

On the Anvil NEWSLETTER

PHILIP SIMMONS ARTIST BLACKSMITH GUILD

| | |
|-----------------------------|----|
| Iron in the Hat | 2 |
| For Sale/Upcoming Events/ | |
| Tips for cylinder safety | 3 |
| Knife class photos | 4 |
| Bending jig/Twee info | 6 |
| Parallel tongs | 7 |
| Knife making tips from SOFA | 9 |
| Officer Contacts | 11 |



The last meeting of 2017 was held at the Lexington County Museum where there are 36 historic buildings preserved on 7 acres of land in the heart of this community. I was surprised by the size of this site and the number of well-maintained buildings, some of which are on the National

Historic Register. The weather cooperated quite nicely, not too wet or too cold with about 45 enthusiastic folks attending, some of which were not members when they arrived but were bitten by the blacksmith bug or pyromania (hard to tell sometimes). One reason we have so many people join at our meetings is the caliber of demonstrators we have in the Guild. Todd Elder, one of our best demonstrators, did the honor making a colonial style ax giving dimensions, and all instructions on how to have a successful outcome. Todd did such a good job that all the people in the morning session returned after lunch and Iron in the Hat to watch him complete the ax in the afternoon. Like I said they were enthusiastic, wanting to learn, and asking lots of questions that Todd was able to answer. Our gracious hosts were Heyward Haltiwanger, his wife and grandson. They cooked hamburgers, hotdogs and provided all the condiments and set up the meeting with the museum. Our generous members brought delicious sides to complement the meal, we ate well and ate all we wanted / more than we needed. As a side note, Heyward is also the Wheelwright for the museum, if you go to the museum check out some of his work.

For the 4th year, we set up at the Mystical and Medieval Fest in Myrtle Beach. This event supports a local charity "Caleb's Dragonfly Dreams". We had 12 smiths working or teaching. Lots of people stopped by to watch and we picked up several new members. This is a great event that has grown in size every year...about 2500 attended this year

Iron in the Hat; When I think I've seen the best, ya'll amaze me again with the quality of work and attention to detail of your forged items, we brought in \$675.00

New members are; David Chavis, Nathan Flake, Chuck Howell, Mark Hull, Jake Jacobsen, John Marden, Bill Ryland, Kris Stanley, Mickey Thompson, Buddy Wehman and Ken Willis. Welcome!

About 40 members will be taken off the roll if dues are not paid up, check the label on your "On the Anvil Newsletter" to see if you need to send Ray a check!

Thanks for your Bill Burgess prayers, they seem to work! He is out of the hospital and was home for Christmas. Also, you can continue the good work for those of our membership that are sick at home, especially Turner Hammett.

I hope all of you had a Merry Christmas and may God bless you and your families during this season and the coming New Year

