

NJBA Volume 23, Issue 3 January, 2020

N.J.B.A. Newsletter

NJBA needs help with social media

Most of you know NJBA has a webpage, namely NJBlacksmiths.org. However many of you probably don't know that NJBA has a presence on Facebook and IForgeIron, and we even used to have a Yahoo group.

And that's exactly the problem. These social media present an opportunity to connect with younger folk, one which we are not exploiting for lack of a volunteer to handle them. Even our webpage is in limbo since Ryan Amos ran out of time to spend on it.

Therefore NJBA is actively soliciting help from our membership in exploiting such social media. If you have the time and know how to do any of this, please get in touch with the NJBA Board to let us know.

Upcoming Events

Many of our meets feature an "Iron in the Hat" drawing (fund raiser), so be sure to bring a contribution and cash to buy tickets. Tailgate sales are permitted at many of our events. See p. 2 for Directors' contact information.

Saturday, April 4. Workshop - How to Finish a Damascus Billet for a Knife Blade

Mark Morrow, a professional swordsmith, will show you how to take a Damascus billet and turn it into a knife. Some of our members have made such billets in Mark's Damascus workshops, but those who haven't can purchase a billet from Mark for \$100. The fee for the workshop will be \$125. You will also be guided in the making of a knife handle. Some experience required. Contact NJBA Director Mark Morrow for further information.

Saturday May 2. Spring Membership Meeting

NJBA will hold a membership meeting at Marshall's shop. Mark Morrow will demonstrate the forging of a tomahawk. All members are encouraged to

attend. There is no charge to attend, but we will hold an IITH fund raiser, so please bring a donation to that and cash to buy tickets.

Sunday, May 17. Walnford Day

We will be demonstrating blacksmithing again at Historic Walnford. NJBA members are welcome to come forge, and everybody is welcome to come watch. The park rangers usually provide a spread of food for the volunteers. Contact NJBA Director Bruce Freeman for further information.

Annual Picnic and Tailgate Sale at EJOT, Sunday, Sept. 20, 10 AM - 4 PM

NJBA will be holding this event at East Jersey Old Town in Piscataway. (We couldn't get a September date for this at the Red Mill.) We are looking into bringing in a paid demonstrator. EJOT is on River Road, just west of the Rutgers Stadium and can be reached from NJ Route 18 or from I-287. Further information will appear in the next newsletter.

Gas Forge Workshop, Date TBD

We still intend to hold a workshop to construct a gas forge for each participant. We are making some progress on the design for this forge but have yet to construct a prototype, so must delay further announcements until later.

Fall (?) Anvil- and Vise-Jaw Repair Workshop

There has been some interest in running another anvil-repair workshop, but as of this issue we have only two anvils on the list to be repaired. We'll need at least three more before running this workshop would be feasible. If you have an anvil you'd like to repair, please contact NJBA Director Tom Santomauro. The price per anvil has not yet been set, but the last one was \$150, and prices for welding rod and MIG wire are up since then, so an increase can be anticipated. Final price will depend upon the condition of your anvil, and you may have to submit photo-

Upcoming Events, continued on p.3

New Jersey Blacksmiths Newsletter

NJBA Board of Directors

Ryan Amos

Thomas Santomauro

William Barrett

Ben Suhaka

Marshall Bienstock

Dan Yale

Larry Brown

Eric Cuper

David Ennis

Bruce Freeman

Mark Morrow

Bruce Ringier

Blacksmith Coal and Coke Available to NJBA Members

NJBA purchased ten tons of “nut” coal of good analysis. In addition to our using it for our demonstrations, this coal will be available for purchase by NJBA members at 20¢ per pound, on a bring-your-own-bag and bag-it-yourself, honor-system basis. The coal is located across the drive from the larger door to Marshall’s pole barn, formerly the site of the coke pile. We still have some coke available at the same price, *behind* this same bin. (Walk around by the path to the left of the bin, but watch for poison ivy.) Plastic bags of at least 3-mil thickness are recommended. (A spring balance, *not legal for trade*, has been mounted beside the bin for your convenience in *estimating only*.) Please inquire of Marshall Bienstock for more information and to make payment.

We like to thank those who joined
NJBA as Business Members:
Marshall Bienstock

NJBA’s Official Address

NJBA, P.O. Box 224
Farmingdale, NJ 07727-9998

NJBA’s Website:

<http://www.njblacksmiths.org>

NJBA Newsletter:

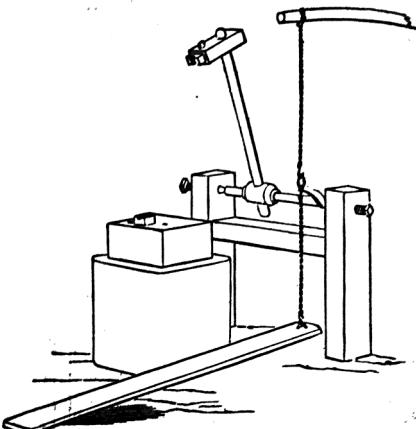
Will be found on our website (above). Look for “Current Newsletter” and/or “Newsletter Archive.”

NJBA’s Facebook Page:

<https://www.facebook.com/njblacksmiths/>

NJBA’s iForgeIron subforum:

Scroll down at <https://www.iforgeiron.com/>.



“The Oliver, or Small Lift-Hammer.”
The hammer head is about 17 lbs and the handle is 24”-30” long.
From: *The Practical Metal-Worker’s Assistant*,
by Oliver Byrne,
H.C. Baird, Publisher, c. 1871

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Upcoming Events, continued from p.1
graphs so we can make an assessment.

Steel Bloom Smelt, Date TBD

Although we still hope to hold a steel smelt demonstration, difficulties obtaining supplies have put it off to some date to be determined.

Open Forge Meets

(See "Rules for Participation in NJBA Hands-On Events")

Monday Night Open Forge, Howell, NJ

NJBA Director Marshall Bienstock hosts an open forge meet **every Monday evening at 7 PM, except major holidays.** (Please call ahead on holidays to make sure the forge will be open.)

Donations for Marshall's Open Forge Meet

Those partaking of the open forge meet at Marshall's shop will find a donation box under the sign-in sheet. This is an attempt by the NJBA Board to offset the costs of running this open forge meet. Contributions will be collected on the honor system, with a suggested donation of \$1-\$2 per person per evening. A limited supply of steel stock is available (behind middle forge, where you'll also see a list of suggested donations to offset the value of the steel).

