

BOARD OF DIRECTORS

Gary Phillips '14

President:
14800 N SR 167 N
Albany, IN 47320
(765) 789-8316
behere@netdirect.net

Bill Conyers '15

Vice President:
(574) 277-8729

Ken Dettmer '15

15721 S 250W
Columbus, IN 47201
(812) 342-4084

Dominick Andrisani '12

3608 Capilano Drive
West Lafayette, IN 47906-8869
PH # (765) 463-4975
andrisan@purdue.edu

Ted Stout '12

8525 W 700 S
West Point, IN 47992-9258
PH# (765) 572-2467
stout8525@tds.net

James Johnston '13

Education Chairman:
806 Twyckingham Lane
Kokomo, IN 46901-1885
(765) 452-8165
kokomoblacksmith@comcast.net

Keith Hicks '13

Secretary:
7096 Dorrel Rd.
Brookville, IN 47012
(765) 914-6584
keithhicks2011@gmail.com

Michael Wollowski '14

211 Gardendale Rd.
Terre Haute, IN 47803
(812) 232-2591
wollowsk@rose-hulman.edu

Librarian:

Larry Rosentrader
8715 E. 375 N
Churubusco, IN 46723-9501
260-693-3267
rosentrad@cs.com

Editor:

Bill Kendrick
1280 N 900 W
Seymour, IN 47274
(812) 445-3009
bill.d.kendrick@cummins.com

Treasurer and membership secretary:

Farrel Wells
8235 E 499 S
Dunkirk, IN 47336-8807
PH # (765) 768-6235
flwells@frontier.com

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)

10:00 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 Moe Handy
(317) 862-5647 for details.

IBA MEETING SCHEDULE

Check the latest *Forge Fire* for monthly IBA revisions.
Contact **Michael Wollowski** (812) 232-2591 if you are willing to host or demonstrate for IBA

**Nov 19
2011**

ST JOE VALLEY FORGERS

**Dec 10
2011**

**CHAZ KAISER'S
(BOARD MEETING)**

**Jan 21
2012**

**FALL CREEK BLACKSMITH SHOP
MIDDLE TOWN**

**Feb 18
2012**

**KEN DETTMER SHOP
COLUMBUS**



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Dec 10
Board Mtg
at
Chaz Kaiser's

Editors Message

The index to the left might have you thinking this is a slim edition of the Forge Fire. On the contrary. John Bennett provided a tremendous demonstration for the October hammer in at Wabash Valley. John demonstrated the forging of life sized and life like white tail deer antlers. John was also gracious enough to provide an article with step by step instructions. John's article is published in this edition of the Forge Fire. There is so much detail that we had to expand by 4 additional pages. Many thanks to John for sharing his skill and art.

The Bunkum Valley Metalsmiths and the Southern Indiana Meteorite Mashers gathered at Jerry Robinette's to celebrate with Ron Tincher. A number of different demonstrators participated to make for a wonderful hammer in. On a side note, the March business meeting will be hosted by the Bunkum Valley Metalsmiths. Those of us who have not visited Bunkum Valley, this will be a great opportunity.

For several months the One Armed Blacksmiths have been creating a blacksmith shop at the historic Henry Breeding Farm. The Breeding Farm is owned by the Bartholomew County Historical Society. On November 5 the One Armed Blacksmiths lit their first fire and hosted their first hammer in at the new shop. Take a look at page 4 for a full article and action photos.

Congratulations to Michael Wollowski and his wife on the birth of their daughter Emma Joy Wollowski.

Fellow IBA members as most of you know I have been teaching 4H kids. At our meeting in Oct. some of the kids asked if they could make some jewelry for extra projects after they completed their required projects.

My problem is I never made jewelry so if anyone has some things that you make. Please send me a step by step how to do them.

I can be reached by mail at Fred Oden 6762 N 200 E, Rochester, IN 46975 or by E mail at hawknest@rtcol.com please put jewelry in subject line. Thank You.

