

# RAM



July - August 2015  
Volume 32, No 3

# Blacksmith Association of Missouri

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Trade item at the July Meeting



Mike McLaughlin demonstrating at the July Meeting

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Phil Cox

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Bruce Herzog

The Newsletter of the Blacksmiths Association of Missouri is published six times a year and is mailed to members of BAM. The annual fee for regular membership is \$30/year; a portion of this amount is for a subscription to this newsletter for one year. Editorial inquiries should be addressed to : Jon McCarty 815 Miller Street, New Haven, MO 63068; (636)359-1246, or send email to bameditor2015@gmail.com BAM membership inquiries should be addressed to: Bruce Herzog, 2212 Aileswick Dr., St. Louis, MO 63129; (314) 892-4690 or send email to bjherzog@charter.net. Occasionally some material will be copyrighted and may not be reproduced without written consent by the author. BAM welcomes the use of any other material printed in this newsletter provided the author and this organization are given credit.

**Membership Application**

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_  
 Phone:( ) \_\_\_\_\_ Zip: \_\_\_\_\_  
 E-mail: \_\_\_\_\_

New Member  Renewal  ABANA member

Are you interested in taking a class?

How did you learn about BAM? \_\_\_\_\_

Memberships are for one year from receipt of dues. Dues are \$30, which includes a subscription to the bimonthly BAM newsletter. Please makes checks payable to Blacksmith Association of Missouri

**ABANA Membership Application**

Primary ABANA Charter Affiliation: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Phone:( ) \_\_\_\_\_ Zip: \_\_\_\_\_

New Member  Renewing Member

*Includes a Subscriptions to the Anvil's Ring and The Hammers' Blow magazines*

- Regular Member -----\$55 yr.
- Senior Citizen (Age 65+) -----\$50 yr.
- Full time student -----\$45 yr.
- Overseas airmail -----\$80 yr.
- Overseas surface mail -----\$65 yr.
- Contributory-----\$100 yr.
- Public Library-----\$45 yr.

*Send this form in an envelope with your payment to:*

BAM  
 c/o Bruce Herzog  
 2212 Aileswick Dr.  
 St. Louis, MO 63129

I \_\_\_\_\_ hereby apply for membership in the Artist-Blacksmith's Association of North America and enclose \$\_\_\_\_\_

MasterCard  Visa  Check/Money Order

Card Number

Exp. Date (Required)

Checks must be in U.S. Currency

**SEND RENEWAL TO:**

**ABANA Central Office**

259 Muddy Fork Rd, Jonesborough, TN 37659

Dues Distribution:

1 year subscription Anvil's Ring: 68.5% \$24

Adm. offices & other ABANA projects (Conferences, ect): 31.5% \$11



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OPEN

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The Blacksmiths' Association of Missouri is an affiliate of the Artist Blacksmiths' Association of North America, and is devoted to the preservation and advancement of blacksmithing and to communication among blacksmiths in Missouri and surrounding areas. The Newsletter of the Blacksmiths' Association of Missouri's goal is to support these aims. Letters to the editor, tech tips, tools for sale or anything else which furthers these ends will be considered for publication.

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## From the President

By Phil Cox

Last of July. Where is the summer of 2015 going? So much to do, so little time left. Mathew had a great meeting. He did his pay-back for his scholarship and as always did a great job. He showed us several neat ways to join our projects without the use of our welders. Nothing wrong with well done welds but traditional joinery just moves a nice piece up several notches in class. Mathew's patience and attention to detail never ceases to amaze me. I have not been able to get his new stone forge out of my mind. Mathew and his Dad built it themselves and did a wonderful job. We had a good turnout in spite of the down pour. I always like the sound of rain on a metal roof. I think 50 or 60 people braved the rain.

We had a good business meeting with a healthy discussion about request for demos. Several of us get request for demonstrators for different event around the state. Most people don't have any idea how much trouble and expense is incurred in going to do a demo. We really didn't come up with a plan about how to cover these requests. Many of our members have been doing demos for schools for years. These guys need a big thank you for helping keeping our craft alive. One way we can help is for our members to do the demos close to them, it is much easier if you only have 10 or 15 miles to drive.

You don't have to do big projects small simple items that come together quickly are often the best. Many of you guys that I talk to say they are not skilled enough. You must remember you know more than 99 percent of the people you will be demoing to. It is also a very good way to make contact with people that have blacksmith equipment they may want to sell. If you would like to give it a try give me a call and I'll put your name on a list if something comes up in your area.

Bernie and Patti Tappel had a wonderful Hammer In for us old retired guys and some younger people that just wanted to hang with us old guys. Margie said she had a really good time with 10 or so women that made their husbands bring them to this event. I think I speak for all us guys when I say thank you ladies for all your support. I know Patti loved the help with the meal. I think we had 25 to 30 attendees. Bernie

demoed some of the lighting items from Jerry Darnels book He had some Kits ready for anyone wanting to try their hand. There were several impromptu demos many of which I missed due to the sharing of information (better known as BS). As the day went on there were many pairs of old guys helping some people, both young and old with skills they were trying to master. I do think a lot of us learned a lot while having a really good time. Several people went home with some "new" old tools. Bernie is helping a friend sell His Dads blacksmith Stuff. There is still some good tools left. I think Bernie has a list on the web page, check it out.

