

The Anvil's Horn

A Publication of the Arizona Artist Blacksmith Association

Issue No. 204 May 2020



Peter Sevin, a member of a team of blacksmiths from the United States, Argentina, and elsewhere, working on a sculpture in Buenos Aires in late February 2020. There will be more details on this international meeting of blacksmiths in the July issue of The Anvil's Horn. (photo by Hugh Lovell)

President's Message

I hope everyone is staying safe and practicing their social distancing to keep those around you safe as well! This is an unprecedented time for all of us, including the first time we've had to cancel a demo at the last minute. We hope to have another opportunity to bring Peter Braspeninx to a demo in the future. You have also likely seen that the ABANA conference, the CBA Spring Conference, the BAM Conference, and many others have been canceled. The demonstration in May is still tentatively on the calendar, but please look for updates as we get closer since there is a chance that we may need to cancel or reschedule it.

For those of you that have your shops at home, this should be a great time for you to work on some of those projects that you've been putting off. Maybe it's time to rebuild that forge or mount that post vice. Since you will have all of this time to work on those projects, let us know what you're working on. You can send them to Bill Ganoe to put in the newsletter and you can post them to our Facebook Group. If you're not a member of the group, search for the AZ Blacksmith Discussion Group and join it. If we can't connect in person, let's connect and share our ideas online.

Stay safe and keep forging!

Jason LaBrash

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Editor's Note

What with lots of events getting canceled or rescheduled as a result of the COVID-19 pandemic, we don't have the usual mix of events to announce or to report on, so I've devoted six pages to a single technical article by Mark Aspery about making chains. Making chain links is a great exercise for building your hammer control and your welding skills.

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Material submitted for publication in the Anvil's Horn may be edited or rejected by the editor. Material submitted must be your own work, not plagiarized. By submitting material, you agree to allow AABA to edit, print, or post on the AABA website. You also give permission for the material to be reprinted by other blacksmith publications (i.e. publications of ABANA and of ABANA affiliates). **Copyright.** The creator may retain copyright for the work. If we publish a copyrighted item, consent of the copyright holder will be obtained before publication. **Graphics.** High-contrast, high-resolution digital picture files and original drawings are preferred, but we can work with lower-contrast, lower-resolution graphics.

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Demonstration: Saturday, May 16, 2020 Desert Metalcraft

544 E. 24th St.
Tucson, AZ

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

Demonstrator: Gerald Boggs



Gerald will demonstrate making an axe head and handle. He will slit and drift the eye for the handle.

- 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.

Workshop with Gerald Boggs

Students will forge a wood axe from a single piece of metal using the slit and drift technique.

Sunday, May 17, 2020, 8 am - 4 pm

Desert Metalcraft, 544 E. 24th St., Tucson, AZ

Workshop Cost: \$100 per student

To register contact Steve Miller at stevemiller.az@cox.net

Students need to bring their PPE and their favorite forging hammer.

**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 Desert Metalcraft

544 E. 24th St., Tucson, AZ

- I-10 to the 22nd St. exit in Tucson.
- Take 22nd St. east to 4th Ave.
- Turn south on 4th Ave. to 24th St.
- Turn east on 24th St. to 544 E. 24th St..
- Desert Metalcraft is on the right side by the railroad tracks where 24th St. dead-ends.

Our May Demonstrator Gerald Boggs



My introduction to the Craft of the Blacksmith started in 1988 with the serendipitous event of walking into a small blacksmith gallery in Charlottesville, Virginia. I was instantly enthralled by the hand forged iron. I called the smith, Stephen Stokes, and was invited to come to his shop the next day. After a brief tour of the shop, Stephen put me in front of an anvil and taught me how to forge a chisel and center punch. After the heat treatment, he told me “You’re now free, because never again will you be beholding to any man for your tools” During the noon meal, I was shown books with the works of Robert Bakewell (Famous English Blacksmith) and the Davies Brothers (Famous Welsh Blacksmiths). By the end of the day, I realized I had met my “doom”, I would be a blacksmith from then on. I have craved and pursued learning the skill of the blacksmith from that time on. After our first meeting, I spent every free weekend working in Stephen’s shop. I say “free” as I was in the middle of a career in the Army. But once I retired from the Army, I returned to Stephen’s shop and began to work for him. I spent about three and half years there, then went to Britain to spend a few months in Stephen’s father’s shop (Now run by his brother). After returning to the US, I opened my own studio “Wayfarer Forge”. I’ve continued my learning by working for other smiths in the area and by taking at least one class every year. Since 2007, I’ve been training under the guidance of Mark Aspery. I consider myself a tool maker first and an artist second.

Classes and Events at AABA Members’ Shops

Grizzly Iron

1329 W. Lincoln St., Phoenix, AZ

The schedule at Grizzly Iron features a wide range of classes and workshops including:

- Exploring Blacksmithing, various topics: Thursday evenings.
- Youth (11-17) Blacksmith Workshop
- Blacksmith Knife Workshop
- Cannister Damascus Workshop
- Damascus Knives
- Camp Knives
- Making Tongs
- Knife Grinding

For more details or to register for these classes or workshops go to:

<http://grizzlyiron.com/classes-and-workshops>.