Hammered in Friendship Fred Oden

Visit the IBA website at: www.indianablacksmithing.org

IBA Satellite Groups and News

Sutton-Terock Memorial Blacksmith Shop

Meet: 2nd Saturday at 9 AM
 Contacts: Fred Oden (574) 223-3508
 Dennis Todd (574) 542-4886

Wabash Valley Blacksmith Shop

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

Maumee Valley Blacksmiths

Meet: 1st Saturday
 Contact: Clint Casey (260) 627-6270

Rocky Forge Blacksmith Guild

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

Whitewater Valley Blacksmiths

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

Bunkum Valley Metalsmiths

Meet: 1st Saturday
 Contacts: Doug Neukam (812) 259-4430
 Steve Stoll (812) 486-9668
 Kathy Malone (812) 725-3310

Rocky Forge Blacksmith Guild

Our next meeting will be November 12th at Ted's shop. As usual the coffee and doughnuts will be ready by 8:30. Bring your favorite blacksmithing tools to work with and a bucket of coal to keep the fire hot. Our iron in the hat needs to be enhanced so bring some goodies for the drawing.

Meeting time is approaching so let's get ready and have a good attendance, a good time and do some creative blacksmithing. Let's hope to see some of those who have not been to a meeting in a while.

We will provide a pot of bean soup for lunch, so bring a dish to go with the soup.

Ted

Sutton-Terock Memorial Blacksmith Shop

Oct. 8, 2011

Shop open 9 am. Levi Berkshire our nine year old member made a nail and worked on making a leaf that he will put on our tree of friendship. Denny Setnor made a flag pole holder that he said that was going to be a gift for a friend. I wonder if he will still be a friend after he gets it. Good job Denny. Larry Uceny made a leaf and the nail to put on the tree of friendship. Thank You Larry. Paul Fleischman is working on a rose candle holder. Paul I hope this does not take as long as the ash tray did. Shop closed at noon.

Hammered in friendship

Fred Oden

Jennings County Historical Society Blacksmith Shop

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

Fall Creek Blacksmith Shop

Meet: 4th Saturday at 9 AM
 Contacts: John Zile: (765) 533-4153
 Larry Singer (765) 643-5953
 Farrel Wells (765) 768-6235

St. Joe Valley Forgers

Meet: 4th Saturday at 9 AM
 Contacts: Bill Conyers (574) 277-8729
 John Latowski (574) 255-6209

The Southern Indiana Meteorite Mashers

Contacts: Billy Merritt (812) 338-2876
 Steve King (812) 797-0059
 Shawn Gilley (812) 486-9113

One Armed Blacksmith's Shop

Meet: 1st Saturday
 Contact: Tim Metz (812) 447-2606

“Doc” Ramseyer Blacksmith Shop

Meet: 3rd Sunday at 2 PM
 Contacts: Mike Kelley
 Charles Gruel (765) 513-5390

One Armed Blacksmith's Shop

If you did not make it to the first meeting at the Henry Breeding Farm, you missed a small bit of blacksmithing history being made. We had near perfect weather and 25 people in attendance. We had a small bit of official business to take care of concerning allocating funds to be used for the shop. The vote was unanimous in favor. This is good since we had already spent that money.

It was very fitting that Kenny Dettmer would light the first fire and from the photos you will see the forge performed flawlessly. No smoke came into the room. None. The smoke looked like muddy water defying gravity when the fire was first lit. This was very impressive. Jim Jessee was the first to use the new forge. He demonstrated on how to make a Humming bird. The bird flew away and landed in the Iron In The Hat. Then Kenny made a much needed door pull for the front door. Then Charlie Helton showed us the finer points on making a horse shoe and how they pertain to every day blacksmithing projects. You can see from the names of the demonstrators that this group has been blessed with a plethora of experience. Several young smiths took advantage of the fire after the crowd died down.

We have several lady smiths in this group. I could see a ladies day in our future. Maybe even a lady demonstrator???

The fire was put out around 2:00pm. Iron In The Hat raised \$70.00.

