

Saltfork Craftsmen Artist-Blacksmith Association

September 2011



Iris made by Charlie McDevitt. Entered in the Comanche/Empire Regional Fair.
First Place

President's Notes

Gerald Franklin

It's Oklahoma State Fair time again and we need your help to put on another good show for the fair's statewide audience. This event has been good for us in the past and this year should be no exception. The theme for the demo area is the "Centennial Frontier Experience" which means that we are expected to dress for the part. Don't go out and buy a bunch of new clothes, though as we all have jeans, work shirts and some sort of work boots that we wear regularly. The OKSF has asked that we not wear sneakers (or flip-flops), T-shirts, or ball caps, but just about any kind of work attire that will fit in with the 1907 era will suffice. We also ask that you not bring any alcoholic beverages into the demo area. This year's fair runs from September 15th through the 25th. Start planning now to put your name down for one or more days at the fair. The list is available now so contact Diana Davis to sign up for your favorite days. Our demonstrators get free parking passes and gate passes. Coal and general forging tools will be available in the Saltfork teaching trailer so all you need to bring are some of your favorite hand tools and any specialized materials that you want to use. You will only be able to park within about 300 yards of the demo area so you probably want to bring a two-wheeler or wagon to bring your toolbox and steel to the work site.



As I mentioned in last month's newsletter, we are still asking for tools for this year's toolbox. Bill Kendall is the designated tool collector for these tools but if you have something to donate for the box project, just give it to any of our directors and they will make sure it gets to Bill Kendall. Please take time to make and donate one or more item for the toolbox.

The date for our annual conference (15-16 October) is coming up at lightening speed so it's time to put the finishing touches a nice piece for the gallery or the auction. Why not both? Our gallery gets bigger each year and we'd like to see your work there this year. And, while you are thinking about the conference, remember to make your hotel reservations.

As I close, I want to say something else about the state fair demonstrations. Members often tell Diana or me that they would like to come and help out but they just don't know what to make. Well, the truth of the matter is, if you can put a piece of iron in the fire and get it to a good orange heat, you have the battle half-won. What you do after that is just "gravy" as far as generating interest. You don't have to create a piece suitable for the National Cathedral, a simple S-Hook will often be enough to capture folks' attention. It is also helpful to have folks in the demo area that can talk to the spectators about what the smiths at the forge are doing so the smith can keep working on the demo piece. So, put you name on the list for a day or two at the fair.

SOUTH CENTRAL REGIONAL PAGE

Meeting dates:

January 15, 2011
Host: Bill Davis
Phone # 580-549-6824

February 19, 2011
Host: Gerald Franklin
Phone #: 580-252-6002

March 19, 2011
Host: Terry Jenkins
Phone # 405-476-6091
Trade Item: Cross
Lunch: Sack Lunch/ On your own

April 16, 2011 (ANNUAL PICNIC)
Host: Byron Doner
Phone #

May 21, 2011
Host: Bo Hall
Phone # 405-485-2690
Trade item: Wall hanger

June 18, 2011
Host: Diana Davis
Trade items campfire tool
Lunch: hot dogs

July 16, 2011
Host: Terry Jenkins
Phone # 405-476-6091
Trade item: Fork

August 20, 2011
Host: Richard Simpson
Phone # 405-334-7413
Trade item: camp item

Sept. 17, 2011
Host: Bob Kenemar
Phone #:
Trade item: hook or hanger

October 15-16, 2011
SCABA Conf. Perry, Okla.

November 19, 2011
Host: Bill and Diana Davis
Phone #: 580-549-6824
Trade item:

December 17 2011
Host:
Trade item;

Meeting Notes:

The August meeting was hosted by Richard Simpson at his home near Dibble, Ok. There was a light turnout because of the heat (104) but there were still some who were tough enough to do some forging.

Richard had purchases some large bridge nails and issued a challenge to forge something from one. We had a fork, spoon, cross, steak turner, knife and a poker. They were judged by Richards wife, daughter and grand daughter. The winner got a neat set of screw bits and drivers. Gerald Franklin was the winner. The items will be brought to the conference and added to the auction.



We only had a couple trade items.



Richard and his wife made a nice lunch and even cooked a cobbler for desert. We all started to drift back home as the temperature rose.



The September meeting will be hosted by Bob Kenemar at the Route 66 Museum in Elk city. Meal is provided and the trade item is a hook or hanger. This meeting is inside the blacksmith shop so no need to worry about the burn ban. There are plenty of forges to work on so bring your favorite hammer and enjoy the day.

NORTH EAST REGIONAL PAGE

Meeting dates:

January 8, 2011

Host: Gary Gloden
Phone # 918-321-5015
Trade item; made from horseshoe

February 12, 2011

Host: Gerald Brostek
Phone# 918-687-1927
Trade item. Valentine

March 12, 2011

Host: Dan Cowart
Trade items: Spoon

April 09, 2011

Host: Omar Reed at Ft. Gibson
Trade items:

May 14 2011

Host: James Maberry
Phone #: 918-636-7773
Trade item; cooking utensil

June 11, 2011

Host: Mike Krukoski
Phone #:918-789-2484
Trade item: **Garden Tool**

July 9, 2011

Host: Clayton Hall
Phone #918-605-6241
Trade item; **Kitchen tongs**

August 13, 2011

Host: Bill Kendall
Phone# 918-742-7836
Trade item

Sept. 10, 2011

Host: Dan Cowart at Pawhuska, Ok
Phone # 918-440-0653
Trade item: Leaf

October 2011

State conference

November 12, 2011

Host: Matt Goyer
Phone # 918-272-8424
Trade item:

December 10, 2011

Host: Charlie McGee
Phone #: 918-245-7279
Trade item: ladle

The NE Regional meeting was hosted by Bill Kendall. There was no meeting report sent in by time of printing.

The next meeting for the region will be hosted by Dan Cowart at Pawhuska, Ok. Dan has chosen a leaf as the trade item. You can contact Dan at 918-440-0653 for more information.

The meeting is being held at 210 W. Main in Pawhuska. It began as a fundraiser to help build a blacksmith shop. There is a Governor issued Burn ban in Osage County so check with Dan as to the use of coal forges.

The meal will be provided by the Pawhuska Chamber of Commerce but bring a side dish to help out.

