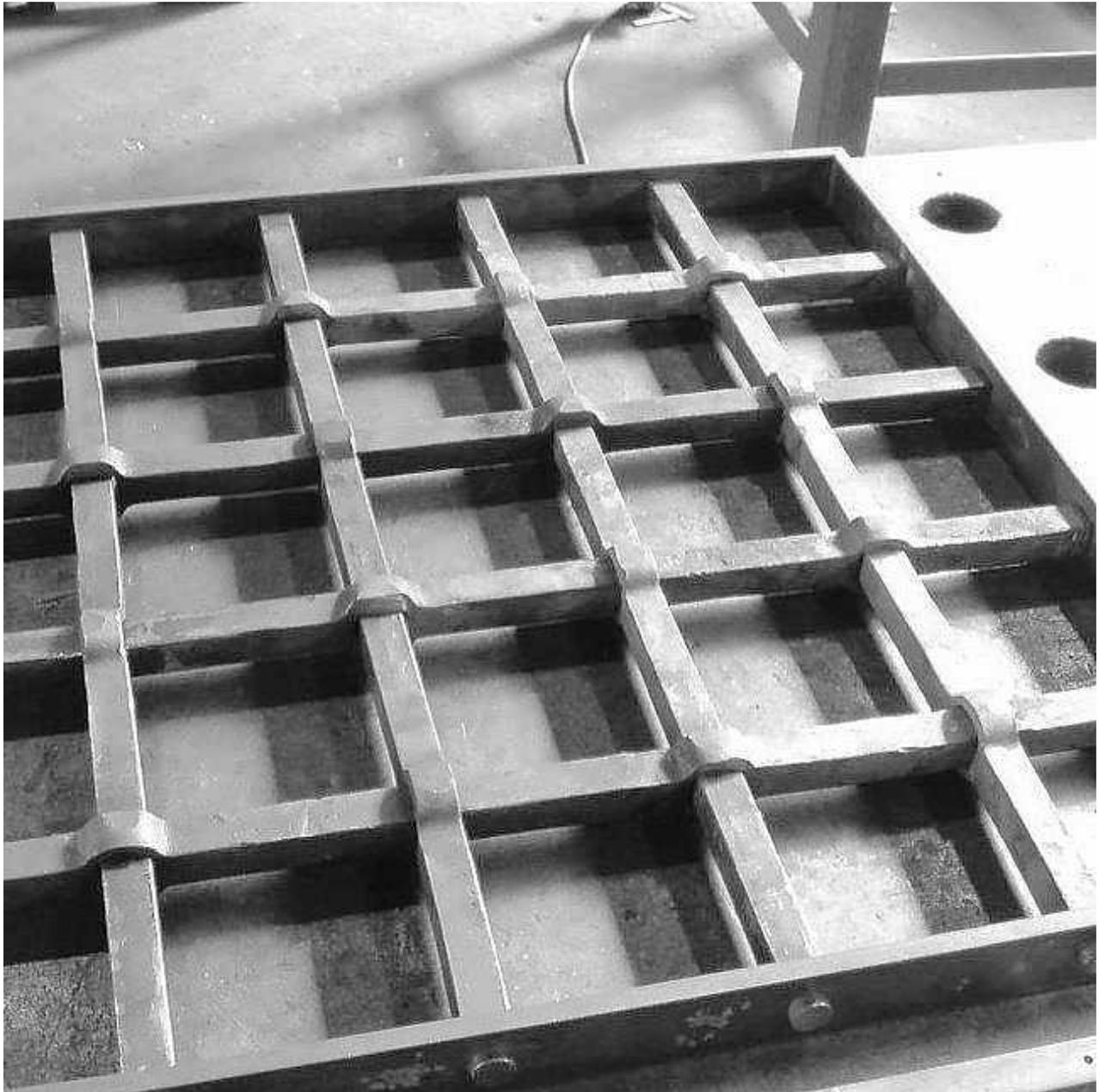


# *The Anvil's Horn*

A Publication of the Arizona Artist Blacksmith Association

Issue No. 205 July 2020



*The Impossible Grill, aka The Devil's Grill*

*More on page 6.*

*(Photo: Juan Ocampo)*

# President's Message

Hey everyone! Aren't these interesting times!? I hope you have all been safe and healthy this year. Unfortunately, most of us have not had a chance to gather or see each other in the past few months so there are no recent demos to mention since we have missed both the March and May demos this year. We do have plans for the July demo coming up in Flagstaff, but we do need to hear from you if you will be able to attend. We need to know this because there is some financial and personal time commitment to put on the demonstration and if we do not have enough attendance, this commitment goes to waste. You should have received the RSVP link in your email. It is also shown on page 3 of this issue, and it is posted on the AABA Facebook page. Please provide your input. The board is committed to putting on a safe demonstration but if you personally feel it is unsafe for you to attend at this time, we completely understand.

At the time of writing this, there's a lot of tension in the air just about everywhere you look. As blacksmiths, we have a great outlet to release our own tension or stresses. In one way we get to release

this stress physically through the forging process, but we also get to hopefully transfer this energy into artwork or beautiful craftsmanship. There are many mediums to express our emotions, but with forging, we get to physically transfer our energy into the workpiece in a whole different way. I know many hobbyist smiths who use it as a stress reliever from their day to day lives. This also creates a great way to connect with other smiths in pouring this energy into the steel. The more ways we can find to connect to others, the more we grow individually and as a society.

I want to thank every one of you that has renewed your membership this year! Your support helps to keep our association and the craft alive. Stay strong as we look forward to better times, and, hopefully, we will all be able to be together again soon!

I hope to see you all in Flagstaff!

Keep on forging!

*Jason LaBrash*

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*The Anvil's Horn* is printed by Sundance Press, Tucson, AZ  
*The Anvil's Horn* is created with Scribus 1.4.8

## Demonstration: Saturday, July 18, 2020

Sculpture Studio, Northern Arizona University  
Flagstaff, Arizona

*At press time, the demonstration and the workshop are scheduled to go on, but they may be canceled.  
Check the AABA website, <https://www.azblacksmiths.org>, for last-minute updates.*

### Demonstrator: George Witzke

George will demonstrate making bolt tongs and 1" box-jaw tongs.

