

# Saltfork Craftsmen Artist-Blacksmith Association

November 2017



The Blacksmith Shop at Fairview, OK

**If you are interested in hosting a regional meeting in 2018, secure your date as soon as possible. The 2018 Regional Meeting Calendar is enclosed on page 9.**

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

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

Vice-President/Workshop Coordinator:  
Mandell Greteman 580-515-1292  
409 East Broadway  
Foss, Okla. 73647  
mandell01@windstream.net

Director/Conference Chair:  
JJ McGill 580-369-1042  
5399 Pete Nelson Rd.  
Davis, OK 73030  
jjmcgill88@yahoo.com

Director/Swage Blocks:  
Bill Kendall 918-691-2173  
1756 E. 59<sup>th</sup> St  
Tulsa Ok. 74105  
wwkendall@aol.com

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

Director:  
Terry Jenkins 405-476-6091  
222 N. Washington  
Blanchard, Ok. 73010

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

**Assignments:**

Editor/Regional Meeting Coordinator:  
Russell Bartling 918-633-0234  
70 N 160th W. Ave  
Sand Springs, Ok 74063  
rbartling@ionet.net

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

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

Librarian:  
Doug Redden 918-230-2960  
2050 E. 410 Rd.  
Oologah, Ok. 74053  
Doug.redden2@att.net

**Editors notes...**

By the time you read this newsletter, the 2017 Annual SCABA Conference will be over. Since this newsletter really needs to be done about the time as the conference workshops will be ongoing, there won't be much conference info until the December newsletter. I have tried to get as much of it done before the conference as I could.

The Conference itself, as well the workshops afterward, take a lot of planning, coordination and volunteers to pull off. But, as much work as it can be at times, it is fun to be involved. I am sure there will be a lot of people to thank in the December newsletter and it may not be possible to thank all of them by name. So If you have volunteered or helped out in some way, please know that your efforts are appreciated!


Look for Post-Conference details and summary in the December newsletter.

- 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.

Material from this newsletter may be freely copied without permission for non-profit purposes. Please credit the author and this publication.

**Visit our Saltfork Craftsmen Website:**  
[www.saltforkcraftsmen.org](http://www.saltforkcraftsmen.org)



## President's Notes:

Folks, I've been so busy that I really don't have much to say this time around. I do want to thank everyone involved with the conference!

I know we all done a lot, but I think the women should really be thanked, because they worked the hardest and kept our tummies plenty happy!

Hope you all have a very happy Thanksgiving!

Happy hammering to all!      -Byron



---

Blacksmiths everywhere are finishing up  
forging on their axes and putting them to the  
stone to hone a keen edge.

Meanwhile the turkeys...  
are going into hiding.



From our smithy to yours  
Have a happy, safe  
Thanksgiving

From the Rocky Mountain Smiths Forge Facts Fall 2014

## 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.

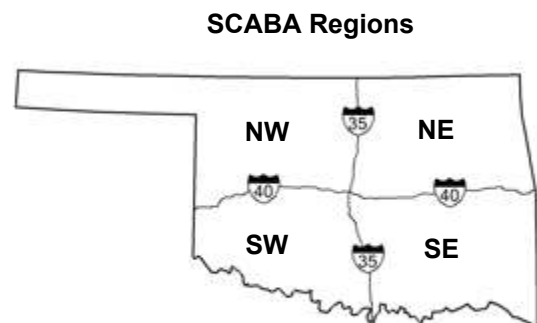
Want to host a meeting? The meeting hosting form can be found on the last page along with membership application form. If you want to host a meeting in any area please fill out one of the host forms on the website under the calendar section or in the newsletter and e-mail the information or mail the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

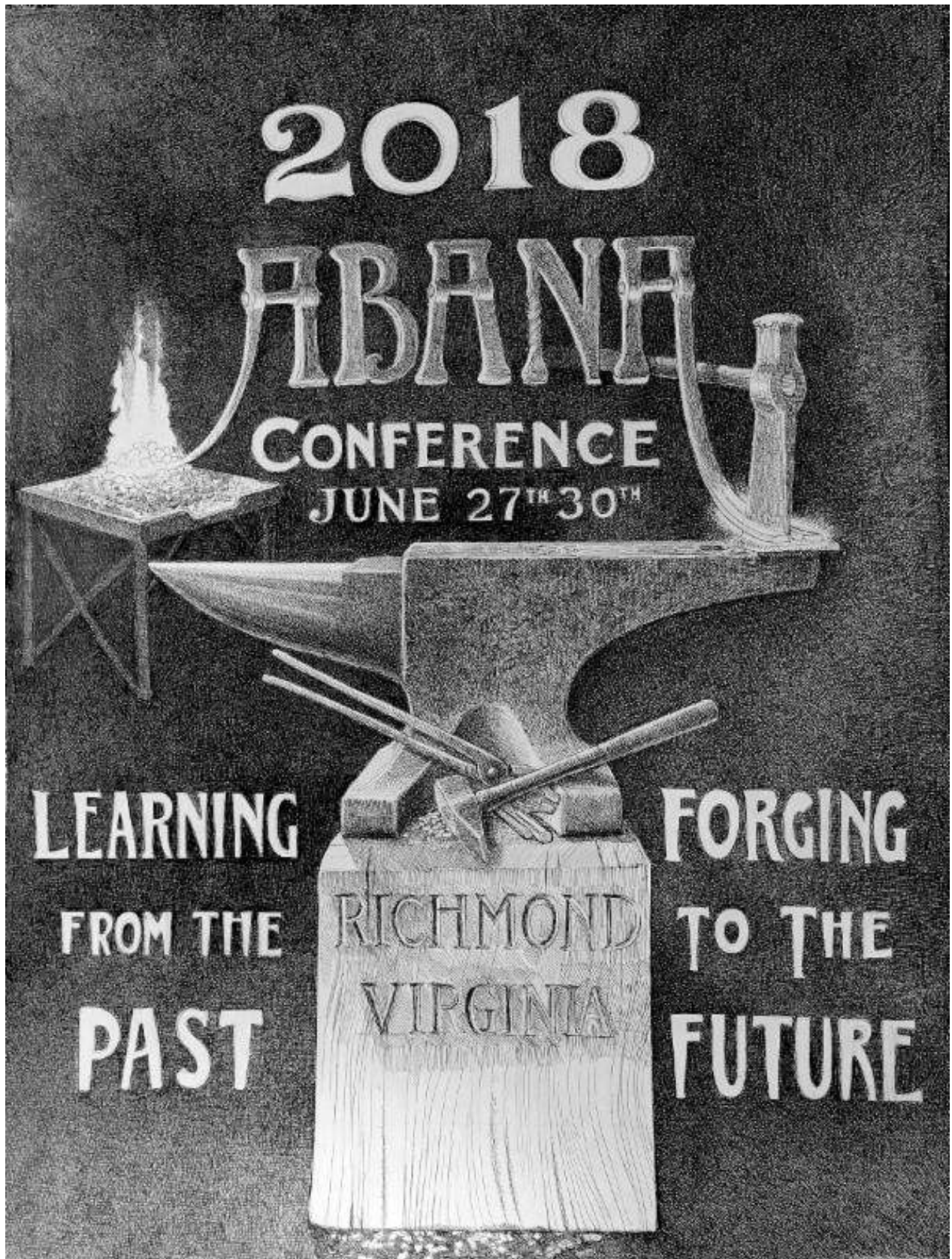
All meetings are encouraged. These boundary definitions and regional meeting dates are a suggested framework to facilitate orderly meeting scheduling, planning and promotion with a minimum of overlaps and a maximum exposure to the greatest number of members. Not all meetings fit precisely within a rigid 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.

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.



Registration for the 2018 Conference is now open  
make your reservations as space is limited  
Various Accommodations ie hotels and Camping check  
[ABANA.org](http://ABANA.org) for information.

# 2017 REGIONAL MEETING SCHEDULE

NE Region (1 <sup>st</sup> Sat)	SE Region (2 <sup>nd</sup> Sat)	SW Region (3 <sup>rd</sup> Sat)	NW Region (4 <sup>th</sup> Sat)
Jan 7 <sup>th</sup> (Open)	Jan 14 <sup>th</sup> (Byron Doner)	Jan 21 <sup>st</sup> (Open)	Jan 28 <sup>th</sup> (Monte Smith)
Feb 4 <sup>th</sup> (Open)	Feb 11 <sup>th</sup> (Open)	Feb 18 <sup>th</sup> (Open)	Feb 25 <sup>th</sup> (Rory Kirk)
Mar 4 <sup>th</sup> (Open)	Mar 11 <sup>th</sup> (Bruce Willenberg)	Mar 18 <sup>th</sup> (Open)	Mar 25 <sup>th</sup> (Kelly Killhoffer)
Apr 1 <sup>st</sup> (Doug Redden)	Apr 8 <sup>th</sup> SCABA Picnic!	Apr 15 <sup>th</sup> (Open)	Apr 22 <sup>nd</sup> (Don Garner)
May 6 <sup>th</sup> (Jim Carothers)	May 13 <sup>th</sup> (Ronnie Smith)	May 20 <sup>th</sup> (JJ McGill)	May 27 <sup>th</sup> (Mandell Greteman)
Jun 3 <sup>rd</sup> (Gerald Brostek)	Jun 10 <sup>th</sup> (David Kroier)	Jun 17 <sup>th</sup> (Open)	Jun 24 <sup>th</sup> (Terry Kauk)
Jul 1 <sup>st</sup> (Marshall Hager)	Jul 8 <sup>th</sup> (Byron Doner) Tools for Conference Toolbox Work Day	Jul 15 <sup>th</sup> (Open)	Jul 22 <sup>nd</sup> (Roy Bell)
Aug 5 <sup>th</sup> (Billy Helton)	Aug 12 <sup>th</sup> (Ronnie Smith)	Aug 19 <sup>th</sup> (Open)	Aug 26 <sup>th</sup> (Dorvan Ivey)
Sep 2 <sup>nd</sup> (Tracy Cowart)	Sep 9 <sup>th</sup> (Ben Hangsleben)	Sep 16 <sup>th</sup> (Jim Dyer - JJ McGill - Sulphur Tractor Show)	Sep 23 <sup>rd</sup> (Don Garner - Fairview Tractor Show)
Oct 7 <sup>th</sup> (Josh Perkins)	Oct 14 <sup>th</sup> (Open)	Oct 21 <sup>st</sup> (Conference Weekend!)	Oct 28 <sup>th</sup> (Corey Spieker)
Nov 4 <sup>th</sup> (Open)	Nov 11 <sup>th</sup> (Bill Phillips)	Nov 18 <sup>th</sup> (Anthony Griggs)	Nov 25 <sup>th</sup> (Bob Kenemer)
Dec 2 <sup>nd</sup> (Open)	Dec 9 <sup>th</sup> (Open)	Dec 16 <sup>th</sup> (Travis Gabbard)	Dec 23 <sup>rd</sup> (Mandell Greteman)

## Fifth Saturdays:

April 29<sup>th</sup> (Open)

July 29<sup>th</sup> (Hammer Making Workshop)

September 30<sup>th</sup> (Open)

December 30<sup>th</sup> (Open)

## Workshop Schedule

**No Workshops are currently scheduled other than the after Conference workshops with Bob Patrick and Lyle Wynn. See information in this newsletter.**

**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.**

mandell01@windstream.net

## November 2017

NE Regional Meeting November 4th: Open.

