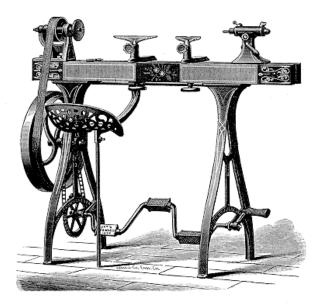


as it usually is and we had a clear crisp February day to gather together and shiver. It was worth it though, our demonstration was performed by



Walter Hill, an excellent blacksmith, historian and also the curator of the Horry County museum in Conway. He made a flesh fork for his first piece and a fire poker for the second project. His flesh fork was different than any I have seen or made, he does not drill or punch a hole at the juncture of the fork tines to relieve stress. He lets them spread naturally leaving a V where the tines separate and flow into the points. This looks really good and appears to be as strong as forks made the other way, also it saves time. The fire poker was a piece of round stock, approximately 3/8 in. For the handle the stock was folded back on itself and jump welded producing an 8 in. loop which he heated, placed in the vice then twisted up tight

The meeting this month was well attended with a bar, leaving a neat eye to hang it with. The poker end was looped back on itself, welded into another eye about 6 in. then cut in the middle. The two ends were forged into points and shaped to look like a fire poker. We thank Walter, the Hill Family, and the Staff of the LW Paul Farm. They also provided our main course for our lunch, another excellent low country perlo and the rest of the Guild brought the delicious sides. Great day, great food and even better fellowship.

> Elections were on the agenda and the re-Jesse Barfield, President sults are as follows: Jody Durham, VPresident Jason Jaco, Board Josh Weston, Board Meck Hartfield, Librarian Ray Pearre, Sec/Treasurer

> We had a very good Iron In The Hat. The scholarship funds are increased by \$887.00! Thank you one and all for donating the items and for buying tickets to win the items. We had people come clear from Canada, just for the IITH!!!

> The new members are: Herb Newcomb; Elbert Davis; Andy Barnett; Spade Nobles; Shane Nobles; and Robbie Estabrook, a returning former member and knife maker extroidinaire.

> Again, we thank you for the generous donations to iron in the hat, your participation, your confidence in the officers and staff to lead the Guild another year. Remember, if we aren't doing what you want to be doing, let the officers know.

> > Don't forget to pay your dues!

Keep Hammering, Jesse

IRON IN THE HAT

- Old cast iron Boot Scraper Needlework "Friends" **Pickup Tongs** Hooker Tongs **Bolster Blocks** Trivet Rope Jackhammer Bits Damascus Knife Forged Axe Horse-head Bottle Opener Oak Framed Mirror Kindling Froe Post Vise Calipher Basket Twist Fire Rake Forge Blower Maple Handle Blanks
- Beautiful Candle Holder Bucket of Coal Campfire Fork Anvil Block Two Hooks Fence Hook Cross 100% Wool Knit Hats
- Oyster Knife Trivet Spring Steel
- Walter's Demo Piece fork Oyster Shucker Troll Cross Oyster Shucker Tongs Relish Figs Wax and Damascus Knife Kit Smokey Quartz Ring Pick One Charm

Anne Suggs Phil Rosche Phil Rosche Phil Rosche Phil Rosche Phil Rosche Kevin Cook Meck Hartfield Todd Elder Todd Elder Joe Holladay Ray Pearre Ray Pearre Elbert Davis Jesse Barfield Jesse Barfield Bob Hill

Anne Suggs

Ray Burtnett Layne Law Bill Creek Barry Myers Glenn Owen Glenn Owen Keith Gunter Jack McCoy

Peter Mueller John Tanner Charlie Wells

Walter Hill Josh Weston Ava Weston Andy Bennett Tony Etheridge Heyward Haltiwanger Heyward Haltiwanger Jamie Herndon Jamie Herndon Jamie Herndon

Pia Robinson Peter Mueller Hunter Smith **Turner Hammett** Layne Law Joe Holladay Josh Weston Phil Rosche Pam Etheridge Layne Law Adrian Hill Jimmy Stone David Fletcher Jimmv Stone Chuck Baldwin Robbie Estabrook Hunter Smith Genna Weston Ava Weston Todd Elder Barry Myers Ray Pearre Peter Mueller Anne Suaas Jeanne Gunter Hayden Brown Joe Holladay Pia Robinson Curly Lawson Adrian Hill Slade Nobles Barry Myers **Turner Hammett** Jamie Herndon Walt Beard Pam Etheridge Hayden Brown Pam Etheridge Curly Lawson Hunter Smith Robert "RJ" Johns Todd Elder Shane Nobles Jesse Barfield Chris Hammett ML Tanner Shane Nobles Jesse Barfield Linda Creek Pia Robinson Chuck Baldwin