Thanks, Jesse



IRON IN THE HAT

| Item | Donated By | Won By |
|-------------------------|---------------------|--------------------|
| Candle Holder | Gerald Alsbrook | Robert Campbell |
| Ice Pick | Bill Kirkley | Clyde Umphlet |
| Stump Anvil | Duke Baxter | Chuck Baldwin |
| Flower | Duke Baxter | Chris Heron |
| Axe | Todd Elder | Charles Still |
| Steak Turner | John Tanner | Karen Swails |
| Poker | John Tanner | Duke Baxter |
| Anvils Ring | John Tanner | Karen Swails |
| Hammers Blow | | Chris Heron |
| Colonial Forged Hacksaw | Jody Durham | Duke Baxter |
| Spring Steel | Clyde Umphlet | Charlie Meyer |
| Cap Gouge | Jody Durham | Jamie Herndon |
| Key Chain Cross | Heyward Haltiwanger | Chuck Baldwin |
| Flint and Steel | Chuck Baldwin | Karen Swails |
| 12 Silver Dollars | Joe Holladay | Jamie Herndon |
| Donkey Hook | Ray Pearre | Chuck Baldwin |
| Fire Rake | Jesse Barfield | Peter Vagovic |
| Harness Hook | Jesse Barfield | John Tanner |
| Chain | Jesse Barfield | Clyde Umphlet |
| S Hooks | Bob Kaltenbach | Gary Sullivan |
| Various Steel Shorts | John Kneece | Johnny Marks |
| S Hooks | Bob Kaltenbach | Karen Swails |
| RR Spikes | Gary Sullivan | Pam Etheridge |
| Scrolling Wrench | Charles Meyer | Nathan Flake |
| Jack Hammer Bits | Johnny Marks | Tony Etheridge |
| Fat Lighter | Jamie Herndon | Jody Durham |
| Steel Magnolia | Jamie Herndon | Bill Kirkley |
| Scroll Jig | Jason Jaco | Charlie Flake |
| Scroll Hammer | Jason Jaco | Sergio Smith |
| Leaf | Jason Jaco | Bob Kaltenbach |
| Flashlight | Karen Swails | John Tanner |
| Clemson Tee Shirt | Karen Swails | Karen Swails |
| NRA Pins | Karen Swails | Charles Still |
| Crystal Dish | Karen Swails | Sergio Smith |
| Tom Clancy Book | Karen Swails | Rick Thompson |
| Oliver North Book | Karen Swails | Chris Heron |
| Oliver North Book | Karen Swails | Derice Hochstetler |
| Newt Gingrich Book | Karen Swails | Jamie Herndon |
| Mike Huckabee Book | Karen Swails | Clyde Umphlet |
| Beechwood Trivet | Karen Swails | Jamie Herndon |
| Sewell Pea Coal | Derice Hochstetler | Clyde Umphlet |
| Leaf Spring | Charles Still | Johnny Marks |
| Residue State Fair | Tony Etheridge | Bob Kaltenbach |
| | | Clyde Umphlet |
| | | Jason Jaco |
| | | Gary Sullivan |
| | | Sergio Smith |
| | | Karen Swails |

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!

Election of Officers

Start thinking about an election of officers.

Jesse has acquiesced to serve another year as President. That is a good thing. Ray has not made any noises about quitting after Josh thanked the Lord for him at the knife class.

Two of our board members, Josh Weston and Jason Jaco have been on for two years. They have to decide whether they want to run again.

You may voice your opinion. You may self nominate! Or, nominate another smith who might not object!

Bob Kaltenbach and I had a hammer-in in North Augusta this month. We like to have one to use the forge at the Living History Park and Bob has visions of dragging us towards a journeyman smith certification. If you have an idea for a class or hammer-in or something, bring it up. But, realize that you may be the one heading it up. This is a volunteer organization. The officers have only so much time and energy to entertain us and get us educated.

So, if you want to do something, the officers should be informed and used as a resource, but you can be the man (or woman) in charge of dragging the rest of us along. Barry

For Sale:

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

Tire Hammer Plans: Send a check or money order for \$30US or send \$32US to Paypal.Me/ClaySpencer. clay@otelco.net. PDFs will be e-mailed outside US.

Beverly shear blades sharpened. Remove your blades and send in USPS small flat rate box with check for \$41US Clay Spencer 73 Penniston Pvt. Drive, Somerville, AL 35670-7103.

Blacksmith Classes: Beginner to Advanced. Glen Owen, Hemmingway. Contact Glen at forgeontheridge@yahoo.com or www.forgeontheridge.com.

Forklift tine sections for striking anvils, \$30. Jody Durham, 864-985-3919 ironsmith@gmail.com

Sewell Pea Coal, washed, \$11 per 5 gallon bucket. Will also sell in bulk at lower prices. Derice Hochstetler, Aiken, [803-508-1326](tel:803-508-1326)

Upcoming Events

2nd Saturdays Blacksmith demonstrations at Roper Mountain Science Center, Greenville, SC, Anthony Palacino. contact.864-386-5546

3rd Saturdays Blacksmith demonstrations at Hagood Mill, Pickens, SC. Often, our own Griz Hockwalt.

January 13, Hammer-in/class at Living History Park, North Augusta. Possibly a water leaf and tooling to make it. Contact Bob Kaltenbach (707.799.4703) or Barry Myers (803.640.5504). Again, hammer-in—hitting hot things and learning!