Sunday Open Forge, Smithtown, LI, NY

From the beginning of November through the end of April, Ron Grabowski will open his forge in Smithtown, LI, NY, to NJBA members. Please call ahead to confirm and get directions: 631-265-1564. Ronsforge@aol.com

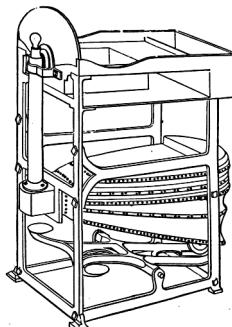
Sunday Open Forge, Lambertville, NJ

The Holcombe-Jimison Farmstead and Museum and Blacksmith Shop will be open on Sunday afternoons from 1:00 PM to 4:00 PM starting on the **first Sunday in May until the last Sunday in October.** The shop is located at 1605 Daniel Bray Highway (Re. 29) just north of Lambertville, NJ. (holcombe-jimison.org, 609-397-2752) Anyone, blacksmith, novice, beginner or anyone wishing to try smithing for the first time is welcome. (**Note: The Museum is not subject to NJBA's age restriction.**) There is an annual fee of \$25.00 due on the first day of your arrival. This is for insurance purposes only. You are welcome to come and work on any Sunday we are open, the only Sunday we are closed is to attend the annual meeting and picnic.

Rules for Participation in NJBA Hands-On Events

These rules apply to workshops, open forge meets, demonstrations with hands-on components, etc.

1. Participation in NJBA-sponsored hands-on events is limited to adults (i.e., 18 years or older). This rule was effected as of December 4, 2016.
(Note: This policy **does not apply** to open forge meets and similar events *that are sponsored or co-sponsored* by youth-oriented organizations such as scouts, 4H groups, schools or other venues, including the Holcombe-Jimison Blacksmith Shop.)
2. Workshops are open only to NJBA members, but nonmembers may join by paying dues when they register.
3. All workshop fees are due upon registering. Any materials fee is not refundable. A workshop fee is refundable only if your place in the workshop is filled by another person.
4. If you only want to watch the workshop, the fee is half the workshop fee.
5. Workshops are intended for the purpose of teaching certain skills and/or completing certain projects, and are subject to the authority of the workshop leader or instructor. Accordingly (as per a vote of the NJBA Board on Jan. 28, 2018.):
 - ◆ The participant shall work *only* on the project at hand and not on any other projects, *without exception*. (Note: Any NJBA member may attend an NJBA open forge meeting to work on his own project.)
 - ◆ Every participant will be required to follow the instructions of the workshop leader, especially any instructions pertaining to safety, or he may be ejected.
 - ◆ A person who has a history of failure to follow instructions may be refused admission to any workshop, at the sole discretion of the workshop leader.



"A portable forge ... made entirely of iron.... The bellows are ... worked by a treadle."

From: *The Practical Metal-Worker's Assistant*,
by Oliver Byrne, H.C. Baird, Publisher, c. 1871

New Jersey Blacksmiths Newsletter



The 2020 ABANA Conference ...

... is only 4:23 hours away! (That's what Google Maps tells me, so it *must* be true!)

Below is a brief announcement of the conference. **The last four pages of this newsletter include a more complete announcement, an ABANA membership application and a 2-page conference registration form.**

You can find more information, as well as these documents, online, at ABANA.org, where you can also join ABANA and register for the conference without resorting to snail mail.

Do yourself a favor and register for a conference you'd regret missing.



ABANA 2020 Conference

Washington County Fairgrounds
392 Old Schuylerville Rd.
Greenwich, NY

Information Available at

www.abana2020.com
abana2020 on facebook
abana.org
ABANA Central Office
423-913-1022

Bruce Freeman, editor

NJBA T-Shirts Available

NJBA T-shirts are still available for purchase. These navy blue heavy-duty pocket T's bear the anvil logo on the pocket and the vise logo on the back. Prices are \$20 for sizes M, L & XL, or \$25 for sizes 2XL & 3XL. *The NJBA Sweatshirts are still available at \$25 each for all sizes.*

These T-shirts and sweatshirts may be purchased at the above prices at our Monday evening open forge meet at Marshall's Farm, and we expect to have them available as well at our upcoming workshops and meets.

If you wish to order them by mail, a postage and handling charge of \$10 will be charged for one sweatshirt or up to two T-shirts. For further information, contact NJBA Director Bruce Freeman.

If you send money for T-shirts or sweatshirts, please specify the size(s) desired. It is best to inquire before sending money, as available sizes may be limited.

We will be featuring 8 disciplines of Smithing with at least three talented Smiths in each.

ART: with Daniel Miller, Zeevick Gotleib, & Ellen Durkan

Historic: with Peter Ross, Dick Sargent, & Bob Valentine

TOOLS: with Patrick Quinn, Jeffery Funk, & Eric Schatzel

KNIVES: with Matt Parkinson, Lin Rhea, & Jeff Helm

POWER: with Bruce Jarrell, Steve Parker, & Randy McDaniel

FARRIERS: with Dave Farley, Roy Bloom, Tom Willoughby

TEACHING: with Mark Aspery, Gerald Boggs, & Randy Augsburger

FARM: with Joel Tripp, Judson Yaggy, Derick Glaser, & Lucian Avery

The Patient Order of Meticulous Metalsmiths with Tom Latane, Peter Renzetti, Carl Close & other exceptional craftsmen.

The lecture series will be featuring such notables such as Albert Paley, Howard Schechter, Doug Wilson, Bill Hochella, Leigh Morrell & members of the demonstrator staff.

There will be a youth teaching venue and family programs for the non blacksmiths.

The raffle will include a BAM box donated by Pat McCarty and a Big Blue power hammer.

The Iron in the Hat is pleased to announce the return of Len Ledet with his special blend of entertainment and wackiness.

The Saturday evening banquet is back with a New England style BBQ.

We will have a beer tent serving a local micro brew and a local distiller will be pouring our own signature Slack Tub bourbon. Collectable laser inscribed 2 liter wood casks can be purchased filled with our special label. See the website for information on the cask which can only be pre ordered and can only be picked up at the conference.

New Jersey Blacksmiths Newsletter

Announcements from the ABANA

President

by Leigh Morrell

I have some very exciting news to share. Three items concerning the 2020 ABANA conference in Saratoga, NY.

- 1.The ABANA board has negotiated with Hereford College of Arts for the exhibit – ‘Measured Making – 150 mm Challenge’ as seen in 4 pages of the Anvil’s Ring 2019 Summer issue. It will premiere at the 2020 conference and then tour the United States for a period of 18 months. Board member Laura Armstrong is heading up this committee and is seeking likely galleries, museums, and other venues to book this fabulous exhibit. If you have contacts you wish for her to investigate, please email her at exhibition@abana.org.
- 2.The ABANA board has made arrangements with the Fisher Factory Anvil Museum to bring a Fisher exhibit to the 2020 conference. Last seen at the 2014 Harrington, DE conference, this is a fabulous cross section of the manufactory of the longest lasting American anvil maker. Along with this exhibit, Josh Kavett will be introducing his newly published history of the Fisher Anvil.
- 3.Returning, also, at the 2020 conference will be John Dittmeier’s ‘ABANA Time Line’ for your enjoyment and there will be a copy available for your bidding at the auction at the close of the conference.

Three very valuable and exciting events included in your package of registration opportunities at the 2020 Saratoga Conference. Register today at <https://www.eventsquid.com/event.cfm?id=5679>

Summary of the Jan. 13th NJBA Board Meeting

In attendance were NJBA Directors Ben Suhaka, Larry Brown, Marshall Bienstock, Tom Santomauro, Mark Morrow, Bruce Freeman and Dan Yale.