- Registration begins at 8:00 AM, the demonstration starts at 9:00 AM.
- Registration fee:
  - \$15 for members
  - \$20 for non-members
- Lunch is on your own. There are several good eating spots in the neighborhood.
- Tailgating is encouraged. Tailgaters, please consider donating to Iron-in-the-Hat.
- Bring things for Iron-In-the-Hat and Show-and-Tell.  
Don't forget to put your name on anything you bring for Show-and-Tell.



**Please RSVP for this demo (YES or NO - no prepayment involved) by July 1 at:**  
<https://tinyurl.com/y7qtgeaq>

### Workshop with George Witzke

Students will forge a hot punch, bolt tongs, and 1" box-jaw tongs

Sunday, July 19, 2020, 9 am - 4 pm

Sculpture Studio, Northern Arizona University

Flagstaff, Arizona

Workshop Cost: \$80 per student

To register contact Steve Miller at [stevemiller.az@cox.net](mailto:stevemiller.az@cox.net)

Students need to bring their own PPE. Also bring your own forge, anvil and hammer if you have them.

Thanks to the efforts of our own Cathi Borthwick and other AABA members, the Botanical Blacksmiths Show at the Arboretum at Flagstaff is growing. When planning your trip to Flagstaff, be sure to include at least a couple of hours to go out to the Arboretum and see some of the pieces your friends submitted for the show. The Arboretum is open, but you should check on current hours and pandemic restrictions at <http://www.thearb.org>

### As always, safety glasses are required in the demonstration area.

Hearing protection, closed-toe shoes, and long clothes of natural fibers are recommended.

### Directions to the NAU Sculpture Studio

Flagstaff, AZ

- North on I-17
- East on McConnell Dr (First exit north of I-40)
- Turn right on Pine Knoll Dr.
- Turn right into Parking Lot for Facility Services (Southeast corner of the map on page 4)
- The Sculpture Studio is building 84 (black arrow) on the map on page 4.

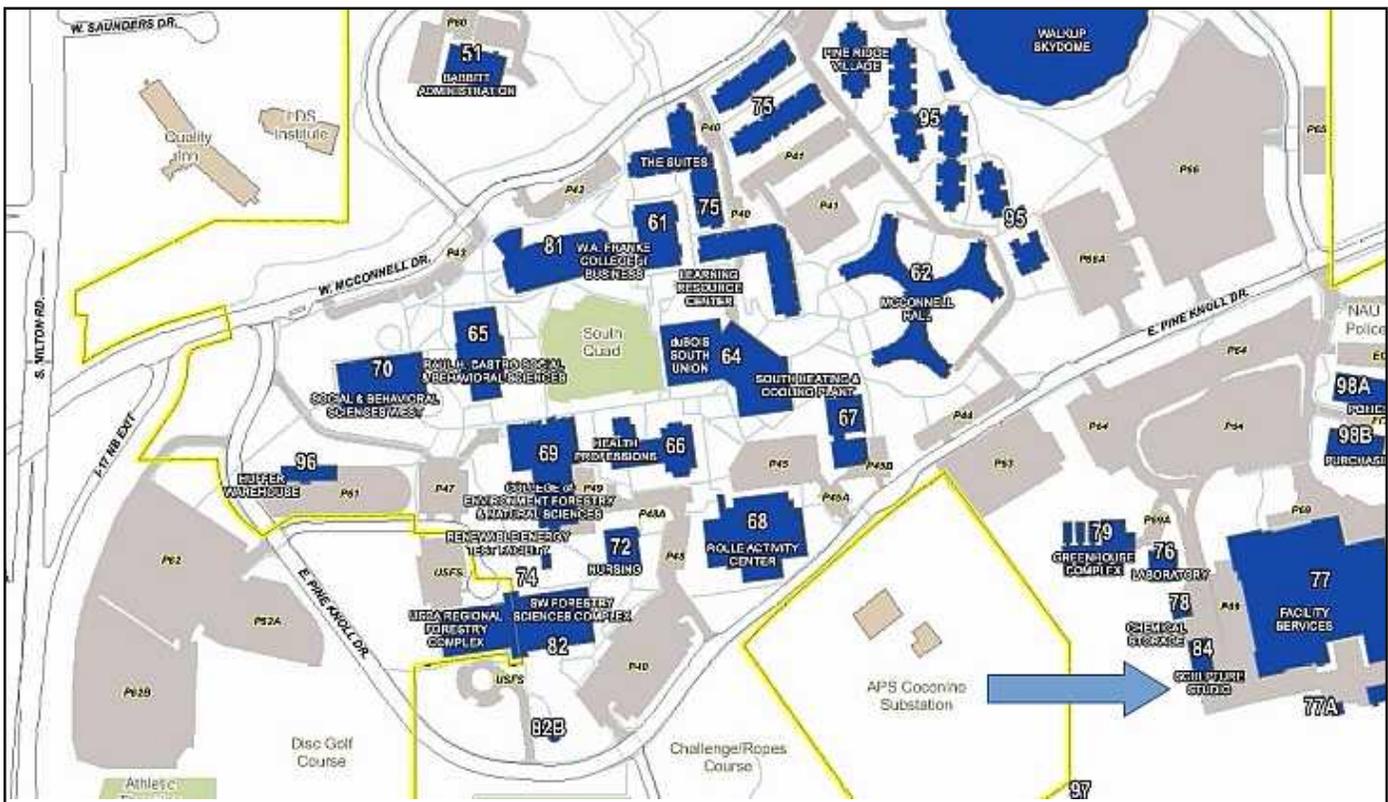
## Our July Demonstrator George Witzke

Artist blacksmith, George Witzke (wit-ski) has been a professional blacksmith creating hand-forged ironwork for over 25 years. His journey started with a three day beginner's class. Once bitten by the blacksmith bug, he progressed from a hobby smith into a full-time blacksmith in just a few years. His career advanced from participating in local craft shows to selling at high-end arts and craft shows then on to exclusively crafting custom ironwork. In 2010, when the economy turned, George switched his focus to galleries and shops. In 2014, he was invited by Gordon Williams, his mentor and blacksmith partner, to build and man a public demonstration shop outside the east entrance to Zion National Park in southern Utah. Utah soon became his permanent home with a shop of his own in Kanab, UT.



