



N.J.B.A. Newsletter

NJBA Volume 20, Issue 4 10 May 2017
<http://www.njblacksmiths.org>

Upcoming Events

Remember most of our meets have an "Iron in the Hat" drawing, so be sure to bring a contribution. *More details on later pages.*

Sat. May 27 Damascus Workshop. 10 AM to 4 PM at Marshall's Farm. **Workshop fee: \$100** due at event, plus **\$25 for materials**, due on registration. Tailgate sales welcome.

Sat., June 3 NJBA (Bring-Your-Own) Picnic and Open Forge Meet. Rain or shine, at Marshall's Farm. No admission charge.

Mon-Sun, Aug. 7-13 Middlesex Co. Fair. NJBA will once again demonstrate at the Middlesex Co. Fair. *This is the last newsletter before the Fair, so contact NJBA Director Bruce Freeman if you're interested in participating.* (Perquisites: nearby parking and free entry to Fair.)

Sun., Sep. 17. Red Mill Picnic. Our annual picnic and tailgate sale at the Red Mill, Clinton, NJ. (See next newsletter for more details.)

Sept. (date TBD) Meet at the Shop of the Blacksmith of Trenton. *This is not an NJBA event.* The date will not conflict with the Red Mill event. (See next newsletter for more details.)

Oct or Nov? Anvil-Repair Workshop. NJBA

is considering holding another anvil-repair workshop. Contact NJBA Director Al Mottram if interested.

Oct or Nov? MAST Open Forge Event.

MAST would still like NJBA to run an open forge meet for their students. We would need six folks to help tend the fires. Contact Bruce Freeman if interested in helping.

Volunteer Demonstrators Needed

by Bruce Freeman

Due to my surgery last August, NJBA failed to show up at the Middlesex Co. Fair. I now have the flu and had to skip Walnford Day last weekend. The absence of one person can scuttle an entire demonstration. (But see page 4!) I hope that NJBA can do better in the future. But I cannot guarantee never to be sick or hospitalized, so some other solution is needed.

What I propose is that we enlist a cadre of volunteer demonstrators for these events who can commit -- as a team -- to run them, and thus ensure they come off even if individual members be indisposed.

If you think you'd like to commit to participating in these public demonstrations, from time to time, please check the box on the ballot on the last page of this issue. We will then contact you when we have an event approaching to enlist your assistance. Or you can simply contact me. .

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The NJBA Web is:

<http://www.njblacksmiths.org>

The Newsletter is at:

[http://njblacksmiths.org/archive/
index.htm](http://njblacksmiths.org/archive/index.htm)

or use the link on the NJBA web site for the
newsletter.

*See page 3 for more information
about NJBA on social media.*

Official NJBA Address

NJBA, P.O. Box 224

Farmingdale, NJ 07727-9998

We like to thank those who joined NJBA as
Business Members (\$40 dues):

Marshall Bienstock

Bruce Hay

NJBA Board of Directors

Directors list not available on line

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NJBA Internet Presence

The New Jersey Blacksmith Association has expanded our online presence beyond our webpage at www.njblacksmiths.org.

[Note: Please use caution when using social media. You may not know the people with whom you communicate, and should not assume they are completely trustworthy. Please take reasonable precautions when meeting in person someone you've only "met" on social media. — Bruce Freeman, editor]

NJBA's Private Yahoo Group

by Al Mottram

NJBA has created a private Yahoo group where you can discuss a variety of topics with other NJBA members. The value of this forum is near-real-time member-to-member communications.

Why would anyone want to participate? Here are some examples:

- On-line tailgating of equipment and services available or needed. In example, I have a welder and intermediate welding skills, I can post that I am available to assist members that may need some help with building a forge or tools. Someone in need of help can post their need as well.
- Discussions of upcoming events, who is going, ride share etc.
- Discussions about blacksmithing and projects
- Networking to meet with other members at our open forge meets, or other non NJBA sanctioned events
- Post pictures of blacksmithing related items. *(Note: Photos will be moderated by the admins for content.)*
- Sharing information about items found for sale locally. In example, I get e-mail notices of auctions with blacksmithing items. I often see

listings for upcoming auctions that include equipment that I already have, e.g., forge blowers, leg vices, tongs, anvils, forges.

