November 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.

The Forge Fire is the newsletter of the Indiana Blacksmithing Association Inc. (IBA) IBA is an affiliate of the Artist-Blacksmiths Association of North America Inc. Permission is granted to other similar non-profit organizations to reproduce uncopyrighted articles originally appearing in *The Forge Fire* provided credit is given the original source.

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.

Nov 20 2021	**NO IBA HAMMER IN**
Dec 11 2021	**DON REITZEL'S SHOP STILESVILLE, IN (BOARD MEETING)**
Jan 15 2021	**TBD—CONTACT STEVE KING IF YOU WOULD LIKE TO HOST**
Feb 19 2021	**KEN DETTMER'S SHOP (NOT CONFIRMED)**

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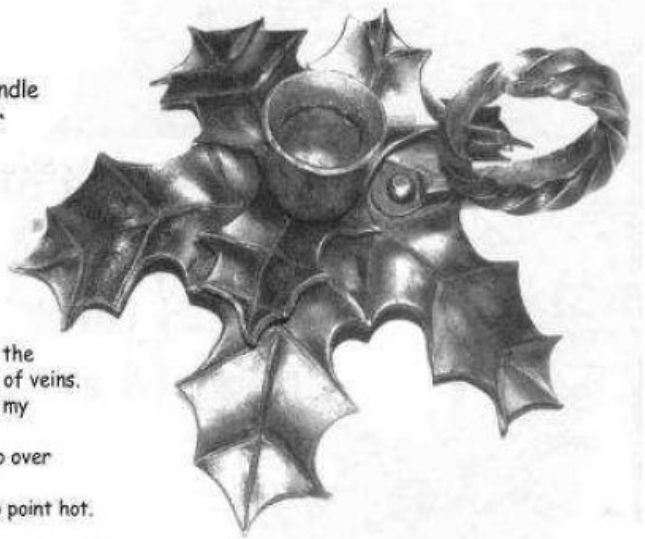
Dates to Remember

Dec 11 Hammer In at Don Reitzel's Shop

Holly Candle Holder

Gary Scasbrick and Steve Alling

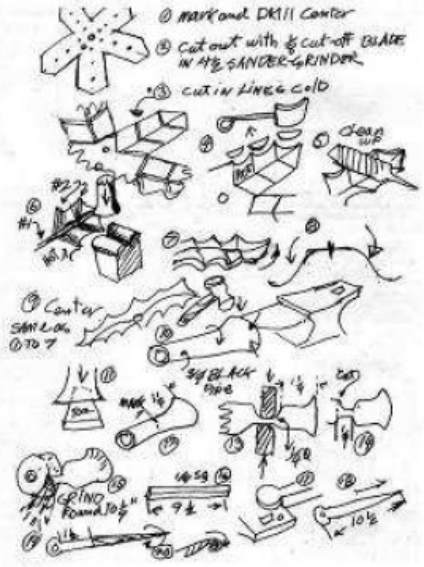


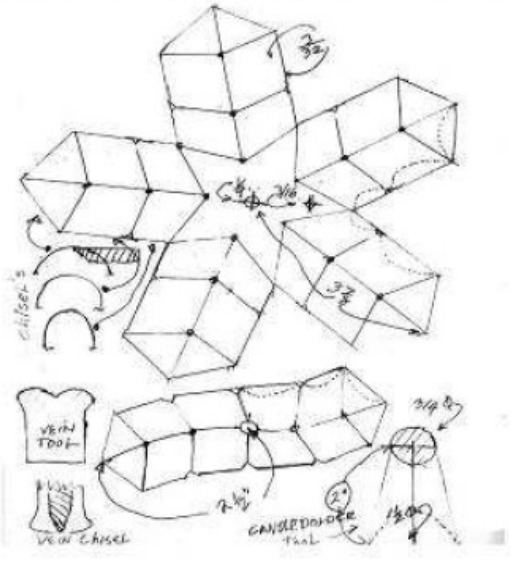
Originally inspired by Gary Scasbrick's candle holder from the Appalachian Area Chapter Newsletter