Though he no longer accepts custom commissions, in his years as a smith, George Witzke has created a diverse array of beautiful and complex iron work for both residential and commercial properties. Most notably, he worked with a team of blacksmiths to create the railing at the Grand Canyon's Mather Point Amphitheater. He now sells his smaller hand-forged home decor items in shops throughout Southern Utah and online at [TheIronworkStore.com](http://TheIronworkStore.com). He also teaches 1 hour to 1/2 day classes called Blacksmith Adventures.

October 3rd, 2020, he and Gordon will once again be teaming up to host the first annual Hammerfest in Kanab, Utah. This one day event will feature 9 demonstrators in three areas; blacksmithing, blade smithing and fabrication/welding. It will be a fun event in a beautiful part of the country!



# International Meeting of Blacksmiths in Buenos Aires

Peter Sevin

*(Photos: Bill Ganoe unless otherwise noted)*

On February 23 I flew to Buenos Aires, Argentina with a group of blacksmiths to attend the third “Encuentro Internacional de Forja.” (International Meeting on Forging). Our group was comprised of 26 blacksmiths, spouses, and friends from California, British Columbia, Texas and Tennessee, with Bill Ganoe and I from Arizona. Our group was organized and led by Jerry Coe of Berkeley, California. Besides being an outstanding blacksmith he is also an experienced traveler and guide. Our group was joined by smiths from Russia, Spain, Chile, and, of course, Argentina.

The meeting took place over a four day period at the Museo de Humor (the Humor Huseum) in the Puerto Madero district of Buenos Aires. In a park next to the museum sites were set up for our group to teach basic skills including tool and hammer making, scroll making and bronze forging. Our foreign smiths showed their skills by each producing sculptural pieces. The Spanish smiths made an “Impossible” grill in which bars are punched and drifted so they intersect in a manner that look to be impossible. Laura Armstrong of Austin, Texas was commissioned to create a sculpture that was to become a public art contribution to the Museum. She was assisted at the park by three very eager Argentinian smiths who were thrilled to make parts and aid in the assembly.

Meanwhile, Bill Ganoe and three other smiths went to the nearby El Museo del Cabildo (National Cabildo Museum) to demonstrate historical blacksmithing in the courtyard for museum visitors. Soon after starting, museum personnel came out and

asked if they could repair some items in the museum! [This museum was the site of the meeting of the municipal council (cabildo) in 1810 to set up a new local government. That was the first of a series of events that resulted in independence from Spain in 1816. The museum could be compared to Independence Hall in Philadelphia. - ed.] To have a hand in its restoration was an honor.

In addition to the four day Encuentro we had six days to explore the city. One of the highlights was a tour of the Teatro Colón (Columbus Theater), the magnificent opera house which had been restored to its original glory, and, of course, we sampled the fine and inexpensive cuisine of the many restaurants and sidewalk cafes. We also took the hydrofoil across the River Plata to the quaint town of Colonia del Sacramento in Uruguay.

The tango is very popular in Argentina, and our Bill Ganoe is an accomplished dancer. In the plaza in front of the famous Recoletta Cemetery I came across Bill dancing with a beautiful woman who charged a small sum to dance. She was impressed with his abilities.

The trip was well worth the cost. The Argentinian smiths welcomed our participation. The small Hotel Costa Rica where we stayed is a wonder, the staff friendly and the atmosphere warm and comfortable. We returned to the US on March 6. Little did we know that the pandemic would soon be spreading across the planet, and that our timing was quite fortuitous. If we had traveled to Argentina week later we might still be there!



Jesús Morcy (l) and Juan Ocampo, both from Madrid, Spain, start work on an Impossible Grill.



Partially completed grill (photo: Peter Sevin)



Detail of Laura Armstrong's sculpture, Sinuosa.

Laura said it was inspired by the flowing rock formations in Salta province in northwestern Argentina. (photo: Laura Armstrong)



Laura Armstrong's team (Peter Sevin is missing here.) (photo: Hugh Lovell)

# International Meeting of Blacksmiths in Buenos Aires (cont.)



*Shelly Cournoyer helping a beginner from Buenos Aires.  
(photo: Hugh Lovell)*



*Fabian Rossi (l), a talented blacksmith from Buenos Aires and one of the local organizers of the Encuentro.  
(photo: Hugh Lovell)*



*Jerry Coe (l) teaching a class.  
(photo: Hugh Lovell)*



*(l-r) Ashley Childs, Grant Grundler, and John Page making a hammer.  
(photo: Hugh Lovell)*



*A knife and sheath by a local artist.  
(photo: Carlos Real)*



*The National Cabildo.Museum Central Buenos Aires*



*This chest in the Museum was used to store municipal and national documents in the early 19th Century.*



*Demonstrating in the shady courtyard of the Museum*

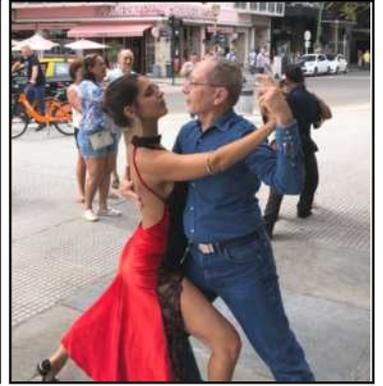
# International Meeting of Blacksmiths in Buenos Aires (cont.)



*I'm sure glad I wasn't one of the cannoneers when that ball jammed in the barrel. Colonia del Sacramento, Uruguay*



*Timofey Silich, a multi-talented blacksmith from Russia.*



*Bill Ganoe*



## Winterfest IV is coming!

Watch this space for details.

