

Saltfork Craftsmen Artist-Blacksmith Association

November 2009



Getting things ready in the tailgating area for the 2009
SCABA
Conference

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

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jc.banks@okstate.edu

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byrondoner@earthlink.net

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

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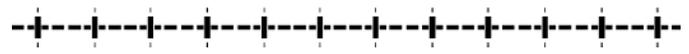
Visit our Saltfork Craftsmen Website:
www.saltforkcraftsmen.org

Trading Post

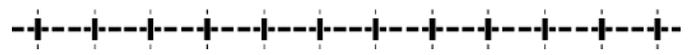
For Sale:
5/8in. Round 1045 stock in 12 ft. lengths. Price is .50/ft. contact Ron Lehenbauer at therustyanvil@yahoo.com or call 580-554-1126 to order. Delivery can be made at the Conference. I can have it cut into 1ft or 6ft pcs to haul. 1-foot pcs will be a bit extra for the cuts. This is great metal for punches or chisels.



Army surplus round nosed pliers that make good scroll pliers for small items. They are 6" long \$5.00 each plus shipping. I also tie brooms on your handle or mine. \$20.00 plus shipping. Diana Davis 580-549-6824 or Diana-copperrose@hughes.net



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



For Sale:
Two wheelwright travelers. One factory made with a pointer; one nicely shop made with forge welds but no pointer. \$50 each. Contact Jim Carothers 580-336-9213 frontiershop@woldblue.net

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 location:

Bring your own containers. Contact Tom Nelson at 1-580-862-7691 to make arrangements to pick up a load. **DO NOT CALL AFTER 9 P.M.** If you make arrangement well in advance, Tom can load your truck or trailer with his skid steer loader. Otherwise you will need to bring a shovel. The coal can be weighed out at the Douglas Coop Elevator scales.

S/C Region coal location: Coal is in 1-2" size pieces. Bring your own container. The coal is at Max Scrudder's place in Mountain View. Contact Max for load out instructions. Max Scrudder can be contacted at (405) 226-9951

NE Region coal location: Dan Cowart also has coal to sell. He can be contacted at ddcowart@gmail.com or Cowart-Pat@gmail.com

New shipment of swage blocks now in.
\$80. plus shipping to members.
\$100.00 plus shipping to non-members
Contact Bill Kendall for more information

Send your ads to the Editor by the 20th of each month. Ads will run for 60 days.

MEETING SCHEDULE

Nov.

SE Regional meeting (Nov 7th) Open

NE Regional meeting (Nov 14th) Hosted by Dan Cowart . Lunch will be provided (Brisket and baked beans) bring a side dish to help out. Trade item will be a tool to make animal eyes. (**Board Meeting at this meeting**)

S/C Regional meeting (Nov 21st) Hosted by Bill Davis at his home/shop west of Rush Springs. The trade item is a flower or anything with a flower on it. Lunch is provided (pulled pork, polish sausage) bring a dish if you like. Map in back of newsletter.

NW Regional meeting (Nov. 28) Hosted by Tom Nelson at his shop in Douglas located 3 blocks north of the fire station. Bring a sack lunch as lunch is on your own and there are no cafés in Douglas. Along with blacksmithing he will have some wooden wagon wheels that they will be shrinking cold on a hydraulic tire shrinker. The trade item is a 3-legged trivet with a center element. Bring something new to show or demonstrate. Tom (580-862-7691)

SCABA Conference wrap-up

Saltfork members:

Thought I did not do much to help put on this year's conference, I did reserve and sign for the fairgrounds buildings.

I am really proud of the set up, clean up crews, and the attendees for their care in using the facilities. Special thanks go the clean up crew who stayed and helped to leave the place in such great shape. The Perry facility has been reserved for the 2010 conference and once again because of the Saltfork record, we have not been charged an up-front reservation fee. You all did really well!

Virgil, the facility manager, has been out with migraine problems for the past few days. He was greatly surprised when he came in to find the place in the condition we left it! Our clean up work has really been noticed and is greatly appreciated.

Jim Carothers

Lost and Found at the Conference

There were several items found during the clean up of the building after the Conference. Below is a list, if any of these items is your, you can contact Jim Carothers or Bill Kendall (where noted)

- 1) 15 foot heavy black cord with a fourplex box on the end. (Bill Kendall found in his stuff)
- 2) Insulated travel mug (blue)
- 3) A pair of work gloves
- 4) A small medical oxygen cylinder found in the women's building next to the stage.
- 5) A woman's wrist watch

A big THANK YOU to everyone that donated items to the auction and the iron in the hat. These items help to fund the scholarship program as well as other projects. I want to thank the instructors for the family classes and the Lace Guild Ladies for their contributes to the conference.

Diana Davis

President's Notes

Gerald Franklin

Our 13th Annual Conference is behind us now and it proved to be a real winner. We provided a rare opportunity to see all three Gunters: Robb, Brad, and Chad demonstrating at the same event. They really put on a good show for the attendees and if you missed the conference you missed an excellent learning experience. Participation in the toolbox auction brought in a record amount of money for the club treasury and the auction was well supported, too.

Registrations were up this year. Tammy Cowart, our Registrar tells me that we had a total of 109 people register (88 separate registrations) for the conference. Of this number, there were 32 new members. I feel that these numbers reflect the quality of the demonstrators that were lined up by the Board of Directors. I want to thank all the members who put out so much effort in making this event the success that it was.

