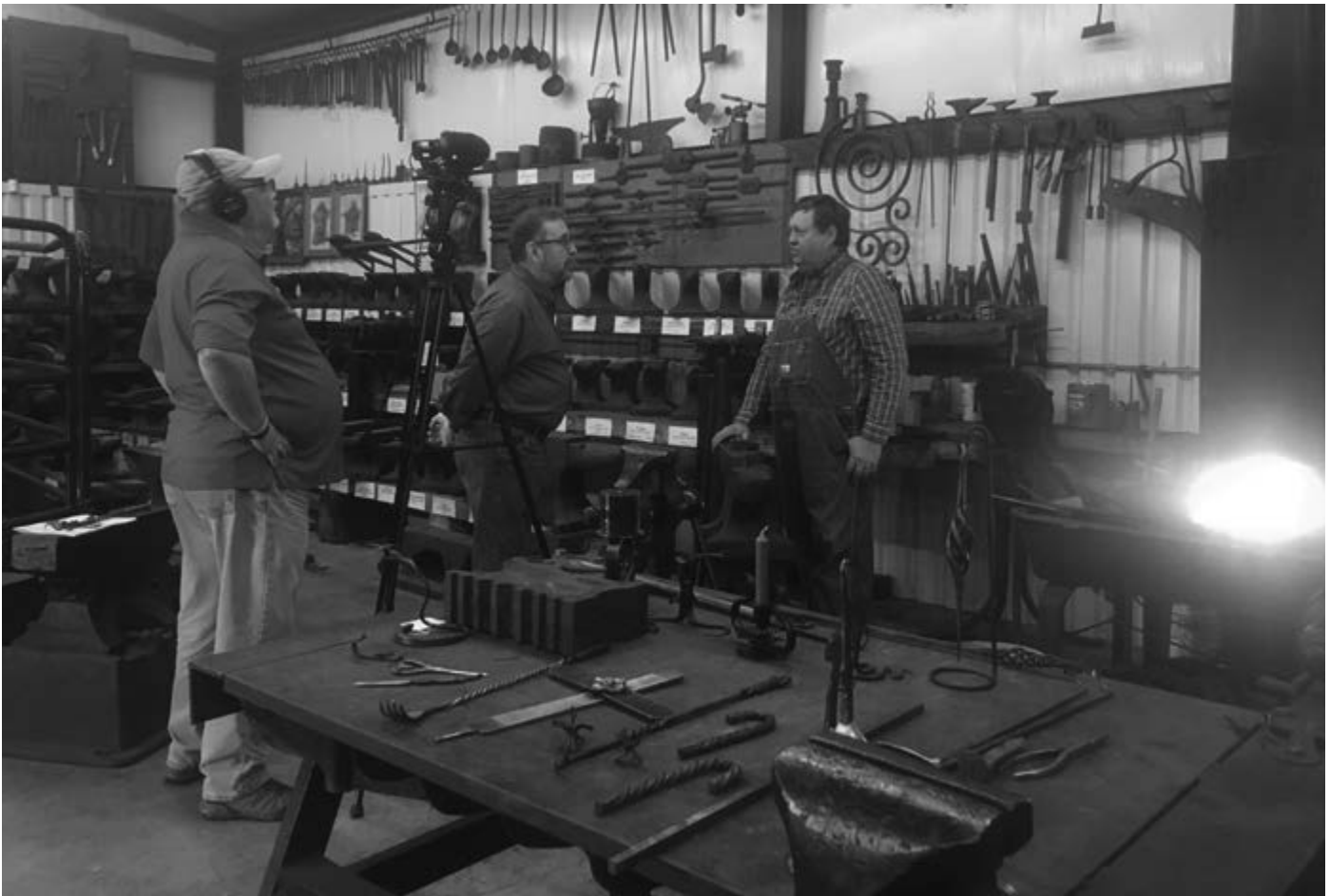
Discover Oklahoma came to the Route 66 Museum Blacksmith Shop to film some blacksmiths and interview SCABA President, Mandell Greteman. Local SCABA members Mandell Greteman, Rory Kirk, Terry Kauk and Monte Smith assembled on short notice to demo some forging and show some items that had been previously forged.

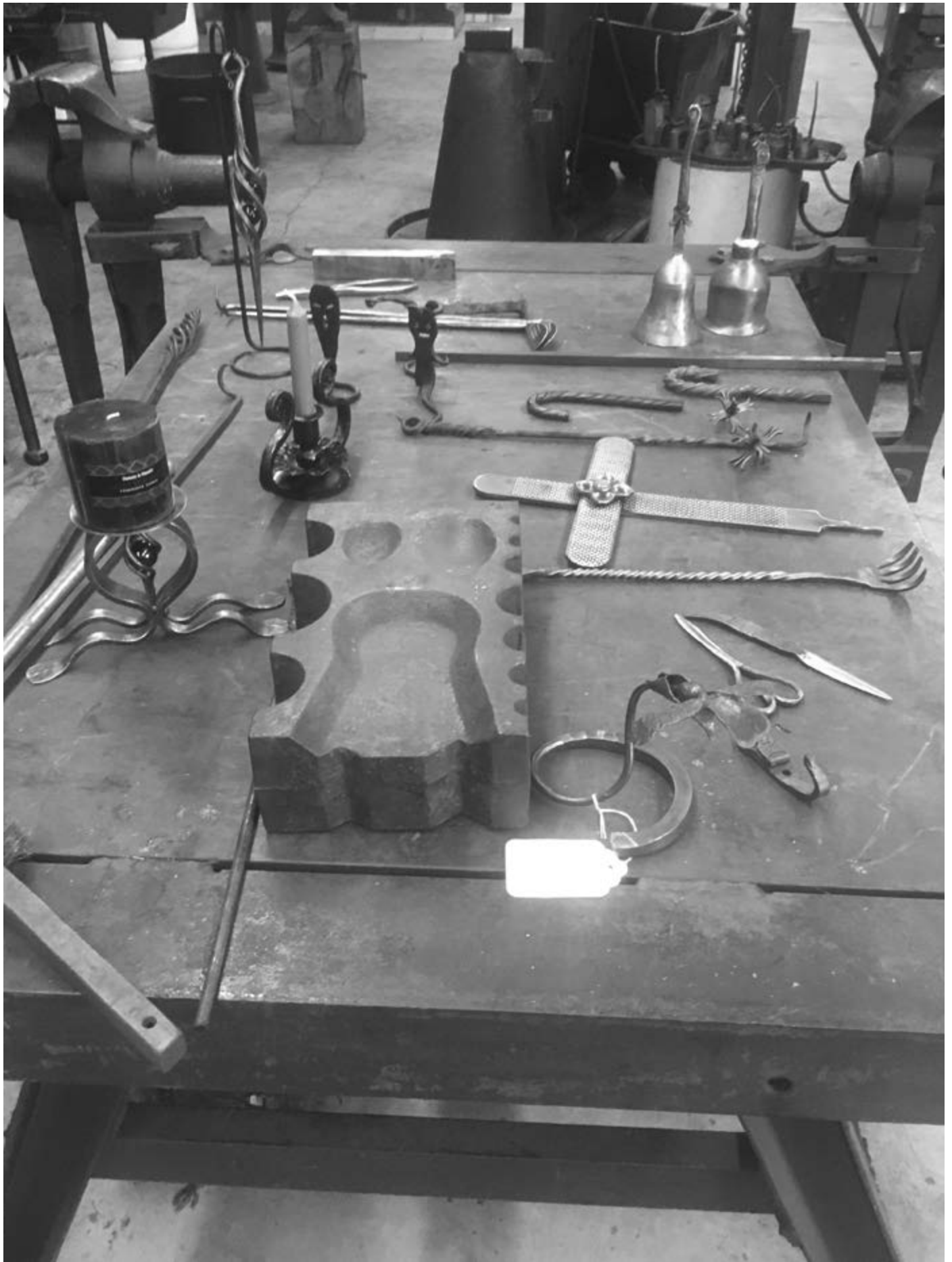
The upcoming spot should air sometime in February and should be available for viewing on the Discover Oklahoma website once aired. More information will be posted once available.

