February 2021

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.

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.

Mar 20 2021	**IBA BUSINESS MEETING VIRTUAL—ZOOM**

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March 20 Annual Business Meeting

Editors Message

I spoke with Gary Phillips a few days ago. He encourages everyone to be patient. We will emerge from the current social distancing situation and become more active as a group.

In near term, the IBA business meeting is looking to be a Zoom virtual meeting. I do not have full details yet, but I do expect the meeting will be the morning of March 20. For those who have no, or very limited, internet connection there should be telephone access for speaking and listening.

Please contact Steve King by phone: (812) 797-0059, or email: king-stephen228@gmail.com if you are interested in serving on the IBA board of directors.

As noted last month Brad Weaver is seeking 2021 award nominations for:

- The Clifton Ralph IBA Blacksmith of the Year
- The IBA Rookie of the Year
- The Paul Moffett service award

If you would like to nominate someone for an award, contact Brad by phone at (812) 371-8674 or by email at bweaverhlw@yahoo.com. Nomination forms and instructions are available on the IBA website (scroll down to "Awards" at http://www.indianablacksmithing.org/membership.html.)

Ken Dettmer is planning to host the usual February, third Saturday hammer in at his shop on Feb 20. Hammer in starts around 9:00. Lunch is a pitch in.

I will close with a couple pictures from the 2018 hammer in at Joel Sanderson's shop. Hopefully we will be able to meet in larger numbers soon.

IBA website: www.indianablacksmithing.org IBA Facebook page: 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

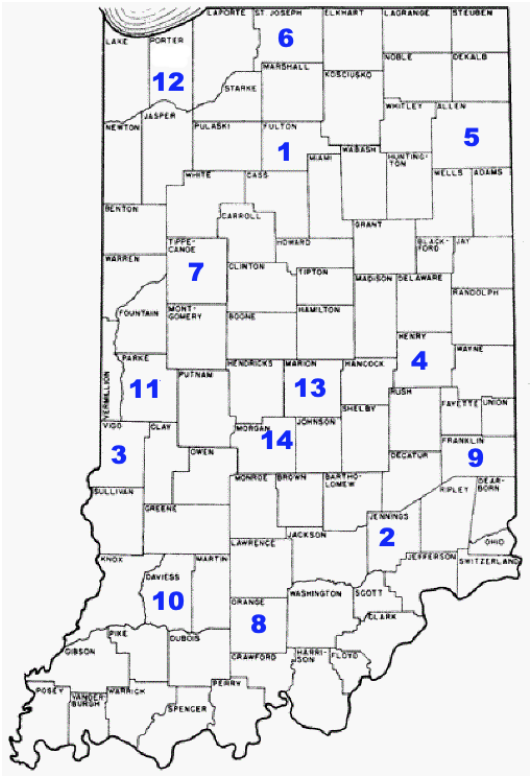
3) Wabash Valley Blacksmith Shop
Meet: 2nd Saturday at 9 AM
Contacts: Doug Moreland (217) 284-3457
Max Hoopengarner (812) 249-8303

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).

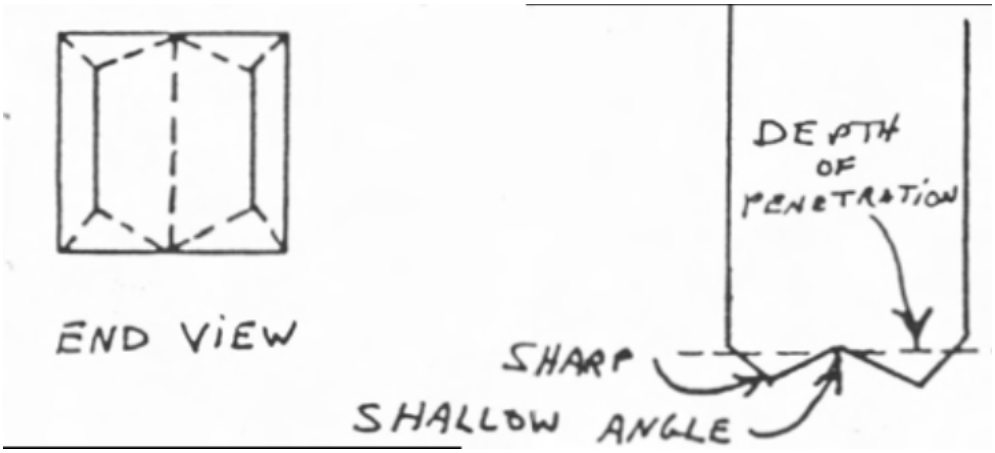
IBA Satellite Groups and News (continued)

