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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.

Apr 20	JOHN BENNETT
2024	ROSEDALE, IN
May 18	ROB HOUGH
2024	ALBANY, IN
May 31	IBA CONFERENCE
June 2	TIPTON FAIRGROUNDS
June 15 2024	NO HAMMER IN



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### Dates to Remember

April 20 Hammer-In at John Bennett's

May 18 Hammer-In at Rob Hough's

May 31—June 2 IBA Conference

June 6-9 ABANA Conference

# **Editors Message**

The IBA annual business meeting was held last month. Here are few high-lights:

Paul Kennedy and Phoebe Raper were elected to the board of director positions previously held by Dave Kunkler and Jeff Reinhardt.

Dave Kunkler will continue acting as the IBA Treasurer.

Zach Rapattoni is the new Forge Fire editor. All future Forge Fire articles and information should be sent to <u>zacharyrapattoni@gmail.com</u>

The IBA is encouraging members to take advantage of the IBA Scholarship program. The program reimburses members for up to \$500 for class tuition. In return the member is expected to furnish an article to be published in the Forge Fire and to demonstrate at an IBA hammer-in. Contact Daniel Sutton (<u>daniel@suttoninudstrialarts.com</u>) for more details on applying.

The IBA is continuing to work on accepting credit/debit card payments. At this time the process seems to be ready, but some testing to verify the functionality is needed

The IBA annual Conference at Tipton is set for May 31-June 2. The principle demonstrators are Pete Braspenninx and Bart Dellinger. Other demonstrations are being planned. Anyone interested in volunteering to help out should contact Paul Kennedy (<u>pkennedy21@gmail.com</u>). If you have not done so, please work on auction and iron-in-the-hat items. A Conference brochure with registration form has been sent to the printer; copies should be arriving in the US Mail shortly.

We have a couple of good hammer-ins leading up to the annual conference.

April 20 will be at John Bennett's shop. The location is a few miles North-East of Terre Haute. Last month I reported that I could not give a good verbal description of how to get to John's location. John tells me that GPS navigation using 10358 N Baldwin St, Rosedale, IN 47874, will take you to the correct location.

May 18 will be at Rob Hough's shop. The location is North-East of Muncie. Driving directions are pretty easy from IN-67 / IN-28.

For projects this month, we have an article submitted by John Bennett on fabricating a firepot. I believe John will have one or two in the auction or iron -in-the-hat at the Conference. The second article is an adjustable height work stand.

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 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)

### Jennings County Historical Society Blacksmith Shop









Thanks to all for coming out to the hammer-in at Kevin Welsh's shop. We had a good turnout and plenty of good food to eat and nice door prizes. Here are some highlights with photos. Josh Sampson worked on a pair of Goose neck tongs. Gary Johnson worked on a moose head. Tim Metz worked on squaring up a piece of wrought iron intended for making fold-out crosses. Kevin did some striking for Tim. When etched, this brings out the grain of the wrought iron and can have the appearance of wood. Kevin Welsh made a coat hook for a door prize. Due to some issues with the coal forge, Kevin brought out his 5 burner gas. Ray assisted in the set-up. It was used for the latter part of the meeting. Using the gas forge, Dave McNulty punched a few of the closers cut out from Kevin's plasma cutter. After a very nice meal and a good iron in the hat, there was a drawing for 4 door prizes. Sorry, I did not get pictures. Alex and Paradise Spellman won 2 nice decorative metal plaques about blacksmiths. Mildred Cease won a very nice punch (we assume it will wind up with Ray). Dave McNulty won the coat hook.







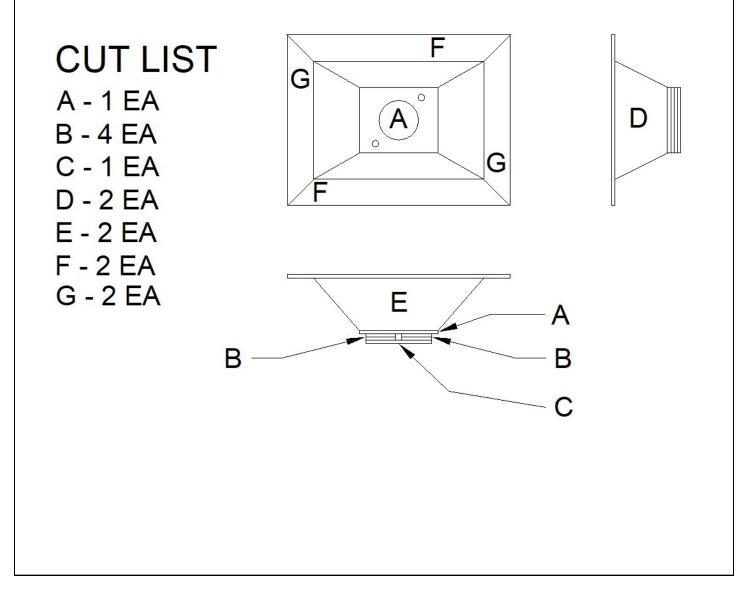
The April meeting for the Vernon group will be back at the Vernon shop on April 13th. Hope to see you there. Please bring something for iron in the hat.