State Fair Schedule

Sept. 15th	Ron Lehenbauer, Diana Davis
Sept. 16th	Ron Lehenbauer., Tony Cable
Sept. 17th	Tony Cable, Richard Simpson
Sept. 18th	Tony Cable, Richard Simpson, Terry Jenkins
Sept. 19th	Ron Lehenbauer, Diana Davis, Bob McKelvain
Sept. 20th	Ron Lehenbauer, Diana Davis, Bob McKelvain
Sept 21st	Ron Lehenbauer, Dan Cowart, Fred Hunholz
Sept 22nd	Jim White, Gerald Franklin, Fred Hunholz,
Sept 23rd	Jim White, Diana Davis
Sept 24th	Jim White, Richard Simpson
Sept, 25th	Jim White, Gerald Franklin, Terry Jenkins (1/2 day)

If there is any info on the above list that is wrong or needs to be changed, let me know ASAP.

If there is a day on this schedule that has only 2 people and/or you would like to work let me know and I will get you the necessary park passes. You don't have to work a full day, you can pick up an afternoon if that works best. It is usually slow before 1:00 P.M. You don't have to be able to make something fantastic, only place your iron in the fire, get it hot and hammer on it. S-hooks, leaves etc. make good demo pieces. People don't want to spend their entire fair time watching a long drawn out forging demo. GET IT HOT AND GET IT DONE.

Diana Davis 580-549-6824

NORTH WEST REGIONAL PAGE

January 22, 2011

Host:
Phone#
Trade item;

February 26th, 2011

Host: Mandell Greteman
Phone # 580-515-1292

March 26, 2011

Host: Dorvan Ivey
Phone #:
Trade item; letter opener

April 23, 2011

Host: Mandell Greteman
Phone # 580-515-1292
Trade item: **Grilling tool**

May 28, 2011

Host: Don Garner/Mandell Greteman
Phone #:580-661-2607

June 25, 2011

Host: Mike George
Phone #: 580-829-1968
Trade item; Paper Towel holder
Lunch, Pizza cooked in wood fired horno.

July 23, 2011

Host: Tom Nelson
Phone #: 580-862-7691
Trade item: camp fire trivet
Lunch: brown bag/on you own
Special program: hot wagon tire setting (10:00 am)

August 27, 2011

Host: Gary Seigrist (Elk City Route 66 Museum)
Phone #:

Sept. 24, 2011

Host: Ron Lehenbauer (Fairview Thrashing Bee)
Phone #:
Trade item; Fire tool

October 2011

State conference

November 26, 2011

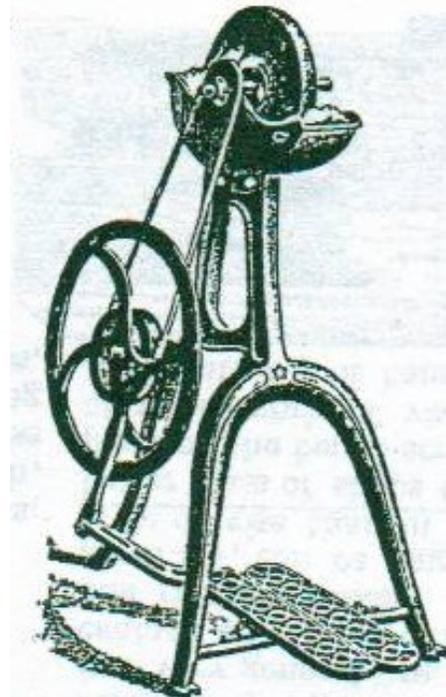
Host:
Phone #:

December 24, 2011

The September meeting is being hosted by Ron Lehenbauer at the Fairview Threshing Bee in Fairview, Ok. The trade item is a fire tool. There will be plenty of food vendors on site for lunch on you own. The Saltfork Craftsmen helped build the blacksmith shop on the Historical ground. Come by and help Ron blacksmith for the public during this tractor show. There are forges inside the blacksmith shop so bring your hammer and your metal of choice and enjoy the day watching the tractors on parade and perhaps doing some other interesting work.

The Threshing Bee is held at the Major County Historical Grounds 1 1/2 miles east of Fairview on Highway 58. Watch for the signs.

I would appreciate it if anyone attending would take some pictures and write up a short article about the event and the number of visitors to the blacksmith shop. Editor



SOUTH EAST REGIONAL PAGES

February 5, 2011

Host: Eddie Horton
Phone #: 580-873-2634

March 5, 2011

Host: Eddie Horton
Phone #: 580-873-2634

Cancelled

April 2, 2011

Host:
Phone #:

May 7, 2011

Host: Bill Phillip
Phone # 918-200-4263
Trade item: steak turner

June 4, 2011

Host: Old Frisco Depot
Jackson street and railroad tracts in Hugo, Ok
Trade item is something from a RR Spike
Restaurant in Depot
Contact Mark Hamell at 580-317-3700

July 2, 2011

Host:
Phone #:

August 6, 2011

Host: Bill Phillip
Phone #: 918-200-4263
Trade item: rabbit head

Sept. 3, 2011

Host: Eddie Horton at Fort Towson
Phone 580-513-8370

October 1, 2011

Host: Bill Phillip
Work day for conference
Tool box

November 5, 2011

Host: Eddie Horton at Peter Conser Historic home
SW of Heavener, Ok
Phone #:

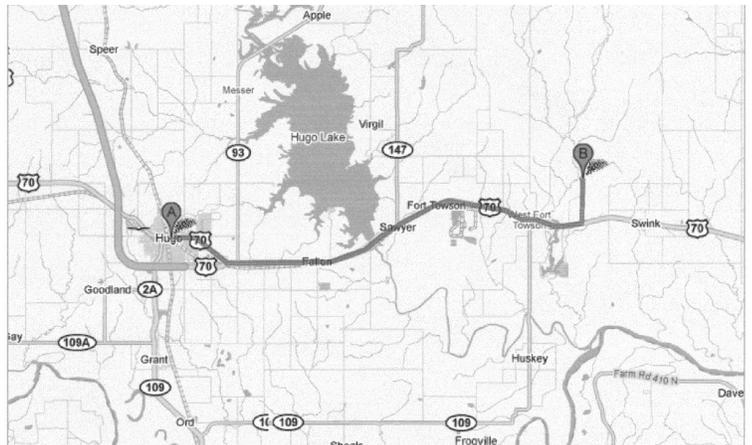
December 3, 2011

Host:

The September meeting will be hosted by Eddie Horton and will be held at the Fort Towson Historical site under the pecan trees. Food will be provided by Mr. Wallace again using his Dutch ovens. Mr. Wallace has volunteered to teach anyone interested how to cook using the Dutch ovens. The trade item is something to used in Dutch oven cooking and Eddie Horton has asked that the smith consider making and donating the Dutch oven tool to Mr. Wallace in appreciation for his cooking the meal.