(Photos by LaQuitta Greteman and Donita Smith)









Member Gallery

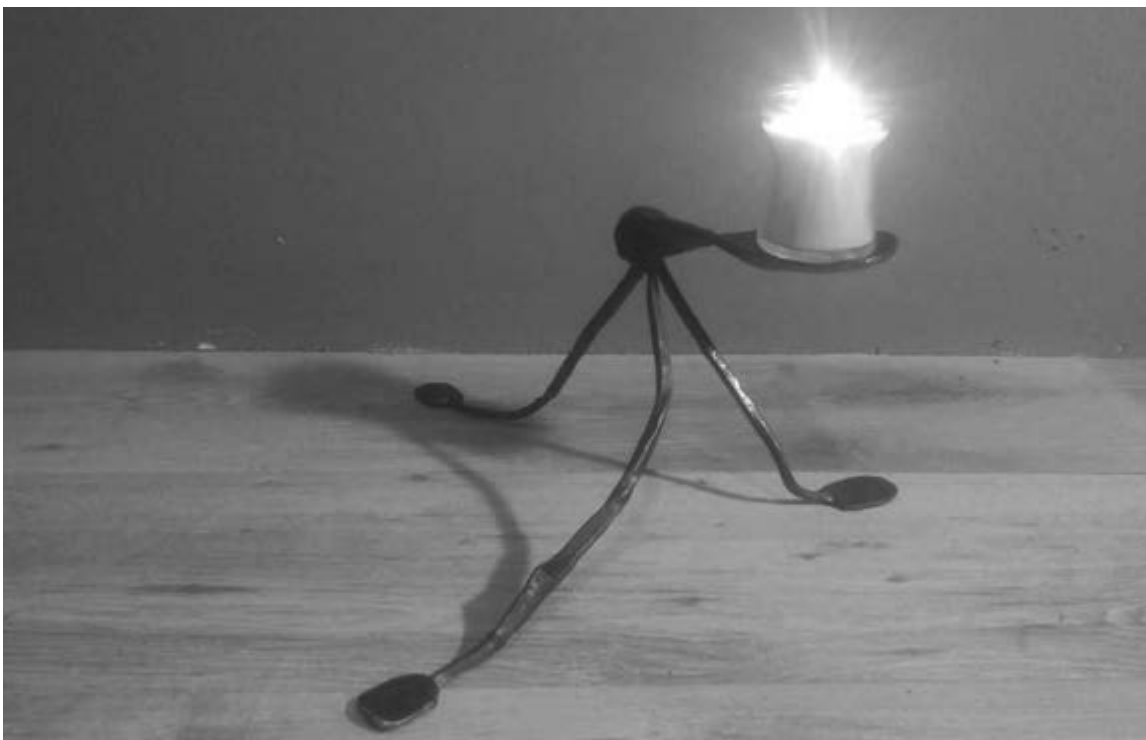
Paper Towel Racks - By Travis Gabbard



Member Gallery (Continued...)

Candle Holder - By Travis Gabbard

The 3 legs started as 1/2" square and 3", 4" and 5" respectively. The candle cup started as approximately 5" of 1/4"x2." The feet are approximately 13" apart and the height without the candle is 6."



Member Gallery (Continued...)

Christmas Ornament Tongs - By Mandell Greteman



Member Gallery (Continued...)

Candle Holders - By Rory Kirk



Trivets - By Rory Kirk



Member Gallery (Continued...)

Tables - By Rory Kirk



Member Gallery (Continued...)

Flower and Vase - By Jason O'dell

A piece I just finished for a client to give to his girlfriend for Christmas. The vase is made from 1 1/2 inch OD pipe and welded to a 3/16 plate. The rose was made from a set of blanks. The leaves were forged from 3/8 round stock. The stem is 3/16 round stock. The rose was colored by heat and just a touch of brass on the edges. The vase was colored with heat, a little touch of brass brushing and then Boiled linseed oil was applied. Then it was all clear coated.

Respectfully, Jason L. O'Dell, 405 Forge



Saltfork Gate Project!

This is a new group 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.

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. Each ring is 10 1/4" O.D. and made of 3/8" round. Most of the rings will be connected at the four cardinal direction points (N, S, E, W) by welding. A small spacer of 1" by 3/8" will be placed between the connection points of each ring.

Try to keep the projects inside the rings from projecting more than approximately 4" out from either face. Otherwise, the design and connection methods to the ring are strictly up to you.

There will be a central large ring with a Saltfork Craftsmen title.

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.

There is space for 56 ring projects in this gate. If there are more participants, additional gates will be made and installed inside the blacksmith shop.

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.**

Concept Sketch for the Gate Project:



Bending versus Forging

The New Edge of the Anvil was the book everyone recommended when I started blacksmithing. The first few projects in that book worked through basic operations: cutting, drawing out, bending, twisting, upsetting and welding. Some folks might add or take away from that list. Clifton Ralph referred to all this in his power hammer videos, and then said there's just one thing, "you can shape it!"

It's useful for teaching and understanding to break things down into lists. "These are the forging processes you need to learn", or "here are three ways to make a hole in a bar".

I've found it helpful to tell new smiths that there is forging and then there is bending. Forging changes the cross section of the material. Bending keeps the cross section the same but, well, bends the bar.

Forging happens when the bar is sitting solidly on the anvil and you hit it with the hammer. The anvil keeps the bar from moving, so the metal has to deform under the hammer, and so the cross section changes. Depending on the shape of the hammer head – whether you hit with the flat or an edge and so on – the bar may get longer, or spread out and get flatter, but the point is that the cross section changes.

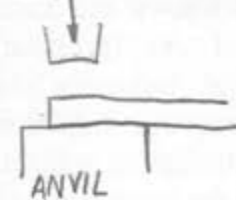
Bending happens when you hit the bar in a place where it's not supported by the anvil. When there's air under the bar instead of the solid anvil, the hammer blow moves the bar instead of deforming it. That is, it bends. How much and where it bends depends on how you hit it and how far from wherever the bar is supported.

If you're trying to forge a bar and it keeps bending, look at whether it's sitting flat on the anvil. Often we think it's on the anvil, but we're really holding it a little high or a little low so that there's air under the bar instead of the solid anvil. When that happens the bar bends until it comes in contact with the anvil. This happens a lot with power hammers. We're paying attention to what's going on between the dies and don't realize that we're holding the bar where it's angled up or down a little, and so it bends, too.

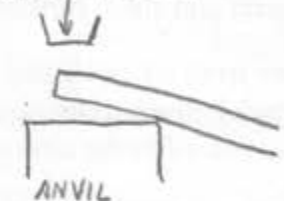
The same problem – not keeping the work flat on the anvil – leads to unwanted twisting or to giving the work a diamond shape when it should remain square.

FORGING FLAT ON ANVIL

HAMMER



BAR WILL BEND!



BAR WILL BEND!



BAR MAY TWIST OR GET DIAMOND SHAPE!



BENDING POINT OVER EDGE OF ANVIL



Forging With Corn

By Steve Alford, Athens, Alabama

I knew something was up as soon as I arrived for the January 2019 meeting of Athens Forge. Al Stephens met me with a big grin. "You need to take a picture of the forge." So I walked on through the shop, passing the donuts and the cookies, and found Dustin Patterson starting the fire in the forge. And noticed that the fuel was... yellow. Yellow? Yes, yellow. The fuel for the day was feed corn instead of coal!

Al had seen this idea on the iforgeiron.com online forum, and decided to give it a try. Compared to coal, according to Al and Dustin, corn burns faster, without clinker. For public demonstrations or nearby neighbors, corn smells a lot better than coal when it burns.

A 50-pound bag of feed corn costs about \$8. Athens Forge is currently selling 50-pound bags of coal for \$15. I noticed that the bag of corn provided about an hour and 20 minutes of forging time. I'm pretty sure that 50 pounds of coal lasts longer than that, but now that I'm thinking about it, I don't really know how much forging time I get from a bag of coal. Certainly the answer to "how much forging time do I get?" has to be "it depends." There are a lot of variables: forge design, fire management style, does the work call for lots of welding, or heating heavy sections quickly, or is the pace more relaxed with slower heats on smaller pieces?

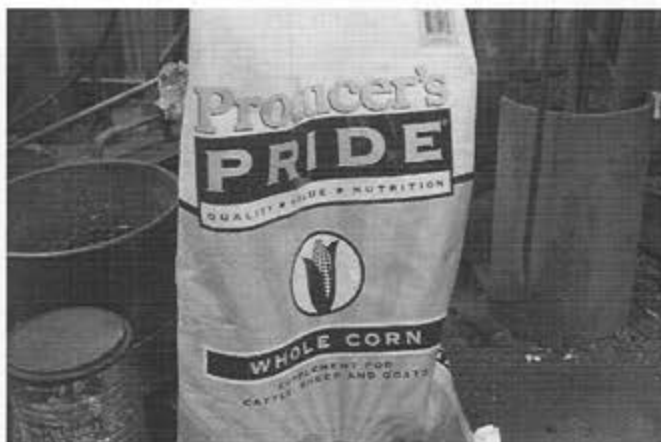
Someone asked about using wood pellets, as are sold for pellet-type grills. That would be another experiment to try! I think the question of how much forging we get from different fuels is worth considering. Anyone who cares to really keep track, or just share a story, what type of fuel and forge do you use, and how long does your fuel last?