Revised pattern and instructions by Steve Alling

Approximate finished size: 6.5" wide x 3" tall

1. Make pattern with holes for center punching the inner vein and little"v's" to mark outside end of veins.
2. I rough mine out with a 1/8" cut off wheel in my grinder.
3. Mark the veins cold, I find I don't need to go over them hot.
4. Select a chisel to cut out the scallops point to point hot.
5. Clean up your chisel cuts.
6. With a dull chisel work veins into "v" tool or wood starting with the center vein.
7. Start by bending the ends of the leaves up.
8. Complete the bending of the leaf, try to get to the center star level.
9. Complete the center same as 1-7.
10. Work with the edge of the pipe on the horn or the anvil and with a ballpein hammer shape it without thinning too much.
11. It helps the candle to fit better if you can put a little taper further back in the pipe.
12. Mark the pipe at 1-1/4".
13. Neck the pipe down to 1/4". Take it slow at first or the pipe will crush.
14. Cut off candleholder, leaving 1/4" stem.
15. Grind stem to 1/4" round.
16. Make handle and attach with rivet, using the 1/4" stem on candleholder as the rivet to attach to the base.





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

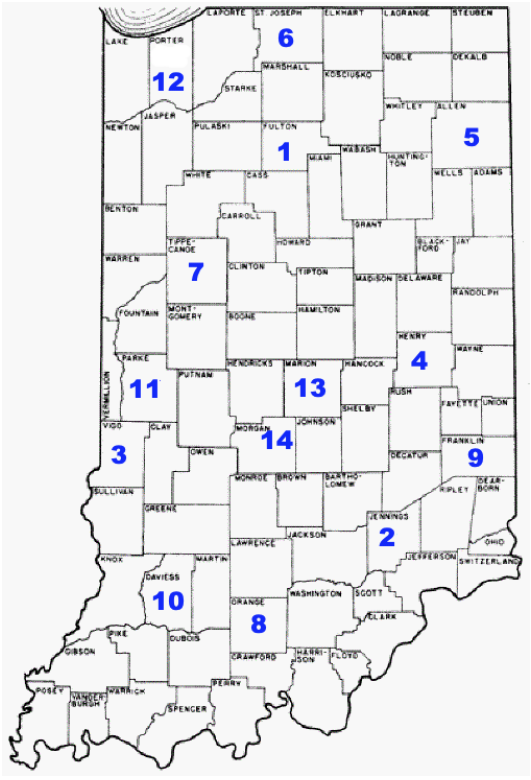
3) Wabash Valley Blacksmith Shop
Meet: 3rd Saturday at 9 AM
Contacts: Bill Cochran (812) 241-8447
Max Hoopengarner (812) 249-8303

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).

Jennings County Historical Society Blacksmith Shop

The Vernon blacksmiths met on Oct. 9th with Kevin Welsh making a leaf for Ray Sease with his "cat-head" hammer. Dave Good made a tripod and worked on a tomahawk. Kevin worked on enlarging the hardy hole on one of the anvils. There was 14 people who signed in. Next month will be the last meeting at Vernon this year. Dec. at John Cummings, Jan. at Dave Good, Feb. at Kenny Dettmer, March at Kevin Welsh and April -back to Vernon. please make it to as many meetings as you can. Paul Bray

Directions to December Hammer In: John Cummins shop at 14473 Chesterville Rd., Moores Hill , IN 47032. From Hwy 350, approx. 3 miles east of Milan turn south on Palmer Rd. Turn left at 2nd stop sign. Turn right on Chesterville Rd. to 8th house on right.

IBA Satellite Groups and News (continued)

Bunkum Valley Metalsmiths

We met Saturday and had a good meeting. We were pleased to have Steve King attend. There were plenty of homemade noodles to go around and too many desserts. We will meet again the 1st Saturday in December. Everyone was encouraged to make a homemade ornament to raffle off after the iron in the hat. Visitors are welcome!