Food and deserts were provided by Donna Jessee, Julie Metz and Jeanie Shaw. Thanks ladies, the food was spot on.

The entire group had a very active role in getting this shop going and I thank each of you but the people listed below deserve special mention.

Kenny Dettmer - Forge design and construction

Jim Jessee - Forge Construction and too many other things to mention here.

Charlie Helton - Wrangling Brad and Forge layout

Brad Weaver - Electric and Anvil Loan

Paul Bray - Electric and Material

These men made this project a priority. These men worked just as though they were working for the Lord Himself.

These men showed up on Tuesday nights ready to do whatever needed to be done. Demolition work, cleaning bricks, hanging lights, mixing mortar, it didn't matter what the task was.

Gentlemen, I thank you.

Timothy Metz



The Southern Indiana Meteorite Mashers

The Southern Indiana Meteorite Mashers held our monthly meeting at Jerry Robinette's shop in Elnora and this was a special hammer-in in honor of Tom Tinch. A group met at Steve King's shop in Paoli and van-pooled to Jerry's. Jeff Reinhardt demonstrated a wizard head from a large copper soldering iron that Jerry donated. Jerry had especially requested the demo, and somehow missed the demo and then had to donate another, small copper soldering iron to be made into the wizard's apprentice. Shawn Gilly spent forge time making a candle holder, and a garden wizard from a RR spike was also demonstrated by Jeff. Billy Merrit and Jason Hardin offered heckling, ah, make that advice all day. Lots of good visiting, lots of good food and a wonderful day was had by all. Tom Tinch attended and visited with his many friends all day.

Next monthly meeting of the Southern Indiana Meteorite Mashers will be at Jeff Reinhardt's shop in Floyds Knobs on Nov 26th. Since this is the Saturday after Thanksgiving, smoked turkey will be the main entree of lunch. Bring something to complement smoked turkey for the lunch. The shop has been recently expanded, and changed, come see the changes.

The shop is at 2810 West Riley Road, Floyds Knobs, IN 47119. ptreeforge@aol.com IBA signs will be posted from Highway 150 onto the shop

Jeff Reinhardt

Jennings County Historical Society Blacksmith Shop

Jennings County Historical Society Blacksmith Shop was opened on Saturday the 8th at 7:00 by Matt Jones and Kevin Walsh. Charlie Helton worked on a pair of tongs. John Wamsley made a wreath hanger to go on a tombstone. We were blessed by some artists who were exhibiting their talents in a local contest. They were painting the shop and the blacksmiths in it. And---they weren't shabby. And-yes they were smart enough to not put me in it! Charlie and Kevin drew out the reins for some tongs and John made a second wreath hanger. Kenny Dettmer made a key chain leaf for the benefit of a visitor. Ray Sease made a leaf and Kenny and Kevin each made leaves. Good iron-in-the hat, good company, and the forge stayed hot most of the day. Just a reminder that next month's meeting will be the last one for this year at Vernon. December's meeting will be at Batesville. This is always a great event so be sure to make it to that one. We have a great host, pitch-in dinner, iron-in-the-hat, demonstrator and the best friends anyone could want. See ya there! Paul Bray

Bunkum Valley Metalsmiths

The Bunkum Valley Metalsmiths held their November meeting at Jerry Robinette's, in conjunction with the Hammer-In held for Ron Tinch on October 29th. The weather was perfect and there was a good turn out to honor Ron. I estimated there were around 25 people coming and going throughout the day, maybe more since I was a little late in arriving. Jerry had 2 forges set up and I saw the makings of some gnomes and wizards, a candle holder and some of the guys were working on a Crandall, used for finishing sandstone. Everyone had a good time observing and chewing the fat. Jerry had a wonderful meal that was enjoyed by all. We were a little worried that he might run out of beans but not to worry there was plenty. (Seriously, Jerry had enough beans for an army and they were very good!! He is a pretty good cook). I think Ron had a good time visiting with all his old friends and the friends enjoyed visiting with him. Jerry has a nice shop that is big enough to hold us all and has some unique things he has made. Our next meeting will be held back at home base at the Fire & Anvil Shop on December 3rd.