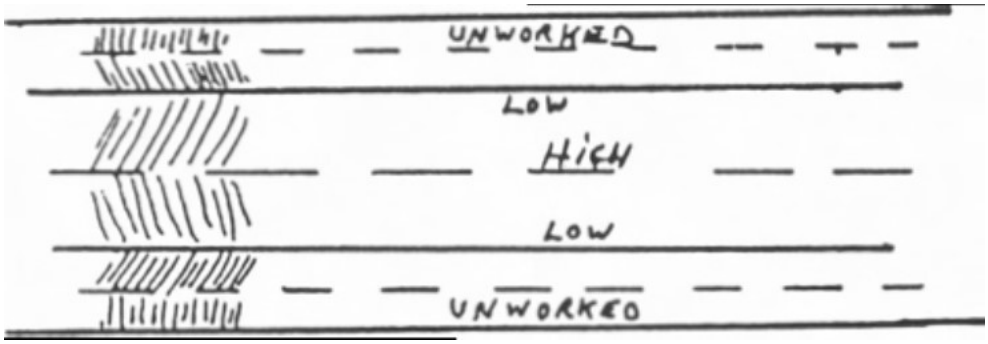
Bunkum Valley Metalsmiths

The Bunkum Valley Metalsmiths met Saturday February 6th with about 20 in attendance. There was plenty of smithing being done, tall tales told and of course Iron in the Hat. We had lots of good homemade food and desserts! We meet the first Saturday of each month and welcome visitors. There are plenty of good smiths ready and willing to teach or assist with a difficult project. Enjoy the pictures!

Silberberg Ornamental Twist

Prepare a square-faced punch out of a suitable steel. The size of the punch must be appropriate to the size of the bar that will be twisted. If you will twist a 1 inch bar, the punch should be of at least ***3/4*** inch square stock, and could be of 1 inch stock. Shape the end as shown in the drawing. Harden and temper the chisel. Clean and lightly polish the end of the chisel. The two chisel shapes on the punch face should be formed at a shallow angle, but they must be sharp. Check the chisel on a practice piece. Adjust the punch face as necessary. Checking the pattern on a piece of clay forded into a square bar is a good way to see how well the punch will work before you spend time hardening and tempering.

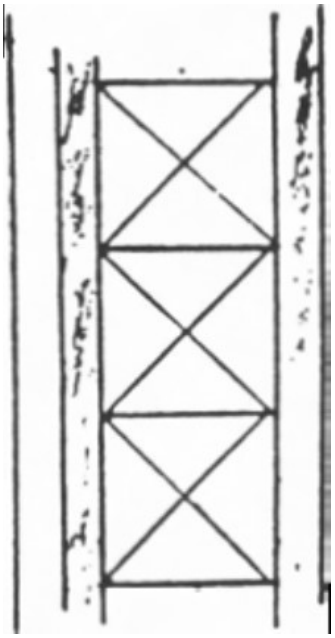




1/4 inch from each **edge.** There should be **1/8** to 3/16 inch of un-worked steel on each side of the pattern In addition, the punch must go deep enough to leave a sharp center ridge that runs down the center of each side. Reheat and rework each side until it looks correct.

Reheat the bar and start chiseling in marks perpendicular to the previous marks. This should leave shallow pyramid shapes. Do this to all four sides of the bar.

Work the chisel into the bar on all four sides Reheat the bar and twist evenly. The effect is parallel to the long axis. The punch must be driven quite stunning. Raised spiral ridges will form with in deep enough to create two parallel chisel marks pyramids in between. This is the Silberberg Twist.



Reprinted from an article by Jan Kochansky in The Newsletter of the Blacksmiths' Guild of the Potomac, Jan./Feb., 1991.

Letter/Number Stamp Holder

Article and Images courtesy of Bill Corey

When it's time to stick a label of some kind on your project such as your name or the date one of the inexpensive Letter and Number Stamp Sets can get you by. Our favorite store that handles every tool made in China sells different sizes under the brand name of "Pittsburg" and if used on hot steel they'll actually last quite a while. Now if your name is Stanley Wojciehowicz it's going to take you a while to stamp in your last name and the year a letter at a time. However if you had a way to hold a few letters all at once and actually strike them all at once it will help.