Events are added regularly, so check the website often.

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 and like us on Facebook and Twitter. Join or renew your membership at: 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 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

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

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

PERIOD: 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, & Craig Trnka

TEACHING: with Mark Aspery, Gerald Boggs, & Jennifer Petriola

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

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

The lecture series will be featuring such notables such as Albert Paley, Howard Schechter, Doug Wilson, Bill Hochella, & 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.

The Arizona Artist Blacksmith Association is an affiliate of the Artist-Blacksmith Association of North America.

Call to Artists

Note: As of press time, this show is expected to go on, although the opening date may be delayed a bit. If you have a piece (or several) that you plan to contribute, fill out the application blank on the next page and stay in touch with Cathi in case there are any last-minute schedule changes.

Botanical Blacksmiths and Friends 2020: Ironwork at the Arboretum

The Arboretum at Flagstaff
May 23 – September 13, 2020

The Arboretum of Flagstaff is looking forward to hosting the 9th iteration of this outdoor ironwork exhibit in Flagstaff. As in the past, there are no restrictions on design or size, just that the work needs to be suitable for family viewing and be made for outdoor use. You can show work that has been at The Arboretum before but are encouraged to bring new pieces as people do remember! Work should not be so large that it can't be manually transported to its exhibit spot. The Artist Reception will be on June 13 and will hopefully include additional artists such as plein air painters to make it an Art in the Gardens event.. We will be doing blacksmithing demos as part of the event. You will also be able to set up a table and sell other ironwork at the event.

New this year is the conversion of the butterfly house to an exhibit area to showcase garden design with annuals and potted plants. We have been invited to exhibit some pieces in there which should make for an interesting display setting. It is somewhat more protected than being outdoors if you have something in mind that might not stand up to the full rigors of an outdoor setting.

Work may be offered for sale and the Arboretum takes a 30% commission on all sales. When a piece sells, the buyer is offered the opportunity to take it with them rather than waiting until the show closes to take possession of the piece. Most buyers choose to take the piece with them. If they do take one of your pieces, you are invited to bring in a replacement piece to keep the show looking robust. Participating artists are also invited to put work in the Arboretum Gift Shop. Smaller pieces priced at \$100 or less sell best there.

While this show is a non-juried exhibit, you are asked to send in the application and photos/details about your work to aid in planning the layout of the show (also, good photos of the work submitted are much appreciated for use in advertising of the show). Please have the paperwork to Cathi by April 26. The work can be delivered starting May 17 and needs to be in place by May 22. Please coordinate with The Arboretum staff to make sure they know you are coming up. It is best if you can plan on coming on a Tuesday or before 9:00 am to not overlap when they are open to the public.

Please send all the application information to Cathi Borthwick at flag_forge@earthlink.net. If you have questions please contact Cathi via email or at 928-890-9609. If it's easier to mail the application, please send it to Cathi at 118 Sherwood Ln. Flagstaff, AZ 86001

Calendar

April 26 - Deadline letting Cathi know you intend to participate and submit paperwork

May 17 - May 22 – Delivery of artwork

June 13 – Artist Reception

September 13 – Exhibit closes

September 14 - Oct 31 – Pick up work

Important Information

*Artist is responsible for delivery, installation, and pick up of artwork. Don't count on help from the Arboretum staff although they have been helpful in the past.

*Artwork will be displayed in an outdoor setting. It must be able to withstand exposure to the elements and to the public.

*Artwork should be suitable for family viewing.

* If you want to submit more than 4 pieces, fill out a second copy of the application form.

Application for Botanical Blacksmiths 2020

Please complete and return by April 26, 2020 to:

**Cathi Borthwick
118 Sherwood Ln
Flagstaff, AZ 86001**

**or email it to:
flag_forge@earthlink.net**

Artist Name _____
Address _____
City, State, Zip _____
Daytime phone _____
Evening phone _____
Email _____

Artwork Submitted (Images of work are not required but would be helpful if available)

1. Title _____
Dimensions _____
Weight _____
Description _____

Price OR Insurance value if NFS \$ _____
Will work be offered for sale? Y N

2. Title _____
Dimensions _____
Weight _____
Description _____

Price OR Insurance value if NFS \$ _____
Will work be offered for sale? Y N

3. Title _____
Dimensions _____
Weight _____
Description _____

Price OR Insurance value if NFS \$ _____
Will work be offered for sale? Y N

4. Title _____
Dimensions _____
Weight _____
Description _____

Price OR Insurance value if NFS \$ _____
Will work be offered for sale? Y N

Call to Artists

Note: As of press time, with an opening in November, this show is expected to go on as scheduled. If you have a piece (or several) that you plan to contribute, let Cathi know and stay in touch with her in case there are any last-minute schedule changes.

Art in the Park Series: "Exuberance: An Artistic Botanical Experience"

November 14 thru April 10, 2020-2021.

