PHILIP SIMMONS ARTIST BLACKSMITH GUILD

On the Anvil NEWSLETTER

INSIDE THIS ISSUE

Our demonstrator was Jason Jaco, sharing with the Guild members what he had learned in a recent blacksmithing class with Brian Brazeal, a blacksmith from Mississippi. Jason has also had a class with Lyle Winn, you may remember Lyle assisted Brian Brazeal in a three day hammer making class sponsored by the Guild in Camden several years back, they are both very knowledgeable and talented blacksmiths. In Jason's demonstration, he made a Brazeal-style hot cut, a rounding hammer and instructed on some basic tapering using the rounding hammer along with other skills as well.

In making a hammer and hot cut a lot of heavy forging is required and you either need a power hammer or a striker to swing a sledge hammer. Not having a power hammer available, Jody Durham, John Tanner and Jared DeRosier provided the manual labor for production of the projects.

The demonstration was a success and the hammer went into Iron in the Hat, Thanks Jason! And, Chuck Baldwin thanks you!

ML and John Tanner were our gracious hosts and did an excellent job, the main course was chili with sides including deserts provided by our Guild members. In attendance we had about 45 members and guests. The Iron in the Hat gained $569.00. Thank you for your participation and generosity.
New members are Brian Hopper and Mac McMakin, please take time to make them and all our new members welcome.

We've had a good year this year with approximately 24 new members, on the other side of that number are members that haven't paid their dues and will be dropped from the membership roll.

Please Pay Thou Dues or we will miss you!

Special Thanks to Magnolia Gardens, they have again donated $1000.00 to the Guild for our participation in their special events at the Gardens. These events are always sponsored by members, Bill Creek, Ray Pearre, Peter Meuller, Josh Weston, Travis Farrell and Charlie Meyer, it would not happen without them.

Don't forget to make a ballister for Jamie Herndon. She has been a faithful and efficient webmistress, past newsletter editor, and good meeting attender and iron-in-the-hat contributor. She wants to finish her railing before her child goes to college.

It is election time again. Meck thinks that the librarian job is enough to keep him occupied, so he has stepped aside to give someone else a chance. Jody has agreed to throw his hat into the ring for the vice president slot. Josh Weston has agreed to run for the position vacated by Jody. Vote for the slate of officers or write in your vote for someone of your choosing. Send your ballot to Ray or better yet, bring it to the February meeting in Conway!

Keep Hammering, Jesse

IRON IN THE HAT

ITEM	DONATED BY	WON BY
Mark Aspery Style Leaf Stake	Barry Myers	Ray Pearre
Copper Sycamore Leaf	Mike Bell	Jerrad Osburn
Bulldog Oyster Knife	Ray Pearre	Jerrad Osburn
Candle Stick	Roger Marcengill	Barry Myers
Candle Stick	Roger Marcengill	Charles Meyer
Ginko leaf limb	Gail Marcengill	Chuck Baldwin
Tomahawk	Todd Elder	Jerrad Osburn
Rasps	Mackie Bryant	Chris Medlin
Rasps	Mackie Bryant	Todd Elder
Rasps	Mackie Bryant	Bill Kirkley
Rasps	Mackie Bryant	Roger Marcengill
Colonial Dividers	Shel Browder	John Tanner
Colonial Hacksaw	Shel Browder	Brian Hopper
Cooking Utensils	Shel Browder	John Tanner
Flat Bar stock	Carl Kistner	John Tanner
Flat Bar stock	Carl Kistner	Jonathan Lynch
Hacksaw Blades	Guild	Barry Myers
Madison Poster	Guild	Jody Durham
Sledge Head	Kevin Cook	Johnny Marks
Candle Stick	Charlie Ethridge	Clyde Umphlett
ABANA Stuff	ABANA	Charles Meyer
ABANA Stuff	ABANA	Kevin Cook
ABANA Stuff	ABANA	Jamie Stevens
Files and Old lawnmower blades	Bill Kirkley	Todd Elder
Plier Wrench	Bill Kirkley	Brian Hopper
Sign Bracket Kit	Shel Browder	Gail Marcengill
Caliper	Clyde Umphlet	Roger Marcengill
Rust and Bolt	Jody Durham	John Tanner
Horse Shoe Trivet	Jim Pender	Jake Sr.
Anvils Ring	Al Jenkins	Johnny Marks
30# Roofing Nails	Joe Holladay	Bob Kaltenbach
Oyster Knife	Heyward Haltiwanger	John Tanner
Lacewood Handle Material and Coal Candy	Chuck Baldwin	John Tanner
Boot Scrapper	Gerald Alsbrook	Johnny Marks
Hand Dipped Candle	Gerald Alsbrook	Bob Kaltenbach
Jelly	Sharon Alsbrook	ML Tanner
Ax Head	Richard Lynch	Jody Durham
Enamel Chamber Pots	Jonathan Lynch	Gail Marcengill
Large Tongs	Al Jenkins	Clyde Umphlett
Band saw blades	Jamie Stevens	Jason Jaco
Sterling Cross Pendant	Jamie Stevens	Todd Elder
Copper Camillia	Jamie Stevens	Jody Durham
Copper Earings	Jamie Stevens	Todd Elder
Sea Horse Hook	Jason Jaco	Heyward Haltiwanger
Demo piece Hammer	Jason Jaco	Chuck Baldwin