Equipment. Bruce reported no progress on the tools and repairs for the six forging stations, nor volunteers to help work on them. Mark reported that the new firepot has been installed in the middle forge in Marshall's shop. Mark indicated that we need butcher-block brushes for each forge. Bruce has some such brushes he can donate.

Mark also reported that additional progress has been made on upgrading the power hammer: A bushing has been obtained to allow the new motor to

drive the hammer, but the motor still needs to be mounted. Mark submitted an expense report of \$105 for lumber, screws, pulley and motor bushing. This is in addition to the \$200 spent on the replacement motor.

Proposed Workshops. Larry reported no further progress on the crane-rail anvils. Mark reported he has not yet built a prototype of the gas forge for the proposed workshop.

Social Media. We still lack a person to handle social media for us, since Ryan no longer has time for this. Mark emphasized the need for a change in both our Facebook page and our website, as nobody but Ryan currently can post anything. Bruce agreed to publicize the need in the Newsletter.

The Next Board Meeting was set for April 6.

Membership. Bruce reported our current members in good standing number 73.

Treasury. Bruce reports paying our insurance for 2020: \$503.01.

Anvil-Repair Workshop. Tom reported that only two people have anvils for repair. We will delay this event until there are at least five or six anvils to repair.

Walnford Day. Bruce plans to man this event, providing his truck is operational. Additional volunteers would be welcome.

Middlesex County Fair. Bruce reported receiving a 1099-MISC from the Fair Association. This is objectionable because it classifies our compensation as if it were wages and may complicate our financial recordkeeping. On Mark's motion, the Board agreed to decline participation in the 2020 Fair.

September Picnic and Tailgate Sale. Bruce reported that we are working on getting this event to be hosted by East Jersey Old Town in Piscataway. Discussions have been delayed but are anticipated soon.

Workshop on Finishing Damascus. A number of our members have participated in Marks' Damascus workshops. Mark proposes to show how to take the billet and turn it into a knife. The price would be \$125, with an additional \$100 for a billet of Damascus if the participant lacks one.

Monthly Meetings. In years past, NJBA held monthly, or near-monthly, meetings. We have had difficulty doing this in the past few years. Mark suggested reinstating this practice. He is willing to hold a tomahawk-forging demonstration in May.

New Jersey Blacksmiths Newsletter

From:

Bituminous Bits November - December 2018

Forging With Corn

By Steve Alford, Athens, Alabama

I knew something was up as soon as I arrived for the January 2019 meeting of Athens Forge. Al Stephens met me with a big grin. "You need to take a picture of the forge." So I walked on through the shop, passing the donuts and the cookies, and found Dustin Patterson starting the fire in the forge. And noticed that the fuel was... yellow. Yellow? Yes, yellow. The fuel for the day was feed corn instead of coal!

Al had seen this idea on the iforgeiron.com online forum, and decided to give it a try. Compared to coal, according to Al and Dustin, corn burns faster, without clinker. For public demonstrations or nearby neighbors, corn smells a lot better than coal when it burns.

A 50 pound bag of feed corn costs about \$8. Athens Forge is currently selling 50 pound bags of coal for \$15. I noticed that the bag of corn provided about an hour and 20 minutes of forging time. I'm pretty sure that 50 pounds of coal lasts longer than that, but now that I'm thinking about it, I don't really know how much forging time I get from a bag of coal. Certainly the answer to "how much forging time do I get?" has to be "it depends." There are a lot of variables: forge de-sign, fire management style, does the work call for lots of welding, or heating heavy sections quickly, or is the pace more relaxed with slower heats on smaller pieces?

Someone asked about using wood pellets, as are sold for pellet-type grills. That would be another experiment to try! I think the question of how much forging we get from different fuels is worth considering. Anyone who cares to really keep track, or just share a story, what type of fuel and forge do you use, and how long does your fuel last?

Bituminous Bits is the newsletter of the Alabama Forge Council. Steve Alford is the *Bits* editor

Editor's Note:

In my experience, wood pellets burn rapidly and make good kindling, but maybe not so much as the main forge fuel. FWIW, Marshall had a corn customer who used the corn in his pellet stove.

-BF



Dustin Patterson tending the corn fire. The yellow kernels are visually jarring to one used to coke and coal!



The corn burned down to look more like a coal/coke fire after a while. There was a feeling that the fire was quite hot, but didn't



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Reprinted from the Saltfork Craftsmen Artist-Blacksmith Association Newsletter—April 2015

Quick Projects – Leaf/Spoon Swage

Gerald Franklin

A small piece of hardwood (or 4X4) can be used as a great little swage to shape leaves and spoons. Just burn the wood deeper as you use it.

If the “swage” gets too deep, use a belt sander to remove wood until the desired depth is reached. When the wood block is about gone (we’re talking years of use here), just replace it with a new one.



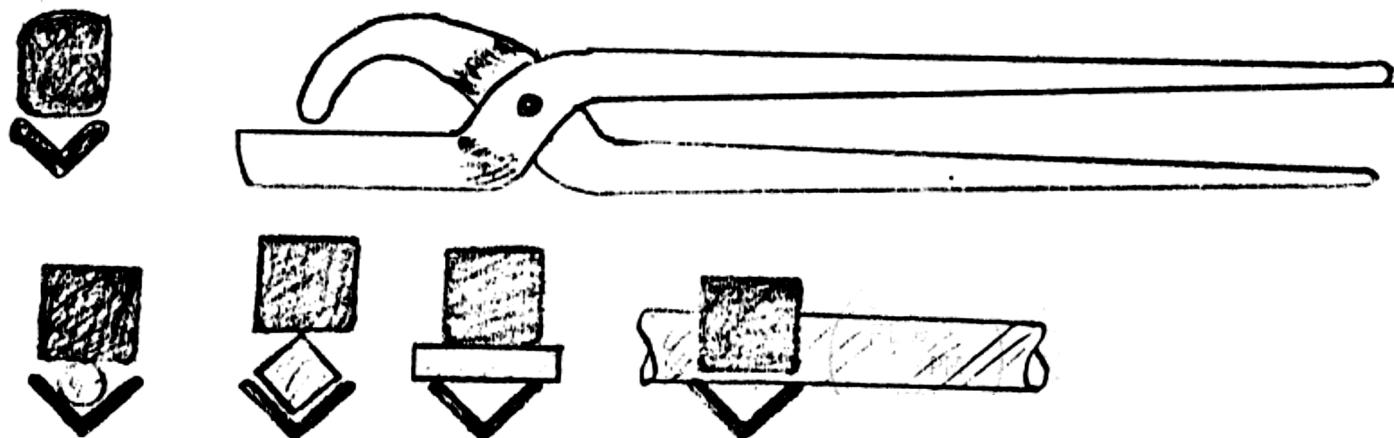
The one in the photos is made from a piece of plum tree with an angle iron hardy shank attached with a self-tapping screw.