Picture 1

So here's my answer. You can buy these apparatuses already made however they cost quite a bit more than the $10 set of stamps. The set of "Pittsburg 1/8" stamps are made of square stock that measures 6mm and the fact that 1/4" is 6.35mm comes in handy in the construction.


Picture 2

I start by cutting the two 1 1/2" X 2 1/2" X 1/4" side pieces. Then I cut off two short pieces of 1/4" square stock, one 2 1/2" and the other 2" long. (Picture 1)

I then weld the longer 1/4" square stock sandwiched by the two sides all the way down the end (Picture 2).


Picture 3

And then weld the shorter 1/4" piece at the other end sandwiched in the sides but only welded at the top and bottom. (Picture 3)


Picture 4

This is where that handy part I was talking about comes in, the 6mm numbers and letters slide just about right into the gap made by the 6.35mm upright pieces that were just welded in.

Then find the center of the end where the shorter 1/4" piece is welded in and drill a 5/16" hole all the way down to the inside of the other 1/4" piece. (Picture 4)

This will shave a slight bit off of the side pieces so that a 5/16" bolt will slide all the way through and is grabby so hold on to it good. (Picture 5)


Picture 5

Then with the bolt in place weld a 5/16" nut on the end. (Picture 6)

Now weld on the 9" (or how ever long you want) 1/2" square handle onto the ends of the 1/4" pieces. (Pictures 7,8 and 9)

Now all that is left is put the letters and/or numbers that you are wanting to stamp (I always rap it on a piece of wood to check that I've got them in the right order) and give the handle a good rap with a hammer right over top of the end of the stamps remembering "You only get one chance to make a good first impression." (Picture 10)

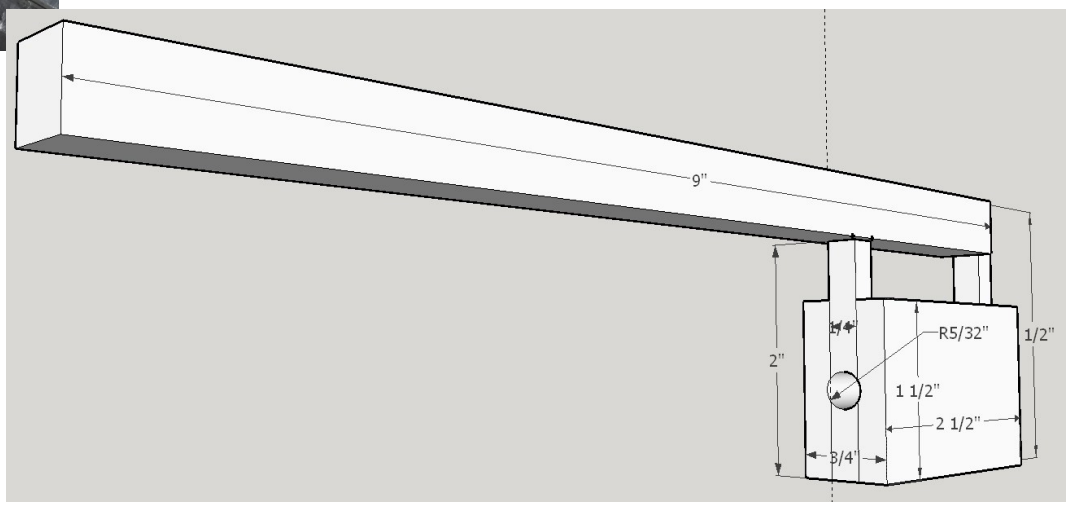

Picture 6


Picture 7


Picture 8


Picture 9

Picture 10



Artist-Blacksmith's Association of North America

January 2021

Greetings from the Artist-Blacksmith's Association of North America —
"ABANA encourages affiliate leaders to forward this newsletter directly to its club members and/or include any or all content in your club's newsletter."

ABANA New Executive Director
The Artist-Blacksmith's Association of North America, Inc. has named Janie Grela as its first Executive Director. This year, ABANA established its headquarters in the train station in Johnstown, Pennsylvania. As Executive Director, Janie will develop a museum space, library and archive at the historic train station. Janie will be responsible for leading the non-profit organization in adherence to the strategic plan set forth by the Executive Board. Her experience in non-profit management and strategic planning will help further the vision of the organization through initiatives that support the development of ABANA and the community.