Not seeing the Content you want? Submit requests for the kind of info and articles you are interested in, or better yet, submit an article yourself!

From an old newspaper clip:

Q: What is the origin of the phrase "strike while the iron is hot?"

- S.E. Lake Jackson, Texas

A: The phrase means to act decisively and take opportunities as they arise, alluding to the blacksmith, at his forge. If he delays in hammering the hot iron, it will soon cool, thus missing an opportunity to work.

The first known use of the phrase is from Richard Edwards in "*The Excellent the Comedie of Two the Moste Faithfullest Freendes, Damon and Pithias,*" circa 1560. He wrote: "I haue plied the Haruest, and stroke when the Yron was hotte."

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A piece of iron can only become what the blacksmith says it should become. Nigerian Proverb

Animal Eye Punches

By Mandell Greteman

There are a lot of different ways to make animal eye punches. This is the method I use and it has worked well for me.

I make a base plate guide with different partially drilled holes sized to match the punch stock I plan to use. The holes don't need to be very deep. About 3/8ths to 1/2 inch (or even less) is plenty deep enough. It just has to be deep enough to serve as a guide for setting the punch stock and a deeper hole just increases the chance of upsetting the hot stock and stick-ing in the hole.

The 60 degree drill point makes a perfect depres-sion that is al-ways centered on the punch stock. This depression is ideal for holding an old ball bear-ing that will be used to form the reverse impression

for the center point of the eye. And by using the guide, the ball bearing is held in place so that it won't get away from you during the punching process.

Also, by using the guide, the punch can be re-set as many times as necessary to get a good eye impres-sion. The guide automatically centers the ball bear-ing and punch stock every time so that there won't be any shifting to ruin the impression on follow up attempts.

Using this guide method, the ball depression is al-ways centered on the punch regardless of the eye shape. This aids in setting the eye on your animal head lat-er on since you al-ways know where the center of the eye is.

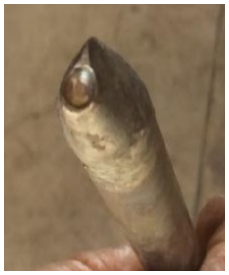
I used a scrap piece of 4140 tool steel for the guide base which I went ahead and hardened. But it is probably not really necessary to use tool steel or to harden the guide.

I keep a small con-tainer with various sizes of old ball bearings and select the best fit for the size of eye that I need. To make the impression, just put the ball in the correct guide hole then place the heated punch stock in the hole and strike the hammer end.

You don't really want to heat the stock so much that the end wants to upset in the hole. Just hot enough to get a good impression is all the heat you need. This judgement takes a little experience and depends on the steel you are using. You can put a slight taper on the very end to help minimize the up-setting.

If you don't get the depression deep enough on the first try, you can always give it another follow up hit. Both the ball and the punch stock will be "registered" in the same place.

Once I get a good ball impression, I then take the punch to the grinder and grind the outside portion of the eye shape as needed. The shape can be round,



which just takes a round taper a little larger than the ball im-pres-sion, or it can be a

single or double teardrop shape. (Or whatever other shapes you can come up with for your specific appli-cation.)