As always, remember if you have too many irons in the fire, don't lose your temper ;)

. 10/8/2011

John W Bennett

FORGING A FULL SIZE WHITETAIL DEER ANTLER



Acknowledgements

Last spring I attended a class by Rick Jay on forging a 1/3 scale set of antlers at John C. Campbell Folk School. Rick is a good teacher and I thoroughly enjoyed the class. It is my intent to pass this knowledge on to the best of my ability. I have done as most of us have done and have adapted Ricks teaching to suit my own style and ways of doing things. The techniques I use are not the only way to make antlers and I hope you can take what I have written and derive from it what you need in order to achieve the goal of making realistic antlers.

Required Materials

- *14" Of 1 ½" Mild steel round bar stock
- 36" Of 1" Mild steel round bar stock
- 18" of ¾" Mild steel round bar stock

*Note - If you are making a full set you will need to double the material. Also forge both antlers at the same time, I find this to be a lot easier when bending and shaping.

Required Tools

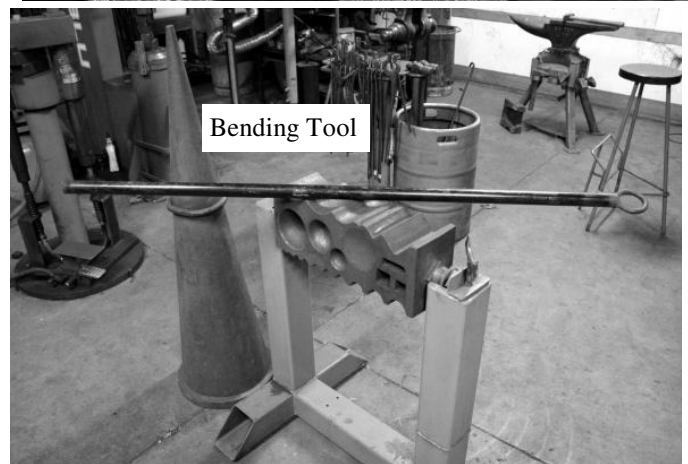
- Power Hammer
- Mig Welder
- Texturing swage
- Texturing hammer
- Die Grinder
- Dremel tool with cut off wheels
- Flap wheels
- 4 ½" grinder
- Bending tool (Long piece of 1" pipe)
- Mount fixture



Texturing Swage



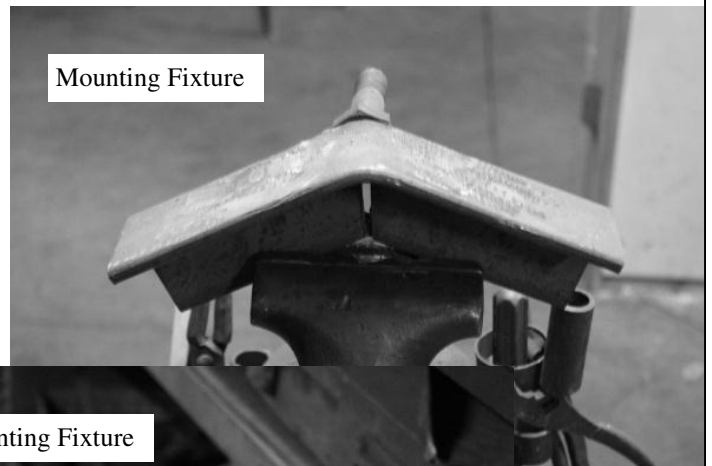
Texturing Swage



Bending Tool



Texturing Hammer



Mounting Fixture



Texturing Hammer



Mounting Fixture

Let's start with the tooling.

I make my texturing swage from sections of Jack hammer bits forged down to $\frac{1}{2}$ " thick then air cooled. The spring is plain 1" x $\frac{1}{4}$ " mild steel. I pre-heated the tool steel prior to welding it on to the spring. The serrations are cut with a cut-off wheel on a 4 $\frac{1}{2}$ " grinder.

