

On the Anvil NEWSLETTER

PHILIP SIMMONS ARTIST BLACKSMITH GUILD

<http://philipsimmonsartistblacksmithguild.com/>

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One of Walter Hill's trivet demo pieces

The LW Paul Living History Farm was the setting for the first meeting of the year with surprisingly moderate weather, not what we usually experience this time of year in Conway.

Walter Hill was our blacksmith performing two demonstrations, in the morning session he made a trivet for cooking at a fireplace hearth used to place a pot or pan on and rake coals underneath for the heat source. The afternoon session produced a pot holder for preserving your countertops. Both sessions were well attended with Walter providing excellent demonstrations and details that the beginner as well as the experienced blacksmith can use.

The trivet is an historic item that predated the use of the cookstove, if you cooked you did it in the fireplace or over an open fire.

Our meal was a low country perlo provided by our gracious host, the staff of the LW Paul farm. The kind cooks of our membership provided the rest of the fixins' and desserts that filled and delighted all of us. Thanks to Walter Hill, The LW Paul staff, the Cooks and blacksmiths of the PSABG for a successful and enjoyable blacksmith gathering.

There were approximately 50 to 60 members present, couldn't get a good number because they were having musical program in the afternoon and a lot of those folks came early

Iron in the Hat; with lots of nice quality items, knives, a sword, and all kind of forged stuff. we brought in \$806.00

New members are: Adam Hall, Lucas Reason, Steven Shiflet, Robert Lee Jordan, Clark Ard. Returning old members: Lonnie Alverson, Chris Medlin., Welcome!

The good folks at Magnolia Plantation and Gardens donated \$1000.00 to PSABG for our providing a Blacksmithing presence several times during the year that compliments their historical mission, this is an annual donation. Also, the Southern Blacksmith Association gave us a \$2000.00 distribution for our participation in the biannual meeting at Madison GA the most recent being held in 2017.

We are indeed thankful that Bill Burgess was able to come to the meeting after finding out that his tractor will crank while it's in gear. Prayers were answered and we are all fortunate to still have him with us. Another prayer request I was made aware of is Turner Hammett one of our younger members and a student at the American College of the Building Arts.

We are going to elect one Board Member at the April meeting. If you would like to be considered or want to nominate someone, let us know before the meeting.

Thanks, Jesse



Walter's second demo piece trivet

Rules and guidelines on the insurance coverage for Guild events:

The Guild has purchased Insurance Policies for General Liability (Personal Injury and Property Damage) and for Legal Action against the Guild Officers and Board of Directors.

Coverage is not automatic for any and all blacksmith events. If you are being paid by another party or collecting a fee from participants other than cost to cover material, you are not eligible for coverage.

You must request coverage by email or letter to the Secretary/Treasurer at least two weeks before your event. In your request please describe your event, its location, and date(s). For coverage you must meet the following criteria. Continued on Page 2.

IRON IN THE HAT

| Item | Donated By | Won By |
|----------------------------|--------------------|---------------------------|
| Bickern | Bill Creek | Sergio Smith |
| Woodcarving Mallet | Bob Hill | Kevin Cook |
| Safety Glasses | Walter Hill | Chuck Howell |
| Cane Syrup | L.W. Paul Farm | Jesse Barfield |
| | | Walt Beard |
| | | Clyde Umphlett |
| | | A very fast unknown woman |
| Trivet | Joe Marsh | Bruce Hester |
| Chisel | Chuck Howell | Duke Baxter |
| Forge Face and Cuttin Edge | Layne Law | Kevin Cook |
| Mustang Timing Chain Knife | Meck Hartfield | Gerald Alsbrook |
| Long Horn Coat Hanger | Keith Gunter | Tony Etheridge |
| Two Pieces of Chain | John Hartfield | Clark Ard |
| Draw Knife | Tracy Hartfield | Billy Joe Burgess |
| Chisel | Jesse Barfield | Clark Ard |
| Sword | Tradd Pearson | Cayne Lawson |
| Jimmy Suggs Knife | Anne Suggs | Sergio Smith |
| Second Jimmy Suggs Knife | Anne Suggs | Meck Hartfield |
| Hot Iron Shirt XLG | Anne Suggs | Johnny Marks |
| Candle Holder | Gerald Alsbrook | Robbie Esterbrook |
| Dinner Bell | Bruce Hester | Johnny Marks |
| Blacksmith Pictures | Bruce Hester | Charlie Meyer |
| SKS Bayonet | Bruce Hester | Jesse Barfield |
| Funky Breaded Axe | Mike Tucker | Sergio Smith |
| Pickled Okra/Zucchini | LaDonna Burgess | Anne Suggs |
| Pewter Bracelet | Sharon Hill | ML Tanner |
| Spatula | Tony Etheridge | Johnny Marks |
| Hanger | Raymond V. Burnett | Clark Ard |
| Belt Buckle | Cayne Lawson | Johnny Marks |
| Bass Tools Book | Kevin Cook | Bruce Hester |
| Smith Life Sticker | Kevin Cook | Pam Etheridge |
| Copper Punchouts | Kevin Cook | Bruce Hester |
| | | Charlie Meyer |
| | | Bruce Hester |
| Hammer's Blow | John Tanner | Joe Marsh |
| Forge Burners | Sergio Smith | Charlie Meyer |
| Knife Scales | Sergio Smith | Billy Joe Burgess |
| | | John Tanner |
| | | Anne Suggs |
| | | Heath Williams |
| Forge Pick and Shovel | David Bush | |
| Oyster Shucker | Duke Baxter | |