You just grind to the approximate outline you want and do a test impression to see what it looks like. You can then make any needed adjustments to fine tune the look you want.

You can get creative and come up with your own unique eye designs. Someone asked me what it would look like to put an eye punch impression in the center of larger eye punch.

It's a form I have never had a need for and the best way to find out what it looks like is to make one. This one was just a larger round eye punch made as described in this article but with a the follow up step of using a smaller eye punch on the larger one as if it were the final piece.

I am not sure what you would use this for. Maybe an octopus or a chameleon.

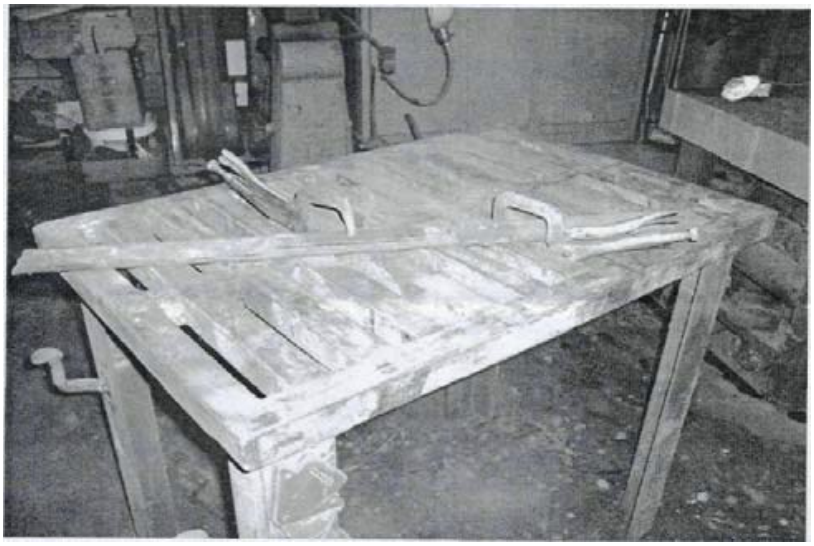
Once you are finished with the punch, you can harden it as desired. I often use sucker rod. To harden, heat to a good red heat (to the non-magnetic critical temperature), quench in oil, then temper to a dark straw or brown/purple color. You can also just use the punch for many impressions without hardening it at all.

Good Luck! -Mandell

Reprinted from the Saltfork Craftsmen Artist-Blacksmith Association

It Just Grates on Me!