# Fabricated Firepot by John Bennett

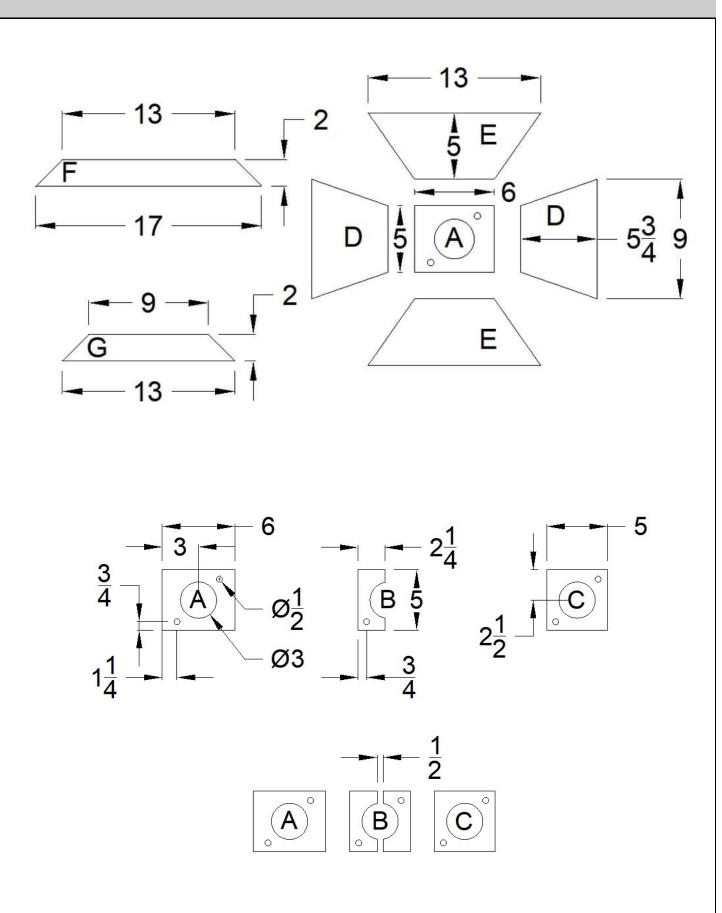
I drew these plans up several years ago based on a firepot design posted on blcksmith.com that now appears to be defunct.

This is the design I use when I build mine and I use 1/4" plate but a thicker plate will work also. The 4 bottom pieces are held together with 1/2" bolts, The original design said to drill and tap the top 3 plates. I found that after repeated use you couldn't get the bolts out so I just drill all and put bolts through it with nuts on them. That way if need be you just cut them and drive them out.

The drawings don't show the tuyre or the ash dump. I use 3" pipe. I order my clinker breakers from centaur forge but a 2-1/2" disc welded to a 1/2" rod will work.







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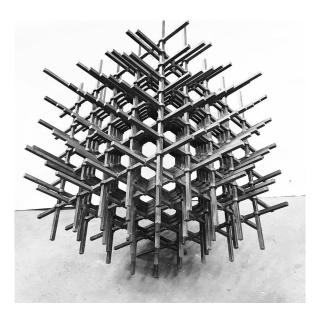
# **IBA Conference Demonstrator - Pete Braspenninx**



Pete Braspenninx, owner of Phyre Forge, is a graduate of the University of Michigan school of art and design (2004). He is an artist, blacksmith, and educator. His work has been shown, collected, and published nationally and internationally. His work focuses primarily on building shape and line through visual connections and joinery, using traditional skills







# **IBA Conference Demonstrator - Bart Dellinger**





Bart Dellinger is a Shenandoah Valley, VA native whose Shenandoah County roots have parlayed him into a blacksmithing artist and tool maker. His talents are drawing attention around the country.

Dellinger's interest in blacksmithing was triggered at a young age. The calling, however, seems to have been there for years. Having studied, apprenticed, witnessed, immersed himself in mentors' demonstrations and skills, Dellinger today is honing his own craft, forging

his own way. He's been at it more than half his life. But he's only 51. His experience is broadening as he aspires to teach, to train, to encourage. More years of sharing his expertise no doubt are in his future.