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!

Rules for Guild Insurance (con't):

1- Do not allow the Public into your work area for close observation or participation. If the location dictates, a barricade should be placed to create a safe space of at least 5 feet between the Public and your work area.

2- Participants should be Guild Members and Acknowledge and Assume Risk for participation in the event. This can be accomplished verbally at the beginning of the event or by signing them up as a New Member. Provide the Secretary/Treasurer a list of participants, New Members applications, and dues collected after the event.

3- Always promote the Guild Mission to educate and preserve the Craft. Guild informational brochures are available to assist you with this requirement.

You will receive a reply and confirmation of coverage. If you have questions contact me.

C. Ray Pearre, Jr – Secretary/
Treasurer



Barry Myers at the Battle of Aiken, School Days

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 tire 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.

Battle of Charleston Re-enactment 14-15 Apr at Legare Farms Ray Pearre contact.

June Meeting, June 9 at the Marcengill's in Westminster.

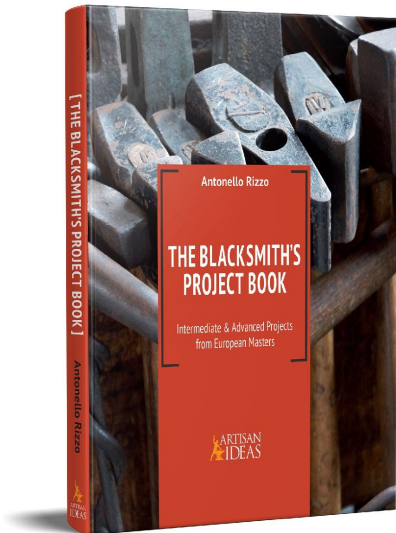
History Days 7 July at Magnolia Gardens, Charleston. Ray Pearre contact.

August Meeting at Camden. August 11

October Meeting. Todd Elder and Jason Vorhis at their Columbia (the city) shop. Date TBD.

December Meeting: Open to a host and venue.

Book Review: The Blacksmith's Project Book by Antonello Rizzo



This book is subtitled “Intermediate & Advanced Projects from European Masters.”

This book was sent to me to review it in trade for a copy for our library. Once you see it, you may well want one for your own. This book starts off with the human form sculpture work of Zeevik Gottleib! He shows the step by step how he sculpts the same sort of forms he made at Madison for the SBA.

Rizzo continues with various master smiths showing techniques to sculpt a hand, a one piece rose, a phoenix, even a nativity scene! And that's not all! Rizzo showcases 20 smiths' individual projects and techniques including a very good chapter on mokume, horse dung and brass patina on a cow bell (now that is interesting!), and brass patina on metal plates.

This is an exceptional book with many projects that I plan to attempt myself. The one using angle iron to repousse a face sort of piqued my interest,,,

This is a very good book. It is hard cover, 248 pages with over 900 colored pictures. The cost is \$49.95 and is available from Artisan Ideas on the web. Contact me if you can't find it.

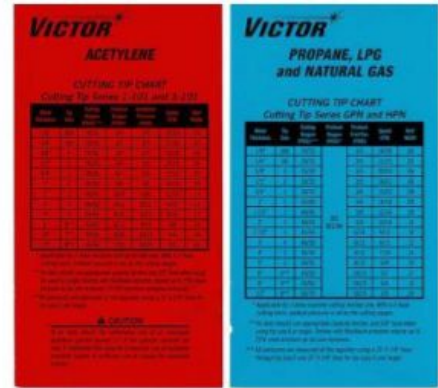
Rizzo has a previous book, “Secrets of the Forge”, I will review it when I get my hands on it.