The texturing hammer is a modified flea market ball peen. The serrations were cut with the same cut-off wheel. I did not anneal the head or remove the handle.

The bender - The best thing I have found to bend these with is a piece of sch. 40 1" pipe about 4' long. Take the business end and flare it a little and grind it smooth so it won't mark up the antler. I welded a ring on mine so I can hang it on the wall out of the way.

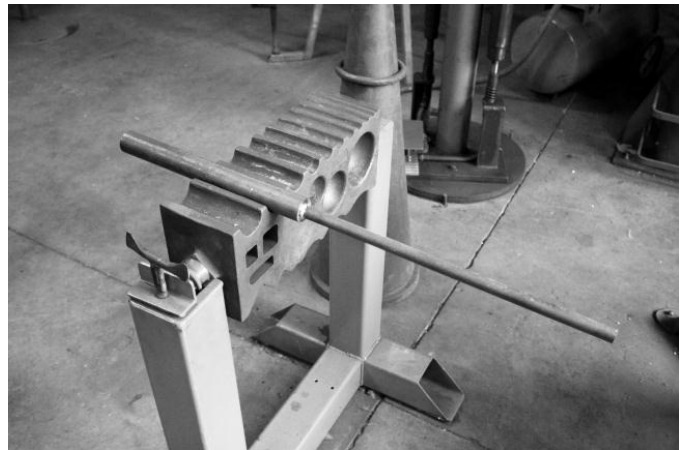
The mounting jig - Is a piece of 2" x 2" x $\frac{3}{8}$ " angle 11" long with a 2" notch cut out of the center of one side and then bent over and welded. I weld the main beam to it and clamp it in the vise to make a solid base for bending. You may not need this but it helps me to visualize the proper angle as I am bending the main beam and the tines.
A quick note on vises. In my shop I have bolted my vises and anvil stands to the floor. I have better things to do with my time than chase either across the shop.

Forging the Main Beam & Tines

Cut a 14" length of 1 $\frac{1}{2}$ " mild steel round stock

Weld a handle on one end. I use 18" of either $\frac{1}{2}$ " or $\frac{3}{4}$ " scrap round or square bar stock.

Draw



Draw a long taper starting 4" from the handled end tapering to $\frac{1}{4}$ " for a finished length of 24"

I always get fish lips on the end of the bar so I allow for cutting approximately 1 ½" off the end to eliminate the fish lips. Otherwise the end of your antler will split and crack as you work it.



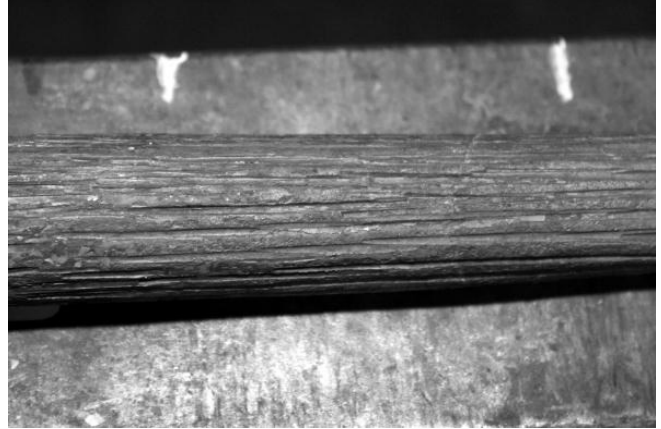
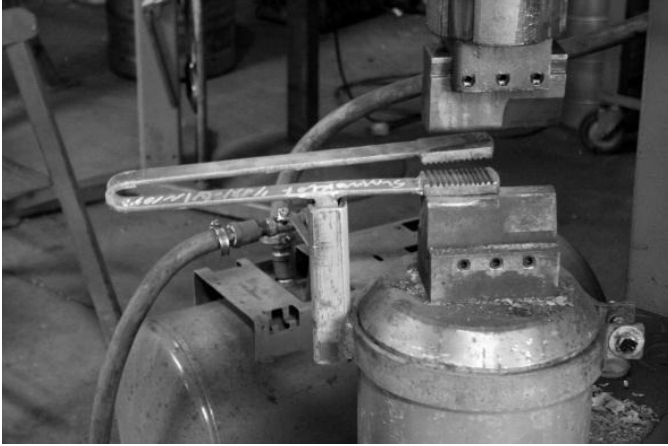
No two antlers are alike. I always like to have one to copy. Some antler main beams are oval and some are triangular to oval.

