

New Jersey Blacksmiths Newsletter

may interfere with your ability to judge the burning conditions of the burner. If so, be sure to turn the fan on within a minute or so of lighting the burner.)

19. Recheck the regulator connection to the cylinder, and recheck that the knob is loose (set to zero pressure). To check for any leaks apply a little soapy water to the fitting – bubbles appearing will indicate a leaky valve or fitting. Then light a propane torch and hold it near the burner opening inside the base of the forge (off to one side so you don't blow it out when you turn on the propane to the forge). [Some folks roll up some newspaper, light the paper and place it in the forge, then slowly turn on the gas. Be careful, the pressure of the gas can blow the burning paper right out of the forge. Placing a lighted match in the forge and slowly turning on the gas will also work., David Macauley]. First turn on the propane at the cylinder valve, and then slowly turn the regulator knob to bring the pressure up to an appropriate value. The forge should light easily and stay lit. If it doesn't something is wrong.
20. If you even ~~think~~ anything has gone wrong, ~~turn off the propane at the cylinder valve~~

Use and Adjustment of the Forge

21. After the forge is lit and the flame is stable, make any adjustments necessary, to the pressure to get a good stable burn.
22. Loosen the thumb screw securing the ½" pipe to the 1" pipe. Move the ½" pipe in and out of the 1" pipe until a neutral flame is obtained. Tighten the thumb screw. Be very careful not to touch the forge housing it will get hot!
23. If you haven't already done so, turn on your exhaust fan.
24. If there is a flame shooting out of the forge (i.e., between the bricks typically used as a front door), you have incomplete combustion in the forge. With the forge burner adjusted to this mixture, your forge cannot give you maximum heat and, in addition, formation of toxic carbon monoxide may be greatly increased. Adjust the burner until the flame recedes into the forge.

Shut-Down of the Forge

25. Always shut down the forge by turning off the fuel at the cylinder, ~~then~~ backing off the regulator knob (as a safety precaution.)
26. When finished a forging session, remove the regulator from the cylinder and take the cylinder to its outside storage area at once. Make sure you replace the plastic plug in the propane cylinder.

27. Remove the back and front doors (i.e., the fire-bricks) and set these aside on ~~room~~ *rusty* surfaces. Remember that they are *easy* hot enough to start a wood fire.
28. Allow the forge to cool for at least a half an hour before you leave the area. This is to prevent accidental fires from going undetected.

I think you're going to enjoy using your new gas forge. Please keep safety in mind so you can enjoy it for a long time.

Help!

Peters Valley

Peters Valley is making another request for donations. If you have a little extra consider helping them out.

Help Culver Brook Restoration Foundation Restore the Garriss Center Blacksmith Shop.

The Garriss Center Blacksmith Shop is being restored to working condition as a living museum. Once completed, the blacksmith shop will be open to the public with live demonstrations by local and invited blacksmith artists. Your donation will be instrumental in the restoration of this important part of Branchville, NJ, history. Please send tax deductible donation to CBRF Blacksmith Shop, P.O. Box 447, Branchville, NJ 07826.

For donation of tools or to volunteer your services, please contact Bob Leach at 973.948.2897.

Blacksmith Positions

Please contact them directly if interested

From Basto Village

Our volunteer blacksmith, William Futer, was recently forced for personal reasons to give up demonstrating for visitors to Batsto Village, a nationally-recognized historic site located in the New Jersey Pine Barrens. We are hop-

New Jersey Blacksmiths Newsletter

ing that one or two of your members might be interesting in assuming his responsibilities since the blacksmith played an integral role in 19th century life at our site.

I would appreciate it if you would let any interested volunteers know that we would be grateful for even one or two days a month of service. We have a complete blacksmith shop ready to go--except, of course, for the smith, himself. Any assistance that you can provide in this regard will be greatly appreciated.

Please feel free to contact me if you have any questions or concerns. I look forward to hearing from you at your earliest convenience. Thank you very much for your attention in this regard.

