

BOARD OF DIRECTORS

Steve King '26

President:
1155 S. Paoli Unionville Rd
Paoli, IN 47454
(812) 797-0059
kingstephen228@gmail.com

Gary Phillips '26

Vice President:
14800 N SR 167 N
Albany, IN 47320
(260) 251-4670
behere@netdirect.net

Bill Corey '27

Secretary:
3398S CR 225E,
Danville, IN 46122
(317) 919-1047
bc65925@gmail.com

Rob Hough '27

Membership Secretary
9790 N Sharp Bend Rd
Albany, IN 47320
(317) 517-0427
Rob.Hough@gmail.com

Jeff Reinhardt '24

2810 W. Riley
Floyd's Knobs, IN
(812) 949-7163
ptreeforge@aol.com

Dave Kunkler '24

Treasurer
20749 Lancaster Rd.
Branchville, IN 47514
(270) 945-6222
dwkunkler@yahoo.com

Daniel Sutton '25

Education Chairman:
504 Owen St.
Lafayette, IN 47905
(765) 586-1376
daniel@suttonindustrialarts.com

Bob Hunley '25

258N CR 800E
Sullivan, IN 47882
(812) 239-4767
roberthunley@yahoo.com

Librarian: Larry Rosentrader
8715 E. 375 N
Churubusco, IN 46723-9501
260-693-3267
lrosentrader@gmail.com

Editor: Bill Kendrick
1280 N 900 W
Seymour, IN 47274
(812) 569-1209
cmikendrick@gmail.com

Awards Chairman: Brad Weaver
2703 South Water Plant Road
Westport, IN 47283
(812) 371-8674
bweaverhlw@yahoo.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)

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.

The Indiana Blacksmithing Association, Inc., its staff, officers, directors, members, and hosts and the *Forge Fire*, specifically disclaim any responsibility or liability for damages or injuries as a result of any construction, design, use, manufacture or other activity undertaken as a result of the use, or application of, information contained in any articles in the *Forge Fire*. The Indiana Blacksmithing Association, Inc. And the *Forge Fire* assumes no responsibility or liability for the accuracy, fitness, proper design, safety, or safe use of any information contained in the *Forge Fire*.

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.

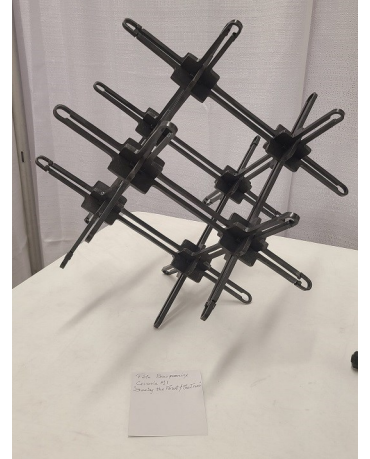
Mar 16 2024	ANNUAL BUSINESS MEETING PLAINFIELD, IN
Apr 20 2024	JOHN BENNETT ROSEDALE, IN
May 18 2024	ROB HOUGH ALBANY, IN
May 31 June 2	IBA CONFERENCE TIPTON FAIRGROUNDS



Editors Message

I want to give a big thank you to Zach Rapattoni. Zach submitted this month's feature article on drifting slot punched holes. Good, clean drifted holes have a huge impact on the final project. This is a great article.

Dave McNulty provided a summary and pictures from the February hammer in at Ken Dettmer's shop. Check out pages 4 and 5. There is no IBA hammer in this month as we have the annual business meeting. The business meeting will be at the Masonic Lodge in Plainfield. The April hammer in will be hosted by John Bennett. I could not find a simple way to describe how to get to John's shop. The calendar on the IBA home page has a google maps link



The IBA Conference is coming up in a few short months. Daniel Sutton tells me the featured demonstrators are Bart Dellinger and Pete Braspenninx. I do not have details on what either will be demonstrating. I did pull some quick internet and Facebook searches. Bart's work covers traditional knives and belt axes. Pete's website (<http://www.phyreforge.com/>) shows many different sculptures with traditional joinery. As stated, I do not have confirmation of the specific demonstration themes. I hope these pictures pique interest in this year's conference.