**SE Regional Meeting November 11<sup>th</sup>** : Will be hosted by Bill Phillips at his shop at 14360 State Hwy 113, Indianola, OK 74442.

The trade item is something made from 3/8" round rod. Lunch is provide but please bring a side item or dessert to help out.

Contact Bill Phillips at 918-200-4263 or [bullissac@yahoo.com](mailto:bullissac@yahoo.com) if you have questions.

**SW Regional Meeting November 18<sup>th</sup>** : Will be hosted by Anthony Griggs at his shop located at 345387 East Hwy 18B, Sparks, OK 74869. Rock house on the south side of the road on the hill. (See map).

The trade item will be a blacksmith's double caliper. **Lunch will be fully provided. Guests don't need to bring any food items.**

Please bring extra chairs if you want to sit and visit outside.

Contact: Anthony Griggs at 918-866-2252.

**NW Regional Meeting November 25<sup>th</sup>** : Will be hosted by Bob Kennemer at the Route 66 Blacksmith Museum shop in Elk City.

Trade item is any cooking tool to be used on the grille (steak turner, spatula, etc.)

Lunch will be provided but please bring a side dish or dessert to help out. Contact Bob Kennemer at 580-799-1878 or [bob.kennemer@sbcglobal.net](mailto:bob.kennemer@sbcglobal.net) if you have questions.

## December 2017

NE Regional Meeting December 2<sup>nd</sup> : Open.

SE Regional Meeting December 9<sup>th</sup>: Open

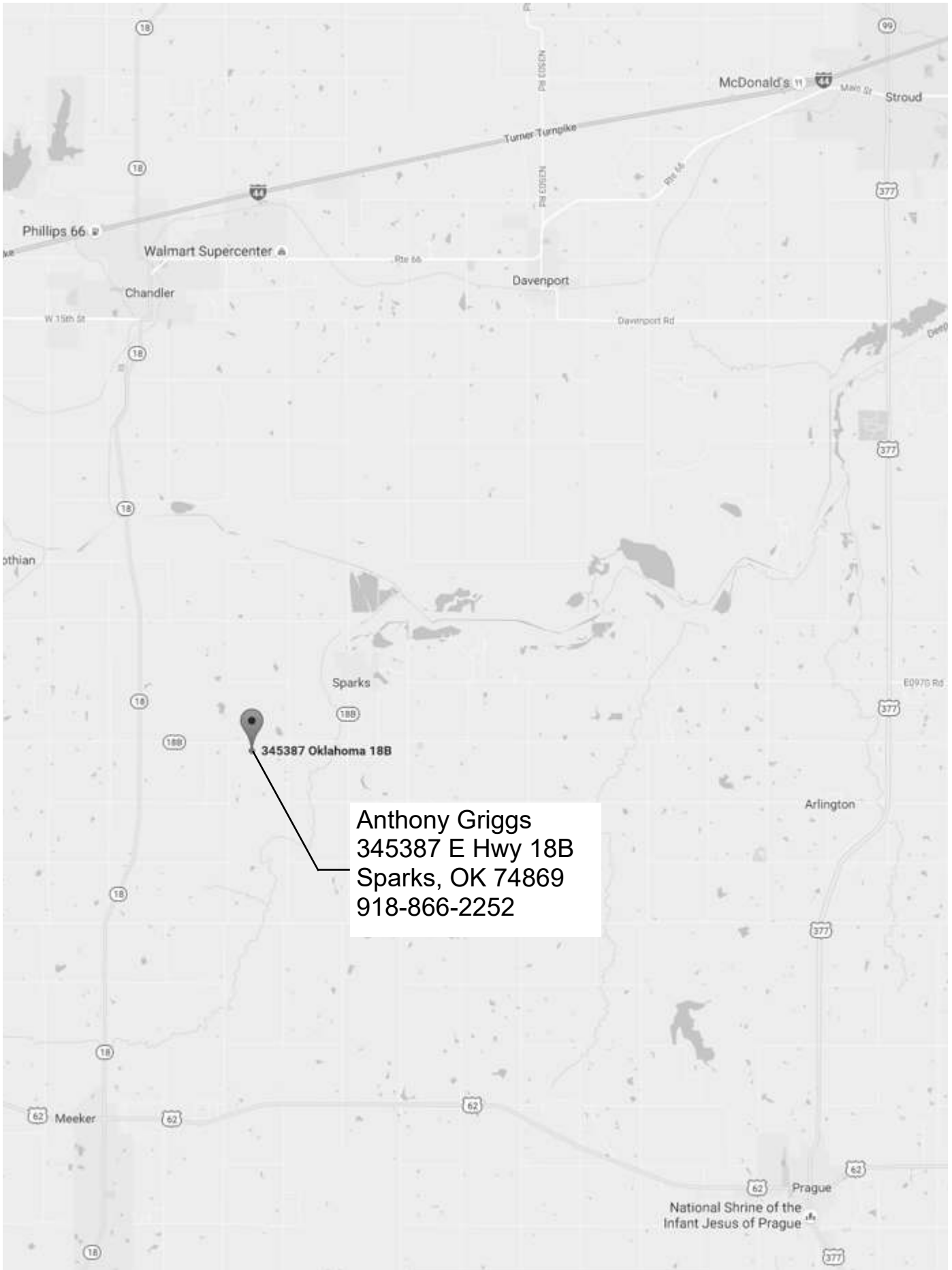
**SW Regional Meeting December 16<sup>th</sup>**: Will be hosted by Travis Gabbard at his shop just north of Fletcher, OK. From Fletcher, go north out of town on Hwy 277 about half a mile to a gravel driveway at the north end of a concrete plant (plant is just north of Dollar General). Turn west into driveway to building with carport on south end. Shop is in north end of building. (Building is approximately 20 yards from HWY 277.)

Lunch will be provided (burgers and dogs) but please bring chips, side dishes or desserts to help out.

The trade item is a Christmas item. Contact Travis Gabbard at 580-917-4013 if you have questions.

**NW Regional Meeting December 23<sup>rd</sup>** : Will be hosted by Mandell Greteman at his shop in Foss, Ok.

The trade item is a small bowl for pocket change, etc. Lunch is provided but please bring a side dish or dessert to help out. Contact Mandell Greteman at 580-515-1292 if you have questions.





## Its Time to Plan Regional Meetings for 2018:

If you are interested in hosting a regional meeting in 2018, the schedule is beginning to fill up. Please let me know if you would like to secure a date for a meeting to get on the calendar. If you are not yet decided on the location, trade item, etc., we can work out those details later. Meeting details usually get posted two months before the meeting date.

## 2018 REGIONAL MEETING SCHEDULE

NE Region (1 <sup>st</sup> Sat)	SE Region (2 <sup>nd</sup> Sat)	SW Region (3 <sup>rd</sup> Sat)	NW Region (4 <sup>th</sup> Sat)
Jan 6 <sup>th</sup> (Open)	Jan 13 <sup>th</sup> (Open)	Jan 20 <sup>th</sup> (Open)	<b>Jan 27<sup>th</sup> (Monte Smith)</b>
Feb 3 <sup>rd</sup> (Open)	Feb 10 <sup>th</sup> (Open)	Feb 17 <sup>th</sup> (Open)	<b>Feb 24<sup>th</sup> (Rory Kirk)</b>
Mar 3 <sup>rd</sup> (Open)	Mar 10 <sup>th</sup> (Open)	Mar 17 <sup>th</sup> (Open)	<b>Mar 24<sup>th</sup> (Mandell Greteman)</b>
Apr 7 <sup>th</sup> (Open)	<b>Apr 14<sup>th</sup> SCABA Picnic</b>	Apr 21 <sup>st</sup> (Open)	Apr 28 <sup>th</sup> (Open)
May 5 <sup>th</sup> (Open)	May 12 <sup>th</sup> (Open)	<b>May 19<sup>th</sup> (JJ McGill)</b>	May 26 <sup>th</sup> (Open)
Jun 2 <sup>nd</sup> (Open)	<b>Jun 9<sup>th</sup> (Ronnie Smith)</b>	Jun 16 <sup>th</sup> (Open)	<b>Jun 23<sup>rd</sup> (Terry Kauk)</b>
Jul 7 <sup>th</sup> (Open)	Jul 14 <sup>th</sup> (Open)	Jul 21 <sup>st</sup> (Open)	Jul 28 <sup>th</sup> (Open)
Aug 4 <sup>th</sup> (Open)	Aug 11 <sup>th</sup> (Open)	Aug 18 <sup>th</sup> (Open)	Aug 25 <sup>th</sup> (Open)
Sep 1 <sup>st</sup> (Open)	Sep 8 <sup>th</sup> (Open)	<b>Sep 15<sup>th</sup> (Ricky Vardell - JJ McGill - Sulphur Tractor Show)</b>	Sep 22 <sup>nd</sup> (Open)
<b>Oct 6<sup>th</sup> (Conference Set up Work Day)</b>	<b>Oct 13<sup>th</sup> (Conference Weekend!)</b>	Oct 20 <sup>th</sup> (Open)	Oct 27 <sup>th</sup> (Open)
Nov 3 <sup>rd</sup> (Open)	<b>Nov 10<sup>th</sup> (Bill Phillips)</b>	Nov 17 <sup>th</sup> (Open)	Nov 24 <sup>th</sup> (Open)
Dec 1 <sup>st</sup> (Open)	Dec 8 <sup>th</sup> (Open)	Dec 15 <sup>th</sup> (Open)	Dec 22 <sup>nd</sup> (Open)

### Fifth Saturdays:

March 31<sup>st</sup> (Open)

June 30<sup>th</sup> (Open)

September 29<sup>th</sup> (Open)

December 29<sup>th</sup> (Open)

## Around the State...

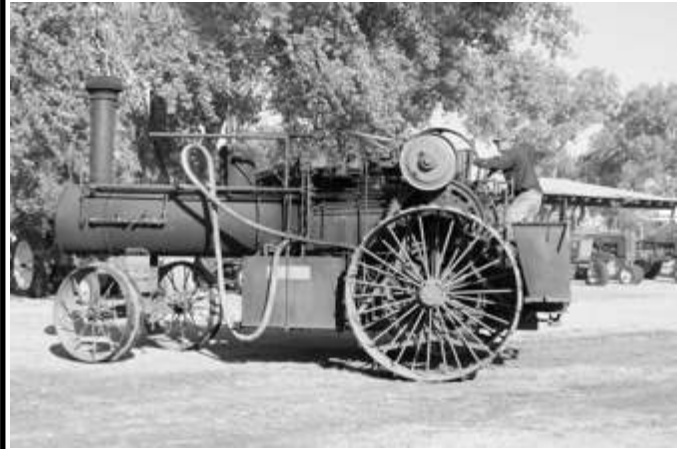
**NW Region September Meeting:** The Northwest Region September meeting was hosted by Don Garner at the Fairview Tractor Show in Fairview, OK.