Dustin Patterson tending the corn fire. The yellow kernels are visually jarring to one used to coke and coal!



The corn burned down to look more like a coal/coke fire after a while. There was a feeling that the fire was quite hot, but didn't seem to heat as fast as coal.



This article is reprinted with permission courtesy of the Alabama Forge Council "Bituminous Bits" newsletter November-December 2018. I don't know if I would have ever thought about trying this - especially without running out of coal first. But deer season is over and there may be a lot of unused deer corn sitting around out there.- Editor

WIRE INLAY INTO STEEL

By Martin Pansch

I have had the pleasure of learning a little wire inlay from two Guild members who really knew their stuff. Years ago I took a Tunnel Mill class from the late Bill Fiorini that taught, among other techniques, inlaying copper wire into a brass test plate using toothpick-sized tools. Years later in 2013 I took Tom Latané's class where he taught us to inlay copper wire into mild steel with chisels that, while still relatively small, were much easier to handle for someone with clumsy sandwich-grabbers like myself. The principles, however, were exactly the same: cut a groove, undercut it into a dovetail cross-section, and then drive in a wire that is softer than the material you are inlaying. With the assistance of Stephen Olivo we tried to pass on the basics of this skill in a Guild class in April 2018 to a handful of hardy souls that braved a blizzard to learn. What follows are largely the notes for that class. Large thanks to Tom Latané for both teaching me in 2013 and for reviewing these notes to make sure I am not leading folks too far astray.

The theory: Essentially you are trying to make the object you want to inlay hold on to the material mechanically versus chemically. The two main ways we are going to accomplish this is by either undercutting a trough to make a dovetail and by driving a "lip" up and then back down onto the wire.

You should be able to inlay any softer, malleable metal into any harder material. Only real consideration is having tools that will effectively cut the material receiving the inlay. We'll be using copper in steel as relatively cheap practice materials.

For all of this work you will be using a small hammer, maybe 4-6 ounces, that you will swing many times. Too big of a hammer will just tire you out and damage the struck tools faster. I like a chasing hammer with a big face and a polished ball peen on the back that I occasionally use for driving the wire into the groove.

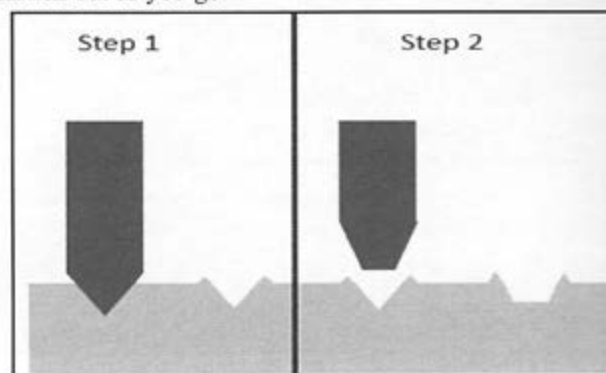
The basic straight line with chisels.

Pattern limited by shape and length of chisel. Wire gauge dictated by chisel size.

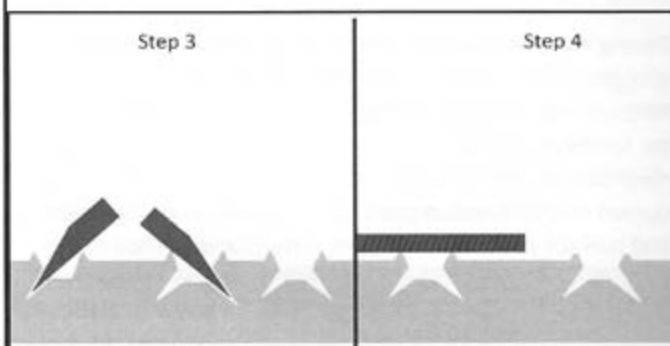
Draw out design with Sharpie, using sand paper as an eraser, or just free hand the pattern.

Step 1: Incise a line with you straight, sharp chisel. Two or more passes likely needed to get deep enough. On successive passes angle the chisel as needed to straighten your line. Depth of groove should be a little more than half the diameter of the wire being used. Using punch lube on the sharp chisel should ease a little in cutting and keep the tool sharper, longer.

Step 2: Follow the line you just made with the flat or blunted chisel. You should see the bottom of the groove flatten out as you go.



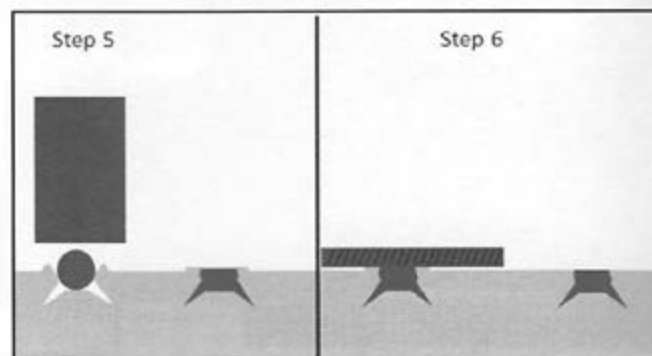
Step 3: Undercut dovetail on either side of groove with dovetailing chisel. As you progress you should see the burr pop up a little more in the areas you have undercut. Note you will likely need to pause for resharping fairly frequently. Using punch lube on the sharp chisel should ease a little in cutting and keep the tool sharper, longer.



Step 4: With a fine file take off the high points of the burr. You are just trying to even up the burr on both sides of the groove.

Step 5: Set wire in groove and drive it into the groove, and dovetails, with a flatter tool.

The wire will stretch as you drive it into place. If you



jump around setting different parts of the wire you risk loosening what you already set.

If you cut your groove too deep you may still be able to set the wire in place with a narrow, rounded chasing or repousse tool. Or you can try a larger size wire.

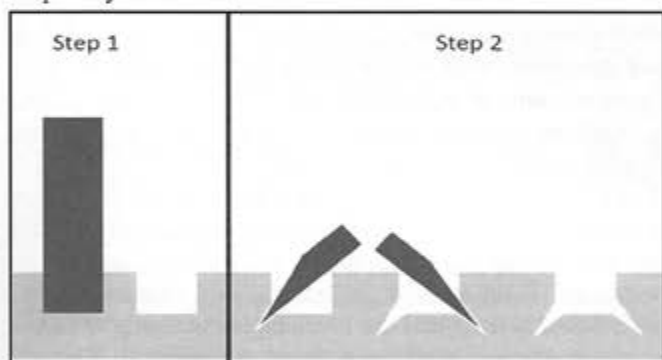
Step 6: File remaining protruding wire and burr flush with the surface. Options for alternative finished exist and will be discussed.

The basic straight line with hacksaw.

Limited to where you can make a cut with a hacksaw. Limited to straight lines. Wire size is dictated by hacksaw blade width. A typical hacksaw blade makes a good groove for 18 gauge wire. This is essentially the same process as above but combines the cutting and flattening steps.

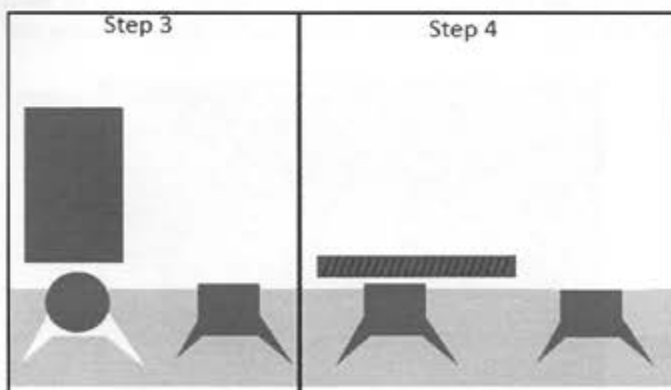
Step 1: Cut groove with hacksaw. Be careful, it is very easy to cut too deep. Shoot for a little past half the diameter of your wire.

Step 2: Undercut dovetail on either side of groove with dovetailing chisel. As you progress you should see the burr pop up a little more in the areas you have undercut. Note you will likely need to pause for sharpening fairly frequently.