Wreath & Bow Ornament

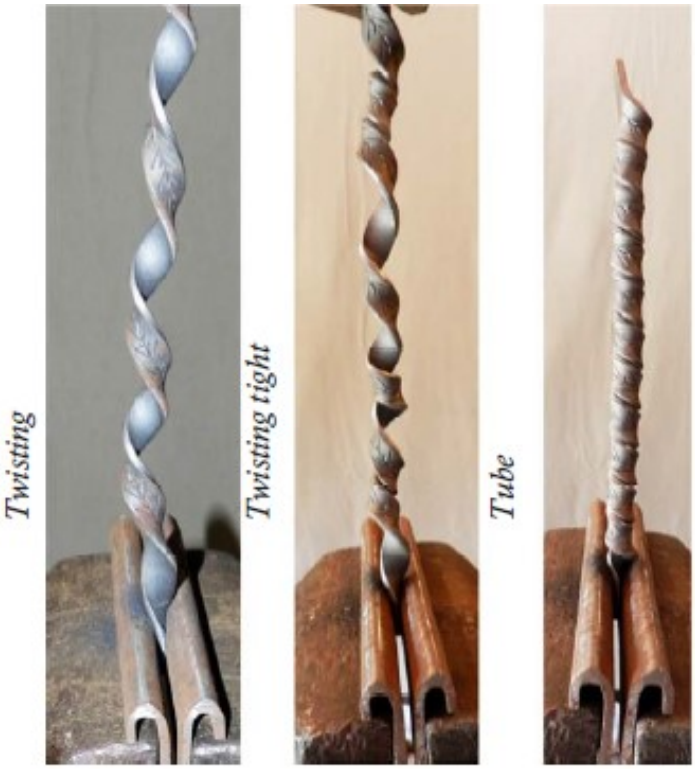
by Steven Spoerre, a MABA Member

Material: 3 pieces of 1/2 x1/8 flat stock, one 15 inches long (wreath), one 9 inches (bow), and enough for a customized collar (bow center). Find and mark the center of one of the faces of the 15 inch piece, this point will become the bottom of the wreath.

Decorate the surface 6 inches out from both sides of the center, maintaining the stocks 1/2 inch width.

Pictured is a 1/2 inch "Y" letter stamp, against an angle iron fence under the treadle hammer. This was used to make the larger chevron pattern and a 1/4 inch "Y" stamp was used to make the smaller chevrons. Spacers were used against the fence to move the stock, or the stamp, so the pattern was centered. Straighten and flatten the piece, if needed, after decorating.

Because the stock is going to be tightly twisted, the clamped end and the twisting wrench should have smooth, rounded, surfaces so the material won't mar or tear against a sharp corner. Jaw covers were put in the vise and an adjustable twisting wrench with round posts was used. Clamp the stock in the vise at the point where the decoration ends and with the decoration facing you. Position the twisting wrench at the other end of the decoration, and start to slowly twist clockwise. As the twist tightens, it will want to move out of vertical. Don't fight to keep the portion below the twisting wrench perpendicular with the vise, but angle it slightly as needed to assist the



tightening areas, then come back to vertical. Quickly correct any “drastic” bends back into alignment between a wooden mallet and a piece of soft wood. Eventually the twist will tighten onto itself and become a hollow tube, with the decoration visible. The 12 inches of decorated surface should now be about 6-1/4 inches of twisted tube. Modify the twisted portion so the straight ends lay on the same side of the tube. This can be done by re-clamping the piece slightly farther from the initial point and twisting to move the ends to the same side of the tube. Clean the tube with a wire brush and smooth any rough or nicked areas with a fine file or emery paper.

Using a wooden faced mallet, bend the twisted area around a 2 inch mandrel until the ends get close together.