Winterfest Co-chairs (Richard and Steve) are recruiting for a Winterfest Committee for the Winterfest IV Conference in January 2021. We need help in setup, cleanup, shuttling demonstrators from the Airport & Hotel to the conference grounds, etc. If you enjoy the conference and would like to give a little bit back by lending a hand, we can use your help. Please contact Steve ([stevemiler.az@cox.net](mailto:stevemiler.az@cox.net)) or Richard ([neongod52@gmail.com](mailto:neongod52@gmail.com)).

## Measured Making - the 150mm Challenge

How creative are you? What can you make from a 6" piece of 3/4" square steel bar (20mm x 20mm x 150mm)? Your creative talents are challenged by projects with tight parameters. The tighter the parameters, the greater the challenge. Call those projects calisthenics for your mind.

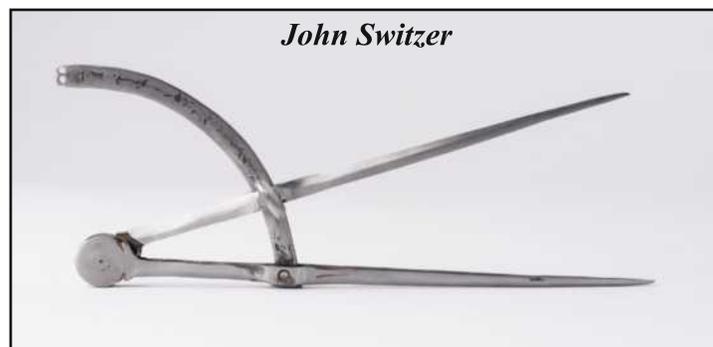
Such a project, titled "The 150mm Challenge", was developed by Ambrose Burne, a lecturer at the Hereford College of Arts (HCA) in England, for Artist Blacksmith students at HCA. The idea caught on and went viral. The challenge was answered by students at HCA as well as blacksmiths from all over the world. The result is a traveling exhibit of some of the best pieces inspired by this challenge from artists around the world. The exhibit is curated and produced by Delyth Done and Ambrose Burne, at Hereford College of Arts, UK.

The tour of the exhibit in the USA is being organized and promoted by ABANA's newly created Exhibition Committee lead by Laura Armstrong, a member of the ABANA board of directors.

The US debut of the exhibit was originally scheduled to be at the ABANA 2020 Conference in June in Saratoga, NY, but that Conference was canceled due to the COVID-19 pandemic. The exhibit is now scheduled to open in January 2021. It will tour the US for approximately one year, starting at the Appalachian Center for Craft in Smithville, TN, from January 8 - March 12, 2021. The exhibit will be the major Spring exhibit at the Metal Museum in Memphis, TN, from March 28 - July 4, 2021. Prospects are promising for Johnstown, PA — the new home base of ABANA — for the late July/August - September 2021 timeline. Idaho and/or the west coast are being pursued for the October - December 2021 timeline. Prospects are good for Charleston, SC, in January - February 2022, with assistance from staff at the American College of the Building Arts. Keep this schedule in mind if you are planning to do any traveling in 2021.



*Photos: Oliver Cameron Swann*



# The Cinderella Project

Steve Miller

I'm often finding myself scrambling to get a piece made for a show. For this year's Flagstaff Arboretum summer blacksmith show, I'm a bit behind. I always like participating because it pushes me to grow in my blacksmithing skills and I always learn something. Sometimes, the challenge is to remember the lesson. I usually start thinking about a project several months ahead of time to come up with an idea. This year I'm really behind and wasn't coming up with anything. I always like to make something that either hasn't been done before, has a new twist, or has not been seen in a long while. I think I've seen only one or two pairs of forged shoes. So, this year that will be my entry and appropriately named Cinderella. All thought not made out of glass, they still have their elegance and charm.

My drawing skills are another thing I'm working on, so I made use of my tracing skills too. Unless you can visualize in your head exactly what you want to forge, I find a drawing helps me work out the details and that exposes areas where I need to focus on the design. I do want to skinny down the high-heel area for this piece bringing it more to a point, but not too much. For the straps across the tow and ankle, I plan to make a notch in the build-up toe piece and spike heel to pass a leather strap thru so the attachment points won't be seen.

I began by making a paper tracing, and then made a paper doll to fit the foot bed. From there, I made a sheet metal foot bed to cut out the foot arch (heel to toe) and two more sheet metal foot beds (a left and right) to bend to shape by hand to use as a form. For the foot arch and toe build up pieces I cut

from 1/4" and 3/8" plate, respectively. The foot arch was hot bent on the anvil horn to fit the sheet metal form. I just eye-balled this by holding them to each other. I also used a tow ring as a swage to slightly cup the toe area. The toe build-up piece was tapered on one end and bent in a similar fashion. The spike heel will be made from round stock and drawn down. There's still a bit of tweaking to do then all pieces will be welded together and ground smooth. I plan to use Arizona elk leather for the straps. These will be heavy shoes, so whoever wears them will probably just want to stand still for pictures and not walk around much. I like using Birchwood Casey's super blue. It needs to be rinsed well or neutralized to keep from rusting the steel even after a clear coat is applied. I'll use Sculpt Nouveau Clear Guard in a satin finish for the clear coat. I'm contemplating adding a decorative feature that you can see at the Flagstaff Arboretum. They should be there by the time you read this article and hopefully before I turn into a pumpkin.



## Interesting Web Links

The 3D Sketchpad for Blacksmiths! Clay Forging!  
No forge at home?

Looking for the best way to plan out your next blacksmithing project?

Look no further! This video shows a few ways to use clay as a 3D blueprint for your next project. Come see Aram in the lab experimenting for his next piece!

As Aram says in the video, "[Clay] doesn't react exactly the same way, but it's a really good facimilie of steel."

<https://tinyurl.com/yawzo8x4>

## Calendar 2020-2021

July 18, 2020	Demo: George Witzke	NAU Sculpture Studio	Flagstaff
Sep. 19, 2020	Demo: Gerald Boggs	TBD	TBD
Early Dec. 2020	AABA Annual Banquet and Auction	TBD	Phoenix (?)
Jan. 2021	Winterfest IV	Pima County Fairgrounds	Tucson

### Your dues for 2020 are due now!

Many of us renew in person at a demonstration early in the year. But those opportunities are limited this year. Please mail your renewal now using the form on page 19.