The Fairview 2 cylinder Tractor Show was held September 23<sup>rd</sup> and 24<sup>th</sup>. On Friday we were set up to demo and during the morning we had 250 Pre-k thru 4th grade school kids, from three different schools in the area, that went thru the blacksmith shop.



Rory Kirk, Ron Lehenbauer, and myself were there to demo for the kids and the adults that came on Friday. Events on Friday and Saturday included 2 cylinder tractor and steam engine parades, hay bailing, saw mill, corn shelling, ice cream mixer, house moving, rope making, grist mills, and cowboy shoot outs. Most of these were run by 2









cylinder tractors, hit and miss motors or steam engines.

We had pulled pork for lunch and tasty desserts followed.

Saturday was the NW Regional meeting. There were 25 or more members present, some from the NE and SE Regions. We want to thank them for their support and effort.

Saturday we had mostly adult and family traffic with a very large turnout and lots of interest in the forging. We had three new members join, and several were interested in the web site and the Conference at Sulfur next month.

The meal was pizza and a cobbler that LaQuitta and Mandell fixed in an iron skittle. - Don Garner

*(Photos by LaQuitta Greteman)*

**NE Region October Meeting:** The Northeast Region October meeting was hosted by Josh Perkins at his shop in Chelsea, OK.

We had about 20 people attend the meeting. There were a few new faces. There were some really nice candlestick holders made for the trade item, but I forgot to take a picture of them.





The OU game played as people were forging.  
Thanks to everyone who attended the meeting. -  
Josh Perkins

*(Photos by the Josh Perkins)*



**SE Region October Meeting:** The SE Region October meeting date was taken up by the 2017 Annual Conference. Look for Conference info in the December newsletter.

**Tulsa State Fair:** Four year old Easton Replogle and his dad Shawn demonstrated at the Tulsa State Fair. Shawn went through one of the beginner workshops in early 2016 in Tulsa. Easton has been hooked ever since. - Doug Redden





**Demo at Elk City Flea Market:** We did a demo at the Elk City Flea Market and sold some of our products.

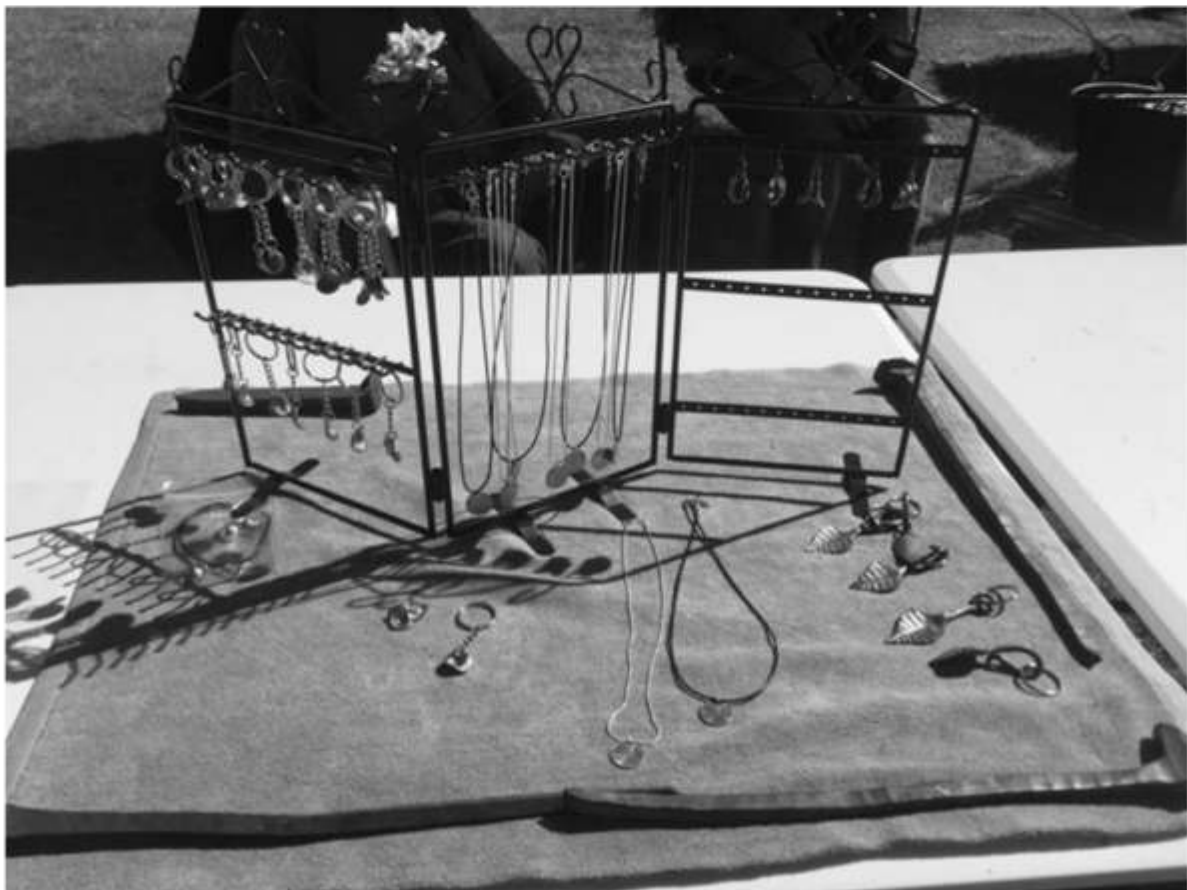


We had a lot of interest and people saying they wanted to come to the meeting and see about

becoming new members. Of course, "Forged in Fire" apparently sparked a lot of that interest.

The people doing the demo work were Roy Bell, Terry Kauk, Monte Smith, Rory Kirk, and Travis Gabbard. Ellen Kirk also sold some jewelry. - Rory Kirk

*(Photos by Rory Kirk)*







## Shop Safety Tips-Hazards of Iron Dust

John Zile

When we do something not knowing any better, it's a mistake. When we do it again, it's stupid. I was stupid again last week, so you listen up, and don't be stupid. Heed my warning.

A few years ago I was using a die grinder to enlarge a hole in a cast iron forge to accept a new fire pot. I was inside my shop with all the doors shut grinding away, not feeling the affects of the fine partials of cast iron dust building up in my lungs. I finished up and started for the house and about didn't make it. I couldn't breathe. I got worse by the next day because the iron partials were rusting in my lungs. When they rust the partials get larger, making it worse. First you think your going to die, then you get worse and hope you can die. I am not kidding about this either, it's that bad. Take my word for it. **DON'T BE Stupid.** Last week I was helping a man, in my shop, to build a rebar cage for a concrete base for a sign. Rebar is to hard to cut with a saw, and you can burn yourself up cutting it with a torch. We used a chop saw with an abrasive blade, with vacuumed on the blade, and an overhead air filter running, but with all the doors and windows shut. After about 4 cuts I could taste the iron and told him to stop. I got the torch and finished the job. The next day I had a sharp, continual pain in my back below my shoulder blade on the right side. I went to the doctor and I have an infection in my right lung. I am having to take steroids, antibiotics and a pill to counter the steroids. I have reactions to steroids that almost killed me the last time I took them, hence the counter pill. If you have to use a chop saw, use it outside, preferably in a tornado, but always look for a better way. I thought I learned the hard way, but I didn't learn because I did it again. **I WAS STUPID.** Please heed my warning and don't be stupid. This is suppose to be fun. It is not fun when you are in a

continual state of healing, and know that you have damage that will likely be permanent. Forge hard ,but forge smart. Don't be stupid like me.

## Acetylene Safety Tip

Ted Stout

Please pass this on to anyone you know who use oxy-acetylene. Also, add to this that we should never use an acetylene tank that has been transported on its side for at least two hours after it has been set up vertical. Never open it more than 1/2 turn and never set the pressure over 15 psi. All these rules can help save a life. Free acetylene is a white goey liquid that when exposed to air is highly explosive.

Editors note: the photo at right is the remnant of a plumbers van that contained a leaking acetylene tank.

Articles from: *Indiana Blacksmithing Association - The Forge Fire Newsletter - Jan 2010*

Submitted for reprinting by Dale Dixon



## Upsetting Bolster

by Jr. Strasil

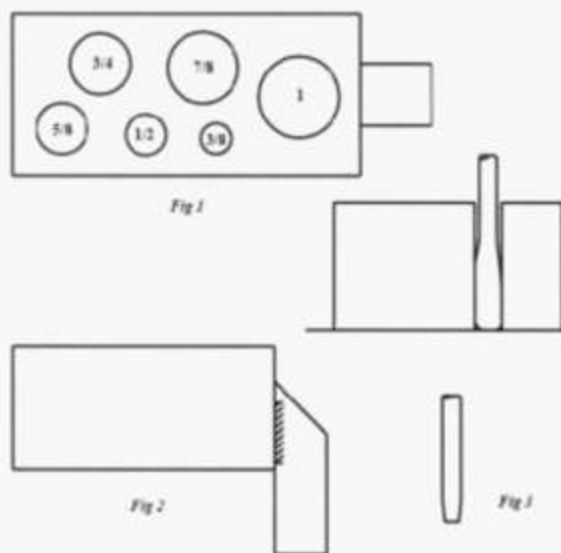
*Upsetting can be a time consuming and frustrating task to perform. With a simple bolster or upsetting bar it can be quick and easy.*

Start with a piece of 2" square hot rolled bar about 5" long and drill 6 holes in it as per drawing in figure 1. Hole sizes are 1" - 7/8" - 3/4" - 5/8" - 1/2" - 3/8". All holes should be 1/64 to 1/32" oversize and very lightly chamfered on both sides. Remove burrs from the cut ends and weld on a square shank to fit your hardy hole at the end with the hole. see figure 2.