Sincerely,
Patricia A. Martinelli
Resource Interpretive Specialist 1
Batsto Village
Wharton State Forest
4110 Nesco Road
Hammonton, NJ 08037
609-561-3262 (phone)
609-567-8116 (fax)
Pmartin53@wmconnect.com

LMC Corporation

I am assisting the US Branch of the French company LMC, which participated in the restoration, and renovation of the Statue of Liberty. They have built upon this experience and are now in need of additional skilled craftsman for the fabrication and installation of highend architecture metalwork.

LMC is the US subsidiary of the French company named Les Metalliers Champenois S.A., which is located in the eastern part of France near Reims and specializes in fine architectural metalwork and historic restoration. In 1984, LMC was commissioned to recreate the new torch and gilded flame for the Statue of Liberty in the New York Harbor. In 1986, upon successful completion of this challenging project, the US company, LMC Corp. was created and a workshop opened in Paterson, New Jersey (12 miles west from New York City).

Among the 21 employees working at LMC, 13 are highly

skilled European artisans. LMC creates many things out of metal, from garden gates to balconies to ornamental French doors. The most demand is for decorative stair railings. LMC works mostly in French styles of the eighteenth, late-nineteenth and early twentieth centuries. More recently, two stair-railing projects were completed in a contemporary style made of titanium. LMC finishes include wrought iron with gold leaf, faux bronze, or hammered blackened, highlighted, and waxed wrought iron. LMC serves two types of clients, highend residential interior/designers/architects and preservationists.

On behalf of LMC
Ross P. Miller
mobile: 973-769-0099
fax: 908-696-1407
rosspmiller@aol.com

Extra! Chili Recipe

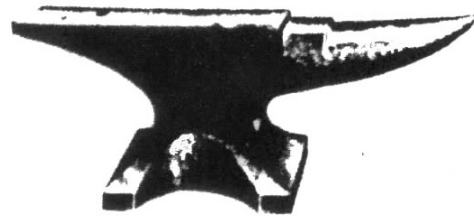
(Something Different-- LB)

Mrs. Tucker graciously agreed to publish her White Chicken Chili recipe:

2-3 cans white beans, 1-2 cans butter beans, 1 cup shoe peg corn, 1 can hominy, 6-8 cups chicken broth, 4 cups cooked chicken, 1 big onion, 2 cloves garlic (minced), 2-3 cans chopped green chilies, 2 tsp. dried oregano, 2 tsp. ground cumin, ¼ tsp. cayenne pepper (optional). Cook chicken in water and save broth, may add more canned broth to increase amounts. As an after thought to Mrs. Tucker's recipe, you can add more beans if you are cooking for a large crowd, remembering -- beans, beans the musical fruit, the more you eat the more you --.

Keep the coals hot.

From the Indiana BA



New Jersey Blacksmiths Newsletter

Iron Symposium

Cooperstown, NY

October 9, 10, 11, 2004

This Fall will see the first ever "pre-industrial iron symposium" Hosted by the Farmer's Museum of Cooperstown, NY, this three day event will bring professionals and enthusiasts from across the country together to participate in activities, demonstrations and lectures related to the production of bloomery Iron. New York state was once a leader in the production of iron and iron work in the United States and bloomery iron played an important part in the State's as well as the Country's economy. Join us over Columbus Day weekend as we explore this exciting early technology through a series of lectures and demonstrations.

On the first day (Sat, October 9), we will light a charcoal fire, on the second day we will fire up a smelter, and on the third we will go into the shop to fashion an artifact from the iron we have made. Lectures and demonstrations pertaining to the making and use of early iron will be held throughout.

We have some wonderful demonstrators lined up including:

Paul Spaulding, NY

Forge work (19th c. blacksmithing)

Lee Sauder, VA - Smelting Demo and lecture (contemporary bloomery smelting.)

Darrell Merkowitz, Canada - Forge work and lecture and exhibit (Viking-age ironwork)

Daniel Karem, Canada -Lecture, Slide show and exhibit (Iron work of the Spanish Renaissance)

Tres Loeffler, NY -Forging demo, lecture (Colonial tool making)

Barry Keegan, NY - Lecture, Demo (Backtracking the iron age, stone-age smithing), (Charcoal Making) (Eight ways to make fire)

Michael McCarthy- Lecture, Demo (Forging Blooms), Slide show (The blacksmith shop)

Ticket Price will \$150.00 for this three day event, and

will include breakfast and lunch on each day. One day tickets are \$75. Any specific lecture can be attended for \$5. Call Karen Wyckoff at 1-607-547-1410 or 1.888.547.1450 for Registration and Details.