The Tubac Presidio, Tubac, AZ

Calling all creative thinkers, independent spirits and garden dreamers. The Presidio, dedicated to the conservation and preservation of history and art, is inviting you to participate in an outdoor garden art exhibit for an entire Tubac season! This will be a collection of art installations to be displayed outdoors for public viewing at our 11-acre grounds from November of 2020 until April of 2021. We welcome all artists! Exuberance: An Artistic Botanical Experience will be a collection of art installations to be displayed outdoors for public viewing at the 8-acre grounds of the Tubac Presidio. It will attract visitors who are interested in garden art created by local artists, gardeners and people like themselves. This endeavor is a celebration of individuality and collaboration, traditional and experimental, natural and artificial. We welcome any art installation that celebrates flora and fauna with emphasis on creative approaches for the garden and with an environmental focus on any of the following: sustainability, climate change, naturalism and native plants. All components of the installation should withstand all weather conditions. Participants may also create small garden vignettes that capture the essence of outdoor living. It may contain furniture, table settings, shade sails or anything that captures the story as part of a whole. We also encourage installing a stand-alone sculpture piece in any medium that can hold up to Tubac's varied temperatures and weather. A celebration is scheduled for November 14, 2020 and March 27, 2021, 9 AM - 1 PM for the formal opening and closing dates of the show. Garden Crawls (tours) will be scheduled periodically throughout the season. If you have any questions or would like to volunteer or be a sponsor, please do not hesitate to contact Myrna at Myrna@myrnayork.com or 720-220-9301. Deadline for submission is May 31, 2020.

Note: You can apply as an individual, but we are thinking about doing a joint AABA display.

If you are interested, contact Cathi Borthwick at flag_forge@earthlink.net or 928-890-9609.

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 including:

Workshop Wednesdays, between noon and 8 pm any Wednesday, pay by the hour. Buy shop hours online first and email DMC with your preferred work times.

Art Fabrication

Blacksmithing for Beginners

Bladesmithing 100

Bladesmithing 200

Heat Treating Fundamentals

Handle Workshops

Introductory Welding

Sharpening Workshop

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

Members Gallery

David Bridenbaugh



When hiking around Arizona I am always fascinated when I see a small bush or a cactus growing out of a crack in a rock. I wonder how many years pass by for fertile soil to accumulate in that crack followed by a seed when there is sufficient rain to help it grow. This has inspired me to “plant” many of my steel plants in a rock. This rock was discovered in a wash while on a camping trip near Roosevelt Lake. The texture, size and color made it an obvious choice for a steel plant. The plant itself has little resemblance to any desert plant. It is a confluence of inspiration and ideas from a variety of plants. I used horseshoe nails for the stamen of the flowers. The stems are 1/4 rod. The main stem is 3/8 rod. The hole in the rock was drilled all the way through. The plant lifts out so it is easier to move around.

Calendar 2019-2020

May 16, 2020

Gerald Boggs

Desert Metalcraft

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

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

Monte Crawford Apache Junction
Alan Speert Tucson

Classes at Pieh Tool Beginning/Intermediate Blacksmithing

• Beginning/Intermediate blacksmithing classes with Dylan Cook
No more classes are scheduled for the spring of 2020.

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.

Deadline for the July 2020 issue

June 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

or by regular mail to:
Bill Ganoe, PO Box 40233, Tucson, AZ 85717

AABA Website: 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.

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, . Check the calendar at: <http://grizzlyiron.com/classes-and-workshops> for specific dates and fees

Open Forge: Desert Rat Forge (Phoenix area)

As of press time, Paul Diefenderfer plans to resume open forges at Desert Rat Forge on Saturday, May 2, 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. 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.

Seeds of Creativity

Bottle Openers



Unknown artist



Cristian Trapiella, Argentina

Mark Aspery wrote the following article in preparation for the chain making competition planned for the ABANA 2020 Conference. That Conference has been canceled because of the Covid-19 pandemic, but chain making is a great exercise to develop your forge welding skills without the frustrations of trying to make jump (drop the tongs) welds. It also develops your hammer control. The real challenge is to do a good weld AND avoid burning the metal AND keep the welded area about the same size and shape of the original rod. Have fun practicing — to improve your general skill level and, maybe, for the next chain making competition somewhere.

ABANA 2020 Conference Competitions #1
Chain Making, Novice Category

Mark Aspery, California.

There will be three evenings of competition during the ABANA 2020 blacksmith conference in Saratoga Springs, NY. Each evening's competition will be divided into three categories - Novice or beginning smith, Intermediate and the Open category.

This article focuses on the first evening's competition, chain making.

The novice category will have 25 minutes to make three links of chain. The links will be examined for quality. The smith having the best three welded links of the group will be declared the winner.



Three finished links

It is worth noting that there will be a 30-minute demonstration before each competition starts. This demonstration will be aimed at the Novice project.

If I were thinking about entering this competition, this is what I would do to practice and prepare:

You will be issued with three or four pieces of 6-inch long, $\frac{3}{8}$ -inch diameter rod - more if you need it. There will be $\frac{3}{8}$ -inch bolt-jaw tongs supplied by Kayne and Son, some flux with flux spoons and an array of hammers available.