To use, take a yellow heat on 1-1/2 to 2" of the end of the piece to be upset and taper slightly as in figure 3. Stick the end in the upsetting bar, using a hole about 1/8" larger than the material. Hammer the end of the material. Remove from the block and realign the upset end of the rod with light blows, so you don't undo the upsetting. If a longer or larger upset is needed, taper the end before heating and repeat the procedure.

Upset only 1/8" at a time to control cold shuts and bending of the end. If it sticks in the hole, wait a little while and it will cool and shrink and then slip out easily.

This article is re-printed courtesy of the Pittsburgh Area Artist-Blacksmith Association Newsletter, Dec 2010 - Submitted for reprinting by James Allcorn



## Daniel's Journey into Blacksmithing

James Allcorn  
Bois d'Arc Forge  
Paris, TX

About a year or so ago a young man, perhaps 19-20, happened by my shop. His name was **Daniel Murphy** and he was interested in blacksmithing. I showed him around my shop and we talked about what it took to get a shop up and running. He had been watching a lot of U-Tube videos, etc. and was making his own charcoal from a homemade retort. I thought that was pretty amazing for a beginner and showed an incredible willingness to learn. He advised he didn't have a lot of money to spend on tools but that a family member had found some things in a barn and had given it to him and he was slowly putting together a shop behind his house.

His shop is unique in that it doesn't have electricity! He occasionally comes by the shop and we have good conversations.

A few days ago he called and asked if I would help him build a coal forge. Seems he had acquired an old tractor wheel someone had put legs on plus a cast iron firepot, tuyer and a Champion 400 blower. Since he didn't have a torch or welder and no experience with either, he asked if I would help him assemble these parts into a working forge. I agreed and he brought all his stuff by on 8/17/17 and we set to the task of putting his forge together.

I suggested we use a plasma cutter instead of a torch to cut the hole in the tractor wheel. After the initial set-up and outlining the basic shape of the hole required for the firepot flange, I demonstrated the proper use of the plasma torch. Then I handed him the torch and he went to work. Following a somewhat shaky start he was running the plasma cutter like an old hand and after a bit of trimming and fine-tuning the hole we had a good fit for the pot.



Here Daniel is cutting what I call the "pass-through" openings in the sides of the forge.



A different view.

After assembling and disassembling the parts several times to get a good fit, he showed me where he wanted his blower arm to fit. I found a piece of ¼" plate and we punched bolt holes in it with the ironworker. I attached this plate to the wheel with a few E-6011 electrodes. After bolting this all together, the blower was attached and our job was finished.

I enjoyed helping Daniel with this little project. He is a fast learner and really pays attention.

-James Allcorn



Daniel Murphy, Blacksmith.

# Recent Shop Air Compressor Repair

Jim Carothers 09-08-2017

Many of us have an air compressor in our home shop. Mine has been sitting there in the corner of the barn working well since about 1988. In that time, I have changed the oil and cleaned the air intake filter many times. It had a new pressure switch installed in 2014 – burned electrical contacts. This has been a reliable tool that is used often, but not every day. (Photo 1).



Photo 1: The Air Compressor Setup

For several months, the compressor has been leaking down over a few days' time and recently it got bad enough that I could hear the leak. It appeared to me that the diaphragm in the pressure switch ( Photo 2 ) was leaking. I ordered a new Square D switch and waited a week or so for it to arrive; cost was about \$80. The new switch was installed; the compressor started; and the cut-out



Photo 2: The Pressure Switch

pressure set. When the motor cut off, I could still hear the leak just like with the old switch. I finally figured out that the air was coming from the unloader valve on the new pressure switch. The unloader valve is factory set, etc. I'm not messing with it.

I called Master Tool Repair ( 757-547-8665 <https://mastertoolrepair.com> ) to ask for help. The technician ( Doug ) was very helpful and told me that usually leaks were a check valve problem. The check valve is in the inlet fitting to the air tank ( Photo 3 ).



Photo 3: Check Valve



He explained that I should start the compressor and run it up to about 25 psi; switch the compressor off, and then, just be extra safe, unplug it from the power source. Next I should loosen the compressor to tank line fittings just a few turns and listen or soap and water test for leaking air. If there is pressure in the tank and you have air coming from the tank back up the compressor-to-tank line, you have a check valve that is leaking.

In my case, after removing the check valve from the tank, I could see debris in the check valve seat area. I was able to clean the seat and clean the valve disk face with an aerosol safety solvent. Reinstalling the valve fixed the air leak. If the valve had been bad, I would have ordered a new one from Master Tool Repair.

## Rule No. 1: Check The Simple Things First

- Jim Carothers

This article reprinted from the Puget Sound Region NW Blacksmith Association.

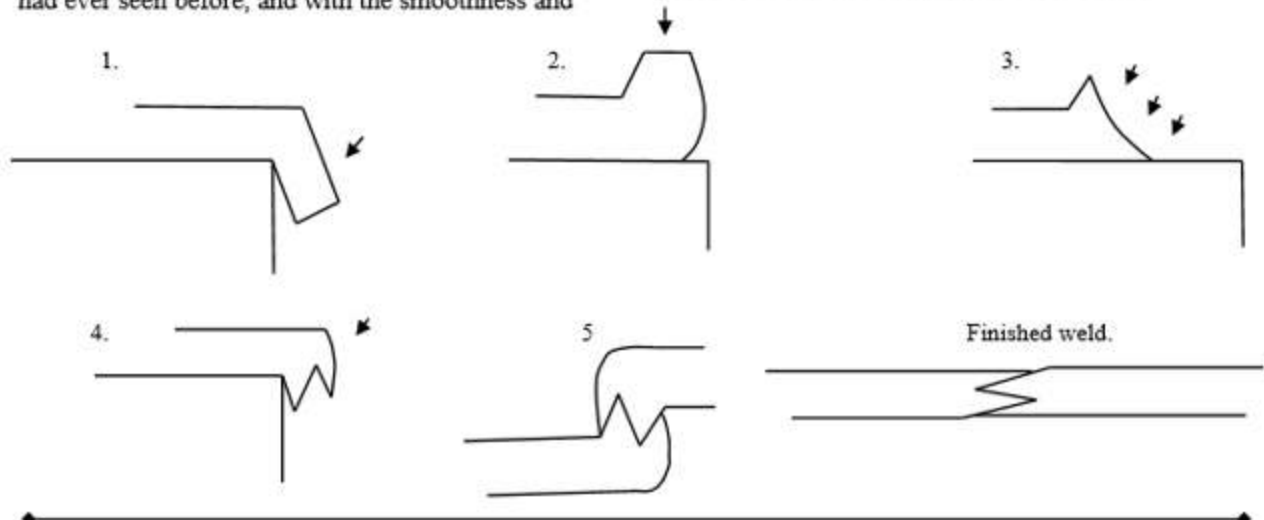
### A Different Scarf Weld

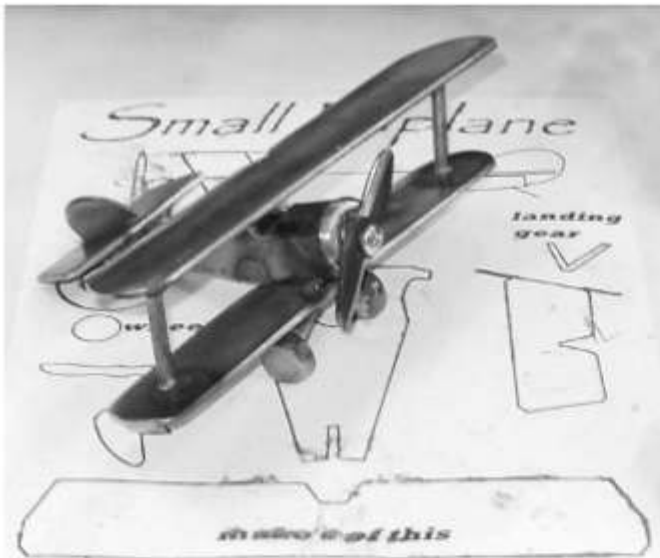
*By Daryl Nelson.*

Late August in a small town in eastern Washington, a group of about 15 smiths and farriers gathered for a two-day palaver hosted by Chesaw Ideal Forge. The agenda had included Tom Bredlow and two more men. Mr. Bredlow had to cancel at the last minute, leaving many people disappointed and even keeping some from attending. Little did they know, for the men who did perform were also masters at the forge. Mr. Bob Marshall, from Mission, BC, and a small brawny man from Wales, Mr. Glyn Owen David. Mr. David was two times the British champion Farrier, and is a working bladesmith at a coal mine in the hills of Wales. Mr. David astounded the crowd with his wizardry at the forge as he produced various shoes and tools, using many techniques and tools none of us had ever seen before, and with the smoothness and

exactness that comes only from many years at the anvil. On more than one occasion he had everyone keeping time with their feet to a lively tune he would tap out while he and Mr. Marshall drew out heavy stock.

One of the many things Mr. David taught us was a scarf unlike any I have seen. I was so impressed with this scarf that I had to try it shortly after returning home. Time and time again I tried to miss a weld using this scarf by fumbling, dropping and generally fouling up, but succeeded in missing one only after a long day in a dirty fire and dropping one of the pieces twice at an orange heat. The procedure is to bend the two pieces being jumped at about an 80 degree angle, 3/4" from the ends, and upset, keeping your angle. The end of the scarf is then planed and bent sharply back up. It gives you a non-slipping scarf that produces a layered weld. Try it. You'll like it.