With the 90 plus days working over hot steel can take a toll on us. Remember to start early and drink plenty of WATER. Take breaks and plan your harder work in the cooler part of the day. Save the easier stuff for the heat of the day. When possible, work in front of a fan try to stay out of the sun. I think a coal forge with a hood that draws well will put a lot less heat in the shop than a gas forge. If you must use a gasser try to put it just outside the door with the exhaust away from the shop. Above all if you and hot and your skin is dry shut it down for the day and get to a cool place.

Until next time keep your fires hot & clean and your anvil bright. Phil



## Letter to the Editor

by Jon McCarty

I have a shop set up for the gas forge workshop. Thank you Don Birdsall. I now need a head count so I can get us a cost. Please email me at [bameditor2015@gmail.com](mailto:bameditor2015@gmail.com) if you plan to attend the workshop and we can start getting things set up.

The following email was sent to me and I also felt it should be shared with our membership.

Dear Jon,

Please find attached a press release about a major blacksmith event planned for Sept 2016 in Ypres, Belgium. There are several parts to this and the more people we can get all the information out to the better. I think our BAM members will be interested to hear about the overall project and I hope that some of them will be inspired to enter the design competition as well.

More information can also be found at <http://www.ypres2016.com/>. Specific information on how to enter/apply to the design competition can be found here <http://www.ypres2016.com/design/the-design-brief/>

Thank you in advance for your help in spreading the news and please feel free to contact me as the US Liaison for the event if you have any questions.

best,

Kate Dinneen  
1582 N 1500 Rd  
Lawrence, KS 66046  
[kld310@earthlink.net](mailto:kld310@earthlink.net)  
785-841-6271



## Ypres 2016

If you live in the world, here is an important date for your diary. Artist blacksmiths are invited to take part in a major, International public forging event in the centre of Ypres, in Flanders, Belgium, from the 1st to the 6th of September 2016, to create a Cenotaph to commemorate those on all sides – both military and civilian – who fell, or were touched by the First World War.

During the War, Blacksmiths and Farriers were essential to maintain the military machine, and to shoe countless thousands of horses. One hundred years later, the plan is to bring together blacksmiths from the many countries whose soldiers fought in the War, to celebrate their skills in a spirit of peace and co-operation, and to remember the fallen.

As a strategic military focus throughout the first World War, Ypres provides testimony to the heroism, tragedy, futility and aftermath of war, because in contrast to many other European cities, reminders of the War are still there. This was “the war to end wars”, which gave rise to so many poignant images – the grim reality of trench warfare, and yet in those black and white photographs, the soldiers smile; the Christmas Truce of 1914; trees shattered by heavy shelling; artillery and horses bogged down in mud; and straggling lines of men blinded by gas.

During more than four years of fighting, the battle front shifted little more than five miles, ( eight kilometers ) back and forth to the east of Ypres, at the cost of some 800,000 military and civilian casualties. The city itself was almost completely reduced to rubble – yet it stands today, proudly re-built, including the huge and iconic medieval Cloth Hall, which dominates the cobbled city square of the Grote Markt.

This First World War centennial project was initiated in 2009 by Luc Vandecasteele of ASG, the Belgian Guild of Blacksmiths, and designed by Terrence Clark, then the Chairman of BABA, the British Artist Blacksmiths Association. His Poppy Cenotaph design is a seven meter tall steel slab, incorporating the negative and positive image of a Flanders poppy, to symbolise the two sides of war; the negative, representing those who lost their lives, and the

loss experienced by their families; the positive representing the future that springs from their sacrifice, and for those who survived and their families.

The Cenotaph will stand in a field of 2016 forged steel poppies, surrounded by a zig-zag arrangement of individually designed railing panels, echoing the characteristic plan form of the trenches. This will both define and provide public access to the site, when the Cenotaph is installed permanently in Langemark-Poelkapelle, Belgium, a few kilometers from Ypres, alongside the beautiful German Cemetery. The ceremony to unveil and inaugurate the Cenotaph will take place there on 11.11.2016.

The poppies and railing panels will all be made at the event. Thirteen railing panels will be designed by invited masters, each to be made by teams of six volunteer blacksmiths, under the guidance of the master. This is an opportunity to experience working alongside some of the world's most respected blacksmiths. To date, Will Maguire from Australia; Achim Kuhn from Germany; Claudio Bottero from Italy; Peter De Beus from Belgium; Sandra Dunn from Canada; Takayoshi Komine from Japan; Vladimir Sokhonovich from Russia; Francisco Gazitua from Chile and Shona Johnson from the UK have all agreed to take part. The names of further masters will be listed in due course.

Twelve railing panels will be designed in an international design competition, open to all. Each winner will similarly be assisted to create their design, by six volunteer blacksmiths. The design brief and application form is available on the project website at [www.ypres2016](http://www.ypres2016), where you can register your intention to submit a design. This is an opportunity to design a panel to represent your feelings about a very serious subject, as part of a significant and lasting memorial.

The work will be undertaken in extensive blacksmithing facilities set up in the Grote Markt – the Market Square – in the centre of Ypres. The 7m x 2m x 100mm Cenotaph slab will be erected on a temporary base, clad with plywood, enabling the 2016 forged steel poppies to be set in place around it, as they are made.

Some of the poppies will be forged by children, who will be assisted by specialist blacksmith instructors, in dedicated forging areas within cordoned safety zones. Strict safety regulations will be observed under the control of an appointed Safety Officer, who with a Forgemaster and a team of deputies will control the activities on the site.

