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# THE FORGE FIRE

The Newsletter of the Indiana Blacksmithing Association, Inc.

**An Affiliate Of The Artists-Blacksmiths' Association of North America, Inc.**

IBA is a Not For Profit Indiana Corporation recognized by the IRS under section 501(c)(3)

9:30 AM is the regular meeting time for IBA Hammer-Ins  
with beginner training available at 9:00 AM.

**PLEASE MAKE SURE TO ASK FOR HELP!**

**If you would like an IBA membership application form,  
please contact Farrel Wells, Membership Secretary  
(765) 768-6235.**

BULK LOTS ARE AVAILABLE TO DEMONSTRATORS,  
SHOPS, SHOWS AND OTHERS WILLING TO MAKE THEM AVAILABLE.  
WE APPRECIATE YOUR HELP.

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**More nearby resources and organizations for blacksmiths:**

**Rural Smiths of Mid-America:**  
Meetings are on the first Saturday of each month  
Call Ron Gill  
317-374-8323 for details

## IBA MEETING SCHEDULE

Check the latest *Forge Fire* for monthly IBA revisions.

**Oct 16  
2021**

**TBD—CHECK OCTOBER FORGE  
FIRE**

**Nov 20  
2021**

**TBD—CHECK OCTOBER FORGE  
FIRE**

**Dec 11  
2021**

**TBD—CHECK OCTOBER FORGE  
FIRE**

**Jun 3-5  
2022**

**IBA CONFERENCE TIPTON COUNTY  
FAIR GROUNDS**



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## **Dates to Remember**

Sept 24-26  
Quad State

June 3-5, 2022  
IBA Conference

## **Editors Message**

There is a whole lot going on with the IBA that many of you may not be aware of. We just finished-up the third IBA Regional Conference as well as the Indiana State Fair. The third conference was held at Rockville with Doc Schertz as the featured demonstrator. John Bennett did a fantastic job getting the event organized and executed. Bill Corey coordinated the IBA presence at the State Fair. IBA member support was limited (I am guilty here), making Bill's job more difficult. Both John and Bill deserve a big round of applause for their hard work.

### **People in the IBA News**

Brad Weaver presented the 2021 IBA awards at the Rockville Conference.

Rookie of the year:	Chuck Henderson
Clifton Ralph Blacksmith of the year:	Jeff Reinhardt
Paul Moffett Service Award:	Steve King

Farrel Wells has been hospitalized for several weeks. Farrel does a number of jobs that keep the IBA moving. He is the treasurer and membership secretary. He also mails the paper copies of the newsletter. If someone tells you they have not received their newsletter or their IBA membership has not been processed, please tell them to patient.

John Bennett recently announced his decision to resign from the IBA board. John has invested a tremendous amount of time and effort in the IBA. He was a strong proponent of the regional conferences that were successful this year. I thank John for his efforts, I wish him well and I hope to continue to see his art work shared on Facebook. Bob Hunley was appointed to fill John Bennett's seat on the board. Bob's contact information is listed on the cover page.

### **Looking Ahead**

Steve King plans to resume the **monthly IBA hammer-ins**. Currently Steve is looking to fill dates for October, November and December. Check for up-dates in next month's Forge Fire and on the IBA website and Facebook page. If you are interested in hosting a hammer-in, please contact Steve.

**2022 IBA Conference** June 3-5 at Tipton County Fairgrounds. The board is working through the details. Site reservations have been confirmed. Most of the demonstrators have been confirmed.

Based on the success of this year's regional conferences the IBA is expecting to host two **2022 Regional Conferences**. With the Tipton Conference we will have a total of three conferences. Dates and locations are not firm, but the intent is to have one North and one South.

Bill Corey has agreed to coordinate the **2022 State Fair**. There may be increased interaction with 4-H, including possible dates for 4-H'ers to forge in the shop. More details will be forthcoming as the discussions progress.

**IBA website:** [www.indianablacksmithing.org](http://www.indianablacksmithing.org) **IBA Facebook page:** [www.facebook.com/groups/IndianaBlacksmithingAssociation/](https://www.facebook.com/groups/IndianaBlacksmithingAssociation/)

## IBA Satellite Groups and News

### 1) Sutton-Terock Memorial Blacksmith Shop

Meet: 2nd Saturday at 9 AM  
 Contacts: Fred Oden (574) 223-3508  
 Tim Pearson (574) 298-8595

### 2) Jennings County Historical Society Blacksmith Shop

Meet: 2nd Saturday at 9 AM  
 Contact: Ray Sease (812) 522-7722

### 3) Wabash Valley Blacksmith Shop

Meet: 2nd Saturday at 9 AM  
 Contacts: Doug Moreland (217) 284-3457  
 Max Hoopengartner (812) 249-8303