## Forged Flyers

*Photos & Article*

*By Otto Bacon, a MABA member*

Enough with the dragon heads and chili peppers, let's forge an AIRPLANE. Make it very simple, or get carried away and go into super detail, your choice. The secret to getting everything to fit and actually looking like an airplane is to use a card model pattern. Card models are internet files that can be downloaded and printed. The intent is that you will cut out the parts, paste them together, and have a display model. Subjects include just about any object on the planet: cars, boats, buildings, animals, and AIRPLANES, lots of airplanes. Do a search on "card model" and you will be faced with many choices. (editor note: A search for "card model airplanes" found 14,300,000 links.) Be prepared to spend some time, as many of these files are quite old, and hard to navigate. You may have to pay a couple dollars to get a really nice one, but mostly, you can find free plans that will suit your purpose. Start with something very simple. Avoid complicated curves in the beginning. Once you have a plan that you like, print it in the size that you want the final airplane to be. You may have to print on several sheets, and glue the pieces together to get your final blueprint. I've made these as large as four feet long. For big patterns I use a projector to enlarge the plan onto newsprint, or directly on the sheet metal. Now eliminate all the tiny detail and get down to the basics of the plane-wings and fuselage. Remember, you only will use the top surface of the wings. Use carbon paper to trace the plan onto your sheet metal, or if you have a laser printer, you can do

a solvent transfer (I'll explain later).

A word about sheet metal, for planes up to about a two foot wingspan I use 14 gauge sheet metal. The thicker metal is easier to work within the fire. It stays put when you bend it, and it looks nice when you are finished. Thinner metal wrinkles easily, burns through in the welds, and gives you less material to sand off when smoothing things out. Go with 14 gauge.

Using your choice for the implement of destruction cut out your parts. Use a bandsaw for the rough cuts, and finish with a belt grinder and angle grinder. If you have a heavy duty bench shear, that works well also. Drill holes if you need to. Chisel out windows and openings. I started out doing this with a plasma cutter, but cleaning up all the slag was too much work.

Before you proceed to assembly, think about the final look you are going for. Clean square edges and precise corners make for a very technical look. Rounded edges and hammer marks look more towards folk art. I like to go for the look of an old Hubley® toy found in the attic, nicely worn.

Wings can be easy. If your plane has smooth wings, start by working the curved surface into shape with a nicely domed hammer and a suitable swage. The back of the fixed jaw on my big vise has a curve that often works for this sort of thing. Your anvil may have a curve that works. Go slowly and evenly and remember that the ends of the wings are curved also. Wings can be done cold, but you may need to heat the ends to get the compound curves to look right. Beware of twist. Work it out as you go. If your plane is fabric covered, you will need to put the ribs into the wings. I use a hydraulic press with a homemade top die, and a piece of ultrahigh molecular weight polyethylene for a bottom die. A rounded chisel and a block of wood will also work. Anneal your metal as needed. Wings can also be shaped in a sheet metal break. Bend just a little at a time, move the metal, and bend again. Wing flaps can be bent to look more realistic. This is easily done in a large vice.

The fuselage is the most complex part of the plane. The easiest ones are open on the bottom. Even if your plan shows a completely finished body, you may be able to modify it to leave the bottom open. Heat, hammer and bend to shape. Work slowly and be aware that changes to one end will almost always result in changes at the other end. The whole piece needs to be worked together. Use the tools at your disposal-swage block, anvil horn, bick horn, punches and chisels. Sometimes a tack weld here and there

will prevent distortion.

Tires can be simple washers, but using an appropriate size of rod and wrapping it around an appropriate size mandrel to form a coil and then using one turn of the coil makes a very nice looking tire, and is pretty easy to do.

The propeller can be as plain or fancy as you like. Cut from 14 gauge and file to shape, or forge from round bar. Drill and tap the nose of the plane for a 6 gauge screw or use a nice rivet if you can get at the backside.

Assemble with tiny tack welds. You will be taking this model apart a few times, I'm guessing. When it all looks right, run some nice beads, and then grind off as much as you can. I usually finish with a 120 grit flap wheel and then burnish with a medium wire wheel. I also like to follow this with a light sandblasting and another burnishing with the wire wheel. Sparing application of fire colors with a torch can really make these models "pop".

So let's get started. Copy the enclosed pattern on a laser copier, or scan and print on a laser printer. Clean your sheet metal with some solvent. Wipe on a coating of xylene and quickly place the pattern on to the metal with the printing down. Rub with your fingers without moving the paper. As the xylene soaks through the paper and starts to dry, peel off the paper, and you should have a perfect print of the pattern on the metal.



Practice using the title lettering till you get it right. If you mess up just make another copy and try again. When this works, it is amazing. No laser printer? Use carbon paper. Old school works fine, but slower.

Cut out each part as closely as you can. Band saw or snips preferred.

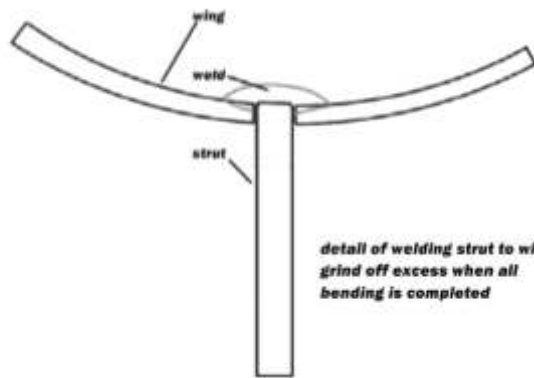


Finish grinding to size with a belt grinder or angle grinder with a flap wheel.



Use a file for small details and notches. Make each piece as pretty as possible at this point, as there is no good way to get into some of the tight spots after assembly. Small pieces like the rudder and tail wing can be shaped by holding with clamping pliers and using the grinder. For this biplane you need to make the first wing, and then use it as a pattern to make the second wing. They should be identical, mostly. The struts are welded in place through holes in the wings. With the wings clamped together eyeball a spot about 1/4 of the way in from each end and drill (both wings at once) to match the diameter of the rod you have on

hand. 1/8" is good. Insert each strut into the bottom wing until it is just flush with the bottom surface. Do a good spot weld right on the end of the rod, extending out around the hole a bit. You want good penetration but not much metal deposited.



*detail of welding strut to wing  
grind off excess when all  
bending is completed*

Do the other end. Slide the top wing onto the struts, and eyeball the correct height. Get this even or you will not like the look. Repeat the same weld procedure on the top wing. Now carefully bend the struts to give the wings an appropriate looking offset. Finally, grind the weld material off the upper wing surface and polish it up. If you did a good weld there will be plenty of penetration to hold the wing in place. Shape the wings into the swage form of your choice.



The rudder and tail wing can be contoured around the edges with your flap wheel grinder. They don't need to be curved.

The fuselage gets heated and formed into a swage. Lacking a swage, wrap the metal around a half inch iron bar or tapered drift. Use your imagination. The front of the fuselage is round. To the rear of the wings, it gets U shaped (upside down U). Take your time and shape in small stages. It will come together.



Grind the front flat where the cowl attaches. Clean up the area where the lower wing attaches to match the curve of your wing. The wing sits parallel to the line of the top of the fuselage, front to rear. The rear wing and front wings are parallel in both directions (front to back and side to side). Remember, tiny tack welds so you can take it apart WHEN it goes crooked.

The cowl on this plane is pretty small. On a larger plane you would forge it from a washer shaped do-nut. I forged several before I gave up and found a nice thick washer that was just a bit oversize. I welded it in place, and then ground it to size and contour. It has a 10/24 nut pressed into the center to represent the

*form cowl from a thick washer  
or some 1/8" cut to shape.  
Weld to fuselage at very bottom  
and then grind or file to contour.*

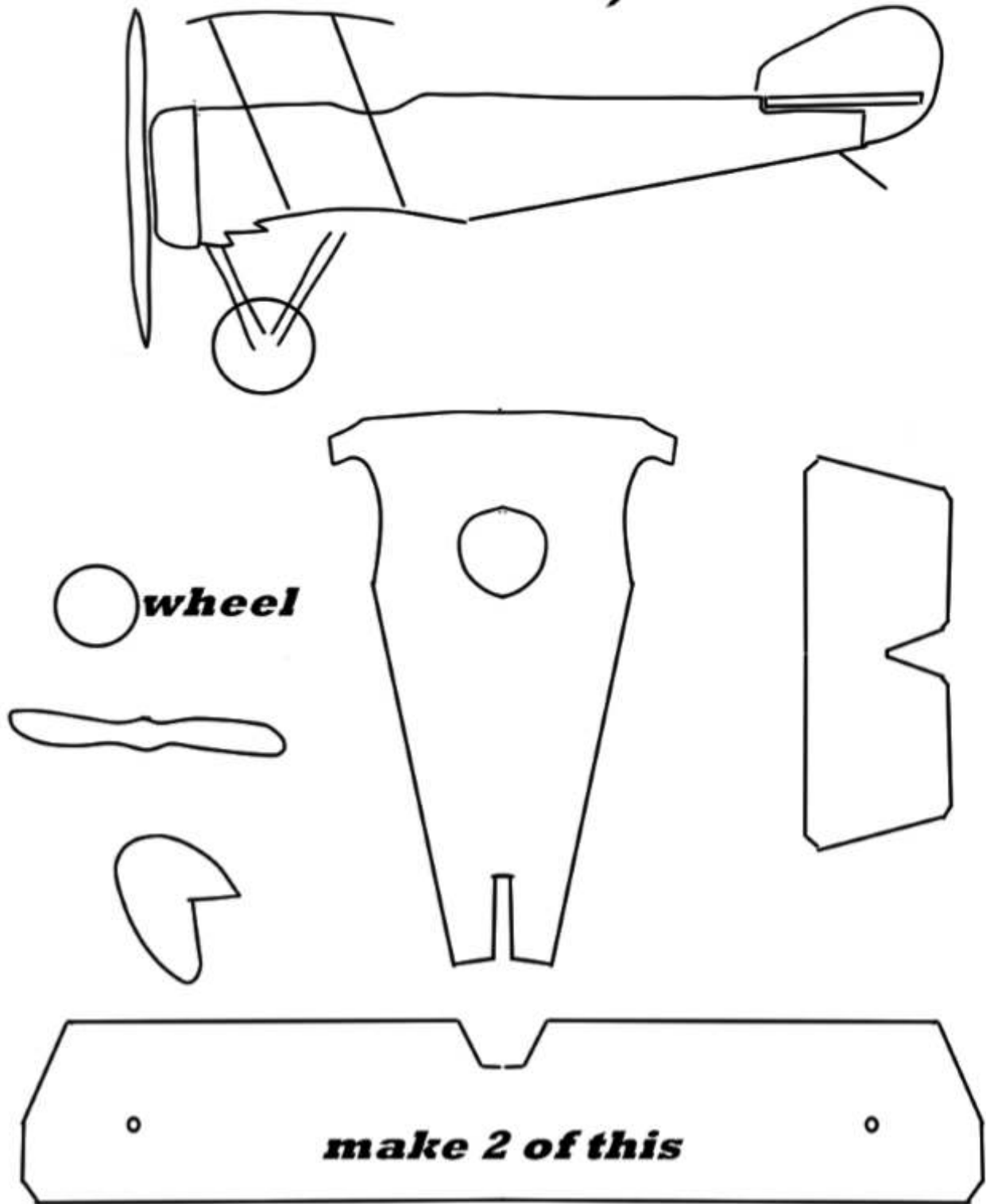


motor. The hole is big enough for the #6 bolt that holds the propeller. The cowl is welded only at the very bottom.