For this antler we will use a V swage block and starting just past the beginning of the taper I will set it down in the vee to give it a slight triangular shape. Mark the top of your handle so you keep track of the top flat. Once you are about 2 thirds of the way down the length then transition to a slight oval. The top of the oval runs in line with the top flat of the triangle.



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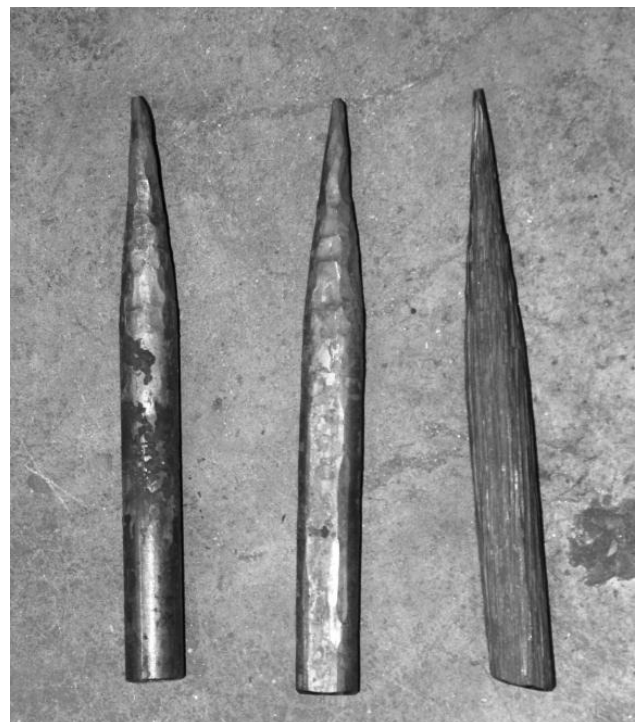
Place the texturing swage in the power hammer. Heat the full length of the antler and then pull it through the swage. Do not rotate it until you have textured to within 2" of the full length. Do not try to texture the very end in the swage as it will destroy it. Rotate the antler push it back to the base of the horn and pull it through again. Continue until the whole antler except the last 2 inches or so is textured.



Reheat and use the texturing hand hammer to texture the last 2".

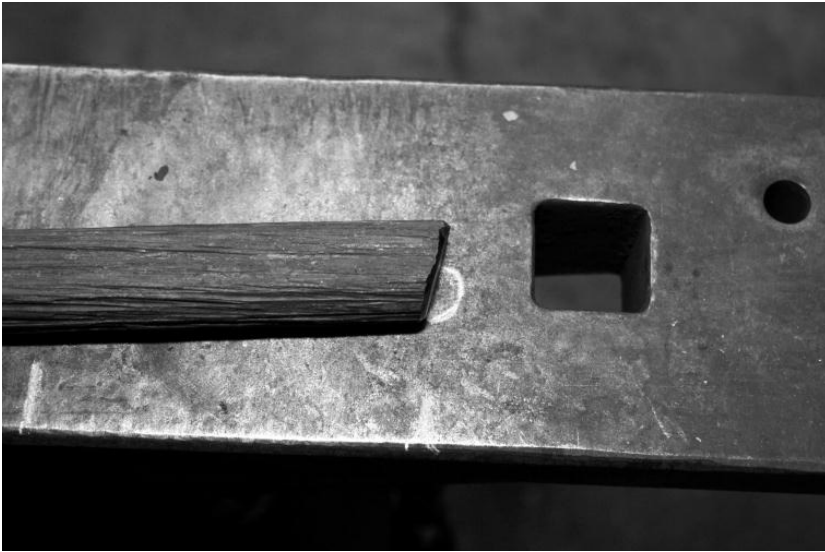
Set the main beam aside for now.