If you have any questions, feel free to get in touch with me! michael@hammerinhand.com (or leave message with Karen)

Hope to see you there!

Rivet Source

From Doug Learn

A good source for iron and copper rivets (and nails, screws and other fasteners in many metals) is R. J. Leahy Company. They carry many sizes and styles at prices (even with shipping) that are hard to beat with fast turnaround and friendly service. And regardless of cost, they have types and sizes that local hardware stores cannot (or will not) supply. The contact information is www.rjleahy.com, or 1475 Yosemite Avenue, San Francisco, CA 94124-3321. 800 514-4106.

New England School of Metalwork

2004 Workshop Season

Guest Instructors from Around the Country

May – Dereck Glaser, Susan Madacsi

June – Charley Orlando, Doug Merkel, Clay Spencer

July – John Rais

August – Steve Yusko

September – Rick Smith, Mindy Gardner, Bob Becker

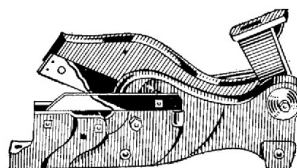
October – Rob Kirchner, Zack Noble, Mike Greene, Todd Greene

Botanical, Welding, Colonial, Beginners, Tool Forging, Sculpture, Repousse', Damascus, Armor

The largest selection of courses offered

Call to register 1-888-753-7502 or online at www.newenglandschoolofmetalwork.com

7 Albiston Way, Auburn, Maine 04210



The Grasshopper Treadle Hammer

I have kept NJBA members posted on the development of the Grasshopper Treadle Hammer since its inception in 1998. As you may recall, I released preliminary plans for the machine in 2000. I am now pleased to announce that the final plans for the Grasshopper Treadle Hammer are now available.

This final design incorporates all "fixes" and design changes I have made to the prototype (in Marshall Bienstock's shop) over the past four years. Most notable among these changes was to the "kickback" adjustment. As noted below, this separate adjustment has been completely eliminated, and has been replaced by a one-time adjustment made when setting up the hammer after construction.

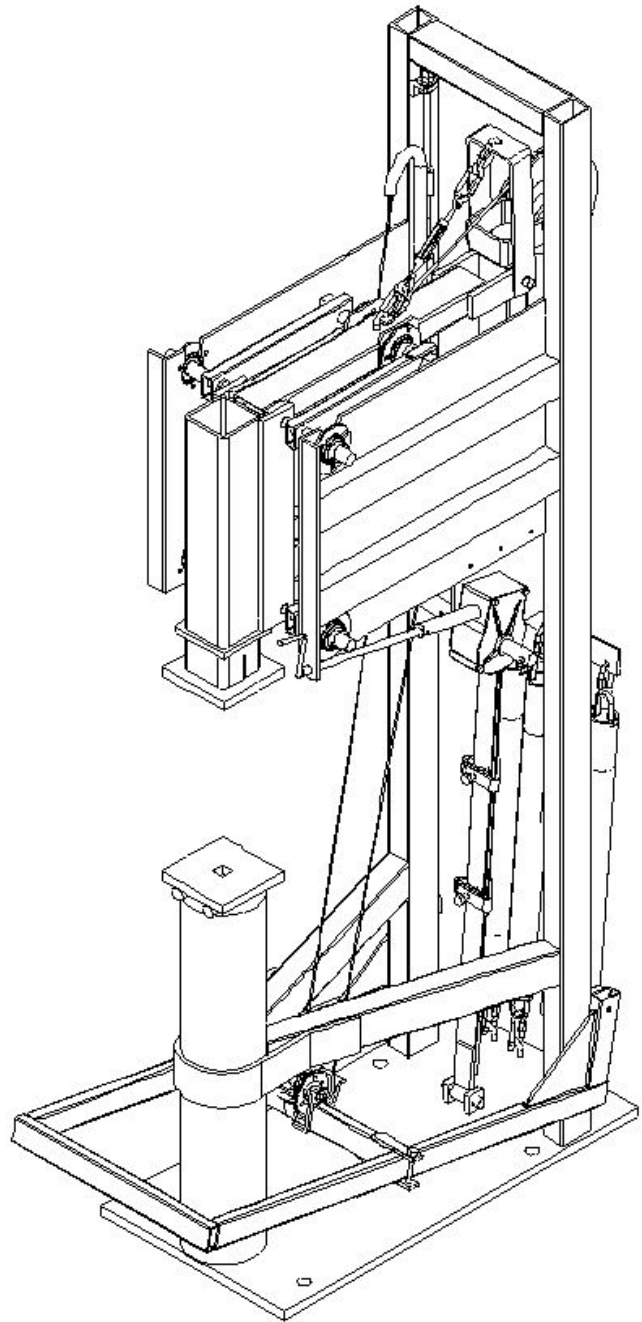
The Grasshopper Treadle Hammer has a weightless, vertical-motion ram with a 34 inch stroke. The anvil is free of obstructions in all directions, including 22" above. The return stroke is provided by a small "kickback" spring which only stretches at the end of the ram stroke (where it is least perceptible to the user). In other words, your leg doesn't have to work to stretch the springs.