Wheels on this model are sections of 1/2" inch round rod, sliced off about 1/4" thick and ground to contour. Wheel struts are 1/8" rod.

This has been a very basic project. Check the card models out there and go crazy. Fire truck? Sherman tank? Titanic? Use the on-line plans as a foundation, and get creative. Add or omit details. Have fun.

# Small Biplane





## The Hundred Dollar Sliding Table Band Saw

*Article and photos by Otto Bacon, a MABA member*

Of course, the solution was to build a new saw.

After considerable thought, I came up with the following criteria for the project. It had to cut compound angles in bar stock and tubing with out a lot of fussing and adjusting, it had to be adaptable to various jigs and fixtures that I might create for future jobs, and it had to be cheaper than the 4x6 band saws that I could buy ready made. What I came up with was the Hundred Dollar (almost) Sliding Table Band Saw. It does everything I'd hoped for, and can be built in a long afternoon, or weekend at the most. Best of all, perhaps is the idea that if you don't already have a band saw, you can use this one to build itself.

One of my customers asked me to make a rose trellis for the end of her front porch. The house is one of those nice old Victorian places with lots of ginger bread trim. She wanted a dragon fly incorporated into the project so I did some sketches and we agreed on a design. The trellis was to be roughly five by seven feet, and the dragon fly would have a wingspan of over four feet, with some stained glass and burnished brass thrown in for interest. I really enjoy this type of commission, as it gives me a chance to be creative, and usually generates enough publicity to bring in more business. There are always challenges. In this case, the problem was the myriad pieces of bar stock that would have to be cut, all at odd angles. In previous situations, I'd used a chop saw (messy and noisy) or my portable band saw (lots of clamping, unclamping, and hard to make accurate angles). I considered one of the 4x6 band saws that are for sale in every tool catalog, but I don't have room in my shop, and I didn't think that it was the right tool for the job.

I used welded construction, but any of the joints could be made by drilling and bolting, with the addition of a few extra braces for rigidity. I used my milling machine to make the slotted holes, but a rat tail file would work as well, if not as fast. Finally, I made use of a plasma cutter where you could get by with a jig saw. All the metal parts came from my scrap bin. Nothing is critical here. Larger or smaller angle iron will work as well, and if you have some thicker sheet metal for the base and table, so much the better. My only expense was for about half a can of spray paint, and oh yes, one brand new portable band saw. Sit down, take a deep breath, and accept the fact that you are going to take a perfectly good, shiny new band saw right out of the box, and tear it apart, throwing a whole bunch of parts in the recycling bin. The dizziness will pass, and you will be alright.

What you need: 1 discount priced portable band saw 8 feet of 1 1/4" x 1/8" angle iron; 2 feet 1 1/4" x 1/8" wall square tubing; 2 feet 1" x 1/8" wall square tubing; 5 carriage bolts; 1 1/2" x 5/16" NC with nuts and washers; 1 3/8" x 1" NC hex head bolt with nut and washer; 1 electrical "handi box"; 1 Single pole, single throw (spst) household switch; 1 cable clamp; 1 wire nut; 1/8" steel plate ----large enough for base

These little band saws are available from Harbor Freight, Northern Tool, and other discount outlets. Mine cost \$79.00 at this writing, and that seemed a pretty typical price. Get the one speed model, as is cheaper, and you are going to throw the switch away anyway. If you already have a metal cutting saw of some sort, you can get right to the dismantling part, otherwise, use your new saw to cut all the steel parts to size before you dismantle. Two words of caution: wear ear protection, as these little saws really make a lot of noise, and throw the blade away that comes with the saw. Save yourself a lot of frustration by installing a good quality blade. The blade guard serves no purpose that I can determine, so undo the screws and pull it off. Next, back out the two cap screws holding the upper handle. The handle/switch housing is held together with a number of bolts and screws. They all have to come out. Save all the bolts and screws. The handle will come apart in halves, and you can cut the two red wires that go to the motor at the switch. Cut the cord where it goes into the rubber strain relief gizmo on the handle, saving the cord and the rubber gizmo.

Drill a  $\frac{1}{4}$ " hole as shown in the picture. Exact location is not critical. This is just to hold the saw in place while you fit the frame around it.



*Temporary mounting hole*

Square up the saw, using shims if needed. The blade lines up pretty well with the edge of the frame, and the casting where you took the switch/ handle assembly off. Use a framing square to eyeball the blade for verticality. Put the longer brace up against the back side of the saw frame, and mark for a  $\frac{1}{4}$ " hole. You will find a bolt that holds a roller near the top of the brace.

This bolt will be used to attach the frame to the rear brace. When everything is bolted up, and square, put a couple good tack welds at the base of the brace. Now repeat this process for the short brace. Using  $\frac{1}{4}$ " holes will allow for some adjustment, as the mounting bolts are somewhat smaller than  $\frac{1}{4}$ ".



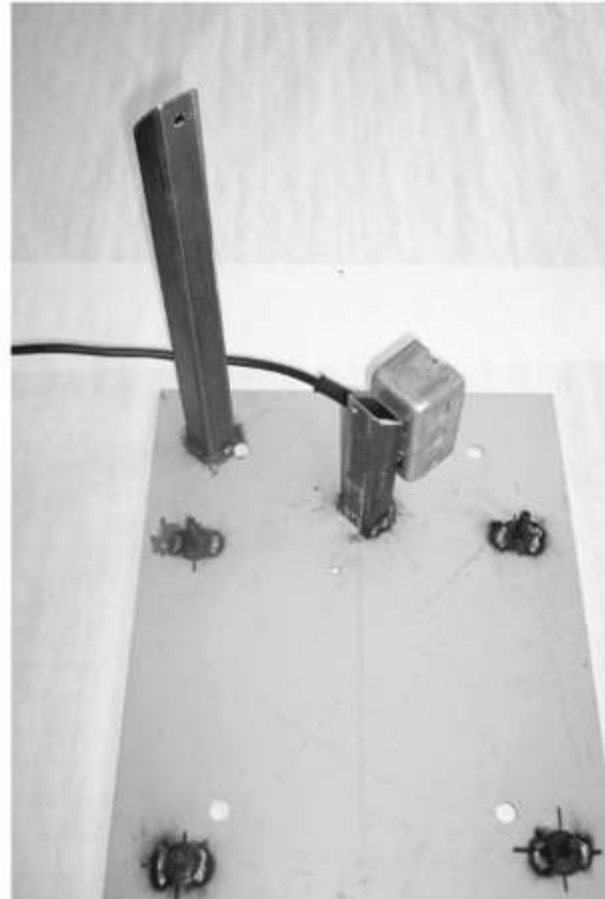
*Use this bolt to mount saw to brace*

You will need to drill a  $\frac{1}{2}$ " hole near the bottom of the brace for access to the lower screw. Bolt the small brace in place, and tack weld as before. Now carefully check the cutting edge of the blade for square with the base plate. A framing square is perfect for this. Add some shims if needed, and when it is where you want it, tighten the bolts and weld the braces solid to the base. One more check to make sure that the welds didn't distort the alignment, and you have the saw mounted to the base. Now you will install the box for the switch. Remove two knockouts from one side (top and bottom, leaving the center one in place) and one from the back of the box. Put the cable clamp in one knockout as shown in the pictures. Trim the cord strain relief gizmo (what are these things called?) so that it fits into the cable clamp. Now weld the box to the shorter of the two square braces as shown in the picture. Weld through the hole in the back of the box where you punched out the knockout. The sliding table needs to be as square as possible. I used my plasma cutter for all the cuts, but a metal cutting blade in a jig saw, or even another band saw can be used.



*Oversize hole to allow access to screw*

The slot for the blade must be centered and square with the edges of the plate. Two passes with the plasma cutter will do the trick. I use a plastic rafter square as a guide for the plasma cutter. The plastic square is the right thickness to hold the cutting nozzle away from the steel being cut, and being non conductive, it doesn't short out the cutting current. Surprisingly, the plastic doesn't melt (much). When the slot has been cut, drill the 3/8" hole as shown, and using this hole as the center point, lay out and cut the curved slot for angle adjustment of the fence. Once again, I used the plasma cutter with a circle guide to make two concentric arcs, 3/16" apart. Allowing for the width of the cut, this left me with a 5/16" slot. The edges were cleaned up with a 1/4" carbide rotary file in my die grinder, and all the cut surfaces were polished up a bit with a 120 grit flap wheel. Do not try to clean up plasma cut slots with a file.



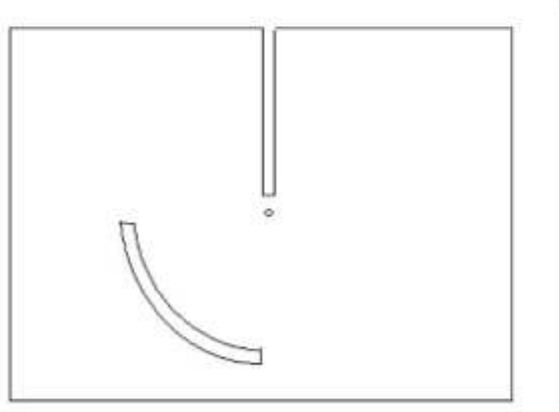
*Completed base plate*

The cutting process leaves a hard surface that will ruin your file. I have the file to prove it. Let's take a minute to talk about plug welds. I use them all the time because they are strong, and if done correctly, virtually invisible. Start with two pieces of steel to be joined. Drill a hole in one piece, place it on top of the other, and weld the two pieces together through the hole. In practice, this involves a slow circular motion following the inside edge of the hole, and spiraling to the center of the hole until the hole is just filled and smooth with the outside surface of the steel. It's a lot like filling a parfait glass with whipped cream. Use a little more current than you would for a fillet weld on the same thickness of steel. Make sure that both parts are very clean in the area of the weld. A successful weld should show some melt through on the backside. This is easiest to do with MIG but I've done lots of them with a stick welder. Practice on scraps until you get the hang of it. The frame for the sliding table is assembled with plug welds. Starting with one of the 12" pieces of angle iron, drill four equally spaced 3/8" holes.