Fort Towson Historical site is just each of the town of Fort Towson Ok. In far Southeast Oklahoma. From Hugo Oklahoma go east Approximately 13 miles on hwy 70. After you pass through the town of Fort Towson and cross a 5 lane bridge, watch for a sign directing you to turn north. go approx. 3/4 of a mile and then turn in the wooden gate in the split rail fence and follow the road down the hill to the shade and the smoke.

Eddie told me they had been given a green light by the fire marshal to hold this event so bring your forge and enjoy the day.



Upcoming events:

- ♦ Sept. 15-25 State Fair of Ok. Could use a few more to come and demo. The fair officials have assured us that we will be able to forge at the fair. For more info about the state fair contact Diana Davis.
- ♦ September 24th is one of the days for the Fairview Threshing and John Deer Show. Ron Lehenbauer is hosting a meeting in the Blacksmith shop there on that Saturday. The trade items is a fire tool. Plan to attend the meeting and enjoy the many tractors and other vendors on site.
- ♦ Tyner Tractor Club Show, Blackwell, Ok Oct 8th, 2011. Kay County Fairgrounds at 800 S. Main St. (Hwy 177) Blackwell, Ok. Starts at 9:00 am and goes until 5:00 PM that day. Contact Truman Steiner 580-363-3309 or Richard Wyler at 580-628-1143 for more information.
- ♦ **SCABA Conference is October 15 and 16th with setup day being the 14. It is held each year at the Fair ground in Perry, Okla. You will want to book your rooms as early as you can because sometimes we have to compete for rooms with the home football games for Stillwater. I have a schedule but haven't look to see if this is one of those years. Doesn't hurt to book early. Our attendance grows each year. For those attending we need item to display in the gallery. There will be a peoples choice award again this year. It will be given for the best "one" item displayed. We would prefer that you bring your own work but if not, PLEASE make sure we know who the artist/smith was. You will find a registration form in the back of this newsletter. Remove it and send it in today along with payment**

State fair information:

Those that will be working at the state fair need to remember a few simple rules. This location is meant to depict early American life. The dress code is blue jeans, button down shirt, leather shoes, cowboy hat (if you wear a hat) long skirt for the ladies. No ball caps, No Alcoholic beverages. If you need to unload equipment or supplies you can do so by pulling in Gate 10 (Before 9:00 AM). You can then pull back out and around to Gate 2 and park. The parking passes are good for Gate 2 parking only. I would like to have someone on site by 11:00 AM, each day (This is the official opening time for this area). The contract with the fair says that M-F we will have someone there from 1-7:00 and Sat and Sun. 11-7:00. If you wait that long to come to the fair you will have to carry all your tools and materials from the parking lot and there is no guarantee that you will get a parking place close to the gate. It will be up to each member who works to make sure we cover the hours that the fair has requested. Any thing more than that is just bonus forging time. Each person selling their work will be responsible for sending in the required sales tax. Please read the Tax info on the next page.

I have suggest that we set up only one forge. The area is only 10x20 and we need someplace out of the sun to display our ironwork. It gets too hot to touch if left in the sun. Also with only one forge going and two smiths in the booth, someone has to be resting or selling or visiting and passing out club info. I suggest that you change members at the forge every hour to hour and a half.

NO GENERAL PUBLIC IN THE FORGING AREA. NO EXCEPTIONS, If someone is interested in trying to learn forging, give them a newsletter and invite them to the next beginning forging class.

Loose tools and ironwork needs to be locked up in the trailer each night. Make sure if you have worked your last day that you get the key to the trailer and the key to the hotel room (if you used it) to Diana or Byron. Diana plans to be there most weekdays at 9:30am.

We are supposed to have access to the hospitality room for someplace cool to go and get something to drink. I will have more info at the fair. Gate passes and parking permits will be mailed out as soon as I get them. Please let me know ASAP if you need extra ones for anyone that will be coming to the fair with you. Please remember that these are not for the neighbor that wants to come. SCABA members and family members only.

We will have two small ice chest for drinks. The fair will provide us with ice each morning. Please be careful bring in beverages/food. They will take them away from you if you wait to come in after official opening at 10:00 AM each morning.

Hope to see everyone at the Fair..Diana

Sales Tax Requirements

Gerald Franklin

Many of our members are fortunate enough to sell some of their forged items to the public. I remember a few years ago that some tax people approached some of our smiths at a public event. They were asking about how the smiths planned to pay sales tax on the items that they sold. I don't remember any of the gory details about the exchange between the smiths and the "revenooers", or what the outcome was (if any). But I thought that since we are getting ready to sell at one of the largest public events in the state, the Oklahoma State Fair, that I'd check with the Oklahoma Tax Commission to see what the requirements are for sales such as ours. The short answer is that any person who sells something to somebody else is responsible for paying sales tax on the money received. This is a very simplistic way of stating the law, but you get the idea. The lady that I spoke with at the OTC was very helpful and told me that there were two ways for an individual to report (spelled P-A-Y) sales tax from stuff that he/she sells. One way is for the individual to apply for a sales tax permit and file the report (pay) on a monthly or a semi-annual basis. She said that if a person was averaging less than \$50 per month that the OTC would authorize payment under the semi-annual schedule. If you owe more than \$50 per month, the OTC will look for a monthly payment. The second and simplest method involves the "casual" payment by folks who only take in sales taxable income once or twice a year (a blacksmith at the fair, maybe??). This tax is reported on the same form as the folks with sales tax permits use except that the word "casual" is used instead of a permit number on the form. The form is the OTC Form 13-23 available for download on the OTC website.

So, where am I going with this? The main point is that I wanted you to think about what your answer would be if you are approached at some demo site where you just sold something and the next person who walks up asks you about how you plan to handle the sales tax. You have several options for an answer, but whatever answer you give should probably be a believable one as opposed to pretending that you don't speak English. You could say that you have an individual sales tax permit and you file the Form 13-23 monthly/semi-annually. You could say that you file the Form 13-23 as a "casual" reporter (payer). I'm not saying what you should say, I'm just suggesting that you have some sort of answer available. By the way, there will be a few copies of the Form 13-23 available at the State Fair site. Not in public view, mind you, but they will be there just in case. Hopefully we will not need to pull on out to show somebody. If you want to go armed with your own copy of Form 13-23 to any other demo you attend, it can be downloaded from the OTC website.