Hauling Welding Cylinders?

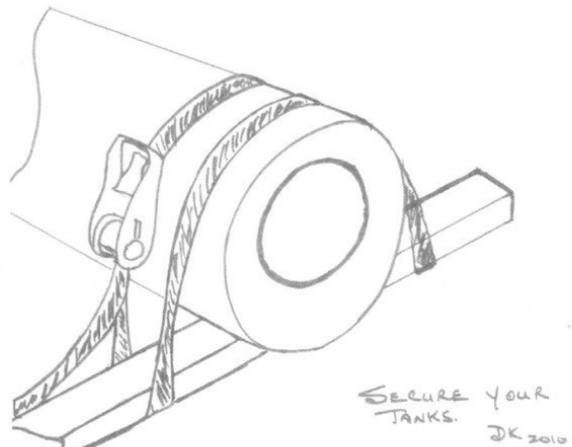
By Doug Kluender

Has this ever happened to you?

You run out of gas in the middle of a job and decide to go the welding supply to get your cylinder filled. You load it in the truck and tie it in as best you can. About the second corner you hear “clunk, clunk, BAM” and feel the truck take a 6” sideways hop—the result of the cylinder coming loose from its bindings.

Reprinted from "The Anvil's Horn"
September 2010
The Arizona Artist Blacksmith
Association.

This solution requires a piece of scrap tube or bar ‘20” -40” long and a tie down strap. Of course it works best if you have a non-slip rubber mat in the bed of your truck.



Josh Weston Knife Making Class



Left to Right: David Freeman, Richard Lynch, Johnathan Lynch, Mickey Thompson, Sergio Smith, Ben Secrist, Rick Thompson, Tony Etheridge, Bob Kaltenbach, Peter Mueller, Bill Creek, Barry Myers, Josh Weston, Cathy Pender Emmert (behind Josh), Johnny Marks (kneeing), Michael Merriken, Jesse Barfield, Jim Pender (behind Jesse), Chuck Otap, Ken Dodds, Chuck Baldwin, John Tanner



We had a really good knife making class with Josh Weston—our Forged In Fire once runner up and one time Champion! Josh showed us how to make an all metal “blacksmith knife.” Josh ordered the 52100 from which to make our knives. Most of us were successful, but the steel was a lot for some of us to forge.

We did get a good lesson as some of us found that we forged the steel too long after the metal cooled below to optimum forging temps. Those of us who did ended up with cracks and broken blades. Those of us who didn't mess them up, we had blades that we forged to finish and had to harden and temper them when we got home.



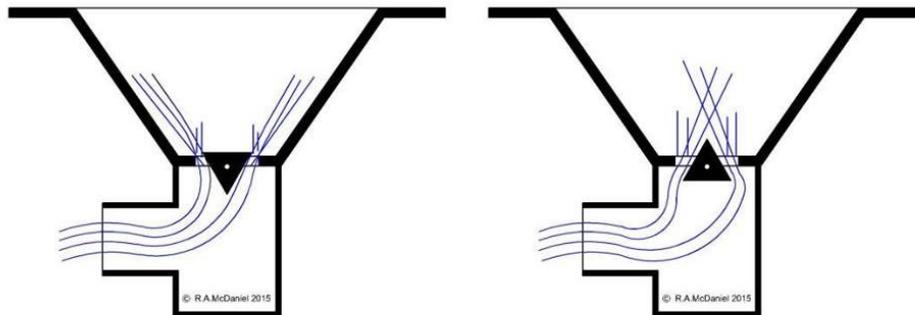
Barry Myers' knife from the knife class, probably finish it any day now...

Here are some pictures that I pulled from Facebook. Elvis Bailey showed a jig used to put gentle bends and arches in his work. You can look him up on the International Blacksmiths group on Facebook. Elvis is from Port of Spain, Trinidad and Tobago. The curved portion is for making the arcs and the two pieces of square are for straightening the work.