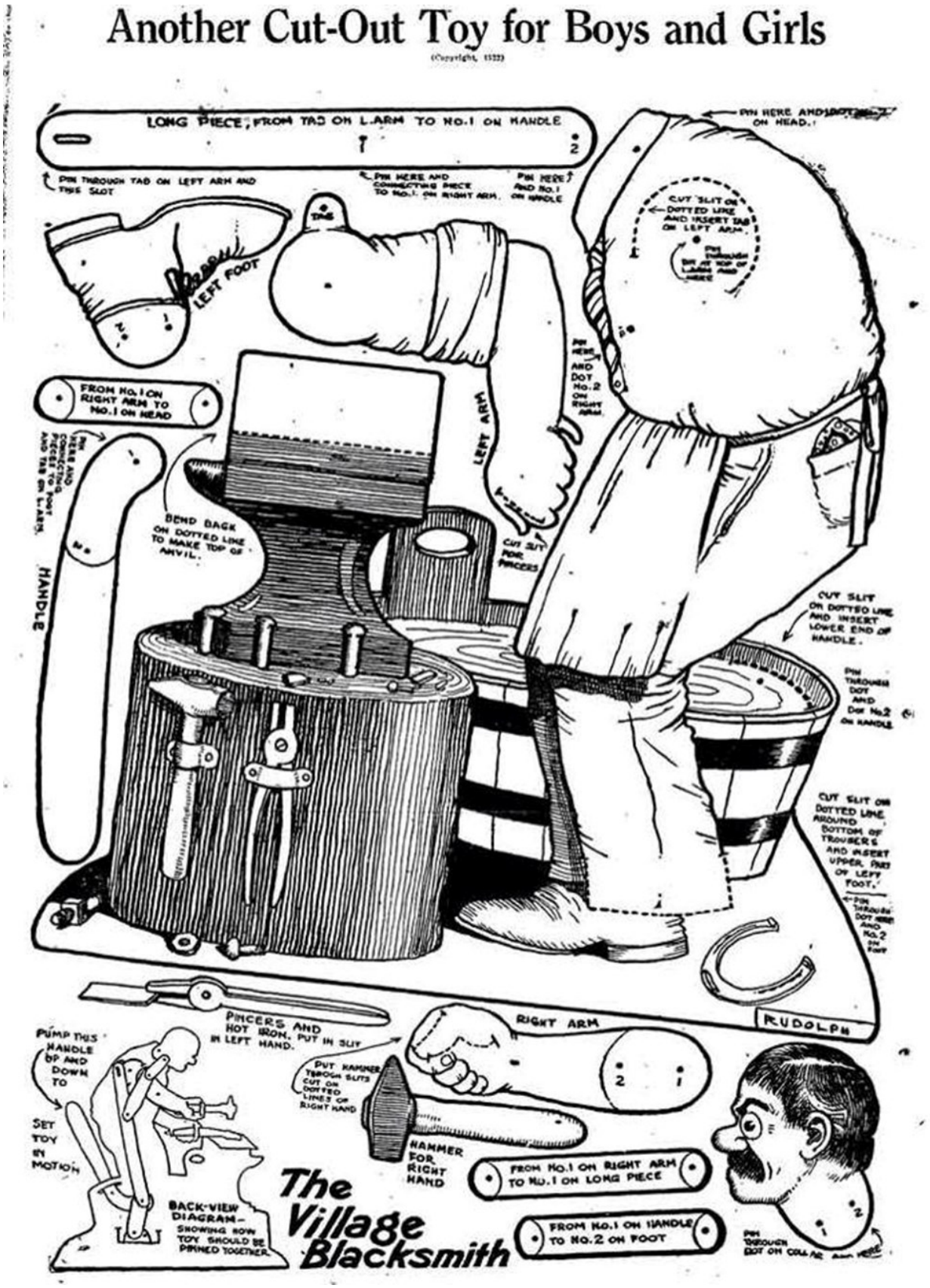
by Dave Lint



A platen table can be a wonderful addition to a shop, it is versatile for clamping items down, keeping projects true, great for hot bending curves. It is helpful in keeping metal flat, level, and square. If you work in a shop by yourself, it can be as helpful as another pair of hands.

Platen tables at auctions usually go for a substantial price, especially the smaller sizes. The larger ones can also be quite pricey, however their size makes them prohibitive. So, why not use road grate? Small size, heavy duty, can be used for clamping! You can even add locking wheels to make it even better! You can see in the photo clamps holding a piece of steel. Add legs to suit height.Some good resources for road grates-are your local municipal authority, or scrap yard. Dave purchased his from a scrap yard for a price we can only dream about!

Reprinted from the Pittsburgh Area Artist - Blacksmiths Association



You can print this off and copy it to your metal stock. Maybe even put your picture on it so that it will be more personal. Perhaps a gift for your spouse...Barry

Copied from Facebook

Making the Patrick Pelgrom Tongs

Michael Wollowski

I made the tongs in figure 1 based on an article in the German metalworking magazine Hephaistos (http://www.metall-aktiv.de/). The tongs were developed by Patrick Pelgrom, a Belgian blacksmith who travels a lot by airplane. In order to reduce the weight of his luggage, he developed a pair of tongs that would be able to securely hold square, round and flat stock. This way, he was able to reduce the number of tongs he carries with him. His tongs were inspired by how one would hold a piece of (cold) metal with three fingers. The V-angled bottom takes on the functionality of the index and middle fingers and the rounded top that of the thumb. Notice the notch in the rounded top which is designed to give good grip.

While they are in essence v-bit tongs, they excel at holding flat and irregularly shaped stock. They also work well in situations where you need to hold two pieces to forge weld.

Figure 1: Three-quarter view and front view.