- View the calendar that will include information on scheduled events.

The Group, at present, is open by invitation only to NJBA members. You should have received an e-mail with an invitation to join recently; if you didn't, drop an email to [crankybellows \[at\] gmail \[dot\] com](mailto:crankybellows@gmail.com), include your name and e-mails you used in the NJBA roster and an invitation will be sent to you.

NJBA's Facebook Page

by Ryan Amos

NJBA has a new Facebook page, where we post event photos and announcements and share members' work. If you're looking to see more of NJBA on Facebook, this is a great page to subscribe to. Whether you're a beginner or a master blacksmith, if you'd like to share your work with the public, we'd love to showcase your work. Please be sure to tell us to whom to attribute the work, and any other information you'd like to share. You can "like" our page at <https://www.facebook.com/njblacksmiths/>.

NJBA's IForgeIron Subforum

by Ryan Amos

NJBA has reopened our IForgeIron subforum, and you can look for event announcements and discussion there. This is a great venue to discuss events and NJBA activities in a more public setting. We don't expect to see much activity here, but if you already use IFI this can be a convenient way to engage with each other. You can visit our subforum at the bottom of <https://www.iforgeiron.com/>.

New Jersey Blacksmiths Newsletter

BYO Picnic and Open Forge Meet *Tailgate Sales Welcome!*

Saturday, June 3, from 10 AM—4 PM

NJBA will hold an open forge meet and (bring your own) picnic at Marshall's Farm, 663 Casino Dr., Howell, NJ. We will provide cups, utensils, soft drinks, a grill and charcoal. **Please bring your own food and chair and a contribution to the Iron-in-the-Hat.** (If you prefer, you can purchase food at any of the several local restaurants, fast food establishments, or convenience stores or supermarkets.)

We will set up our lightweight forges and you can try out your hand at light forging. If you are a novice blacksmith, there should be plenty of more experienced hands around to give you pointers. (One of our Directors may demonstrate the forging of a traditional woodworker's holdfast.) This event is on, **rain or shine.** (We have canopies for the forges and there will be adequate indoor space should the weather be inclement.)

NJBA will provide drinks, paper plates, utensils, etc., for the picnic; attendees must bring their own food. If you don't care to bring a picnic lunch, you may get lunch "to go" from one of the local establishments. Families are welcome, but children must be supervised at all times by an adult. **Please bring an item for the Iron-in-the-Hat drawing, and feel free to bring stuff to tailgate.** Contact NJBA Director Bruce Freeman for further details.

Anvil-repair Workshop

If we get enough interest, we will be holding another of our famous participatory anvil-repair workshops in October or November. The price per anvil will be determined based on prevailing cost of the supplies required. In the past, the cost was \$125, more or less, depending upon the size and condition of the anvil, but the price is

likely to be somewhat higher this time. Contact Al Mottram at crankybellows [at] gmail [dot] com if you are interested. As for all NJBA workshops, this one is open only to NJBA members, but anyone can join on the day of the event.

High resolution photos of your anvil edges, top, and each side and bottom are also appreciated in order for our experts to evaluate the scope of work.

Interim Report on Walnford Day

Tony Fresolone stepped up at the last moment and took on the NJBA Walnford Day demonstration, after Bruce Freeman got sick. A big "thanks" to Tony for saving the day.

Damascus Workshop

Saturday May 27, professional swordsmith and NJBA Director Mark Morrow will teach the making of a billet of Damascus steel at a workshop to be held 10 AM to 4 PM at Marshall's Farm, 663 Casino Dr., Howell, NJ. The fee for the workshop is \$100 (due at the event), plus \$25 for materials which is due on registration.

Space in the workshop is limited. Contact Mark to register for (and secure your space in) the workshop. Like all hands-on events, this workshop is open only to NJBA members, but nonmembers may join when registering by paying the \$20 membership dues. Tailgate sales welcome.