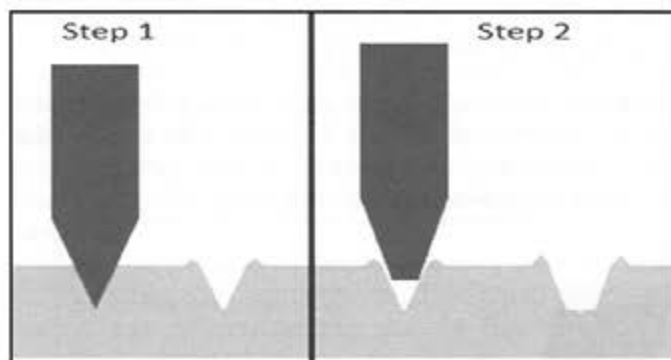
Step 3: Set wire in groove and drive it into the groove, and dovetails, with a flatter tool.

Step 4: File remaining protruding wire flush with the surface.



Dots

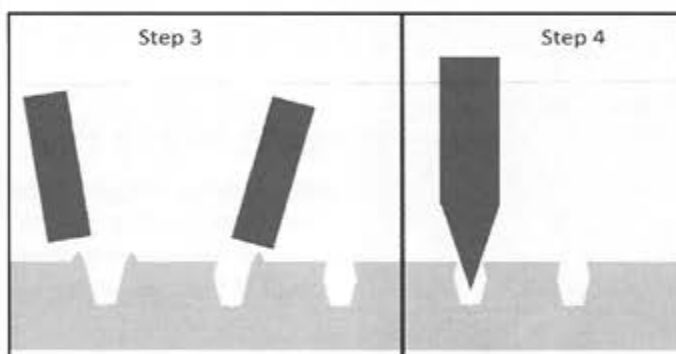
These can be nice little accents added wherever. Due to their size contrasting metals/finishes are needed to make them stick out.



Step 1: Center punch a hole.

Step 2: Flat punch bottom of hole.

Step 3: Drive upset back into hole to make a little sac in the metal

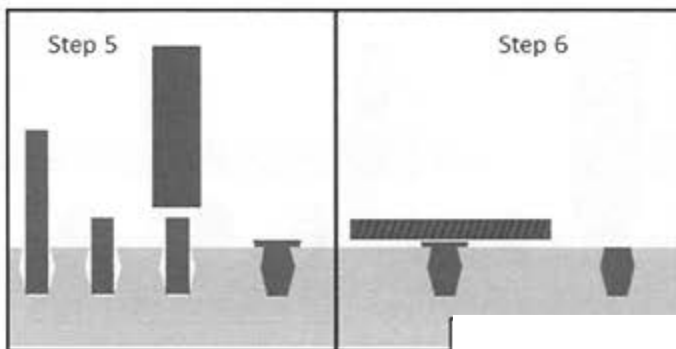


Step 4: Run the punch back into the hole lightly, turning it around to re-round the hole.

Step 5: Flatten the end of your wire with a fine file. Stick the flat end into the hole. Cut off about 1/16" proud of the surface, or about the amount left by the bevel of a wire cutter. Planish the wire home upsetting it into the sac.

Step 6: File any protruding wire or burr flush to the surface.

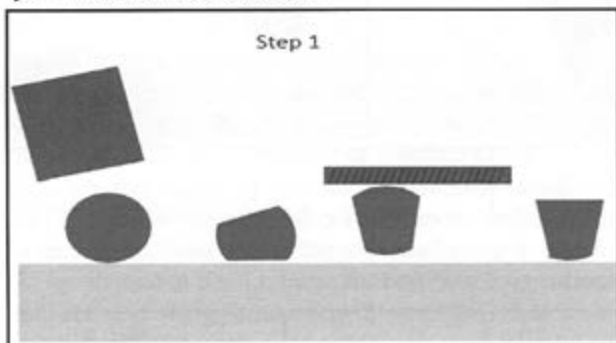
There are other techniques for cutting dovetails in the bottom of dots for inlay but don't work the best in steel. We can discuss these if anyone plans on inlaying into brass, etc.



Raised Bead

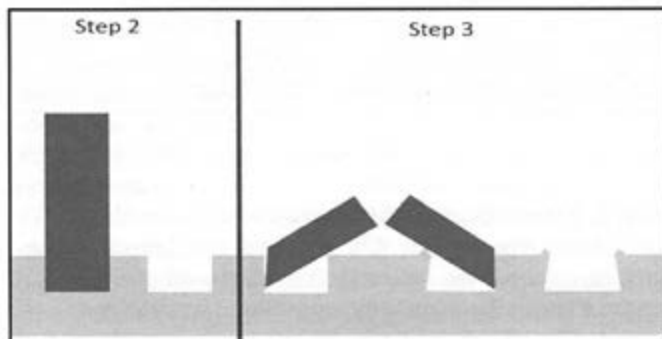
Step 1: Prepare your wire. It needs flat sides and bottom. You can flatten the sides with a hammer on a smooth surface or file. The bottom needs to be flared wide and filed flat. Essentially you are aiming for a dovetail shape.

Step 2: Cut a notch in your receiving metal not quite as wide as the base of the wire. You can either make two or more overlapping hacksaw cuts or have two blades on your saw and make one cut.



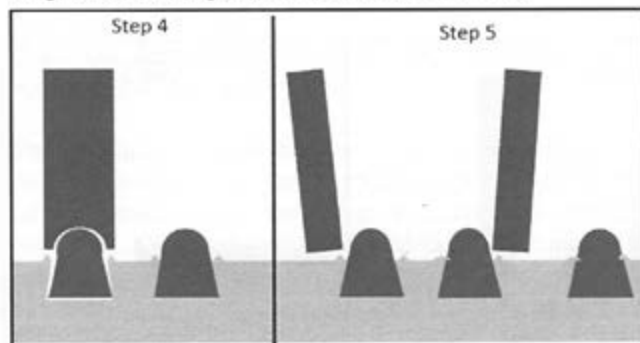
Step 3: Use the butcher tool to open the walls and lift a lip of steel. Your wire should sit relatively flat on the bottom.

Step 4: Lightly tap wire into place with top swage on one end



Step 5: Drive down the raised lips of steel with flatter or deeper swage.

Step 6: Continue process with rest of the wire.



Trimming copper that "squirts out" might be necessary when completed.

Various effects can be applied to the wire bead.

Twisted Wire

The steps for cutting, undercutting and setting the twisted wire is the same described above for plain wire. The variations you make depend on the size of the wires you twist and the effect you are looking for.

You have to figure out the combined cross section of the twisted wires versus the cross section of the single strand wire you are used to working with. For instance two strands of 21 gauge wire have the same cross section of one strand of 18 gauge. From there you can figure how deep or wide of a groove you have to cut.

The other factor to the width and depth of the groove for twisted wire is what effect you are going for. If you make a loose groove small gaps and curves will remain after setting it giving you a rope-like effect. If you make the groove tight setting the wire will get rid of all the gaps and, after filing, give you a sort of dash or "lightning bolt" pattern.

If one of the wires in your twist is the same material as the piece you are inlaying it into and you set it into a tight groove the similar metals will blend after filing.

Once you have played around a little and got straight lines and dots pretty well mastered you should be able to easily figure out how to make curved lines (hint: curved chisels) as well as tackling inlaying surfaces that are curved, twisted, or other challenging shapes.

If you are planning to inlay much smaller pieces, like on the scale of jewelry, you will likely want to explore using gravers for cutting the grooves and perhaps making the undercuts. With smaller, softer and odd shaped pieces I have found at least half the challenge is in trying to hold it firmly in place to work on without damaging it. You will have to explore various vise jaw inserts, pitch pots, and other clever solutions.

If you are going to be inlaying a lot of lines into a complex design pause and think about what parts to do in what order. I have found it generally advantageous to all of Step to the whole design, then all of Step 2, etc, continuing un-



til the end versus doing all the steps for one line, then moving on to the next line but your mileage might vary. Make sure to let us know what you figure out beyond the notes here so the group can be smarter for it.

Tools for wire inlay class

From 3-inch long pieces of 3/8" round stock of W1, 1095, or 52100 forge the struck end to a taper about half to 3/4 the length of the blank. Aim for about 3/16" square on the struck end. They'll end up about 3 3/4" to 4 1/4" long depending on the business end. The business end should be:

1 Flatter. As big of a square as you can make out of the starting stock without crazy upsetting. Finished tool should have slight radius on edges.

1 Butcher, fairly blunt

2 3/16" to 1/4" wide chisels. These chisels should be the same profile, width and bevel. Bevel should be a little sharper than a cold chisel. The only difference between the two is one will be blunted to maybe 1/64".