To accompany activities in the Grote Markt, BABA is currently working on a proposal to mount a public exhibition of blacksmithing work in Ypres. A suitable indoor Exhibition space has been identified and our Exhibition Officer is working on the details. Further information about the Exhibition space and the kind of work which may be submitted, will be published on the Ypres2016 website in due course.

As one of the largest public events with which BABA and ASG have been involved, this is an opportunity to demonstrate the skills and application of contemporary blacksmithing; meet and work with smiths from other countries; and contribute to the creation of a unique and significant piece of work.

For more details visit [www.ypres2016.com](http://www.ypres2016.com)  
Facebook, Ypres2016  
[twitter.com/ypres2016](https://twitter.com/ypres2016)

## MTS Workshop

by Don Birdsall

Number 1-beginner Workshop Saturday April 2nd  
2016

Number 2-beginner workshop Saturday April 9th  
2016

Location:

Ray Scott:

HCR 2, Box 196

Eminence, MO. 65466

No daytime phone number

Evening telephone number 573-226-5541

Start time 8:00 am. Sharp.

Students should be there and ready to go at 8:00  
am both days.

Students must wear safety glasses while instruction  
and workshops are being run.

Students need to bring a lunch both days.

Water will be available.

Students should wear cotton or wool clothing, no  
synthetic type of clothes.

Gloves and aprons are not provided.

Must be a BAM Member (Insurance requirement)  
\$30.00 dollars for a one year membership.

Cost of each workshop is: \$30.00 dollars per  
student per day.

Instructors are:

Ray Scott

Don Birdsall

573-364-7223

Directions to Ray Scott's Shop:

At Eminence, MO.

Go east on highway 106 five miles to highway V  
go north two miles.

Look for a white fence on right side of the  
highway, turn at the gate and drive down to the  
shop.

If not a member sends membership dues (\$25.00  
dollars) to:

Bruce Herzog

212 Aileswick Drive

St. Louis, MO.

Send payment for workshops to Ray Scott at the  
above address.

Any questions call:

Ray Scott or Don Birdsall

Thank you and hope to see you at the workshops.

## Beginner's Class

Beginner's Blacksmithing Class

Oct 3rd and 4th

Shelbyville, Mo

Hosted by Bob Ehrenberger

Contact at: [eforge@centurytel.net](mailto:eforge@centurytel.net)

Phone: 573-633-2010



## Meeting Minutes

by Don Anders

Matthew demoed several different types of joints, collar tie, mortise and tendon ect. Matthew did a really good demo, I enjoyed it very much

Mike McLaughlin did a demo after the business meeting and made a garden spade from a railroad spike.

Business meeting

Phil Cox, thanks to Matthew and his Dad for having the meeting and the excellent lunch.

Phil Cox is getting calls for demonstrators for schools and other venues. Phil talked about coming up with guide lines that could be put on the BAM website. Also there was talk of BAM subdividing the cost of the demo at a nonprofit type venue such as a school. More discussing to come.

Bruce Herzog gave the treasure's report, now that all final bills are in we did better on the conference than we thought, we came out very well on this conference. BAM now has 602 members, things seem to be going better as we move away from the recession.

Mike McLaughlin gave a 2016 conference report, the conference will be April 29-30-31. If you are planning on camping at the conference please use the State Fair campground.

Kent Harbit has State Fair ticket for BAM demonstrators.

Ken Jansen is going to have another black Friday hammer-in this year it will be to make bending forks.



Matthew Burnett Demonstrating at  
July Meeting

# Iron in the Hat ~ July Meeting

**DONATED BY**

?  
 Matthew Burentt  
 Fred Arnhold  
 Don Forlow  
 Don Forlow  
 Greg Humhrey  
 Don Forlow  
 Bobby Chambers  
 Willie Bagley  
 Don Forlow  
 Don Nichols  
 Matthew Burnett  
 Maththew Burnett  
 Dan Fulk  
 Richard Stubbelfield

**WON BY**

Greg Humphrey  
 Mark Sampel  
 Mark Lawson  
 Ken Jansen  
 Mark Sampsel  
 Mark Sampsel  
 Mark Lawson  
 Mark lawson  
 Mark Sampsel  
 Ken Jansen  
 Mike McLaughlin  
 Mike McLaughlin  
 Mark Lawson  
 Don Anders  
 Mark Lawson

**ITEM**

round stock  
 knife magazines  
 vise  
 cutter teeth  
 can of bolts  
 spindle  
 can of bolts  
 hammer & punch  
 Band saw blade  
 cutter teeth  
 misc metal plates  
 tin containers  
 coil spring  
 blacksmith book  
 welders leathers

## Trade Items



**Made By:**  
 Dan Fulk

**Traded To:**  
 Larry Lutz



**Made By:**  
 Ken Jansen

**Traded To:**  
 Fred Arnold



**Made By:**  
 August Giffen

**Traded To:**  
 Don Nichols

# Trade Items



**Made By:** Mike McLaughlin  
**Traded To:** Dan Fulk



**Made By:** Don Nichols  
**Traded To:** Mark Lawson



**Made By:** Mark Lawson  
**Traded To:** August Giffen



**Made By:** Nick Berardi  
**Traded To:** Berni Tappel



**Made By:** Berni Tappel

**Traded To:** Mark Sampsel

### Trade Items Not pictured:

- |                 |                 |
|-----------------|-----------------|
| Made By:        | Traded to:      |
| Mark Sampsel    | Mike McLaughlin |
| Matthew Burnett | Willy Bagley    |
| Fred Arnold     | Matthew Burnet  |
| Willy Bagley    | Ken Jansen      |
| Larry Lutz      | Nick Berardi    |



## Old Retired Guys And Anyone That Wants To Take A Vacation Day Hammer In

by Bob Stormer

Bernie and Patti Tappel hosted a mid-week hammer-in Thursday, July 30<sup>th</sup>. The intent was draw a smaller crowd than the regular BAM meetings because of parking limitations, but it didn't quite work out that way. A casual count suggested upwards of fifty people were there, mostly retired folks but I saw at least 6 guys/couples that came. In general, there was a lot of experienced guys helping “willing-to-learn” folks go home with some unique knowledge they didn't have when they got there.