Prior to the conference, Bart will be teaching a 3-day class on axe making. If you know you want to take the class, I recommend contacting Daniel Sutton to reserve a spot. The pre-conference classes usually fill up early.



INDEX

- PGS 3-6
SATELLITE NEWS
- PGS 7-9
SLOT OPENER FOR
SLIT AND DRIFT
HOLES
- PG 10
GOSPEL ACCORD-
ING TO PETER
ROSS
- PG 11
SIMPLE BACKING
TOOL FOR SET-
TING COLLARS

Dates to Remember

- March 16 Annual Business Meeting at Belleville Masonic Lodge
- April 20 Hammer-In at John Bennett's
- May 31—June 2 IBA Conference
- June 6-9 ABANA Conference

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: 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

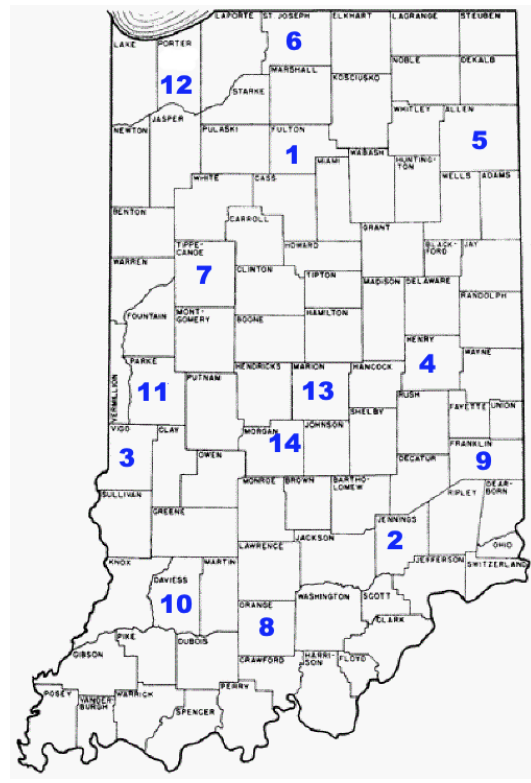
Meet: 1st Saturday
 Contact: Rod Marvel (219) 241-0628

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).



Meteorite Mashers

Small turn out today, but we still had a good time. Mike Mills had the forge going early, Miss Maddie King assisting. Chuck Henderson stopped in and announced that he will be doing a smelt Thursday and Friday before the Saturday meeting for March, and then Steve King is set to make a knife from the resultant steel generated. So the March meeting is at Chuck Henderson's shop. And when all was said and done, more was said then done. LOL

Jennings County Historical Society Blacksmith Shop

The March meeting for the Vernon group will be on the 2nd Saturday (March 9) at Kevin Welsh's shop. It is located at 25619 Gill Road, Nabb, IN 47147. Please bring a dish to share and items for iron in the hat.

April meeting will be back at the Vernon shop.

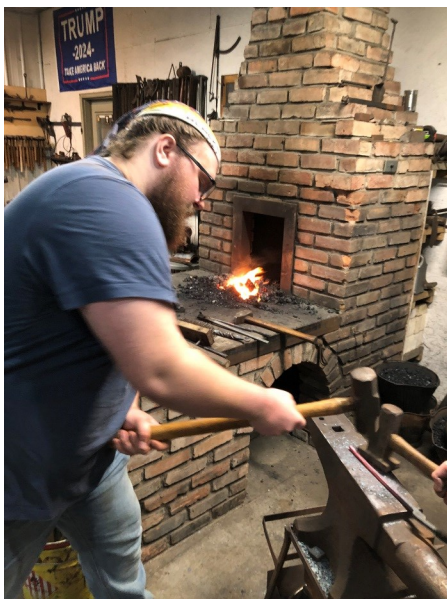
IBA Satellite Groups and News (continued)

IBA February Hammer-In hosted by Ken Dettmer (notes and pictures provided by Dave McNulty)

Thanks to all for coming out to the state hammer-in at Kenny Dettmer's shop for the February state meeting. Thank you, Kenny, for hosting what has become an annual hammer-in in Jonesville, Indiana. We had a few inches of snow that made travel a bit difficult in the morning. Even so, we had a good turnout and plenty of good food to eat. Here are some highlights with photos below. Dave Good made a nice pair of ¼ inch bolt tongs. Max Fallon assisted Dave with some striking. Max also was working on a set of Asian style armor. Jeff Farmer joined the fun and made the 3 items shown from a rod. It was a treat to see some folks working with titanium. It forges nicely at sufficient temperature but becomes very springy once it cools but is still glowing. Also, it releases very bright sparks if placed on the grinder and oxidizes with a white scale when it cools after forging.



