

Saltfork Craftsmen Artist-Blacksmith Association

June 2015



Miniature Anvils...

(Trade items at the North East Region May Meeting hosted by Ed McCormack.)

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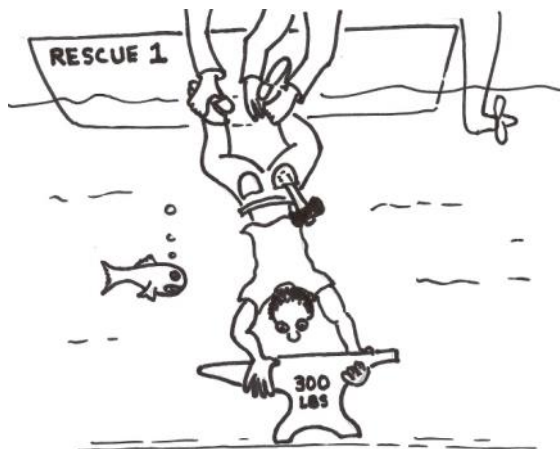
Editors notes...

I have resisted complaining about all the rain we have been having because it seems like nature always finds a way to make me pay for it if I do. And, I figure there is really no use in complaining anyway. However, a little break would be nice. We are getting pretty soggy where I live. At least there is no burn ban!

Its been awhile since I asked for members to send in a project article so I am doing it again. We have a lot of members who can be considered "experts" or "advanced" in terms of blacksmith skill level but we also have a lot of brand new members just getting started. I heard once that the definition of "expert" is the person who knows more than their audience which usually means that everyone is an expert relative to someone else at some time. The point being that we all have something to share that will be useful to someone else.

I don't know how many people actually read this section of the newsletter but I know there are a lot of people making interesting projects each month. If you can take a few pics with your smart phone/camera and e-mail me some text descriptions or even send hand notes I can put in an article form and get it in our newsletter. You don't have to make it look good. I can take care of that part. Submitting an article is probably more fun than you might think!

Russell Bartling - Editor



Oklahoma - Spring/Summer 2015

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

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Visit our Saltfork Craftsmen Website:
www.saltforkcraftsmen.org

President's Notes:

On Saturday May 9th my father-n-law Ed and I made our way through the monsoon to the tractor show grounds at Sulphur for the basic blacksmithing workshop. When we arrived, it was a relief to find that J.J. McGill had several forges already set up with coal fires burning under a large pavilion. The only problem we had with rain was the noise on the tin roof.

JJ started off with a PowerPoint presentation explaining the various terms in blacksmithing, and the names of the different parts of anvils, hammers, and chisels/punches. I even learned a name I don't remember ever hearing for the step area, on an anvil! I'm sad to say that while writing this, I can't remember what the new name was! (I think it was called the "drop" but I'm not sure. JJ also talked all about safety. After that, he took us all out to the forges, and demonstrated how to make "quickie tongs".



This is where I think he pulled a fast one on them! He (JJ) used a gas forge for his demo, which he made short work of; punching the holes, doing the twist, and even putting a groove in the jaws to hold round stock two ways. Then he told everyone to do the same with the coal forges! I think there were a couple of students that had worked with coal before, but the rest of them were struggling to say the least. With at least two to a forge, I seen guys beating on cold steel at the same time that the other guy was burning his metal up! Diana Davis and I were quite busy for a while with fire management (and working the bugs out of a few forges) and helping newbies to get their holes punched.

When we broke for lunch, JJ had us plenty of posse stew, and I found it fitting for the rainy day, as well as yummy! After lunch we were back at it, and things went better after everyone got past the hole punching. I think all who wanted, got their steak turner with leaf done.

On the next Saturday, the sixteenth, I got up real early so I could get up to Guthrie for the Southwestern Iron swap meet. The forecasters had claimed it was to rain that morning, and I was glad they were wrong. (At least while I was there!) It looked to me that David King had a good turnout as usual. Steven Knisely was manning the forge sending out the blacksmiths song, that always lures me in. I seen several club members there before I bought some goodies, and left for Sulphur.

Ricky Vardell, along with a few Boy Scouts were outside the north end of the pavilion hammering away when I got to the Tractor show grounds where the south central meeting was held. Most all the Boy Scouts were busy making sharp objects. Bruce Willenburg, Tim Jones, Dale Dixon, and other Saltfork members as well as Larry Urban, and Mary Chris from Texas were helping out with the forging. We had a fine lunch, and got back on the forges. As the day started to wind down, some of the guys helped me get all loaded up, and I was home before dark.

Hope everyone has got all the rain they want! As of Sunday the twenty fourth of May; I have gotten over TWENTY NINE INCHES OF STINKING RAIN! I got over seven and a half inches in one night! There are two ponds on our place. Neither had any water in them about a month ago. Now both have ran over a few times!

Now back to blacksmithing. I have a new load of "Stigler" coal. I got nine tons. But as of writing this three tons are already spoken for. Also I was told by the guy driving the dump truck, that they are going to close that mine in about six months.

Happy hammering to all!

- Byron

Work Shop Schedule

August 29th – The NW region had a Play day scheduled for Aug. 29th and they want to change that to a **Beginning Blacksmith Workshop** to be held at the Route 66 Museum Blacksmith shop in Elk City. The cost will be \$35. lunch provided. contact Mandell Greteman at 580-515-1292 to sign up. Classes fill up quickly so call now to get your spot. Class size limited.

Oct 31– Pattern-welded steel demonstration by Gerald Brostek, Elk City Museum blacksmith shop, 8:00 a.m., no charge, no lunch.

Diana keeps track of the workshops and the monthly meetings. Regular monthly meetings are always open to anyone that wishes to attend. If you want to host a meeting in your area you need to fill out one of the host forms in the newsletter and get it mailed in as soon as possible. Consider having a beginning blacksmithing workshop in your area. We have a lot of new members that need a little guidance getting started. A one day workshop will give many of them just the encouragement they need. Let me know if you would like to plan a workshop in your area.

-Diana Davis 580-549-6824 or Diana.copperrose@gmail.com

SCABA Library Titles:

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

*When I copy a set for someone I make three copies. Best time to contact me is in the A.M. by phone.
- Doug Redden, Librarian*

Upcoming Board Meeting:

NOTICE FROM BYRON DONER:

The SCABA board meeting has been changed to **June 7, 2015 at 2:00 pm** at Byron Doner's house.

Byron's address is:

**6520 Alameda
Norman, OK 73026**

Everyone is welcome. If they want to bring an issue before the board they need to contact the Secretary and be put on the agenda. The main agenda item is the election results and installation of officers.

Diana Davis

SCABA Secretary

Regional Meeting Schedule

- SE regional meeting June 6th (Open)
- **NE Regional meeting June 13th** Will be hosted by Doug Redden at Will Rogers Birthplace. The trade item is something made from a RR Spike. Lunch will be goulash. Please bring a side dish to help out. From intersection of highway 88 and 169 go two miles north turn east, go two miles to the park entrance.
- **SC Regional meeting June 20th** Will be hosted by Ricky Vardell at his shop in Temple, Okla. The trade item is a boot scraper. Lunch will be provided but please bring a side dish to help out. Ricky's Phone Number is 580-512-8006. (See Map Below.)
- **NW Regional meeting June 27th** will be hosted by Don Garner at his shop at 23713 E. 860 Rd, Thomas, Okla. (directions: 1 mile west, 1 mile north of Thomas). Don's phone number is 580-661-2607. Lunch is provided, Please bring a side dish to help out. trade item is your favorite blacksmith tool (Whatever you like to make.)

2015 meeting dates....

SE Region (1st Sat)

Jan.3rd
Feb. 7th
March 7th
April 4th
May 2nd
June 6th
July 4th
August 1st
Sept. 5th
Oct. 3rd.
Nov 7-8 Conference
Dec 5th

NE Region (2nd Sat)

Jan 10th
Feb. 14
March 14th (James Mabery)
April 11th (Doug Redden)
May 9th (Ed McCormack)
June 13th (Doug Redden)
July 11th
August 8th
Sept. 12th
Oct. 10th
Nov. 14th
Dec. 12th (Charlie McGee)

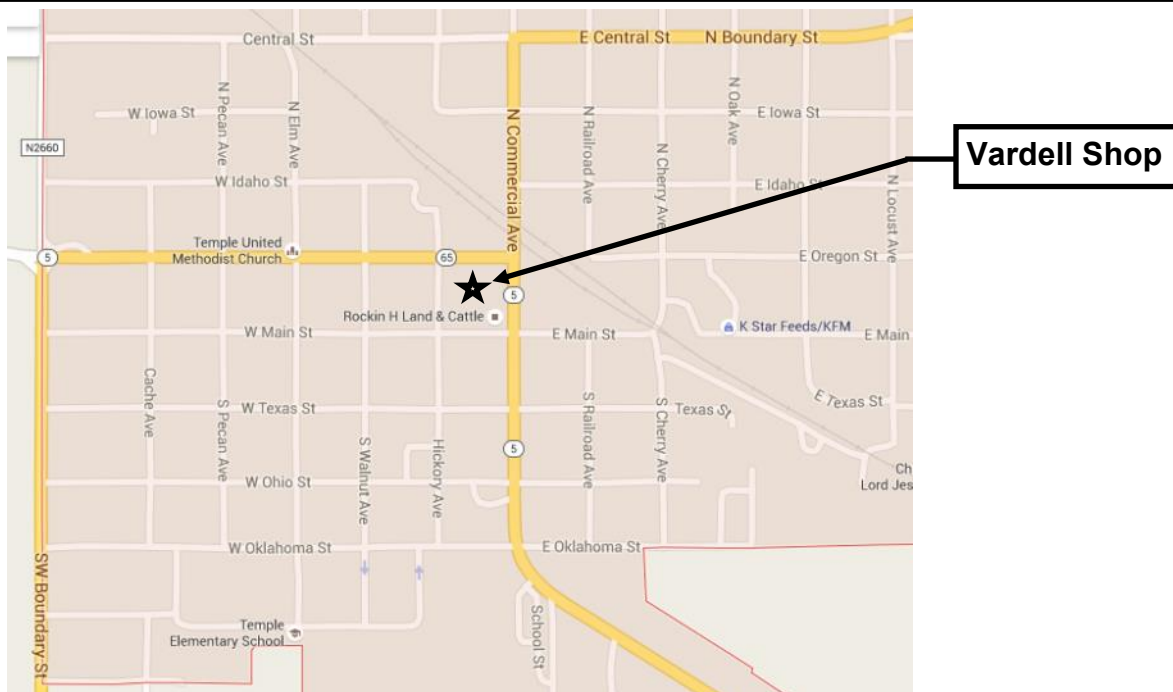
SC Region (3rd Sat)

Jan. 17th (Byron Doner)
Feb. 21st (Tony Cable)
March 21st
April 18th
May 16th (JJ McGill)
June 20th (R. Vardell)
July 18th (Larry Mills)
August 15th
Sept. 19th (Jim Dyer)
Oct. 17th (John Cook)
Nov. 21st
Dec. 19th

NW Region (4th Sat)

Jan 24th (Gary Seigrist)
Feb. 28th (Bob Kennemer)
March 28th (Mandell Greteman)
April 25th (Dorvan Ivy)
May 23rd (Terry Kauk)
June 27th (Don Garner)
July 25th (Gary Seigrist)
August 22nd (Monty Smith)
Sept. 26th (Roy Bell)
Oct. 24th (Cheryl Overstreet)
Nov. 28th (Mandell Greteman)
Dec:26th (Merry Christmas)

Meeting hosting form can be found on the last page along with membership application form.