### 4) Fall Creek Blacksmith Shop

Meet: 4th Saturday at 9 AM  
 Contacts: Gary Phillips (260) 251-4670

### 5) Maumee Valley Blacksmiths

Meet: 2nd Saturday  
 Contacts: Clint Casey (260) 627-6270  
 Mark Thomas (260) 758 2332

### 6) St. Joe Valley Forgers

Meet: 4th Saturday at 9 AM  
 Contacts: Bill Conyers (574) 277-8729  
 John Latowski (574) 344-1730

### 7) Rocky Forge Blacksmith Guild

Meet: 2nd Saturday at 9 AM  
 Contacts: Ted Stout (765) 572-2467

### 8) Meteorite Mashers

Contacts: Mike Mills (812) 633-4273  
 Steve King (812) 797-0059  
 Jeff Reinhardt 812-949-7163

### 9) Whitewater Valley Blacksmiths

Meet: 2nd Saturday  
 Contact: Keith Hicks (765) 914-6584

### 10) Bunkum Valley Metalsmiths

Meet: 1st Saturday  
 Contacts: Jim Malone (812) 725-3311  
 Terry Byers (812) 275-7150  
 Carol Baker (317) 809-0314

### 11) Covered Bridge Blacksmith Guild

Meet: 1st Saturday  
 Contact: John Bennett (812) 877-7274

### 12) Snake Road Forge

Meet: 1st Saturday  
 Contact: Rod Marvel (219) 241-0628

### 13) Satellite 13

Meet: 4th Saturday  
 Contact: Darrin Burch (317) 607-3170  
 Doug Wilson (317) 439-7684

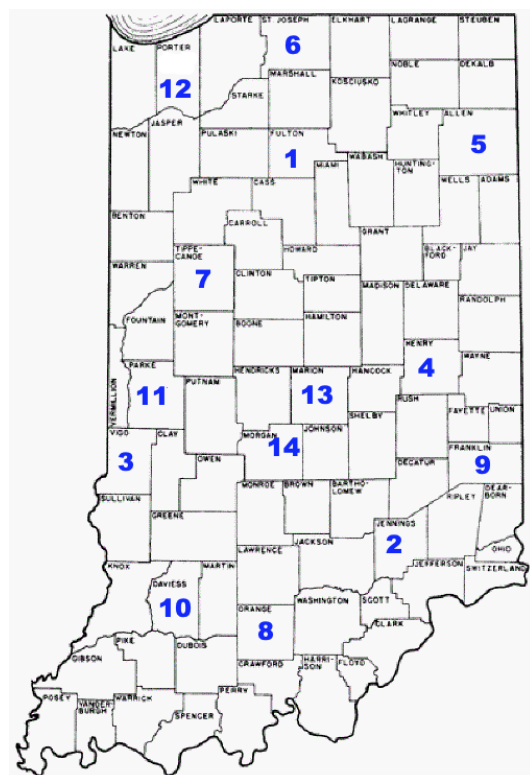
### 14) Old Town Waverly Blacksmiths

Meet: 2nd Saturday  
 Contacts: Mike Lyvers (317-728-5771),  
 Kenny Hale (765-318-3390),  
 Mike Jackson (317-509-9115).

**Satellite groups please verify your contact information and hammer in times.**

### Jennings County Historical Society Blacksmith Shop

The Aug. meeting of the Vernon Blacksmiths opened with Charlie Helton demonstrating some of the basics. Kenny Dettmer drew out the base for a hardy tool on the big Hammer. Brett Luker made a coal rake. Tim Metz made some crosses (the largest was wrought iron). Dave Good made some leaf key-chains for charity use. be sure to be at our next meeting on 9-11. bring iron- in- the-hat and , yes, your wallet. Paul Bray



## IBA Satellite Groups and News (continued)

### Bunkum Valley Metalsmiths

The Bunkum Valley Metalsmiths met on Saturday September 4th. After a morning at the forges, we had a great pitch in lunch and Iron in the Hat. We discussed the regional meeting that was held here and everyone felt it was a good success. Thank you to everyone who helped in any way and especially to those who came and participated! A special thanks to the demonstrators, Jeff Rhinehart and Benton Friese. They did a great job!