So, now for the disclaimers: I am not telling you that you should or should not pay sales tax on stuff you sell. That's between you and the OTC, so, you are armed with some potential answers in case you are asked.

Tool Box Tickets

The tool box will be raffled off at the SCABA conference in Perry Ok. on Saturday night before the auction starts. You will be able to purchase tickets at the conference but if you can not attend you can get tickets from several of the members. All the board members have tickets along with the editor. Tickets cost \$2.00 each and you can mail your request for tickets into Diana Davis (editor) along with your contact information anytime as long as it is received before Monday October 10th. You can also get tickets at the monthly meetings.

Members selling tickets:

Ron Lehenbauer	580-758-1126
Mandell Greteman	580-592-4460
Don Garner	580-661-2607
Gerald Brostek	918-687-1927
Gerald Franklin	580-467-8667
Dan Cowart	918-440-0653
Bill Kendall	918-742-7836
Diana Davis	580-549-6824

There are still a lot of tools on the list that have not found a provider. We would like to have as many of these tools as possible for the box. There will be a workday for tool box tools at the SE Regional meeting in October at Bill Phillips place but don't wait that long to make a tool for the box. If you would like to try to make on of the tools needed and don't feel like you have the skills or know where to start, contact one of the other members in your area and set up a day to get together and forge. You don't have to wait for a meeting day to get together and learn or teach a skill.

With the intense heat this summer it is hard to think about getting out and making something for the auction but we need to get started on that event. **Gallery:** Be thinking about something you made that you are proud of and bring it for us to see. I know of an anvil carved from a stump that many would love to see. Don't forget about Iron-N-the-Hat donations. Start gathering them up now.

Salt Fork Conference	Tool Box
Item	Donor
Box	Don Garner
Hardware for toolbox	Byron Doner / Bill Kendall
Cross peen hammer	Ron Lehenbauer
Straight peen hammer	
Rounding hammer	Ron Lehenbauer
Tongs	
1/4 V-bit	Please help out by making a tool and getting it to Bill Kendall. The tool box is only as good as the tools in it.
3/8 V-bit	
1/2 V-bit	
3/4 V-bit	
1/4 flat	Help make this one the best yet.
3/8 flat	
1/2 flat	
3/4 flat	
Scrolling	
Side grip	
Pick up tongs	
Fire Tools	
Shovel	Gerald Brostek
Rake	Gerald Brostek
Poker	Gerald Brostek
Hot cut hardy	
Twisting Wrench	
Treadle/Hand Hammer tooling	
Set of punches and holder	
Center Punch	
Chisel, Large	
Chisel, small	
Chisel, hot slit	
Slitting chisel	
Hold down	
Flat wire brush w/handle	
File, flat bastard cut w/handle	Nathan Avery
File, half round w/handle	Nathan Avery
Set of monkey tools	
Rivet backing tool	
Rivet setting tool	
Hacksaw	Maurice Hamburger
Bolster plate	
Bevel Gauge	Maurice Hamburger
Square	Maurice Hamburger
Dividers/Compas	
Scribe	Bill Kendall
Bending forks	Dan Cowart
Spring swage/fuller	
Flux spoon	Jim Carothers
Flux, Iron Mountain	Jim Carothers
Metal folding ruller 24" or 72"	Dan Cowart
Soapstone and holder	Diana Davis
Ball tool (round blunt nose punch)	
Hook ruler	
Finish wax	Gerald Brostek
Nail Header	Diana Davis
Dual Caliper	

SHAWN'S FUSING GLASS TO METAL

2008 SPRING CONFERENCE DEMONSTRATION

STORY BY DAVE ENGLISH, OCEANSIDE ~ PHOTO BY JOHN THOMPSON, SAN DIEGO

Shawn Lovell had the bleachers full as she began her demonstration on how she incorporates glass into her iron work. She had a slight delay while staff rounded up the hoses for her oxy/propane torch that had accidentally disappeared with a hand truck, but they were located, and all was well in Vista.

The majority of Shawn's work is art inspired, delicate and beautiful, but some of it is surprisingly bold and heavy for a small woman. At the demonstration she worked quickly, flattening then punching a hole in one stem, gradually expanding the hole between heats with one drift after another. Her stem had a cock's comb flare above the 1/4" hole. After the hole was completed, she then welded this small stem to a larger one that had been previously prepared. (*Shawn is shown here holding a piece ready for the glass.*)

The next part is what we had come to see: the working of glass into an iron work of art. Shawn seemed to be a little tentative about the particulars of glass. While she hit all the bases, she is obviously more familiar working with glass than with its scientific principles.

Shawn used solid soda lime glass rods, calling it *soft glass*. It is the same glass that ordinary bottles are made from. She does not like using *hard* borosilicate glass because the metal and glass combinations must have similar coefficients of expansion. The soft soda lime glass is fairly close to that of iron, while borosilicate glass has about a third of the expansion. The difference in expansion between iron and hard glass could cause problems if used



on something like a fire screen. The glass could, perhaps, fall out, leaving a nice handmade hole.

While heating the glass, she pointed out that you must be careful not to boil or cause bubbles to form in the glass bead. If you do, you might as well break it off and begin again as the glass will tend to be weak and fracture. Shawn also cautioned about overrunning the iron with the glass melt because it is difficult and messy to get the glass off the iron. "You can always add glass," she said. Shawn used a 5" graphite square on which to rest the glasswork and a small graphite paddle for shaping. (Molten glass does not stick to graphite).

Glass colorants are mostly oxides of elements. As little as .2% of copper can produce a good blue, but one part in 500,000 of cobalt is detectable. Shawn spoke about color striking but said she has not yet mastered the coloring of glass.

In *Glass: the Miracle Maker* (1941), C.J. Phillips writes, "The coloring effect (of copper) is due to the cupric ion and can be obtained only under neutral or oxidizing conditions. If the glass is melted under reducing conditions, the cupric oxide dissociates to cuprous oxide, Cu_2O , which is colorless. This condition can be *frozen in* upon cooling, but upon reheating this colorless glass, both cupric oxide and metallic copper are formed. The Glassman says the color *strikes*, and the end result may be a *copper ruby* or, if much copper is present or the reheating is very strong, a copper aventurine. As much as 2.0% copper oxide is sometimes used."