Around the State....

NW: North West Region April 25th Meeting:

Dorvan Ivey was the host for the NW regional meeting in April. It was being held in conjunction with the



Cheyenne and Arapaho Pioneer Days in Hammon, Ok. The meeting was held in the park and it was a beautiful day. Three forges were going all day. Those that brought forges were Mandell



Greteman, Don Garner, and Terry Kauk. We really appreciated their help. Bob Kennemer and Dorvan helped cook about 200 briskets for the free BBQ. They didn't get much time to blacksmith for helping with the food. We had BBQ sandwiches, baked beans and brownies for lunch. There were about 2,500



to 3,000 people in town for the activities, parade, washer boards, horseshoes, arm wrestling, free BBQ, and ranch rodeo. Thanks again to the blacksmiths for helping out. We couldn't have done it with out you. See you next month at Terry Kauk's meeting.

- Dorvan Ivey



Around the State (continued)....

NE: North East Region May Meeting: The northeast region May meeting was held by Ed McCormack at his shop in Okmulgee. The recent flooding subsided just in time and in spite of the threat of more rain and bad weather, there was a good turnout with around thirty people. There was some light rain part of the day but all of the action was in the covered shop areas so it really didn't matter much. There were a couple of forges running most of the day and no end of items to admire in Ed's collection of old tools and amazing forged creations. The trade item was a small anvil and there were some really fine ex-



amples on display. There was plenty of lunch with a large pot of beans and cornbread and another pot of barbeque to choose from - including many desert choices, of course.



Thanks to everyone who brought food items and helped out with the meeting. - Editor



SE: No meeting was held in May.

Around the State (continued)....

SC: South Central Region May Meeting: The South Central region meeting was held by JJ McGill and Jim Dyer. We had 37 Scouts and leaders from the Tulsa Area come down for a weekend of blacksmithing. This was their second year to ask Jim and I to host this event for them. We had 9 coal forges and one propane forge going and 23 anvils (anvils, anvil/vise combos and three blocks of steel) set up for them to use. There was lots of hammering going on all day.



They were not trying to make



things to kill zombies as bad as they were last year. We had lots of camping tools, crosses, a few knives and a spit roaster being made. They worked from about 9 am to around 4 pm very hard, despite the rain showers that continued to come and go over the weekend. We had Cream Can stew for lunch with pecan pie and choc chip cookies for desert.



I want to thank all the members that made the wet rainy drive to Sulphur to help us pull this off! There were 11 members present.

Couldn't have done it without y'all!!!!

They asked us Sunday morning after Church service if we would be willing to make this an annual event for them?? We told them we were sure we could continue to make this happen as long as we can keep relying on the wonderful Members of Saltfork Craftsman to keep help us with this great event!

- JJ McGill



Around the State (continued)....

Southwestern Ironworks Annual Swap Meet: David King held the annual tailgate swap meet May 16th at the Southwestern Ironworks in Guthrie. Of course, everyone was keeping a close eye on the cloudy sky for the rain that was forecast but it held off. There were many truck beds and tables spread out with all kinds of tools and miscellaneous treasures for blacksmithing, machining and woodworking. There were also a few items that defied explanation but appeared to inspire a lot of conversation anyway. Visitors came and went starting very early. At any one time throughout the morning, there were probably 80 people including many Saltfork members. Ste-



ven Knisely stayed busy at the forge inside the main building and seemed to have a steady audience. There were even some small engines on display. The museum items inside the buildings are amazing and extensive. It would take

more than a single day of dedicated attention to really see all there is to see. Anything and everything related to working metal including machining, forging, blacksmithing and foundry work seems to be represented and the fact that it is a working shop makes it even more interesting. If you have never been to the Southwestern Ironworks, it is a must see experience. If you missed the swap meet this year, keep an eye out for next year about the same time. It will be here before you know it.

-Editor



Blacksmithing 101 Class Spring 2015

Murray County Tractor Show Grounds

Host/Instructor: JJ McGill

There were 15 students and one Grandpa for support (forge turner).

Students (non-members):

Jacob Hoppis	Dan Bauer	Sandi Bauer	Brandon Harwell	Greg Skinner
Justin Skinner	Ed Henshaw	Justin Harrold	Vance Heffington	Fred Chittwood
Pam Chittwood	Joe Gorden	Tanner Gorden		

Students (Members):

Cody Morrell Butch Smith

Supporter (Forger canker): Lee Carter

Total: 15 Students, 1 Supporter, 4 of us workers/teachers, Grand Total 20 people for lunch



There were 20 people total for the Blacksmithing 100 class held on Saturday, May 9, 2015. The rain didn't slow us down none at all! There were 15 students that wanted to try their hand at blacksmithing for the first time. First order of the day was to make a pair of quickie tongs. This posed a problem for the first timers (Non Hammer Controllers) that had never worked with hot iron. Hot



punching can be a challenge even for the experienced blacksmith. But everyone got them done and we moved on to S hooks and leaves and finished off the day with combining all the skills and use of their tongs to make a Steak turner.



Several of them ask me if I was going to be teaching 102? I told them I would talk to Byron and Diana and see what came next? I had a great time and I think everyone else did to! A Big "THANK YOU" goes out to all that can and braved the storms to become members and to Byron, Diana, Jim Dyer for assisting me with this be group. I couldn't have done it without you!



A special Thanks goes out to Lee Carter for staying a cranking the blower and tending fire for his grandson and his best friend! I'm looking forward to getting to do things like this someday with my grandkids!

I hope we have gained some great new members from this and look forward to many more days of Happy Hammering with all of you folks!

Thanks Again,
JJ McGill



Travel Back in Time at Muskogee Castle...



Each year starting the first weekend in May and continuing each weekend until the last Sunday in May, the Castle in Muskogee and any whom chance to enter are transported back to a maybe not gentler time but at least a more interesting time in History. This year marks a change in the ruling house with a newly crowned queen. The first weekend in May celebrated the crowning of Queen Elizabeth. The Queen along with her cousin and guards arrived at the castle to usher in the opening of the gates and the beginning of the month long celebration.



The Castle has its usual shops and attractions. There are herb sellers, leather goods, potters and blacksmiths, all there to make your visit enjoyable. You can even buy fresh bread from



the Queens own baker, who pushes a cart throughout the castle harking his wears. If you get tired of walking around the castle grounds you can go inside the castle and sit and take part in the castle politics as the Queen passes down rulings and settles disagreements among the citizens.

You can enjoy the games that take place at the faire or watch the living chess board while enjoying your favorite beverage.



This is a great family event. Children of all ages can learn history and take part if activities. They can dance around the May pole or if they feel really brave, they can attempt the queens quest. This year Donovan Crawford, one of our blacksmiths that take part each year, was in charge of giving the kids their next clue when they came by the blacksmith area. The kids have to answer a question about the chosen subject in order to get their next clue. If they complete the quest in the allotted time they are awarded a prize. It was a kind of scavenger hunt where they had to find different

features around the castle and then earn their clue to the next item.

If you get a chance to go to Muskogee in May next year. Put it on your calendar and check out the Muskogee Castle. It a lot of fun, even if all you are into is people watching. There were a lot of characters running around in medieval times.

See you there...Diana



Demonstrators Wanted:

From: Teresa Burnett <[blessingsxfive@yahoo.com](mailto: blessingsxfive@yahoo.com)>

Date: May 22, 2015 2:59:54 PM CDT

To: "[byrondoner@esok.us](mailto: byrondoner@esok.us)" <[byrondoner@esok.us](mailto: byrondoner@esok.us)>

Subject: Shawnee Trail Days Festival

Greetings!

I am contacting you in regards to an upcoming event in Shawnee called Shawnee Trail Days. It will be on June 20th from 10-5pm.

Would anyone from your organization be available to come to Trail Days to demonstrate blacksmithing?

Last year it was one of the highlights of the event!!

Thank you for your time and consideration!

Teresa Burnett, co-chair
Shawnee Trail Days

Feel free to email or call me at 405-414-9185

Internet Blacksmithing Resources:

I found this video interview with Peter Ross, Master Blacksmith, to be of interest: - Jim C.

http://www.shopwoodworking.com/forging-an-iron-chest-lock-dvd?et_mid=740200&rid=246128905

There is a fairly new website by Victoria Patti from Connecticut called "BlacksmithHER Radio."

<http://www.blacksmithher.com/>

This site has weekly "podcasts" which are radio style interviews with various well known blacksmiths. The interviews are pretty thorough and can be listened to on your PC, Tablet, Smartphone, etc. I tested on interview with Mark Aspery which was very interesting in terms of some of his background and a detailed discussion regarding pricing of his work. - Editor

Every year there is a International Blacksmiths Meeting and blacksmith related art exhibit at the Helfštýn Castle in the Czech Republic. If you are interested contemporary art smithing with some old world styles mixed in you might be interested in this website:

<http://www.feblacksmith.com/albums.htm>

They have photo albums from each year's meeting with photos of some amazing and inspiring work. Even if you are not interested in art smithing, it is impressive to see what can be done. These photos will most likely give you some good ideas. There is no "how-to" shown, just the end result. It is very interesting to think of how some of their work could be done. Some of the files are pretty large so it really helps if you have a high speed internet connection - Editor

Doctor Iron Metal Finish

Submitted by Jim Carothers

This is a formula and Instructions for Doug Henderson's Metal Finish. In the smithing community, Doug was known as Dr. Iron. Pat McCarty used this brush-on finish at the April demo in Haysville, KS for the CSMA:

Doctor Iron Metal Finish - Doug Henderson

Pat McCarty gave the following at LAMA conference in March 2015. The metal coating is to protect metal for about 1 year before recoat is required. The finish is less tacky and attracts less dust.

Ingredients:

1 Quart Boiled Linseed Oil

1 Pint Spar Varnish (used for boat wood-has UV Protection)

Golf Ball Size Beeswax

1 Quart Turpentine

Directions:

Melt Beeswax, Boiled Linseed Oil, and Spar Varnish in Double Boiler in can.

First, the double boiler should have water in it.

Second, place the metal can with the 3 ingredients in water until all melted.

Third, once all melted remove from boiler and add turpentine and stir till all mixed.

Note – makes a little over 2 quarts of metal finish

About the Spar Varnish used in Doug Henderson's Metal Finish: My notes from the CSMA Conference say to use an *oil based* spar varnish and not to use a urethane product.