We also loaded up for the White River Valley Antique show which begins Thursday September 9 beginning at 7am. The demonstrations begin after the opening ceremonies at 9am and run through 5pm. There is music and food available in the evenings Thursday, Friday and Saturday. Saturday has music available beginning at noon throughout the day. The show ends Sunday September 12th usually around 2:30pm. Everyone is welcome, the Blacksmith will be open and operating. We will have bags of coal for sale. There is so much to see and do and it's a great family adventure. It is located at 220 Indian Street, El Nora IN 47529. For more information see WRVAA.org

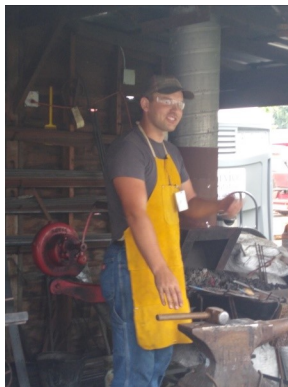
### 2021 Indiana State Fair Article and Photos by Bill Corey

The Indiana State Fair time has come and gone. It was long, hot, and at times hard work however it was fun. I want to thank each and every person that showed up to work in the shop. I tried hard to remember to get at least one picture of everyone who showed up to forge but I know of at least one I missed, sorry Ron Gill, and probably missed more however I really appreciate every bit of time that all of you spent at the forge and talking to the visitors to the Fair.

There are quite a few that I want to mention who showed up multiple days, worked long and hard and really helped to make the long month of the State Fair just a whole lot more bearable. I know I'll miss someone but I'm going to do it anyway.

In no particular order, I'll start with my buddy John. John Bennett was the only one to show up the first Friday. That was a long day that he and I put in however he did come back on the third weekend even though he was having some back issues. (From the beginning he was having face issues but I won't go into that.) Thanks John. We had a few from the Rural Smiths showed up on Saturday and Sunday to give me a hand. Ron Gill and Harry Wise were there for the entire day both Saturday and Sunday and Harry even came back for another Saturday. Harry even got his picture into the 12-Aug addition of "Farm World." Ken Dettmer also came in for Saturday and Sunday and he also made his way in another day. Kenny spent a lot of time helping the wheelwrights on some of their projects and I now they appreciated it.

At the Start of the second week Fred Ripberger and Justin Salsman came in and both were there for the entire week. Fred and Justin both worked a lot of hours in the Smithy, Fred more at the "whack whack", Justin more at the "Yak Yak" however the crowd likes to talk





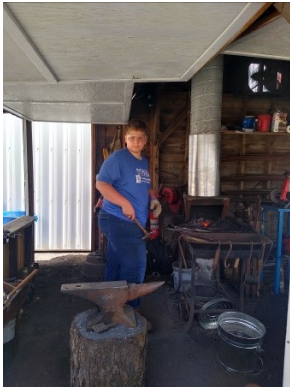
## 2021 Indiana State Fair (cont)



... to the smiths just about as much as they like to watch them forge so both of them were very valuable assets to have in the shop. Two of the Rocky Forge group, Dominick and Gene, who looking back have made several appearances together over the years, came in and worked all of Wednesday and Thursday with Justin and Fred and that sure did help a lot also. Dominick did leave his nice straw hat there at the shop but I think it was because of the top almost becoming detached and not because he forgot it. But hey Dominick, it's still hanging there by the door, I

didn't throw it out. The weekend was setup for the group from Waverly, there were quite a few of their group to show up on Saturday for as small as their group is however most couldn't work very long as they must have had other commitments. Kenny

Hale did forge most of the day on Saturday and came back on Sunday and help out for what time that he could.



The third week started off with Rob Hough showing up for his first of many days at the forge. I'll get back to him in a bit. Don Reitzel also came in on that Wednesday and the following Wednesday also. For someone who just had his shoulder over hauled and is having a bout with a hip now, Don sure did put in a lot of hours standing in at the anvil. I really appreciated his efforts.

The third weekend I had set up for the IBA Board of Directors, and there was John Bennett again, all 3 days, doing what John Bennett does, working to promote blacksmithing and the IBA and forge fine pieces of art. I was also very pleased to have the King himself, Steve King show up on Friday and Sunday and spend the entire day. His ability with a hammer is always a lot of fun to watch and it is only matched with his ability to communicate with the crowds at the fair. He talked to all of the kids, all of the adults and of course he knew a bunch of them or knew their aunts, uncles, neighbors, dads or worked with them. I don't think he forgets anybody's name. On Friday he brought along his apprentice, Darrin with him who he has been working with through the "Traditional Arts Indiana" program out of IU. Darrin has learned a lot from Steve in that program and was showing it off. I don't know if he learned the gift of talking with the people from Steve but he was also really good at talking with the crowd about Blacksmithing.