Bernie had four forges set up, three coal and one gas. The first event of the day was presentation of The Early Bird Award to Tom Patterson. He was there two weeks early. See Figure 1. I didn't try to document all the action at the anvils, but can offer the following as some work I noticed. If I don't mention your individual projects for anyone who was there, I apologize.

Bernie set out some material and a sample of candle holders folks could work on. See Figure 2. The weather was a lot most conducive to forging than I expected and I only saw one guy really work up a sweat. Phil Cox broke a heavy sweat when he hammered on a cold piece of 3/8” round stock until he got it hot enough to generate smoke in a napkin and turn blue on the end. I had heard of people hammering fast enough to generate heat in the steel before but had never seen it done. Phil also performed a career first – he used Bernie's treadle hammer. It's the first time he had ever used a non-power hammer other than the hand held type.

Terry Smith and Phil both helped John Viessman work on a few projects. He made some replacement brackets for a horse drawn wagon footrest, reshaped a handle punch, and made a wood gouge from some square stock. I saw Tom Patterson making a knife, another fellow whose name I don't know making a really nice set of tongs, Terry Smith also made some hangers for a BAM sign he got at Jim McCarty's



Figure 1



Figure 2



Figure 3

blacksmith sale last weekend. I also saw a number of different style hooks being made. Dan Wedemeyer made a replacement spring for a post vise. See Figure 3. When I first got there I saw Bernie do a drop tong forge weld, but I'm not sure what the end item was.

Bernie also had a trailer full of blacksmith related stuff for sale. I didn't see anyone else bring anything to sell, but I picked up a nice rivet forge Jim McCarty had left there for a friend of mine.

Patti and all the other ladies put a really nice road kill (Bernie's term, not mine) lunch together. Somebody in Patti's family made the very nice centerpiece for the serving line. See Figure 4. There are a lot more pictures on BAM website. With the apparent success of this mid-week hammer-in, I could see more of these events in the future.



Figure 4



**BAM Scholarship/Grant Program**

- VII. Scholarships and Grants will be awarded by the Scholarship/Grant Committee to BAM members in good standing and have been an active member of BAM for two years. Decisions of the Committee will be final.
- VIII. Scholarships up to the amount of \$1000 will be granted by the Scholarship/Grant Committee to an individual (1) to attend a recognized educational program or (2) to train under a recognized blacksmith craftsman (see notation on page 2) for the purpose of learning new and/or advanced blacksmithing skills. The submission of an appropriate application is required.
- IX. Grants of \$250 or \$500 can be made by the Scholarship/Grant Committee to (1) fund a workshop in a member's own shop (2) train and/or share skills with fellow blacksmiths or (3) to complete a one on one mentorship with a skilled blacksmith craftsman for skill enhancement. The submission of an appropriate application is required.
- X. The Committee is to consist of 3 members who serve rotating 2 year terms appointed by the BAM President. The President will appoint one of these members chairman of the committee.
- XI. The Committee will be responsible for publicizing the Scholarship/Grant Program and for suggesting changes to these guidelines as may seem appropriate. Changes are to be approved by the Board of Directors of BAM.
- XII. The Committee will determine the number and amounts of scholarships/grants based on the amount of funding approved by the Board of Directors.
- XIII. The Committee Chairman will have the responsibility of requesting funds from the Board of Directors for the calendar year.
- XIV. Eligibility: Only members in good standing in BAM may receive scholarships and grants and the scholarship committee members are not eligible to receive a scholarship/grant while serving on the committee. No member may apply for a scholarship within one year after receiving a previous scholarship. Applicants who have not received a scholarship within three years prior to their application will be given priority.
- I. Applications must be received 30 days before the date of the award unless waived by the Committee Chairman and/or President of BAM
- II. **Scholarship Recipient:** Every Scholarship recipient, within three months after completing the event for which the scholarship is granted must submit a written description of the event to the BAM Newsletter (appropriate pictures and diagrams may be included). Within one year, the recipient must also demonstrate what was learned as a consequence of the scholarship either at a BAM meeting or on a video tape to be placed in the BAM Library.
- III. **Grant Recipient:** One of the following four options can be selected: (1) chose to write an article for the BAM Newsletter describing the workshop they conducted or the skills taught to fellow members; (2) write an article describing the mentorship experience; (3) provide diagrams and directions of the items made during a sponsored workshop; (4) present a demonstration at a BAM meeting.
- IV. The Scholarship/Grant Committee will prepare an appropriate application forms for both the Scholarship and Grant Program. In addition, the forms will be published in the BAM Newsletter
- V. Scholarship and Grant applications must be submitted to the Scholarship Chairman, Esther Digh, 6792 CR 424, Fulton, MO. They will be shared with the other committee members and a decision will be made. The recipient will be notified in writing of his/her selection.
- VI. Questions about Scholarships or Grants can be addressed to the Scholarship/Grant Chairman.
- Please note:** Members of the Scholarship Committee may contact applicant for additional information on the individual(s) teaching the selected event.