Speciality Tongs by Jr. Strusil

Reprinted from PBA Newsletter February 1994

We are always looking for little kinks or tricks of the trade or devices that are realetively simple and will make working at the anvil easier. Shown here is a tong design that I have developed that make working iron at the anvil easier in the respect that 2 pair, a small pair and a large pair will handle almost any size or shape of material that you may wish to work. They make it easier in the respect that you basical-ly need not look through many pair of tongs for the right one. This design will securely hold round, square, flat, hex and angle iron. They will also work as pickup tongs and will securely hold tapered pieces. As each size will hold several different sizes of the various shapes, a small pair and a large pair will replace approximately 40 pair of speciality tongs.



New Jersey Blacksmiths Newsletter

Dave Smucker's Vise Anvil or Detailing Wedge
by Bruce Freeman

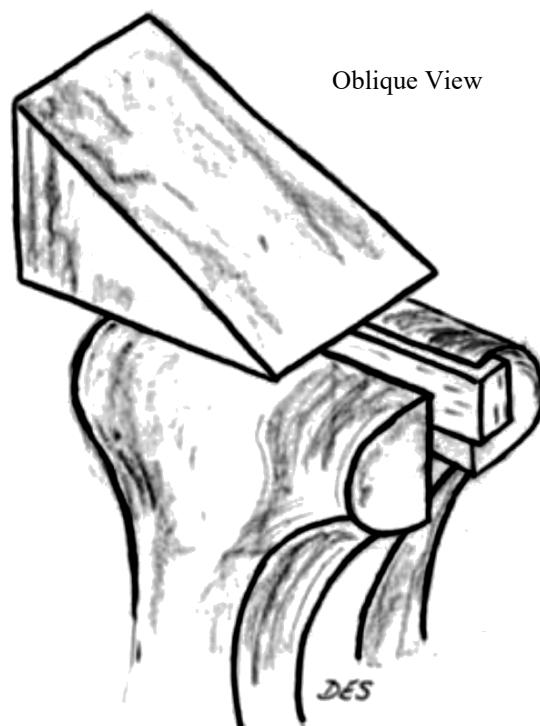
I was in the process of including Dave's article on his vise anvil from about five years ago when I noticed that, on the only copy I could find, there was a break in the text that I couldn't bridge. In addition, I couldn't paste the copy I had into the NJBA Newsletter without severe loss in quality, making it almost illegible. Therefore I've reproduced his drawings and I'm giving a one-page summary of the tool and of what Dave had to say about it.

"[A] most useful accessory for your vise is what I call a vise anvil or detailing wedge. ... It lets you clamp hot items in your vise and then use hand held punches, chisels and other tools to put details into the item you are working on. If you want to make things like wizards, dragons etc. it is a tool that is very very useful.

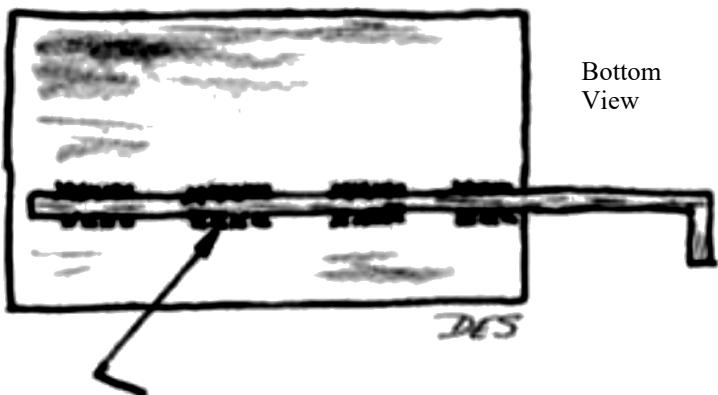
"The size of the block is not important, nor does the angle of the wedge have to be some exact value -- many different sizes and angles will work. Mine is made out of 2 1/2 x 2 1/2 square stock because that is what I had, but smaller sizes will work just fine. Mine is cut at a 30-degree angle, and that is about right but other angles will work too. To the bottom of the wedge is arc welded a length of 1/4 x 1 inch bar stock that is several inches longer than the wedge. On the end of this wedge is welded a tab that keeps the block from falling off the vise when open. The extension of this bottom bar clamps both the wedge and your work piece when you close the vise."

Editor's Note:

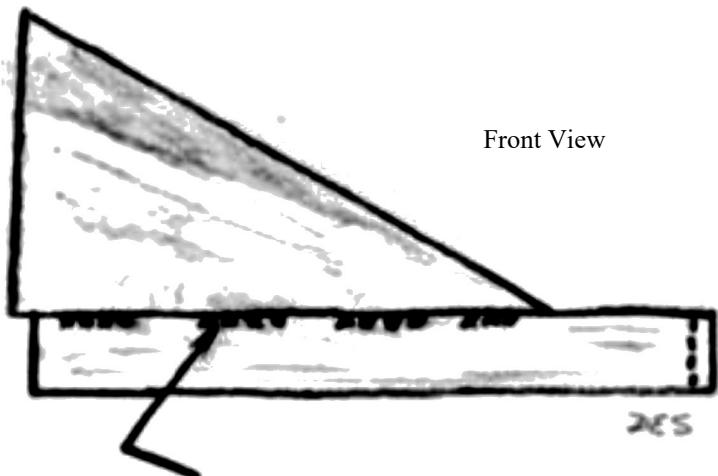
Dave's vise anvil requires a solid steel wedge, which may be desirable for heavy, downward hammering, but is not needed for all applications. A similar tool can be fabricated from steel plate, obviating the need to angle-cut a heavy steel block. I believe Atticus McFadden-Keesling, who demonstrated recently at the Gichner Memorial Hammer-In in Maryland, used a vise anvil constructed in this manner. Unfortunately, I did not get a photograph of his vise anvil.



Oblique View



Bottom View



Front View

New Jersey Blacksmiths Newsletter

Reprinted from THE IRON TRILLIUM FALL 2012

WHY H13 IS A GREAT STEEL FOR A HOT CUT OR PUNCH

To give credit where credit is due, the first time I heard this, it was at a demonstration Lloyd gave in Waldie's. At the time, while I deferred to Lloyd's experience and expertise and believed him, I didn't fully understand why it was true. As a result, I didn't try using H13 until fairly recently. As time went by, though, I had heard other blacksmiths talk about different kinds of steel and I was lucky enough to win various pieces of 4140 and 4340 in some Iron in the hat draws, so it eventually sparked enough interest to do some reading about it.

There are still a number of gaps in my knowledge but based on what I learned, I started with a thought experiment to determine what the best tool for hot work would be. Normally, when you temper a tool, you bring the temperature up to the straw/purple range, which is somewhere in the 430 F to 520 F range, and lock it in by quenching in water or oil, depending on the steel (e.g. water for 1045, oil for 5160). Having done so, though, we then lay a piece of steel that's about 1900 F on it and hammer on that steel for a while, driving our carefully heat treated piece into it like a wedge. Or we might punch our carefully heat treated tool into our very hot piece, surrounding it on all sides with that hot steel. As we do so, that 1900 F is bleeding into our tool. If our tool is well polished and we are paying attention, we might notice, from a distance, when it hits purple and have enough time to quench it. If not, it might turn blue, grey, red or even orange before we notice, ruining the temper. Knowing me, I'd probably quench it and keep using it anyway, but this won't be very good. The edge will mush (deform) the first time I use it, and I'll have to continually grind it to reform the edge until I finally break down and heat treat it properly again.