I found this Grey Seal product at my local home decorating center; it is oil based.

This seems to dry quickly on warm/hot metal and is less tacky than the bee's wax, paste wax, linseed oil, mineral spirits mix I have been using.

I might add a dash of Japan Dryer to it as well; aids in drying quickly.

- Jim C.



Shop Tips - Metal Marking Layout Pencils

The following is an e-mail conversation started by Jim Carothers regarding methods of marking on metal for shop layout work. The conversation extended into shop notebooks and methods as well and then finally was punctuated with some shop humor. I found this to be interesting and informative and all of the participants have given permission to include this in the newsletter. I have done some very minor editing to make the conversation flow and fit in the newsletter format but I couldn't bring myself to edit out ALL of the humor. - Editor

Jim C. - Have any of you tried the Pieh Tools Welder's Pencils?

<http://www.piehtoolco.com>

I've been using a silver Prismacolor or Silver Streak pencil from the welding supply shop and don't like the way the lead breaks easily and wears off / dulls quickly. Possibly I should use an artist's sharpener (short conical point) and not the old school house (long point) sharpener for regular pencils? However, these silver pencils seem to have lead that is pretty soft.

Some smiths use what they call an artist's white chalk pencil for layout work on steel. This then leads to some confusion on my part about the artist's pencils in "chalk" & in "pastel". I am told that the pastels are pretty soft.

I have also been looking at: <http://www.hyatts.com/art/general-white-scribe-all-pencil-Q14122>

Knowing Pieh Tools, I don't think they sell stuff that does not work.

I'd appreciate your comments on what's a really good layout pencil for our steel work.

Any thoughts on sharpeners or point styles?

CJ Allcorn - All I've ever used is what I got from a local office supply store that was around the corner from my shop, downtown and a mechanical pencil similar to an engineer's (alas it drowned in the washing machine and the silver lead goosed up the works). The art silver pencils (I bought several boxes) have an experience similar to what you describe, e.g. soft. They seem to live thru the washings a few times before the lead gets where it slips out of the wood... :-) (I sharpen both ends)

I have better success sharpening on my Kalamazoo belt sander than with a standard pencil sharpener.

Tommy Dean - I use the Permacolor Silver artist pencil, only had one that the "lead" slipped in. I have great use from them, although it is soft and needs sharpening often if you want crisp lines for accurate work....If I want it "dead on" I will use my scribe...but I don't do that detailed of work much anymore! I have "silverstreak" in the flat pieces but they break super easy and more trouble so I don't use them much. One thing I do with my soapstone is wrap with masking tape with a couple wraps at least. If you happen to drop it you don't end up with a kajillion pieces! have done this for 35+years. rarely use a soapstone holder.

Gerald Franklin - I use the silver pencils (wooden) from, I think, Kayne & Son. I usually sharpen them with an old "school house sharpener in the shop. I also use the artist's white charcoal pencils from an art supply house like Hobby Lobby. I sharpen them with a little hand-held sharpener that, I guess, is like the one Jim C. refers to as an artist's sharpener. I believe that the sharpener came with a package of the white charcoal pencils...beware, the pencils (and anything else) from an artists' store are gonna be pricey so be prepared for some sticker shock. Gordon Williams told me that he buys his white charcoal pencils off E-bay and they are much more reasonable.

The grease based silver pencils crumble, melt, and wear down for me just like they do for you guys but I keep using them for layout work that I have plenty of time for. The white charcoal pencils don't melt like the silver ones do but they will crumble under pressure (like this old smith does). They will hold up to mark warm/hot material better than the silver pencils do since they don't melt.

I use soapstone for most things, and like Tommy, I tape mine up so that it doesn't break when I drop it. Also, the tape keeps it from wearing down as fast in my pants pocket. It's usually in the same pocket with change, etc, and the hard stuff tends to erode the softer soapstone. The tape is easier to feel in a pocketfull of change, so I don't have to fumble around trying to find the stone in amongst a bunch of nickels and quarters.

I have seen the re-fillable silver pencils in welding supply stores but I just can't seem to make myself pay \$12-\$13 for a stinkin' pencil that I won't be able to find when I need it. If I use the cheaper versions, I can have several of them lying around so I'm more apt to spot one of them when I need it.

Jim C. - I bought a pair of General Pencil's Scribe-All pencils to try for shop use. At the local Hobby-Lobby a pair cost about \$5 and came with an artist type sharpener.

<http://shop.hobbylobby.com/products/general-pencil-scribe-all-surface-pencils-725051/>

At first I thought they were going to be the answer to what I was looking for – a Markal Silver-Streak Pencil or Prismacolor Silver pencil that would stay sharp and not break.



Shop Tips - Metal Marking Layout Pencils (Continued...)

Right out of the package the white Scribe-All's marked steel well and seemed to have a pretty tough tip. The artist type sharpener put a short conical point on the pencil for good support – not like an old school house wall mounted sharpener – long thin unsupported point. However, the results the next day were like using a wet soggy crayon for layout lines. The package says the Generals are “water soluble”. They are also hydroscopic – that means they absorb moisture from the air. It has been pretty wet lately. Scribe-All gets **no** *’s from me for shop use.

So after all this discussion, etc. I ordered the Welder's Silver Pencil from Pieh Tools. They are not here yet, so I cannot tell you how they work for me. But according to Randy at Pieh Tools, they sell 1000's of these pencils.

Knowing Pieh and their reputation for quality, I ordered as many pencils as they could get in the least expensive (small) USPS flat rate box. That quantity is about 30 pencils; shipping was less than \$8.

Like Tommy Dean, I wrap all my soapstone. Sometimes I use blue painters tape; sometimes I paint the standard tape red or some other bright color so I can find it. Thought I invented this – LOL.



Gerald Franklin - One note further on the taping of the soapstone: I first heard the process attributed to Francis Whitaker. I don't know where I heard it. I thought I had read it in Francis' book "The Blacksmith's Cookbook" but I just leafed through the book and can't find it. There are many tips and processes attributed to Francis that didn't make it into his book. *(Update - It turns out that this tip is on page 28 of "A Blacksmith's Craft - The Legacy of Francis Whitaker" By George Dixon, Blue Moon Press, Copyright 2004. This is follow up to the original cookbook and is loaded with really good information. - Editor)*

CJ Allcorn - oh, one other comment I have discovered w/ the pencils I use...As I said in my few lines, I sharpen them w/ my belt grinder. This allows a very fine point. (My pencil sharpener is older than I am!) But I also have several pencils that I have sharpened both ends. I have discovered that the "lead", if you can call it that, is so soft that after a while it will become loose in the wood and slide back and forth. So I have quit sharpening both ends, just have several pencils laying around.

Jim C - The Pieh Tools pencils arrived today and after one afternoon's use I am sold on these as being better for my use than other "Silver Pencils." The lead is definitely harder than anything I have used before; it wears longer and produces a nice sharp line. I have not tired it with the cutting torch, but the line is supposed to "illuminate" according to the description.



To make a comparison to the hardness of school house pencils (normal being a No. 2), I'd say the Pieh pencil is like a No. 2-3/4. I'm staying with the small conical point sharpener too.

Tommy Dean - Good to know about the Pieh Tools pencils, may have to try one sometime. Thanks Jim! A little tip on sharpening soapstone.... I use a file to sharpen my soapstone. Yes, you can use a pocket knife (the stone will dull the knife) or you can use a grinder, (blows dust everywhere). So I have a piece of an old file welded to one leg of my table, it's always there, and that is the **ONLY** thing I don't have to hunt for when needed.

Gerald Franklin - now that's a good idea. I have plenty of old files around here that are surely sharp enough to cut soapstone. Thanks for the tip.

Jim C. - Kids pencil sharpener 55 cents at the local Dollar General store...

Gerald Franklin - I don't write notes with a pen in my notebook; I use a pencil. When I go places like conferences, etc where I need my notebook, I carry extra pencils in a travel toothbrush case (plastic). There's room for a couple of spare pencils and the case will hold a small pencil sharpener like Jim C. sent us a picture of (the little aluminum "artist's type"). It fits into the toothbrush case along with the pencils.



Shop Tips - Metal Marking Layout Pencils (Continued...)

Gerald Franklin - OK, so I went out to the shop to find my toothbrush/pencil case to show you. Bad move...the shop is not in shape yet to find small items. After about three trips around the shop (and one to the garage), I found it. Pics attached.

I also attached pics of my notebook. I carry my "main" pencil (with big eraser) in the spiral of the notebook with the backups and sharpener in the toothbrush case. I am not really fond of spiral notebooks, I'd rather use bound ones, but these are always available at Wal-Mart so if I'm on the road and need a replacement, I can usually find one that will match up with my others.

I like the cross-ruled pages, too. These books have 100 pages, which I number. I also number the books (this one is number 6). Someday, maybe I'll be able to sit down long enough to make a cross-referenced index for the multiple volumes so that I can find all similar notes (e.g. tongs or trammels) without leafing thru multiple volumes.

CJ Allcorn - Another thing for you to do when you get time (ha!) (but this really works) Scan all your books in page order (of course you would have to take the pages out) to a PDF document. You could then set up a TOC (table of contents) that is searchable or "hot keyed" so that just clicking the mouse on that page/item would take you to it.

If the document is such that it is searchable, (I haven't done this with a PDF but have w/Word and Excel) you can enter a word or phrase in the search function and the program will instantly find all instances of that word/phrase and, saying you had 12 results, clicking on the little search arrow, the program will find each instance and highlight it for you. Just be sure you don't use too general a term or it will find too much stuff to be useful.

I have a couple of documents which are personal business organizers, one in word the other in Excel, that I use this way multiple times a week and it is really a lot quicker than trying to look thru the printer version. (Of course, Cindy can't do this and relies on the manual method which is a bummer.) Not really much of a learning curve if you have a scanner with a document feeder. And if you used both sides of the pages for your notes, scanners (like mine) will scan both sides at the one pass, so that speeds things up. Kinkos or any large office store should be able to do this for you too for a minimal charge. They can put it on a snap drive (USB drive) and you can move it around between computers. You can even share w/ friends or publishers such as SF or other newsletters and if in PDF they can't alter the document if preferences are set that way.

Just be sure to keep it in a safe location, preferably away from magnetic things and lots of heat. An extra copy or two is a good idea too.

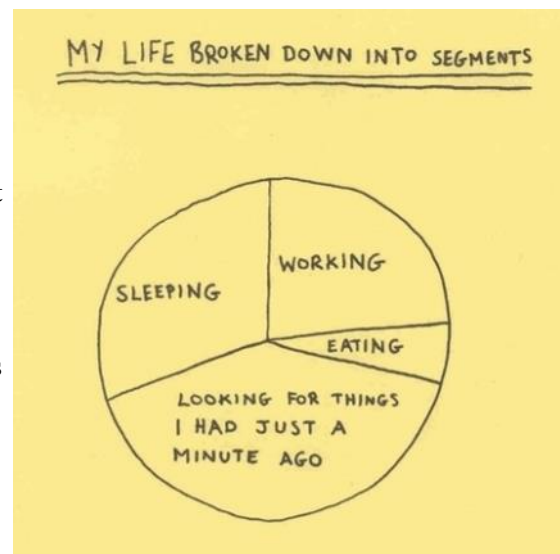
I would like to do that for my ideas, but alas, I can't DRAW! Frustrating as all get out!