## SCHOLARSHIP APPLICATION

Name:

Address:

Phone Number:

E-Mail Address:

The education program/workshop do you wish to attend:

The location of the event:

Individual responsible for the event and/or teacher for the event:

Identify the costs to attend the event:

Tuition

Travel

Lodging/meals

Other

Briefly, describe how attending the particular class/event will advance your blacksmithing skills and be helpful in promoting the craft of blacksmithing. Identify the specific skills you expect to learning during this learning experience.

I understand that as a requirement of receiving this scholarship, I will be required to submit an article about the education experience attended with appropriate notes and diagrams to the BAM Newsletter no later than 3 months after attending the event AND within 1 years of the event, I will present a demonstration of the newly learned skills at a BAM meeting or complete a video tape to be place in the BAM Library.

Signed \_\_\_\_\_ Date \_\_\_\_\_

Mail to Esther Digh, 6792 CR 424, Fulton, MO 65251

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## GRANT APPLICATION

Name:

Address:

Phone:

E-Mail Address:

Identify one of the two options for Grants you wish to complete:

Identify the objective(s) of the workshop to be conducted or the objective of the mentorship:

Identify the instructor of the workshop or the mentor selected for the educational experience:

Identify the expected outcomes or skills to be learned from this experience:

Identify the costs of this educational experience (materials, fuel, travel, handouts, propane, etc:

Select one of the following to complete after the educational experience:

- \_\_\_\_(1) Write an article for the BAM Newsletter about the workshop conducted and the skills taught;
- \_\_\_\_(2) Write an article describing the mentorship experience;
- \_\_\_\_(3) Submit diagrams and directions for making the items made during the workshop;
- \_\_\_\_(4) Present a demonstration at a BAM meeting.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Mail to Esther Digh, 6792 CR 424, Fulton, MO 65251



## Shop Tips

By Jon McCarty

For this issues shop tip I am including the recipe for Dr. Irons metal finish by Doug Hendrickson. This is a metal finish and protectant that dries nicely and doesn't leave a sticky surface. It can be used on metal and wood.

I would also like to do something a little different for future Shop Tips. I will be asking a question or theme for the next issue. If you have a question you would like asked or maybe your looking for a better way to do something. Just send me your request and I will try to get it into an upcoming issue. This will give our more seasoned smiths a chance to help out. It was pointed out to me that or membership loves to share their ideas but need a bit of prompting.

To start things off, I want to see how other members tackle the problem of making multiple scrolls match. How would you make a pair of matched scrolls or if you had to make a dozen of them what would you do? Send your tips, suggestions, or questions to [bameditor2015@gmail.com](mailto:bameditor2015@gmail.com).

## Dr. Irons Metal Finish

### Ingredients:

1 Quart Boiled Linseed Oil  
1 Pint Spar Varnish (used for boat wood-has UV Protection)  
Golf Ball Size of Beeswax  
1 Quart Turpentine  
And old double boiler or pot of water and coffee can.

### Directions:

Using double boiler, melt Bee's wax, Linseed Oil and Spar Varnish. Once everything is melted, remove from heat and stir in Turpentine.

### To Apply:

Brush on to warm steel and allow to dry, buff out excess finish with a cloth.



# How to Make a Dragon's Head

By Chris Miller

I have been working with some new tooling that I have made or acquired over the last year or so and decided to try making a Dragon's Head to mount on my walking stick to give it a more medieval look. My first attempt shown at **Fig. 1** used a fairly common technique similar to many ram's head projects I have seen. It was passable, but I wanted a little more definition so I combined the Dragon's Head with a scaled looking neck forged with a pineapple twist. See **Fig. 2**. This is the project that is documented herein which was completed June 6, 2015 at the Tom Kennon Blacksmith Shop in Doniphan, Missouri.

## Materials List:

1 Piece 1/2" square mild steel at least 12" length (But I typically use at least 30" long so that I do not have to use tongs)

## Tools and Supplies Required:

Regular Forging Hammer  
 Cheap Hammer for Striking Punches and Chisels  
 Handled Hot Cut Chisel  
 Hand Held 1/2 inch wide Fuller  
 Straight Cut 1/2 to 3/4 inch Chisel  
 Round Eye Punch  
 Ball Punch  
 Center Punch  
 Anvil  
 Anvil Tools (Hardy Fuller, Bending Fork, Hot Cut Hardy)  
 Anvil Hold Down (or Apprentice)  
 Post Vise  
 Twisting Wrench  
 Angle Insert for Post Vise  
 Welding Flux  
 Power Wire Brush  
 Brass Brush  
 Clear Acrylic Spray Laquer

Start with your handled hot cut and score a line 2.50 inches long on one face at the heated end of the bar. See **Fig. 3**. Deepen that cut until it is almost through along the entire length of the cut. Use a soft steel or copper plate underneath to protect your anvil face and then flip it over and complete the cut from the other side. See **Fig. 4**. Spread the tines in opposite directions as shown at