We have a few details to finish up for this year so that we can collect our grant from the Oklahoma Arts Council and then we can get started in earnest on the 2010 conference. Our demonstrators in 2010 will be Gordon Williams from Camp Verde, AZ and Darryl Nelson from Eatonville, WA. Both of these smiths offer world class demonstrations so you will want to be sure to make this conference.

In the mean time, host a meeting and plan on attending as many of our regional meetings as you can. These meetings are where most of our individual teaching and learning takes place.

SCABA Workshops

Title:	Date:	Instructor:	Location:	Status:	Cost:
Repousse	6 – 9 Nov 4 day workshop	Mark and Mindy Gardner	Altus, OK	Full	\$175 (Update)

Repousse/Chasing Workshop – Full

As it got closer the Repousse Workshop filled to capacity with 2 alternates on the list, so for now I'm only able to sign up alternates.

Power Hammer Use and Tooling - The workshop has been postponed until Rick gets his shop settled in and everything is taken care of. He will let me know and I'll run another announcement.

David Seigrist
P.O. Box 163
Hollis, OK 73550

SCABA TOOLBOX

Congratulations go out to Mike George for winning this year's toolbox. You should've seen the look on his face!! It's great to see someone who really appreciates such a prize.

A big heartfelt thanks for everyone who bought tickets and especially all those who make or purchase everything required for the toolbox. Year after year many smiths go out to their shops and spend serious quality time to make the box, hardware, and all the tools knowing only one person will win and yet hoping they will be that one person. JC did a great job with the box and Mike did another great job with the hardware. Included in this newsletter is a list of all the folks who contributed tools and all together made another great prize. Thank you for your generosity and love of the craft.

David Seigrist (580)381-0085 dseigrist2004@yahoo.com

Scottish Festival

The sun shined bright on the morning of September 19th at the 30th annual Tulsa Scottish Festival. Terry Jenkins and Steven Knisely may not have shined quite as bright but were there and doing what comes naturally on a bright sunny morning, forging metal.

As usual, there were the pipers and athletes warming up for their events. The merchants were finished getting set up for the day as we rang in the day on the anvil. In spite of working all day demonstrating at the state fair in Oklahoma City the day before, Terry did an excellent job of showing the patrons how blacksmithing is done and explaining the process to those watching and asking questions.

There was music being played through out the days (not just bagpipes either) and the concert on Saturday night was a lot of fun also. Our thanks goes out to Danny and the others who came to visit us on Saturday and Sunday. It makes things even better to see a few familiar faces when working in front of a bunch of people. As usual, the people who ran the festival treated us well and asked if we would come back next year. So, if there are any members who are curious as the what the Scottish games are all about and would like to take part in the demos next year, we have been invited back.



pictures by Jon Ervin



Members of Saltfork:

I talked to the Saltfork Board recently about having a **Christmas Tongs Exchange** again this year and volunteered to keep the list of names, etc. We have some new members in Saltfork; so to some of you this may be completely new. I'll try to explain what this all about.

This exchange of hand made tongs would be like school kids (at least when I was in grade school in the 1950's) drawing names to exchange gifts at Christmas time. This idea is not new or original to me ; the folks on AnvilFire's Slack Tub Pub have done this a time or two in the past. In the two years that I remember this happening through AnvilFire, there were about 12 to 15 people involved each time. I have four unique pair of tongs from participation in the past exchanges. One of these was made by James Joyce out on the west coast and one by Jim Gerlinski from Canada. Saltfork did this last year; I have two nice tongs made by SF member Mark Carter. I've always found this fun to participate in.

Don't worry that you are not an expert tongs maker. At first, I was concerned that my hand made tongs would not be good enough for an AnvilFire international exchange. There are a couple of mistakes in the learning pile under my work table, but all worked out OK. The experienced smiths that got the tongs I made were quite pleased with them.

The Saltfork Board of Directors and I have chosen 3 Kings Day as the mailing day for the tongs; that would be January 6th, 2010. By choosing the 3 Kings date (the 12th day of Christmas), you would hopefully have some time over the Thanksgiving, Christmas, and New Year's holidays to get your tongs made. And if you needed help, there would be time for that as well. There is a good how to make tongs article on the Shady Grove Blacksmith Shop web site. http://www.blksmith.com/tong_article.htm . Most of the beginning smith's books have tongs lessons too.

As noted above, I am offering to keep the list of those wanting to participate; do the random drawing of names (computer program) ; and to notify each participating member whom to send his or her tongs to. And yes, I plan to make a pair also.

Here are the rules:

- 1) You must register with me your intent to participate in the Christmas Tongs Exchange on or before Monday, December 28th. 10 PM that Monday evening will be the cutoff time. Your registration can be done by e-mail, phone call, or US Mail. E-mail is really best for me, but any of the others are OK too. I will need your mailing address along with your registration to participate.
- 2) Tongs can be any style you choose as long as they are blacksmith made. Use of electric welding and other modern techniques is OK. Tongs can be made from round bar, flat stock, etc. They can be steel or other suitable (strong) material such as Titanium, Nomakesit, Unobtainium, or Flexstiffinite.
- 3) Be sure to steel stamp or engrave your tongs with your touch mark, name, or initials and the date they were made.
- 4) I will notify you by Wednesday, December 30 as to whom to send your tongs to.
- 5) All tongs are to be sent out no later than 3 Kings Day – January 6th. US Mail or your favorite service such as UPS, etc. can be used. Personal delivery is OK too. You are responsible for the cost of shipping your tongs.

That's about it. Let's have some fun with this again.