The reason for this is that most of my tools were made out of car springs and the hardness of 5160 (car spring) when first quenched is 62, when tempered at 500 F is 57, but when brought to 1000 F it drops way down to 38. Similarly, 4140 and 4340 start at 56 and end up down at a hardness of 40 by the time you hit 800 F. So none of these tools are ideally suited for hot work, at least not unless you are scrupulous about cool them off between and during use. H13, though, instead being tempered at around 500 F, is instead tempered at around 1000 F, a dark red, where its hardness is still 54. Similarly, A2's hardness at 1000F is 56 and S7's hardness at 1000 F is 51 (1000 F is where you would want to stop with A2 and S7, though).

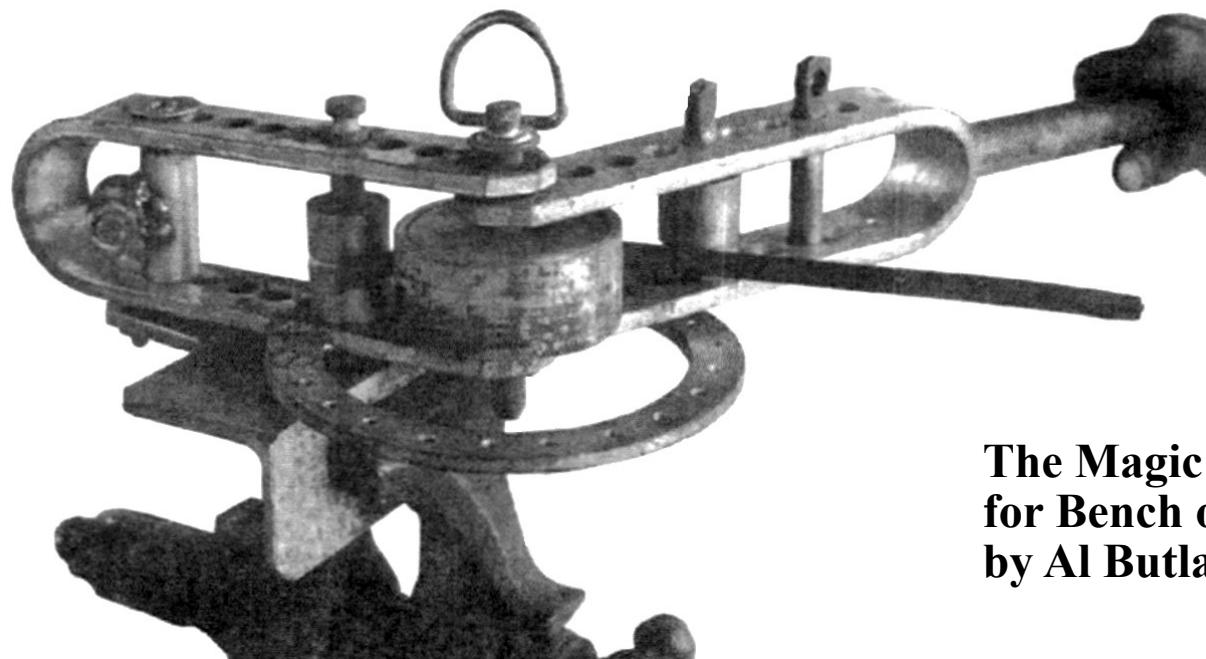
That means that these steels can stand being brought pretty hot and still keep their temper, still be hard and resistant to deformation. You are far less likely to ruin them, although obviously you'll still want to be careful to cool the tool down between uses, particularly on the thin ends. From this, we can see that steels like H13, A2 and S7 are the best candidates for hot tools. But heat resistance isn't the only category we want to measure. Our next consideration is toughness. A2 is only rated *Fair* on the toughness scale, and if I'm going to be beating on a tool with a hammer, I'm thinking it should be at least *Good*, so we can rule out A2. 4140 and 4340 are *Good* on the toughness scale, making them good for cold work, but they don't have enough temperature resistance for hot work, so we can rule them out. H13 and S7 are both rated *Excellent* on the toughness scale. H13 gives us better hardness at a higher temperature, so we'll give the nod to H13 as our winner.

Life rarely gives you anything for free, though, H13 does have a number of drawbacks. H13 is pretty expensive, hard to come by, and rates a *Difficult* on the formability scale. What is the formability scale? Again, I'm no expert, but from my experience, I think a better name would be the "you-have-to-beat-the-crap-out-of-it-to-get-it-to-move" scale. H13, like S7, 1045 and 4140, only rate a Fair on the weldability scale. You can't use the magnet test when hardening H13, its hardening temperature is way up at almost yellow, at 1850 F, so you need to do that by eye or, better yet, with temple sticks (S7 hardens around orange/light orange; 4140, 4340 and 5160 are around light cherry/light red).

Finally, H13, like S7, is an air hardening steel, so you can't quickly quench it when it does start to get hot. Despite those disadvantages, though, this thought experiment turns out to be true in reality. I ran across a bar of H13, made some tools out of it, I have found H13 to be the best steel I have used for hot work. That's not to say that other steels can't be used and work just fine, it's just that H13 seems to work better. So yes, the short version of the story is that I should have just listened to Lloyd.