The treadle is adjustable to allow for different tool heights, and the point at which the kickback cuts in is adjusted automatically with the treadle adjustment. Hence, there is only one adjustment needed while hammering, and that is made quickly and easily from the front of the machine - so quickly, in fact, that it can be done during a heat.

The only other routine adjustment of the treadle hammer comes when changing top tools. A weight set is employed to compensate for the weight of the top tool. Weights of equal mass to the top tool are removed from the ram tube, keeping the ram in balance with the springs.

The plans consist of 100 engineering drawings and twenty pages of assembly and adjustment instructions, including stock list, parts lists, and recommended tools and machines. The great detail of these drawings makes the construction and assembly of the machine fairly simple.

In the USA only, the price for the plans is \$25, postpaid. Send your money order or check (US\$ drawn on a US bank) to: Bruce Freeman 222 Laurel Place Neptune, NJ 07753. The website is <http://www.monmouth.com/~freeman/bmf/grashopr.htm>. Bruce Freeman



New Jersey Blacksmiths Newsletter

Blacksmithing

Workshops and Classes:

Peters Valley Craft Education Center

19 Kuhn Rd., Layton, NJ 07851 (973)948-5200
pv@warwick.net www.pvcrafts.org

Academy of Traditional Arts

Carrol County Farm Museum

500 South Center St. Westminster, MD 21157
(410)848-7775 (410)876-2667

Touchstone Center for Crafts

R.D.#1, Box 60, Farmington, PA 15437
(724)329-1370 Fax: (724)329-1371

John C Campbell Folk School

One Folk School Rd.
Brasstown, NC 28902
1-800-365-5724 www.folkschool.com

Red Mill Forge

Contact Adam Howard about workshops and per diem use of the shop (908)735-4573

BLACKSMITH TOOLS FOR SALE!

John Chobrda

Has a large selection of tools for sale.
Anvils – Forges - Leg Vices—Blowers
Tongs – Hammers
Will also repair and/or resurface Anvils
Call John for prices and availability
Evening (609) 443-3106

Wanted: Donations for the NJBA Trailer

We need hand tools, files,
Tongs (Old, new and repairable),
Safety Glasses and assorted rivets.
Look around and see what you
have to donate.

Contact: Dave Macauley, Directors list, Page 2

Business Members

We would like to thank those who joined with
our new Business Membership category
Please show them our support

Ginty's Welding Service, Inc

2 Lee Mack Ave., Danbury, Conn, 06810

Timothy Miller, Artist Blacksmith,

Bayport, Long Island, NY (631)419-1185

Marshall Bienstock

663 Casino Dr., Howell, NJ 07731

(732) 938- 6577, (732) 780-0871

Lincoln Wolfe

11 Overlook Terrace, Bloomfield, NJ 7003

(973) 338-3913

John Chobrda, Pine Barrens Forge

231 Morrison Ave., Hightstown, NJ 08520

609-443-3106

Open Forges

We are looking for members who are interested in opening their forges up to members as a open forge. This does not have to be a weekly forge as is Marshall's the others can meet once or twice a month. Please contact, Larry Brown, Editor.