Jim C - You have trouble finding things in your shop? Possibly the attached graph will explain how it is with me. Amazing that I could find the file...

Gerald Franklin - Having recently moved my shop to Norman, I can relate to the graph. I'd have to modify it to fit my specific case and add a slice to include the time worrying that I'm goin' nuts because I can't find stuff.

Tommy Dean - You see that small slice called "eating"? Well, that is the slice that contains "sleeping, working, and eating" ALL the rest is "Looking for things I had just a minute ago." The little piece of file is the exception.....cause it's welded to my welding table!! But heck, I just CAN'T weld EVERYTHING to my table!!

Gerald Franklin - And here's something else to ponder: "If the No 2 pencil is the most popular pencil to write with, why isn't it No 1?"



(One final thought on using the pencils or even the round version of soapstone that was not mentioned is the technique. This may be common knowledge but I learned in manual drafting (quite some time ago) when using pencils along a straight edge to rotate the pencil while drawing the line. This keeps the point symmetrical and gives the most accurate layout while keeping the point as "sharp" as possible slightly longer. - Editor).

Fruit Bowl w/ Banana Hanger

Demonstration by Tim Carr, a MABA member
Write-up and photographs by Steven Sporre



Techniques used – Cutting on the hardie, Slitting with a chisel, Drawing a taper, Punching a square hole, Upsetting (rivet heads)

Parts List

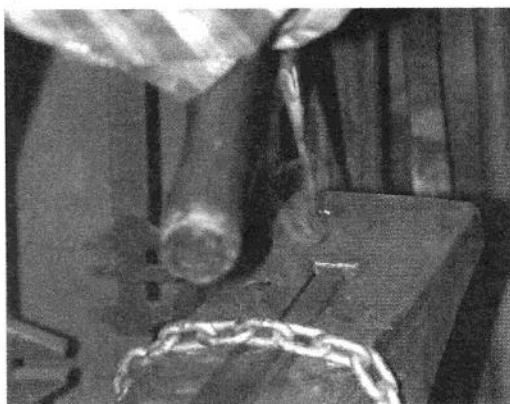
- 2 - Short legs
- 1 - Leg/Banana hanger
- 1 - Ring
- 3 - Square rivets

Special Tools

- 1/4" Square punch
- 1/4" Square heading tool
- Punch release
- Large radius fuller

Short Legs

On a 23" length of 1/4" x 1" flat stock, place a "cut line" mark 4-1/2" from the end with a cold chisel. Heat the end and slit the bar from one side, part way through the stock thickness, for 3".



Because Tim usually works alone, he used a chain hold-down to hold the flat stock against the anvil face. The hold-down is a length of chain with one end hooked to the anvil stand and the other end attached to a length of board.

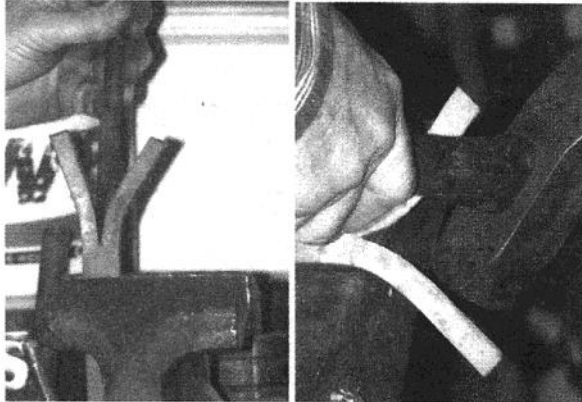


The chains length is such, that when it lays over the anvil, the end attached to the board is several inches above the shop floor. By stepping on the board, Tim tightens the chain lying over the stock on the anvil, holding it securely in place.

Put a cutting plate on the anvil face and finish slitting through the stock. The cutting plate Tim made has a hardie stem welded on the bottom and has saw cuts every inch on the topside for a quick and easy length reference.



Once the end is split through, put it in the vise and spread the legs enough to reach the base of the split with a chisel. Square up the bottom of the split with the chisel then go back to the anvil and spread the legs farther apart.



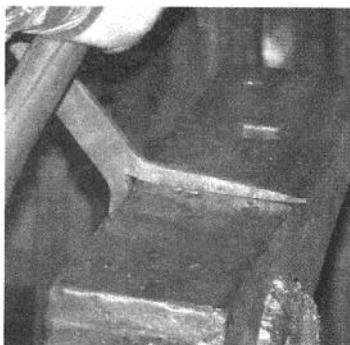
Drive the split into the corner of the anvil and straighten the legs so they are 90 degrees apart.



This allows access to the split edges, sets up the legs for the final shape and is also an easy way to check the length of the drawn taper – either by proximity to the far edge of the anvil or to a chalk/soapstone mark put on the side of the anvil.

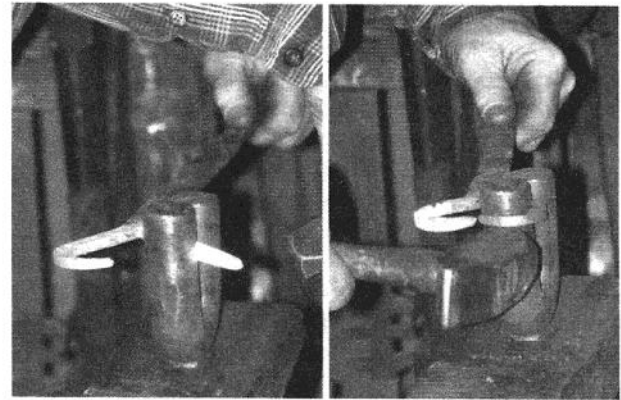


Slitting leaves a bevel and a sharp/torn edge along the inside of the legs. With a hammer, flatten the bevel and break the corners of both legs.

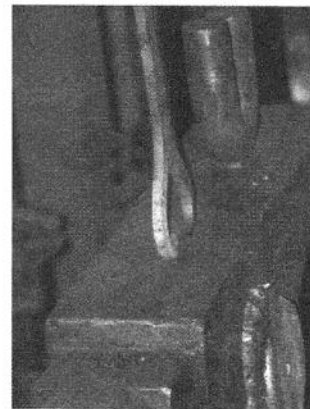


Draw a taper on both legs – Tim noted he drew them out to about 3/8" beyond the far edge of his anvil, and he repeated this for the rest.

For curve/shape consistency, a bending fork mounted in the hardie hole is used as a forming jig. Bend the tapers towards each other to create a heart shape.



(As can be seen, Tim used a large diameter bending fork – a smaller diameter fork with a short piece of pipe, of the desired forming diameter, over one leg would also work as a forming jig. The curves could also be made over the anvils horn or in a vise mounted jig.)



While still at a red heat, place both curves of the heart on the anvil face and check for side-to-side perpendicularity. Do this by looking to see if the parent stock above the heart is perpendicular to the anvil face (it doesn't matter if the stock leans towards or away from you).

If it is not, straighten the parent stock to vertical, causing one of the heart curves is lifted off the anvil face. Tap on the end of the stock with a hammer, which will drive the curve resting on the anvil into the heart until the other curve also touches the anvils face. This procedure is lining up the two curves on the heart so later all 6 contact points of the finished project will be in the same plane.

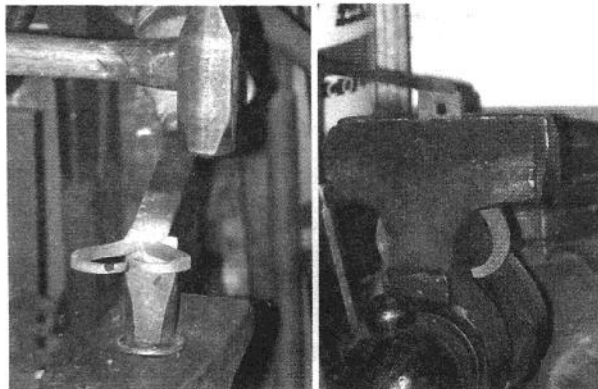


Punch a square hole, centered on the 1" face and its edge 3/8" from the marked "cut line". Make an initial light impression, check for alignment and correct if necessary. Dip the punch into punch release and drive the punch into the stock until there is resistance (the punch release helps prevent the punch from

sticking in the hole – bees wax, coal dust, commercial products or shop recipes - like a mixture of bees wax & hoof pack can be used). Turn the stock over, placing the dark spot (the cooled area at the bottom of the partially punched hole) over the anvils pritchel hole, apply more punch release and punch through the stock. (*Editors safety note – Locate and pick up the punch slug or “biscuit” that comes out of the hole and place it in the slack tub or under the forge so it won’t accidentally burn anyone. These small, hot pieces, when not retrieved and disposed of properly are where the old expression “biscuits are the bane of bare foot boys” comes from.*)

Flatten and square up the stock around the punched hole. Try to pass the rivet stock through the hole and resize the hole with the punch or a file if necessary.

With a cut-off hardie in the anvil, partially cut through the parent stock at the marked “cut line”.



Clamp the nearly cut through leg in the vise, separate it from the parent stock by bending, then file the cut/broke edge so there are no sharp corners. Wire brush the scale off the leg and clean as needed.

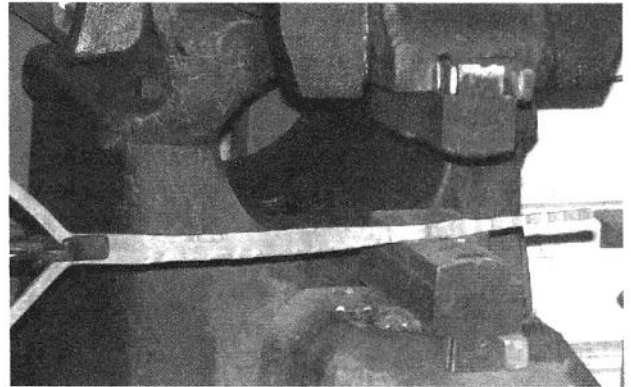
Repeat the process for the second leg. When it’s time to punch the square hole, place the first leg over the second, aligning the cut edge with the new “cut line” mark, and use the square hole in the first leg to locate the hole in the second.