Jim Carothers, Member
Saltfork Craftsmen ABA
9501 Frontier
Perry, OK 73077-9225

frontiershop@wildblue.net
580-336-9213 home – evenings
580-307-5152 cell – usually on

SCABA conference 09

A lot of equipment and supplies have to make their way to Perry, Oklahoma before a conference can take place. The board and conference workers finalize plans months in advance of the conference assigning tasks and dividing the equipment list so that no one person is overwhelmed with the task ahead. Every conference is different. The supplies needed are determined by the needs of the demonstrators. Some request power hammers and gas forges while others work with coal forges and hand tools. Each year it is a different set of challenges to have on hand all the equipment needed. This year was no different. It took a full 12 plus hours to get everything ready for Saturday.



← Setting up the sound and recording systems.

Gunters →
unloading their tools and ironwork



← tailgating →
Sales and outside demonstrations took place under the shade of a large elm tree.



While the men worked to get the main building ready for the blacksmithing demonstrating that would be starting early Saturday morning, Carol Doner and Diana Davis were directing some of the other men in the setting up of the gallery, auction and eating areas of the women's building. Friday night after everything was done, everyone enjoyed a meal of chili provided by Bill Kendall and followed up with peach cobbler made by JC Banks.



← Gallery →

We had a nice selection of ironwork as well as silver smithing and quilting.



Conference continued.

The Conference registration and check-in started at 8:00 AM Saturday morning and soon everything else got underway. Tracy, Tammy and Pat Cowart did a great job with the registration considering that this was their first time and had little if any experience doing it. Byron Doner and his helpers handled the iron-n-the-hat drawings during the conference and comments that I heard was that they liked the way it was done with all the items on display but divided by drawing days.

The demonstrators for this years conference were Brad, Chad and Rob Gunter. The trouble with having three great demonstrators was deciding which one you wanted to watch. People shifted back and forth between the two sites trying to take in all the information and techniques that were being explained.



These two items are examples of the work that the Gunter's do.



The tool box and tools was a huge success again this year. The box was hand made by JC Banks from Oak and accented with handmade hinges and latches by Mike George. Mike had put a lot of work into the hardware by Chasing a delicate design on them. The drawing for the box was held on Saturday night during the auction. Mike George's name was pulled from the box of tickets. The look on his face was one of pure amazement that he had won. Now the big question...Who gets the box? Him or Meradith.

A Big **THANK YOU** to everyone that donated tools for the box. There was a nice selection of tools that anyone would be proud to own.

The family classes were well attended again this year. They included sewing, jewelry and stained glass. We also had the Oklahoma lace Guild ladies and they were showing how to tat.

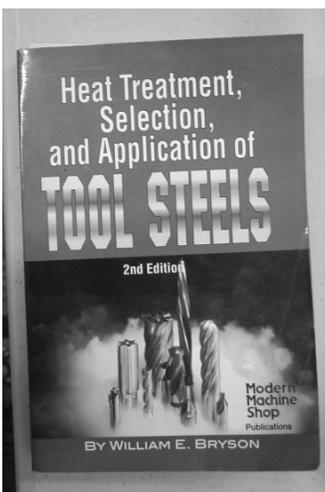




Nathan Robertson brought his hammers again this year. He had a nice selection of sizes and style to choose from.



It didn't matter if you came to the conference to have a good time or learn a new craft, the SCABA Conference tried to have something to interest everyone. I know that we say that each conference is better than the last and that has been true but I feel that this year will be hard to beat.



During Rob Gunter's demonstration he recommended this book as a good reference book to have in your shop.

James Allcorn found a link to a book that he found interesting. "Agriculture Engineering & Development" Here is the link if you are Interested . It can also be found online used for about \$60.

<http://books.google.com/books?id=6kqMg6TcgVwC&lpg=PP1&ots=01vVe2Ypd7&dq=advanced%20blacksmithing&pg=PP1#v=onepage&q=&f=false>

NORTH EAST REGIONAL MEETING DATES

January 10, 2009
Host: Gary Gloden

February 14, 2009
Host: Bill Kendall

March 14, 2009
Host: Dan Cowart

April 11, 2009
Host: Open Easter Weekend
Phone #:

May 16, 2009
Host: *State meeting*
Phone #:

June 13, 2009
Host:
Phone #:
Trade item:

July 11, 2009
Host: Mike Sweany
Phone #:

August 8, 2009
Host: Omar Reed at Fort Gibson
Phone#
Will be working on hinges

Sept. 12, 2009
Host: Dan Cowart (Pawhuska Blacksmith shop)
Phone #:
Trade item something Indian, (feather, leaf, etc.)

October 17-18, 2009
SCABA Conference

November 14, 2009
Host: Dan Cowart
Phone #:

December 12, 2009
Host: Charlie McGee
Phone #:

NORTH WEST REGIONAL MEETING DATES

January 24, 2009
Host:

February 28, 2009
Host: Ron Lehenbauer

March 28, 2009
Host: Bob Kennemar
Phone #:

April 25, 2009
Host: Mike George
Phone #:

May 16, 2009
Host: State meeting –No regional meetings
Phone #:

June 27, 2009
Host:
Phone #:

July 25, 2009
Host:
Phone #:

August 22, 2009
Host:
Phone #:

Sept. 26, 2009
Host: Gary Seigrist (Elk city)
Phone #:

October 17-18, 2009
SCABA Conference

November 28, 2009
Host: Tom Nelson
Phone #: 580-862-7691

December 26, 2009
Host:
Phone #:

SOUTH CENTRAL REGIONAL MEETING DATES

January 17, 2009

Host: JC Banks

Phone #

February 21, 2009

Host: Gerald Franklin

Phone #:

March 21, 2009

Host: Terry Jenkins

Phone #

April 18, 2009

Host: Bob Kennemar

Phone #

May 16, 2009

Host: State picnic at Norman

No regional meetings

June 20, 2009

Host: Anelia Hadick

Phone #: 1-405-406-3705

July 18, 2009

Host: Max Scrudder

Phone #: 1-405-226-9951

August 15, 2009

Host: Richard Simpson

Phone #: 1-405-344-7413

Sept. 19, 2009

Host: Dorvan Ivy (Elk City Museum)

Phone #: 1-580-473-2761

October 17-18, 2009

Host: : SCABA Conference Perry, Okla.

November 21, 2009

Host: Bill and Diana Davis

Phone #: 580-549-6824

December 19, 2009

Host: Anelia Hadick

Phone #: 1-405-406-3705

SOUTH EAST REGIONAL MEETING DATES

January 3, 2009

Host: Howard Bost

Phone #:1-903-785-0864

February 7, 2009

Host: Howard Bost

Phone #: 1-903-785-0864

March 7, 2009

Host: James Allcorn

Phone #:

April 4, 2009

Host: Howard Bost

Phone #: 1-903-785-0864

May 16, 2009

Host: State meeting in Norman Ok

June 6, 2009

Host: Mark Hammell

Phone #:

July 4, 2009

Host:

Phone #:

August 1, 2009

Host: Omar Reed at Fort Towsan historical site

Phone #:

Sept. 5, 2009

Host: open

Phone

October 3 2009

Host: SCABA Conference Perry , Okla

Phone #:

November 7, 2009

Host: open

Phone #:

December 5, 2009

Host: open

Phone #

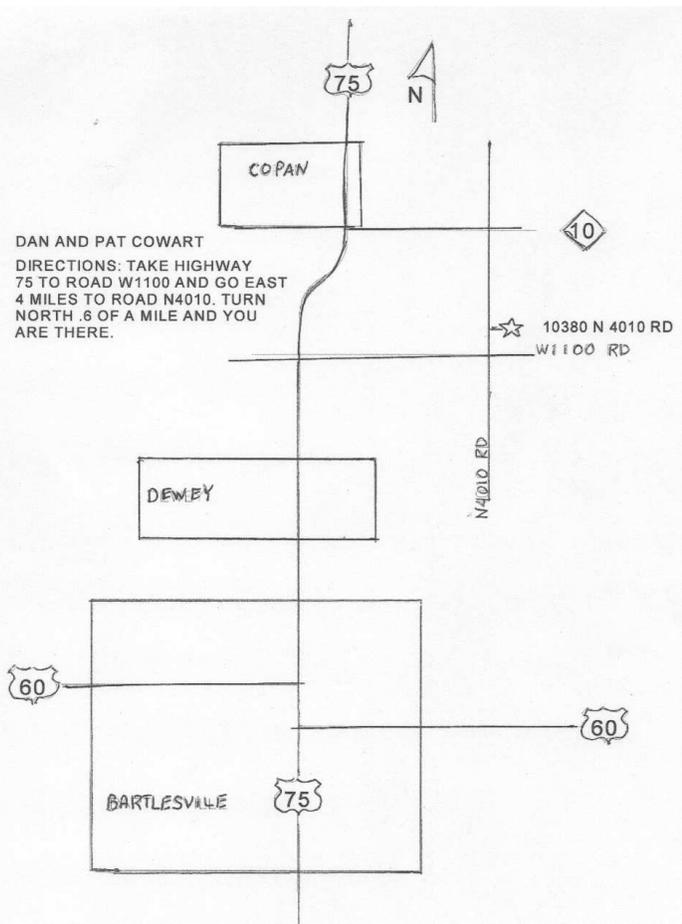
SCABA TOOL BOX AND TOOLS for 2009

Tool/Item	Maker/Buyer
Box	JC Banks
Hardware for toolbox	Mike George
Cross peen hammer	Bill Kendall/Nathan Robertson
Straight peen hammer	Clay Reamy
Rounding hammer	Gary Gloden
Tongs:	
¼ v-bit	Clay Reamy
3/8 flat	Clay Reamy
½ flat	Clay Reamy
Scrolling	??? Bill Davis
Side grip	Clay Reamy
Pick up tongs	Clay Reamy
Fire tools (shovel and rake)	Clay Reamy
Hot cut hardie	Tommy Dean
Twisting wrench	Diana Davis
Treadle/Hand Hammer Tooling	JC Banks
Set of punches and holder	Terry Taylor
Center punch	Gary Gloden
Chisel, large	Mike Sweaney
Chisel, small	Mike Sweaney
Chisel, hot slit	Mike Sweaney
Slitting chisel	Gary Gloden
Hold Down	Dan Cowart
Flat wire brush w/handle	Mark Carter
File, flat bastard cut w/handle	Mark Carter
File, half round w/handle	Mark Carter
Set of monkey tools	Gerald Franklin
Rivet backing tool	Byron Donner
Rivet setting tool	Terry Taylor
Hacksaw	Maurice Hamburger
Bolster plate	David Seigrist
Square	Maurice Hamburger
Dividers/Compass	Maurice Hamburger
Bevel Gauge	Maurice Hamburger
Scribe	Gerald Franklin
Bending forks	Bill Kendall
Spring swage (necking down)	Gary Gloden
Flux spoon	Jim Carothers
Beeswax	Terry Taylor
Metal folding ruler 24" or 72"	Dan Cowart
Soapstone	Diana Davis
Ball tool (round blunt nose punch)	Gerald Franklin
Hook Ruler	Gerald Franklin
Iron Mountain Flux	Jim Carothers
Finishing Wax + Borax	Linda Bliss
Nail Header	Dan Cowart
Horse shoe rasp	Doug Bliss