Like most of his mentors, Dellinger is a proud supporter of the Contemporary Long Rifle Association. As such, he is dedicated to pre-

serving the long rifle's long-reputed status and craftsmanship.

Dellinger grew up along the Shenandoah River among plenty of copses of trees. This natural environment provided him time to hunt and fish as a youngster. Little has changed.

Dellinger's profes-



sional career was in law enforcement at city, county and state police levels with ample opportunity within regional law-based commissions and agencies. He recently retired after 28 years as a police officer in the Shenandoah Valley.

Dellinger is certified as a general teacher and instructor of adult learners through the Virginia Department of Criminal Justice Services.

Although he has assumed a mantle of instructor, Dellinger is quick to tell blacksmithing aficionados as well as smithies-to-be he continues to learn. It's a perpetual adventure, this blacksmithing gig, learning and teaching and, as a by-product, learning from his students.

# Adjustable Height Work Stand

story & photos by Patrick Cooley, Spring Valley, California illustrations adapted from the author's originals

**Caution:** This stand is of neither fast nor profitable design. It is, however, quite functional and less ugly than a warthog; that, at least, is something.

This basic functionality is copied from a less elegant, yet eminently practical, model in the blacksmith shop at Old Town State Park in San Diego. I fabricated my stand entirely from mild steel except for **bar A** (the sliding upright) (*Figure 1*), which is cold rolled steel. The mutually supporting, three-way mortised legs are of my design. Having never seen this design, I didn't know whether it would work. Not only does it work, it's surprisingly strong (*Figures 1 & 2*).

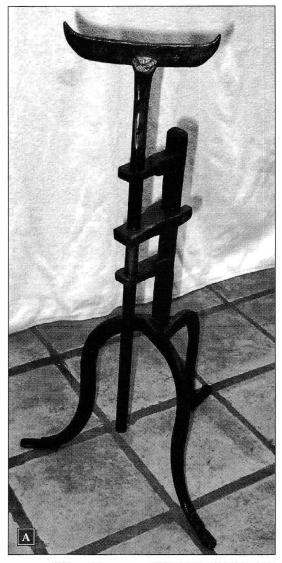
**Legs.** Begin by drawing the lower end of the legs to a graceful taper. Forge the 90° offset foot over the edge of the anvil. It is easier to match the legs if you complete these steps on all three prior to bending. Draw a full-sized pattern of the leg curve, and bend the legs to this pattern. Leave the top end of each leg slightly over-length until cutting the joint. This tripod joint should form an equilateral triangle on top (*Photo A*).

I laid out the tenon, cut it with a hack saw, filed the angles true, then marked the mortice, drilled the hole and filed it true. A competent smith would hot cut these parts (which is why I drilled and filed them). I laid out the leg joint so that the sides of the triangle measure  $1\frac{1}{8}$ ". **Hint**: Don't leave the leg tripod out where a helpful spouse can recognize what a nice lamp base it would make.

**Center Post.** The center post inserts into the triangular mortice formed by the leg joint. Forging the end of the center post to a triangular shape is more difficult than it may appear if you do not have a 60° V-groove bottom tool. All three of the swage blocks I checked had 90° grooves. The fall back is to use a 90° groove, then file or grind the tenon to a true triangle.

I used round stock for the center post and forged it square. Punch the holes for the guide bracket tenons in the center post. Make the tenon height equal to the thickness of the bracket for maximum strength. Don't permanently attach the center post to the tripod until the very last step. It's easier to work on the post while it's separate. To effect this attachment, heat and peen over the center post on bottom.

**Guide Brackets.** Punch the hole for **bar A** about  $3\frac{1}{2}$ " from the end of the stock. Check this hole and open it if necessary (use a round file) to allow **bar A** to move smoothly through it.







### Adjustable Height Work Stand

Butcher the tenon shoulder  $2\frac{1}{2}$ " from the edge of the punched hole. Ensure both brackets match in this dimension. Forge the tenon to fit the mortise in the center post and assemble the brackets to the center post.

**Slide Lock.** The stand I copied used a sharp piece of alloy steel for the locking edge on the slide lock. I used a rather heavy piece of mild steel for this piece. It works. I was careful to keep a sharp edge where it wedges into **bar A** (*Figure 3*). If over the years my mild steel version fails to hold firmly, I will case-harden it and see if that allows a better grab of **bar A**.