Leg/Banana hanger

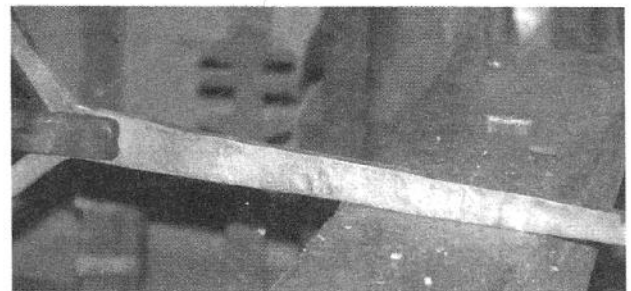
The remaining stock length should be 14” long. Follow the same procedure as for the short legs up to the point of forming the heart shape with the bending fork. By stopping here, the piece is easier to hold with tongs while drawing the banana hanger taper. Let the piece air cool – if the material is A36 or a higher carbon steel and is quenched, it may become brittle and crack during forming later.

Starting about 1-1/2” from the end of the split, draw a long taper (from 1” down to 3/16” over a length of 15-1/2”) for the banana hanger. To speed up the

demonstration, Tim used his 75 pound Bradley to rough out the taper,



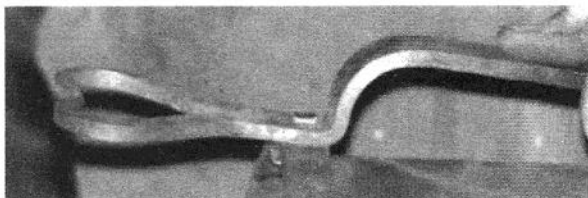
then finished it at the anvil.



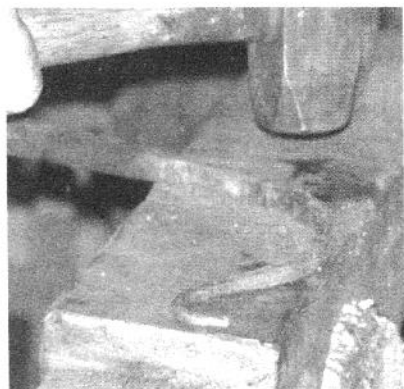
Round up the last 2 inches of the taper and remove any sharp edges at the end. Don’t make a sharp point - this is where the bananas are hung and removed from so it has the greatest chance of coming in contact with someone’s hand.

Let the tapered end air cool slowly because the hook and arch will be shaped later and it may become brittle if quenched. The rivets can be worked on while it cools. After the piece has cooled, finish forming the leg curves on the bending fork, like the other two legs, and wire brush the scale off. Punch the square hole into the leg, again using one of the short legs as a positioning guide. Flatten, straighten and check to see if the rivet stock will pass easily through the punched hole. Resize or file the hole if necessary.

Because the banana hanger and leg are made from the same piece and riveted to the bowl ring, an offset is added above the rivet so the fruit bowls rim will have clearance to the banana hanger when it sits in the ring. Heat the area above the rivet hole then clamp the piece vertically in the vise with the rivet hole about 3/8” below the jaws. Using a large radius fuller (so the material doesn’t get nicked or dinged up) hit the hanger material a couple of inches above the vise jaws, driving it away from you and down, while holding the end of the hanger in the vertical position with your other hand. This creates the offset pictured. The amount of offset needed will depend on the size of the fruit bowl.



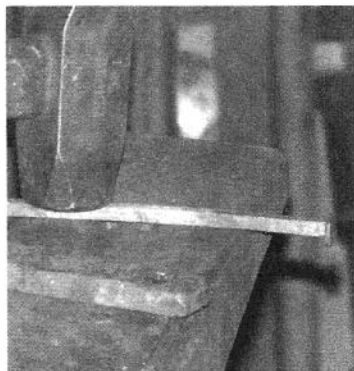
Set aside and let cool before forming the banana hangers hook and arch.



Form the banana hook at the end of the hanger over the tip of the anvil horn, curve it away from the offset then arch the hook over the offset.

Rivets

Upset a convenient length of 1/4" square stock in the vise. Let 2 time the thickness (1/2" in the case) stick out from the vise. After upsetting, place the stock into a 1/4" heading tool, shape the head as desired and clean up.



Repeat 2 more times.

After heading the rivets and all the other pieces are made, determine the length of the rivets by adding together all the stock thicknesses the rivet will pass through plus 1-1/2 times the rivet material thickness (for the other head). The rivet that will pass through the rings lap joint may need to be longer than the other two.



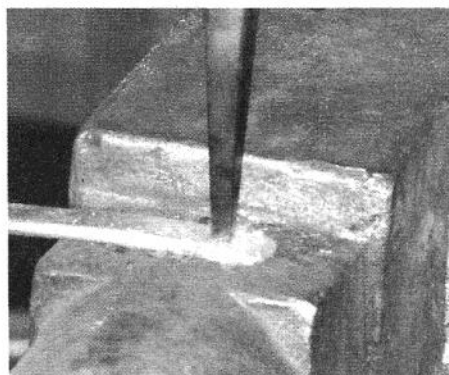
Cut the rivet from the parent stock, at the determined length, with a hardie tool.

Ring

The ring will be between 8" and 9" in diameter, its ends will overlap an inch or so and a square rivet will secure the leg/banana hanger to the ring at the overlapped area. To minimize the thickness in the overlap area, both ends of the stock will be tapered for about an inch.

Start with a piece of flat stock 3/4" x 3/16" x 27-3/4" long for the ring. The three legs are equally spaced so measure 9-1/4" in from each end and put a center punch mark for the location of the two square holes needed to mount the short legs. Two more square holes are going to be punched 1/2" in from each end after the tapers are created. All the holes will need to be centered in the stocks width and parallel to the stocks edge so the ring will be flat and the legs will attach squarely.

To start the taper, heat one end of the stock, place it on edge on the anvil face and hammer in the corners – this will keep the material from spreading beyond the stocks original width as the taper is created on the end. Draw a short taper, about an inch long, on the end of the stock, maintaining the 3/4" stock width.



Punch a square hole in the taper, 1/2" from the edge, centered on and parallel with the stocks face.

Punch the next hole in from the end and check both holes with the rivet stock for size. Let the piece cool down slowly because it's easier to work the piece by holding it with your hand than with a pair of tongs. Do not quench the material because as the ring is formed later, it may crack near the holes or may be not bend evenly. When cool, flip the stock end for end and repeat the punching process. Again, check the holes for size, correct if necessary then let it cool slowly.



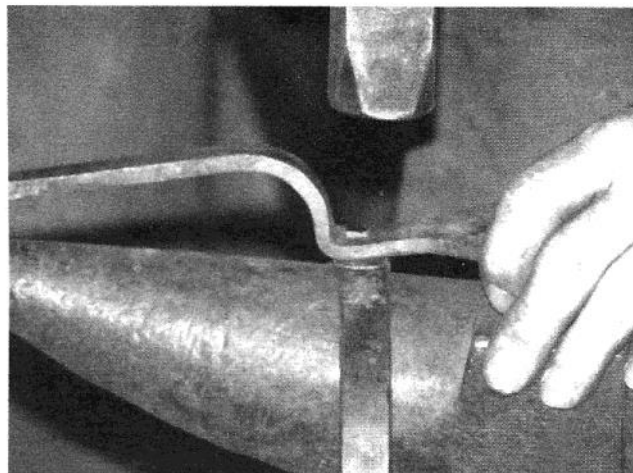
Form the ring in the bending fork at the anvil,



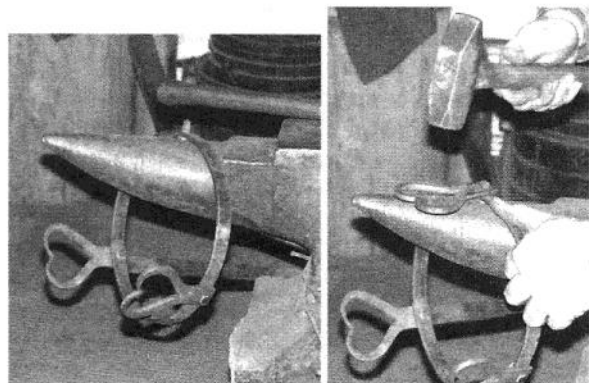
working from both ends until the ring is closed and flat.

Assembly

It's easiest to form the rivet heads on the outside of the ring so align the ring holes in the overlap area, pass the longer rivet through the holes from the inside of the ring and slip the leg/banana hanger over the rivet with the offset away from the ring.



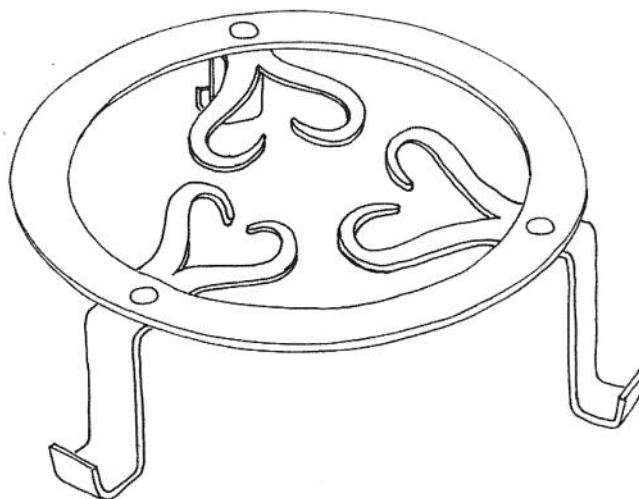
Repeat the process for the two short legs, each time confirming the legs are all on the same side of the ring.



Check that it sits well on a flat surface and make any minor adjustments at this time.

Apply the final finish.♥

This 1/2 page article reprinted from the N.C. ABANA, The Hot Iron Sparkle Vol. 14, No. 6 -it is edited for space-



Heart Trivet

This trivet is made entirely from the same dimension stock: 3/4" x 1/4". The ring is made from 27" of stock, and each of the three legs require 10" of stock.

The first job is to bend the ring and weld it. Of course edge bends are not easy, but with good heat (bright orange to yellow), they are not too bad. This job is made easier if you have an appropriate size piece of pipe to bend around or a cone mandrel to true up the circle when completed. You'll find it easier to forge the weld scarfs before bending, remembering to turn one, one way and the other the opposite way. This is not a difficult forge weld, because the metal stays where you want it until welded. Be sure to clean the area to be welded thoroughly, before taking a welding heat.

Once the ring is complete you can start on the legs. You begin by splitting about three inches of one end of the leg right down the middle. There are several ways to cut the material. An easy way if you have a band saw is to make a three inch saw cut down the middle. There are two ways to use a hot cut to split the material. One is to lay the hot iron on a cutting plate on the anvil and cut. This usually requires the use of a "hold down" of some type. However, I prefer to use the method I learned from Peter Ross, which is to put the stock in the vise with about one inch of the end sticking up, and cut straight down. It will take about three heats to do it this way, one inch at a time.

After you have split the end of the stock, you make a convenience bend to get one of the sides out of the way, and proceed to draw it out to a point. Then bend the pointed side out of the way and straighten the other side and draw it out to a point. It helps if you mark the length of the first point on your anvil so you can draw out the second one to match it. When you have both sides drawn out to equal length, you shape the heart over the tip of the horn or a round bick. You'll be surprised at how easy this is! Obviously the above procedure is repeated two more times to get the three legs required.