Randy McDaniel, The Blacksmith Primer, posted in Blacksmithing for Beginners on Facebook

The "clinker breaker" triangular ball or whatever you want to call that style, are installed upside down because it's easier for them to put together with no understanding on how they work. The way it is with it flat on top blows the air out and towards the sides so the whole firebox is full of burning coal. That way produces a huge fire and burns more coal. Turn it the other way the air blows towards the center and you have a smaller fire and burns less coal. It's also easier to forge weld with it turned over with focused heat. Peters Valley has the same fireboxes and I proved this point when I was teaching there, which was shown to me by an 83 year old smith back in the '70's. Old school. PV then flipped them over and heated and re-bent the handles to stay that way. It works!



Randy didn't ask this, Ray Pearre did: "But why does Centaur Forge sell them like this?" Is there a conspiracy with the coal industry to use more coal...inquiring minds want to know...

Parallel Jaw Tongs

by Jordan Harmon (january 2017)

Editor's Note: Jordan is a High School student whose been a member of the CSMA for a couple of years and he copied this tong from a picture. It was so impressive, I made him submit his first article to the newsletter. If you make these tongs, you'll be starting with more information than he did. Good luck.



Main Rein:

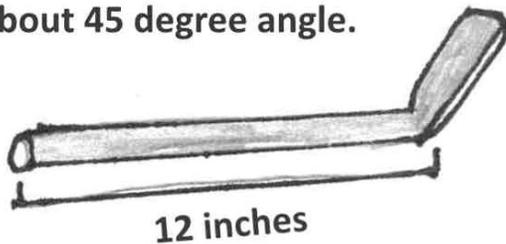
1/2" Round, Flatten end of bar to 1/4" thickness



Draw out rein to desired length and no thicker than boss.



Bend Joint where boss meets rein about 45 degree angle.

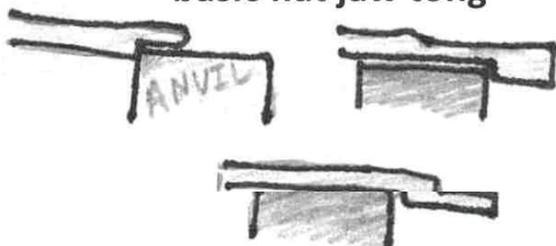


Drill or Punch holes about 1 inch apart



Long Rein:

1/2" round forge out basic flat jaw tong



Draw out rein and punch hole
12 inches

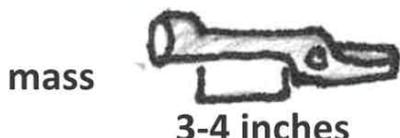


Make length same as Main Rein from where the first hole meets.

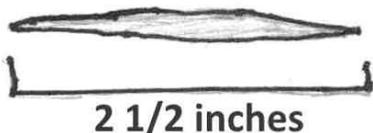
Short Rein:

Shorter piece, same process but leave some mass on end.

Round and Flatten mass then punch hole



Link: 1/4" Round, Taper both ends

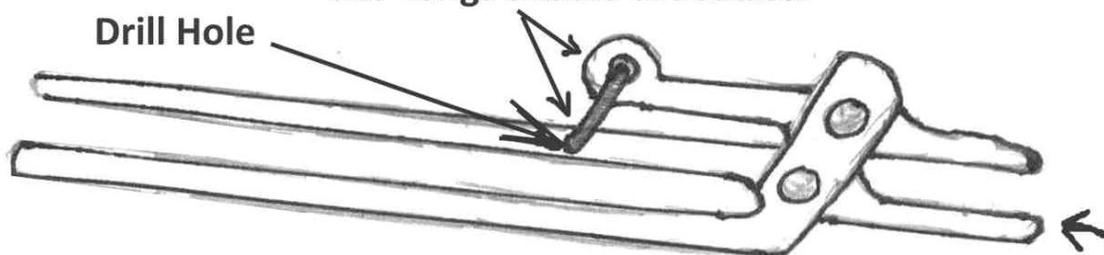


Assembly:

Rivet together and it should look something like this

Put link in holes and Bend the ends down

The Tongs should articulate.