Start by hot slitting the end of the slide lock stock down the center for about  $1\frac{1}{2}$ " with a chisel. With the stock almost yellow hot, force a blunt end chisel into the end of the split to flatten the end of the cut in order to avoid a crack there. Alternately, you can punch a small hole  $1\frac{1}{2}$ " from the end of the bar, and slit the bar to the hole. Spread the slit open by pounding over the corner of the anvil. Then pound it straight down onto the anvil until the end is **T-shaped** (opened 180°). Work the stock at a full yellow when forming this **T**, you are coaxing the steel into a dramatically new shape and don't want to create internal fractures.

Forge a tool the same width as the center post but with rounded edges (*Figure 3*). Use this tool (end or side) as a forming die when you bend the **T** shape into a fork. Do this in the vise (*as in Figure 3*) or over the anvil. Alternate between hammering the tool into the bottom of the fork and working it on the anvil with the tool in the center. This is easier with a helper. Of course, if you had a helper, you wouldn't need this work stand. Ironic, isn't it?

I drilled a  $\frac{1}{2}$ " hole in the slide lock for **bar A** in order to locate it precisely, then punched it hot to the full size. Relieve the off sides of the hole (*Figure 4*) while keeping the locking edge a sharp 90°. This sharp edge wedges into **bar A** producing the locking action.

**Bar A and Stock Rest**. Measure the height of the top of your anvil to ensure the length of **bar A** is adequate to support stock at that height. Upset one end of the bar; then split this end for about  $\frac{1}{2}$ ". Spread this split just enough to reform it around the stock rest, like a **Y** closed onto the cross piece (stock rest). In order to dissuade stock rolling off, I turned up the ends on the stock rest. Clean them up for a weld, flux and wire the two pieces together. Effect a forge weld, closing and welding the **Y** of **bar A** to the stock rest. Restraighten **bar A**.

Drill a  $\frac{3}{32}$  hole through the slide lock and the center post for the hinge pin. The slide lock must pivot freely on this pin. Assemble the slide lock to the post, and peen both ends of the pin.

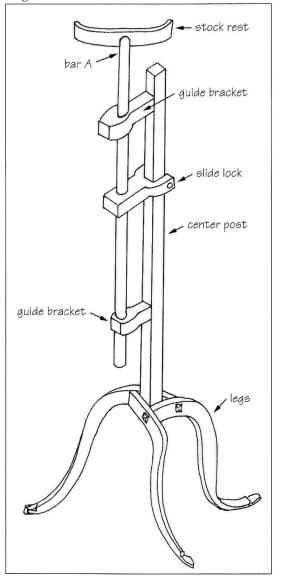
My work on this project has demonstrated that the primary difference between a novice and master smith is the many hours the novice spends at the vise with a file. Both result in good work, but one is far faster than the other.  $\clubsuit$ 

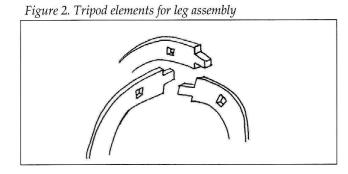
Materials (dimensions in inches)						
Piece	Quantity	Thick	Width	Length	Description	
Legs	3	3/8	1	17	Flat bar	
Center post	1	7/8		14	Round (square would work)	
Guide brackets	2	1		4	Round	
Slide lock	1	3⁄4	11/4	5	Flat	
Bar A	1	5/8		23	Round	
Stock rest	1	3/8	1	7	Flat bar	
Hinge pin	1	$\frac{1}{4}$		2½	Round	

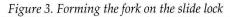
16 California Blacksmith

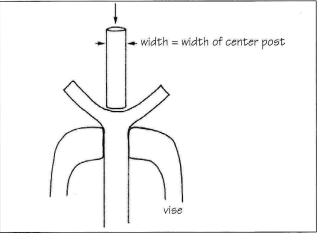
# Adjustable Height Work Stand

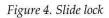
Figure 1. Full view

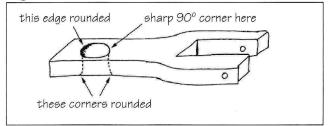














The FORGE FIRE

Newsletter of the Indiana Blacksmithing Association, Inc.

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

Address Correction Requested If Undeliverable return to sender First Class Mail

# 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

# May 18 Hammer In Rob Hough's Shop

9790 N Sharp Bend Rd, Albany, IN 47320

**Driving Directions:** From IN28 turn south on CR 550E (N Black Cemetery Rd) by Muncie Drag-way. CR 550E will turn to the right, becoming Sharp Bend Road. Shop is about 1/2 mile on right side.

Please bring a dish or dessert