### MCC Blacksmithing & Welding

The Mesa Community College blacksmithing program is an excellent deal - over 60 hours of instruction including material and propane! Classes are on Wednesday during the day with instructor Richard Rozinski, Tuesday and Thursday evenings with instructor Dan Jennings, and on Saturdays with instructor Jaime Escobedo. Blacksmithing is listed as WLD103 in the class schedule.

TIG, MIG, Arc, Gas, and Art classes are all available, as is certification in any of those welding methods at Mesa Community College, Southern and Dobson in Mesa.

Classes fill up early, but waiting lists may be available. For more information go to: [www.mesacc.edu](http://www.mesacc.edu)

### Sahuaro Ranch News

After being destroyed by fire on September 25, 2017, the reconstruction of the blacksmith shop at Sahuaro Ranch in Glendale is essentially complete. Jay Griffin and Ronald Wicklund were forging at the blacksmith shop on February 8. Watch The Anvil's Horn for upcoming events at the Sahuaro Ranch blacksmith shop.

### Welcome New Members

Rob Evans	Phoenix
Russ Miller	Prescott
AJ Corral	Tucson
Seth Levy	Tucson
Luke Haskins	Waddell

### Classes at Pieh Tool Beginning/Intermediate Blacksmithing

• Beginning/Intermediate blacksmithing classes with Dylan Cook

No more classes are scheduled for the summer of 2020. Classes may be offered starting in September

Check future issues of The Anvil's Horn or the Pieh Tool website for classes in the fall

Registration is \$550.

Students will make several simple projects to take home.

For more details call 888-743-4866 or browse to [www.piehtoolco.com](http://www.piehtoolco.com).

### Deadline for the September 2020 issue

August 1, 2020 is the deadline submitting photos and articles for the July issue of the Anvil's Horn.

Send articles, pictures, etc. by email to:

[editor@azblacksmiths.org](mailto:editor@azblacksmiths.org)

or by regular mail to:

Bill Ganoe, PO Box 40233, Tucson, AZ 85717

# AABA Website: [www.azblacksmiths.org](http://www.azblacksmiths.org)

## Open Forge: Tucson

Open forges in Tucson are scheduled to resume in October, but there may be some pick-up events now and then during the summer. Check the Desert Metalcraft website, <http://www.desertmetalcraft.org>, for upcoming events at DMC. If you are on the email list for southern Arizona, you will get notices about any last-minute AABA open forges. If you aren't on that email list, send a request to [editor@azblacksmiths.org](mailto:editor@azblacksmiths.org).

## Open Forge: Grizzly Iron

Don't have a power hammer? Use one at Grizzly Iron, 1329 W. Lincoln St., Phoenix, 4:30 PM to 8:30 PM, more or less, . There are a lot of changes in dates, times, and restrictions, and those changes may be made on short notice during the COVID-19 pandemic. Keep checking the website:

<http://grizzlyiron.com/classes-and-workshops> or the **Grizzly Iron Open Forge and Workshops** group on Facebook for current details.

## Open Forge: Desert Rat Forge (Phoenix area)

As of press time, Paul Diefenderfer plans to resume open forges at Desert Rat Forge on Saturday, July 4 and Saturday, August 1, 2020, from 9 to noon followed by lunch (You gotta' buy your own.) at the world famous Big Earl's Greasy Eats in Cave Creek. Desert Rat Forge is at: 40218 N. 78th St. Cave Creek. 602-509-1543 or [dief@phoenixrockgym.com](mailto:dief@phoenixrockgym.com). Paul plans to continue hosting open forges on the first Saturday of each coming month.

Directions: From the center of Cave Creek – 4-way stop at Cave Creek Rd & School House Rd. Head north on School House 1.2 miles to Highland Rd (if you get to the 4-way stop at Fleming Springs you've gone a tad too far) . Turn right (east) on Highland After about 1 mile the pavement ends. Please drive slow to avoid kicking up dust. As the gravel road makes a turn to the left there will be a single lane gravel road on the right with a sign for 7645. Drive down this road for bit until you see the big anvil. You are there!

## If You Are Attending An Open Forge...

These open forges are part of AABA educational activities, but AABA does not provide funds for these events. They are hosted by our members for all of our benefit. So if you participate in forging, welding, use shop materials, or accidentally damaged something, please put something in the donation box to help our hosts with their expenses. Thank you! From all of your open forge hosts. **You will need to wear safety glasses. Hearing protection is recommended.**

**AABA Membership:** The AABA membership form has been moved to page 19.

## Classes and Events at AABA Members' Shops

### Desert Metal Craft

544 E. 24th St., Tucson, AZ

“Desert Metal Craft is the only school in the southwest dedicated to teaching blacksmithing, bladesmithing and fabrication together with the modern science behind the craft of metalworking.”

- Rich Greenwood

The schedule at Desert Metal Craft features a wide range of classes and workshops.

All activities have been canceled for now, but check the website: <http://www.DesertMetalCraft.org>, for on-line events, reopening dates, details of specific events, and to register for each class or workshop

### Grizzly Iron

1329 W. Lincoln St., Phoenix, AZ

The schedule at Grizzly Iron features a wide range of classes, open forges, and workshops. All activities had been canceled because of the pandemic, but Grizzly Iron is starting to schedule new events again.

Check the website: <http://grizzlyiron.com/classes-and-workshops>, or the **Grizzly Iron Open Forge and Workshops** group on Facebook for current details.

## Members Gallery



### Chris Contos

I designed this wine rack while walking the vineyards of Tuscany. My wife Judy and I traveled Italy for a month last spring. My inspiration came the first week as we enjoyed the villages, people and wines of Tuscany.

