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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 Rob Hough, Membership Secretary (317) 517-0427.**

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.

Jan 20 2024	<b>STEVE KING PAOLI, IN</b>
Feb 17 2024	<b>KEN DETTMER COLUMBUS, IN</b>
Mar 16 2024	<b>ANNUAL BUSINESS MEETING CARTERSBURG, IN</b>
Apr 20 2024	<b>JOHN BENNETT ROCKVILLE, IN</b>



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SATELLITE NEWS

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ADJUSTABLE  
ANVIL STAND

### **Dates to Remember**

January 20  
Hammer In at  
Steve King's

February 17  
Hammer In at Ken  
Dettmer's

March 16  
Annual Business  
Belleville Lodge,  
Cartersburg

May 31—June 2  
IBA Conference  
Tipton Co.  
Fair Grounds

## Editors Message

I encourage all of you to take a look at the IBA web site (<http://www.indianablacksmithing.org>). Rob Hough has completed a number of upgrades to the site. It has a fresh look. The site has been moved to a different host server, which may not impact visitors but it does offer greater flexibility for further improvements. And Rob has more improvements in the works. He will be requesting articles and content to share, as well as videos of different shops around the state. If you look at the "membership" page on the site, you will see there are plans to enable online membership applications and renewals. Note this is a work in progress. The top banner indicates some content is not yet available, but plan to get all content on line by end of January.

The IBA business meeting is coming up in March. As mentioned last month, Jeff Reinhardt and Dave Kunkler are planning to step down from the board at the end of their term. If you are interested in becoming an IBA board member, contact Steve King by phone: (812) 797-0059 or email: [kingstephen228@gmail.com](mailto:kingstephen228@gmail.com).

It is also time to think about nominations for the IBA blacksmith of the year and the IBA rookie blacksmith of the year. Award nominations must be sent to Brad Weaver by April 1. The award guidelines are not currently available on IBA website. Contact Brad by phone: (812) 371-8674 or email: [bweaverhlw@yahoo.com](mailto:bweaverhlw@yahoo.com) for details or nomination forms. For either award the nominee must be an IBA member in good standing, the nomination must be signed by at least 3 IBA members in good standing. The IBA rookie of the year should have less than 3 years of blacksmithing experience.

I have seen some correspondence on the IBA Facebook page regarding this year's IBA Conference. The conference is set to begin on Friday May 31 and end on Sunday June 2. The location is the Tipton County Fairgrounds in Tipton, IN. I do not have details about the demonstrators, but I expect to have that in time for the February newsletter.

**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: Paul Bray (812) 521-7177
- 3) Wabash Valley Blacksmith Shop**  
 Meet: 3rd Saturday at 9 AM  
 Contacts: Bill Cochran (812) 241-8447  
 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).

### Snake Road Forge

Photos supplied by Rod Marvel. Anvil stand made by Mike Mihich.



## IBA Satellite Groups and News (continued)

### Jennings County Historical Society Blacksmith Shop

December 9 hammer in was at the forge of John Cummins (Dog House Forge). Angus Thompson started out by making a basic form for a spoon ladle. Layne, a new member, made an exhaust hanger tool while being mentored by Angus. Alex Spellman took a turn at the anvil and made a very nice leaf key ring. Our next meeting will be on January 13 at the forge of Dave Good ( 603 S Chestnut St. Seymour). Hope to see to see you there. Paul Bray

### Sutton-Terock Memorial Blacksmith Shop

On the first of January 2024, the Sutton Terrock Blacksmith Guild opened their forge to Ring in the New year with Friends. We had 24 Smiths show up for the food , fun and to hear their hammers ring on the anvil to start the new year out right. Many brought something to share at the table , we had plenty to snack on thru the day. Fred Oden Our Forgemaster ran our Iron in the Hat , with lucky winners walking away with cones, tongs, \$50 gift certificates to Metal Supermarkets, a new cross pein hammer and a machinist chest among other things. It was nice to see people with smiles ,laughter in the air and the constant ring of the anvils. We had all 4 coal forges going ,nice and warm inside ,we met some new friends an seen old friends. The art of Blacksmithing is alive and well in Indiana. Happy New Year my Brother and Sister Smiths.





## The Adjustable Anvil Stand Jake Trogdon - CBA

When blacksmithing there are many things that we

need to pay attention to, from getting the correct heat, effective hammer blows, placement of the stock on the anvil, body position, keeping a good mental picture of what we are intending to make, etc. it can be overwhelming.