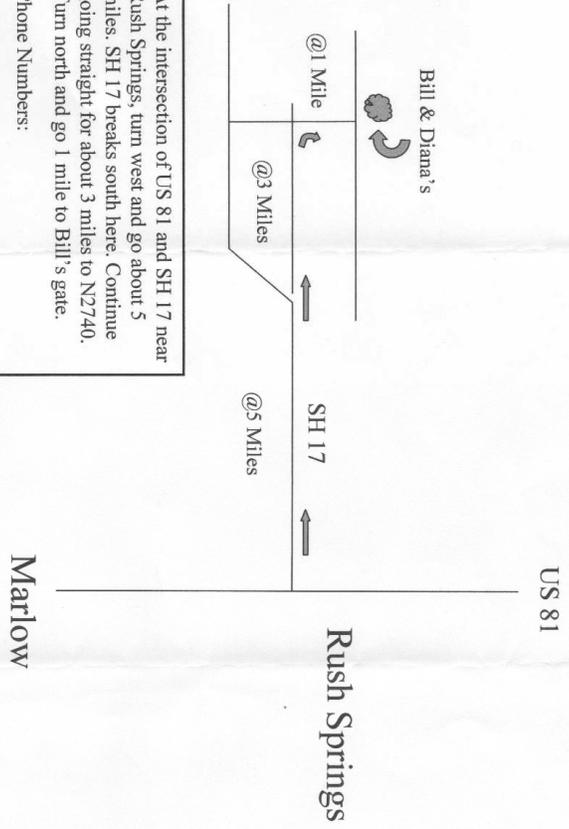
There were a few duplicate tools so I pulled them out for the toolbox for next year. Since some folks dropped off tools at the conference I may not have your name. Please let me know and I'll publish it for proper credit.

Map Page

Map to Tom Nelsons Shop at Douglas, Oklahoma.



At the intersection of US 81 and SH 17 near Rush Springs, turn west and go about 5 miles. SH 17 breaks south here. Continue going straight for about 3 miles to N2740. Turn north and go 1 mile to Bill's gate.
 Phone Numbers:
 Bill & Diana 580-549-6824
 Gerald Franklin (C) 580-467-8667



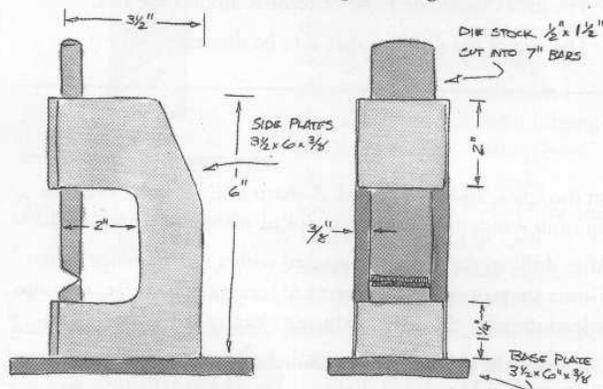
Guillotine Tool Revisited

by Brian Gilbert and Jim Carothers

Chattanooga, Tennessee

I recently received some photographs from Jim Carothers of his re-designed guillotine tool. My guillotine tool design appeared in the *Hammer's Blow* ten years ago (!) in my first issue as editor. The inspiration came from Jerry Hoffmann at *Blacksmith's Journal*. He had a great design, but I was after something simpler to make. I "designed" it, as I recall, with a piece of chalk on the layout table, adding marks and taking away until it "looked about right," so it's naturally ripe for improvement. (*Hammer's Blow*, vol 8 #1, Winter 2000.)

I demonstrated making these in Oklahoma a few years back, where I met Jim Carothers and the other fine people at Saltfork Craftsmen. Jim has made several improvements on the design, but of course, you're more than welcome to make your own changes and improvements. The original design is shown below:

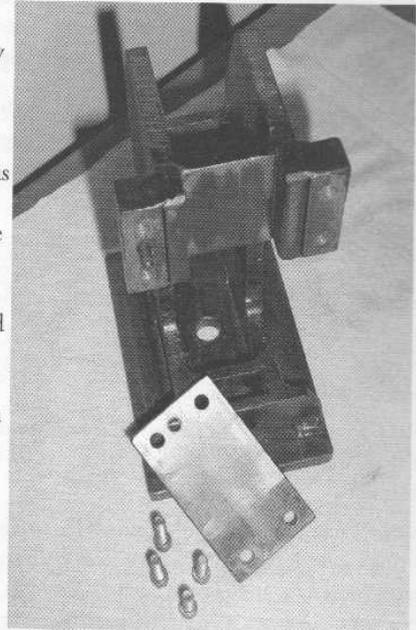


The ones I make these days are a little taller. This allows the dies to slide with a little less "slop," or front-to-back wiggling when used. For most applications, this isn't a huge deal, but should you want to try making something like a hot punch, you should try to minimize the slop. This means making the die slots as accurate as possible.