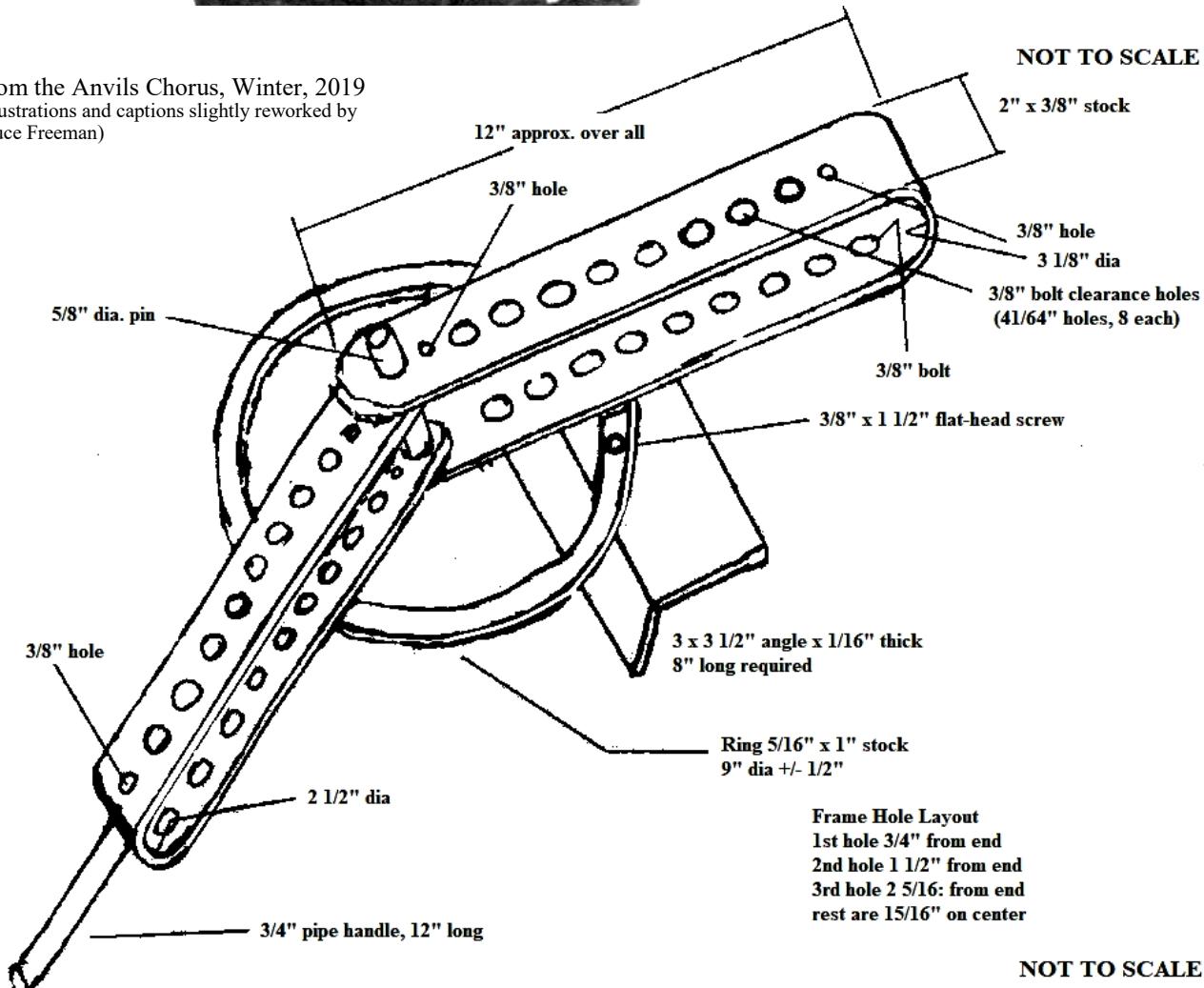
David Brandow

New Jersey Blacksmiths Newsletter



**The Magic Bender
for Bench or Vise
by Al Butlak**

From the Anvils Chorus, Winter, 2019
(Illustrations and captions slightly reworked by
Bruce Freeman)



New Jersey Blacksmiths Newsletter

Simple Tong Clips By Bruce Manson

Tong clips can be useful aids in the forge. They eliminate the need to concentrate on clamping the workpiece tightly and can relieve much of the muscle tension in your lower arm. That way, you can focus on properly positioning the workpiece and hammer control without the workpiece moving in the tongs. Of course, selecting the proper size and shape of the tong jaws to securely fit and hold the workpiece is still critical, but a tight grip is one thing you don't have to worry about. This can be very helpful in teaching new blacksmiths – it eliminates one thing they have to think about. Also, clips can help reduce muscle fatigue during long forging sessions. And.....as I am learning and many of you will someday face.....they help reduce pain from cramping and arthritis.

Here are some simple ways to make tong clips from scrap you probably have lying around your shop:

Cut some thin rings from different size pipe and square tubing. Mash the pipe slightly into a nice oval shape. Mash the square tubing on the diagonal and you have two different size tong clips (or you can rotate the clip on the tong reins to allow positioning it at a different location along the reins to get the best fit).



Another simple tong clip idea is to use chain links that will fit over the ends of your tong reins.

A third simple tong clip is merely a piece of small (say $\frac{1}{4}$ " diameter) rod, bent into the shape of a letter "C". Make several sizes.

We've seen similar ideas in newsletters before, but a search of the archive didn't turn up where. So we tip our hats to everyone who has come up with an idea like this, and shared it with others.—Editor

Reprinted from the Virginia Blacksmith Newsletter, Nov. 2019

New Jersey Blacksmiths Newsletter

A Sun Dial for Heidi's Garden

Fred Mikkelsen

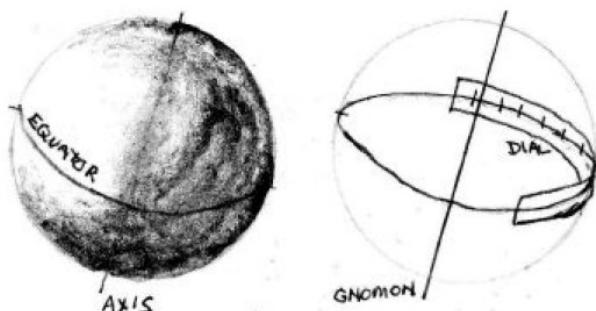
Reprinted from the New England Blacksmith Newsletter, Fall 2019

If you poke a stick in the ground, and the sun is shining, it will cast a shadow. Longer in winter and shorter in summer, if you live in the Northern Hemisphere. Measuring time by the sun's shadow has intrigued mankind for thousands of years and if you "Google" sundials, you will find it still does. There are many who work at developing more intricate and accurate sun dials, developing complex mathematical formulae and creating some beautiful sculptural solar time keepers. The earth's wobble causes seasonal errors of + 15 or- 15 minutes or so, be advised not to set your watch by one.

They all have this commonality: The "stick" that casts the shadow is called a gnomon (silent "g" as in gnome) and a dial (the surface upon which the shadow is cast) The shapes of these two parts can be one of many configurations but their arrangement is what makes the darn thing work. There are 7 different classifications and a computer search lead me to wish I had been more attentive during Solid Geometry and Algebra II classes 50+ years ago!

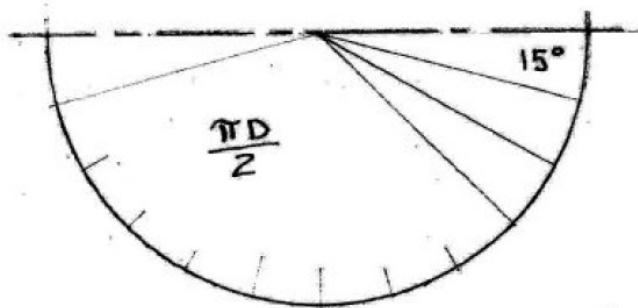
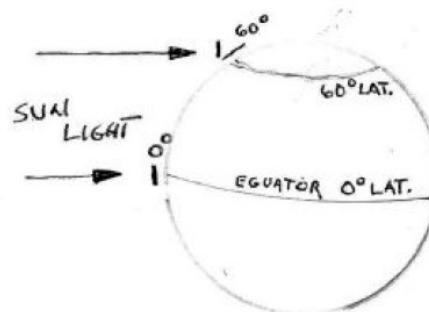


Jerry Hoffmann's "The Blacksmith's Journal" has featured a couple of designs over the years and September of 2004 #164 had the idea that inspired me. It details the building of an equatorial sundial and he states this is the simplest of the classes of instruments. This is so named because it mimics the plane of the equator and uses a "bow string" gnomon to cast the shadow. Armillary Spheres incorporate this type technology but are more ornate and complicated to construct. Heidi wanted something simple and plain, so much the better for her Father to forge!