In this article, you will find construction notes on how to make these tongs. I find it easiest to rework old tongs as it saves time. While I like to use flat tongs as a donor, any tongs will do provided they have enough material to be reworked. I have made two pairs of tongs, the one described here started out as pick-up tongs in which the business end was approximately 1/2” square. They are going to be on the small side, to be used with 3/8” and 1/2” stock.

Start by cutting the rivet. Next, grind off any burrs and sharp edges. Now is also a good time to remove any excess materials so as to lighten the tongs. Figure 2 shows the result of this step.

In case your donor tongs are pick-up tongs, cut the business end so that you are left with about 2” of material. If you start out with flat tongs, you may skip this step. To make the V-bit bottom, draw the business end to about 1” wide, 1/8” thick and 2” long. If you start out with pick-up tongs, first spread them to about 1” wide and if they are still too thick, spread them out lengthwise. If you start out with fairly thick flat tongs, first draw the bit lengthwise so that it is

equally thick. Then draw it out to a width of 1” and a thickness of about 1/8”. Next cut the bit to length, about 2”.

Now, it is time to form the V on a 45 degree V-grove of a swage block. It is important that the V-bit is slightly concave lengthwise, otherwise, the piece to be held by the tongs may wobble. Small imperfections can be removed by grinding them away later on.

Figure 2: Tongs separated, sharp edges removed and trimmed for weight.

To make the rounded top, draw the business end to 1/2" wide, by 3/16” thick by about 2 1/4” long. Figure 3 shows the result of forging the top and bottom. Notice that the top is actually too long.

Figure 3: Forged business ends.

Next, clean-up the pieces with an angle grinder and cut the top to size and add a small V-notch. The length to which you cut the top determines the stock size you can hold comfortably. You may wish to experiment with that by dry fitting the tongs. The ones I made for this write-up open up to 5/8” from the inside of the top notch to the inside of the bottom V. This was measured with the ends of the reigns opened up to about 2 1/2”. They hold 3/8” to 1/2” square and round stock as well as 1/2" flat stock.

The medium sized tongs that I made prior to writing this article open up to about 1 1/8", measured from inside of top notch to inside of bottom V, with the ends of the reigns opened up to 2 1/2". These tongs work well with 3/4" and 7/8" square and round stock. However, I primarily use them for knife making where I need to hold flat stock. They comfortably hold 3/4" to 1" flat stock. The medium sized tongs have the following dimensions. Bottom V: 2" long, 1¼" wide, 1/8" thick. Rounded top: 2 1/4" long, 5/8" wide, 1/4" thick. Notice that they have the same lengths as the smaller tongs. This is partly due to the different design of the donor tongs. Figure 4 shows the two pieces after clean-up.