Since the construction of this tool is primarily welded, there is a limit to the accuracy you can expect, since the welding distorts the metal. Pre-heating and post-heating reduces this distortion and makes the welds stronger, but it doesn't eliminate it entirely. Accuracy can also be improved by using all cold-rolled steel, though this is really pricey for the main side plates. To save money, I use cold-rolled for the die stock and the "keeper plates," or the small pieces of steel that touch the dies in front and in the back.

A big limitation of my design is that the top dies can only be the size of the die stock... no larger. But Jim wanted something that could use larger surfaces on the top die, like a fuller. He made the opening a little larger and added two bars of 5/8" square stock to the sides, drilled and tapped for 1/4-20 bolts.

While the construction is slightly more complex, it makes the tool much more versatile. An extra bonus is increased accuracy, since only the back keeper is welded on. The front keeper is held on by bolts, so if you want to get really accurate, you can adjust the fit with shims. If you want to get really crazy, bolt in the back keeper, hand-scrape the sides, and add bronze bearing surfaces. But that would be a bit silly... especially for a tool that gets blasted regularly with a hammer.

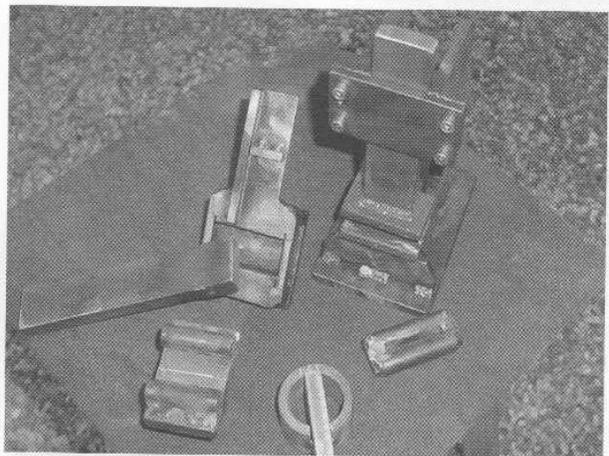


By adding a pair of 5/8" bars with tapped holes, Jim has made the top die easily removable. This allows a working surface that's larger than the die stock.

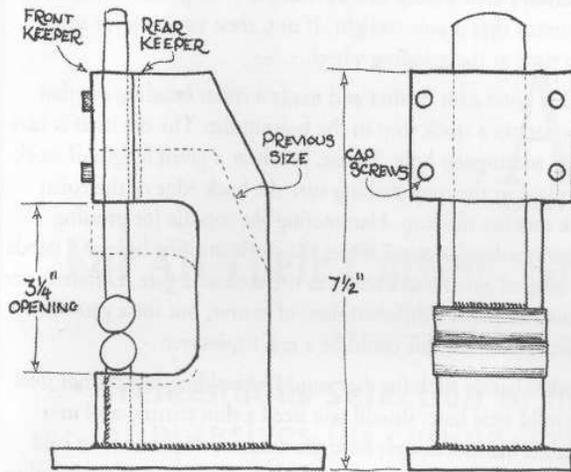
For those of you who don't have ten years of back issues of the *Hammer's Blow*, here's the basic rundown of the construction.

Start With The Die

Always start any tool like this with the die stock, which can be any size that you want. I've found 1 1/2" x 1/2" to be a good size. Many smiths want to make these too big (insert Tim the Tool Man grunt here... "AAARGH, argh, argh, argh argh...").



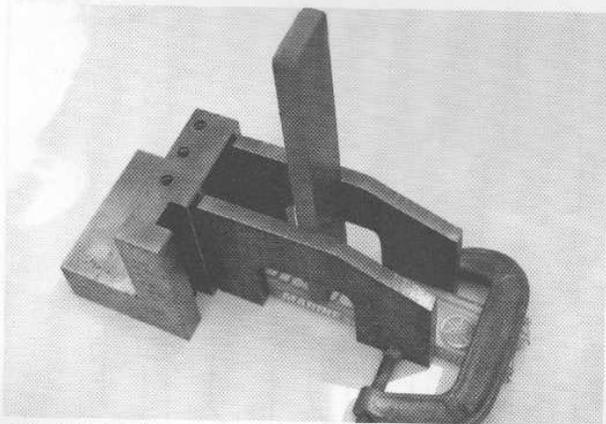
A few of Jim's dies. He often uses this tool under a hydraulic press.



Jim's redesign of this tool is taller with a larger opening. Note that the sliding surfaces that hold the dies have been lengthened a little as well. This will improve the die's accuracy.

but this often results in a tool that is heavy, expensive, wasteful, and needing a sledgehammer in order to be effective. If you regularly work 2" stock then you should make it bigger, but this size works well for 1/4" to, say, 3/4" or 1". Tool steel isn't necessary for these dies unless you want to make a cutoff tool or something with a sharp, thin edge. Since only hot steel is used under this tool, mild steel dies can last a surprisingly long time. Using cold-rolled steel will give you a tool with much less slop in the dies.

I start by cutting a length of die stock and wrapping it with two layers of newsprint for clearance, but even a single layer might be preferred with Jim's new design. You'll also need a short piece of die stock to use as a spacer. The rear keepers are both made from a single length of 1/4" thick cold-rolled steel that is the same height as the tool.



The initial welding setup involves clamping the sides to the diestock while keeping the base square. A second piece of diestock keeps the sides parallel.