Take a heat on one end of the 1" stock, taper the last 2" (width of my hammer dies) to 1/4" in a 4 to 4 1/2" taper. Make a mark 9-1/2" from the end of the taper and forge this length to an oval shape. Texture in the same manner as you did the main beam using the hand texturing hammer for the last 2".



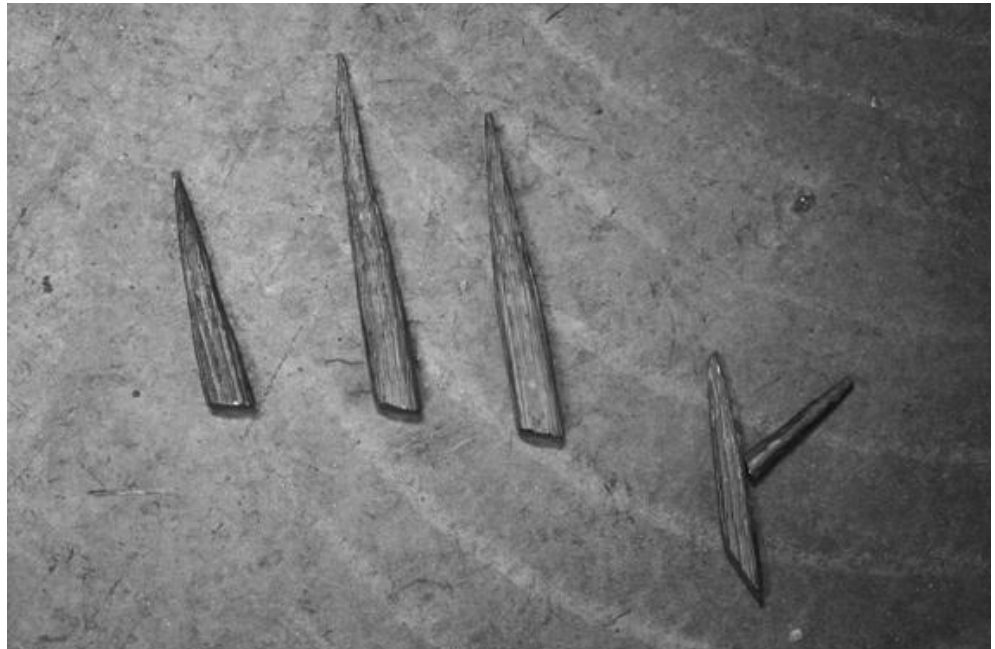
Set the chop saw vise for 15 degrees or make a 15 degree line on the band saw table and cut a 9 ¼" length.

Forge 2 more in the same manner and cut at 8 ¼" and 6". Set these aside also.



Take a heat on one end of the 3/4" stock, taper the last 2" (width of my hammer dies) to ¼" in a 4 to 4 1/2" taper. Make a mark 5" from the end of the taper and forge this length to an oval shape. Texture in the same manner as you did the main beam using the hand texturing hammer for the last 2". Cut off at 4 ½" on a 30 degree angle.

Take another heat on the bar and forge another taper same the last. Cut it off at 3 ½" on a 30 degree angle also. Your tines should look similar to the ones pictured here.



as

Welding & Shaping the Antler

Place the mounting jig in the vise, cut the handle off of the antler and weld the antler base to the jig at approximately the same angle it would come off of the skull. Be sure to have the top flat of your triangle (remember your triangle?) facing the 9 o'clock position. That way your triangle and oval should be in the right position as you bend it around. The triangle Vee should be pointing down and the flats of your oval should be on the sides as you bend it around



Now fire up the rose bud, slip the bending pipe over the main beam, Heat and bend the main beam to match the original.