If you were at the equator, the "dial" part of your time piece would be parallel to the earth's surface but as you move toward the North, the "dial" needs to be tilted toward the sun so it stands parallel to the equator. This amount of "tilt" is equal to the latitude at your location. So that had to be figured into the design along with the flowers that would grow around where the piece would be permanently mounted. This is the explanation of the "tilt" for you to consider as you design your project.

Jerry's was 8 inches across and that would be too small in my case so I had to do some math to lay out a 12 inch dial.



I drew out a half circle with a 6 inch radius (12 inch diameter) to calculate the length of steel needed for the dial. 18.8496 inches rounded off to 18-7/8 inches. This type of sundial uses increments of 15 degrees between the hours and I plotted off 12 segments just to make sure I was headed in the right direction. That made each segment 1.5408 inches that I called 1-9/16 inches.

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I then transferred the layout to my 2 x 1/4" flat stock and incised the lines and stamped the numbers working with my treadle hammer and the stock cold. A couple of passes made the "right impression" and the first number I stamped in the dial was the number 3 and I got it backwards! ☺ Well that "error" makes the piece that much more "unique".

We all save odd stuff thought to be "just junk" by normal people and I had a cast iron wheel that was 12 inches in diameter and just the thing to get an even and consistent bend in my dial. I rigged it in my post vise with a clamp to anchor the end of the dial for hot bending. I learned early on that when bending to a form, one must pull the material and never try to bend more than what is hot, this keeps the bend smooth and kink free.

Next the "flagged ends" of the dial were forged being careful not to get the bent part of the dial hot enough to become distorted. Power wire brush and clear flat acrylic finish and we are ready to move on to the upright support.

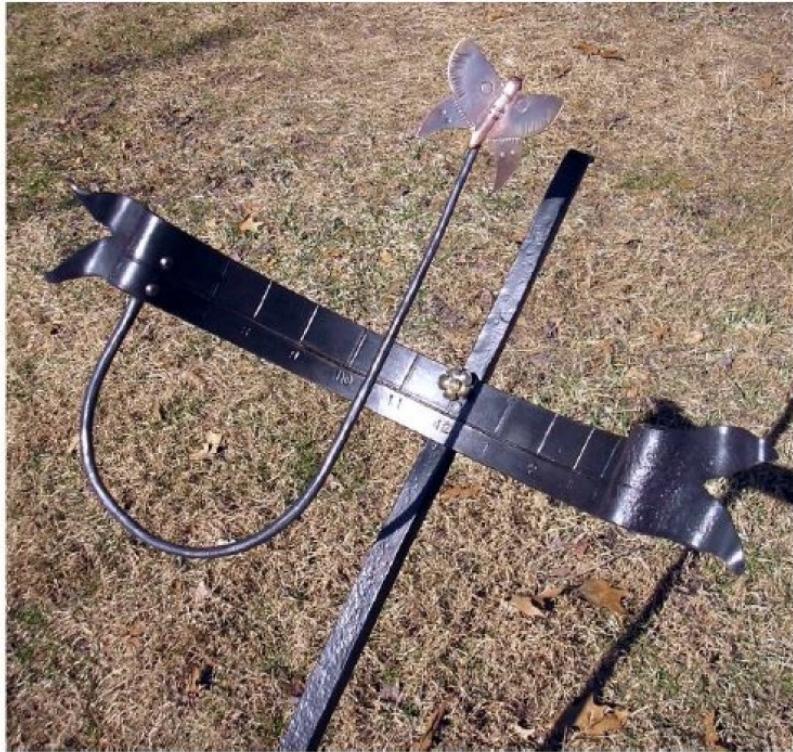
The base is a piece of cast iron that once was the base of a floor lamp, minus its decorative cover (more junk). The upright was a left over piece from a sign bracket project I did a few years ago but it required being bent so that the point where I would mount the dial was 41 degrees 44 minutes from the horizontal (the latitude here in Scituate, RI)

The Gnomon was forged from a piece of 3/8 rnd and I used a piece of wire to guesstimate how long it needed to be. Assembly followed with the riveting of the gnomon to the dial and bolting the dial to the upright. I disguised the bolts as flowers and added a bronze butterfly to the gnomon because of the flower garden setting.

Heidi sees this as "a gorgeous addition" to one of her perennial gardens and a focal point in that section of taller plantings, now that it is set pointing true north, 15 deg. east of magnetic for us in RI.



You may not have a "Heidi" but I'll bet you have someone who would appreciate a solar timepiece.



New Jersey Blacksmith Association, P.O. Box 224, Farmingdale, NJ 07727-9998

NJBA Membership Renewal, Ballot, and Volunteers' List

If you want to receive printed Newsletters by mail, please remit an extra \$10.

Mail completed form, along with check for any amount due, to:
NJBA Election, P.O. Box 224, Farmingdale, NJ 07727-9998

Name _____

Address _____

City, State, Zip _____

Phone Number(s): _____

**Your correct Email address is *essential* if you don't care to pay \$10 extra for a mailed Newsletter!
Please Print Clearly!**

Email address _____

My check is enclosed: \$20 (regular membership dues), or
 \$40 (business membership dues)

For printed Newsletters: **\$10 subscription fee** (for paper copies of Newsletter)

NJBA Volunteers List

"Please put my name on the list of potential volunteers:" (Circle all that apply.)

Availability: Saturdays Sundays Weekdays

Interests: Demonstrating Coaching Novices Assisting at Workshops

Blacksmithing Experience: Novice Intermediate Experienced Professional

Other Experience:

Weldor Fabricator Other Metalwork

Writer Editor Photographer Videographer

Facebook Contributor* IForgeIron Contributor* Website Manager*

Other:

*** Note: NJBA has a pressing need for help with social media!**

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ABANA 2020 Conference

Washington County Fairgrounds
392 Old Schuylerville Rd.
Greenwich, NY

Information Available at

www.abana2020.com
[abana2020 on facebook](#)
abana.org
ABANA Central Office
423-913-1022



Scheduled Activities

Demonstrations all day every day at our 8 demo sites. There will be a riveting lecture series featuring such notables such as Albert Paley, Howard Schechter, Douglas Wilson, Bill Hochella, Leigh Morrell, and others

Join the party at the Blacksmith Arms Pub serving local micro brews. We are proud to announce our own private label Slacktub Bourbon. Available by the glass, bottle or collectable 2 liter wooden cask. See the website for information on pre ordering the laser inscribed cask. These must be pre-ordered.

Breakfast, Lunch, Dinner will be available onsite from a variety of food vendors and food trucks.

There will be extensive tailgating, most under roofs. The northeast is the epicenter of the largest accumulation of blacksmithing equipment in the country. If you can dream of it, it will likely be at this conference

We are inviting all the vendors we have come to expect at an ABANA conference.