Barry

Randy Calhoon on oxy/acetylene setup, gas welding and plasma cutting.

Oxy/acetylene setup

- First get the book on your torch set. Read it. At the same time pick up the free cards for your torch set that have all the information you need on pressures for cutting, heating and welding with acetylene, propane and natural gas.
- When mounting the gauges on your bottles turn the gauges up slightly. If the diaphragm fails the gauge will hit the ceiling.
- Turn the gas on slow and don't stand in front of the gauges. If the diaphragm fails on the oxygen the gauge will shoot out of its case with 2200 lbs. of pressure behind it. That's enough force to penetrate a human body.
- Set the regulator pressure with the gas flowing. The listed pressure is flowing pressure.
- Match the pressure to the tip size and the thickness of the metal listed on the free information card you get from your local welding store.
- Crack the acetylene valve, point the tip away from you and strike the lighter.
- Turn the acetylene up until the soot stops forming and the flame is still connected to the tip.
- Add a little more gas but keep the flame connected.
- Turn the oxygen up until the inner flame shrinks to a single blue flame with an outer bluish to orange flame. This is a neutral flame.
- A long white inner cone is an oxidizing flame—too much oxygen.
- Two inner flames with a light orange tip and a white outer flame near the second inner flame is a carburizing flame—not enough oxygen. The inner flame beyond the inner cone is an acetylene feather.
- The gas knobs on the torch often get bumped changing the gas settings. The fix is: with the gas off at the regulator or the tank, open the knobs on the torch a couple of turns and slightly tighten the lock nuts. A very slight turn on the lock nut tightens the valve knob so it won't easily move when bumped.

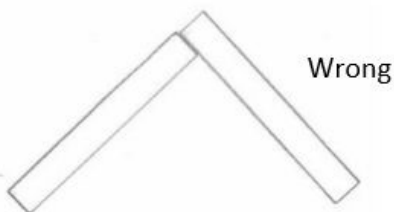
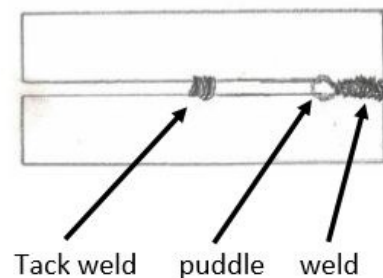


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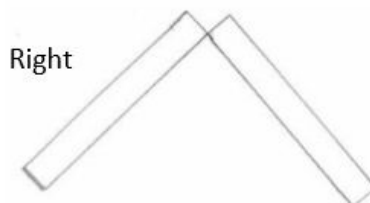
Calhoon continued

Gas welding

- When welding flat bars side by side, leave enough of a gap so that you can get good penetration between the bars: the width of the filler rod for bars less than 1/4". For bars 1/4" and over grind a bevel on the edges to be welded. Technically the included angle should be 60°. Tack weld in the middle to avoid pulling the bars out of parallel.
- Weld direction (when gas welding with a filler rod) is to push the flame/puddle.
- Start the weld from the right side (for a right hander) by forming a puddle—push the rod into the puddle and work to the left. Pushing the rod into the puddle is like “feeding the baby.” Don’t push the rod into the puddle too far (you’ll gag the baby) and don’t hold the rod above the puddle (the baby will scream) and the filler rod will drip.
- When welding outside corners don’t over-lap the pieces—place them corner to corner and weld in the gap to get good penetration.



Wrong



Right

- When doing a T weld, aka fillet weld, set up a fixture or two to make the weld easy.

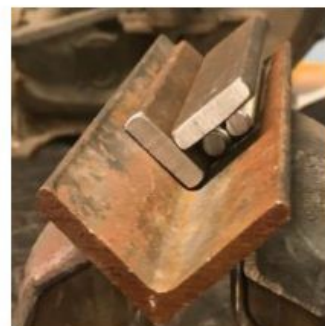


Jig 1



Jig 2

This fixture (right) is for finishing one side of the weld. It is easier to weld in a trough.



Jig 1 and 2 are for tack welding the ends. Use what you have available.