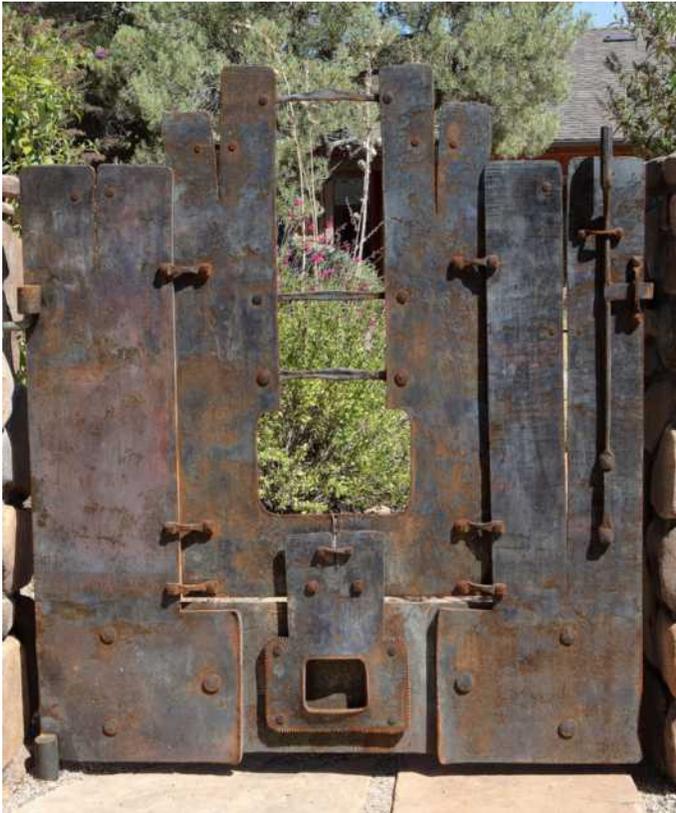
The grape vine was the first point of attack. I forged down four pipes using the V shapes in a swage block. The remaining branches are solid stock forged, tapered, and twirled. I started with 16 gage steel grape leaf blanks. Each leaf shaped and textured primarily with a cross peen hammer. My grape clusters created using mild steel ball bearings TIG welded to stems. The fencing was straight from my recycle pile.

The next step was to sand blast the entire piece, except the fencing. This step serves two goals. First, it blends the MIG, TIG, Forge and Rust colors to a more uniform grey. It also increases the surface area to give the patina a better surface to bite. I utilized the heat blacks leaving some as a base color contrast. Light hand sanding allows another color contrast on the main vines.

I generally use Sculpt Nouveau products. This time I treated the main vines and the backs of the grape leaves with cold Japanese Brown. I applied this patina several times until I achieved the desired colors. The fronts of the leaves have two coats of Stealth Green Smart Stain. The wine ring assembly is a Black Magic finish. The final coats are Satin Clear Acrylic spray. The fencing intentionally left untreated. I am pleased with both the final finish and the design of my wine display rack.

*(photos: Nicole Contos)*

## Members Gallery



Front



Back

### Brian Hughes

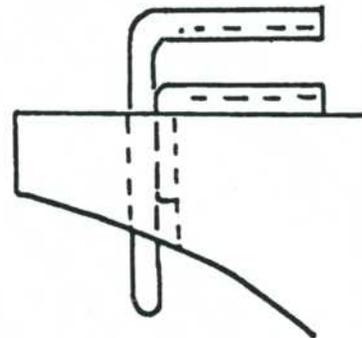
A garden gate forged from 3/8" and 1/2" plate approximately 40" wide and 43" tall.

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#### Hardy fuller

Here is a good set up for fullers that I came upon quite by accident. The lower fuller has a short tail that is drawn as wide as the hole but only half as deep. The upper fuller is drawn to slide behind the lower one. Unlike the U-shaped spring fullers, this one doesn't bounce around (or off) the anvil when struck. Also, the long rear tang allows for taller stock, while keeping both fullers parallel.

— Ed Justi, California Blacksmith



*Reprinted from the California Blacksmith via  
"Most of the Test Tips, Projects, Ideas, Patterns From ABANA Chapter Newsletters",  
collected and published by the Arizona Artist Blacksmith Association.*

## IF YOUR ANVIL ISN'T PERFECT

An anvil is a marvelous tool, especially a modern London Pattern or a double horned anvil.

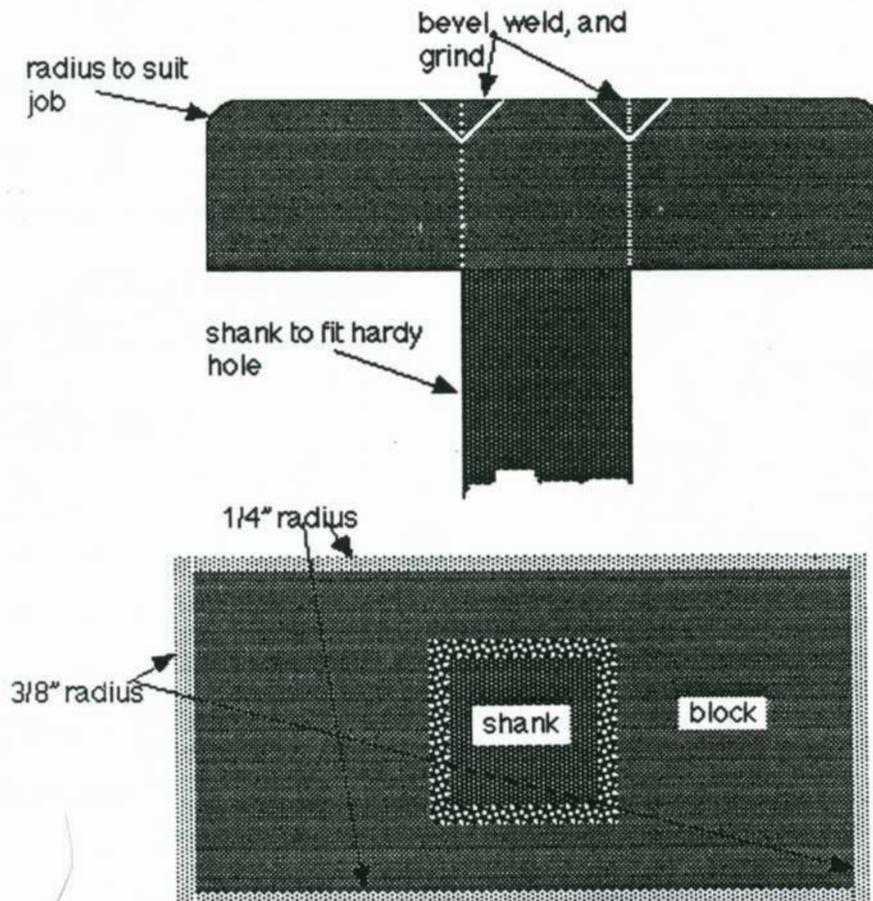
There is a shape for almost every situation, and with good edges, corners, and horns, good work results. But what if your anvil isn't very good? Or what if it weighs 50 lbs and bounces a lot?