We want to encourage all to join us at:

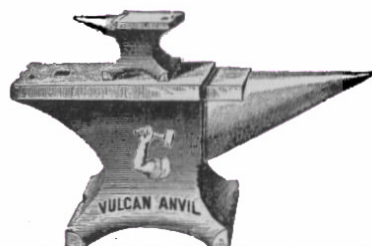
Monday Night Open Forge in N.J.

Marshall Bienstock is hosting an open forge in his shop at 7 pm almost every Monday night (Please call ahead on holidays to make sure , (732)780-0871)

Open Forge in Long Island

Sunday from 10:00 am to 6pm.

Starting the 1st Sunday in November (closed Nov. 9 NJBA Meet) until the end of April. Please call ahead to confirm and get directions. Ron Grabowski, 110 Burlington Blvd. Smithtown, NY (631) 265-1564
Ronsforge@aol.com



Learn to do a Drop Tongs Forge Weld!!

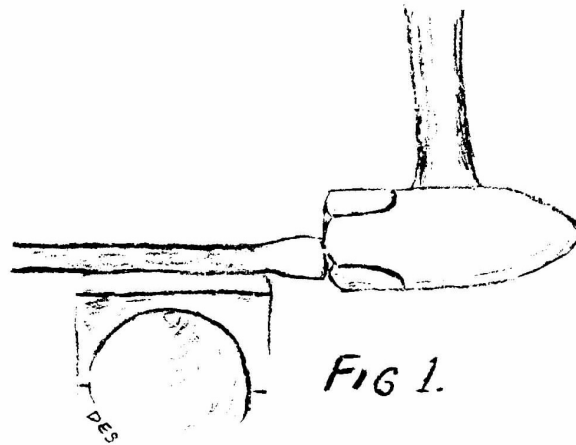
Class for beginners by Gray Smith
Article and illustrations by Dave Smucker
AAC Newsletter July / August 2001

At a recent meeting of the Clinch River Blacksmith Guild, Gray Smith taught a group how to make a drop tong forge weld between two pieces of 1/2 by 1/2 stock. Three new blacksmiths who had never made any type of forge weld were all successful in making a good weld on their first try. I wish I had been that successful on my first attempts to make a forge weld - mine ended up on the floor. Frustrated, it was quite awhile before I was ready to again give this a try and finally learn how to make a good weld. In this article I will take you through the steps that Gray taught - and his key learning method - practice cold - before you try the actual weld.

The drop tong forge weld takes its name from the fact that of the two pieces we want to weld together, one of the pieces is held by a set of tongs - that we position on the far side of the anvil - then hold in place with the other piece to be welded - drop the tongs and pick up our hammer to make the weld. Easier to see - than to describe - but we will take you through the steps in this discussion. This weld is used to Join two pieces of equal cross section, or nearly equal cross section. Often one of the pieces is much shorter than the other - such as a handle being welded onto a fireplace tool or a rein being welded onto the jaw of a tong half. For the purpose of learning how to make this very useful weld Gray had the new smiths weld a 6 to 7 inch length of 1/2 by 1/2 half square stock to a 24 inch length of the same 1/2 by 1/2 material. (Hot rolled A36).