You can start the competition with at least one bar hot, as hot as you like.

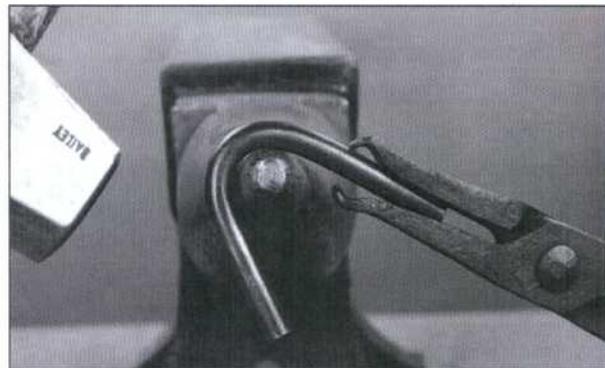
You can only use the anvil, tongs and hammer. The vise will be deemed out-of-play in the novice category.

With the middle of the bar hot, bend the bar into a 'U' shape. Strive to get both ends equal with each other and the sides parallel.

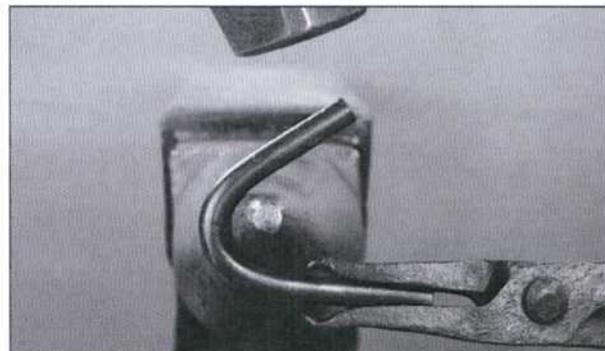
If you have practiced, and you know your measurements; you can make the bend in the pritchel hole of the anvil if you prefer.



Bend the bar either at the bick or in the pritchel hole



Get as far as you can working from the top, then turn the link over



Keep an eye on the length of the arms, try to keep them of equal length. Stop if they get out-of-whack.

If the ends don't align, leave the 'U' shape open, and with the bend resting on the anvil, tap the longer leg. This action should shorten the long leg and close the 'U'.

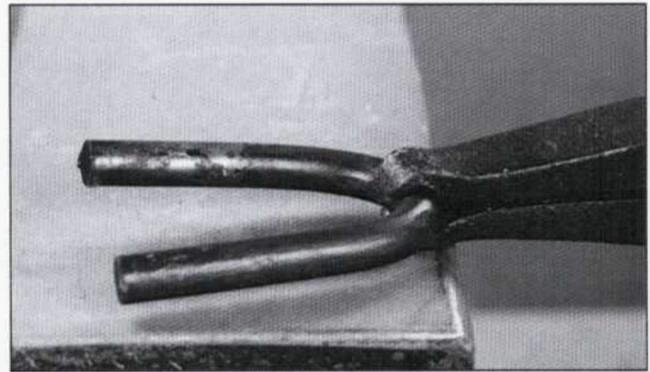
Move another bar close to but not into the fire as you place your 'U' shaped bar, ends first, into the fire.

Heat both ends and pull the bar from the fire, holding the bar at the bottom of the 'U' bend. If one end is cooler than the other, start forging on the cooler end. Hopefully the hotter end will still be at a workable temperature when you have finished with the cooler end.

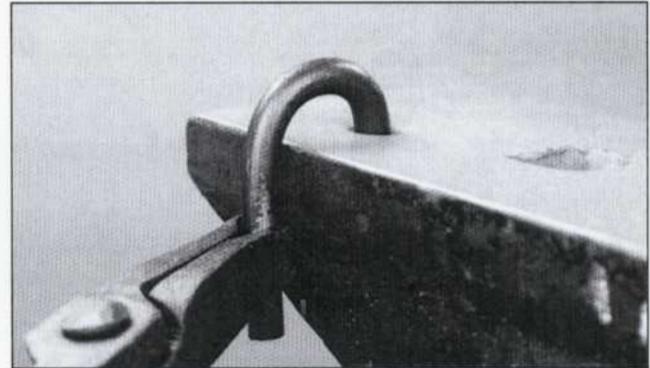
Place one end on the step of the anvil at a 45-degree angle horizontally, close to the nearside edge. The other leg should be nearly touching the flat face of the anvil.

The edge of the step should bisect the line from the outside corner to a point about 3/8-inch from the end of the bar.

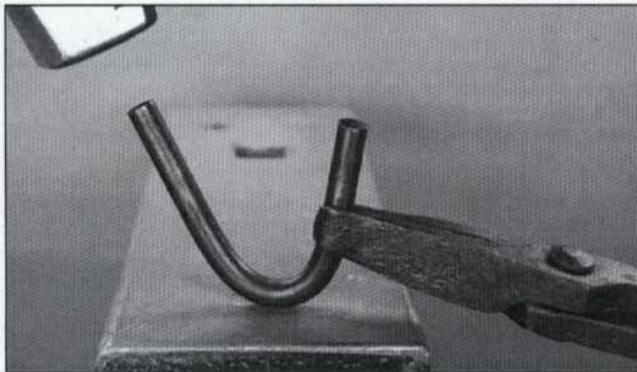
You are now going to make a 'Chain-Step-Scarf'.