There will be nightly competitions organized by Mark Aspery to be held at the Teaching site

Of course there will be Iron in the Hat hosted by Len Ledet. We also will be having a large item raffle featuring a Big Blu power hammer and Pat McCarty is donating a BAM box once again for this event. An added bonus will be it is going to be filled with handmade tools from some of the finest blacksmiths in the country.

We are hoping for a strong outpouring of support for the curated gallery exhibition and hope to have items donated to the live auction of art & craft scheduled for Saturday night.

For this conference the banquet will be revived with a Saturday night BBQ, northeast style, included with registration. Come and enjoy the warmth and fellowship of blacksmiths from around the world. This will be a party the likes of which has not been enjoyed at an ABANA conference in some time.

Don't miss what is sure to be an event that will be talked about for years.

New Jersey Blacksmiths Newsletter

	ABANA Membership	New Membership <input type="checkbox"/>
		Renewal <input type="checkbox"/>

Email :

Recipient Name :

Business Name (Optional) :

Street :

City :

State/Prov and Country :

Zip/PC :

Phone:

Primary Affiliate? :

Fax:

Would you like to make a donation? Yes No If Yes, what amount would you like to donate? \$ _____

If Yes, which fund? Metal library Disaster Relief Conference Grants Exhibition

	One Year	Two Years	What is your skill level
Regular (US, Mexico, Canada)	\$55 <input type="checkbox"/>	\$105 <input type="checkbox"/>	Beginner <input type="checkbox"/>
Senior (65+, US Mexico Canada)	\$50 <input type="checkbox"/>	\$95 <input type="checkbox"/>	Intermediate <input type="checkbox"/>
Full-time Student (US, Mexico, Canada)	\$45 <input type="checkbox"/>	\$85 <input type="checkbox"/>	Advanced <input type="checkbox"/>
Foreign	\$65 <input type="checkbox"/>	\$125 <input type="checkbox"/>	100% Professional <input type="checkbox"/>
Public Library (US, Mexico, Canada)	\$45 <input type="checkbox"/>	\$85 <input type="checkbox"/>	Demonstrator <input type="checkbox"/>
Youth (18 years or younger) non-voting member (Hammer's Blow Only)	\$20 <input type="checkbox"/>	\$40 <input type="checkbox"/>	
To be listed on "Find a Blacksmith"	\$4 <input type="checkbox"/>	\$8 <input type="checkbox"/>	NONE <input type="checkbox"/>
Contributor	Bronze \$150 <input type="checkbox"/>	Silver \$500 <input type="checkbox"/>	Gold \$1,000 <input type="checkbox"/>

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ABANA

259 Muddy Fork Road
Jonesborough, TN 37659

Please pay by Check, U.S. Money Order, or CC

Email : centraloffice@abana.org

Phone: 423-913-1022

Fax: 423-913-1023

Memberships can only be processed with this form

Form revision May 07, 2019

New Jersey Blacksmiths Newsletter

ABANA 2020 Registration Form

Email Address*

First Name*

Last Name*

Country*

Address*

Address Line 2

City*

State/Provence*

Postal Code*

* required

Home Phone

Mobile Phone

Birth Year

Gender (Circle one)

M / F

Are you a (Circle one)

Full Time Blacksmith

Part Time Blacksmith

Hobbyist Blacksmith

The Artists Blacksmith Association of North America (ABANA) is dedicated to perpetuating the noble art of blacksmithing. In organizing and running this conference, ABANA and its members, volunteers, demonstrators, and assistants (collectively, "the Conference Team") seek to take reasonable and appropriate precautions to prevent injury to participants and their property. There are, however, certain inherent and unavoidable dangers connected with the conference activities that the Conference Team cannot be liable for. Accordingly, we ask all participants to read and sign the following release of liability:

I understand that there are inherent and unavoidable dangers arising from my participation in the ABANA conference. I agree to hold blameless the Conference Team for any claim of personal injury or property damage arising out of my attendance at or participation in the conference.

I ACKNOWLEDGE AND AGREE TO THE TERMS ABOVE

Print Name

Date

Signature

Cancellation Policy -By registering for the ABANA Conference, you accept this cancellation policy and agree to be bound by its terms. Notification of cancellations for refunds MUST be submitted in writing (or email) to the ABANA Central Office postmarked (or emailed) 30 days prior to the Conference date. NO CANCELLATIONS will be accepted via phone! A \$25 dollar cancellation fee will be charged in the 60 to 30 day window prior to the conference . There will be NO REFUNDS in the last thirty days leading up to the conference date,with the exception of the hardship clause as follows: Members who cannot attend due to medical emergencies, death in the family or other unforeseen calamities of a grave nature will be provided prompt refunds

ABANA 2020 Miniature Anvils and Commemorative Bourbon Casks can not be cancelled if we have already purchased these items for you. The cost to ship these to you will be deducted from your refund.

To work at a forging station you must have safety glasses and closed shoes. Long pants and hearing protection are advised.

Mail form and check to: ABANA Central Office, 259 Muddy Fork Road, Jonesborough, TN 37659

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ABANA 2020 Registration Form

Price	Item	Size	Quantity	Total
295.00	Member early registration (Before April 1, 2020) select T-shirt below!			
75.00	Member Spouse early registration			
35.00	Child 13-17			
355.00	Non-Member early registration (before April 1, 2020)			
90.00	Non-Member Spouse early registration			
Free	each early registrant (& family) gets a free T shirt select size Men's S, M, L, XL, 2XL, 3XL select size Women's S, M, L, XL, 2XL, 3XL			Free
95.00	Single day Member			
110.00	Single day Non-Member			
30.00	Single day Spouse or Child 13-17			
15.00	Saturday Dinner can be purchased separately by Saturday single day attendees			
345.00	Late registration Member (after March 31, 2020)			
100.00	Late registration Member Spouse			
415.00	Late Registration Non-Member (After March 31, 2020)			
120.00	Late Registration Non-Member Spouse			
Merchandise These items include 7% NY sale tax				
25.68	extra T shirt indicate size - see above Men's indicate size - see above Women's			
4.28	ABANA Lapel Pin			
23.54	Hat			
28.89	ABANA 2020 Miniature Anvil			
85.60	LASER ETCHED, 2 LITER, "SLACK-TUB BOURBON" COMMEMORATIVE CASK **			
1.00	RESERVE A BOTTLE OF SLACK-TUB BOURBON **			
** Just visit the Springbrook Distillery at the Blacksmith's Arms Pub when you arrive to make your purchase. Cost \$44.00 Casks are empty. Casks can also be filled for \$40.00				
Camping Options				
152.00	4 DAY CAMPING - RV/ TRAILER - WATER/ELECT./GRAY WATER			
128.00	4 DAY CAMPING -RV/TRAVEL TRAILER - WATER/ELECT.			
32.00/38.00	Additional day of RV Camping - must have purchased 4 day			
100.00	4 DAY STAY AT THE ON SITE BUNKHOUSE.			
20.00	TENT CAMPING: Price per day			

Total Due

Spouse's name for Badge _____
 Child's name for Badge _____
 Child's name for Badge _____
 Child's name for Badge _____