Jamie Herndon

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 the culture corner:

As great Pythagoras of yore, Standing beside the blacksmith's door, And hearing the hammers, as they smote The anvils with a different note, Stole from the varying tones, that hung Vibrant on every iron tongue, The secret of the sounding wire, And formed the seven-chorded lyre. Longfellow

To a Child. L. 175

And he sang: "Hurra for my handwork!" And the red sparks lit the air; Not alone for the blade was the bright steel made; And he fashioned the first ploughshare. Chas. Mackay

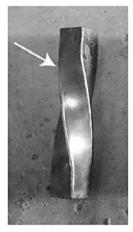
Tubal Cain. St. 4.



I Thought Everybody Knew This Count Ribs to See How Many Twists in a Twisted Bar

Clark Newbold, Ridgecrest

Ever needed to match an existing twist, but didn't know how many times it was twisted? Count the ribs, and divide by 4! Here are some examples:





One half twist Two ribs.



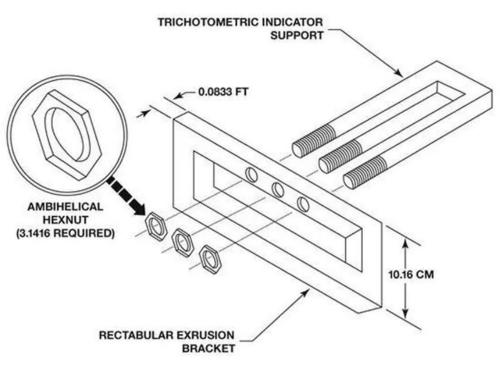
Three quarter twist. Three ribs.



One full twist. Four ribs.

One quarter twist. One rib.

Reprinted with permission from the California Blacksmith Association



This months forging challenge!

by Bill Kirkley

Bill's trivet isn't the most "blacksmithed" project we have ever had submitted, but his plan and jigging up might spark some of you to realize how projects can be done to achieve a good result. Barry

My wife wanted a trivet for her planted pot. I came up with the design shown.





Six pieces of 3/8 inch square bar are cut to a length of 10 inches. The bars are separated by sandwiching half of the bars in between each other as shown. The spacing is needed to accommodate the displacement of metal as the recesses are created.

To assure accurate placement of the recesses, pieces of $3/4 \times 1/8$ flat bar are tack welded in place as shown. To center the center square bar, the edge of the center flat bar is placed at $4 \cdot 13/16$ inches.

The recesses are created by hammering a piece of 3/8 inch stock into the hot







welded members, using the flat bar as a guide. The recesses

are 3/16 inches deep (half the thickness of the bar.) The bars are marked to as-

sure proper alignment for assembly. The pieces of flat bar are removed.

The protruding metal on both sides of each recess is ground or filed off so the width of the recess is 3/8 inches. Hammering it flat would distort the recess. The residual weld is filed off. A trial assembly is carried out. The bars are reheated and straightened. The recesses are fine tuned with a square file.

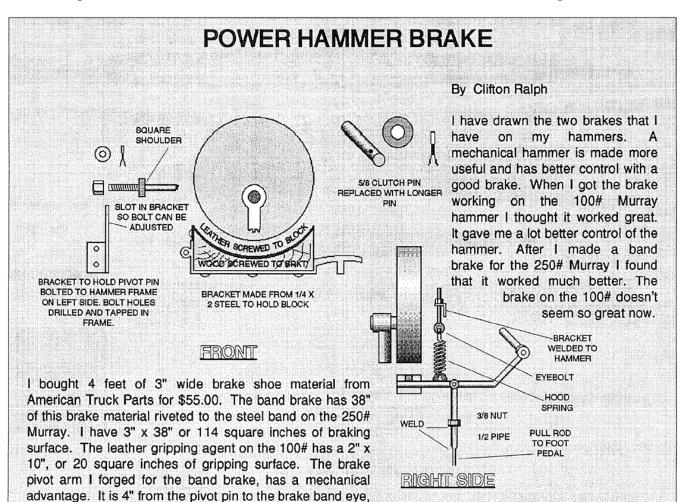


The trivet is assembled with clamps. The members are numbered to assure proper assembly. The holes are drilled for the rivets.