'**Iron to Art' Festival in Johnstown Rescheduled**
The clinker in our firepot, COVID, has struck again. ABANA is rescheduling the April 2021 'Iron to Art' Festival to October 2021. A lot of work has been done for this celebration at our new headquarters, but we must do everything we can to keep our brothers and sisters safe. All of us at ABANA are disappointed but look for more information about the Festival as we move through the year.

#150mm Challenge Exhibition is in the United States
For the next three months the #150mm Challenge Exhibition will be at the Appalachian Centre for Craft in Smithville, Tennessee. The exhibition displays a curated collection of 150 metal objects, selected from over 400 pieces created by amateur and professional blacksmiths from around the world. The displayed items are made from a single piece of iron measuring 150mm x 20mm x 20mm (5.9 x 0.79 x 0.79 inches) with nothing else added. This is your chance to see an amazing display of work from around the world as the Exhibition moves around the United States. Click on the link for more details. https://abana.org/donation-to-the-150mm-challenge-exhibition/

ABANA'S Education Committee announces the National Curriculum
We have some exciting news from the Education Committee; ABANA has fully adopted the National Curriculum (NC), based on the curriculum of the CBA (California Blacksmith Association). As our core mission is to perpetuate the noble art of blacksmithing, we recognize it's incumbent as a national blacksmithing organization, to share a successful and practical working curriculum with members, affiliates, and the blacksmithing world at large.

What is the National Curriculum? The NC is a departure point for those that seek a structured program of study that can be used at schools, conferences, meetings, and individual shops through one on one, small groups and self-guided study. We present the curriculum as one way to learn blacksmithing, but certainly not the only way. From this set of goals, lessons, and benchmarks, smiths at any skill level can pick this up and continue their education. The curriculum provides the framework for the student to progress through increasingly challenging projects that focus on the skills expected of a journeyman smith, culminating with the Level III Grille.

https://abana.org/
https://www.facebook.com/groups/1018597368285578
https://www.instagram.com/abana.blacksmith/
abanagroupnews@gmail.com

Jerry Boyd
ABANA Affiliates Committee Chair
325-207-8253

Two New Exhibitions at the Metal Museum

Title: Measured Making: The 150mm Challenge

Dates: March 27 - July 3, 2021

The first, Measured Making, is a show curated and produced by Delyth Done. Based on a project "warm up" by Ambrose Burne, the exhibition displays a curated selection of 150 metal objects, chosen from over 400 pieces created by amateur and professional blacksmiths from around the world as part of the viral #150mmChallenge. The Metal Museum is one of five stops that the exhibition will make on its U.S. tour, made possible by ABANA.

Press release: https://bit.ly/3oK5gb7

Title: Tributaries: Andrew Meers

Dates: April 10 - July 17, 2021

The next exhibition to open is another installment of the Tributaries series, which recognizes emerging and mid-career artists in the metals field. Master Smith Andrew Meers departs from the restraints of conventional knifemaking through his expressive use of design elements such as patterned steel blades, handmade hardware, and forged elements. His current body of work is inspired by techniques and narratives from traditional Japanese metalwork. This exhibition will include a selection of knives and forged work.

Press release: https://bit.ly/3ssTLaz

Kim Ward
Marketing Manager
Pronouns: she, her, hers
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Metal Museum
374 Metal Museum Drive, Memphis, Tennessee 38106
www.metalmuseum.org

Measurements

The point at which the two bars will be welded looks to be about 5⁄16-inch thick on my drawing. I know the drawing calls for ½-inch thick bar at the upset corners. According to my measurements and my previous forging of the scroll/leaf assembly, I need a taper about 9¾-inches long—from mid corner to step of the scarf.

I'm going to add the 5⁄16" thickness to the ½" thickness measurement and divide the answer by 2 to get the average thickness of the tapering bar. By doing so, I can then treat the taper as a rectangular bar. I'm going to multiply the answer by 9¾" and that will give me the area of the taper—corner to weld point.

To find the area of a rectangle, multiply the length by the height.