As I said, Don Reitzel showed up the on the Wednesday of the 4th and last week of the fair along with Rob Hough and man was that day a hot one. Don and Rob once again put in a hard day with quite a bit of forge time. On Thursday Dave Wells came in with his big display of forgings to display. They covered the entire top of the front wall and there were very many "what's this" questions for him to answer. It's always very good to see Dave and his collection, it really does add a lot to the demonstration. Also, on Thursday Dave McNulty came in and spent the day. So, it was me, and Dave and my other Blacksmith Dave. (Old Dave and Young Dave.)



Young Dave spent almost the whole day standing at the forge and talking to people also. That Thursday was another hot day and it was good to have their help.

Friday was the start of the last weekend and the weekend for the group that calls the fairgrounds home, Satellite 13. The group from 13 had the best showing of all of the satellite groups and also worked from start to finish all three days. This was really appreciated by me because it gave me a chance to leave a little early and go back to the camper each day to relax. I didn't do a lot of forging on those last 3 days and that was just fine with me. Dave Wells also made it back on Friday with his many forgings. He told me that his tote that he carries all of his forgings in seems to be getting heavier, I can relate. The last Saturday and Sunday were brutally hot but there were plenty of blacksmiths from Satellite 13 to forge all day long and entertain those who paid money to come to the Indiana State Fair.



Now I said I wanted to get back to Rob Hough, and I am. He and Doug Wilson were there to forge many days but also stay until it was time to shut down the shop making it OK for me to go back to the camper and have dinner at a more normal time than 2100hrs. Doug came in a lot of evenings after being at work all day and that was a BIG help. About the time I was wearing down, there was Doug.

Once again, I'd like to thank all of you that showed up to work at the State Fair this year. The time you put in to promote Indiana Blacksmithing was greatly appreciated by me that is for sure. For those of you who wanted to be there but could not make it, there's always next year. For those of you who don't think you'd like forging in front of people, come give it a shot. You'll find out it's fun talking to the folk. For those of you who just don't want to come, you're just missing out.

So to all of you... Thanks! Bill Corey

PS: And a special thanks goes out to my big floor fan, lawn chair, and coffee thermos.

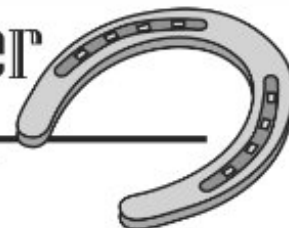




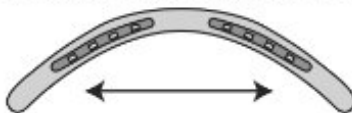
# Horseshoe Votive Holder

by Evan Pintzuk

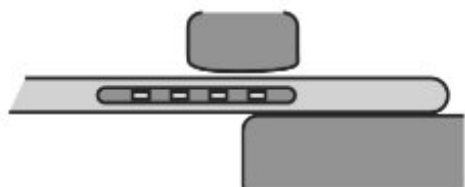
Materials: 1 Horseshoe and 1 Votive Glass Candle Holder



- 1 STRAIGHTEN HORSESHOE** - Heat shoe. Using the anvil's hardy hole or another method, straighten the shoe enough to work each end easily.

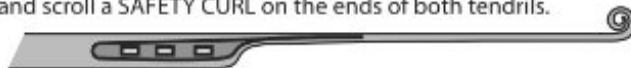


- 2 DRAW OUT** - Place the first nail hole from the end on the edge of the anvil and use half-face blows to draw out one end of the shoe to approximately  $\frac{3}{32}$ " square and about 5-1/2 to 6" long. This forms a "tendrill."



- 3 REPEAT** - Repeat step 2 on the opposite end. Be sure both tendrills match.

- 4 SCROLL** - Taper the tip and scroll a SAFETY CURL on the ends of both tendrills.



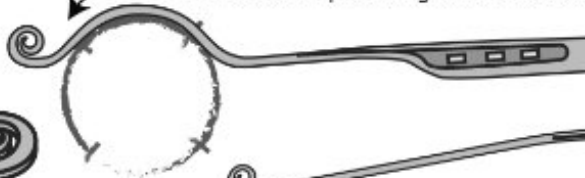
- 6a BEND** both tendrills outward.



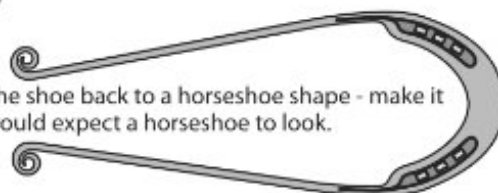
- 5 TRACE** - Trace the shape of the glass votive in chalk on the anvil.