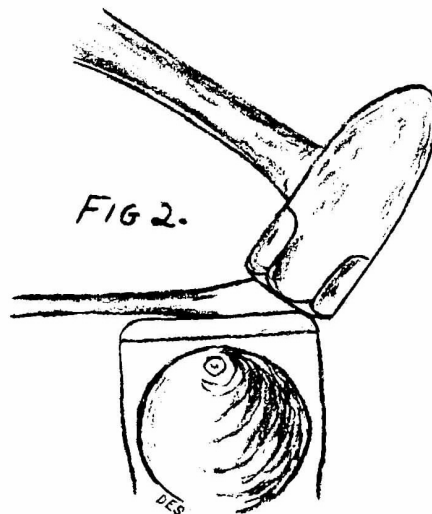
The first step is to upset the end of both pieces so that its cross section is greater than the original 1/2 by 1/2 half - about 5/8 by 5/8 for a length of about 3/4 inch. This is done so that we have extra material to make the weld with and that as we dress the finished weld we have material to return it to the original cross section of 1/2 by 1/2. If we didn't do this then the area of the weld would end up under sized as we finish out the

welding process. To make the upset we heat the end of the piece to be upset then hammer the end with a series of short rapid blows. Rest the piece to be upset over the anvil holding with the 'tong' hand and directing the blows back toward you from the far side of the anvil.



Remember here that as Gray says, 'heat is your friend' start your upsetting with a good yellow heat on the piece to be upset. Try to keep the heated section as short as possible so that you limit your upset to the area close to the end of the piece.

Now with both pieces having an upset, you need to put a scarf on the end of each piece. Both scarfs will be the same. The scarf basically provides a tapered end that

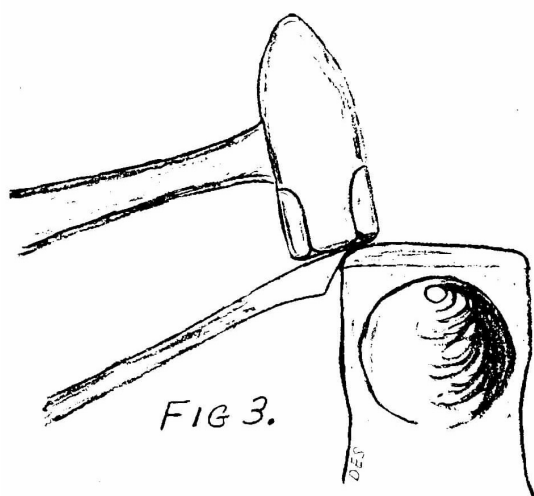


New Jersey Blacksmiths Newsletter

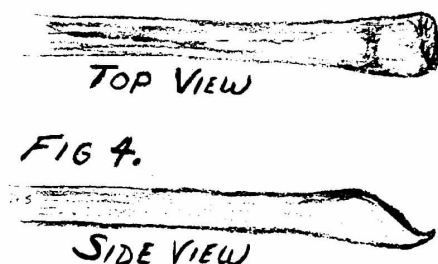
will be overlapped with each other in the actual welding process. Heat your piece again to a good yellow heat and then form a short taper on the end of each piece. Some widening or fishtailing at this point is OK, keep the taper short - about 3/4 of an inch or so.

Gray makes this taper on the far side of the anvil as shown in Fig. 2.

Next we need to turn up the very end of the scarf. You can do this by flipping the piece over and turning the



end on a rounded edge of the near side of your anvil. Fig. 3 shows how your finished scarfs should look. This little turned up end does two things. First it gives you an end that is less likely to be burned when heating in your fire. Secondly it keeps this small tip off the surface of the anvil and gives it a better chance to stay hot and make a



good weld.
Your finished scarfs should look like Fig 4.

You now have the stock prepared and are ready to make your weld - except here is where Gray's teaching really helped these new blacksmiths make a good weld the first time. Gray had them practice the steps and motions of making the weld 'cold'. He wanted them to practice these steps 10 times cold. This lets you learn the motions and get very comfortable with the actions you have to go through to make the weld.

So let's lay out those steps and practice them - we will come back to talk some about your fire and actually make the weld after you have completed your 10 cold practice welds.

1.) Place your tools where you will be ready to use them. Key here is to place your welding hammer where you can quickly pick it up just after you drop the tongs. You can lay it on the anvil or on a small table or stand very close to your anvil.

2.) With your long piece held in your 'tong hand' pick up the short piece with the tongs held in your hammer hand.

3.) Heating in your real fire you will be heating these with the scarfs turned up for most of the heating operation. You will have fluxed the welding surface too. Most of this heating is done with scarfs turned up so that you don't over-heat and burn the tips of the scarfs.