We generally want to set ourselves up so that we can focus on what we are forging and enjoy the process thoroughly.

One area that we have control over is the tooling that we are using at the time we're working, striving to have equipment that fits us and our work as best as it can.

Teaching and traveling have shown me that one of the most overlooked pieces of equipment is the anvil stand.

There is nothing more iconic than an anvil on a stump. While it does suit the need, the stump leaves something to be desired when it comes to functionality, such as the height, stability, sound, shape, and overall weight.

**Height:** The truth of the matter is that there is no ideal anvil height. The ideal height of the anvil is for the hammer swing to not be cut short by being overly tall or to be overextend with an anvil being too low.

For that to be determined we have to accept that it will change with the height of the smith, the height of the stock, and the nature of the tooling being used.

**Stability of the anvil:** We want the anvil to be secured as rigidly as possible so the force of our

blows is transferred to the work.

If the anvil is unstable the energy of the blow is used up in the movement of the anvil. Imagine drawing over the horn and every blow is raising the heel of the anvil instead of moving the stock.

The more energy efficient we are, the longer we can learn and be engaged.

**Sound:** The ringing of the anvil not only causes damage to our hearing, but is also mentally taxing during a day's work.

A good stand can dampen that sound considerably. While there are many ways of dampening sound, the most effective is to bind the anvil as tightly as possible to the stand with a thin layer of material between, such as leather skirting, wood, etc. to absorb any anomalies at the anvil base.

**Shape:** The trusty stump does allow for a solid base but it is hard to make the bottom dead flat, as well as find a dead flat surface for the anvil.

One solution is utilizing a tripod design so that it will self-level. This also has the additional benefit of giving us some place for our feet to go as on the occasions when we get closer to the anvil.

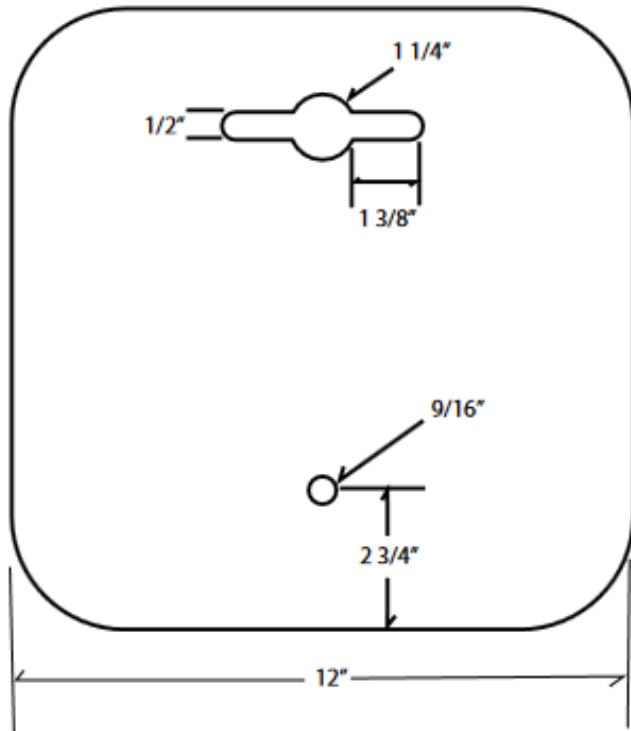
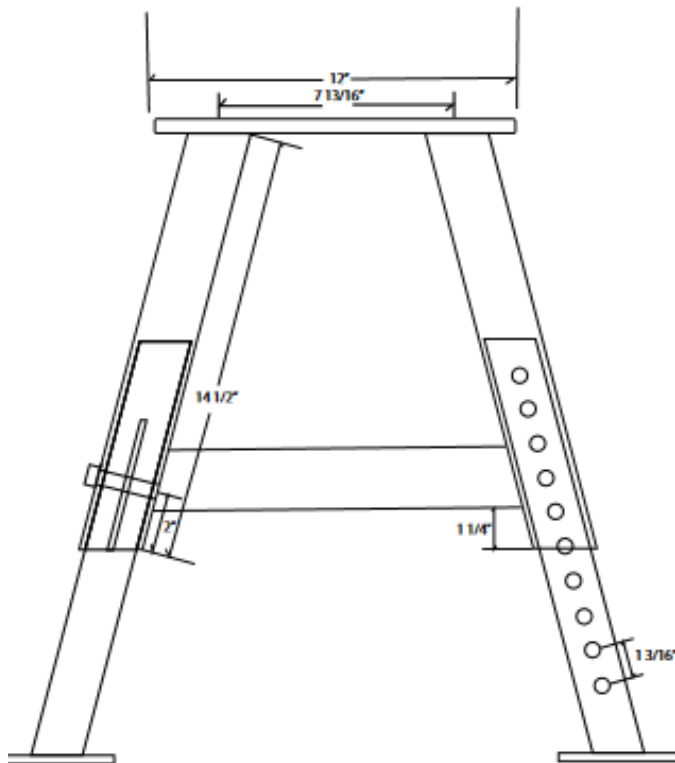
**Weight:** While having a stand that has as much mass as possible is desirable in a shop setting, when traveling to a conference for example, it can be detrimental.