Welding Setup

Setting up the first weld requires some creative clamping. I have an old cheap drill press vise that I use for this, but the larger opening will require a different approach. Any flat, smooth surface, such as a layout table, combined with some 6" C-clamps, can work fine. Wrap the die stock with a single layer of newspaper. Clamp the side plates to the die using a single C-clamp, using a second piece of die stock as a spacer. This will prevent the sides from pulling inward as the welds cool and shrink. Be sure to deburr and bevel the die stock, since they may need some persuasion with a hammer to be removed from the lower die slot. Place the rear keeper on top of the die, and clamp these down firmly to the table. Snug everything up, and spot-weld the corners, and perhaps a spot in the center. We want everything locked down before we burn all of the paper away.

Next you'll need to weld on the lower front keeper plate. This piece is made from 1/4" x 2" or similar, also cold-rolled. Clamp it tightly against the die before welding, and again, spot weld the corners and the center.

Unclamp the assembly and pre-heat in the forge, then full-weld the keepers to the side plates. Much of the paper will burn away, but it's done its job at this point.

This completes the only critical welding where accuracy is required... the rest is pretty basic. You'll need to weld the two bars to the sides that will take the threaded holes. It's best to thread and tap these before welding. One of Jim's design changes will be replacing the bolts with allthread studs that will be locked in place with a thread lock compound. Should you want to build yours with studs, drill the holes just large enough to fit your studs and plug weld them in place from the back. Jim says using large wing nuts will be faster.

Drive Out the Die

Before welding the body of the tool to the baseplate, you'll need to remove the die stock. The original design, with fully welded upper and lower keepers, required a substantial amount of hammering to get the die out. This is due to shrinkage and deformation of the metal at the weld zone. Usually once the die is out and the burned paper is removed, the dies would often slide in and out of the tool nicely, though sometimes some sanding and filing was needed to either the die or the slot. Jim's newer design should minimize this sort of fiddling, since only the lower die is fully surrounded by welding, though some cleanup and final fitting with a file and/or sandpaper will always be necessary.

Drill and Weld the Baseplate

It's a good idea to drill a hole in the baseplate in the approximate area of the bottom die, just in case a lower die with a burr on its surface gets pounded into the tool. Jim also drills a second hole in the center of the baseplate for mounting the tool to a bench. Other mounting options include a square base for a hardy hole, or a length of flat stock welded on edge that can be clamped in a vise. Since the new design is taller, though, clamping in the vise might result in a tool that's too high to comfortably strike, so be

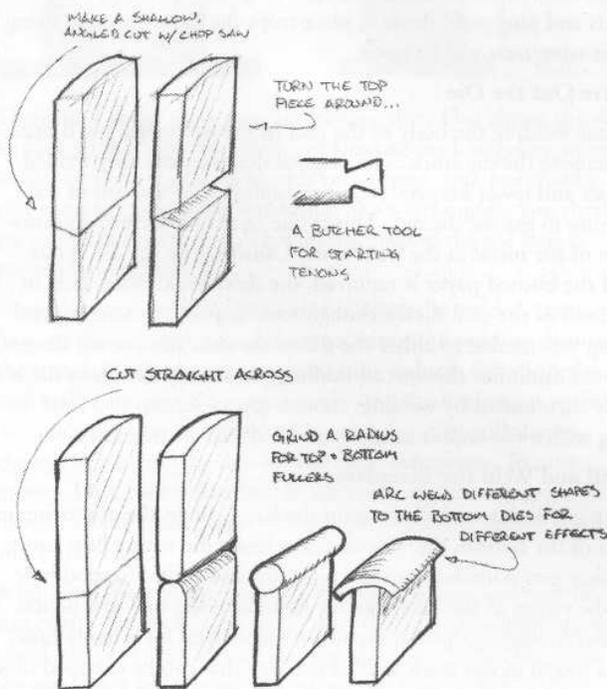
sure to check the height of the tool before deciding on the final mounting method.

Weld the frame of the tool to the baseplate. Be sure the dies slide smoothly without binding before you weld, because modifications to the inner surface of the tool are much harder once the base is welded on. Again, tack weld all four corners, preheat the whole assembly, and then finish the welding.



Making Dies

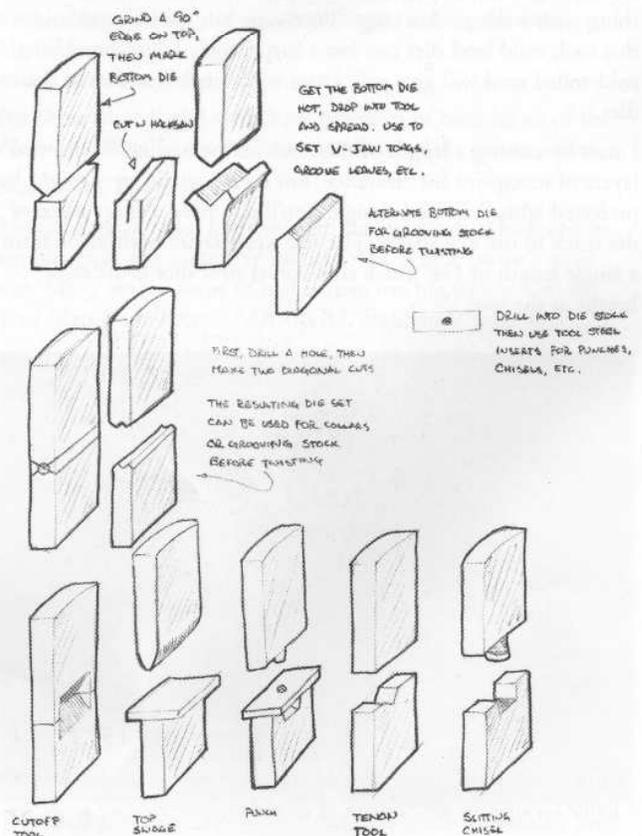
The dies for this tool range from simple to complex. Making the top keeper removable opens up a host of possibilities for the upper dies. Three different types of dies can easily be made by cutting a length of stock with a chop saw at different angles. A pair of dies cut at 90 degrees makes a useful edge for forging inside corners, like a tenon. A shallow angle makes a good butcher tool, and a steeper angle makes a cutoff. Round the edges and the die becomes a fullering tool.