Adjust the position and trim the ends so they’ll overlap, and leave an area large enough for the bow to set into.

Check to see that the wreath circle sits flat – adjust now, if needed. The bow will be collared between the twisted portion and the ribbon tails will hang down into the center of the wreath.

Lay out the zones for the bow on the 9 inch piece, as shown below, and forge, saw, file, sand and/or grind the contours that will become the bow loops and ribbon tails. Reduce the stock thickness in the bow to tail transition area to 1/16 inch so the overlap will be 1/8 inch thick, and the tight bends can be made easier. Break any sharp corners and lightly texture the visible surfaces with a straight peen. Remember, when the bows are doubled over, the visible portion of the tails are on the opposite side of the bow texture. Use a small diameter fuller to put a bend notch on the back side of the widest points of the bows.

Check and correct the textured areas on the ribbon before bending. Heat to a red and double the bows over using tongs and a pair of round nose pliers. Hold the center of the bow with the round nose pliers and bend the tails down. De scale and wire brush. Position the bow on the wreath and remove any wreath material that won't let the bow fully seat in place. Modify the overlapping end tabs of the wreath so the collar will sit flat, because the collar will finish the bow and hold it in place.

Measure the height and thickness of the assembled wreath and bow to determine the size of the collar. Cut the collar stock to the appropriate length and fuller bend notches where the corners will be. Bevel the ends on opposite sides, then transition from the ½ inch width down to ¼ inch on the front section and round the edges that pass between the ribbon tails. Texture the front of the collar with a straight peen. Using a spacer, make the first two bends to create a hook that will go over the top of the wreath and bow, then bend over the tip of the narrow section. Wire brush the collar, then wax all three pieces before assembling.

The rounded jaw covers were made by squeezing a piece of angle iron in the vise until it doubled over, then rounding off the point, and removing part of one of the legs.

Editor's note: This article reprinted from the Nov-Dec 2021 issue of "The Upsetter" the newsletter of the Michigan Artist Blacksmith Association.

Editor's Notes

This month's Forge Fire is dedicated to holiday decorations. I did not have much in the way of news, so the usual page 2 Editor's Update has been assigned to a candle holder project.

In addition to the holiday projects in this issue, check out the IBA Facebook site. John Bennett recently posted about a jingle bell class that he hosted. The class has passed, but John posted some photographs to get you started. John might also be willing to host another class if interest is high enough.

I have not gotten any updates on the IBA hammer in schedule. We are set for December at Don Reitzel's Shop. Note the December hammer in is held on the 2nd Saturday to avoid conflicts with holiday festivities. I did hear from Ken Dettmer that he is planning to host the February hammer in. I encourage satellite groups to contact Steve King to schedule a hammer in.

Holiday Bell
Mike Mumford and Lisa Fuller
Ridgecrest

I've had the 2010 bell demonstration by Dick Carlson and Myron Hanson in my files for a while, but felt that it needed to have the completion added (i.e. adding the clapper and forging out the top). So, I invited one of my Level 1 students, Lisa Fuller, over to work on a bell, and to help photograph the process.

We made two bells, both have very nice ring-adings. They took about a half-day.

We tried two different ways of creating the bell flare, one done by Lisa, the other by Mike.

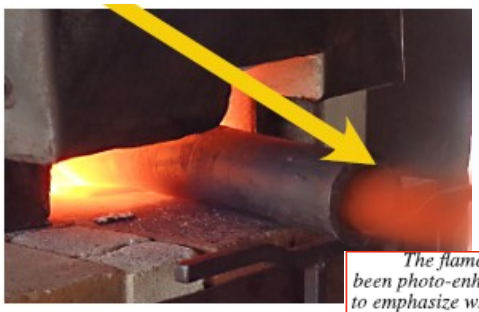
Stock: 12" of nominal 1 1/2" schedule 40 welded steel pipe. This measured about 1 15/16" OD, 1/8" wall.