A rivet is placed in each hole before drilling the next hole to assure accurate alignment. The rivets are headed to complete the project.

Enjoy the project, Bill





and 15" from the pivot pin to the spring that tightens the brake. The spring on the 100# has a straight pull with no leverage advantage. The band brake stops the heavier hammer better, due to the mechanical advantatge and the increased braking surface, than the other brake does on the 100# hammer. I have greater control with the 250# hammer than with the 100# hammer because of the more effective brake. The grease from the front bearing has a tendency to find it's way down to the brake on the 100# Murray making the brake less effective. The band brake on the 250# is above the bearing and has less chance of getting grease from drip and splatter.

The brake could be removed from the 100# by stepping on the floor pedal and removing one cotter key and washer. The band brake is a little more difficult to remove. You have to remove two cotter pins and washers. I bolted the angle iron onto the guide adjusting bolts, and welded a vertical offset bracket to it, to mount the pivot pin on the brake arm side of the hammer. I fabricated the angle iron bracket and bolted it to 2 guide bolts, to hold the pull pin in position on the left side of the hammer's counter-weighted flywheel. I prefer using the guide bolts to hold mounting brackets, over welding or drilling holes in the hammer casting. Drilling or welding might cause the hammer's frame to break. If the guide bolts are not long enough to hold a bracket, they could be replaced with longer and better bolts.

Anyway, if you look at the drawings for a couple of days you might be able to understand how these two brakes are made and supposed to work. I plan on making a band brake for the 100#. I hope this will help some of you with a brake for this type of hammer. You don't have to be happy with these brakes, design a better one and let me know about it soon.

Keep Hammerin' Clifton Ralph

Reprinted from the Hammer's Arc, Alex Bealer Blacksmith Association

Portable Blacksmithing - Another Oxymoron by Steve Bloom

Once upon a time, I did (before retirement and reason occurred) a lot of demonstrating and got *really* tired of loading, unloading, forgetting critical items. At the time, I had a full-size van (and a decent back), so I decided to build a portable forge and bench system under the premise that it's a whole lot harder to forget a couple of big items than a couple of hundred little items.

First the forge. I wanted a light, wheeled unit that somehow wrapped together a blower, a blower stand, a tool rack, a coal bin (or at least a location for one), a forge pot, a small work deck, a thirdman, a smoke hood, and, of course, a rust-resistant finish. While I'm at it, why not make it level-able, small to store, and big when set up?. What I came up with is shown here.



Forge - closed for storage

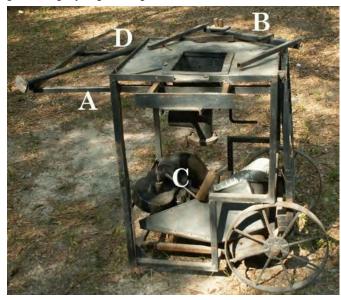
The basic material is light,

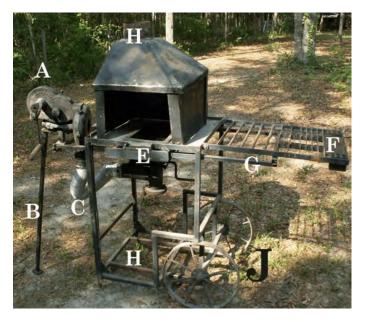
hollow square tubing (approx. 3/4"), welded into a 'Tea-table' 36" high by 24" long & and 24" deep. The wheels were home-made units (bits of pipe, bits of round stock, long thin strap of steel) but if I could have found some old light metal ones, I would have snapped those puppies up. The deck is a framework of 3/4" x 1/8" angle iron supporting a really thin stainless steel sheet. The forge pot is a stainless steel unit made from 1/8" material (way too thin, I later discovered) with a couple of pieces of 3" pipe to form the ash-dump/tuyere area. Note the grill hanging from the deck (near the wheels), the pipe at the rear, and all the stuff under the pot. Wait, Grasshopper, all will be clear soon.