Leave lower jaw longer so it will meet the top jaw evenly

Kevin Cashen– A Slice Above the Rest!

ABS Certified Master Bladesmith and Swordsmith

For those of you that attended SOFA (Southern Ohio Forge and Anvil Quadstate Round Up) this year, you may have stopped by the demonstration of Kevin Cashen. Kevin lectured quite a bit on metallurgy regarding knifemaking. Knowing what is going on in your metal will make you a much better knifemaker and also blacksmith. For those that have missed the lecture or may be interested in learning more from Kevin, he has an extensive web site which will help you enormously in many aspects of understanding his approach to making outstanding blades. The following is a “capsule” of his lecture. His knives and swords are sought after and he has almost has discontinued his waiting list because of the demand. When a knife is finished for a show or gallery it may be offered for sale. Needless to say, Kevin’s work is outstanding and his awards and recognition are many. For handy charts, lectures and tons of information, visit his web site: www.cashenblades.com



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- | | |
|---------------------------------------|--------------------|
| Bowie or Camp Knife | Fine Slicer |
| -Needs to be tough | -Kitchen knife |
| -Needs to hold shape | - Scalpel |
| -Low carbon content | -Skinning knife |
| (6150, 15n20, 5160) | (1095,W1,W2) |
| -Could use bandsaw blade for practice | |

The first question you need to ask yourself is: What is the primary function of the knife you want to create? Is it a chopping knife or a fine slicer?

Kevin is not a fan of scrap steel. He believes it is fine for practice, but not for knife making. The reason is that you do not know the history of the metal and more specifically, you do not know the thermal history. You can go back and “erase” the errors, but you may end up investing a great deal of time and effort and discover a flaw that cannot be overcome. By that time you have invested too much time and work. He suggests knowing where your metal is coming from, ask for the sheets of origin. Kevin’s favorite L6 is coming from Slovenia, but has been disappointed by L6 coming in from China.

- Kevin likes working in a coal forge, but it is not as efficient as a gas forge for running a business. So again, make a decision regarding what you envision for your work, personal or production.
- You actually do not need a sophisticated heat source for making a knife. A file, willpower, and a basic knowledge can get you there! However, if you want to make a more developed knife, you need a controlled heat source to anneal and perform other heat treatments. You do not need fancy equipment to accomplish these steps if you are not making an inventory of knives to sell.
- Basic concepts include you can get more consistent properties from steel by heating and cooling and making it more homogenous. Simple steel is a forging material well suited for forging and it can “fix itself” through proper heating.
- The less time forging the better for the beginner.
- Always pay attention to the item in the forge—NEVER heat it to the point of sparking.
- Inside of the steel there are crystalline grains. When you over heat steel, you get a larger grain. With a smaller the grain size the more the inherent toughness is developed. The larger the grains, the less tough the metal becomes. If you control the heat, you can control the grain size; controlling grain size is the most elementary step in bladesmithing.
- NORMALIZING—Fixes anything you may have done wrong in the forging process and sets you up for the next step. Kevin likes to normalize his work in multiple steps.
- On every forging heat, you can drastically change the steel; you can destroy it, or you can make it better.

To contact Kevin about information, classes, or his web site articles. www.cashenblades.com