- 6b BEND** the ends of both tendrills to form a semi-circle "capture ring" around the chalk outline.



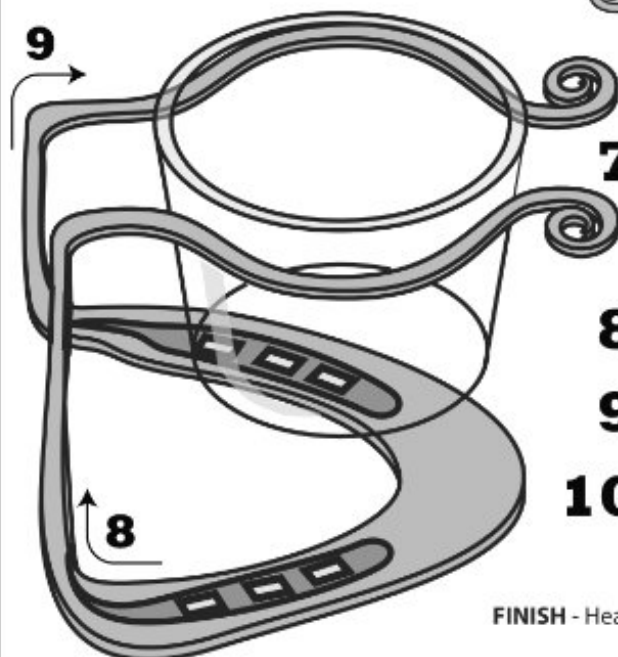
- 7 BEND** - Bend the shoe back to a horseshoe shape - make it look like you would expect a horseshoe to look.



- 8 BEND** - Bend both tendrills in the vice 90° upwards at the base of their tapers.

- 9 BEND** - Bend both tendrills in the vice 90° back over the base of the shoe.

- 10 ADJUST** - Make adjustments so the tendrills capture the votive and hold it balanced above the base.



**FINISH** - Heat, brush well, and apply a finish.

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# Damascus Project

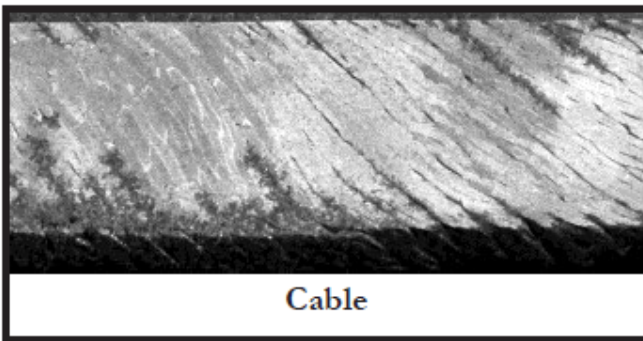
By Paul Widenhoefer

There is only so much you can learn from reading and watching videos about making damascus. I've taken a couple classes on making damascus which helped with the basics, but in order to get a better understanding I needed much more practice and repetition. After dabbling with making billets (the name of a welded bar of damascus), I decided to take a more systematic approach to find out what patterns and layer counts looked best to me. So I gave myself the assignment of going through the basic "cookbook" of patterns before attempting more advanced patterns. This analogy came to me after watching the movie "Julie and Julia," where a cook attempts to cook every recipe in Julia Child's cookbook "Mastering the Art of French Cooking" in a year's time.

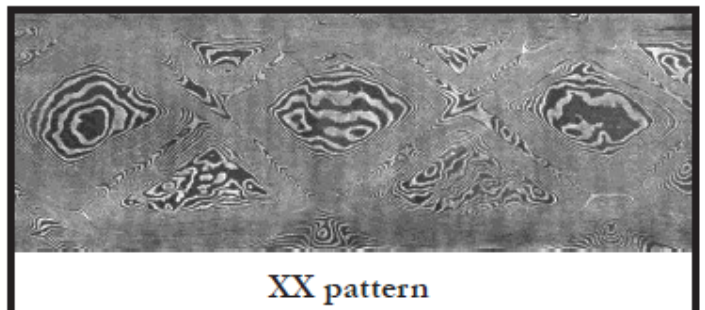
My goal was not to reinvent the wheel as I went through the basics so I started with two known steels: 1095 for the dark areas, and 15n20 for the shiny contrast. Both have high enough carbon content to harden into usable blade material. For the patterns, I started with basic ones

- a random, a ladder, a raindrop and a twist. I started with three billets of different layer counts - 155, 360, and 480. The random pattern was created by forging a billet and leaving the pattern as forged without further pattern development. The ladder pattern was created by cutting grooves in the billet at regular intervals, and then staggering the cuts on the opposite side before flattening out. Raindrop patterns were created in a similar way, except instead of grooves, shallow divots were drilled into the billet, leaving cone shaped indents in the steel. The twist pattern was created by drawing the billet out and squaring it to about 0.75 inch then twisting. The billets were cleaned up on 2 sides and etched to show the patterns. The pattern was revealed when the billets were flattened, sanded, then etched. One thing to remember is that hardening the steel affects the etch and none of these billets have been hardened.