2 Undercut chisels. These should be a slimmer profile than the chisels above, sharper, and only beveled on one side. These will get duller, faster than anything else so the more of them you have the less frequently you'll have to pause for resharpening.

2 Center punches. Fairly sharp profile. Like the matched chisels above they should have a matching

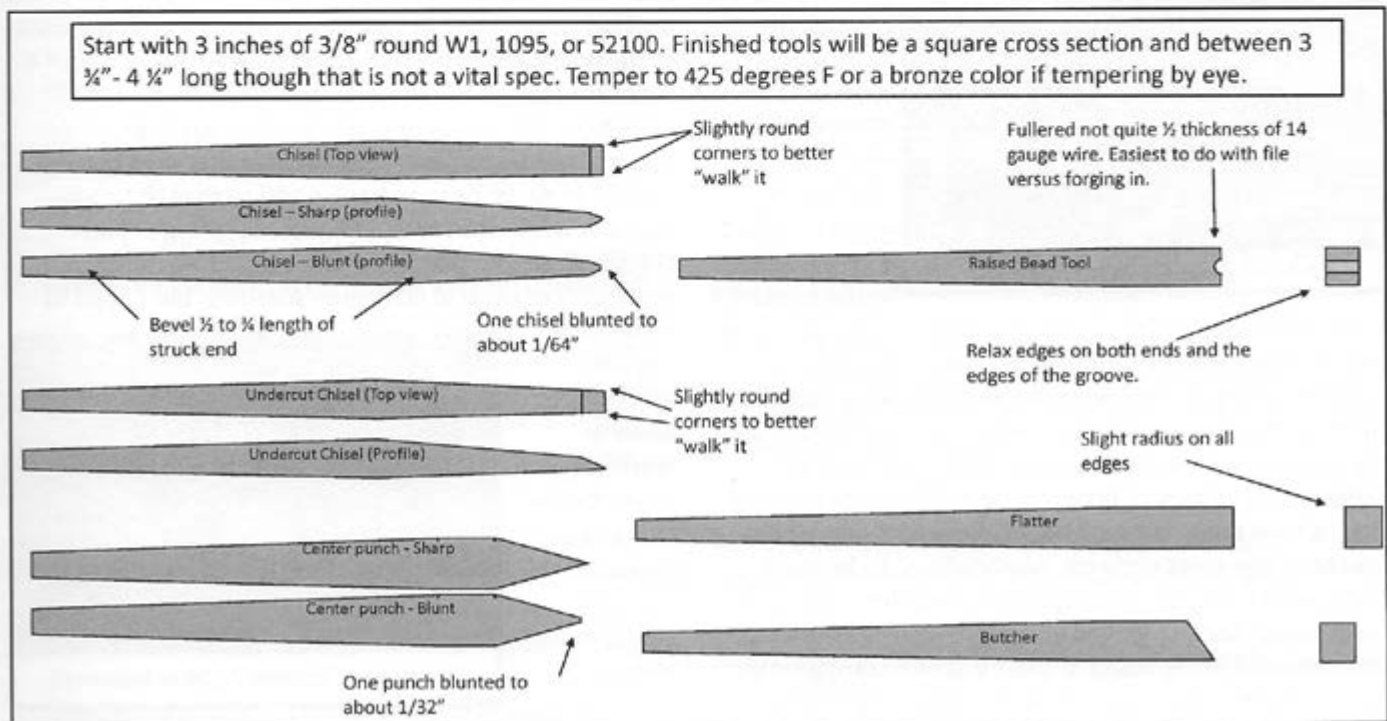
profile but one is blunted to about 1/32" or so.

1 Top swage/raised bead tool. The groove should match 14 gauge wire but be not quite 1/2 as deep as the wire. The finished tool should have the ends and the edges of the groove relaxed.

For heat treating you are looking for a temper that will let you cut steel without edges chipping or getting dull too quickly. For W1 by eye I usually temper to a bronze brown. The struck ends should either be tempered softer than that or you should have a softer hammer to strike the harder tool.

I wouldn't suggest using untested mystery junkyard steel for the cutting edge tools. They tend to chip in my experience, though they can hold up okay for flatters, butchers, etc.

For sharpening I like to use a medium grit diamond lap plate as it is fairly aggressive (i.e. takes less time). I have a little hand-crank grinder that I'll use when a tool gets so beat up it needs re-shaping before sharpening. If grinding on tools, whether with a hand-crank or belt grinder, make sure to frequently cool the tools or risk losing their temper.



Keyhole Shovel Making Jig

By Allan Kress

This is a jig I made to help forge the rough form of a keyhole shovel. You can make a regular shaped shovel head with it or do a little more work to make it into a keyhole shovel head. There are many different styles of shovel heads, these are just two I make.

The jig was made by welding together a thick cast plate I had, mild steel handle bent as a spring handle, a molded shovel shape negative for the inside of the jig, round stock to frame the bottom of the shovel and force it around the molded top shape as you hammer the hot blank in it. Figure 1 shows a side view of the jig opened up. Figure 2 shows a shovel blank with the dimensions "7in x 5 1/2in, 16 or 14 gauge" written on it, the jig, and top right is the keyhole shovel head somewhat shaped, and bottom right is the keyhole shovel head finished.

I built this jig to go in my treadle with a 1 inch tang welded on the bottom. Figure 3 shows the full jig as it sits on the treadle hammer and figure 4 shows that a little closer up. If you don't have a treadle hammer you can just make the bottom tang to fit your hardie hole on the anvil. You may need to do it in several heats if you do it that way though.

Heat up the shovel blank to red/orange, lift up the jig top and insert the blank as in figure 5. Line it up with the front stops and hammer with treadle hammer several times. This produces the wrinkled, rough shovel head form shown in figures 6—8.