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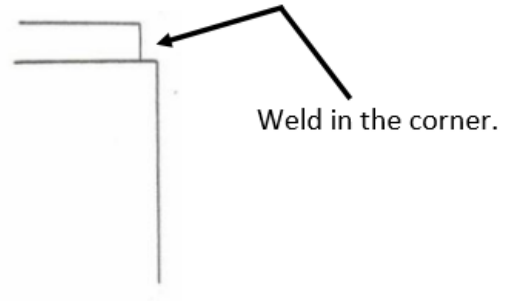
Calhoon continued

- When welding outside corners (i.e., a cap on a square tube) instead of cutting the cap the exact size of the tube, cut the cap slightly smaller.
- Weld in the corner to get good penetration.
- File or grind the weld round for a nicely finished weld.

Wrong



Right



- When welding tube to a plate, tack weld the corners first. If the tube's walls are 1/4" or thicker, bevel the end and weld in the gap.
- Why waste rod? When a gas welding filler rod gets short—Stick it to the weld and weld a new rod to the short rod. Burn the original rod loose.
- Hide welds whenever you can. One way is to use plug welds—grind flat and heat with a torch to create some scale blend.
- When a weld is stopped, restart the weld in the crater that is left, but stay in the crater half as long as you would normally to prevent a knob.
- With all gasses in any kind of welding don't over pressurize. If anything, slightly under pressurize.
- When using a shield gas for mig or tig, back off the recommended pressure until porosity shows up in your weld, then increase the pressure slightly and use that as your setting.
- Same thing when brazing. Use less pressure on oxygen and acetylene—creates a softer flame that works better. If you're impatient, the higher pressures do work.
- Brazing works well as a substitute for inlaying brass. Fill a grooved pattern using a silica-brass rod, sand the piece, bring the tempering color up to purple.



Continued on next page

Calhoon continued

Randy Calhoon on Plasma Cutters

Pros

- They can run on different voltages.
- Portability.
- Work well to cut 4' x 8' sheet metal down to a manageable size.
- The best way to cut expanded steel.

Cons

- One dimensional.
- Can't heat with it.
- Can't weld with it.
- Slow pay-back on the money you pay for it because it is not used very often.

Tips

- The newer plasma cutters have built-in compressors assumably with a built in air dryer.
- On older cutters use two air dryers: One on the output of the compressor and one on the air intake of the plasma cutter and use as little air pressure as possible. Less air means less moisture cuts down on dross (rag on the cut) and prolongs the life of consumables because less condensate = less water degradation.
- Practice cutting at different speeds until you find the speed where no dross is left on the cut.
- If dross is present use a ball-peen hammer to lightly tap the dross off. Tap dead on the edge, not at 90° to the edge.

Welding and layout tables

- A good welding fixture is a piece of angle iron with the inside corner ground square and the outside corner ground flat - to allow a place for the lower jaw of a clamp or vise-grips to seat. Weld the angle to the edge of your welding table.
- Cut C clamps in half and weld top to a plate. Clamp or weld the plate to the welding table.

Continued on next page

Calhoon continued

- Put laser grid lines on the layout or welding table off-set at 5" - 10" - 15" - 20" - 25" etc. for stair layout.
- A dead on laser groove perpendicular for center line layout.
- Drill pritchel hole and hardy on one end of your table so you can use anvil tools on your table.
- An old school layout table is made of small I beams with spaces between the beams for clamping.
- Instead of a 4' x 8' x 1" thick layout table, use several 2' x 4' x 1" thick tables on wheels that you can move together in any configuration—long and thin or long and wide.


Shop tips by Albin Drzewianowski of the *Mid Atlantic Smith's Association's Fall 2017 newsletter*

Files: Here is a handy way to clean a hand file. If the normal file card can't get out those two to three stubborn bits of steel stuck in the teeth of your file, take a large bullet casing (brass) and flat-ten the end so that you have two very sharp points (see photograph). Look for the largest shell casing that you can find.

The one in the picture is 4" long. A large casing allows you to have a really firm grip on the tool and makes it easy to manipulate. This tool will allow you to pick out those really stubborn bits of steel in your file. The brass allows you to exert pressure without damaging the teeth of the file.



File Cleaning Tool Photo by Albin Drzewianowski

Wire Brushing: This is a double "Shop Tip." At the 2016 Principio Iron Furnace Hammer-In, featured demonstrator Derek Kemper would soak his wire brush in water before he wire brushed the scale off of his work. I have taken to doing this on the final wire brushing when I am trying to get fire scale off my work. The water seems to make the fire scale "pop" off. I use a stainless steel wire brush. This has two advantages: being stainless steel, the bristles do not rust from repeatedly going into the water. Also, I have heard from a number of different sources that stainless steel wire brushes, both handled and the ones that go on bench grinders do a better job because they are a harder steel and they last longer. They are more expensive, but I think they are worth it.