My plan is to redo some of these billets to improve on what I've started and to take pictures of the process for all to see.



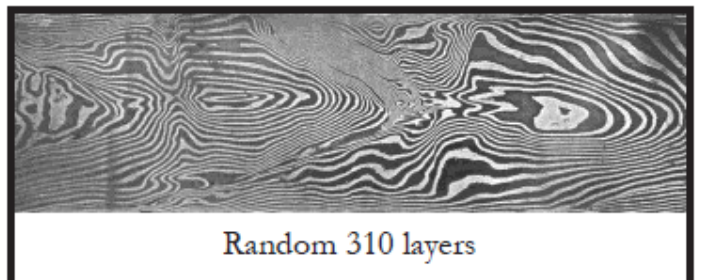
Cable



XX pattern

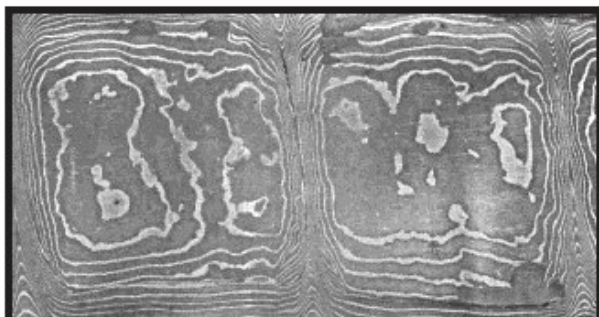


Five Bar Turkish Twist



Random 310 layers

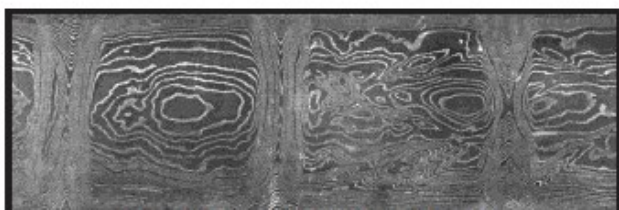




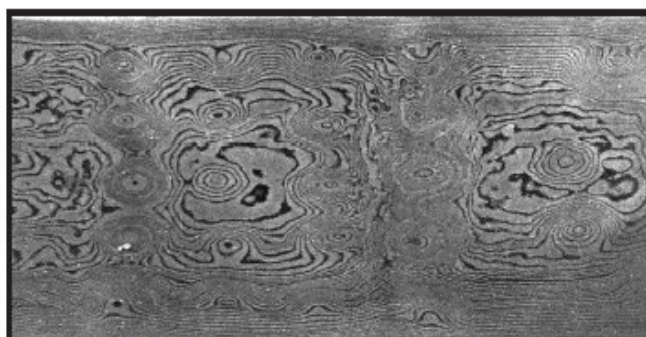
Ladder pattern 155 layers



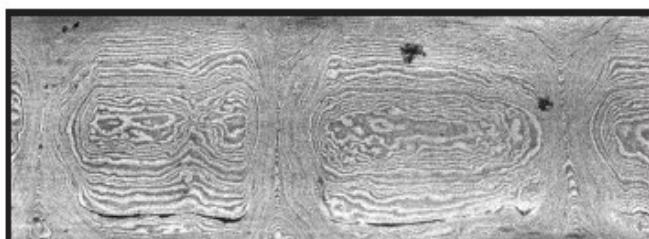
Raindrop pattern 155 Layers



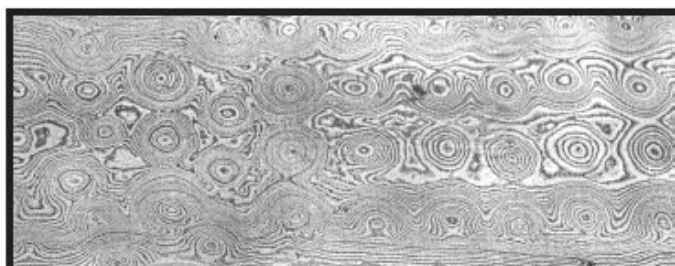
Ladder pattern 360 layers



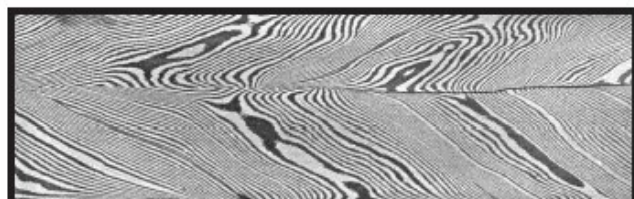
Raindrop pattern 360 Layers



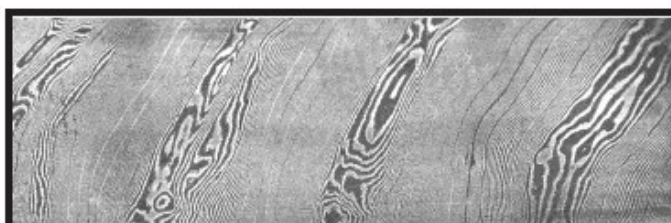
Ladder pattern 480 Layers



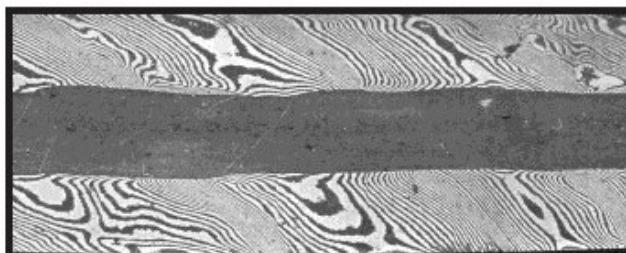
Raindrop pattern 480 layers



Two Bar Twist



Twist Pattern



Two bar twist with solid core

This 2 pg article reprinted from- The Newsletter of the Blacksmiths' Guild of the Potomac, Inc Dec 1987/Jan 1988

## Fancy Rivet Demonstration

*Demonstrator Tom Joyce*

*Written by Tina Chisena*