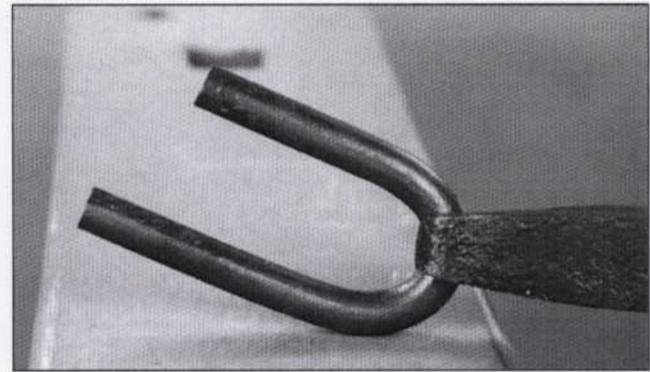
Nothing good ever comes from continuing with a project that has a twist in the stock.



If the judge won't let you use the vise, use the pritchel hole to take out the twist



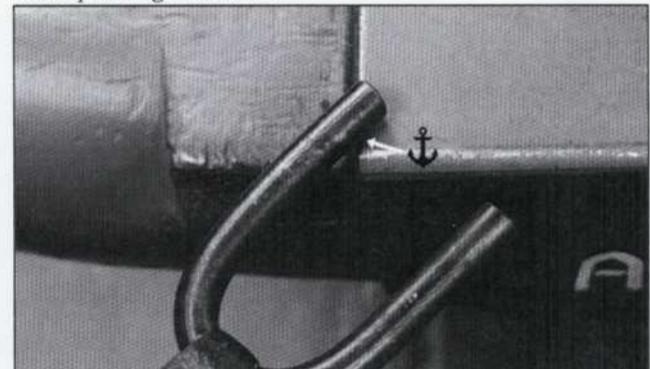
Keep the link open if the arms are unequal length



This isn't good either. Change the shape from a U to an open V and tap the high side down



Hammer on the long arm to shorten and close the link



Hold the top corner in line with the step.

Draw down the end of the bar in such a way that it develops a taper that looks like a flag on the bar.

Strike the end with a moderate blow and create a shallow shoulder. I like to hold my hammer at a slight angle, to match the angle of the proposed scarf taper.

Move the outside corner out $\frac{1}{16}$ - $\frac{1}{8}$ -inch, as you pivot around the inside corner of the shoulder and give the end another blow.

Move the outside corner again the same distance and repeat the blow. At no point do you move the inside corner of the shoulder.

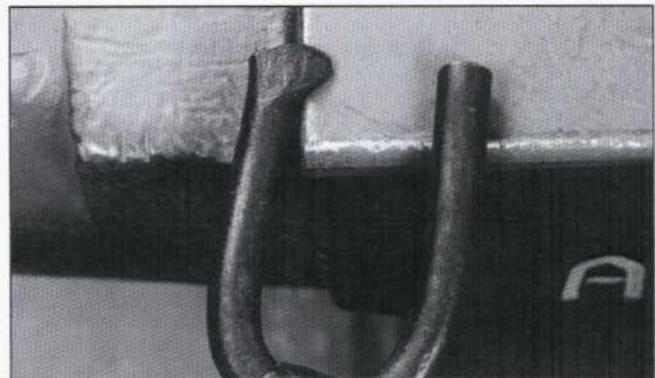
Repeat this process until the end of the taper is quite thin and will blend easily into the weld that you are going to undertake soon.

Turn the link over, so that the steps of your scarf are facing up and scarf the second end of the link.

At this stage you are ready to close the link in preparation for forge welding.



Keep hammering and pivoting to create the slope of the scarf



The scarf looks like a flag on the end of the bar

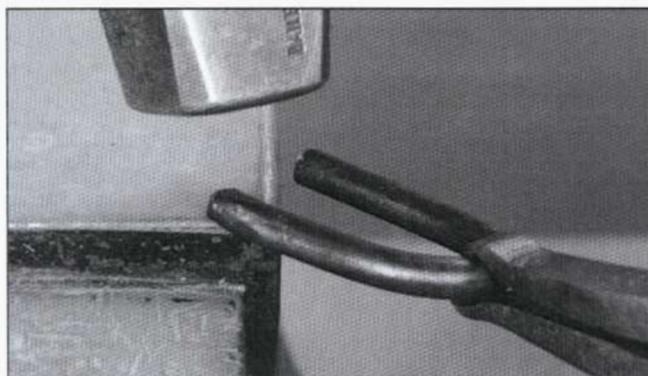


Pivot around the bottom contact point

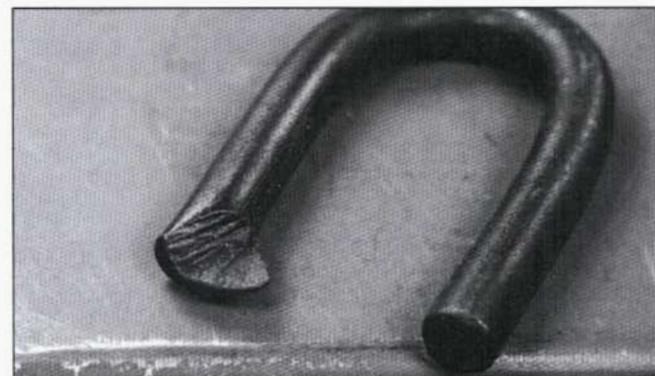
As you practice, the aim here is to have enough heat left at the end of forming the two scarves that you can close the link in the same heat.