The copper aventurine sounds very pretty, a possible goal for experimentation to produce a sparkling glass for iron and glass combinations.

The finished product and other examples of Shawn's work were crowd pleasers, but the handling of the equipment and materials seemed somewhat awkward, requiring some practice. A large bag of vermiculite was used to anneal the glass. Annealing glass relieves the strain, preventing premature fracture and weaknesses. She pre-warmed the vermiculite with a rod heated to red before plunging the slightly cooled iron and glass piece into it. (If the glass is too hot the vermiculite will stick to it.) Shawn said it needed to remain in the vermiculite for about 45 minutes, so we could not inspect the piece she had just done, but she had others available for the audience to see. ♣

STEPS IN GLASS/METAL FUSION

2008 SPRING CONFERENCE DEMONSTRATION

STORY BY EDEN SANDERS, SAN ANDREAS ~ PHOTOS BY ANDREW MARLOR, BONSALE



The major consideration when using heat to fuse two different materials is the cool-down rate. If the materials have widely different coefficients of expansion, cracking and shattering is a given. Since *soft* glass, the kind bottles are made of, and mild steel have similar expansion coefficients, they will fuse together. Following are the steps Shawn took.

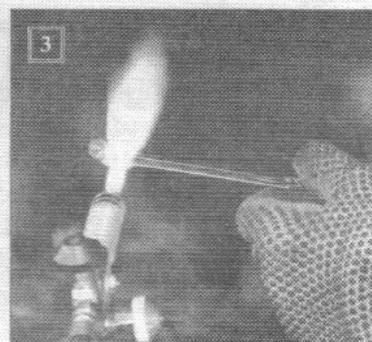
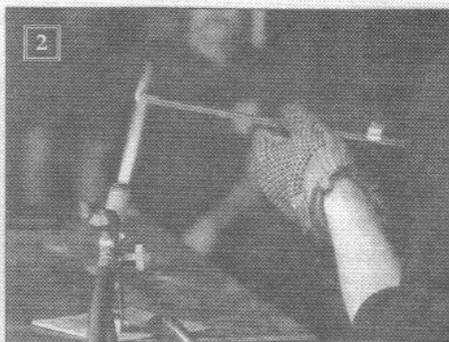
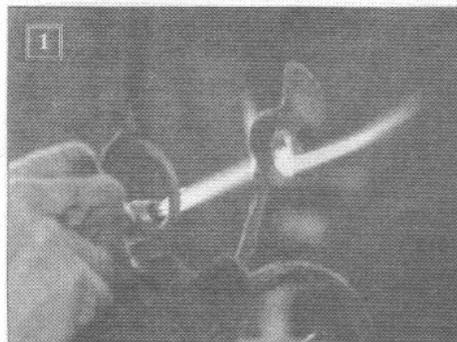
Preparation. Shawn heated a thick piece of steel to a dull red and plunged it into a large bag of vermiculite to heat the vermiculite. She would use this warm medium to slowly cool the fused piece.

- A. The part of the steel where the glass will be fused was brought up to an even red heat by rotating the piece in an oxy-propane flame. It was then set aside for a few moments near the torch, propped in the air so that the heat would not be quickly sucked out by the resting surface material. (*Photo 1*)
- B. One end of a glass rod was rotated in the torch flame until a glob formed. (*Photos 2 & 3*)
- C. The steel was held in one hand while the soft glass rod was held in the other, both in front of the oxy-propane torch flame. (Acetylene smoke dirties the glass). This maneuver required some finesse because both pieces needed to be in continuous motion to keep them from getting too hot or too cool and to keep the glass from melting too much or breaking off. The first goal was to get the glob to attach to the top edge of the hole.

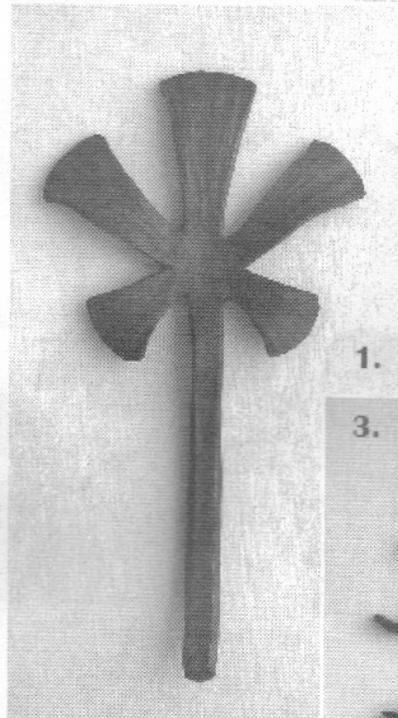
The proper temperature will cause the glass and steel to attract but the finesse is to keep the glass from breaking off the rod and to keep the melted glob only at the edge of the hole while not getting

the steel or the glass too hot. If the glass sticks to the side of the steel, it will not come off. After some practice, the color of the steel and the degree of melt of the glass will become easier to read.

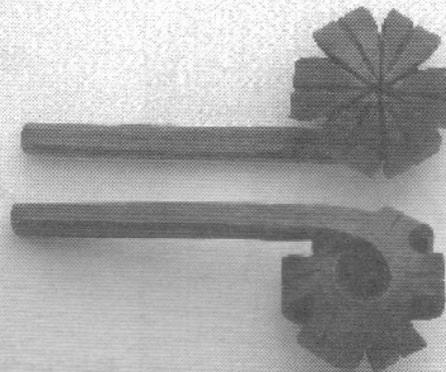
- D. Once the glob was attached, Shawn continually moved the steel to keep the inside edge of the hole near where the glass rod was attached at an even temperature, while keeping the glass under control. Her elbows danced in and out and up and down to guide the flow of the glass. As the glass began to fuse along the steel's edge, she kept moving the two materials in and out of the flame to control the temperatures and to continue to fuse the glass along the edge of the hole while preheating the steel ahead of the point of fusion.
- E. After the entire edge of the hole had glass fused to it, the going got a little bit less awkward. Shawn was able to continue to fill the hole, fusing glass to glass until the hole was filled. She pulled the rod away from the piece and away from the flame while twisting it so that it would break off. The whole procedure took less than 10 minutes.
- F. After a several seconds of cooling in the air so that the vermiculite would not stick to the glass, the whole piece was plunged into the bag of warm vermiculite. The large piece of steel that had been heating the vermiculite was left in the bag to continue to emit heat while all was cooling. Shawn said it would take about 45 minutes to cool enough so that the glass would not crack when exposed to the air. She said she had not tried to fill holes larger than 1½" diameter. ♣