Report on the Blade-Making Demonstration and Workshop

Mark Morrow demonstrated the forging of two types of knives to an audience of seven. These blade blanks he donated to NJBA, and were auctioned off to the attendees.

In the afternoon, Mark ran a workshop for three participants, teaching the forging of these blades.

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Report on Peters Valley Open House

by Bruce Freeman

The open house was well attended, despite the chilly, drizzly weather. We were grateful for the shuttle bus that brought us down the hill from the parking lot, and the shuttles that took us around to the several crafts studios.

NJBA Director Billy Barret had set up his (heavy!) forge and anvil and was demonstrating forging to an interested audience, as well as displaying his work - mostly knives.

The Peters Valley blacksmith shop was crowded, so I never got to speak to the demonstrator who, because he was wearing a Peters Valley T-shirt, I expect was Jacob Brown.

Report on the Vise Stand Workshop

by Bruce Freeman

The five stands we fabricated in the vise stand workshop still needed some "custom" work before they would be ready for use. I took this work upon myself, and recently finished it. Wheels mounted in the jaws of five of these enable the vise, when removed from the stand, to be easily wheeled around like a hand truck.

Come to our June 3 picnic and open forge meet if you'd like to see our lightweight equipment and try your hand at forging on it.

NJBA's Lightweight Forging Stations

by Bruce Freeman

The lightweight forge project is essentially complete. We lack only for three lightweight blowers and a few tools for the six toolboxes. (We still have use of the three heavyweight blowers we've used for years, two of which are on loan from Marshall and I.)

All tools and equipment are color-coded for ease in tracking, packing, and loading.

One forging station, including a canopy, coal, hand tools and fire tools, weighs about 500 lb total. No individual item or part exceeds 55 lb. The following equipment is ready to use at our upcoming events:

- Six forges including firepots, hoods, and flues
- Three lightweight hand-crank blowers.
- Six anvils & stands
- Six vises & stands
- A few canvas sacks for carrying plastic bags of coal
- Several tin tubs for use as slack tubs
- Small tin pails for ash.
- Six toolboxes, each containing the following:
 - * Fire Tools: poker, rake, shovel, watering can, lighter,
 - * Hammers: 2 ball pein, cross pein, straight pein, sledge,
 - * Other Forging Tools: vise grips, gas pliers, tongs, hardy, hot cut, cutting plate, bending fork, twisting wrench, wire brush, rasp,
 - * Misc.: stakes, duct tape.

Open Forge Meets

Members are welcome to attend our open forge meets. Nonmembers are invited to try your hands one time. NJBA requires you to join before continuing. The application form is on the last page of this newsletter.

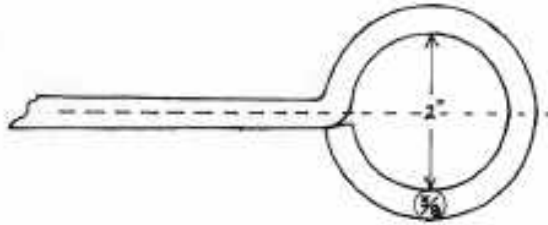
Monday Night Open Forge, Howell, NJ

Marshall Bienstock hosts an open forge meet every Monday evening at 7 PM, except major holidays. (Please call ahead on holidays to make sure: 732-221-3015.)

Sunday Open Forge, Smithtown, LI, NY

From the beginning of November through the end of April, Ron Grabowski will open his forge to NJBA members. 110 Burlington Blvd., Smithtown. Please call ahead to confirm and get directions: 631-265-1564. Ronsforge@aol.com

Controlled Hand Forging Lesson 15



Tip: If you are overwhelmed by the mathematics, the same information can be gleaned from a full-sized sketch of the finished eye. Use a piece of wire or string along the median circumference of the sketch to get the needed stock requirement for the bend. Or step it off with dividers set at, say, 1/2 inch. Lifting dimensions from a drawing is an important skill to develop. Many forms—such as scrolls—will not readily submit to a mathematical approach.