If that is not the case, then take another heat and close the ends, overlapping them together so that the shoulders of the scarves match up.

Heat to near welding, brush, flux and return to the fire to bring back to welding heat.



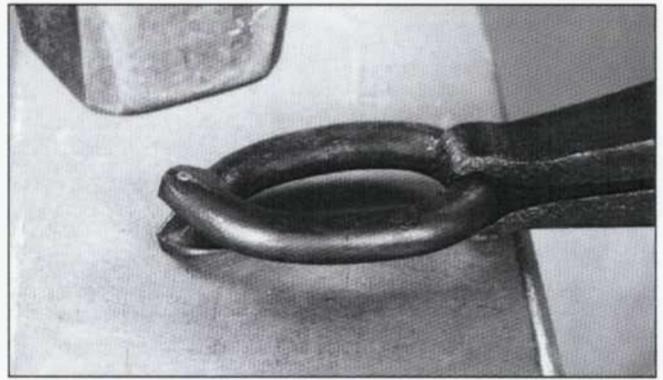
Hold your hammer at a slight angle to the anvil face



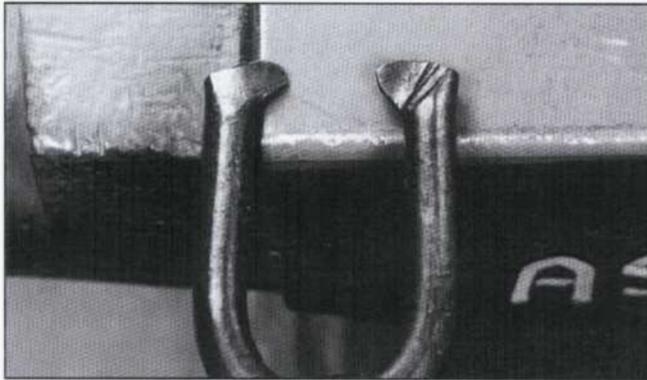
A chain-step-scarf on one end of the bar



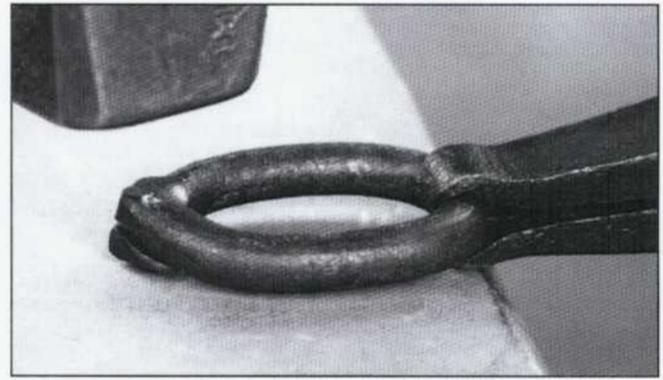
Turn the bar over and scarf the other end



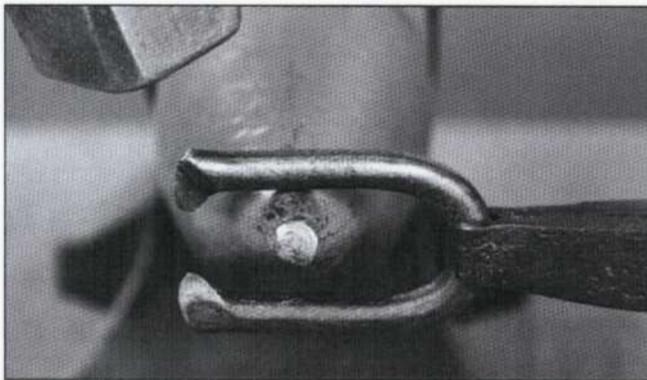
Tap the ends together



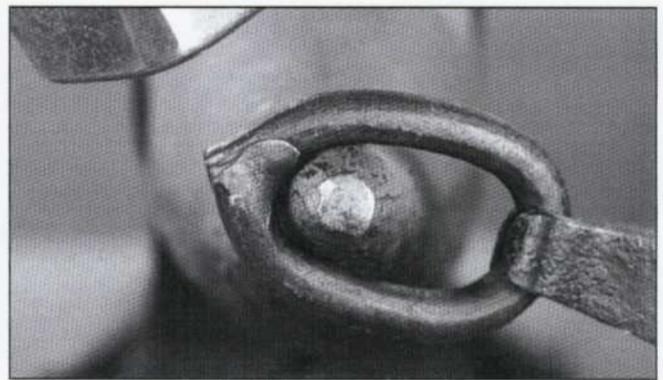
Note that the original scarf is step side up