To move the beast, there is a handle (A) telescoped into the edge of the deck opposite the grill. The handle is a square "U" of tubing welded together. Slightly larger tubing forms sleeves for the handle and run left

to right in front of and behind the pot, i.e., they double as deck support. When the handle is pulled out, a pair of holes in the handle align with holes in the deck and the sleeves, so that a couple of pins (actually old wood spade bits turned into screwdrivers) can lock the handle into the unit. You then just lift up on the handle to get the legs opposite the wheels off the ground and roll it away. If you look closely, those legs are actually telescopic and can be moved up and down to make rolling easier and also to allow leveling on uneven ground. Stuffed into the rear of the deck is another handle-like unit (B) that has a couple of stubs welded to the upper surface. The Champion 400 blower (C) travels on the lower deck and has a replacement mount that features a couple of sockets that match those stubs and a piece of pipe that sleeves over the blower leg (D) (which is slipped into a pair of rings on the rear when in travel mode).

When it's time to set up (letters now apply to the picture below), the handle is pulled out of the sleeves, the grill is swung up, and the handle slides into the sleeves from the other side of the forge (G) to act as the support for the grill (F). The grill is lowered and it's ready for tools. The blower support slides into the original location of the handle and is pinned in place. The blower support leg (B) is slipped into the pipe on the bottom of the blower mount, and the whole unit is dropped (A) into place over the stubs. There are set screws on the blower support pipe and sockets to allow the system to be locked down so that there isn't any wiggle when turning the blower. A flex pipe (3" aluminum dryer hose) (C) connects the blower to the pot. One end if the pipe is a simple sleeve for the tuyere end and the other is a wrap-around piece of light leather. The leather slips over the mouth of the blower and is held in place with a radiator clamp. A "third man" (E) lives in the front edge. In travel mode, it has a flange that protrudes up and keeps loose coal from falling off the forge deck. In use mode, the "third man" is flipped over and now is level with the deck. It has 18" legs, so it can be slipped out to support long stock. Also living on the lower deck is a four-part smoke hood (made of light stainless). The rear wall (A) has four clips riveted to it and these hold the side walls (B) which slide into those clips. When assembled, the three walls then support the hood (H).





Philip Simmons Artist Blacksmith Guild

March April 2016

The area where the hood used to live (also marked 'H') is now available for a wood box full of coal and the slack tub (made from an old nail keg and a 5-gallon white bucket) can live under the grill as (J). This also allows the user to occasionally drop tools into the water. It's a good idea to paint the hood pieces - stainless steel walls plus a forge fire makes a pretty effective reflector oven.



The hood had a wood stove pipe socket riveted to the upper surface and a couple of 6" x 36" stove pipes and adjustable elbows completed the assembly. If support was available, I would rig the pipes and the smoke exited 8' over my head and outside of the canopy I used. In travel mode, everything fit on the lower shelf and

was held in place with a couple of bungee cords.

The only complaint I had was the pot itself - too thin (it would glow when in use), too deep and not broad enough. If I was to redo it, I would just use the dimensions of a normal pot. Even given the thin walls, it has stood up to years of use. The next problem was what to do with the anvil, the post vise, and all the stuff we just have to have when forging. That required a traveling bench. The bench is 36" long, 21" wide (at the base) and 22" tall. It was made from 2x6" planks. The leg assemblies are supported at the top by a pair of cross ties (2x4's) and are tied together at the base by additional crossties. The work deck is screwed to the upper cross-ties.

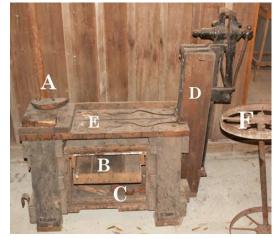


Hinged to the rear of the bench is a post (~ 6 " square) that supports the post-vise (D). In travel mode, the post swings down onto the deck and is secured with a strap. Note the anvil position at the front of the deck (A). I used additional planks to raise the anvil to where I wanted it and then carved a couple of blocks of wood to match the upper surface of the anvil's feet. Those blocks are held in place by a couple of bolts and wing nuts. The wheels are welded to an axle which is held onto the front of the bench by a couple of hooks (opening downward). In travel mode, you pick up the end of the post and wheel the unit around like a wheelbarrow.

In use mode, the post is pushed down to the ground, the wheels drop out of the hooks, the bench is lowered onto all four feet, and the post is swung up. There is a "U" strap that locks the post in the upright position but typically, the mass of the system does that nicely. The wheel assembly (F) can double as a tong rack. The deck (E) has holes to hold a chisel, a holddown, a brush, etc. The space between the legs and under the deck was covered with thin plywood and turned into a tool chest. I also added a pull out drawer at the top of the chest to hold all of that little stuff (like matches, chalk, rivets, etc.).