Bending

Text by Bob Fredell,
illustrations by Tom Latané

Lesson #15- Forge an eye on the end of a bar.

Definition: Altering the centerline of a bar..

Intent: To learn to forge a well-rounded eye to a specific diameter.

Tools: Anvil, hammer.

Material: 3/8" round x 24" mild steel.

Note: The reader is referred to two earlier articles in the Controlled Hand Forging series:

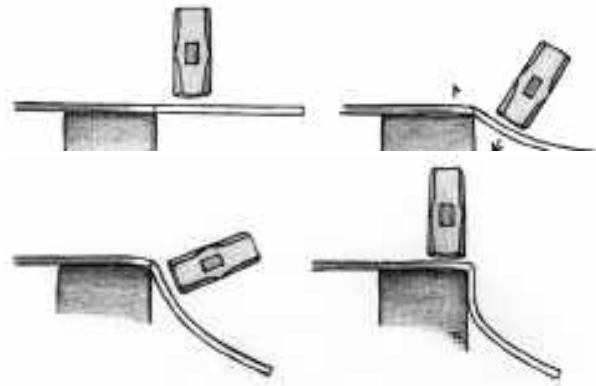
- (1) Bending Bar Stock by Jay Close, Hammer's Blow, Vol. 11, # 2, Spring 2003,
- (2) Drawing, Punching and Bending by Peter Ross, Hammer's Blow, Vol. 11, #3, Summer 2003. Read these articles. They detail the forging dynamics and the process of bending bar stock. The directions in this lesson are not as comprehensive as the two previous lessons.

Step One The formula to determine the length of material needed for the eye is:

Inside diameter of the eye + thickness of the stock x π = length of stock.

OR $2" + .38" \times 3.14 = 7.5"$, or $7\frac{1}{2}"$.

The numbers for this lesson are written using decimals. If you prefer to use fractions, $3\frac{1}{7}"$ is used for π and $\frac{3}{8}"$ for stock size.



Making the first bend and correcting the counter bend.

Center a punch mark $7\frac{1}{2}"$ from the end of the bar. There is more than one way to hold the bar while center punching. It may be placed in the corner of the anvil's step, or set on the vise with the jaws opened to slightly less than the diameter of the bar.

Step Two Heat the entire $7\frac{1}{2}"$ portion of stock, plus about another inch, to light yellow. a.) Place the punch mark at the far rounded edge of the anvil with the punch mark facing to the side where you can see it and keep track of it.

Be certain to keep the bar stock horizontal and flat to the anvil face.

Strike next to the bend—not near the tip of the bar, and bend the bar down 90° . As you do this you will probably note two counter bends

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b.) The portion of the heated bar on the face of the anvil will likely have lifted slightly off the anvil in a counter curve. This is caused by the edge of the anvil acting as a fulcrum. As you strike down on one side, the bar levers up on the other. Forge down this unwanted counter bend without reducing the bar dimension.

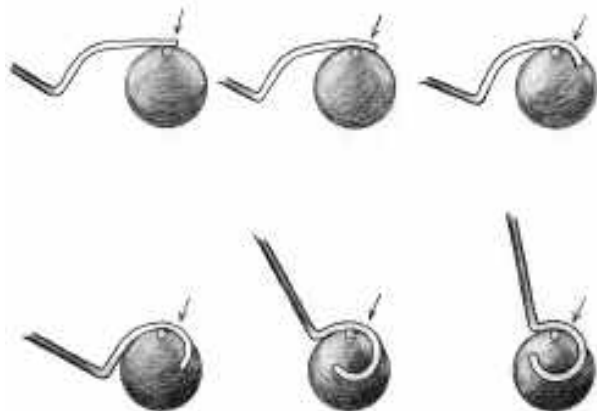
If you have directed your bending blows near the bend itself, you will likely notice the tip of the bar curving up. The inertia of the bar's end is tending to keep it stationary as the remainder of the bar is forced to bend. The result is a curve like a reversed "J". Do not straighten this! Use it in the next step.

Step Three Go to the anvil horn quickly to use the same heat as in Step Two.