After taking as many of the above parameters into consideration, I tried to build an anvil stand.

Within this CBA article you will find a detailed drawing for an adjustable tripod stand with a chain binding system to secure the anvil.

The chains will accommodate a wide variety of anvil sizes and shapes and a good job of both securing and deadening the anvil.

This 6 page article reprinted from the January-February 2024 edition of the California Blacksmith the newsletter of the California Blacksmith Association



This stand is my primary stand, used with a 134 lb anvil, and I have been quite pleased with the performance and the ability to travel with it.

#### Materials:

- Base Plate 1 @ 12" x 12" x 3/8" thick plate—utilize as heavy a plate as you are willing to move. 3/8" is adequate, thinner will work, thicker will be more solid.
- Outer legs - 3 @ 2" x 2" x 3/16" wall tubing - 14 1/2" long mitered 15° on both ends
- Inner legs - 3 @ 1 1/2" x 1 1/2" x 1/4" wall tubing - 14 1/2" long mitered 15° on both ends
- Bracing - 3 @ 1" x 1/4" flat bar - 14" long approx. You will cut to length later
- Feet - 3 @ 1/4" plate - 4" diameter circle
- Bolts & Nuts - 3 @ 1/2" x 3" flange bolt and nut - The flange is not required however it does give you more to weld to without fear of disturbing threads
- Chain - 3/8" chain - 3 ft.
- Eye bolt - 1/2" by 4" threads with washer and nut

I'll walk you through the construction of this stand as if you are working from a home shop with limited tools.

Let's start with getting the base sorted first. The 12" x 12" shape is most easily obtained from 12" x 3/8" bar stock, but you may be limited to plate steel.

It is efficient to lay out all of the centers and center punch them now, for reference later.

After cutting, radius the corners and edges for safety. I like to knock any cutting slag off with a chisel before using a grinding or sanding wheel. This makes the edges look crisp, and saves tremendously on consumables



*I chisel away most of the slag at the cut*

Slag is much harder than the parent material. I was told early on in my welding career that any part we make should be able to be tossed to someone without the risk of them being cut and I've taken that wisdom to heart.

I would rather a safe edge than a crisp line for any of my tools. Take the time after cutting to safe the edges up as you work through this project.



*Dress the edges of the cut. Make the edge safe for you or your co-worker*

Next all the legs need to be cut to a 15° mitre. This angle suites me well, and strikes a good balance between rigidity and making a large enough footprint for stability.

When cutting the outer leg ensure that the seam side is up in the saw. This will be to your advantage later when you are cutting the slots for the adjustable legs.



*Cut the end of all the legs to 15°. The cuts are parallel not opposite. Weld seam up or down*



*Here are my cut parts ready to be drilled and then assembled*

After cutting the legs out you need to drill  $\frac{9}{16}$ -inch holes to accommodate the bolts.

Start with the inner legs, on a face that has the perpendicular cut end, not an angled cut end.

Mark centerline all the way down one side, and make your first mark at 2  $\frac{1}{4}$ -inch. This has now become the bottom of the leg. Now mark out our adjustment holes at 1  $\frac{7}{16}$ -inch on-center for the remainder of the length.



*Use dividers to mark out the adjustment holes. Mine are 1  $\frac{3}{16}$ " on-center*



*Drill all the holes and remove any swarf*

I like to use a set of dividers again for this process. The number of adjustment holes may seem like an excessive amount of adjustability, but it allows for multiple sized anvils and tooling combinations such as heading blocks to be used.

On the outer leg you will only need to mark one hole at the 2-inch mark on the outside surface of the leg. Drill through both sides. This is now the bottom of the leg.

De-burr all drilled holes.