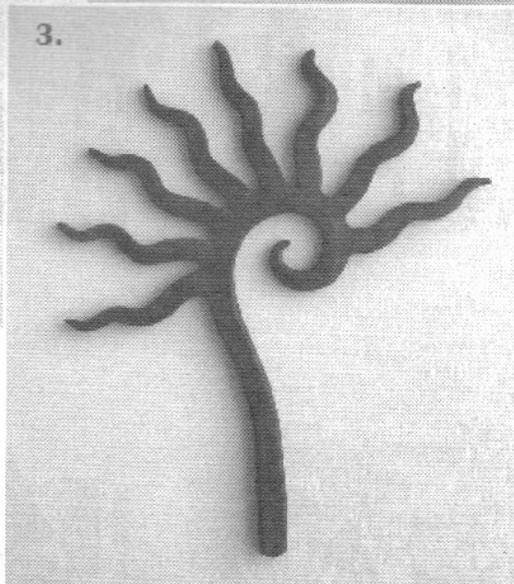
Flat Bar Organic Elements



1.



2.



3.

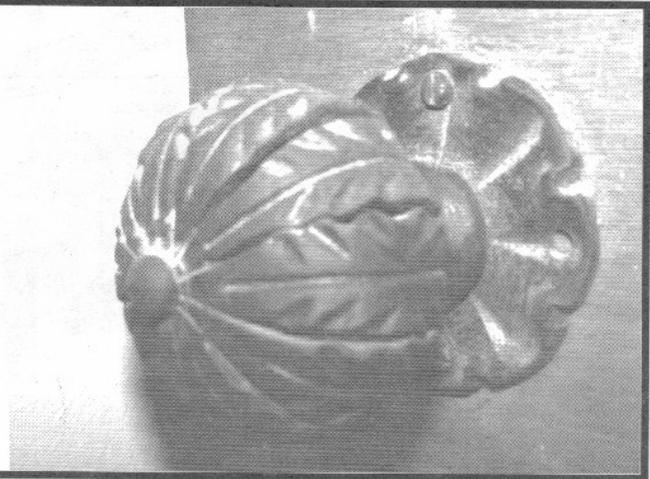
1. "LEAF" SIX SEGMENTS
2. "BUD" FIVE SEGMENTS
3. "SUN" EIGHT SEGMENTS

All the items in this feature are made from 1/4" x 2" flat stock. The technique centers around splitting (or sawing) the stock, drawing out a stem, then opening the split portions to be forged into decorative shapes. The resulting elements can be used as finials, floral elements or as fill for a specific design. All the stems are forged to 3/8" square for welding to square stock. They can also be upset sufficiently for welding to 1/2" stock.

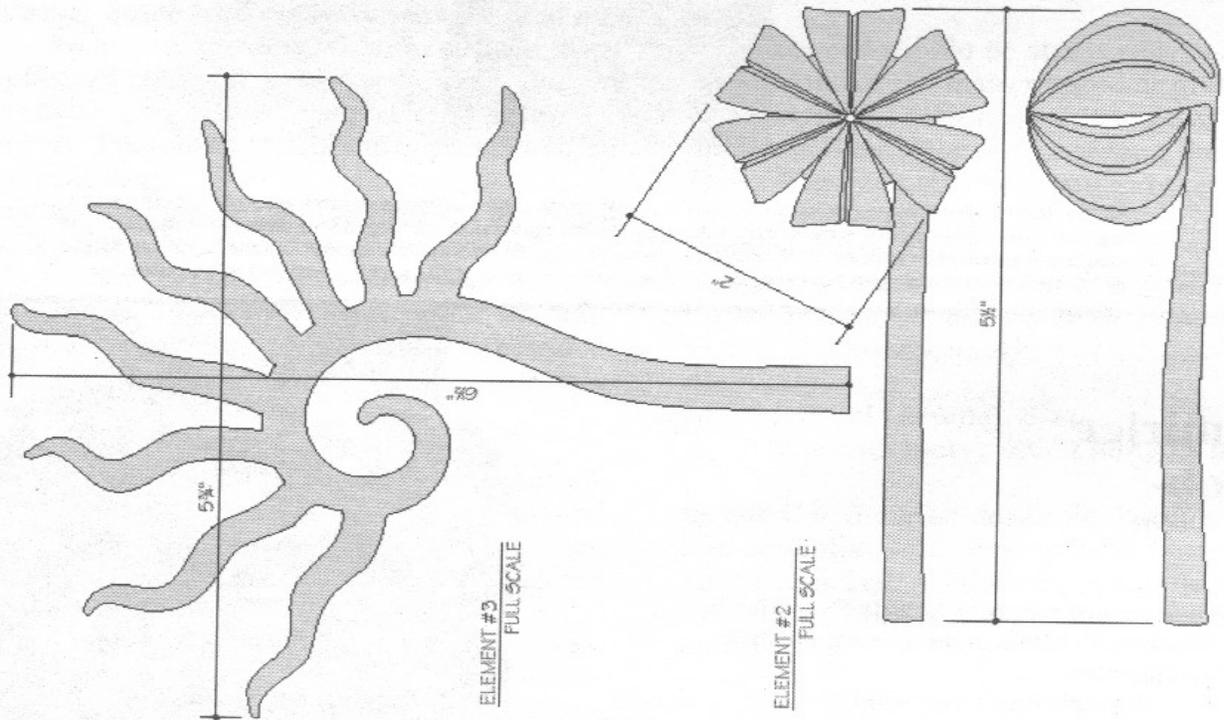
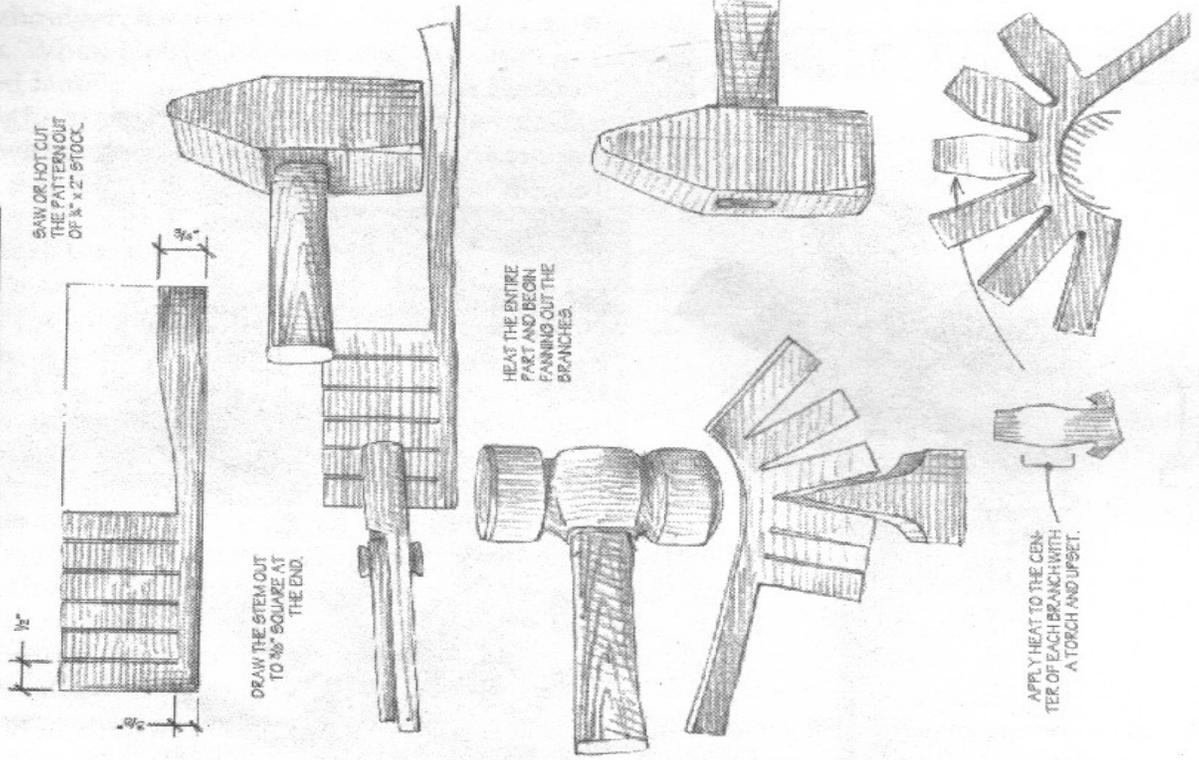
Otto Schmirler Door Knob-