Overview of the Bell-Making Processes

1. Flare out
2. Neckdown at top, partway
3. Make dinger, insert into neck
4. Neckdown further to capture dinger
5. Forge down above neck
6. Cut off above neck, forge to desired shape

Caution About Pipe In a Gas Forge

Pipe is pipe: it lets stuff flow through it – like flames.

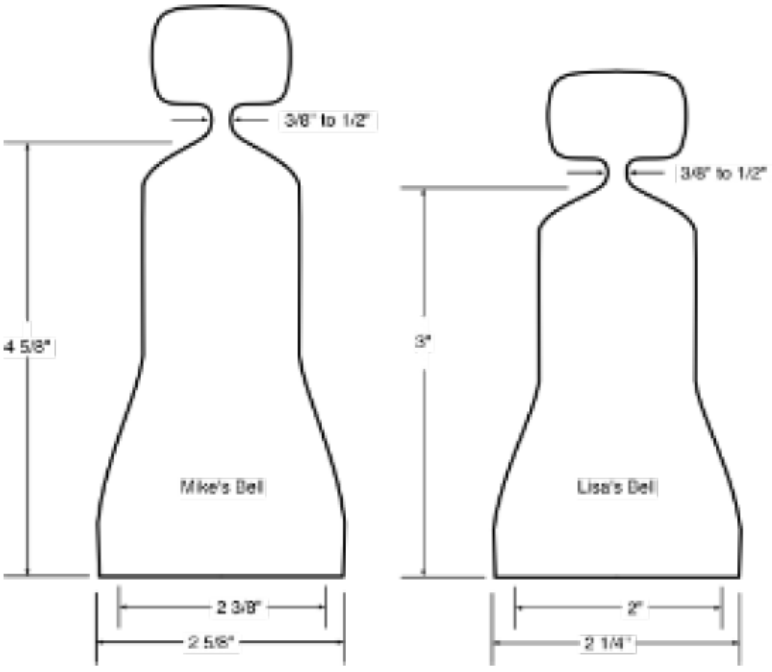


The flame has been photo-enhanced to emphasize what we saw - that there was a big tongue of flame shooting out..

Dimensions:

Dimensions are sorta your choice, but here are the dimensions of what we made.

Also, handle size and shape are your choice. If you forge it all together cleanly, the line between the dinger and the bell material will mostly disappear.



Lisa's Process: Forge the flare over the horn

In essence, hold the pipe over the horn, hammering just off the contact point to force a bend outwards. Hit and rotate is the name of the game here - move the metal a little bit at a time. Use a leather mallet to minimize hammer-dings on the outside of the bell flare.

Push the pipe into the horn while hammering. The pipe wall is thin, so it will cool quickly. Re-heat as it loses color.

You may need to correct the curves - the next photo shows a bit of correction being done in the swage block.

It becomes a process of working back and forth, and around until you get a nice flare, of about the distance you want. Go at it a little bit at a time, and quit hammering when the steel looses color. I was pleasantly surprised that we didn't break a weld.

We were trying for two different sizes, bells that stand about 1.5 and about 2 times the original stock diameter.

Lisa's bell flared out to 2" ID.

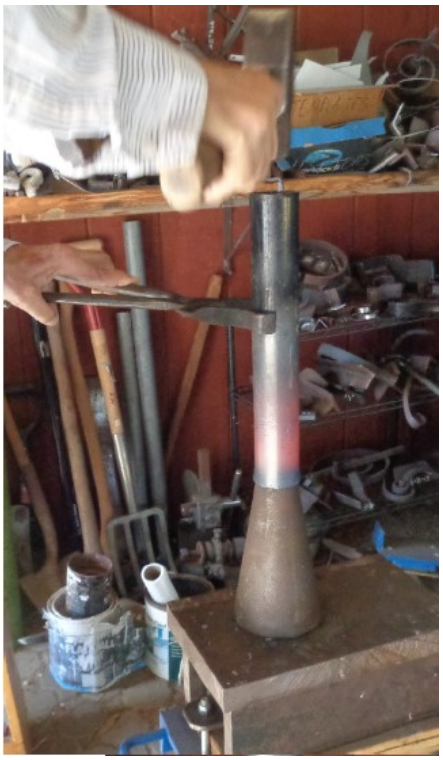
Once the flare is made, forge the end back to vertical - we don't know if this affects the sound, but it gives a nice look to the bell. Lisa used a 2" ball mandrel, again hammering with the leather mallet. She was careful not to hammer the lip too far, to avoid capturing the ball inside a folded-over lip.