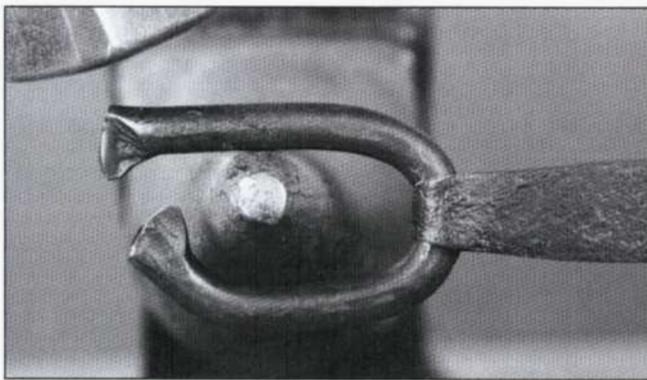
Keep everything flat in readiness for fore welding



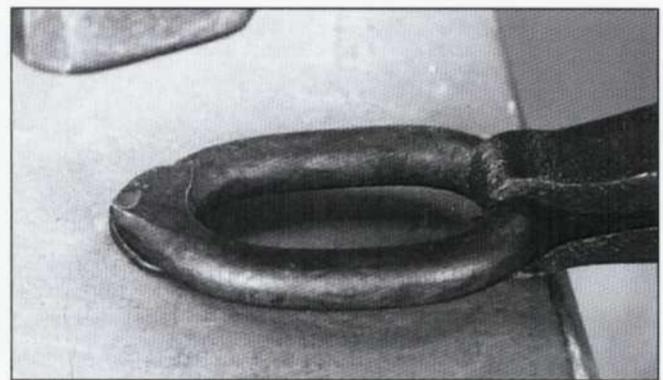
Bend the ends so that they overlap each other



You might need to level the ends so that the points are aligned



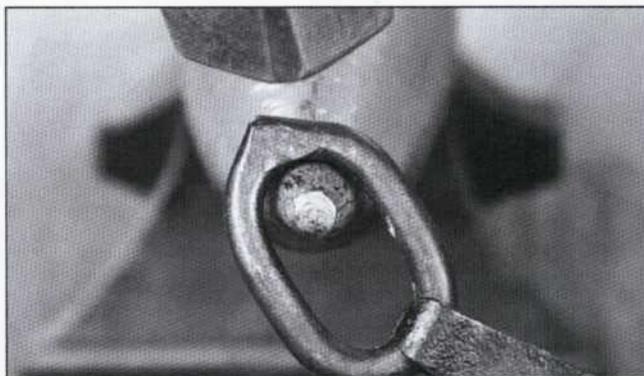
Bend the second arm around the back



Weld on the flat face of the anvil first

It would be nice to finish this weld in one heat, two at max, so take the proposed weld to the upper welding temperatures in order to buy a little extra time at the anvil as you weld.

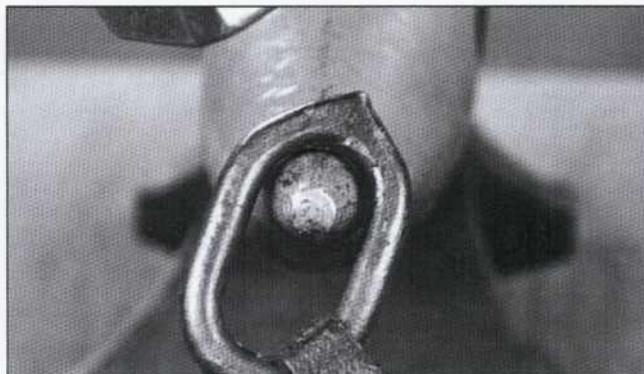
First weld the two ends together on the flat face of the anvil - working from both sides, then move to the bick to dress the inside and outside seams of the weld.



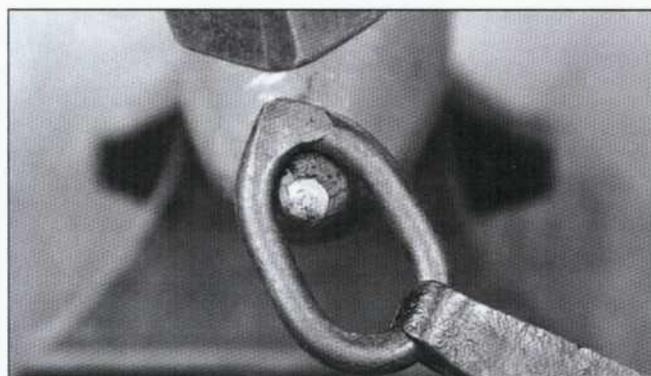
Weld the upper and lower seams at the same time



Here is my effort, I'm heading to the bick to continue welding



Move to the other side of the apex and repeat.