4.) In your real weld you will be reaching welding heat - then turning the piece scarf down for the last portion of the heating cycle. This gets the welding surface to the final welding heat. It is worthwhile to practice steps 3 and 4 so that this whole process is almost automatic.

5.) Come out of your (practice cold fire) and strike the two piece together to remove excess flux. 6.) Turning to your anvil, place the short piece - held by tongs in your hammer hand - from the far side of the anvil. Keep the tongs low to the surface of the anvil so that the scarf is up - and held off of the surface of the anvil. This keeps it from cooling too quickly. Keep in mind that you will have to turn this piece over so that the scarf is up - from the way you had it in step 4.

7.) Place the long piece held in your 'tong hand' on the near side of the anvil also with your hand low to the surface of the anvil so that the 'hot' end is off of the surface - with the scarf facing down. As you do this you will want this piece to be above the short piece held with the tongs.

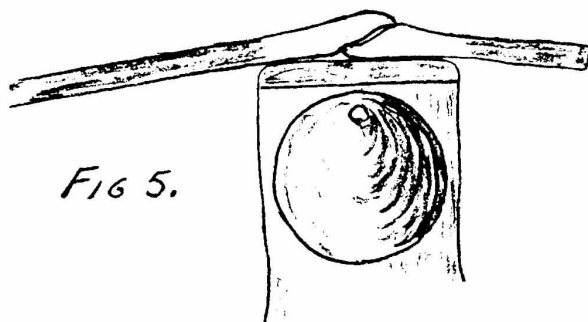
8.) Now 'lever down' your long piece onto the short

New Jersey Blacksmiths Newsletter

piece, pinning the short piece down on the surface of the anvil. See Fig. 5 on the next page.

9.) Wow - we are finally here - 'Drop the Tongs, and quickly pickup your hammer' don't set them down, don't lay them on a stand - drop them'

10. Hammer your weld to stick the pieces. Work the top surface with several quick blows, then flip the piece 180 degree and close the scarf from the other side too. Don't work the sides at this point unless you are sure you have a 100 percent solid weld. Rather, add a little flux and go back into your fire and reheat back to a welding heat, then complete the weld to a solid weld before working



the sides and completing the square up of your piece.

Ok, you have just completed one practice run doing this cold. If everything went as planned, practice it 9 more times so that the steps are automatic and you're very comfortable with your motions and speed of operation. If your piece fell to the shop floor, as mine did, don't count this as a 'good weld' but correct your mistakes and try again. Practice, practice - doing this cold lets you 'get it down cold'.

We are now ready to make a real weld. Lets talk a little about your fire. It should be a good deep fire with little or no clinker in the bottom of your fire. If it isn't this way, 'clean your fire' and rebuild it and get it to a level of a good deep fire before doing your weld. Use a good quality flux for your welding. Many smiths use plain borax "20 Mule Team Borax" but others prefer to use a flux like "Easy Weld". Gray uses Easy Weld for establishing the weld but goes with borax as the follow up flux if he goes back into the fire to reheat and completely close the weld. To flux your parts bring them up to a good or-

ange heat and then sprinkle them with the flux. Then go into your fire and heat to a 'welding heat'.

I love that - What is a 'welding heat' ? - if I knew what a 'welding heat' was I wouldn't be reading this article and trying to learn to do a forge weld. A welding heat is just short of the burning the steel - in fact a few sparks are OK. If you are using Easy Weld - it will start to sparkle from the small pieces of metal in the flux. The flux will have melted, the metal surface will look wet and will tend to be sticky in your fire. I think in terms of the look of the surface that you get when gas welding because I learned to gas weld long before I learned to make a forge weld but this may not help you if you have never done gas welding. Gray has a good instruction for beginners trying to gauge a 'welding heat' He tells them that their metal should be 'the same color as the bottom of your fire' or as he says 'when your piece looks the color of the bottom of your fire, turn them over so that they are scarf side down for that last little heating of the contact surfaces of the welds.'