I rigged a couple of 2x8 planks and some scrap steel to form a quicky ramp and would wheel both the bench and forge into my van. If I then remembered to toss in the slack tub, the anvil and a bag of coal, I was good to go.

The take-home message is that you can build an inexpensive, reasonably mobile setup. Look for big, light wheels, collect hollow tubing and scrap stainless, and who knows, you might like to demonstrate!



Reprinted from the Clinker Breaker, the Florida Artist Blacksmith Association

The other day, Jeffy Hatfield called and asked if I knew of a method of pitting steel surfaces. We talked about it, and I told him about the hydrogen peroxide method, but I don't think I remembered it all. Here is what I found in my archives. I apologize that I didn't adequately record the source. I think it was from the forge and from Heath at Fusionworks, a metal company in Australia. Barry

HYDROGEN PEROXIDE FINISH FOR STEEL

For nice pitting, sprinkle common table salt on the hydrogen peroxide dampened surface. You can control the pitting by: how closely, how many and the size of the salt grains you apply. I tried out the hydrogen peroxide (H_2O_2) method for the first time recently, and was astounded with what I got. Here's the method I used: It was a clear, warm day, and most of the surfaces were vertically oriented. I found that applying the H_2O_2 with a spray bottle worked best. I used a newly opened bottle (for maximum strength) and did not water down the solution at all.

Here's the steps:

Clean metal completely. No oils or mill scale can be on surface. The way I cleaned the metal was first a degreaser, then cleaning with muriatic acid. Sanding, sandblasting, or rigorous powered wire brushing could also be used. 2) Let the clean, dry piece warm up in the sun (I suppose you could lightly warm the piece with a torch or heat gun, but don't get it hot, just barely warm).

3) Spray on a coat of H_2O_2 just enough to wet the entire surface. I found this technique works best if the piece is warm enough to dry out in less than a minute. If any areas stay wet longer (like on horizontal surfaces where it can pool up), gently dab them with a clean rag or paper towel.

4) Repeat step #3 until you have the depth of coloration you desire. Make sure the piece is entirely dry before spraying more on. I found that after five or six rounds, I had a very deep beautiful reddish brown color that was incredibly stable (didn't easily rub off). After that, the H_2O_2 didn't seem to deepen the color noticeably. 5) Seal surface with clear lacquer, oil, wax or whatever method you generally prefer. I also did a small test piece that I cleaned and wire brushed to a nice silver color, then gave two quick coats of H_2O_2 using the same process described in step #3 above. I then coated in with clear satin lacquer. It is a beautiful coppery red/brown color that still had a translucent quality, keeping the metallic qualities as opposed to a solid rusty coloration. I can't say enough how taken I was with this finish. This is such a cool, easy, non-toxic finishing process that I plan to do a number of more experiments, varying the surface treatment prior to the H_2O_2 (sponge, rag, brush, soaked sawdust, etc.) to see what happens.

Clyde Wynia, another smith in the discussion string added: It is a fantastic way of getting different colorful rusts fast without the nasty chemicals. Peroxide works much faster if you add about a 1/4 cup of vinegar to the pint of peroxide and a couple of tablespoons of salt. If you heat the iron so that the solution almost boils off you get absolutely instant rust. You do have to put up with the vinegar smell. Sandblasting works great for cleaning the metal of oils, scale etc and gives the solution a nice surface to bite.

My advice to Jeffy and to you, try it on some scrap before you try it on a finished piece. Barry

Project: Tiny Anvil Made from a Bolt

by Albin Drzewianowski

At the January 2014 Bill Gichner Memorial Hammer -In, the featured demonstrator, Jeff Farmer from Berea, Kentucky, showed how to make a small "anvil" from a bolt. The beauty of this is that you can make a tiny "anvil" from a small bolt or a little bit larger "anvil" from a larger bolt. Jeff's stated goal was to make the "anvil" with minimum tooling.

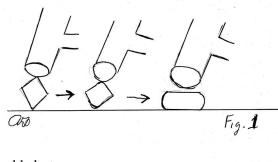
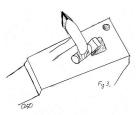


Fig.2

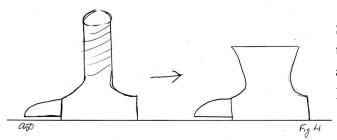
Round the two opposite corners of the bolt head to prevent cold shuts.