Steve King made a nice pair of tongs from a bar of titanium. This became the door prize and was won by Brian Gray. Josh Sampson worked on a set hammer.



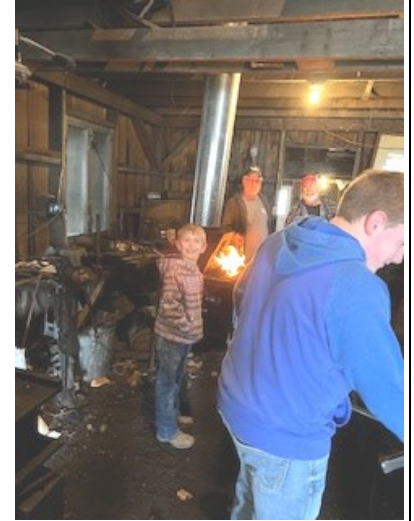


Bunkum Valley Metalsmiths

We met Saturday the 2nd, while we were missing some of our regulars we were blessed with several youth. Everyone enjoys helping these kids learn how to bend metal.



The club is taking on a project for the Spirit of Christmas committee. This is the group in charge of decorating the Odon town park each year. We have been asked to create a life size picture frame. The frame will be decorated and available for photo opportunities for individuals or families during the month of December. Planning will begin soon starting with the picture provided. We will try to document progress.



Next month we will be meeting at the Elnora Spring Swapmeet on Saturday. This open to the public, there has not been a gate fee in the past. 8am to 2pm on Friday the 5th and Saturday April 6th at the fairgrounds. Everyone is welcome and the blacksmith shop will be open and available. There will not be a meeting at our regular location.



Everyone enjoys the weather and the pictures!



er



Undersized Slot Opener For Slit and Drifted Holes

By Zach Rapattoni

I received a scholarship from the IBA to take a class on Making a TV Tray Tool Rack with Ed Brazeal. I am writing this article to share some of what I learned in the class.

Slit and drifted holes provide a structurally sound, unique look that is only possible for the blacksmith. The technique makes it possible to put a hole in a bar that is the same size as the bar itself, with minimal loss of material. In this article I will share a technique that I believe makes the drifting process cleaner and easier; using an undersized slot opener. I learned this technique from the Brazeal Brothers, Brian and Ed. Using an undersized slot opening drift follows a fundamental forging principle of aiming to reduce surface area contact.

For our example, we will look at creating a 7/8" round hole in a 1/4" x 3/4" flat bar. This is a hole you will punch dozens of times while making the parts for a TV Tray Tool Rack. I like a slot punch that is 7/8" wide and roughly 1/8" thick. My punch is ground flat on the working end.

These drifts are easy to make, so you might as well make a few in each size. These are pass through drifts, so you'll want a couple anyways so you don't have to pick them up mid-process. You can find springs in all different sizes, but mild steel is fine as long as you start drifting with enough heat in the hole, so use whatever you've got.

With a 1/2" round bar, forge a round taper that is about 1 1/2" long and about 3/16" on the end. Flatten this taper slightly without working into the parent material. This will allow the drift to fit into the shape of the hole.

Leave a little more than an inch of material, cut this drift from the parent bar. Put a slight taper about a half inch down the end you just cut off. This will allow the drift to fall out as it passes through the bar. Grind or file the ends smooth.



The undersized drift and its flattened taper

With a 7/8" round bar, forge a round taper that is about 1 1/2" long and 1/4" on the end. Leave this taper round, do not flatten. Leaving about an inch of parent material, cut this drift from the parent bar and give the struck end the same treatment as the previous drift.