I'm going to call all the height (thickness) measurements on the tapering scroll as Height-1 or H1. There are two height measurements on the tapering scroll—½" at one end and 5⁄16" on the other. The length of the bar I shall refer to as Length 1 or L1 for the scroll. My formula is going to look like this:

$$\frac{(H1a + H1b) \times L1}{2} = \text{Area of the tapered scroll}$$

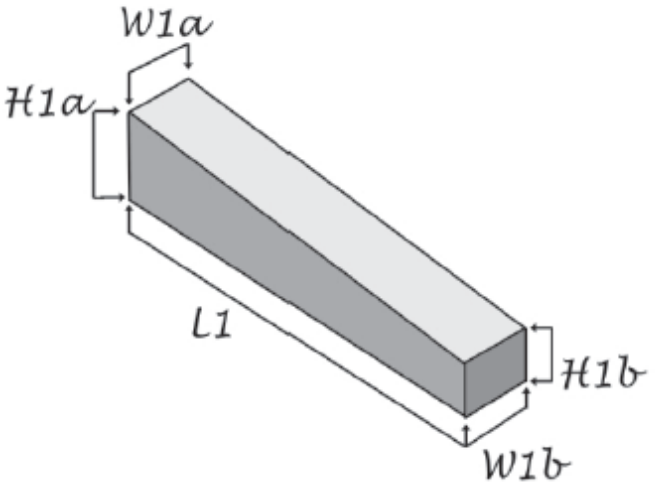
I'm going to call the height measurements on the unforged rectangular flat bar as Height-2 or H_2.

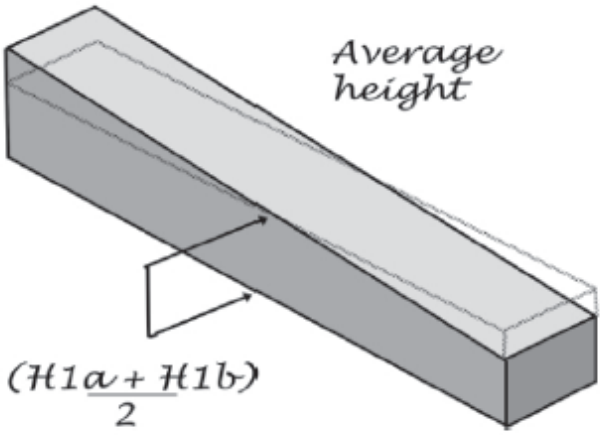
The flat, rectangular bar is a constant ½" thick. What is unknown at present is the length of the flat bar required to make the taper. I'm going to refer to this unknown as Length 2 or L_2 for the un-forged flat stock.

I know the area of my tapering scroll. What I need to do now is compare that to the un-forged flat bar to determine the unknown length of bar required to make the tapered scroll. I need to find a point where both figures are the same. My formula will look like this:

Area of tapered scroll = area of un-forged flat bar

To isolate the unknown portion (length) of the unforged flat bar, I have to divide that side of the equation by H2. BUT whatever I do to one side of the equation, I have to do to the other side—thus both sides get divided by H2.





You will notice that the denominator used in the previous area calculation is now below the fraction or division bar - which, I believe, is fair game in math.

$$\frac{\text{Area of tapered scroll}}{H_2} = \frac{H_2 \times L_2}{H_2}$$

We can put both of those formulas together to simplify the math. The formula would look like this:

$$\frac{(H1a + H1b) \times L1}{2 \times H2} = L2$$

Let's plug in some numbers and get a definitive length of bar required.

$$\frac{(.5" \times .3125") \times 9.75"}{2 \times .5"} = 7.92"$$

I'd call it 7⅞-inch as you have material stored in the scarfs to help out.

Measurements

The square corners; what's happening?

I like to work with measurements taken along the centerline of a bar. When a bar bends, the inside dimension is compressed and the outside dimension is stretched. Generally, the center-line measurement remains a constant. The same is true of upset corner bends.

With an upset, square, corner bend, the outside dimension on EITHER side of the corner will be stretched by half the thickness of the parent bar. The total growth to the outside of the bar being the parent bar thickness.

The inside dimension will also change (decrease) by half the thickness of the bar on EITHER side of the corner. Again the total change will be the thickness of the parent bar.

When forging an upset corner, the compressed material from the inside of the bend is moved out to the outside corner of the bend and knocked it around a bit until it forms a square corner.

Before you get started with a bar of metal, let's make a 90˚ bend using some computer generated drawings.