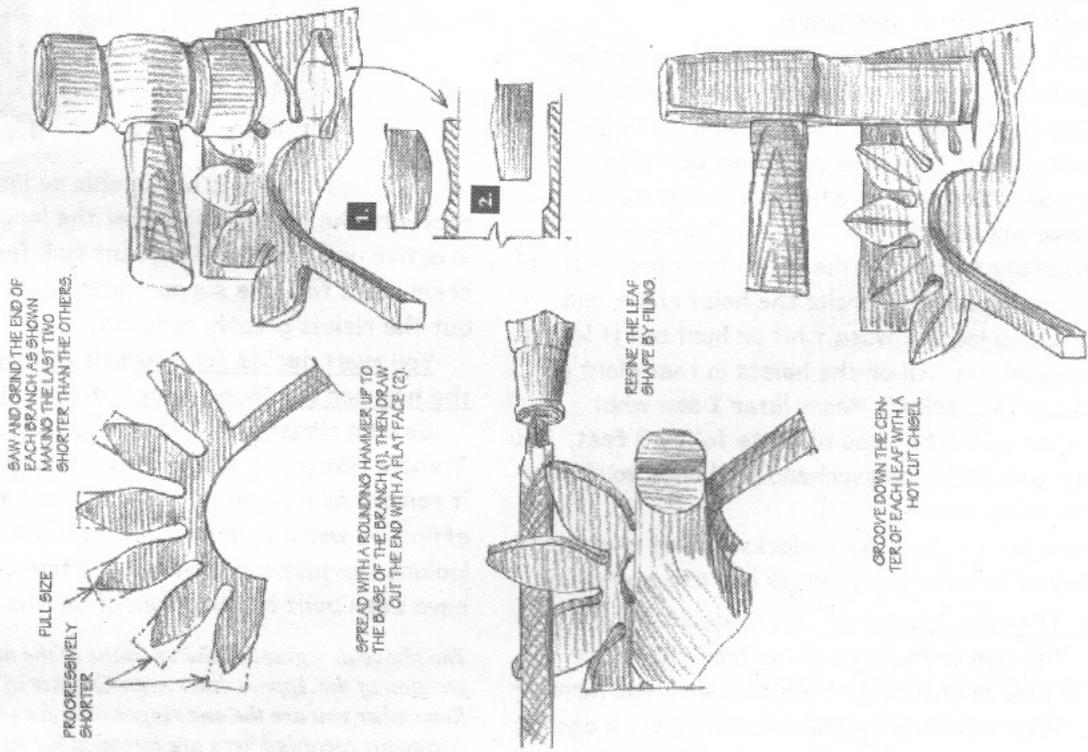
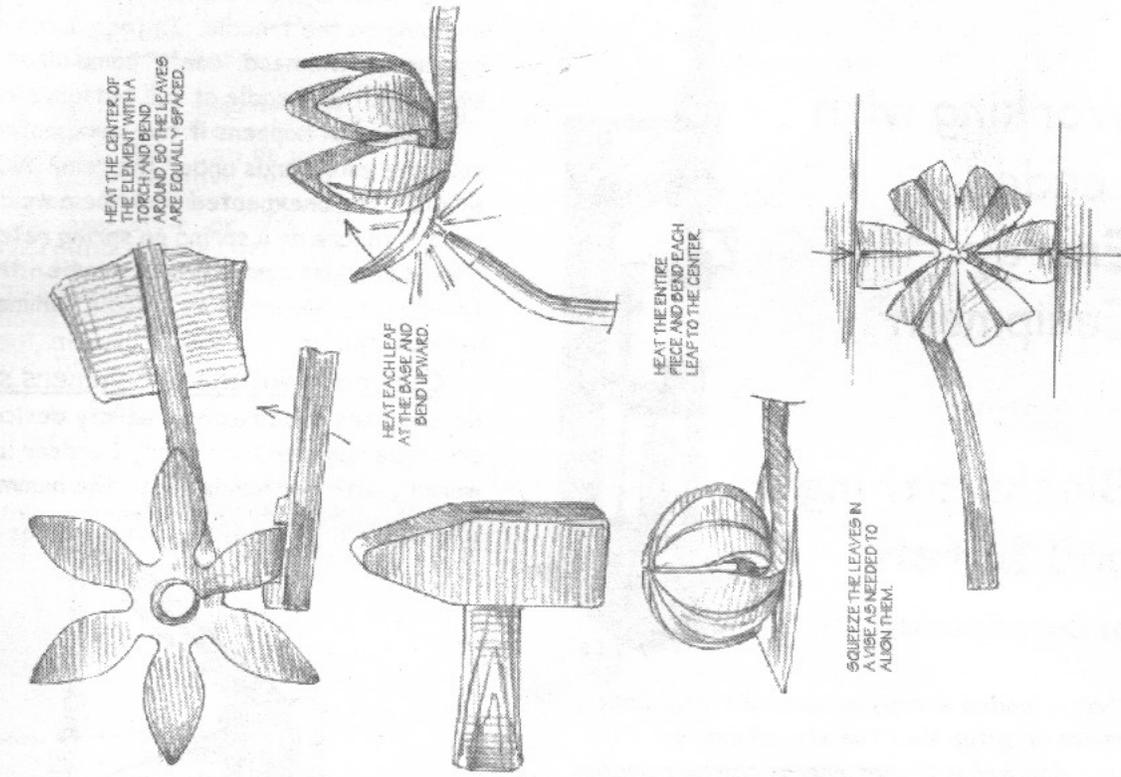
Photo by Steven Sporrer