Mike's Process: Forge the flare over a cone mandrel, like Carlson and Hanson

For this, I drove the pipe down over the cone mandrel. It kept wanting to stick as it cooled and shrunk - so I used a liberal application of Fuchs Forge Lube.

I should have stopped and modified my tongs to hold a larger piece like this - this was difficult to hold.

As shown at right, it's a matter of dropping the pipe over the cone mandrel, then hammering straight down.



It took lots more heats to forge the flare over the cone mandrel. Several times Mike had to change hit position and direction to correct bending in the middle section of the pipe - keep an eye out for that, don't let it grow out of control.

The white stuff is the forge lube.

Mike obtained a larger flare - right, the end is being brought back to cylindrical over a 2 3/8" pipe mandrel.

The next step is to go to a guillotine with 1/4" radius dies (i.e. 1/2" thick), slightly curved.

Decide how high you want the bell to be, and forge a neck. Again, this is a hit-turn process, taking several heats.

Be careful as you forge - too much bending, flexing, or twisting can easily break the neck or cause cracking. When Mike has made bells previously, it was common to have cracks in the neck area.

Take the neck down to about 3/8" ID. Set the bells aside to cool, and go make the dinger.

The Clapper

Stock: two pieces of 1/4" round, 12" long.

Take the first piece, and make a flat spiral on the end, spiraling out from the center.

With the second piece, make a loop which is centered, and which will easily pass the other 1/4" material.

Decide where you want the clapper to hit the bell (some areas give better rings than others), and mark and cut the dinger to a length that will yield a good ring.

Heat the clapper (but not the loop) and forge a round hook that will grab the loop loosely - it needs to be loose enough so that it won't hang up when the bell is shaken, but have enough of a loop so that it won't fall off. As you'll see, once it's in there, it's forever.

Stick the long end of the clapper loop assembly into the hole you left in the neck, then heat and forge the neck down so that you capture the ringer. To make it easier, we checked the ring to get the dinger positioned correctly, then tack welded the loop part where it stuck out of the top of the pipe.

Back to the guillotine to squeeze the neck down.

Next, forge a section down, above the flare, to a shape that you choose. Be cautious about doing this: Mike's cracked badly, a common occurrence.

Cut the excess material off, then continue forging to shape. Some filing or grinding may be needed.

Bells Before Cleaning

Clean and enjoy!

Note: cleaning the inside is difficult at best. A small powered wirebrush is sometimes useful for this.

Late Addition:
Clean the bell! We discovered later that the forge scale really kills the ring. There is an incredible ring difference between a cleaned (power wirebrushed) and uncleaned, scale-covered bell.

This 4 page article reprinted from the November/December 2021 issue of the California Blacksmith *Online*, the online newsletter of the California Blacksmith Association

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

Farrel Wells *Membership Secretary*
8235 E 499 S
Dunkirk, IN 47336-8807

First Class Mail

Address Correction Requested
If Undeliverable return to
sender

December 11 Hammer In

Note the date. December hammer in is 2nd Saturday

Don Reitzel's Shop
4113 W County Road 900 S, Stilesville, IN 46180

Directions: Take I-70 west of Indianapolis to exit 59 (SR 39). North on SR 39 for 1 mile. Turn left on County Road 900. Shop is about 6 miles on left.