Once the hearts have been formed you need to make the necessary bends in the legs. (See drawing) Drill or punch for rivets to attach the legs to the underside of the ring, being careful to divide the ring into three equal sections. Countersink the holes in the ring so that the rivet will not stick up above the surface of the ring.

Use your own judgment on the length of the leg and the shape of the foot. The dimensions given produce a trivet that is about 4 1/2" tall.

This project is fun; try, it! BTS

Shop Tip

Making a Simple Bender

By Bob Ehrenberger

A couple years ago, I had a friend lose the handle to her violin case. She had sent it off, with all the rest of the hardware, to get it brass plated, and the plating company lost it. They needed a replacement and it had to match the original. It needed to be made out of 1/8" round stock with four sharp bends. Pretty simple, right. Wrong, when I bent it in the Hossfeld bender the radius on the bends was way too big. When I tried to clamp it in the vice and bend it over with a hammer, there were marks on the piece from both the vice and the hammer.

What I needed was a miniature bender that would make tight bends in light stock and not leave marks. The solution was simple. I drilled several 5/16" holes in a piece of 1-1/2" x 1-1/2" x 1/4" angle iron. I then drilled a series of holes in the end of a 5/16" x 3/4" flat bar. I rounded off the end of the bar to reduce the clearance required. I cut

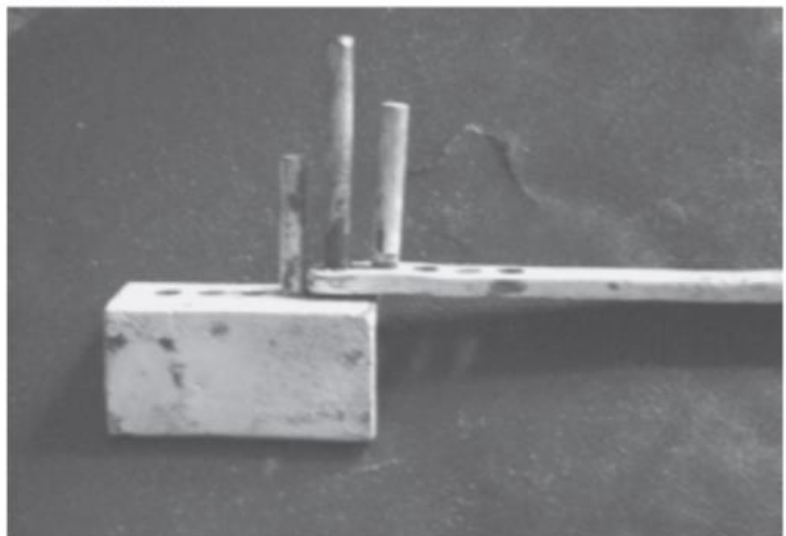
3 short pieces of 5/16" round stock and I was done. The first set of holes were too far apart for the 1/8" stock, so I ended up drilling the opposite end of the bar, with the first hole real close to the pivot hole. The bender worked nicely and I was able to make the violin case handle in no time.

Since then, I have used my little bender on a regular basis for all kinds of bending operations. It can handle up to 1/4" cold and 5/16" hot. I have discovered that I really only needed one position for the pins, since by the time you get to where you needed to move the pins for clearance, the bender was not heavy enough for the job any way. When I tried to skip a hole and put the pin in the next one, it was too far out. So I use one end of the bar for 1/8" and 3/16" and the other end for 1/4" and 5/16" stock.

You could probably scale this up using a larger angle iron and a larger bar for the handle. It wouldn't be as good as a Hossfeld, but it would be portable and really cheap.



Bender parts, handle, base, three pins



You could make this bender in 15 minutes, from scrap lying around your shop.

Article supplied by Tim Metz:

Claying Forges: Coal Forge Linings

Many old forges had "clay before using" stamped or cast into the bottom. The reason for this varies and there are no manufacturer's instructions they explain exactly what they wanted. Claying does not apply to heavy cast firepots, just the surrounding forge pan.

Reasons to line a metal forge with refractory material or clay.

1. The manufacturer said so to make the forge more durable and avoid warranty problems.
2. To create a better shape "pot" in a flat bottomed forge.
3. To protect thin sheet metal pans from burn out.
4. To protect thin cast iron pans from thermal shock.

Reasons NOT to line a metal forge.

1. May serve no purpose.
2. Makes the forge heavy (portable becomes NON-portable).
3. Can accelerate rust due to trapped moisture in damp environments
4. May make the forge more difficult to use.

The first reason to line a forge may be valid if the forge is used very heavily but it had been demonstrated over and over that unless you build a HUGE fire that forges generally do not need refractory linings. The manufacturer avoiding any possible warranty problem is a greater possibility.

The second reason, to make a better "pot" may be valid and is the ONLY situation where I have seen a manufacturer's diagram. This was in a flat bottomed sheet metal forge with a flat or shallow fire pot or tuyere. The clay was shown as a ring around the joint between the sheet metal and the tuyere. It formed a raised enclosure of maybe two inches with sloping sides to create a "firepot". This would help increase the controllability of the forge by keeping the fire concentrated in the middle of the forge. This makes a hotter fire and saves fuel. The reasons not to line a forge are self-explanatory. Many forges are used without lining and work well. Forges stored outside will rust rapidly due to the acidic coal ash unless cleaned very clean after every use.

The Clay

The clay used can be fireclay or common clay. It can be a commercial product or dug from a clay bed or even your backyard depending on where you live. The bottoms of small metal forges do not get so hot that they need refractory clays. Common red clay like they make bricks from will work fine. If using plain clay it needs to be worked up like modeling clay. Mix as stiff as possible and then work on a plaster slab "bat" or "vat" to absorb moisture as it is made smooth and pliable. It's the extra moisture that causes the cracking. Some cracks are inevitable. Cement is not necessary for claying a forge. When it is used add about 10% portland cement. If you are going to use a sand cement mix you should consider a castable refractory cement. It is overkill but it is very durable in this application.

Recipes and Methods

The mix I used (based on my **grandpa's recipe**) was 3 parts mortar, 3 parts clean sand, 1 part fire clay, 1 part dry lime. I mixed it, poured in the hearth to a depth that was flush to the top of the firepot and raked it smooth, then sprayed only enough water on it until the surface was wet. I let sit two days before making a fire and it had hardened nicely with no visible cracks anywhere. I think the minimal amount of water helps eliminate the cracking. – H. Wooldridge REFRACTORY.

Here's the do-it-yourself castable refractory/mix from **Jim Lindsay**: 4 parts premixed concrete (includes the cement and is very lean), 4 parts fire clay (available at masonry suppliers), 1 part vermiculite (available garden suppliers). Mix dry first, then mix with as little water as possible making a "stiff" almost dry mix. Compact into place. Be sure to let dry (as long as possible, several days - week) and bring up the heat slowly on first use. The vermiculite is a good insulator, it withstands high temperatures, adds porosity, and doesn't absorb a lot of water so the mix shrinks less than it would otherwise.

guru Friday, 10/15/99 05:10:00 GMT Coal Forge linings, revisited:

By clay, they mean clay of any type but preferably clay with plasticity like good potters or artist's clay. These workup stiff and harden without cracking severely. A refractory clay or mixture is slightly better but you do not need refractory temperature material for claying a forge. Clay suitable for making bricks is also suitable. It does it need to be a refractory cement or cement bonded clay. The only manufacturer's diagram I have seen of claying a forge showed a ring at the joint between the flat bottomed forge and the flush fire grate. The ring created a "duck's nest" or shallow fire pot. This would help control the fire and partially substitute for a heavy cast iron fire pot such as the better forges came with.

Other shallow cast pans that had "Clay Before Using" cast into them probably wanted the clay as an insulating layer to reduce thermal shock to the cast iron. A uniform layer of clay about 1/2" - 3/4" (13 to 19 mm) thick would suffice. Many folks use a mixture of clay and refractory cement or castable refractory cement, OR clay and Portland cement to line their forges. This must be done carefully and with thought. Adding a layer of refractory to a forge pan makes it VERY heavy and what was semi portable is no longer portable. If the refractory is too deep the reserve volume for fuel is lost. In forges without firepots a deep layer of refractory can help form a firepot but only if the shape is correct. As noted above it could be a simple ring around the fire grate and a thin layer beyond.

Heavily cementing a forge makes maintenance very difficult. Tuyere and grate bolts rust rapidly enough and occasionally need attention. If buried under a thick layer of cement this may be difficult or require removal of the cement. Less permanent clay may have advantages in this case. Castable refractory is a lean mixture of refractory aggregates (usually synthetic mullite), refractory clay and a high temperature cement. The cement only holds things together long enough for the dried mix to be fired and become calcined and partially vitrified. Castable refractories are never as strong as fired refractories (brick). Unless castable is cured or fired through at high temperature the result is a very weak refractory.

Indiana Blacksmithing Association - The Forge Fire Newsletter - July 2011

Mixes of clay with a small portion of Portland cement are probably better for claying forges than castable refractory due to the strength issue (as well as cost). Coal forge pans rarely get to the temperature needed to cure refractory cement and then only on spots near the tuyere. When claying OR cementing a forge the refractory/clay mix should be made as dry (stiff) as possible to prevent excessive shrinkage. Refractory clays are those with alumina and are generally tan or white. The higher the percentage of alumina the higher the temperature rating but also the higher the firing temperature. When cements are used, high

alumina clays are overkill because the cement will not withstand as high a temperature as the refractory. Pressed or welded steel pans do not need to be clayed and are best used as-is. Heavy cast iron pans with heavier fire pots also do not need to be clayed. The bed of fuel provides sufficient insulation in most cases. Even thin walled cast iron forges hold up well without claying if they are used for light work and a sufficient fuel bed insulates the forge.

Note that many old HD forges had the firepot set very low in a forge pan 6 to 8" (150 to 200mm) deep for very deep fires intended for heavy work. It is often beneficial to raise the fire pot a brick's depth (about 2-1/2" or 64mm) by using bricks to line the forge pan. This leaves a sufficient coal reserve and raises the hot spot to very near the bottom of the side cut out in the forge. This allows heating long slender bars to welding heat in a fairly efficient fire. Some modern forge makers just mount the fire pot in a flat surface and use the fuel bed to adjust the work height. The down side of this is reduced coal reserve.

Note that forges stored outdoors will accumulate corrosive water that has picked up acid by passing through the coal ashore alkali from wood or charcoal ash. This moisture trapped under the clay will cause severe corrosion. Forges kept outdoors should not be clayed or bricked and should have all the fuel and ashes cleaned out between uses. Editor's Note: Refractory Engineers, Inc. (REI) is an Indianapolis based supplier of refractory materials. 1750 Midwest Blvd. Indianapolis, IN 46214 Phone: 317-273-2000 (800-522-6696) Fax: 317-273-2015 <http://refractoryeng.com/>

Angle Iron Plants

David Bridenbaugh

Here is another idea to use short pieces of angle iron. The angle iron is hammered flat and then each leg is curved using the hardy tool. The corner of the angle iron becomes the vein of the plant. It was not obvious if it would look better with the vein up or down so I tried it up. Grind a smooth curve on the end of each piece and weld to a short length of rebar. The rebar can be sharpened to stick in the ground or glued into a rock.