Figure 1



Figure 2



Figure 3

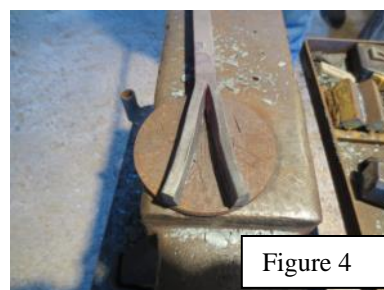


Figure 4

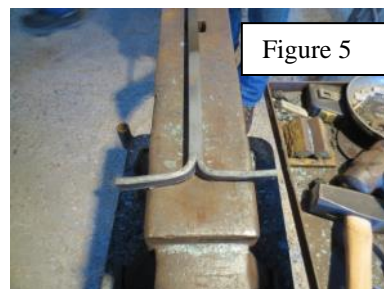


Figure 5

**Fig. 5.** Reheat and take to the post vice and insert so that the tines rest on the vice jaws and then clamp. Use the hand fuller to smooth the “v” where the tines join and eliminate any rag from the hot cut. See **Fig. 6.**

You now work the tines like you would any fork using a square taper to a point. I use the bending fork in the hardy to make a convenience bend to work each tine. See **Fig. 7.** I try and draw out the taper of the first tine to the width of my anvil face. When finished with one tine, reverse the convenience bend and work the other tine to the same length square tapered point. See **Fig. 8.** Some difference is okay since you will not notice a difference of less than 1/4 inch in the finished piece. When finished with the tines, heat and bend back into the bar and square everything up. These will be the Dragon’s horns.

Heat a six inch area of the bar beginning about 4 inches back from the start of the horn tines. This will be the area of the pineapple twist. See **Fig. 9.** Score a six inch line along all four sides of the bar, taking as many heats as you need to keep the lines the same length and depth. To obtain an even twist, the entire scored length of the twisted bar must be at the same color temperature, so heat the bar so that around eight inches are the same color allowing you to use one inch on either side of the scored lines to clamp in the vise and grab with the twisting wrench. See **Fig. 10.** I always do my twists counter clockwise so that I will not have to guess which way I went the first time when the project requires a reverse twist. It’s okay if you are a clockwise sort or person, just be consistent. I recommend a 540 degree twist for the first twist in this size stock. See **Fig. 11.** If you put a kink in the bar during the twist, use a wood block and mallet to straighten the bar before the next step. See **Fig. 12.**

The pineapple twist requires you to square up the bar you just twisted. Knock down all the high points and get the bar as close to as square as the original stock. See **Fig. 13.** Now do the scoring all over again like the first time as shown in **Fig. 14.** Be careful to stay in the center of the squared up bar on each side and don’t wander into the earlier scored lines except at the very ends of the twisted portion of the bar. When all four sides are scored, reheat the same eight inch long area and take it to the post vice. This time, when clamped and secure in the twisting wrench, you twist in the opposite direction (for me, clockwise) exactly one half the distance of the first twist, in

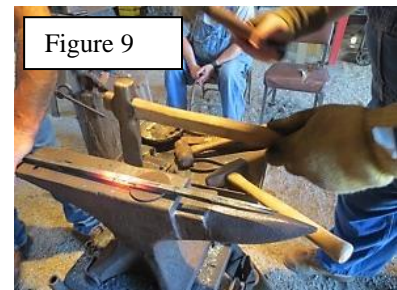




Figure 12

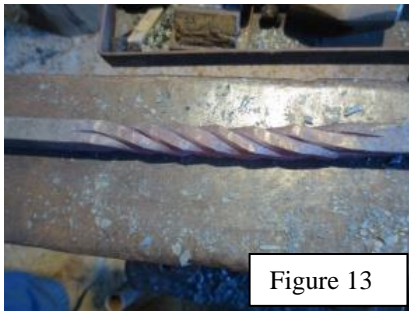


Figure 13



Figure 14

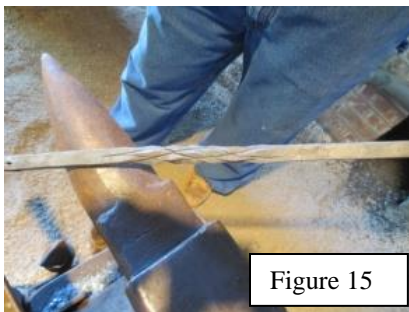


Figure 15



Figure 16

this case 270 degrees of rotation. You want the bar to be squared up and in a straight line except where the pineapple twist pops up the diamond scales of the dragon's neck. See **Fig. 15**.

A good power wire brushing of the twisted area to remove accumulated scale is a good idea at this point. It is then time to form the head by bending the bar back into itself with the middle of the bend being in the middle of the unworked area between the horns and the twist. See **Fig. 16**. Flatten the horns down along the pineapple twist but leave a little gap between the two pieces of the bar to apply flux. See **Fig. 17**. Reheat to a point where you can apply your welding flux and it begins to melt and flow into the gap between the portions of the bar being welded. Try and keep the flux off of the horns and the twisted area. Reheat to a welding temperature and make the weld along about two inches at the end of the bar. If you don't get a good weld the first time, try again. Just make sure that there is no visible gap or line in that first two inches of the bar on either side. See **Fig. 18**.

If you have enough heat left from the weld you can go right into making the nose end of the Dragon's head. Leave about 3/4 inch at the end of the bar on the face of the anvil at a sharp edge with the horn tines on the bottom and, using half face blows from your forging hammer, forge down about 1/4 inch. See **Fig. 19**. When the nose end is as fully defined as you like, square up the sides and front and bend the horns back down into the pineapple twisted area to square up the bar.