*The retaining bolt is 2" up from the bottom of the outside leg on the straight cut side*

Next you will make a slot in the outer leg to allow it to firmly grip the inner leg. Start by marking a centerline down the lower portion of the sides of the outer leg.

One of these sides should contain the seam, eliminating the need to file it out to make the lower legs fit within the upper, and removing any potential side to side movement during use.



*Use a square or dividers to mark a central line along both sides of the outside legs*



*Use a "Zip" disc or other suitable media to cut the slots into the side of the outer legs*

After marking the centerline, make a mark at 4 1/2". You can drill this if you like with a 3/16" drill bit, but it is not necessary.

Next grind the slot with an appropriate flat hard disc. Notice that I do not have the portion that we are splitting held in the vice, preventing the disc from catching or burning up your grinder.

Take a file and clean up any sharp edges you have made with the cut.

The next step is welding the nut to the outer leg. I like to dip a bolt in MIG nozzle dip and thread through the leg and into the nut. This secures the nut in place and prevents any berries from sticking to the nut threads.

You may have to wait just a minute for the nut to cool to be able to remove the bolt.





*Dip the threads of the bolt in anti-spatter dip before assembling the bolt through the leg and positioning the nut*



*Fully weld the nut in place. It may take a minute before you can un-thread the bolt*

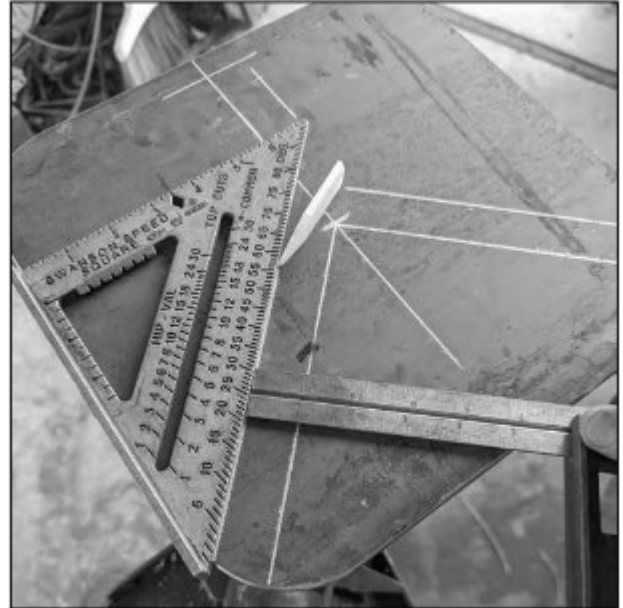


*Here is a view both legs fitted together showing how the adjustment works*

Next you will lay out the placement of the legs on the plate. I prefer a single leg under the horn to allow for space to work and two legs under the heel for stability.

Using a combination square or speed square find center of the plate and mark out 45° to each rear corner, and straight to the center of the opposite edge. You are going to weld all the way around these legs so mark approx. 1/2" back from the edge to give yourself space to place the welds.

And finally, mark off half the thickness of the legs to find the outer edge of one side. These marks do not require precision, but they help in placing the leg on the plate when welding later.



*Find center of the plate and come out 45° to 2 corners and perpendicular to the edge for the 3rd leg*

Whenever possible, when building something, I fully weld after everything has been tacked together, as this does several things:

- It helps control warping,
- Keeps the berries from interfering with the fit-up of later pieces
- Saves time by consolidating like actions together.

Trying to fit for a compound angle is difficult, and requires that you work one plane at a time.

Place the leg within our marks and lift it to give yourself about a 1/8-inch gap at one corner; tack that corner in place.

Bring the leg over to make it square to the baseplate and tack the other corner. Don't worry about the 15° angle just yet, focus on getting the leg square to the plate



*In this case I've tacked the right rear corner of the leg and I'm now lifting the leg to square with the plate before tacking the left rear corner*

Lastly, lift the leg to the required 15° and tack the remaining corners.

Working in this order allows for good alignment of the leg and then welding when all legs are tacked allows the base to stay flat while laying out the legs.



*Now lift the leg into the correct angle and tack the two remaining corners*

When fabricating, and you do not have a beveled square, or want to protect your tool from sparks, etc., you can use two hacksaw blades (or similar) with a nut and bolt through one end to copy the angle from piece to piece.



*Tack all three legs into position before tacking the bracing bars onto the legs*

Next you will need to cut the leg bracing to fit at the bottom of the outer legs.