This article will describe in some detail the blacksmithing course I took at Haystack Mountain School of Crafts. My participation in the class was in part -funded by a grant from the Blacksmiths' Guild of the Potomac. I am very grateful to the Guild for the opportunity to study with Tom Joyce at Haystack.

To demonstrate this item, Tom Joyce had the following tools handy- cold chisel, top tool (Fig. 1) beveled cutting hardie, not too sharp (Fig. 1) flat set hammer, curved hot cutter (Fig. 3) round face flat set hammer (Fig. 4) tenon-making tool, 3/8" monkey tool, special plate (Fig. 2) tear drop punch (Fig. 5) 1/4" rivet set (Fig. 5) 1/8" rounded punch (Fig. 5) a wire brush and scrolling pliers.

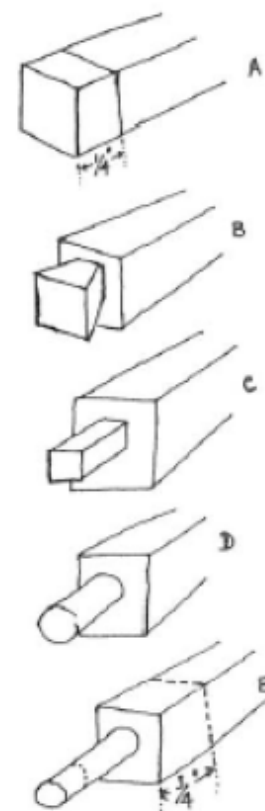
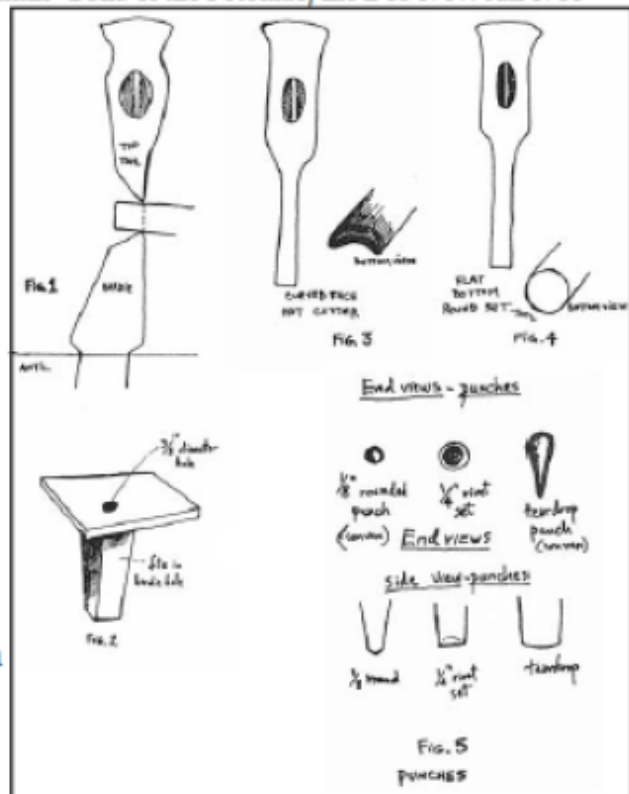
Tom began with 1" square bar. The first step is to mark where you want to start the tenon part. Please refer to the diagrams. He used a cold chisel to score a mark around the stock about 1/4" from the end of the bar. (Fig. A)