Figure 1



Figure 2



Figure 3

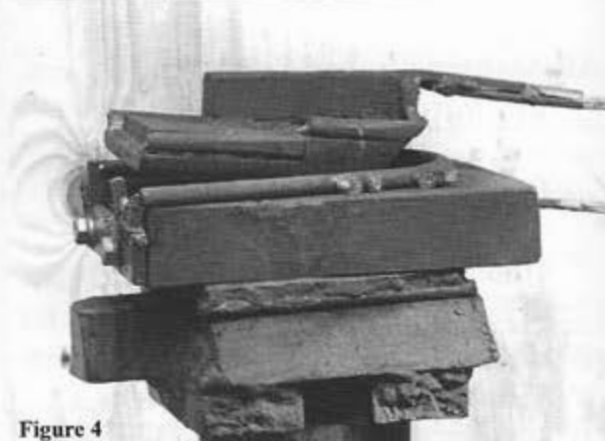


Figure 4

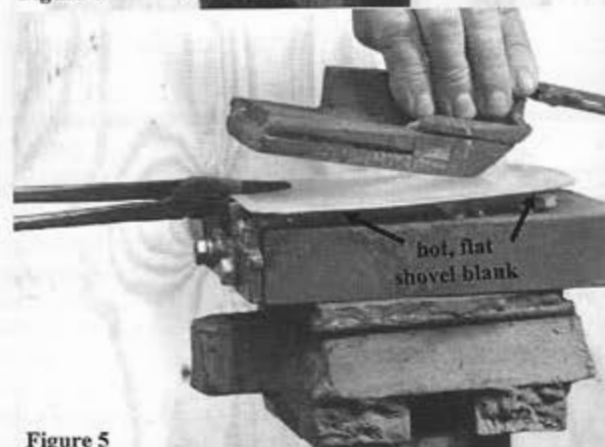


Figure 5

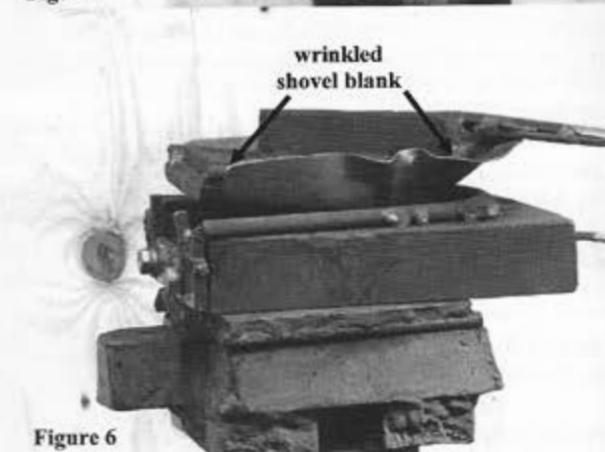


Figure 6

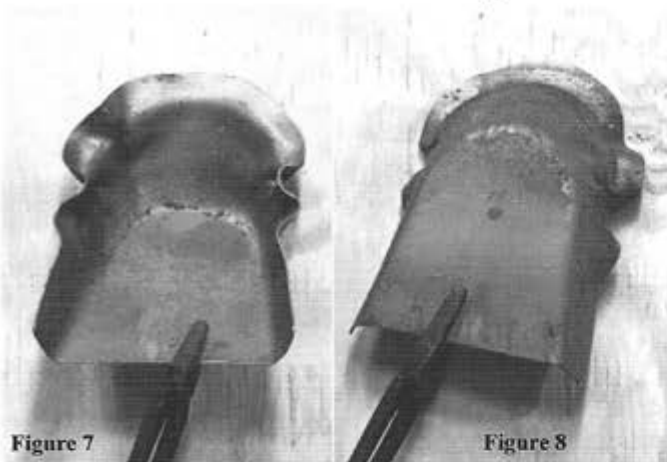


Figure 7

Figure 8

After forging out the rough shovel blank in the jig, anneal it to soften the metal and use a domed hammer to smooth out the sides. See figure 9. Do this process on the anvil face and/or on the horn. Whichever gives you the proper support to smooth the wrinkles out and make the curves. When you complete that process it will look like the shovel head in figure 10 on the left.



Figure 9

I use this domed hammer which is sort of like an auto body planishing hammer. You can use a different radius but I find this wide, shallow one works well.

No matter which style shovel head you choose to make it is always best to bevel the scooping edge ("break the edge" as in fig. 11). Do this by hammering on the edge of the anvil such that your hammer angle creates a graduated edge or bevel.

Many people stop here and that is the shovel head look they want. I take it a step further and make it into a "keyhole" shovel style. To do that I made a side forming jig for my vise. See figures 12 and 13. It is 5 inches long and curved so I can hammer-form the curve into the sides of the shovel head by using it as a backing plate as in figure 14. When you finish this process it will look like the keyhole shovel head in figure 10 on the right.

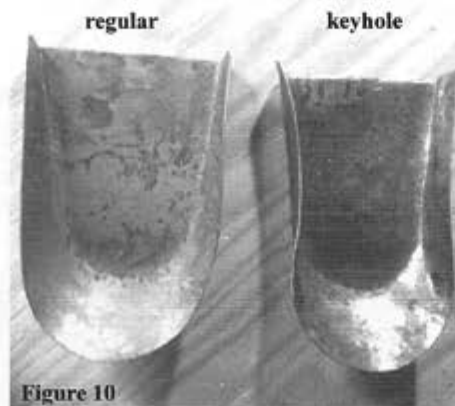


Figure 10

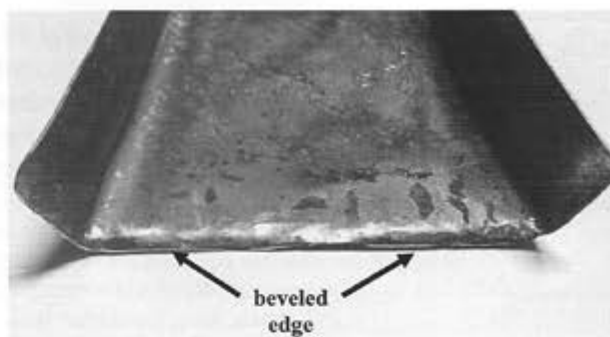


Figure 11

bevel side view



Figure 12

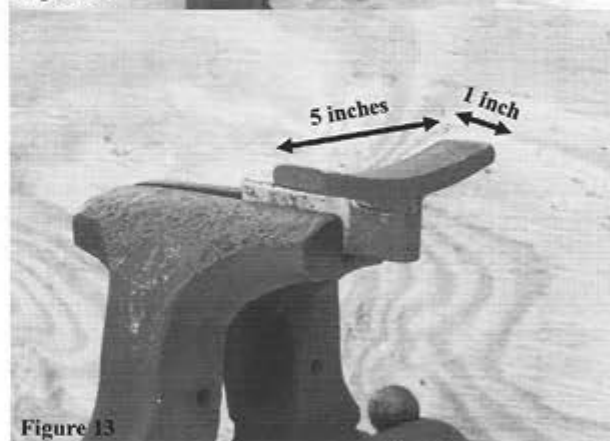


Figure 13



Figure 14

To purchase shovel head blanks or pre-formed shovel heads contact Allan Kress. akress@bellsouth.net or 256-347-5732

Travel Workbench

By Steve Alford, Athens, Alabama

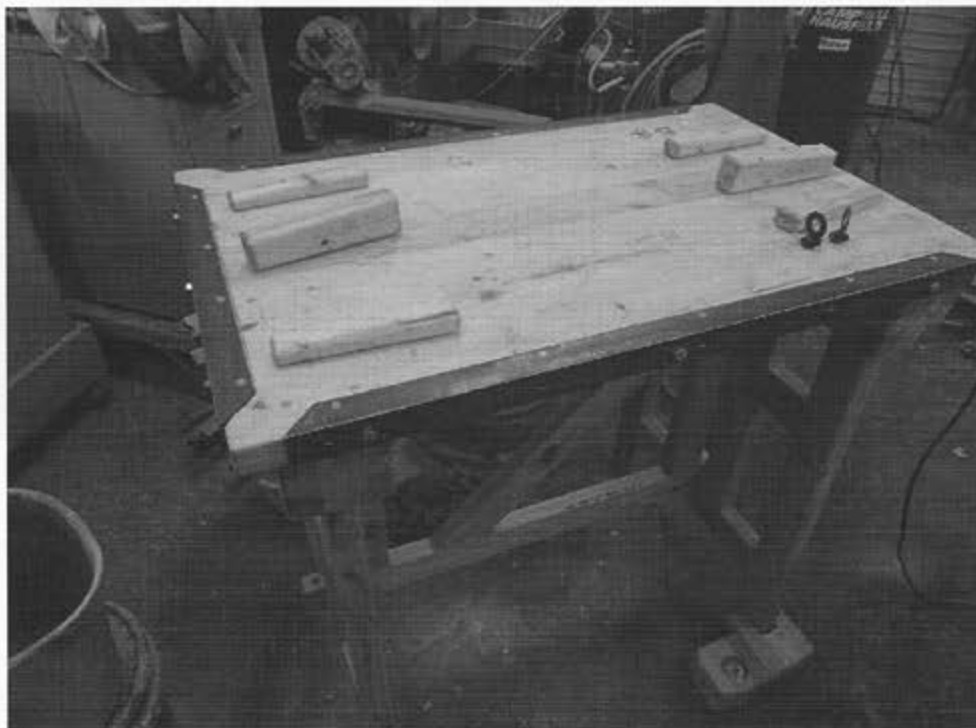
I built this workbench to take to workshops, classes, and demonstrations. It made it's debut at the copper rose class taught by Bob Taylor at Athens Forge in November 2017. Since then it's been to the lock class last March and a couple of public demonstrations.

When I started thinking about this workbench I wanted something that would break down to be easy to move, but sturdy enough to work on without burning up energy chasing my bench around. It needed to assemble without nuts and bolts - I've spent too much time looking for dropped hardware in grass or gravel, or fumbling with nuts and washers in the cold and rain! I wanted a vise and a useable work surface without being too big to be easy to move.

In the end I settled on using wedges to hold the table together, based loosely on an old trestle table design. That trestle table fit together so tightly that we never took it apart again! For this workbench I can tap the wedges in with my fist to make it solid, and usually work them loose the same way, without needing a hammer. It may be a little light, but a post vise and bench anvil add enough weight to keep it from going anywhere.