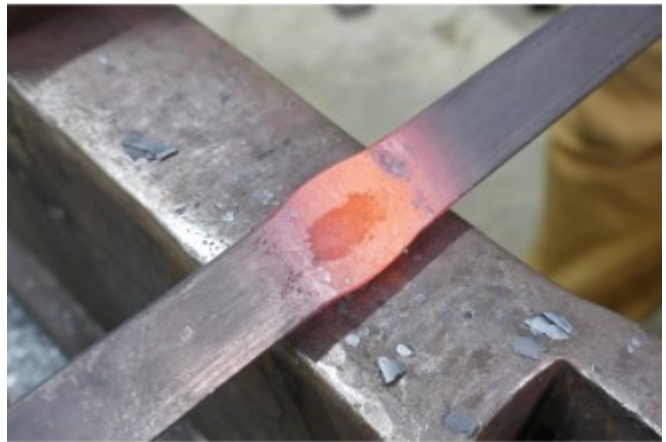
The hole sizing drift with a round taper

Layout the location of your holes with a center punch before heating your material. With a flat slot punch like this, subtract half of the punch's width from the center of the hole. So in our example, if you want a hole 2" in from the end of the bar you would put a center punch mark 1 9/16" in from the end. (2 - 7/16). You will finish your layout by placing the far corner of your punch in these center punch mark and rocking it back, making another mark. Connect these marks and you are ready to start punching.



Take a heat, and get yourself situated at the anvil. I find it easy to hold the material between my legs, some people may prefer a hold down device. Start slowly with the punching process to make sure you're centered and punching straight.

Once you're confident the hole is true, start driving your punch one hit at a time, removing the punch after each hit. This will help to keep the punch cool and the material hot. When you can't go any further, you will be able to tell by feel and sound. Flip the bar over, and look for the bullseye, or "shine line", that results from the thinner material cooling.



The "shine line" showing you where to place your punch the shear out the plug

Align your punch with this shine line, and at the low end of your heat shear out the plug to finish punching the hole. If the slug doesn't fall out freely, you can use the end of your slot opener to knock it loose.



The slug is free, it just needs to be knocked out.

Now onto drifting the hole to size using an undersized slot opener. Take a yellow heat, and through the side you first started punching from, pass the 1/2" drift through the middle of your slot punched hole. Let a bit of heat wick back and pass a 7/8 drift through the same side. Flip the bar over, and pass another 7/8 drift through the hole. This last drifting should be done at a low heat to help minimize shrinking. Take your time with this, but as you get used to it you might be able to pass all three drifts in a single heat. As you pass the drifts through, you will observe that there is very little surface area contact between the material and your drifts. This helps the material retain its heat, while also allowing the drifts to pass through without much resistance.



Above, you can see that the undersized drift does not touch the ends of the punched slot.

I will be demonstrating this technique and more at the May hammer-in at Rob Hough's shop, where I will be constructing parts and assembling a TV Tray Tool Rack.

Below, you can see the hole ready to accept the hole sizing drift.



As long as the hole was punched straight and centered, you should be left with a nice looking evenly swelled hole. There are corrections you can make to compensate for a less than perfect hole, but that's a topic for another article.

Slit and drifted holes open all sorts of possibilities for joinery and pass throughs. Some simple experimentation will guide you through figuring out what size hole you should punch before starting the drifting process. You don't want to stretch the material too much, you are just trying to move it where you want it