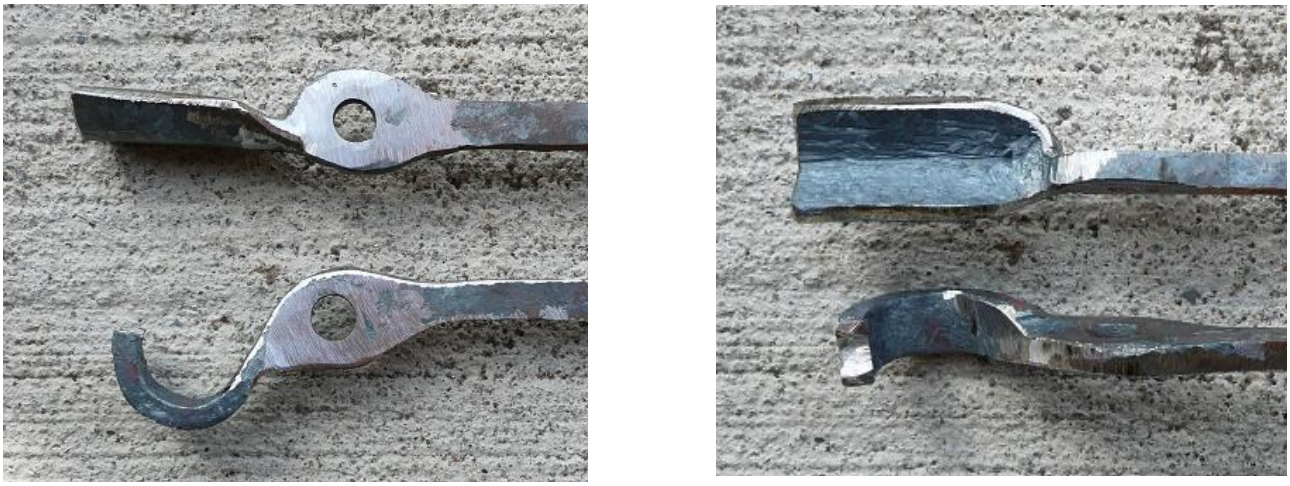


Figure 4: After clean-up.

When putting together the tongs, I like to insert a thin piece of cardboard between the pieces, such as from a cereal box. This prevents over tightening of the tongs when setting the rivet. I just burn off the cardboard piece when finished and tighten the tongs if necessary. Figure 5 shows the medium sized tongs holding the small sized ones.

Figure 5: Big brother holding little brother.

Jason Jaco found this article at a Rose-Hulman site, but as the author is Michael Wollowski, I think this was formerly published in the Indiana Blacksmithing Association - The Forge Fire Newsletter which makes sense considering the location of Rose-Hulman Institute of Technology in Indiana.

Non-Ferrous Metal Tips From Michael Bendele

110 Copper, Electrolytic Tough Pitch (ETP) Copper: The hot forgeability rating of this alloy is 65 (forging brass is 100). Recommended hot working temperature is 1400 – 1600 F. Annealing temperature is 700 – 1200 F. Cold working is excellent.
Soldering is excellent, brazing good, welding such as TIG or MIG is good for color match up to 1/8", after that it is difficult. Preheat and helium helps in thicker cross sections. Oxygen free copper rods match color, or use parent material. Harris O and stay silv15 work well.

655 Silicon Bronze: The hot forgeability rating is 40 (forging brass is 100). Recommended hot working temperature is 1300 – 1600 F. Cold working is excellent. Annealing temperature is 900 – 1300F. Welding and color match is ex-cellent. Mostly use silicon bronze rods for TIG. Brazing is also good and soldering excellent.
This is probably the easiest copper alloy to work with overall for blacksmiths but the most expensive by far. Reddish bronze ascention.

630 Aluminum Bronze: The hot forgeability rating is 75. Recommended hot working temperature is 1450 – 1700 F. Hot working rat-ing is good. Cold working is poor. Machinability is rated as 30 (360 brass is 100).
630 is not my personal favorite.

464 Naval Brass: Hot forgeability rating is 90. Recommended hot working temperature is 1200 – 1500 F. Cold working is fair. Annealing temperature is 800 – 1100F. Machinability is rated as 30 (360 brass is 100). Welding and brazing are excellent.
This is a very nice alloy to work with. The price is far less than silicon bronze.

377 Forging Brass: Hot forgeability rating is 100. Recommended hot working temperature is 1200 – 1500 F. Cold working is poor. Machinability is rated as 80.
This alloy is very tricky for the blacksmith. It is almost too soft in the working range, but goes to glass hard almost between blows and cracks.
It is very difficult to weld large sections. Stay Silv 15 brazing flux works best for it and does color match okay with patination. It is cheaper than silicon bronze.

260 Cartridge Brass: Hot working is rated as fair. Cold working is excellent. It is the most malleable brass. Wonderful for re-pousse. Annealing temperature is 800 – 1400 F. Takes patination nicely.

360 Brass: Hot working is not recommended. Cold working is not really recommended. It is designed for machining. Machinability rating is 100.

1100 Aluminum: Hot or cold formed easily. Good machinability and weldability. Annealing temperature is 600 F. Forging temperature is about 800 F. It is fun to forge but easy to melt.

Recommended site for alloy information: www.suppliersonline.com/default.asp

Reprinted from the Indiana Blacksmith Association, The Forge Fire Newsletter

For Sale:

Fire Bricks – Brand New, Industrial Grade. $1 ea. Ed Sylvester 803.414.2487

Two (2) 4ft. by 4ft. platen (acorn) tables, $800.00/ea. 250# Fisher Anvil, Made in 1917 - in excellent condition $1,000.00. Marvel Band Saw w/ 2 new blades, $600.00. Double -sprocket Leg Vise, rare - vintage 1920, $900.00. Bar Twisting Machine, pickets up to 1 1/2 inch, $2,500.00. Call 912-655-9448, email flemingsmith@aol.com, or website JohnBoydSmith.com.