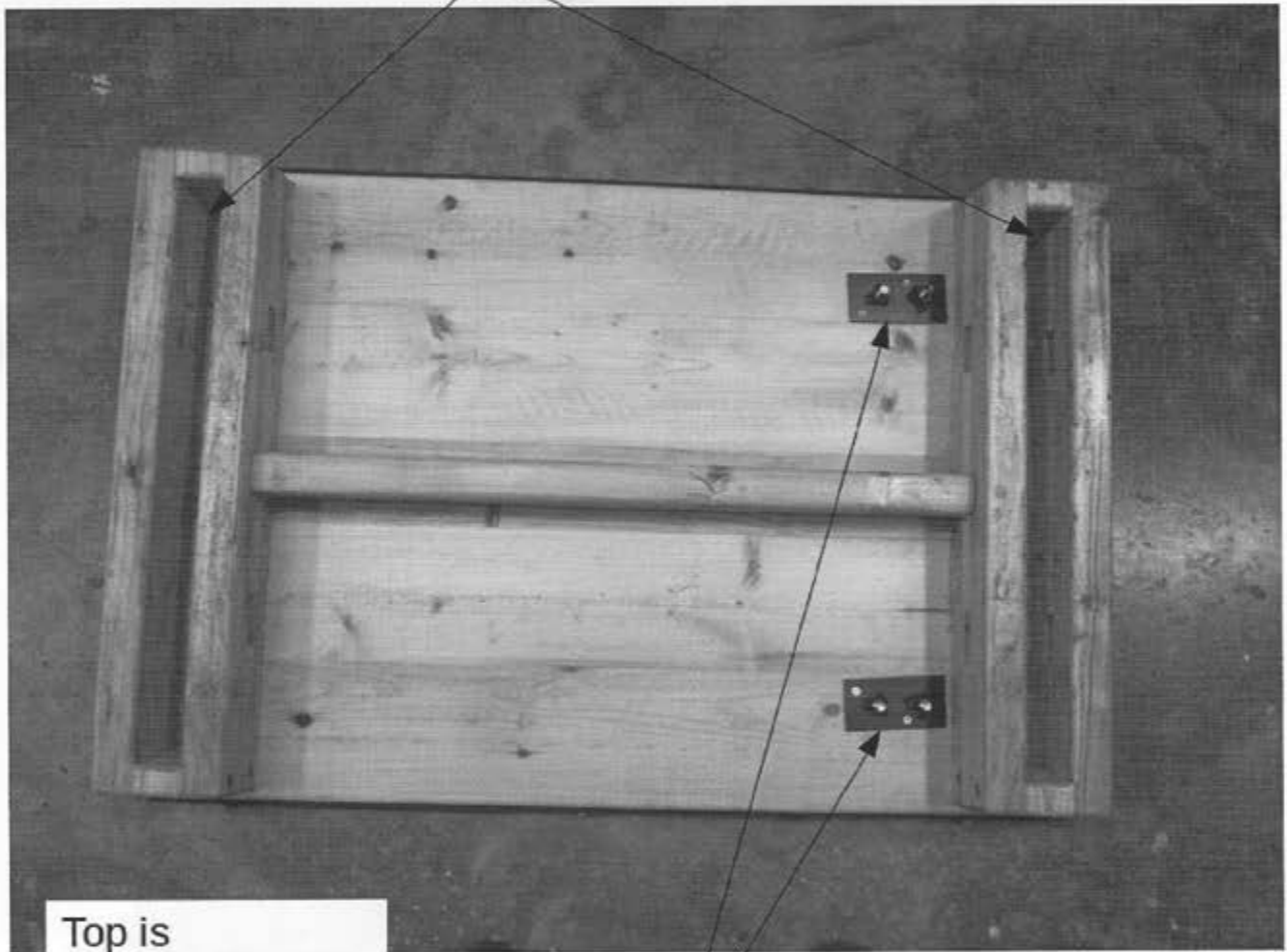


These pictures show the assembly sequence: Set the stretcher between the legs, then set the top on and tap in the wedges. Only the two wedges in the legs are really necessary for stability. Gravity would hold the top in place, but using wedges there, too, means two people can pick the bench up by the top and move it when we need to make more room in a class.



These pictures show enough dimensions to give an idea of the size and the joinery. The construction reflects my woodworking background - 2x4s ripped down to 3 inches to get nice square corners, legs angled out, pocket screws and doweled joinery, and all the edges rounded off with a router. If I were making another I might think about some simpler joinery to make it go together faster.

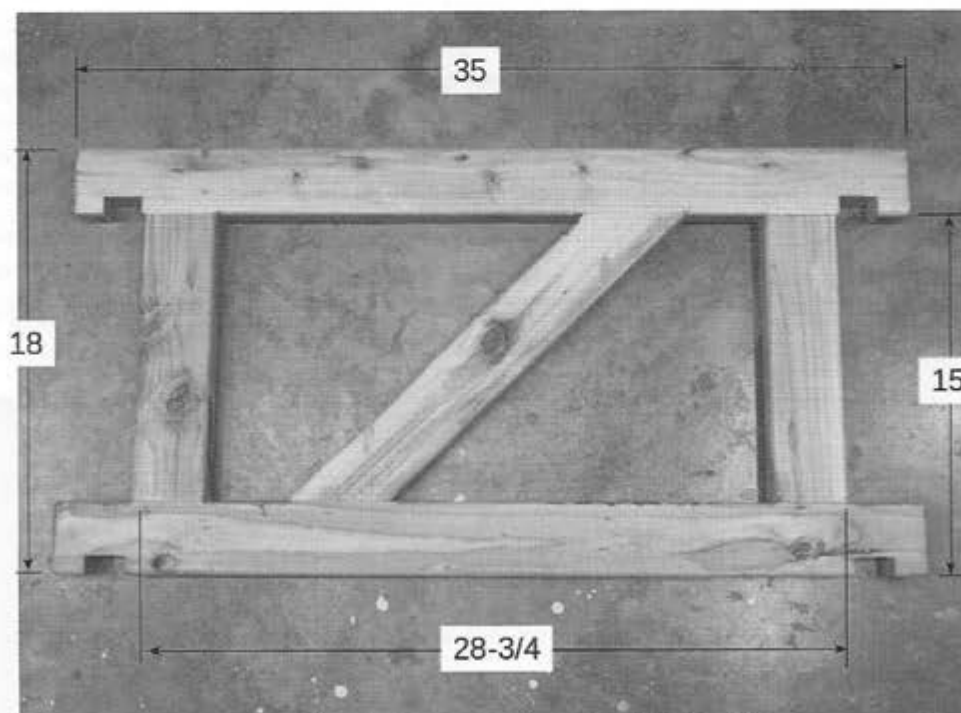
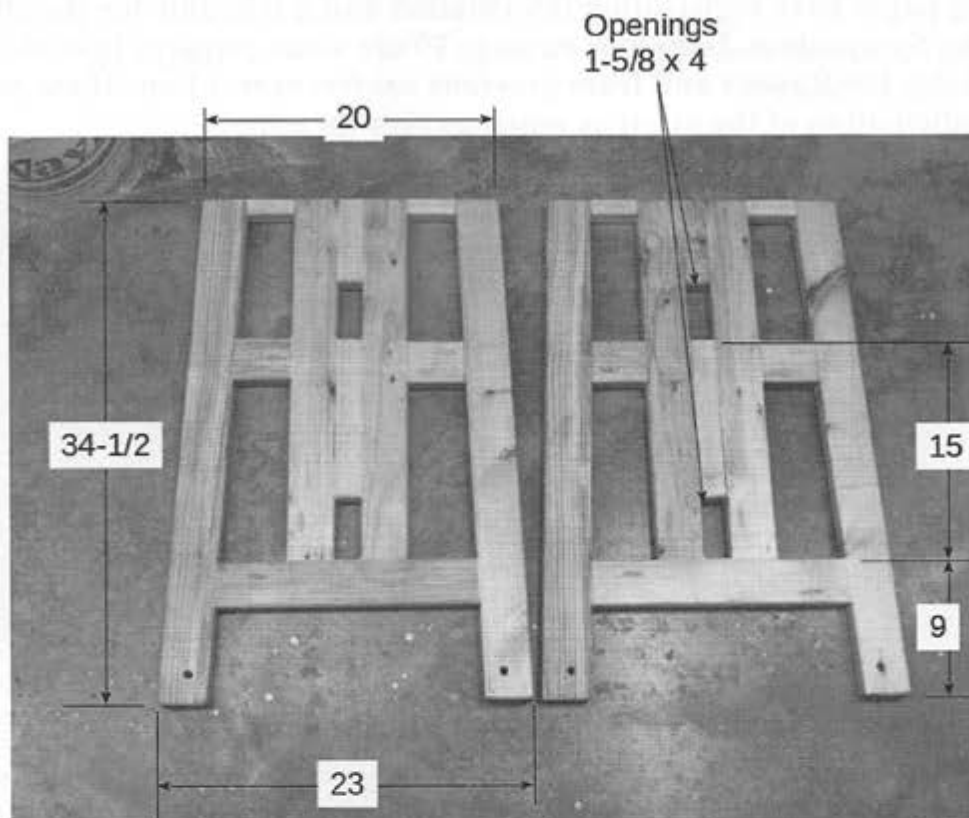
Pockets approx $1\frac{5}{8}$ x $20\frac{1}{4}$,
spaced to fit legs