I went 1¼-inches from the bottom of the leg and made a mark on all three inside edges of the legs. This will be the bottom, or long, measurement for the braces. A piece of paper or cardboard can be cut to make a template and then transfer it to your bar stock.

Cut your braces and tack them in on the marks that we made on the legs. Another liberal application of nozzle dip on the nut and bolt won't hurt anything either!



*Make a template from card-stock to determine the size and shape of your bracing bars*

Next install your inner legs snugly and turn the stand over on a flat surface.

I drill a ½-inch hole into each of the feet plates to allow for the stand to be staked out or bolted to a floor if required at any future time.

The feet are round, as I've kicked too many stands with my shins to find square foot plates enjoyable anymore.

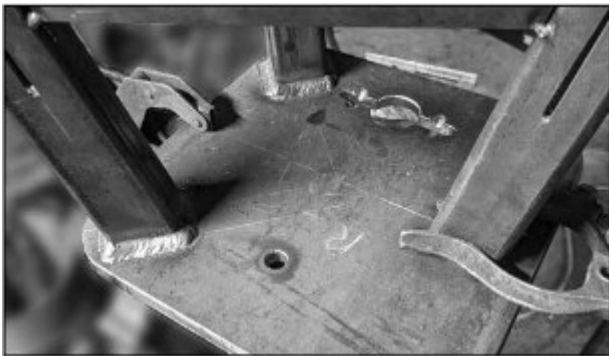
Place each of the feet under the legs and tack them to ensure that they are all on the same plane.



*Round, pre-drilled plate make the feet for the stand*

Once you have everything tacked in place, you can fully weld all of the joints you have tacked.

Try to distribute the welding as much as possible. When molten metal cools it shrinks and that shrinkage is what puts stress on the welds. Welding in different places makes sure we don't over stress a construction in any one place or direction.



*Once everything has been tacked in place, fully weld all seams. Distribute the heat as much as possible*

Now you are left with the attachments for the anvil tie downs. I like the chain method described here, as it has served me very well.

Mark out and center punch for two holes on what will be the nearside and offside edges.

The layout may depend on what anvil type you have, as some have upsetting blocks cast into the anvil, or may feature an oversized base.

One hole will be drilled at  $\frac{9}{16}$ -inch to allow the eye bolt to pass through. The other hole drill to  $1\frac{1}{4}$ -inches.

I used an Oxy/acetylene torch to cut the large hole, but I have had good luck with carbide tipped hole-saw bits.

After you get the larger hole cut, measure off  $1\frac{1}{8}$ -inch in either direction and drill a  $\frac{1}{2}$ -inch hole. Join the  $\frac{1}{2}$ -inch hole to the larger hole using two  $\frac{1}{2}$ -inch wide slots.

I like to make two divots to receive the chain links on the bottom. This makes sure they cannot slip once tightened down.



*The bottom of the plate showing a method of retaining the ends of the chain. Chain fitted shown below*



The last step is to open the eye of the eye bolt and after finding the middle of the chain, slip the middle link into the eyebolt and weld the eye shut.

I do recommend a piece of leather or wood between the anvil and the stand as I find that it helps to reduce the ringing during use.



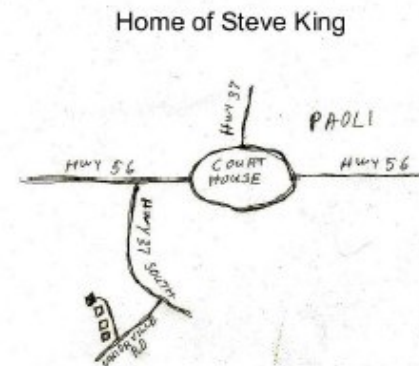
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**Rob Hough**  
Membership Secretary  
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Albany, IN 47320

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sender

**January 20 Hammer In**  
**Steve King's Shop**  
**1155 S. Paoli Unionville Rd.**  
**Paoli, IN 47454**



**February 17 Hammer In**  
**Kenny Dettmer's Shop**

15721 S 250W Columbus, IN

**From the North:** take I 65 S to Ogilville / Walesboro (exit 64) turn. right. Go to the 1st cross-roads (300 W). Turn left. Approx 1 mile to the "T". Turn left (600s). Go to 250W. Approx. 4 miles to a brick house on your left.

**From the South:** I 65N to Jonesville exit 55 turn. right, go to road 950 (in Jonesville). Turn left. Go to 250W turn. right. Kenny's house is approx 1/2 mile on your right .

Please bring a dish to share.