Tire Hammer Plans: Send check/money order for $30 to Clay Spencer, 73 Penniston Pvt. Drive, Somerville, AL 35670-7013. Includes postage to US and Canadian addresses. Other countries e-mail clay@tirehammer.com for price. 256-558-3658. Tire Hammers for sale contact me for current price. Also, **Beverly Shear Blades Sharpened**, $41 includes return shipping in US. Remove blades and ship to address above. Extra cost for deep nicks or blades sharpened at wrong angles.

Upcoming Events

Jan. 16th, PSABG Hammer-in, Hopkins, SC, contact Jason Jaco

29-31 Jan, Battle of Charleston Reenactment contact Ray Pearre.

February 13, 2016. Meeting at the Paul Farm in Conway. Walter, Bob and Sharon Hill are our hosts along with the Horry County Museum and staff.

April, 9th PSABG Meeting, Magnolia Gardens

May, 7th, Hell Hole Swamp Festival (requested a blacksmith don't know if anybody volunteered ?)

May, 7th, 14th, 21st, SC Railroad Museum, Winnsboro, SC, contact Zack Liollio

June, ? PSABG Meeting, Marcengills', Westminster, SC

July 4th weekend History Days at Magnolia Gardens, contact Ray Pearre

July, 13-16 ABANA Conference, Salt Lake City, UT https://www.abana.org/

Aug. ? PSABG Meeting, Camden, SC

Oct. 8th, PSABG Meeting, College of the Building Arts, Meeting St. Charleston, SC. Frank Verga is contact

Oct ? Autumn on the Ashley Craft Fair at Magnolia Gardens, contact RayPearre

Dec. ?? PSABG Meeting

2nd Saturdays Blacksmith demonstrations at Roper Mountain Science Center, Greenville, SC

3rd Saturdays Blacksmith demonstrations at Hagood Mill, Pickens, SC

Philip Simmons Artist Blacksmith Guild

http://philipsimmonsartistblacksmithguild.com/

President
Jesse Barfield
2423 Stribling Circle, Lancaster, SC29720
803-287-0929
Jesse.Barfield@duke-energy.com

Vice President and Librarian
Meck Hartfield
623 Poston Rd., Johnsonville, SC29555
843-625-9118
thartfield@me.com

Secretary/Treasurer
Ray Pearre
4605 Durant Ave.,
N. Charleston, SC29405
843-860-0532/pearrecr@att.net

Newsletter Editor
Barry Myers
1847 Pisgah Rd, N. Augusta, SC29841
803-640-5504/ blmyers647@gmail.com

Webmistress
Jamie Stevens
414 Henry Stabler Rd, Swansea, SC 29160
803-665-7083 stevensjamie22@yahoo.com

Board Members
John Tanner
208 Copeland Rd., Swansea, SC 29160
803-568-5534
blacksmith@comporium.net

Ryan Calloway
12 Andrews St. Greenville, SC 29601
864-386-5546
Ryan@creativeironworks.net

Jason Jaco
29 Woodpine Ct
Columbia, SC 29212
803-799-1865/texasstreet@hotmail.com

Jody Durham
767 Lynnhaven Dr., Seneca, SC29678
864-985-3919 ironsmith@gmail.com

Officer Ballot

President: Jesse Barfield_____ Write-In_____

Vice President: Jody Durham _____ Write-in_____

Treasurer: Ray Pearre_____ Don't write in_____

Board Members

Jason Jaco _____Josh Weston_____

Write-in_____Write-in_____

Send this ballot to Ray Pearre at his address above or bring it to Conway!

Come to Conway on February 13, 10 AM

Walter Hill will demonstrate at the Farm!

The Conway Museum's L. W. Paul Living History Farm is located at 2279 Harris Shortcut Ln, north of Conway on US 701.
Bring a side or dessert and something nice for iron-in-the-hat - maybe something you've forged!