Now is the time for punch and chisel work on the eye sockets, eyes, nose holes and mouth. Having an angle clamp as shown at **Fig. 20** may not be indispensable, but it sure is handy.

First do the eye sockets with a half inch ball punch as shown in **Fig. 21**. Try and get deep enough that the ridges of the eye sockets rise or bulge above the plane of the bar. It will take several heats to get proper definition of the eye sockets. Use your half inch straight chisel to score angled lines along the top of the head back to the horns as shown in **Fig. 22**. Another heat will be used with your round eye chisel to forge the eyes into the eye sockets as shown at **Fig. 23**. A center punch at the end of your heat will take care of the eyeball.



Figure 17



Figure 18

The nose and mouth will also take several heats. The mouth is a straight cut along the bottom third of the front of the nose. Be sure to leave enough room for sizeable nose holes above the mouth as shown in **Fig. 24**. The deeper you cut the mouth into the bar the more the mouth will be opened; cut into each side of the head at the mouth just a bit to fully **define** the open mouth. Use a conical center punch to do the nostrils above the mouth as shown in **Fig. 25**. Several heats may be needed to deepen and define the nostrils. You want to angle the punch toward the top and sides so that the nostrils bulge out as shown at **Fig. 26**. When satisfied with the look, clean up any unwanted hammer marks and square everything up for the final bending of the neck and horns. If you accumulate a lot of scale, a power wire brush at this point would be a good idea.

The bending fork in the hardy is now used to put the final bend in the neck and head as shown at **Fig. 27**. A straight chisel is used to separate the horn tines to about a 30 degree angle as shown at **Fig. 28**. The horns are then bent over the horn of the anvil to a pleasing shape. You will know it when you see it. It doesn't hurt to tinker with it to suit you. Make sure the horns curve gently and avoid kinks, especially near the points.

A good power wire brushing while hot is a good ideal to clean up the scale, especially in the pineapple twist and facial features. I would then recommend a brass brushing of the entire piece to induce highlights that make the features pop out. See **Figs 29 and 30**.

Depending upon what you intend to do with your new Dragon's head, you may want to spray it with a clear acrylic now to protect the brass shine or wait until you attach the head to whatever project your imagination can dream up before final surface protection. As a handle it leaves something to be desired because of the sharp prongs of the horns, but it would be a great addition to a fireplace tool stand, or a wall sconce, or whatever. Enjoy.

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Figure 19



Figure 20



Figure 21



Figure 22

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(573) 996-1980 FAX  
chrismiller@doniphanmissouri.org



Figure 29

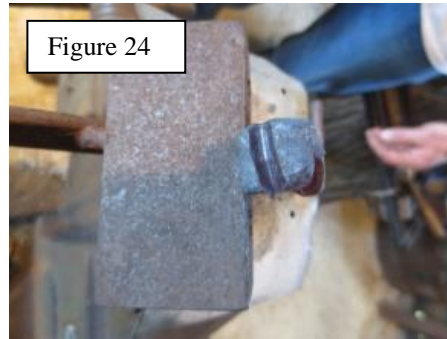


Figure 24



Figure 23

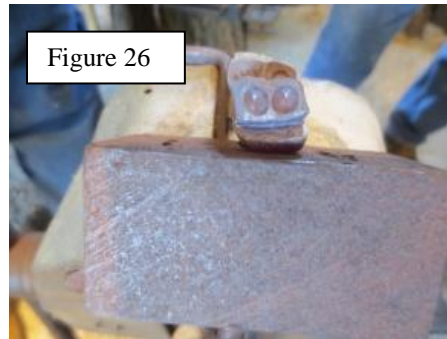


Figure 26

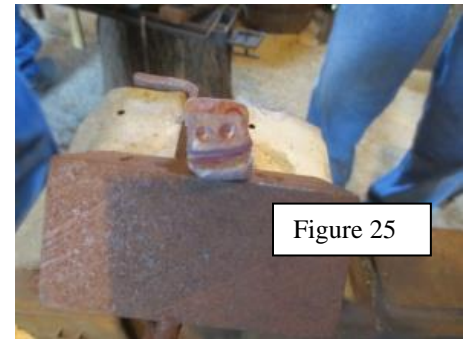


Figure 25



Figure 30



Figure 28



Figure 27

## Upcoming Events

September 12th, 2015 - BAM meeting Rolla, MO Don Birdsall The trade item: Blacksmith art (everyday items laying around our shops, unfinished items, mistakes, etc turned into an art object

November 7th 2015 - BAM meeting, Phil Cox, Hamilton, MO 816-583-4337

January 2016, - BAM Meeting, A & K Cooperage, Higbee, MO 660-456-7227

# Historic Forge

By Heather McCarty

I don't have alot for this issue; however, I thought I would put in something fun. I found this and thought you guys would enjoy it.

April - May 1990

By: John Lovin

Find these words up, down, forwards,  
backwards, and diagonally.

BPJ IOTSHYVRHAPEENJLC  
 BLOWERNBCRFEF IREKJ LOOHGWBMJ YFEBVSEFROK  
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 VEDDPRITCHELNCKIGFEDDEBLHFREW  
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[http://www.newenglandblacksmiths.org/power\\_hammer\\_info.htm](http://www.newenglandblacksmiths.org/power_hammer_info.htm) Ralph Sproul

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**For Sale:** Power Hammer instruction DVDs. \$125 per set. Clifton Ralph, 4041 W 47st, Gary, Indiana, 46408 (219)980-4437

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**Around the Anvil** BAM has it's very own E-Mail news group. If you would like to participate there is a sign up link on the bamsite.org or send an E-Mail to Bernie Tappel at bamweb@embarqmail.com and he will get you signed up.