5615 Tyler Street, Hubbardston, MI 48845 Phone: 989-981-6780

- If you burn metal, cut it off. If you see sparks, you cannot fix it because it loses its cohesiveness. Even when forge welding you do not want sparklers. If you forge weld Damascus at too high a temperature it will actually make your Damascus blurry.
- If you are demonstrating to a group, Kevin suggests using 1080 for a beginner knife, it is the easiest to use for demonstrating purposes.
- Beginners mistake: Making a “fish mouth” at the end of the bar. This is the first part Kevin forges. Make sure you have enough heat and force from the hammer to avoid the dreaded fish mouth.
- If you do get a “fish mouth”, quickly upset the end flat again, round it out and try again.
- A beginner is more likely to burn the metal at the tip and also the tang because you need a high degree of heat to complete the needed steps.
- Rule of thumb: Ten minutes on the anvil equates to a half hour of grinding!
- Beginners– It is not how hard you hit the metal but *where* you hit the steel!
- Your anvil face needs to be very clean, ding free, and nicks need to be ground smooth.
- If you file a knife into shape, it will teach you how to forge better!
- The ricasso is one of the most “telling” parts of bladesmithing. If it is not correct, the blade is all wrong. **Ricasso** is an Italian term that came about when fingers were coming around the front of the guard. It has a rich and elegant history. Key: if you get the ricasso correct, the blade will follow.
- What should a proper ricasso look like? The perfect size follows the golden mean. To determine the length of the ricasso, you measure the height of the ricasso and divide it by 1.618. (Edited by Mr. Cashen from the original. Ed.)
- You want the ricasso as thick (full size of the bar) and smooth as possible. Kevin has been a judge in many blade shows for ABS Master and Journeyman. One of the first elimination techniques he uses is looking at the ricasso on a knife. If it is not properly addressed, there is no point to look further.
- Benefits of forging:
 1. Quick way to shape metal
 2. Very little loss of material
 3. Versatile in the original shape of the material
 Important problems to avoid:
 1. Oxidation/burning
 2. Heavy scaling because of oxidation
 If you are getting big scale it is too much air and too much heat, small scale is OK.
- Think of “**Normalizing**” as the “reset” on your metal
 1. It provides uniformity in grain size and structure
 2. It equalizes or eliminates stress problems
 3. It evenly distributes and refines carbon
 4. Normalizing does not leave material as soft as annealing
 5. This is the time to refine the grain and get carbon ready for heat treatment.
 6. Involves heating to solution (heating until carbide is dissolved and the free carbon is put into a solid solution in the iron, austenite has formed and it is the nonmagnetic phase of steel when it is at or above the critical temperature) and then air cooling



Grinding is one of the most difficult steps because it involves “feel” which takes time to learn.

Before you grind, knock off the scale, or you will use a whole belt removing the rough scale.

Use sodium bisulfate, mix with water (swimming pool chemical) and suspend over night to re-move much of the scale.

Grinder belts: Have a shelf life! The resins break down after several months. Curling is a sign of being stored with too much humidity, purchase only as many belts as you can use in a few months time.

Grits: Start with 60 grit, 120 and above is a polishing belt. ALWAYS use safety glasses and a good respirator.

Make sure your grinder has good tracking, test it and make sure it will not move.

Variable speed is up to you.

If your blade gets too hot to handle, you are not cooling properly.

Do not start at your destination when grinding, never over grind the spine. Save the spine and tip until after the flat of the blade is ground.

The arrows on the belt do not matter, the belt can be put on in any direction. The arrows indicate how the belt came off the spool.

The butt joint is very important, must be smooth on the back.

Reprinted from the Pittsburgh Area Artist Blacksmith Association

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Membership Application

New Member Renewal

Name: _____ Address: _____

City: _____ State: _____ Zip: _____ Phone: _____

email: _____ Sponsor _____

Dues are \$15.00 per person/family, per year. Please remit to: C. Ray Pearre, Jr.

4605 Durant Ave.

North Charleston, SC 29405

ACKNOWLEDGEMENT AND ASSUMPTION OF RISK

I acknowledge that blacksmithing and related activities are inherently dangerous and involve risks and dangers to participants and spectators that may result in serious injury or death. I have considered these risks and I knowingly assume them. I agree that I am responsible for my own safety during Guild events, including wearing appropriate clothing and protective gear and remaining a safe distance from all dangerous activities. I agree to hold Philip Simmons Artist Blacksmith Guild and guest demonstrators of our craft harmless from liability and expenses arising from of my actions and/or omissions.

When was the last time you paid dues?

There is a note below your address on the last page of our newsletters. It will say something like...

“Dues Last Paid – 2017” or “Dues for 2018” are due” or “Dues paid 2018”

This note is updated for each newsletter. We appreciate your prompt payments.

Come to Conway on February 17, 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! Ray still gives 5 tickets if you donate something you've forged...