I've always used a chop saw for this job with good results, but it's important that it cuts straight. If not, then you're in for some extra time at the grinding wheel.

Jim has gone a bit further and made a collar bending die that incorporates a stock stop in the bottom die. The die itself is basically a rectangular hole. To use, you heat a given length of stock and place in the tool, making sure the back edge of the collar stock touches the stop. Hammering the top die (or pressing under a hydraulic press) forces the stock into the hole and bends a U-shaped collar that's ready to use around a gate. Different size collars will require different dies, of course, but for a gate with dozens of collars, this could be a real time-saver.

Another handy trick for dies would be welding bits of tool steel to a mild steel base, should you need a thin cutting tool or a punch. This tool doesn't have the accuracy required for a cold punch, but a punch for hot steel might be a workable possibility. Old tool and diemaking books are loaded with ideas that could be adapted to this tool. Have fun!





Mario Baggiolini photo

Leaf Napkin Ring ~ CBA Level I

December 2008

by Mario Baggiolini, Sonora

Processes

Taper, fuller, spread, chisel, swage, bend, twist.

Tools Required

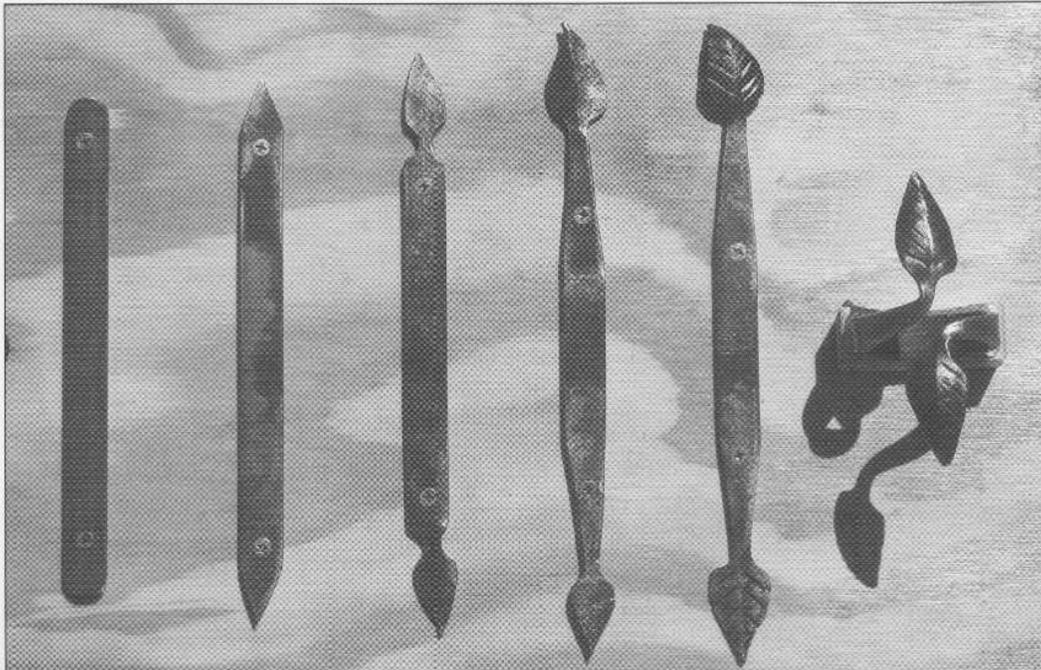
Hammer, tongs, scrolling tongs, small chisel, $\frac{3}{8}$ " spring fuller, $1\frac{3}{8}$ " mandrel, rounding hammer, 16-ounce ball peen hammer, block of wood.

Material

$\frac{1}{2}$ " x $\frac{1}{8}$ " x $5\frac{3}{4}$ " (or similar) flat stock.

Procedure

1. Radius the ends of the material to prevent *fish lips*.
2. Forge short points on each end.
3. Fuller back about $\frac{3}{4}$ " and down to about $\frac{3}{16}$ " to $\frac{1}{4}$ " neck at each end.
4. Draw a long taper approximately $1\frac{3}{8}$ " long, back from the fullered ends. The blank should be about $7\frac{3}{8}$ " long, overall.
5. With the rounding hammer, spread the leaves to a pleasing form.
6. Chisel veins into the leaves for some texture (*or not*).
7. With a ball peen, hammer on the backside of the leaf against a block of wood.
8. Over a mandrel or horn, hammer the center section into a ring approximately $1\frac{3}{8}$ " in diameter.
9. With scrolling tongs, twist the leaves so that they are perpendicular to the ring.
10. Wire brush and hot wax. (*Do not use nut oils*). ♣



Eden Sanders photo

Saltfork Craftsmen

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April 2009 thru March 2010

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