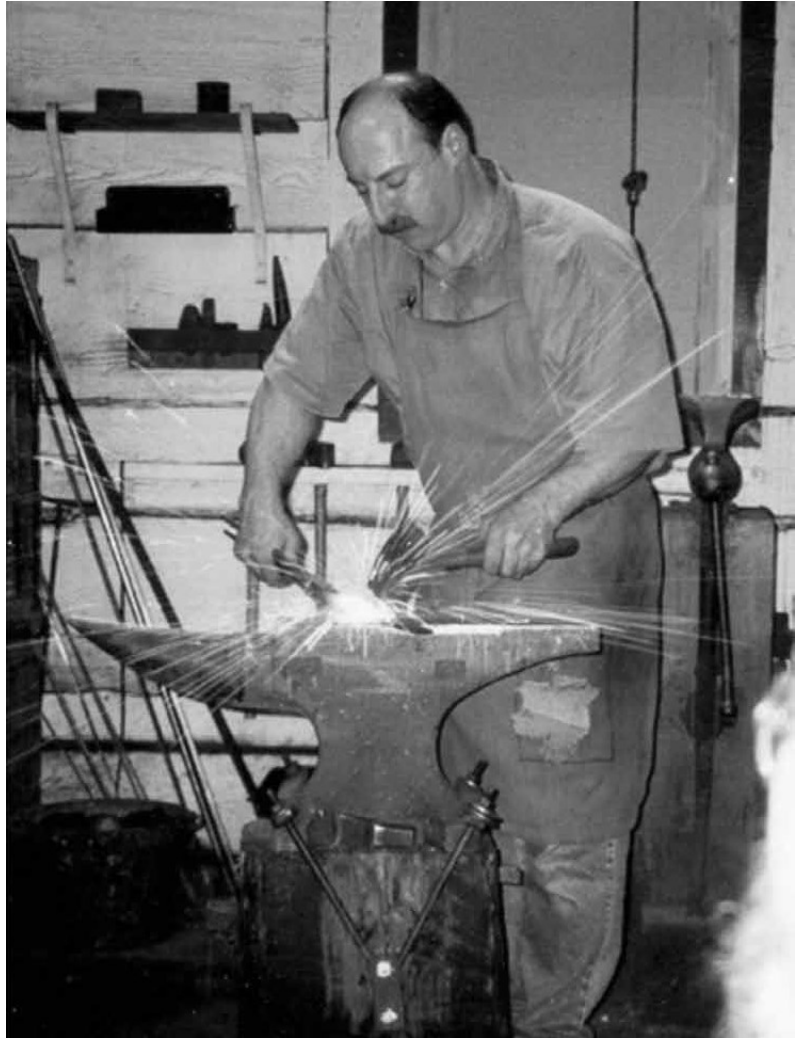


The Gospel According To Peter Ross.

HARDIE SWAGE.

Peter is the retired master of the blacksmith shop at Colonial Williamsburg, and considered one of the top smiths in North America dealing with iron work from the colonial period.

- If you want to create high quality work, you must first master the blacksmithing basics: tapers, octagons, rounds, bends, scrolls.
- If you can't do these to high tolerances, it is impossible to produce high quality work.
- Work from one end of the piece to the other.
- Use the first part of the heat to move metal, use the last part to realign the piece. Always keep your work under control (*straight, square, even*) as you work it.
- Use Bastard Cut files in 6", 8", 10", 12' length to duplicate the finish on 18th century work. The shorter the bastard file, the finer the cut. Use shop rags to wrap the piece and protect from marring by the vice jaws.
- Work on your mental game as well as hand skills.
- Hold yourself to a high standard. In the classic learning system the Master sets the standard for the apprentice. In the world of the self taught (*most of us*) you must do this for yourself.
- Use appropriate tools to check your work, until your eye gets trained to recognize it... rule, straight edge, calipers, dividers, etc.
- Use the same standard in all your work. No matter how fancy or plain the final form. Also each preliminary step leading to the final form is done to the same high standard.
- Listen to your hands. The work and the hammer talk to you through your hands and tell you when things are not right.
- Look, Think, Study... see your work as it really is, never do just enough to get by. Study your work closely, the more you look the more you see.



- Discard substandard work and start again.

Authors note: Examples of forging practice items by Peter are on display in the Mentoring Center, Longview, WA. They are worthy of your serious study and review.



Borrowed from the Winter 1999 Hot Iron News, the newsletter of the Northwest Blacksmith Association.

Simple Backing Tools For Setting Collars

Jim Carothers

This article reprinted from the June 2016 edition of THE HAMMER'S ARC, the newsletter of the Alex Bealer Blacksmith Assoc.

Sometime back I noticed in Saltfork Craftsmen member Gary Gloden's shop a pin welded to a layout table.

Gary was using this as a backing bar for setting hot collars on a then current project. The 5/8 to 3/4" size pin let him set collars in tight areas.

Most of my collar work has been on small things like a kitchen trivet that I can assemble on my anvil face.