A light anvil of good quality will work like a larger anvil if it is securely clamped down on a heavy base. I have clamped light anvils on 1 or 2 50 lb tractor weights and had them work like a heavier anvil for forging. Be sure you forge heavily only on the middle of the anvil. Heavy forging on the heel or horn sometimes will damage even a very good anvil.

If the edges or corners of your anvil aren't so hot, make a block which fits in your hardy hole, just like a swage does. These can be forged from tool steel, or fabricated from mild steel and quenched in a sodium hydroxide solution (very **DANGEROUS**, wear eye protection and protective gloves and clothing), or better yet a quenching solution such as Rob Gunther's.

A typical block is either the width of the anvil face or narrower, and the edges can be either pretty sharp, dressed at a specific radius, or made in any shape you wish. This is a very old solution, and it allows you to do good work without risking a dubious repair to your anvil's face. I suggest you try this out, even if you have a very good anvil, and make different blocks for each specialized job you encounter. You will only increase the capabilities of your anvil. Many times you will want to do heavy forging on a narrow section of metal that is too narrow for your anvil face, and this is a good solution for that also.

A possibility is below. It has two widths and two radii.



FROM "VOICE ORGANIZATION OF ARKANSAS"

Reprinted from  
"Most of the Test Tips, Projects, Ideas, Patterns From ABANA Chapter Newsletters",  
collected and published by the Arizona Artist Blacksmith Association.

# For your Tool Box

## Paul Garrett's Three Fingered Bending Fork

by Dave Smucker



This fork is made from a racecar axle of Hy-Tuf steel. For more on this steel see the article in this issue on "Two Interesting Steels." Paul has this type of material for sale from time to time.

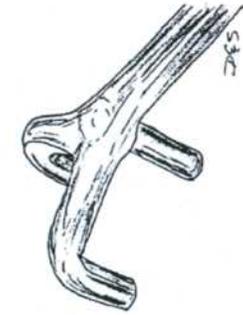
For those that may not know Paul, he is the resident blacksmith at the John C. Campbell Folk School. Make a point of coming to the November meeting of the AACB at the Folk School and meet Paul.

On the following page are some sketches of the 3-fingered head and one way to use this bending fork.

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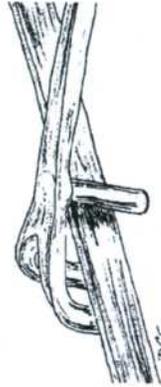
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To make the fork Paul first drew out the axle and then flattened the bending end. He then split this end and forged the two fingers and bend them 90 degrees. He then hot punched a hole in the base of the wye for the third finger. This finger he drew out of additional axle material fitted in place and arc welded top and bottom.



This view shows one way of using the fork. In this position, the blacksmith is bending the material towards themselves. In other words, towards the bottom of the drawing. (There are many positions you can use the fork because of the many ways you can place stock between the three fingers.)

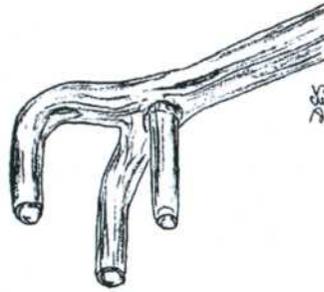


In this view, the smith is bending away from himself or herself, towards the top of the picture.

The really neat thing here is to make a correction to an over bend one does not have to reposition the fork, only shift from one pin (finger) to the other. This requires a handle movement of only about 90 degrees, much much less than in a 2 pin or fingered bending fork.

Making this tool out of a 220,000 psi (pounds per square inch) steel makes this a supper tough tool you can really lay into. Make some of these forks in different sizes and you will really like them.

Here is a view from the other side.



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Reprinted from The AACB Newsletter, April 2006

## Splitting Stock on a Post Vise

### By Tom Rohosky



When splitting stock with a chisel, I've found that using my post vise can be easier and more accurate than doing it on my anvil. The height and angle of my vise gives me better visibility and control, and I don't have to worry about holding the work. This means less fiddling and helps me keep the cut where I want it.

My basic setup is shown in (figure 1). I use a mild steel cutting plate; this one is about 1/4 inch thick and about 6 inches long by 2 inches wide. To demonstrate, I'll be splitting 3/8 inch square stock for fork tines. I prepped the stock by flattening the end a bit and bending it to fit the cutting plate, then I clamped it vertically in the vise as shown in (figure 2). I then marked the end of cut with a center punch (figure 3) and did an initial scoring cut (figure 4); both were done cold. This is where using the vise really shines. I find it much easier to keep things centered this way rather than hunched over an anvil. *One important side note:* Start the cut at the punch mark rather than at the end of the stock. If you do creep a little off center, it's a lot easier to fix this at the end of the tine than at the base. From here, simply heat the stock up and continue the cut (figure 5). Once the cut is complete, straighten it back out on the anvil (figure 6), and you should have a nice even split with well-balanced tines. This cut could have been done on the vise alone, but the plate helps in several ways. First, vise jaws typically have sharper edges, which can unnecessarily mar your work. Second, the plate can support your stock better- especially if your vise is smaller than this one. Third, the plate can be easily preheated so that you don't have a massive heat sink (i.e., the vise) cooling your work too quickly. Finally, this will avoid damaging your vise or your chisel should you cut too far. Fixtures like this can also be used for other projects as sculpting heads, dragon faces, etc. It's good to keep in mind that not all forging tasks need to be done on an anvil.