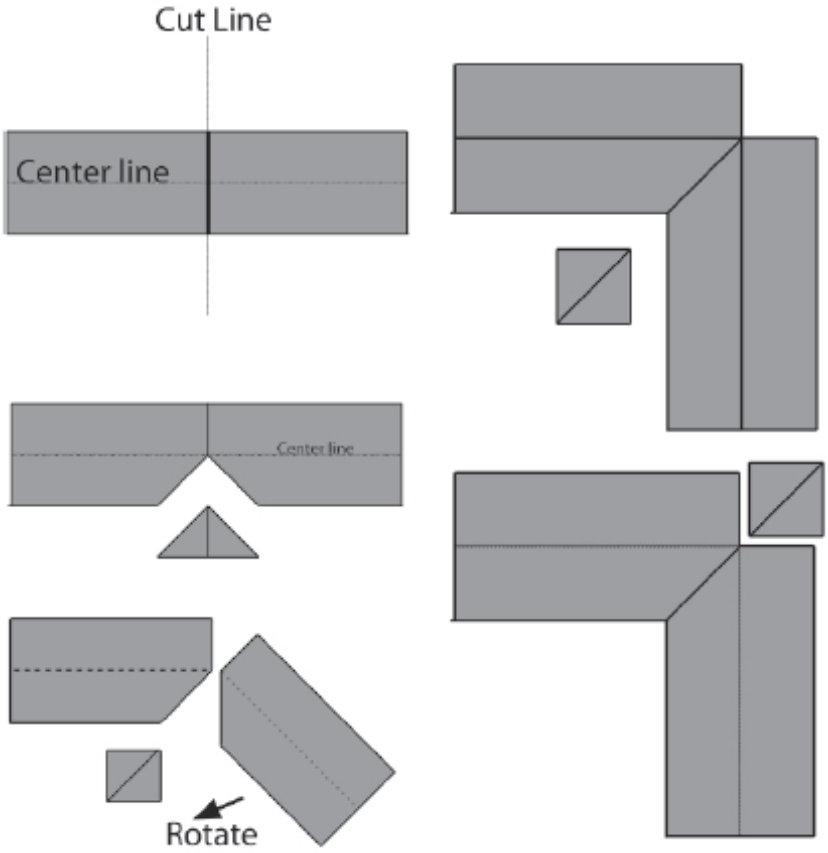
Make cuts in the drawing where a metal bar would bend as it helps demonstrate what will happen to the bar of steel during an upset square corner process.

In order to get a 90˚ bend, I will have to remove some material from what will be the inside of the bend. This will be the first cut in the drawing, cutting it in half—allowing it to pivot and act like a bar of steel.

The second cut is to remove the two corners that will stop the drawing from being bent at 90˚ along the centerline. This is the excess material that would be compressed if we were to do this while bending a hot bar of steel. *These two cut out corners, when added together, will form a square.*

The drawing is rotated about its center line, the square gap that is formed at the outside of the bend represents the stretched and thinned material if we were to do this hot on a bar of steel.

The material removed earlier is now placed in the gap left after bending. This represents upsetting a hot bar of steel and moving the compressed material from the inside of the corner to the outside of the corner by judicious hammering.



We should now be able to see that the smaller square section of stock formed by the two small triangles is half the thickness of the original drawing. If the drawing was 2 inches thick, then each small triangle will measure 1 inch high, 1 inch at the base and whatever across the hypotenuse.

Looking at the drawings, you will note that the inside edge was shortened, and the outside edge was increased, by half the thickness of the material. This piece of trivia can help us when we are trying to follow the grille drawing.

This two page article is re-printed from the November/December 2020 edition of the California Blacksmith Online the newsletter of the California Blacksmith Association. These two pages are part of a larger article on Level III Grille making written by Mark Aspery.

The *FORGE FIRE*
Newsletter of the
Indiana Blacksmithing Association, Inc.

Farrel Wells *Membership Secretary*
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Renaissance Festival New Castle, Indiana

Tentative Date is July 24

The New Castle-Henry County Public Library and Art Association of Henry County are seeking vendors for a one-day Renaissance Festival held in the Arts Park of New Castle, Indiana.

Contact: Krystal Stanich, Teen and Adult Services Manager
New Castle-Henry County Public Library
krystals@nchcpl.org
765-575-4557
nchcpl.org