A Primer on Chasing and Chiseling Work

By Jody Durham

At first glance, works using chasing and chiseling can look complex and intimidating to recreate. When in reality it takes a minor amount of skill to achieve decent results. The real secret is the labor and attention to detail to gain jaw dropping results. As a beginner it is best to start with a simple design that will allow you to have a completed pro-



ject in a minor amount of time.

A candle holder designed by Mike LaMarre and inspired by a Samuel Yellen rosette is a great start-up project. You can complete the Candle holder using just a few tools, and will offer a good starting point on chasing in designs and chiseling the shape out.

The first tool you will need is the incisor/chisel. It has a very specific shape which is important to achieve good results. Minor changes to the geometry of the edge can make big differences in the tools performance and quality of the end product. The best description of the edge is the profile of a canoe. Thicker in the middle and tapering to a thin edge on either end. The corners are rounded off which helps achieve even results. The leading edge of the chisel cuts, the middle planishes and starts

to push the material out of the way. With chasing the smaller the chisel width, the more detail is acquired, with a drawback of adding time to the project. I would recommend a chisel width of no more

Chisel Profile

1/8 inch



Edge View
canoe shape



than 1/8th inch for this project.

Most all traditional chased work starts with the pattern being glued on to the metal. The best glue to use according to Ernie Dorrell is normal rubber cement. The glue adheres easily to both the paper and metal and will burn off leaving no residue if needed. Once the pattern has been glued on, center punch the middle and drill a small hole to fit a machine screw. Now it's time to start your first pass on the project. A pass is considered one complete cover of chisel hits on all lines of the pattern. If memory serves, it may take 4 or more passes to cut out one piece on 16 gauge steel.

With the first pass complete you can burn off the pattern or leave it on. I have seen little difference either way. Be aware of what is decoration and what is to be cut totally through.

You can achieve what is called line weight by varying the depth of the chisel cuts on decoration lines i.e. hitting deeper into the material will give a wider line. Calligraphic writing is a good way of picturing what I am talking about.

Once you've made 4 passes and you can hold up the work piece to a light source and can see light passing through in places, relief cuts can be made on a band saw and the part can be broken out of the sheet. If you have the prerogative you can completely chisel cut the design out without the relief cuts.

Note: drawings on the following page may be found full size on the Philip Simmons website under Classes and Notes

The second tool needed is a ball fuller. Basically a ball shape on the end of a punch. 9/16 diameter or similar will work fine. Place the bottom part of the candle holder face down on a stump and use the ball fuller to dome out the leafing to produce some depth in the design. Generally, you need 3 hits per leaf on the design to dome it out, one on each leaf point and one on the center.

The smaller rosette is done the same way with one added step. The center triangular leafs need to be pushed up and bent out to form a singular leaf.

The third and top layer is chased, chiseled out, and bent to shape to form a candle holder. A 7/8 inch round rod was used as a mandrel to form the cup of the holder. The tips are bent down to add design and character.

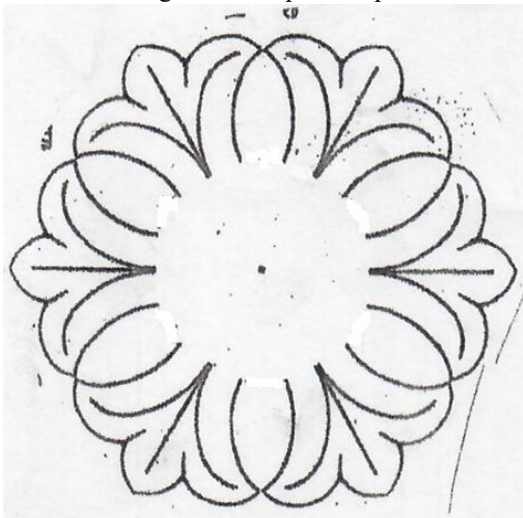
Once all the pieces are ready to assemble, bolt all pieces together make sure to pose the stack in a pleasing manner and finish with a coat of some type of protectant.

I would like to thank Mike LaMarre for his help and generosity in sharing his design and providing a pattern. I would also like to thank Ernie Dorrill and Clay Spencer for their Tireless efforts in teaching and sharing their knowledge.