Align with one edge of the table, and clamp securely. Starting in the center, plug weld the angle iron to the table top, waiting a few minutes between welds for things to cool to minimize warping. Repeat this process on the opposite side of the table top, measuring very carefully to assure that the two angle irons are as parallel as possible. The exact distance between the angle irons is not critical. Using a fine flap wheel on your angle grinder, clean up any weld spatter and polish the inside corners of the angle irons. Now add the brace/push plate, cutting it to fit between the other two angle irons and attaching with a couple plug welds.

The fence can be prepared next, by drilling a 3/8" hole in the middle of one of the 12" angle irons. Insert a 1" x 3/8" bolt in the hole in the fence, and then into the hole in the middle of the table. Thread on a nut till snug, and tack weld the nut to the bottom of the table. Turn the assembly over, and mark for the bolt that engages with the curved slot. If you were careful in preparing the slot, you should be able to use a 5/16" carriage bolt. If you drill a 3/8" hole, you will have a little wiggle room, things will work smoother, and with a washer in place, no one will ever know. I rounded the corners of the fence using my belt grinder. It might save a skinned knuckle some day, but it's up to you. With the table finished, it's time to work on the track frame. Begin by cutting the slotted holes in two of the 12" angle irons.

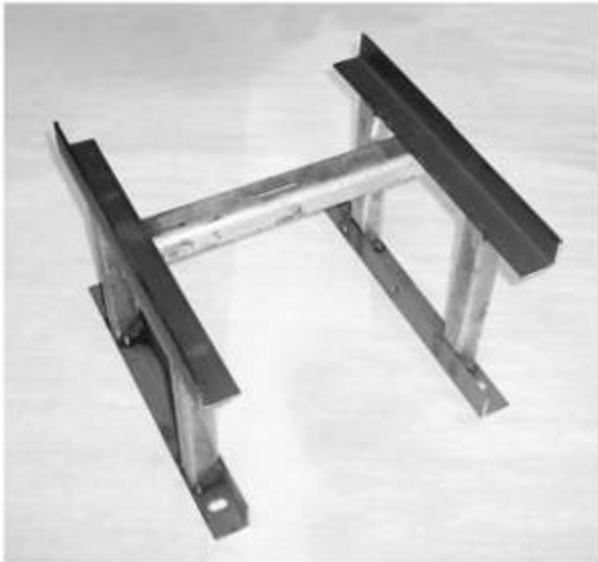


Using a 3/8" cutter in the milling machine, cut the slots at least half an inch long. This will be your adjustment to get the blade cutting square with the table. It won't hurt to have a little extra room for alignment. Assemble each side and loosely bolt to the base plate. Put the sliding table in place, and wiggle, jiggle, and adjust until everything is square, with minimal play in the system. Clamp the cross member securely, and tighten the frame to the base.

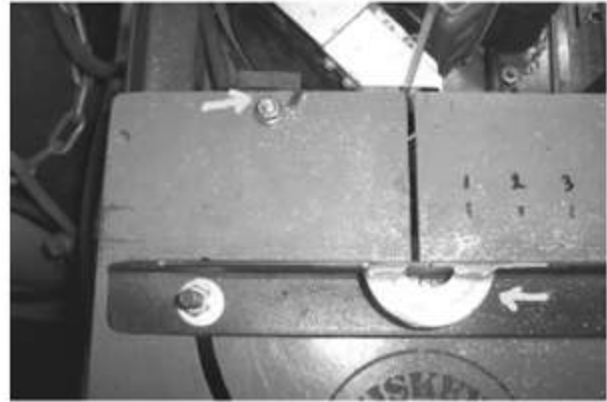
I've been using my saw for a couple years now, and have made many hundreds of cuts with it. It still cuts straight and square and, except for the noise level, I'm quite pleased. I have made two additions as a result of my experiences. After a few dozen cuts I found that I was cutting the fence in two. I cut a large washer in half, and used it to bridge the gap in the fence. Then I fastened a rubber bumper to the leading edge of the table so that it hits the fame of the saw just as the blade contacts the fence. Now carefully remove the table from the frame. Weld the cross member in place. If you are timid or just like extra adjustments, you could bolt the cross piece in place. At this point you can cut a few chunks of steel and see how your table lines up with the saw blade. If you have some windage in the cut, loosen the frame from the base, and slide it around until the cut is on the money. Keep in mind that worn blades, among other things, can cause a cut to stray.



Completed Table



*table frame - note elongated holes for adjustment*



(thumb saver and rubber bumper)

If your cuts just don't seem to go where they should, try another blade. Now put a few witness marks around the base of the frame so that you can get it back in place, and disassemble the whole machine and give it a nice coat of industrial paint. Put some grease on the sliding parts.

The blade guides on these saws are a weak point. I found that they work better if they are reversed (put the bottom one on top, etc). One of them has been replaced with a home made version, and one guide bearing has been replaced with a couple bearings out of an old computer printer. This is low tech machinery. You can fix it.

You have probably already figured out that by removing the fence, and clamping the table in place, you have a vertical bandsaw with a nice big table. Bonus. No extra charge.

### Editor's Note:



A company called SWAG Offroad makes a product for portabands that turns them into a small vertical bandsaw if you don't want to build one yourself. The table is stationary but it does come with two fence rails (one on either side of the blade) that are built in.

The tables fit various manufacturers' brands of saw. Visit their website for other options and pricing:

[http://www.swagoffroad.com/SWAG-V30-Portaband-Table\\_p\\_55.html](http://www.swagoffroad.com/SWAG-V30-Portaband-Table_p_55.html)



## Twin Coat Hook

(Paul Novorolsky)

This project is my own adaptation of the Twin Coat Hook Rack by Doug Wilson and published in the Hammer's Blow in Fall of 2016. I had wanted to make some double hooks, and initially followed the specifications published. But the hooks didn't quite fit the application I had in mind. So I used shorter stock for the hook, and narrower stock for my welded collar.

If you're new to forge welding, a welded collar is a pretty good way to practice your skills. The collar is pretty well anchored in place so it doesn't move around much, making it fairly easy to get the weld to stick.

Bar Stock for Hooks: 1/4"  
x 3/4" x 10"

Collar Stock: 1/4" square

### Forging the hooks

Forge a 4-1/2" taper on each end of the 1/4"x3/4" bar. Leave the tip heavy, as it will become about 3/8" square around which the collar will be wrapped. Forge the ends of the tapers to round so the collars can easily be wrapped around them.

The bar will lengthen by 5/8" to 3/4" for each taper forged. The finished length after forging tapers on each end will be about 11-1/2".



If you are making multiple hooks, forge all of the tapers prior to adding any collars. This will make it easier to make them all the same size.

### Welding the collars

Once the tapers are completed, the collars are added. Begin by forging the 1/4" square stock into a "J" shape, with an inside diameter of about 3/8". Take a heat and fit the collar onto the end of the taper. Forge it somewhat snugly onto the taper and mark the collar for a hot-cut. The mark can simply be a nick made on a hardy, or soap stone as shown here. Note that the mark is slightly short of a full wrap. It is better to be a little short here than too long.

If the collar is longer than the circumference of the center stock, it cannot be wrapped tightly around the stock, making contact all the way around, it will be impossible to weld.



After marking the collar stock, take a heat and hot cut part way through the material. Leave it attached to its parent stock as it will be much easier to clinch onto the taper. The cut should be sufficiently thin so that it can be easily broken off after it is attached to the taper.

Take a heat and fit the preformed collar onto the end of the taper. Leave about 3/16" of the taper protruding above the end of the collar. Lightly forge the collar down onto the taper so that it fits snugly and break the parent stock of the collar free. Tighten up the collar. If there isn't enough material protruding, set the collar at the edge of the pritchel hole and tap the hook stock to slide the collar up. While not absolutely necessary, a round swage is helpful for fitting the collar onto the taper.



Take a red heat and flux the collar and taper end. Now is the time to make sure your anvil, hammer and work surface is ready to perform the weld. You will want to avoid standing at the anvil with a weld-ready piece, and be looking for your hammer or trying to remember what happens next.

Now take a welding heat. When bringing the piece up to welding heat, keep it surrounded by hot coke, and turn it occasionally to get an even heat around the collar. A welding heat is a bright yellow, almost white heat. While a small amount of sparking (burning) is acceptable, be careful about introducing too much oxygen at a high heat, which WILL result in excessive burning and ruin your piece. At a welding heat, the flux will appear liquid, and the steel will begin to appear iridescent.

Once the welding heat is achieved, remove the piece from the fire, and hold it just above the surface of the anvil. (Placing it on the anvil too soon will cause it to lose heat before you weld it). Position the open ends of the collar so that they are on the side of the piece, and the first hammer blow will push them together. Then lower the piece onto the anvil while bringing down the first hammer blow. This blow should be firm, but not too hard, and result in a satisfying and firm thud as the initial weld is accomplished. The material is very soft in this state, and while you want to push the still together so it fuses, you don't want to distort the piece too much. Follow up with a series of short blows, rotating the piece to weld the collar all the way around. Once the color drops below a bright orange, re-flux and take another welding heat.

After taking another welding heat, place the piece so it extends over the far side of the anvil. Bring the bottom of the collar to the side of the anvil, and strike the protruding end so that it mushrooms and welds onto the top of the collar. Lift the near end of the piece about 45° so that the collar can be forged into a faceted head. Rotate 90° and repeat until all 4 sides have been welded and faceted. This will likely take several welding heats. These subsequent heats should be used to close up any cold shuts. Once the welds are complete, give it a good brushing to remove any residual flux.