Reprinted courtesy of the Arizona Artist Blacksmith Association "Anvil's Horn" Newsletter July 2014.

Climbing Vine with Leaves - A Forging Idea

The forging problem considered here is how to make a climbing vine with leaves along its length. One solution is to make the vine and a number of individual leaves, and then weld them on. This has its risks, especially if you're not expert at forge welding.

An alternative approach is to make the vine and leaves as one piece, cut from rectangular stock. I've been using stock about 1-inch by 1/4-inch. The accompanying sketches and pictures show the progress on a design element meant to have five leaves, plus one rolled into a bud, on one vine.

The stock is laid out cold as shown in sketch #1, first with pencil, and then with cold chiseling. The marks need to be deep enough to find them when hot. The cuts on the layout lines may be made with a small, sharp, hot cut chisel. As an alternative, the cuts may be made cold with a hacksaw to the extent that there is access. The piece is then heated at the end, and unfolded gently as in sketch #2. As the piece is unfolded, there will be access to make the next saw cut (after cooling it again). I've done it both ways: the cold sawing is precise but requires many heating and cooling cycles, the hot cutting requires a small, sharp chisel to get into every cut location before unfolding. For small work, this also requires a number of heats and care to keep the chisel cool.

With either hot- or cold-cutting, the biggest caution is to avoid overlapping the cuts in the corners. A small tear in the corner will grow into a crack as the forging progresses. Preventing this is by far the biggest problem I've had with this technique. Solutions include: 1) only forge with a good heat, 2) grind/file out cracks as soon as they appear, 3) round out all sharp corners first. I haven't yet tried drilling small holes at each inside corner in the layout, but this might also relieve the sharp corners.

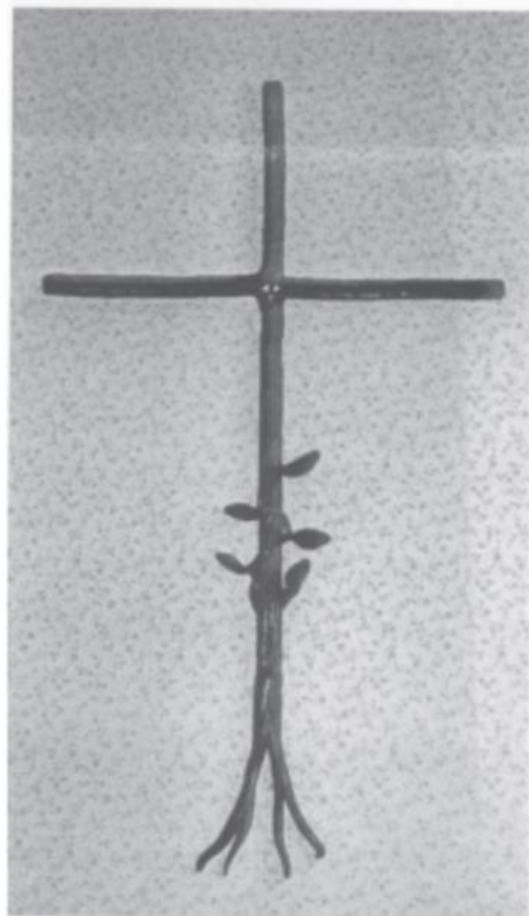
The vine is progressively cut out and unrolled as indicated in sketch #3. When the entire vine is unfolded, then work from one end to the other, forging the leaves and the stems. The diamond shaped leaf blanks can be brought to the anvil to hammer in the two corners on the sides (sketch #4). The leaf blank is then spread sideways with the hammer peen, and textured to suit. The stems are rounded and textured. A systematic pat-

tern of convenience bends, first to the left, and then to the right, will give access to each leaf in turn.

I've made three vines with 5-6 leaves so far. In two cases, the crack that tried to ruin the project occurred in the middle stem of the vine at a sharp corner. This seems to happen when working the leaf immediately adjacent, and the flawed area is not fully hot, nor cold. In one case, I resorted to a repair with the stick welder (which was then hammered out). The third attempt went well because I kept a good heat, and it showed that the technique is quite doable. It is a test of your carefulness in forging.

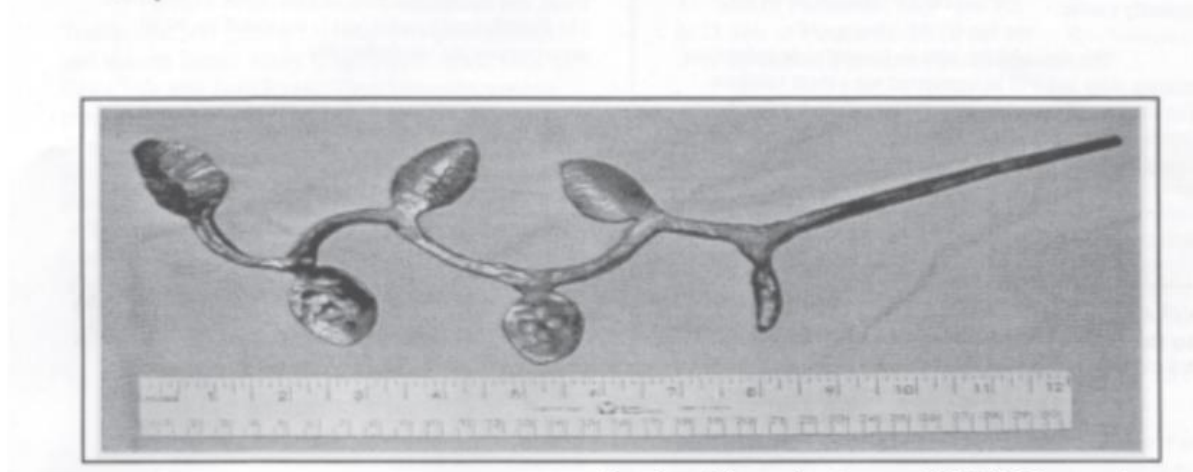
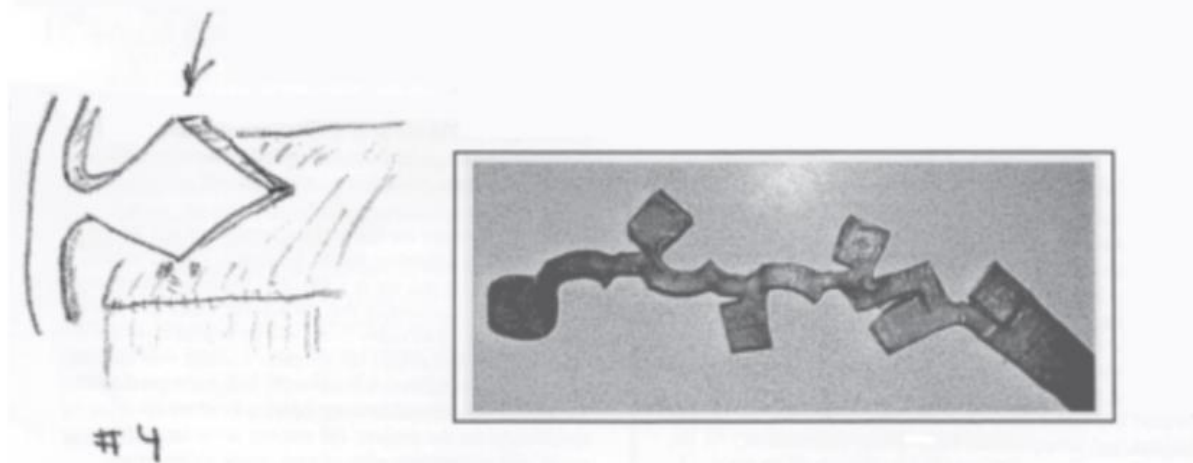
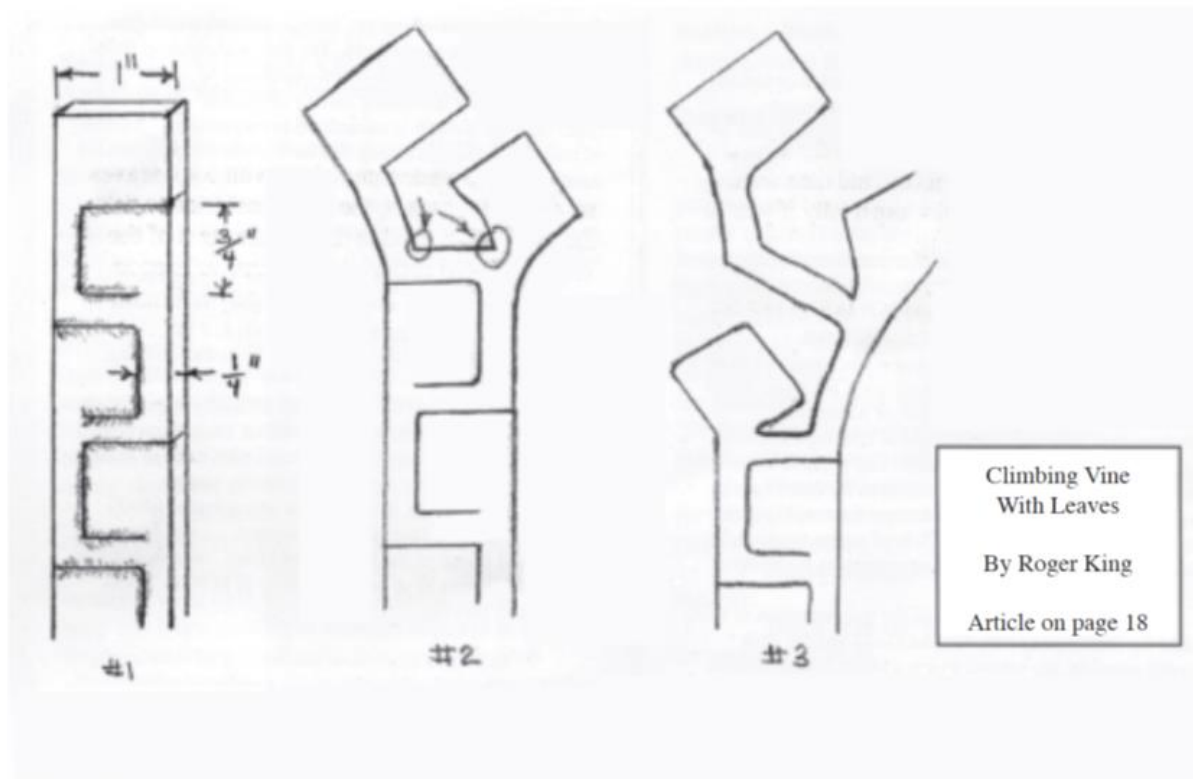
Roger King

Below - The five-leaf vine was used as a design element in the cross below.