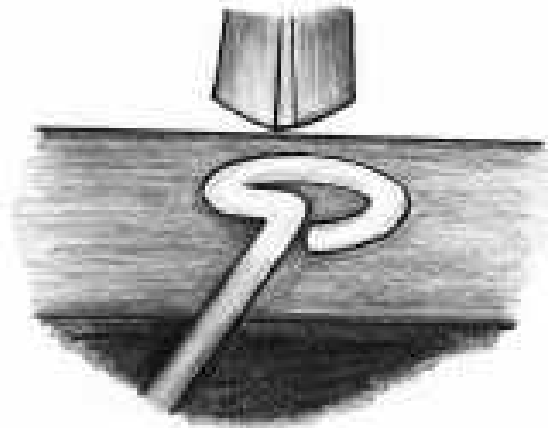
Flip the bar over with the bent portion pointing up. Raise the hand holding the bar high so you can place the tip of bar horizontally on the anvil horn.

The tip should extend over the horn about 1/4". You have a head start if the tip already has a slight bend (see Step Two).

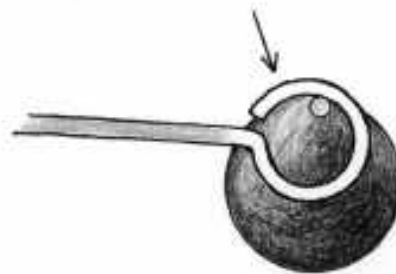
To make it curve, strike the hot bar that extends beyond the horn. You are working on the side of the horn that is furthest from the smith. Do not pinch the bar between the hammer and horn, as that will not bend it. That will only reduce its dimensions by drawing it out.



Progressive bends form the eye.



Returning the eye to the proper plane.

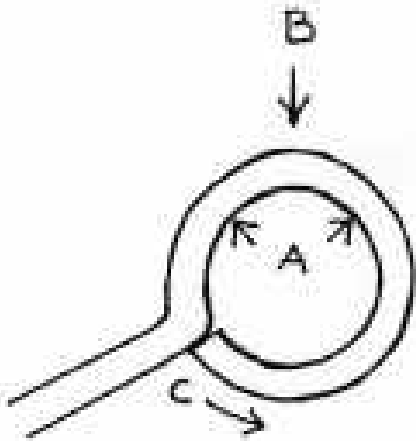


Eye flipped to an area of insufficient bend.

Continue to feed the bar across the horn in short increments of about one half of an inch. Never strike the bar twice in the same place. Continue working in this manner until the hammer blows approach the point of the initial 90-degree bend of Step Two.

Inspect your progress frequently. Are you bending a sufficient curve? Is the curve too tight? You may need to go back to an already bent section of the eye for correction. Alter the position of your holding hand— raising it or lowering it— so that the correcting blow is as near vertical as possible. Sometimes the eye seems to spiral like a coil. Pay attention to how it contacts the horn and how you hit it. Remove the coil effect with a flattening blow or two on the anvil face.

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Opening a kink—eye contacts horn at points A, struck at point B, resulting in movement at C.

Note: A common error is to hold the hammer at such an angle that the hammer edge strikes the hot bar, making unwanted dents. Only the hammer face is to strike the hot bar.

Depending on how the eye is forming, you may find it necessary to flip the eye so the termination is on the top side of the horn. In this orientation the bending hammer blows will come on the side of the horn nearest the smith.

Note- Making such a bend is really a matter of approximations and ongoing corrections.

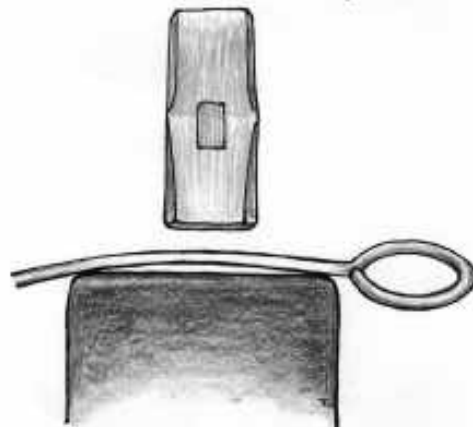
With experience, this step can be completed in one heat. However, the beginner should work for control and accuracy, not speed.