Holding the bolt shaft parallel to the anvil surface start to flatten the sides of the bolt head. Go to the vise and flatten the head down. Work back and forth on the sides and top. Sometimes the hardy or the pritchel hole will be a good fit instead of the vise.



Usually one side will have more mass, make that the horn. Start to taper the heel of the "anvil" to a chisel shape and the horn to a point. Do the heel first as this will give you a square shape that will be easier to grip with the tongs later. Put the horn down in the hardy hole to get the underside of the heel flat.

Do not draw the horn out too soon. Keep the horn as short as possible for as long as possible. Use a set tool to put in the shelf of the "anvil". Set in on top and on both sides of the horn. When setting in the second side, put a spacer under the "anvil" so you don't lose the inset already on the first side. Work the horn to octagon, then round. Try to keep the horn from getting too long. Cut off excess bolt, if there is any. Next upset the base, holding the "anvil" upside down on the anvil base. Keep the base centered. As soon as you see something go out of line, immediately correct it.



Square up the base. Use a spring fuller to put in the grooves in the base of the "anvil". Go back and forth between flattening and fullering. File to finish as necessary.

Reprinted from the Hammer Notes, newsletter of the Mid-Atlantic Smith's Association

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. <u>clay@otelco.net</u>. 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. Glenn Owen, Hemmingway. Contact Glenn at forgeontheridge@yahoo.com or www.forgeontheridge.com.

Upcoming Events

April,9th PSABG Meeting, Magnolia Gardens

- April 8 and 10 Bill Creek and Ray Pearre will be at Magnolia hosting an informal Hammer-in. 7 forges available. Bring your own project or come and learn/practice.
- April, 30th Fire on the Mountain, Spruce Pine, NC
- May, 7th Hell Hole Swamp Festival (requested a blacksmith don't know if anybody volunteered ?)
- May, 7th and 14th SC Railroad Museum, Winnsboro, SC. Zack Liollio contact—843-709-8974
- May, 21st Ryan Calloway's shop, Demonstrators: Jody Durham, sculpting a Rams Head and others as time permits; and Phil Rosche showing decorative bar ends.
- June, 11th PSABG Meeting, Marcengills',132 Ringing Anvil Drive, Westminster, SC
- July, 4th Weekend PSABG, History Days at Magnolia Garden, Ray Pearre contact
- July, 13-16, ABANA Conference, Salt Lake City, UT https://www.abana.org/
- Aug. TBD, PSABG Meeting, Camden, SC
- Oct. 8th, PSABG Meeting, College of the Building Arts, Meeting St. Charleston, SC (if location is ready)
- Oct. TBD Autumn on the Ashley Craft Fair at Magnolia Gardens, contact Ray Pearre
- Dec. 10, PSABG Meeting, Jeff Hatfield's shop
- 2nd Saturdays Blacksmith demonstrations at Roper Mountain Science Center, Greenville, SC
- 3rd Saturdays Blacksmith demonstrations at Hagood Mill, Pickens, SC

March April 2016

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

414 Henry Stabler Rd, Swansea, SC 29160 803-665-7083 herndonjamie22@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

Josh Weston 6925 Tanner Hall Blvd. Hanahan, SC 29410 734-709-9677/josh.a.weston@gmail.com

	New Member Renewal
Name:	Address:
City:	State: Zip: Phone:
email:	Sponsor
Dues are \$15.00 per	berson/family, per year. Please remit to: 4605 Durant Ave. North Charleston, SC 20405
ACKNO	North Charleston, SC 29405 LEDGEMENT AND ASSMPUMPTION OF RISK

Membership Application

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...

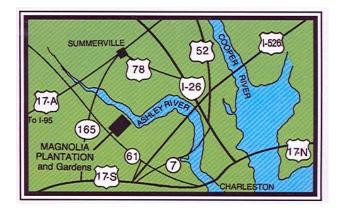
"Dues Last Paid - 2015" or "Dues for 2016 are due"

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

Come to Magnolia Gardens April 9, 10 AM!

Bill and Lynda Creek and Ray Pearre are our hosts. Bring a side, drinks or dessert and something nice maybe something you have forged, for iron in the hat. Todd Elder will be demonstrating! Probably a tomahawk or hatchet!

Sale of your blacksmith-made items to the public is welcomed! Magnolia Gardens also welcomes your forged items to be sold on consignment in their gift shop.



Look at your mailing address below.

It tells when you last paid your dues.