Thanks also to the guild for the scholarship. Without our member's donations and participation, many of our group would not be able to receive such valuable training and knowledge!

Top (candle holder piece)

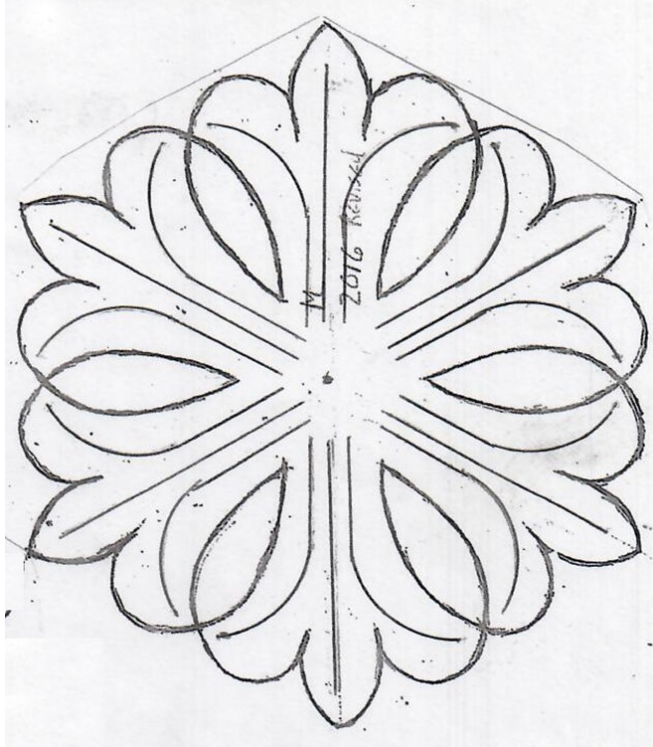
Enlarge to 3 5/8", point to point



Candle Holder Pattern

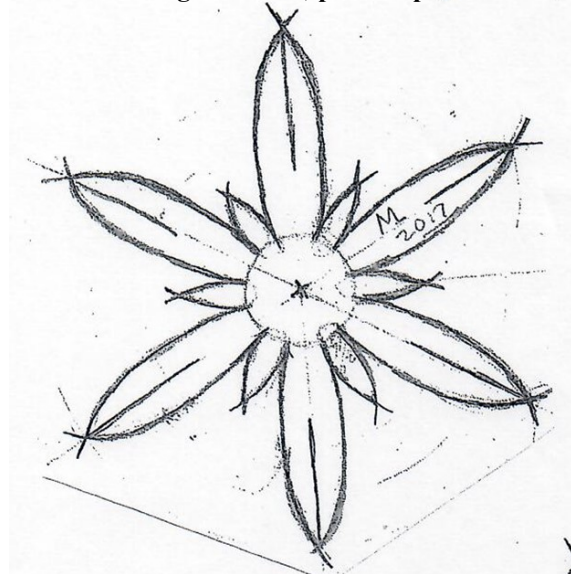
Base (Part one)

Enlarge to 4.5", point to point"



Middle (Part 2)

Enlarge to 2 7/8", point to point



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<http://philipsimmonsartistblacksmithguild.com/>

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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”

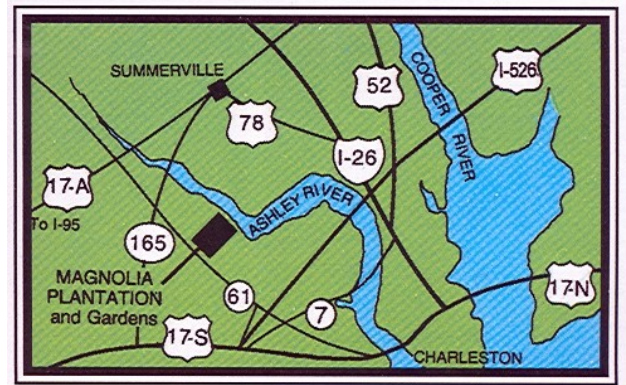
This note is updated for each newsletter. We appreciate your prompt payments.

Come to Magnolia Gardens

April 7, 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. Josh Weston is going to demonstrate. Come and be amazed! It will be something really exciting!! Okay, maybe pretty exciting...

Sale of your blacksmith-made items to the public is welcomed!



Look at your mailing address below.
It tells when you last paid your dues.