The attached photos show some simple hardie and pritchel tooling used as backup bars for setting hot collars.

Tuning Up a Post Vise: The Observations of Peter Ross.

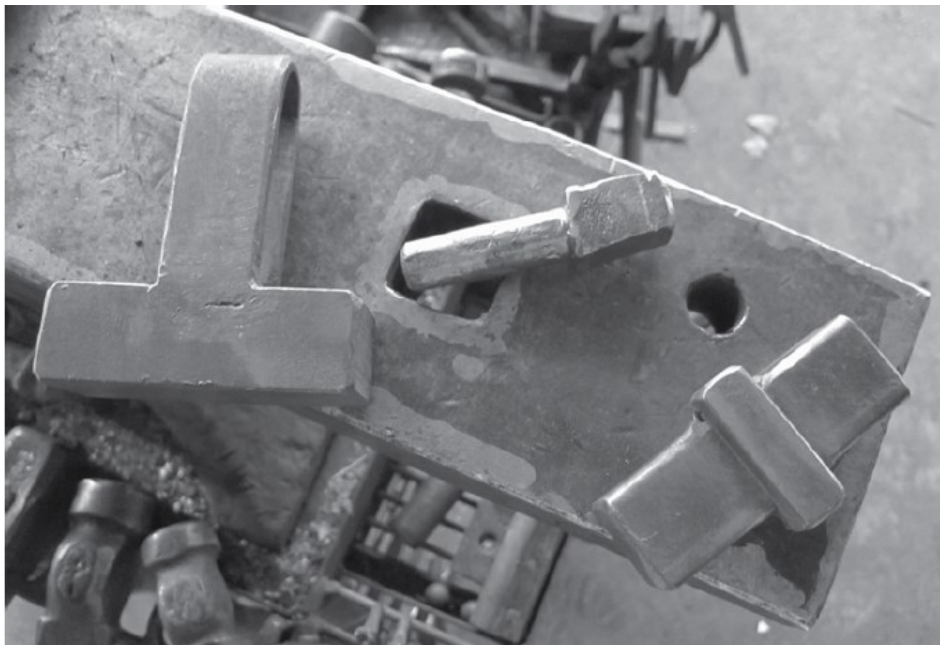
HARDIE SWAGE.

Too often the post vise is ignored, so loose sloppy action or poorly aligned jaws are lived with and remain uncorrected.

The most common problem is that the hinge bolt has been replaced with a smaller one thus making one jaw lower. This is the first item you check and may require a replacement. Tighten the nut as tight as it will go and back off about a 1/4 turn to allow the joint to work. If things are still too loose, heat up the joint sides and bring them closer together using the nut/bolt with the leg in place. The final adjustment is to make sure the jaws line up (*left to right*) when closed. Heat the movable leg above the joint area and bend to make the match. This requires the vise to be reassembled when a section of this leg is very hot, do it carefully. Adjustment was made by applying pressure on the jaw area using muscle and body weight rather than a wrench. The finished tune-up should produce a vise that is tight and true and a pleasure to work. Peter has two post vises in his home shop. One about elbow height for file type work and a second mounted much lower to make the use of a hammer easy. Extra support on the bench edge can add stability to the vise, keeping it from moving

This is a small part of an article titled: Peter Ross Colonial Williamsburg Annual Portland Workshop.

Borrowed from the Winter 1999 Hot Iron News, the newsletter of the Northwest Blacksmith Association.





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

Rob Hough
Membership Secretary
9790 N Sharp Bend Rd
Albany, IN 47320

First Class Mail

Address Correction Requested
If Undeliverable return to
sender

March 16 Annual Business Meeting Belleville Masonic Lodge

4252 Cartersburg Rd, Plainfield, IN 46168

From Indianapolis: take I-465 exit #12 (Washington St/US-40 West). Follow US-40 about 10 miles through Plainfield. Turn right Cartersburg Rd. Masonic Lodge is about 1 mile on left.

Pitch in lunch

April 20 Hammer In John Bennett's Shop

10358 N Baldwin St, Rosedale, IN 47874

Check Google Map link on IBA website calendar for location and directions.

Pitch in lunch