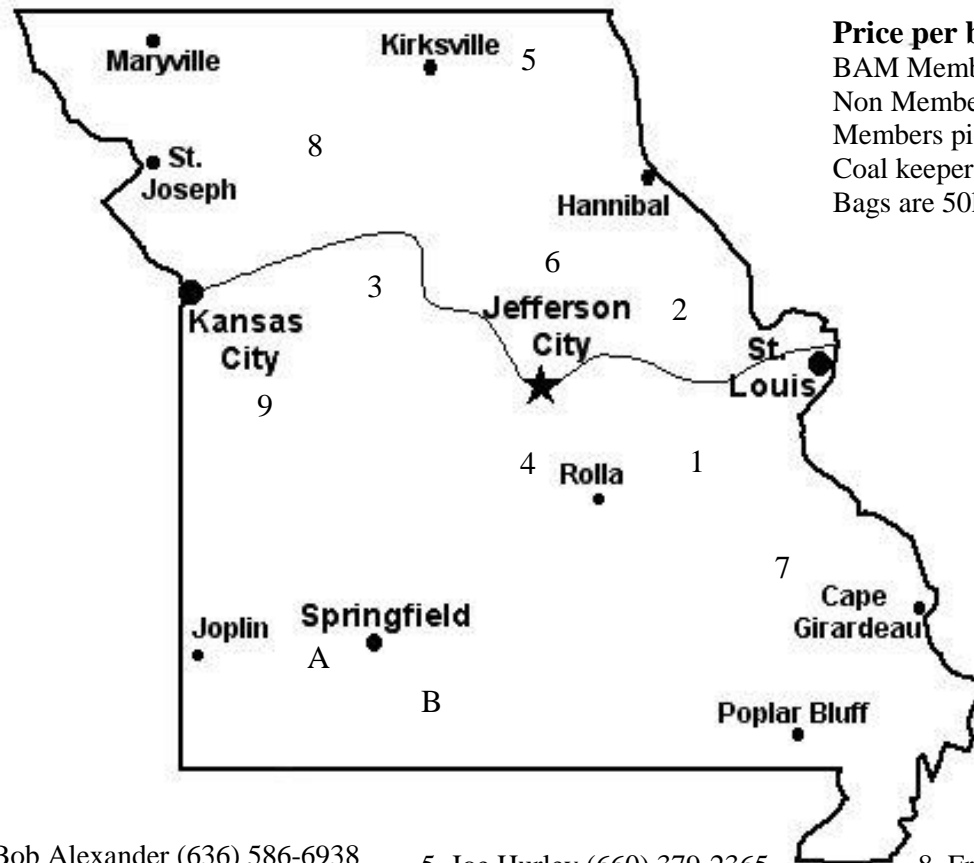
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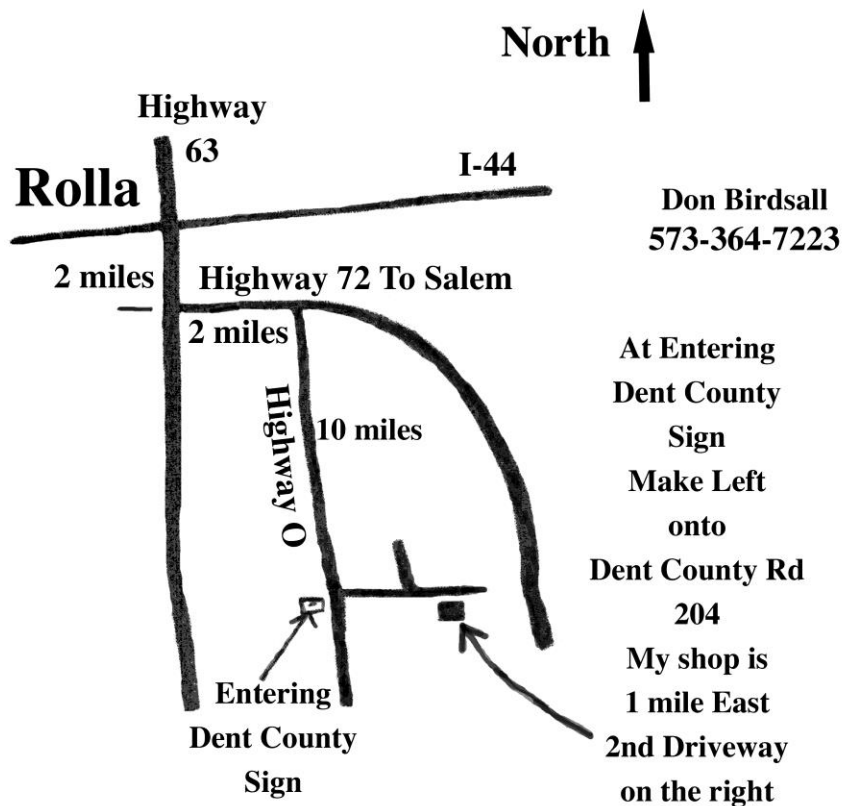
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## Next Meeting: September 12, 2015

Don Birdsall, Rolla, MO Ph: 573-364-7223



**Trade item:** Blacksmith art (everyday items laying around our shops, unfinished items, mistakes, etc turned into an art object)