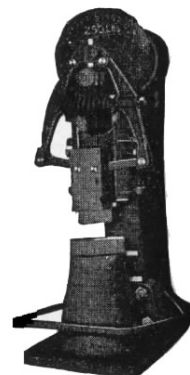
We are now ready to do steps 5 through 10 for real and make a good weld. Good luck - you can do it.

Shop Tip

The other day I was wishing I had a 3/16" transfer punch and then remembered I had some old broken drill bits (do we ever throw anything away?). I found a broken 3/16" bit, ground off the twist drill portion and ground a point on one end. It made a dandy 1" long transfer punch.

Joe Babb, Knoxville

Appalachian Area Chapter July Aug 2001



NAME _____
 ADDRESS _____
 CITY _____
 STATE/PRO V. _____
 COUNTRY _____
 ZIP (+4)/POSTAL CODE _____
 PHONE # _____
 EMAIL _____



ABANA

☐ Regular Member \$45.00
☐ Senior Citizen (Age 65+) \$40.00
☐ Full Time Student \$35.00
☐ Foreign Member \$60.00
☐ Public Library-USA \$35.00
☐ Contributory \$100.00
 MASTERCARD OR VISA ACCOUNT NUMBER

Order Online, Mail, Call or Fax your Check or Credit Card Payment to:

ABANA

P.O. Box 816

Farmington, GA

30638-0816 USA

706-310-1030 VOICE , **706-769-7147** FAX, WWW.ABANA.ORG ABANA@ABANA.ORG

EXPIRATION DATE _____

Join ABANA or Check out other area chapters!

Northeast Blacksmiths Association

Northeast Blacksmiths holds its meets twice a year at the Ashokan Field Campus in New York State.

The Ashokan campus is located in Olivebridge, N.Y., several miles west of Kingston, N.Y. The meets are held the first weekend in May and in the first weekend in October every year. The main demonstration is in the blacksmith shop and there is a "Hands On" workshop for beginners. A main demonstrator is brought in for each meet, food and bunk-house style lodging are provided as part of the cost of the weekend long meet.

Contact : Tim Neu

to register for hammer-ins

or subscribe to the newsletter;

Tim Neu, Ashokan Field Campus,

447 Beaverkill Rd.

Olivebridge, N.Y. 12461 [914]657-8333

For more information check out the web

site; <<http://nba.abana-chapter.com/>>

Join The Pennsylvania Blacksmiths Association!

Name _____

Address _____

City, State, Zip code _____

Home / work Phone # _____

E-mail (optional) _____

ABANA Member? ☐ Yes ☐ No

Can you host a PABA meeting? ☐ Yes ☐ No

Are you willing to demonstrate at a PABA meeting? ☐ Yes ☐ No

Suggestions for PABA demonstrations _____

What is your skill level?

☐ Beginner ☐ Intermediate ☐ Advanced ☐ Professional

Send your completed application with \$ 10 (one year dues) to;

Treasurer Gene Degenhardt

271 Stoney Lane

Lancaster, PA 17603

**PABA Membership
Application**

Membership is from

Jan. 1 — Dec. 31



New Jersey
Blacksmiths Association
90 William Avenue
Staten Island, New York 10308
Attn: Larry Brown, Editor



Index For NJBA
Volume 9, #1
08/10/03
Pages 1–8;
GAS Forge Info
Pages 9—11
Various items
Pages 11—14
Open Forge and Ads
Page 15
Drop Tongs Weld
Pages 16—18

How to Join or Renew your Membership in NJBA:

NJBA Dues are \$18 per year (as of July 1, 2001).

Please make your check out to: "NJBA"

Please mail checks to:

NJBA, P.O. Box 761, Mt. Laurel, NJ 08054

Please include payment with the information listed below. You will receive a postcard confirmation of your membership, and will receive a newsletter within a month.

NJBA's "year" runs from June to June. If you join mid-year, the postcard will offer a prorated dues option which will then allow you to extend your membership till the following June. The following information will be listed in a roster available to other members.

Name _____ Home Phone _____
Address _____ Day Phone _____
City _____
State _____ Zip _____
E-Mail _____ Skill Level (optional) _____
Comments _____