Top is
 $24\frac{3}{8}$ x $37\frac{1}{2}$,
glued from 4 2x6
and a 2x4

Nut plates to bolt on vise

This article is reprinted with permission courtesy of the Alabama Forge Council "Bituminous Bits" newsletter November-December 2018. - Editor



Notches are 3/4 deep by 1-5/8 wide

AABA WINTERFEST III



JAN 23-25, 2020
PIMA COUNTY FAIRGROUNDS, TUSCON AZ

CAMPING • FULL RV SITES • BANQUET •
GALLERY • SILENT AUCTION • LITTLE TENT EVENT
EDUCATION TENT (NEW)

DEMONSTRATOR LIST

Jack Brubaker, Rodger "Grizz" LaBrash, Doug Pryor, Ellen Durkin
Little Tent Event: Fred Zweig Education Tent: Jalme Escobido

FOR REGISTRATION AND MORE DETAILS VISIT: AZBLACKSMITHS.ORG



CALIFORNIA BLACKSMITH ASSOCIATION *presents*

BEGINNER TO ARTIST

JOE KOCHES MEMORIAL CONFERENCE • FERNDALE, CA • APRIL 30TH—MAY 2ND 2020

Before Joe passed in September 2019, he brought together a group of world-class artists of the forge to show the scope of contemporary blacksmithing. His show will go on! We will have demonstrations, portfolio presentations, and two galleries,

including Joe's gallery containing one of the finest collections of contemporary ironwork. The CBA instructor team led by Mark Aspery welcomes everyone interested in developing their skills at the forge. Join us in Ferndale for Joe's dream conference.



Monica Coyne



Christoph Friedrich



Claudio Bottero



Pete Braspenninx



Kovarna (Pavel)
Tasovsky

MORE INFORMATION AT WWW.CALSMITH.ORG/CBA-EVENTS



ABANA 2020 Conference



ABANA 2020 Conference

Washington County Fairgrounds
392 Old Schuylerville Rd.
Greenwich, NY

Information Available at

www.abana2020.com
abana2020 on facebook
abana.org
ABANA Central Office
423-913-1022

We will be featuring 8 disciplines of Smithing with at least three talented Smiths in each.

ART: with Daniel Miller, Zeevick Gotleib, & Ellen Durkan

Historic: with Peter Ross, Dick Sargent, & Bob Valentine

TOOLS: with Patrick Quinn, Jeffery Funk, & Eric Schatzel

KNIVES: with Matt Parkinson, Lin Rhea, & Jeff Helm

POWER: with Bruce Jarrell, Steve Parker, & Randy McDaniel

FARRIERS: with Dave Farley, Roy Bloom, Tom Willoughby

TEACHING: with Mark Aspery, Gerald Boggs, & Randy Augsburger

FARM: with Joel Tripp, Judson Yaggy, Derick Glaser, & Lucian Avery

The Patient Order of Meticulous Metalsmiths with Tom Latane, Peter Renzetti, Carl Close & other exceptional craftsmen.

The lecture series will be featuring such notables such as Albert Paley, Howard Schechter, Doug Wilson, Bill Hochella, Leigh Morrell & members of the demonstrator staff.

There will be a youth teaching venue and family programs for the non blacksmiths.

The raffle will include a BAM box donated by Pat McCarty and a Big Blue power hammer.

The Iron in the Hat is pleased to announce the return of Len Ledet with his special blend of entertainment and wackiness.

The Saturday evening banquet is back with a New England style BBQ.

We will have a beer tent serving a local micro brew and a local distiller will be pouring our own signature Slack Tub bourbon. Collectable laser inscribed 2 liter wood casks can be purchased filled with our special label. See the website for information on the cask which can only be pre ordered and can only be picked up at the conference.

Early registration is now open at :

abana2020.com



Follow us on facebook:
[ABANA 2020 Conference](https://www.facebook.com/ABANA2020Conference)





ABANA 2020 Conference

Washington County Fairgrounds
392 Old Schuylerville Rd.
Greenwich, NY

Information Available at

www.abana2020.com
abana2020 on facebook
abana.org
ABANA Central Office
423-913-1022



Scheduled Activities

Demonstrations all day every day at our 8 demo sites. There will be a riveting lecture series featuring such notables such as Albert Paley, Howard Schechter, Douglas Wilson, Bill Hochella, Leigh Morrell, and others

Join the party at the Blacksmith Arms Pub serving local micro brews. We are proud to announce our own private label Slacktub Bourbon. Available by the glass, bottle or collectable 2 liter wooden cask. See the website for information on pre ordering the laser inscribed cask. These must be pre-ordered.

Breakfast, Lunch, Dinner will be available onsite from a variety of food vendors and food trucks.

There will be extensive tailgating, most under roofs. The northeast is the epicenter of the largest accumulation of blacksmithing equipment in the country. If you can dream of it, it will likely be at this conference

We are inviting all the vendors we have come to expect at an ABANA conference.

There will be nightly competitions organized by Mark Aspery to be held at the Teaching site

Of course there will be Iron in the Hat hosted by Len Ledet. We also will be having a large item raffle featuring a Big Blu power hammer and Pat McCarty is donating a BAM box once again for this event. An added bonus will be it is going to be filled with handmade tools from some of the finest blacksmiths in the country.

We are hoping for a strong outpouring of support for the curated gallery exhibition and hope to have items donated to the live auction of art & craft scheduled for Saturday night.

For this conference the banquet will be revived with a Saturday night BBQ northeast style, included with registration. Come and enjoy the warmth and fellowship of blacksmiths from around the world. This will be a party the likes of which has not been enjoyed at an ABANA conference in some time.

Don't miss what is sure to be an event that will be talked about for years.

SCABA Shop and Swap

****NEW**** For Sale: ****NEW****

For Sale by James L. Kirkland, Jr.
Contact by E-mail if interested.



Bender Potts & Co.,
Manuf'tr, Lanc' PA, Pat' Jan. 20, 1874
Pat' Nov. 29, 1881, J.F. Bender

Forge Blower

Purchased by my father in
1981 for \$435.00. Make offer
by e-mail to
jlkclk@sbcglobal.net.

SCABA Shop and Swap

****NEW**** For Sale: ****NEW****

For Sale by James L. Kirkland, Jr.
Contact by E-mail if interested.



Blacksmith's Treadle Hammer, no markings.

Also known as an Oliver Hammer,
purchased
by my father in 1983 from Bill Gichner for
\$2200.00
Make an offer by e-mail to
jlkclk@sbcglobal.net.

SCABA Shop and Swap

For Sale:

**Blacksmith Tools, Anvils, Trip Hammer
and Other Items**

**Call Shirley at 580-365-4470
Fletcher, OK**

Shirley's late husband was Saltfork member Bob McKelvain.
Detailed list of sale items, photos or prices are not currently available.
Contact Shirley for details.

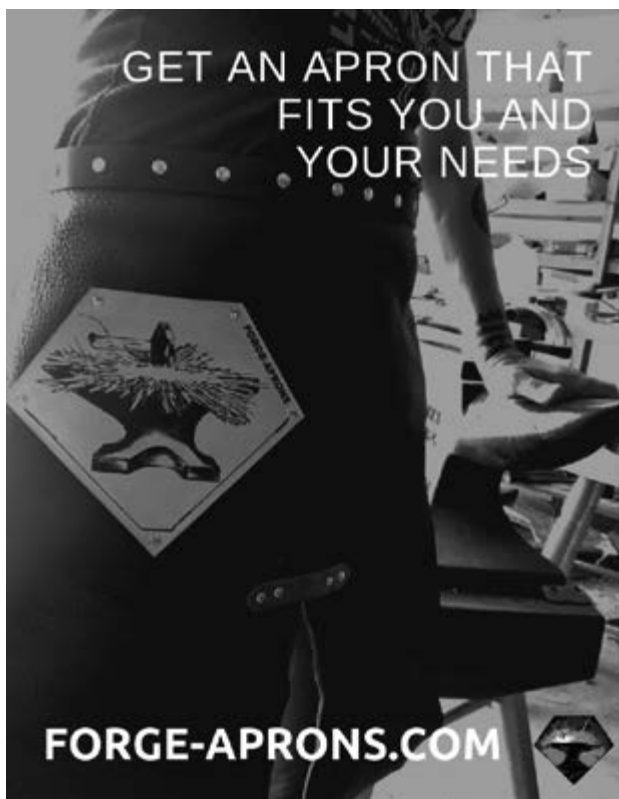
For Sale: 15 Lb Tire Hammers:

\$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. Meetings are scheduled 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

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