I take my tine spacing measurements of the antler from tip back to base. For this antler the spacing is
 tip to center of 1 = 9 ½",
 center of 1 to center of 2 = 4",
 center of 2 to center of 3 = 3",
 center of 3 to inside of 4 = 5".



Take a Sharpie and mark the centerlines on the main beam. Take a good look at the original antler, hold the first tine in place and pay close attention to the angle long ways with the beam. Also notice that the tines do not all sit in a row on top, they tend to twist round the main beam as they go. Tack the tines in place and adjust as necessary.



Step back and make sure you have the spacing and angles to your liking. Once you are satisfied weld them up. Look at how the original blends in both ways and try to copy the flow as you weld them up. A little time and forethought here will save you a lot of grinding.



Now the real fun begins. Take the 4 ½" grinder and the die grinder and start grinding and blending the welds in so they flow nicely. You will probably have to do the weld up/grind down several times to get the look you want. Finish with flap wheels, small sanding drums.



Once you have the welds blended in to suit you take the dremel tool with cut off wheels and start matching the texture on the main beam with the texture on the tines. Don't cut too deep and once again try to make it flow from one to the other.



Next come up 1" to 1 ½" from the base and start building up the Boss with the mig welder, try to get the boss at the same angle as the original. In order to get the brow tine and the boss to flow together you will probably have to build up the girth of the tine between the two with weld metal.

Step away and take a scrap piece of round stock at least 12" long and get a good heat on it (orange to yellow) and texture the length of it all the way around. This is your practice piece to give you a chance to get the bead technique right prior to welding the beads on the bottom third of the antlers.

Do not change the setting of the welder from what you've been welding with. DO NOT turn the welding gas off. Use your normal settings and move the gun away from the work and run up and down quickly. Don't worry about all the sticky wires poking out we'll take care of those in a minute.

Practice and adjust YOUR speed and distance until you get the look you are after.

Now about those pesky, pokey wires... Fire up the torch, pass it over the test piece and watch them melt away:<) no more pesky, pokey wires.

You are now ready to apply the beads to your antler. Notice on the original the vast majority of the beads are on the bottom 1/3 of the antler.



Finishing Touches

Now it's time to pay attention to detail. Notice the texture on the antlers is more pronounced the closer to the base of each tine. I take a flap wheel or sanding disk and sand the ends of the tines to smooth them out a bit. I also look to see if the tines on the original are pointed, rounded or flattened a bit and make them match the original.

If you are making a shed cut the antler off directly below the boss and then dimple the cut with a center punch or an air chisel with a pointed bit.

If you are making a full rack trace out your mount, shape it and then cut the antlers off at the base of the mounting jig. Pay close attention to the angle you weld them to the skull, this is always the hard part for me.

Hopefully you now have an antler or rack that looks something like these.



I hope you have found this helpful to you,

John Bennett
Artist Blacksmith



The *FORGE FIRE*

Newsletter of the
Indiana Blacksmithing Association,
Inc.

Bill Kendrick *Newsletter Editor*

1280 N CR 900 W
Seymour, IN 47274

First Class Mail

Address Correction Requested
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With original address legible

November 19 Hammer In: St. Joe Valley Blacksmiths

Bill Conyer's Shop: 50964 Lilac Rd, South Bend, IN

From the south: Go through South Bend on US 933 to Auten Rd. Turn left or west, cross the river, the first road is Lilac turn right (north), look for yellow house on right

From the toll road: Get off at exit # 77 this will put you on US 933. Go north to Auten Rd. Turn left or west, cross the river, the first road is Lilac turn right (north), look for yellow house on right

December 10 Hammer In & Board Meeting Chaz Kaiser's

16 Indiana Avenue, Batesville, IN 47006

It's a pitch-in lunch, please bring a dish to share.

Coming from central Indiana, take I 74 east towards Batesville. Exit at SR229 and turn South towards Batesville. Turn left onto IN 46 / Broadway St. and follow for about 1 mile. Turn right onto Pearl St. (by Batesville Casket) then follow Pearl St. to Indiana Ave. Chaz is located at 16 Indiana Ave.