#### **My Flux Recipe** (by weight)

This is a black flux. It is less "slippery" than straight borax. I had originally tried 50/50 of boric acid and black iron oxide, but it didn't stick well to the work. I added the anhydrous borax to get it to adhere to the work better.

- 40% Black Iron Oxide ( $\text{Fe}_3\text{O}_4$  or Magnetite)
- 40% Boric Acid (Hydrogen Borate)
- 20% Anhydrous Borax (Sodium Borate)

After both ends have been collared, measure the piece and mark the center and then pre-bend the ends into an 'S' shape. This will make it easier to shape after folding.



Then take a heat and make a cut partway through at the center of the 'S'. This cut is to help force the piece to bend sharply at that point. Take a bright heat and fold the piece at the cut.



The folded piece is then forge welded and spread with a hammer pein. Mark a line on your anvil at 1" from the near edge. This will be the reference mark for the shoulder at the bottom of the oval top.

Heat the fold to a red heat and flux. Then take a welding heat and place the edge of the fold at the reference line and weld the fold and forge the shoulder. This will take several heats, and the piece should be at or near a welding heat as the oval is spread. (The high heat reduces the sheer across the weld, which may fracture the weld) Once the weld is complete, this would be a good time to touch up the oval with a file.



Adjust the arms of the hooks so that they are to the desired arch and even. Tracing an arch onto the anvil with soap stop can be used as a reference to compare the two sides to help gauge their symmetry. I found it easier to use a bending fork in my vise along with a scrolling fork to bend these arms, as opposed to bending on the horn of the anvil.

To bend the arms forward, the hook was held in the vise so that the jaws kept the center from separating. Each arm was moved with a scrolling fork and tongs and then touched up on the horn of the anvil to insure symmetry. Lastly, the oval was cupped slightly from the back with a rounding hammer over a piece of end grain on a pine 4x4 scrap to give it some depth.



# SCABA Membership List

*Membership List Deleted for Online Edition*

*Membership List Deleted for Online Edition*

*Membership List Deleted for Online Edition*



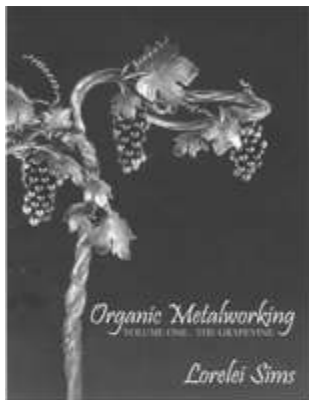
*Membership List Deleted for Online Edition*

*Membership List Deleted for Online Edition*

*Membership List Deleted for Online Edition*

*Membership List Deleted for Online Edition*

Membership List Deleted for Online Edition



## **Organic Metalworking Vol. 1**

**by Lorelei Sims**

***Limited Copies Available***

Lorelei Sims has a great new book illustrating her methods for organic metalworking. (See details in the October newsletter, Page 35.)

Volume 1 is first in a series of planned books on different aspects of organic forging. This is a very good how-to book heavily illustrated and has something for beginning and advanced smiths alike.

Lorelei's methods are easy to understand and execute but the finished work is beautiful (at least hers is beautiful!) You will probably want a copy of this book in your library. I highly recommend it.

Due to continued demand, we have second shipment of this book and Doug already has many of them sold. The price of the book through SCABA is the same as the price directly from Lorelei and proceeds from sales benefit SCABA. Contact Doug Redden if you would like to purchase a copy. - *Editor*

# SCABA Shop and Swap

**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.

Contact: Craig Guy (SCABA Member), Piedmont, OK

Cell Phone: 405-630-7769 (Call or Text )



Post Vice,  
Forge Blowers and  
Lever-Type Forge  
Call for Pricing...



# SCABA Shop and Swap

## 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, Doug Redden, if you would like to get a copy of this DVD.

Doug Redden 918-230-2960 or  
doug.redden2@att.net.



## 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.

## SCABA Embroidery Available

Saltfork member Larry Roderick has setup a source for SCABA logo embroidery on shirts or embroidery compatible items. Larry presented an embroidered tan Wrangler western shirt at the recent Board of Directors meeting and the quality of the embroidery is excellent. The design is based on the new SCABA T-shirt design on the back with the classic SCABA logo above the front left pocket. Your name can also be put on the right side opposite from the logo if you would like.



If you would like an embroidered shirt or other item, find an item that fits you properly and mail it to Larry.

Compatible items must be flat. Pleats cannot be embroidered. The cost for the embroidery applied to your item is \$80 each including return shipping and handling. Heavy coats might add a few dollars more for shipping.



Mail to: Larry Roderick  
500 S. FM 369  
Burkburnett, TX 76354

If you have questions, contact Larry at 940-237-2814 or roderickwaterwells@gmail.com

*(Photos by LaQuitta Greteman)*

# 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 (Doug Redden) 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

### **For Sale:**

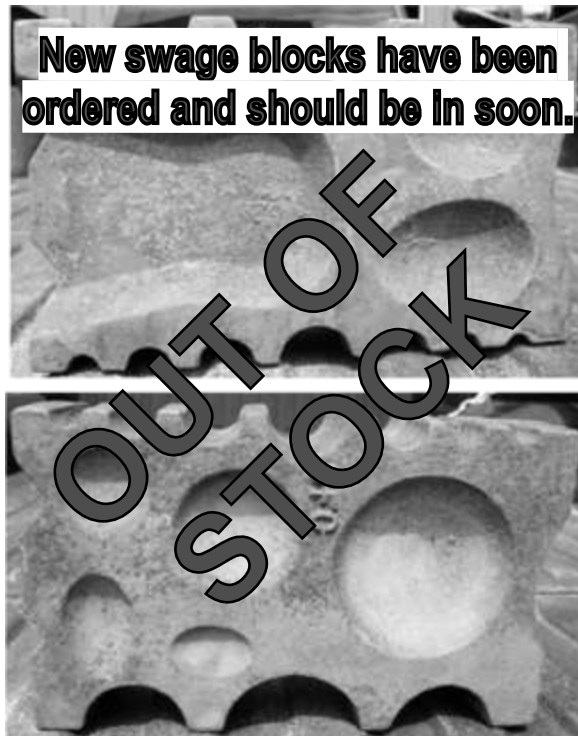
6" round nosed pliers (great for putting scrolls on small items) \$5.00 each.

Contact Diana Davis at  
Diana.copperrose@gmail.com

## **SCABA Swage Blocks**

\$150.00 plus shipping.  
(Same price to members and non-members.)  
Contact Bill Kendall for more information.

**New swage blocks have been ordered and should be in soon.**



## **SCABA Floor Cones**

\$200.00 plus shipping.

(Same price to members and non-members.)

For more information, contact Bill Kendall, Byron Doner (Contact info inside front cover) or

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

405-307-8031 or 800-460-6759.





# 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: Charlie McGee

has coal to sell. He lives in the Skiatook, Oklahoma area. His contact information is: (Home) 918-245-7279 or (Cell) 918-639-8779

Please text his cell phone number if you would like to make arrangements to get coal.

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

## For Sale:

24"(wide) x 1"(thick) Ceramic fiber blanket (similar to Kao-wool) \$1.00 per inch of length. Twisted solid cable 1/2" diameter \$2.00 per ft.

Contact Larry Roderick at 940-237-2814

## Show Your Pride in SCABA!

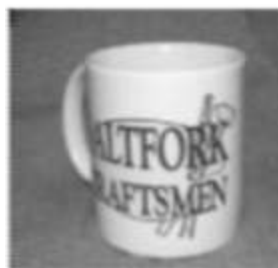
License plates - \$5.00 each.

Ball Caps - \$10.00 each.

We also have coffee cups.



We still have some of the old SCABA t-shirts available while the supplies last. They are a gray pocket "T" with the SCABA logo on the pocket. Contact Diana Davis for information.



## Wanted:

Advertising Coal Hammers, Contact Mike George at 1-580-327-5235 or Mike-Marideth@sbcglobal.net

## 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 Swap and Swap section (or items you are looking for), please send me your description, contact info, and any photos that you have.

# The SCABA Shirts

are now available with a bold new look...

The latest SCABA T-shirts are now available with a new custom design by a professional artist. We also have new long sleeve denim shirts now available with the same new design. Each shirt has the main design on the back with the SCABA logo on the front pocket. T-shirts are available in black and gray. Denim shirts are \$25 and T-shirts are \$15 (plus shipping if applicable.) If you would like to purchase shirts, contact Doug Redden (918) 230-2960:



# SCABA Membership Application

January 1, 2017 to March 31, 2018

New Member \_\_\_\_\_

Membership Renewal \_\_\_\_\_

**Please accept my application**

Date: \_\_\_\_\_

First Name \_\_\_\_\_ Last Name \_\_\_\_\_

Married?  Yes  No Spouses Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Home Phone (\_\_\_\_) \_\_\_\_\_ Work Phone (\_\_\_\_) \_\_\_\_\_

E-mail \_\_\_\_\_ ABANA Member?  Yes  No

I have enclosed \$20.00 for dues for the period ending March 31, 2018

Signed: \_\_\_\_\_

**Return to: Saltfork Craftsmen, P.O. Box 18389, Oklahoma City, Ok. 73154**



## Saltfork Craftsman Regional Meeting Hosting Form

Region \_\_\_\_\_ NE \_\_\_\_\_ SE \_\_\_\_\_ SW \_\_\_\_\_ NW

Date: Month \_\_\_\_\_ day \_\_\_\_\_ [correct Saturday for region selected above]

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone/email \_\_\_\_\_

Trade item \_\_\_\_\_

Lunch provided  yes  no

Please provide directions or a map to the meeting location along with this form.

\*\*All meeting are scheduled on a first come basis. Completely filled out form MUST be received by Regional Meeting Coordinator no later than the 15th of the month TWO months **PRIOR** to the meeting month.

Completed forms can be mailed or emailed.

You will receive a conformation by e-mail or postcard.

A form must be filled out for each meeting.

If you don't receive something from the Regional Meeting Coordinator within 10 days of your sending in your request, call to verify that it was received.

An online form is also available on the website in the top banner of the Calendar Tab:

[www.saltforkcraftsmen.org/Calendar.shtm](http://www.saltforkcraftsmen.org/Calendar.shtm)

Saltfork Craftsmen Artist Blacksmith Assoc. Inc.  
P.O. Box 18389  
Oklahoma City, Ok. 73154

Non Profit Organization  
U S Postage Paid  
Oklahoma City, Ok  
Permit #2177

Address Service Requested