The eye is now formed, but may need further refinement.

Troubleshooting and corrections

-Look at the eye you have formed. Make mental notes if it is not true to your specifications. It may exhibit "kinks" where the curve is too tight and "flats" where it is too gentle.

-To remove a kink, with the eye heated to a light orange, place the high spot of the kink on the top of the horn where the horn is wide enough to support the eye on either side of the kink.



Straightening the "handle" portion of the bar.

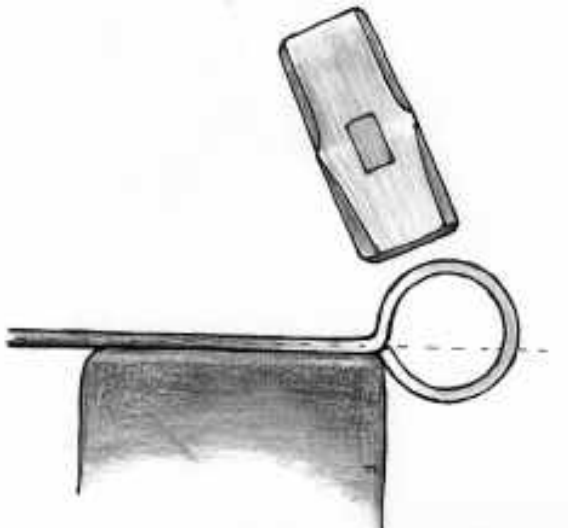
Sometimes you need to angle the work on the horn to get such a bridging effect with a small diameter. Strike the top of the kink, then make a note of any change of shape, i.e., not enough, too much, or just right.

-To remove a flat spot, place the flat spot on the top of the horn so that the flat spot is supported. Gently strike the eye on the far side of the horn slightly past where the bar contacts the horn. Check your progress. Is the adjustment better, worse or just right? -These techniques are also used to adjust the tip of the eye to meet the parent stock.

-You may need to raise or lower the holding hand as needed to present the correction conveniently to the hammer.

-The handle and its alignment with the eye may need correction. If so, first straighten the handle so you can accurately read its relationship to the eye. Once the handle is satisfactory, assess its alignment to the eye. The handle must point straight to the center of the eye.

-If the eye is out of alignment, proceed by heating the area of the initial 90-degree bend. Lay the handle across the anvil with the bend on the far rounded edge and the eye placed so that any offset is up. Forge it down into alignment and then make any small corrections to the eye and handle that may be needed.



Aligning the eye to be centered on the bar.

Targets:

- The eye has a 2" inside diameter, and has an error of no more than 1/16".
- The end of the bar that forms the eye is to touch the bend at the handle.
- No twists, kinks, or flat spots.
- The handle is to point directly to the center of the eye.

Controlled Hand Forging Lesson 16

Drawing Out



1. Shelf bracket made by Peter Ross. The snub end scrolls were made by making a very long ribbon taper, then tightly rolling the taper to form the snub end. This method of forging snub end scrolls was typical of English 18th century ironwork.

by Dereck Glaser
Photos by Dan Nauman

Lesson #16- Forging a Ribbon Taper

Definition: Reducing the cross section of a bar

Overview: A ribbon taper tapers in thickness while the width of the parent bar remains constant. Intent: The student will forge a ribbon taper with a resulting taper length of 2 3/4", while maintaining the width of the original parent stock..

Tools: Basic tools, including a straight edge, and outside calipers.

Material: Mild steel, 1/4" x 3/4" x 24".

Forging dynamics: In Step One, your task is to produce a "set up shape." (See Terms at the end of this lesson for a definition of set-up shape.) The set-up shape you will produce reduces width and increases thickness. This shape facilitates the drawing of the ribbon taper in Step Two.

Were the thickness reduced first, the resulting increase in width makes the bar difficult to forge back down to the parent stock