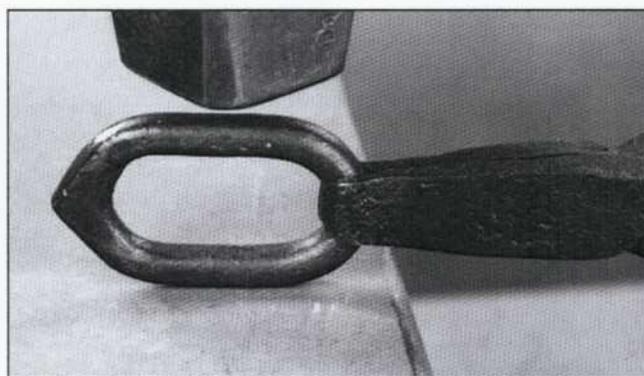


Have the apex tilting towards the heel of the anvil as you work

Working on one side of the apex to the weld, turn the apex of the link slightly towards the heel of the anvil and continue to weld two seams; the one that you can see, and the other resting on the bick.

Turn the link to the other side of the apex and repeat the move, welding both the top and bottom seams of the weld at the same time.

Don't force the weld. If you need another heat to finish the weld, then take it. The judge will be looking for your quality of finish, not just the fact that you got the two ends to stick!



If your link is a little wonky, dress it on the face of the anvil

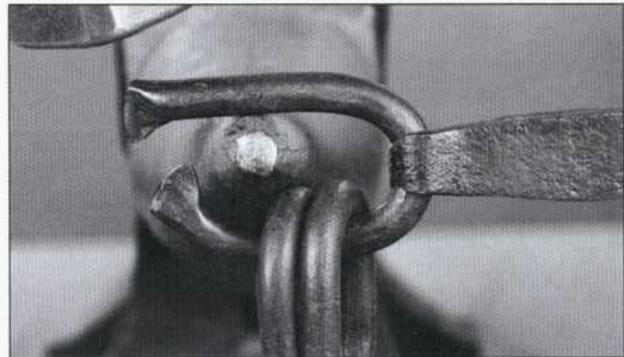
Typically, you will end up with a pointed outside corner at the weld site. I like the look of this result as it speaks to its handmade history. But don't leave the corner and have a bad weld. If the weld needs dressing, use the material stored in the corner to fill the gaps.

The official judge might not like the corner look, so ask and comply.

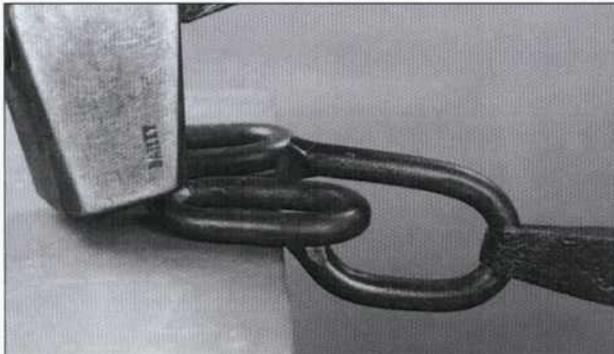
You will make two single link pieces and then join those two links together with a third link.

With the third link, have the two single links resting on the face of the anvil somewhere near the heel, away from the area that you have been working on.

Bend and scarf the third link. Turn one end in and then move to the other two links resting on the heel of the anvil. With the turned end lowermost, slip the two links onto the open link.



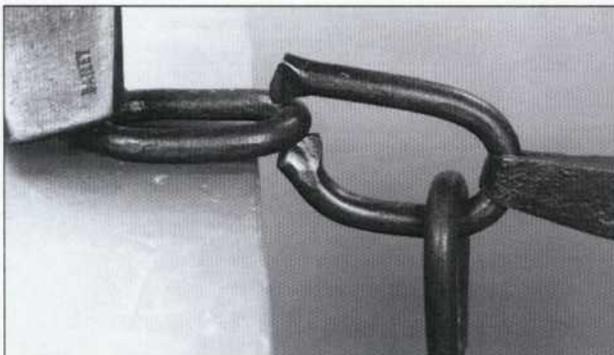
Turn the second end in and close the gap. Note that the welded links are beneath the tong jaws.



After turning one end in, pick up the other two links with the turned end down.



The trick now is to weld without letting the other two links get the better of you in the process



Keeping the links on the turned side will be an advantage in the next step



I try to keep one link either side of the tong jaws as I continue to weld on the bick

Close the final arm on the third link. Try to keep the fully welded links on the bottom as you close the end of the third link at the bick.

Having one finished link resting above the tongs will lead to the link bouncing and getting in your way as you attempt to close the open end.

Do your best to protect the first two links from the ravishes of the fire, bring the third link up to a welding temperature and weld. You may have to flick the first two links out of the way as you weld the third.

Brush the links while you still have the heat, dipping your brush in the slack tub as you brush can sometimes help pop off stubborn scale pieces, giving you a better looking finished product.

The judge may or may not allow a wax finish on the chain - follow their directions or incur their wrath!

Classifieds

Classified ads are free to members and can be submitted by email to: 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.

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

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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.

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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

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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

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.