He then set a shoulder into the bar at that point using a special hardie and top tool. (Fig. 1 and B). As you can see in the drawing, he used tools with a slight radius to the edge. I asked him about this radius. He said that if he were working alone the tools would be less rounded but since he was working with a striker, a sharp tool could too easily cut the stock off, rather than start the shoulder for the tenon at the scored point. He also mentioned that sharp cuts into stock are likely places for cracking to take place in later heats or manipulations.

Once the shoulder was set all around the stock, he used a flat set tool, a striker and the anvil face to work the material down. (Fig. C) The next step was to use a spring tenon making tool and the power hammer to form the tenon to 3/8" diameter. (Fig. D). He also then cut the tenon to some useful length (a useful length would depend on what you were going to use the rivet for) and used a 3/8" monkey tool to correct the shoulder.

The next step was to make a cut through the 1" square part of the bar leaving a big enough block on the top of the tenon to do the "sculpting" required to make this decorative rivet. (Fig. E). Tom used a cutting hardie beveled to one side, so that the piece, when the cut was done would already have the basic shape shown in Fig. F. He began the cut at a point on the 1" bar about 5/8" to 3/4" up from the tenon shoulder.

The most specialized tool that Tom used for this part of the demo was a mild steel plate with a shank attached to it which fits in the hardie hole (Fig.2).





## FANCY RIVET DEMONSTRATION continued

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The plate had a 3/8" diameter hole drilled into it and down into the shank as I remember it. The hole needs to be deep enough to accommodate the length of the tenon. That way, as the rivet is worked on, the bottom of the rivet will rest against the plate. Also, much of what happens to the rivet head is in the nature of a cut, so the plate protects the anvil surface if the cutting tool slips off the rivet head. The first tool used in the "carving/sculpting" is a curved hot cutter. The radius of the curve needs to match the size of the rivet head approximately as shown in Fig. F. [By the way, most of the work (after cutting off the rivet head from the 1" bar) is done after torch heating. Tom also does a lot of wire brushing during the making of anything he works on, and I think it must be a good idea, because all of his work has great surfaces.]

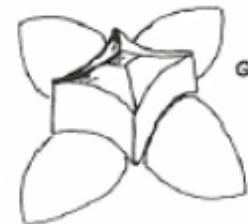
The cuts are made down from the top of the rivet head nearly through the entire thickness. Tom left his cut about 1/8" off the bottom of the head. Four cuts are made. Refer to (Fig. F). Petals are flattened out from the cut material using a flat set tool with a radius to match the curved hot cutter. (Fig. 4). Once the petals are established a bit, (Fig. G) they can be extended by cross peening, and points established on the ends by more cross peening. Small indents near leaf tips are filed in.

A rounded surface tear drop shaped tool (Fig. 5) is used to set a vein into the petal (Fig. H). A 1/4" rivet set is used to make an indent in the top center of the rivet head. (Fig. H)

A rounded 1/8" punch is used to make indentations, which are then driven -downward to stretch the "corners" of the central area toward the plane of the petals. (Fig. H and I)

Final decorative touches include cupping the petals on a stump or indented wooden block, and perhaps curling the tips of the petals with a scrolling pliers to add a little additional interest. Make final adjustments carefully, using a torch for a heat source, and trying not to mess up the surfaces or form. Also try to remember to use the steel brush often and vigorously to get good surfaces.

If you decide to try this project, I suggest that you have a striker and a torch handy and begin by making the plate to go into the hardie hole. Some of the ideas in this piece could be attempted using a straight hot cutter, and I think that the whole idea of it is to manipulate the mass of material in any plastic or experimental way that occurs to you. This motif as diagrammed and discussed is identifiably associated with Tom Joyce. But I'd be inclined to concentrate on trying to get some of the same dimensionality, but vary the forms or the starting pattern of the cuts.







**The *FORGE FIRE***  
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