A good vise is an extremely valuable tool and with a little thought, you can do a lot more with them than you may think. So, if you're having trouble doing this type of work on an anvil, give your vise a try!



# Artist-Blacksmith Association of North America

ABANA is widely recognized as the preeminent organization of blacksmithing in the world. Visit us online at [www.abana.org](http://www.abana.org) and like us on Facebook and Twitter. Join or renew your membership at: [www.abana.org/membership](http://www.abana.org/membership)

Blacksmithing, the cornerstone of all crafts for centuries, has come back to life. Once rendered nearly obsolete by the Industrial Revolution and 20th Century technology, this ancient craft has undergone a contemporary renaissance. A new appreciation of the honest, enduring qualities of forged metal has developed.

At the heart of this revival has been the Artist-Blacksmith's Association of North America, Inc., a non-profit educational association dedicated to the dissemination of knowledge about the art and craft. Started by a handful of isolated blacksmiths in Georgia in 1973, ABANA now serves nearly 4,000 members.

As part of your Membership Benefits you will receive 4 issues of the Anvil's Ring and 4 issues of the Hammer's Blow Magazine each year you are a member. These magazines can not be subscribed separately but are only received by our members. We have recently added a youth membership at a reduced rate, this membership available to those 18 or under includes a subscription to only the Hammer's Blow magazine.

## ABANA New and Renewed Membership Form:

Name: \_\_\_\_\_ Membership ID# \_\_\_\_\_  
for renewals, if known. (Not required)

Street: \_\_\_\_\_ City: \_\_\_\_\_ State/Prov: \_\_\_\_\_

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New

Renewal    Type \_\_\_\_\_ Amount \$ \_\_\_\_\_

Card Number \_\_\_\_\_ Exp. Date \_\_\_\_\_ CVVS \_\_\_\_\_  
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### Membership Rates

Type	1 yr	2 yr
<b>Regular</b>	<b>55.00</b>	<b>105.00</b>
Senior	50.00	95.00
Foreign	65.00	125.00
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Youth (18 and Under)	20.00	
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Contributory	150.00 and UP	
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**ABANA Affiliate:** \_\_\_\_\_  
Credit card orders can be faxed, be sure to sign this form. Fax: 423-913-1023  
Mail to: ABANA, 259 Muddy Fork Rd, Jonesborough, TN 37659 USA  
(Please pay by Check, U.S. Money Order or Credit Card)  
Phone: 423-913-1022 or join online at [www.abana.org](http://www.abana.org)

# Classifieds

Classified ads are free to members and can be submitted by email to: [editor@azblacksmiths.org](mailto:editor@azblacksmiths.org). Ads will run for 3 issues. You can renew your ad if you need to run it after the third issue. Please let the editor know when you no longer need to run the ad.

**Will buy your unwanted**  
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Barry Denton, 928-442-3290 any  
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## Advantages of AABA Membership

IMS has offered AABA members two great opportunities. Thanks to members Doug Kluender and Wade Smith for the idea and contacts with IMS.

1) IMS has space for member metal work to be put on display in a glass case and on top of the cut metal rack inside the store. Contact Steve Miller, [stevemiller.az@cox.net](mailto:stevemiller.az@cox.net), to get your items on display. These items may be for show only or they may be offered for sale. Artists are responsible for any financial exchange. IMS will make a nice card to identify the piece, the artist, and the cost.

2) IMS is offering a 10% discount to AABA members. The discount is available at the Phoenix and Tucson stores. You need to establish an account at IMS. It's free. No credit approval is needed. You can pay with cash. Give the staff your account name whenever you buy something, then request the education discount as an AABA member. If questioned, inform the clerk that they should have an AABA member list behind the counter.

Don't forget that AABA members get discount pricing at the Vern Lewis Welding Supply stores in the Phoenix area.

# Sources

**AZ Tool Steel**  
520 S. 52nd Street #201  
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Phone: 480-784-1600  
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**Bar U Bar Supply**  
Several 65 lb. & 85 lb. swage blocks for sale. Your source for anvils, post vises, and other new & used blacksmith tools. Barry Denton. ph 928-442-3290  
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Full service supplier of steel, stainless, brass, aluminum, copper. Discounts for AABA members. (See details on pg. 18.)  
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**Vern Lewis Welding Supply**  
Discount pricing for AABA members. Various locations in the Phoenix area.  
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Dan, 602-316-4140, for tech support.

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For either, contact  
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Or send check/money to  
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I can mail a copy or email PDFs.

**Tucson Iron and Metal**  
Steel, aluminum, stainless, copper and brass for sale by the pound. Open Monday - Friday 8 - 4:30. Also 1st and 3rd Saturdays 6:30 - 8 am. specifically for metal artists.  
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## AABA Membership

Benefits for members include:

Member discounts at vendors around the state: See page 18 of this issue for more details.

Reduced registration fees at demonstrations and workshops

A one year subscription to the bi-monthly newsletter, *The Anvil's Horn*

Connection to members throughout the state who can answer questions and give advice

Free classified ads in the *Anvil's Horn* and on the AABA web site.

eMail notices when event details change or new events are scheduled on short notice.

### AABA Membership Form: New Member or Renewal

Name \_\_\_\_\_  
Address \_\_\_\_\_  Do not publish  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Phone (home) \_\_\_\_\_ (mobile) \_\_\_\_\_  Do not publish  
Email \_\_\_\_\_  
Professional blacksmith \_\_\_ Hobbyist \_\_\_ Farrier \_\_\_ Blade smith \_\_\_  
Your main blacksmithing interest \_\_\_\_\_  
Occupation or skill \_\_\_\_\_  
Please check one:  
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Mail to: Wally Warnke  
7070 E. Dogwood Trail.  
Cornville, AZ 86325-5154

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For membership information or address change, contact:  
Wally Warnke, 7070 E. Dogwood Trail, Cornville, AZ 86325, 480-323-5003, [desert.rat51wb@gmail.com](mailto:desert.rat51wb@gmail.com)

## **Your dues for 2020 are due now!**

Many of us renew in person at a demonstration early in the year. But those opportunities are limited this year. Please mail your renewal now using the form on page 19.

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