Reprinted from the August 2007 NOB Newsletter

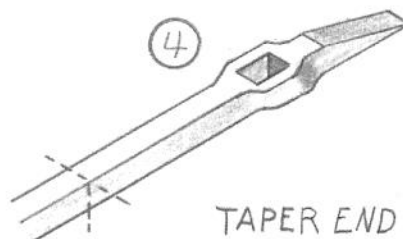
NEWSLETTER of the BLACKSMITHS ASSOCIATION OF MISSOURI



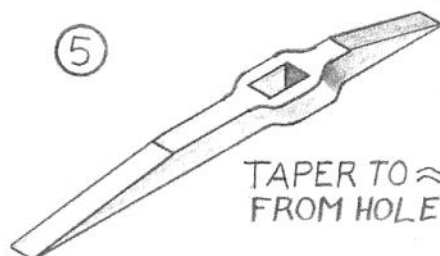
Reprinted from the August 2007 NOB newsletter

Adjustable Tong Clip

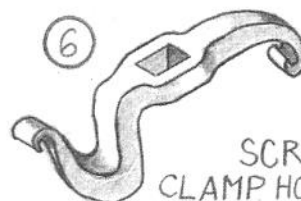
By Nate Pressel
a MABA member



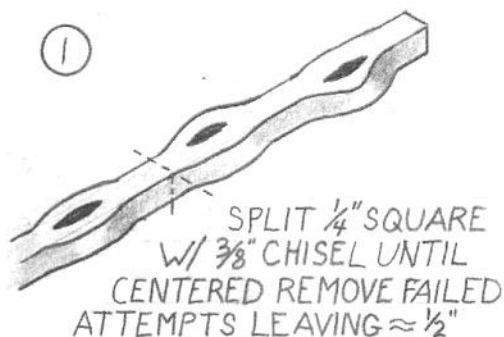
TAPER END $\approx 1\frac{1}{4}$ " LONG
CUT OFF ≈ 1 " FROM HOLE



TAPER TO ≈ 2 "
FROM HOLE



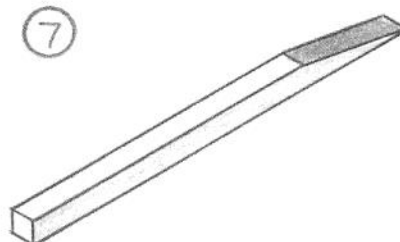
SCROLL BOTH ENDS
CLAMP HOLE IN VISE TO CURL
HOOK AND THUMB RELEASE



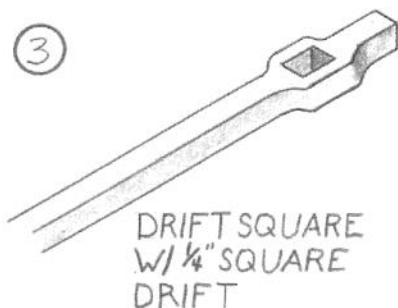
SPLIT $\frac{1}{4}$ " SQUARE
W/ $\frac{3}{8}$ " CHISEL UNTIL
CENTERED REMOVE FAILED
ATTEMPTS LEAVING $\approx \frac{1}{2}$ "



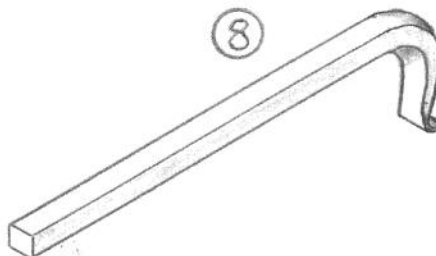
DRIFT W/ $\frac{1}{4}$ " DRIFT



PART 2: TAPER $\frac{1}{4}$ "
SQUARE TO $1\frac{1}{4}$ " CUT
TOTAL LENGTH TO 5-6"



DRIFT SQUARE
W/ $\frac{1}{4}$ " SQUARE
DRIFT



SCROLL END AND BEND 1" OVER
PAST 90°, FILE FIT HOLE, ASSEMBLE,
PEEN END AND CURVE OF PART 2.

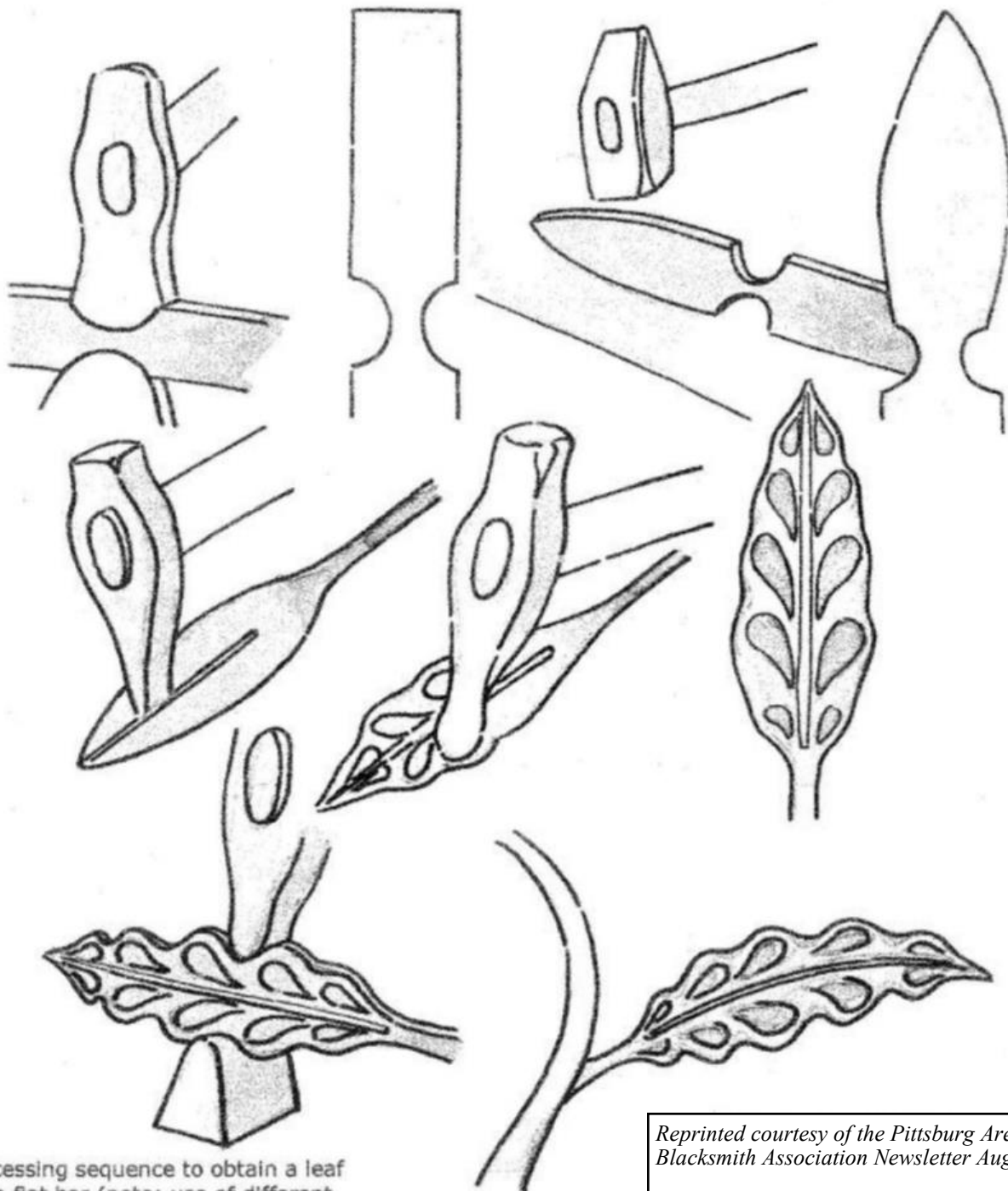
Reprinted courtesy of the Michigan Artist Blacksmith
Association "The Upsetter" Newsletter Jan/Feb 2009.

NATE PRESSEL 08

Una Foto Vale Piu Mille Parole (A Picture is Worth a Thousand Words)

From the book Hammered Iron, Furniture and Architecture with Wrought Iron

Try making a leaf with a little character, no description necessary, just follow the steps!



Processing sequence to obtain a leaf from flat bar (note: use of different type hammers).

Reprinted courtesy of the Pittsburg Area Artist Blacksmith Association Newsletter August 2012.

SCABA Shop and Swap

For Sale:

6" round nosed pliers (great for putting scrolls on small items) \$5.00 each.
Brooms tied, \$20.00 on your handle Please contact me for help with handle length.
Contact Diana Davis at Diana.copperrose@gmail.com

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

Wanted:

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

Club Coal

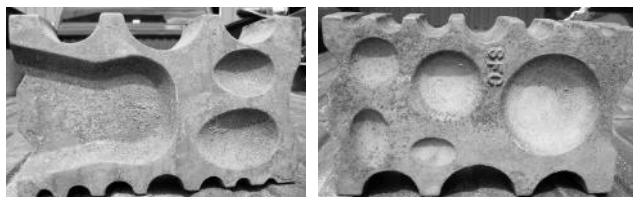
Saltfork Craftsmen has coal for sale. Coal is in 1-2" size pieces The coal is \$140.00/ton or .07 /pound to members. **No sales to non-members.**

NW Region coal pile is 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.

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.

SCABA swage blocks
\$110.00 plus shipping to members. (1st block)
\$130.00 plus shipping to non-members
Contact Bill Kendall for more information



SCABA Floor Cones are now available from Bill Kendall, Byron Donor and Gerald Franklin. The price is \$200 plus shipping and handling.



Show your pride in SCABA!

License plates for \$5.00 each.

We have a few caps for \$10.00.

We have SCABA t-shirts available. They are a grey pocket "T" with the SCABA logo on the pocket. Contact Diana Davis for information. The t-shirts cost \$15.00 each. Free shipping is you buy 2 or more. Add 2.00 for shipping of only one shirt. (Anything larger than 3X is considered special order and will take up to 2 weeks and will be at extra cost.)



SCABA Membership Application

January 1, 2015 to March 31, 2016

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, 2016

Signed: _____

Return to: Saltfork Craftsmen, 23966 N.E, Wolf Road, Fletcher, OK 73541

Saltfork Craftsman Regional Meeting Hosting Form

Region _____ SE _____ NE _____ S/C _____ NW

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

Name _____

Address _____

Phone/email _____

Trade item _____

Lunch provided _____ yes _____ no

Directions or provide 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 Secretary/Workshop 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 email or postcard.

A form must be filled out for each meeting.

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

Saltfork Craftsmen Artist Blacksmith Assoc. Inc.
23966 NE Wolf Rd.
Fletcher, OK 73541

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