This hollow knob was part of a display board of samples in Otto Schmirler's Blacksmith Museum in Vienna, Austria. It is about 2-1/2" in diameter. The knob, made with 10 petals looks very similar to "organic form" #2.



ELEMENT #2



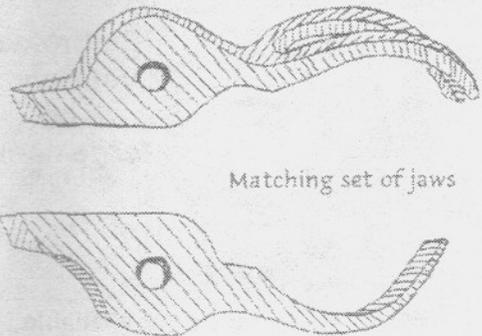
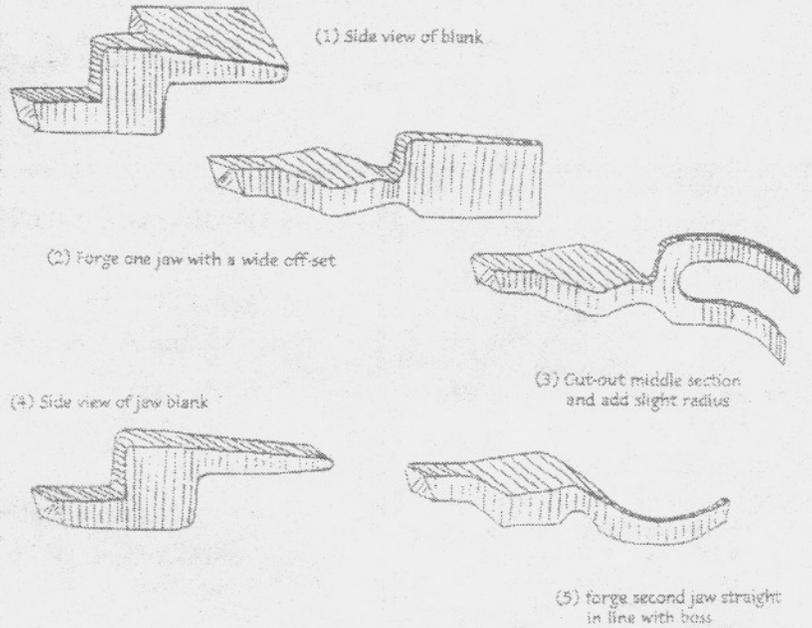


This Feature has been provided by the Blacksmith's Journal for information about ordering call 800-944-6134 or go to www.blacksmithsjournal.com

"Treadle Hammer" Tongs

by Mike Boone
Drawings by Robin Boone

This is a style of tongs that is very useful for holding punches, chisels, and other top tools. They can be used at the treadle hammer, anvil, or vise. The benefits are that the tongs will hold virtually any style or size of chisel/punch: round, square (flat or on the diamond), rectangular, or octagonal. The oval shape of the "claw" style jaw allows one to get a firm hold on a top tool, quickly rotate the tool, or switch to a different chisel without loss of heat/time of the piece being forged. Another positive aspect is the option of using shorter tooling which saves on tool steel. Forged from mild steel and hardened with Robb Gunter's "Quick-Quench" formula gives the tongs good spring and durability.



Matching set of jaws



Chisel/punch holding variations

(6) Match the two forged tong jaws. Drill holes in boss for rivet. Put tongs together and make any final adjustments so that they pass through one another smoothly. The desired final shape is an oval/eyeball, forming the "claw". "Quick-Quench" for spring and durability.



Finished set of "Treadle Hammer" tongs

"QUICK QUENCH" SOAP SOLUTION QUENCH
For mild and low carbon steels

- 5 gallons water
- 5 pounds table salt
- 32 ounces Dawn dishwashing liquid (blue)
- 8 ounces Shaklee Basic "I" (wetting agent)

Quench at 1550° F (light cherry red)

Expect 43 to 45 Rockwell C on 1018 mild steel

From Robb Gunter
The Forgery School of Blacksmithing

QUICK LEAF

Here's a quick way to make a leaf like the ones I made for my balluster. Start with the stock of your choice, point the end, hammering on two sides only for economy. Fuller on two sides only over the edge of the anvil and draw out the "stem" to taste. Place the resulting bulb on the diamond and flatten, tapering the edges and leaving the center a little thicker. Using the illustrated veining tool, form the veins with one or two blows of a large hammer. Dish the leaf from behind in a wood block with a ball pien and wire brush. This technique takes just a few heats, so you can produce lots of leaves quickly.

