N.J.B.A. Newsletter

NJBA Volume 20, Issue 2 08/22/16
http://www.njblacksmiths.org

Editors Soapbox

News letter is very late, so I apologize. I did my first newsletter in December of 1999, volume 4, issue 3. It has been a long time. I'm not sure how I used to find the time to do it but it seems to keep getting harder to find the time now days. I always thought I would have more time as the years went by but I seem to have less time and more to do. I have accumulated a large list is injuries over the years and this is also a factor. A newsletter is kinda the glue that helps a organization stay together and function smoothly, so it is not something we want to lose, but I don't know how much longer I can keep at it. If anyone is interested in taking over the reins and giving it a try, I will help them get started in the position. I would keep doing the web site at least for now. If anyone wants to help with this get in touch with me.

We have a new web address do to problems the old server was having,

www.njblacksmiths.org

NJBA is twenty years old this year!

We have some meets with opportunities to learn, forge or teach others what you know. Come out and chat or get your hands dirty! Let's boost the attendance at the upcoming meets. **If you know of a demonstrator you would like to see or recommend contact a board member.** We need to boost the activity of our members! If more members do a little we will have a stronger organization. **If you are interested in helping please contact one of the board members listed on page 2.**

Larry Brown, Editor

Upcoming events for 2016

Saturday, Sep. 17th. Days of the Past Antique Engine (car, tractor, etc.) Show (and flea market). Former NJBA Director, John Chobrda, and others, have been featured demonstrators at this show for well over a decade. John plans on being there Saturday. Contact Bruce Freeman for further information.

Sunday, Sep. 18 Red Mill Picnic. Includes tailgate sale, open forge and demonstrations. Dave Ennis hosting. See write-up on page 3

Sun, Sep. 25. Lake Solitude House (High Bridge) Demo. Dave Ennis or other NJBA members will be demonstrating. Contact Dave if you'd like to help demonstrate.

Saturday, Oct. 8, or Oct. 15 (TBD). Open Forge meet Princeton University. We have been holding this open forge for years for the benefit of Princeton U. student. Additional blacksmiths always welcome to help show them the basics and help with the forges. Bruce is attempting to firm up the date.

Saturday, October 22 -Damascus workshop with Mark Morrow

Saturday, Oct. 29. Anvil-repair Workshop. If we get enough interest, we will be holding another of our famous participatory workshops. Price per anvil likely to be $125, but may be more or less depending upon the condition of the anvil. Email a photo of your anvil to Doug Learn. **Continued page 3**

The New NJBA Web Site!

The NJBA Web Site is:

http://www.njblacksmiths.org

The Newsletter is at:

http://www.lightningforge.com/njba/index.htm

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

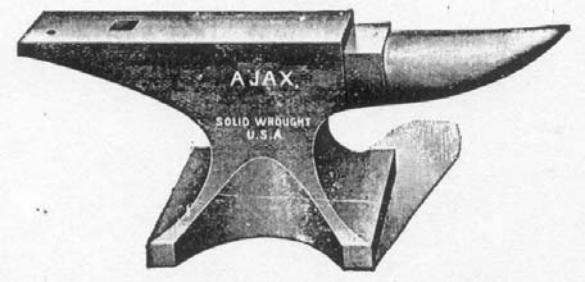
Official NJBA Address

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

NJBA Board of Directors

Directors are only available with hard copy

Sunday, Dec. 4. NJBA Annual Holiday Party. (Usually 3 PM - 8 PM.) Marshall Bienstock and his wife Jan Fowler will again be the hosts. This is our one solely social function each year. There will be is a pot luck dinner, and it would be appreciated if you'd contact Jan or Marshall in advance to coordinate what you bring or for all other information. BYOB to share. Soft drinks, plates, etc., provided. Your date or family is welcome.



Old Time Engine Show

September 16th, 17th, and 18th
NJBA will be there on the 17th

NJBA will again be at the Delaware Valley Old Time Power and Equipment Association's "Days of the Past" Engine Show at Washington Crossing State Park, in Titusville, New Jersey. Come on out and bring the family, there are hay rides for the kids, a metal heads flea market, and a lot to see. We will have a couple of forges going so bring a hammer, also if you have some items for sale we will have a table out. Come on out and join the fun. For more information check out their web site http://daysofthepast.com

Directions: The Engine Show is located in Washington Crossing State Park off of Rt. 29 (River Rd.) South of Lambertville and North of Trenton signs are posted to show the way.

BLACKSMITH HAMMER-IN & TOOL SWAP
At the Red Mill Museum Village

Sunday, September 18th, 10:00am - 4:00pm

Red Mill Museum Village 56 Main Street, Clinton, New Jersey 08809
www.theredmill.org

The Red Mill Museum Village resident blacksmiths Robert Bozzay and Dave Ennis will host the event. The day's activities will center at the museum's blacksmith forge where members of NJBA, some who are local blacksmiths, will be forging in the Red Mill shop. Smiths will also be working and demonstrating on portable forges set up along the riverbank. Blacksmiths' work will be available for purchase and creating an individual's specific project can be explored as well.

The New Jersey Blacksmith Association is a group dedicated to the promotion of the art and craft of blacksmithing, Members are active throughout the state teaching, demonstrating at events and fairs as well as being resident smiths at a variety of historic sites in NJ, DE, NY, and PA. This is a good chance to ask one for more information- smiths always enjoy talking about blacksmithing.

Tool dealers and collectors are invited to tailgate along the riverside to sell and swap their blacksmithing tools and accessories. Among the items to be found will be anvils, blowers, forges, vises, hammers, and tongs, some quite old.

Visitors who have "what is it?" objects cluttering up the garage can bring them along and members of NJBA will be glad to identify them. NJBA will have it annual picnic BBQ lunch, members are encouraged to bring side dishes

Sun, Sep. 25. Lake Solitude House (High Bridge) Demo.

Dave Ennis or other NJBA members will be demonstrating. Contact Dave if you'd like to help demonstrate

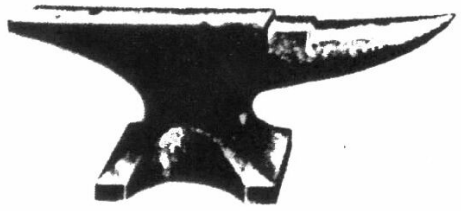
Damascus Workshop

October 22nd, 2016

Mark Morrow, Swordsmith will lead a Damascus making workshop to make a small forged Damascus billet. The cost will be $75 plus $25 for material per person it will be a one day work shop starting at 9am. The workshop which will be held at Marshall Bienstock's farm in Howell, NJ. There will be a limit of 8 participants. Bring Safety glasses and gloves , wear clothing that can take the flux.
The sign up will be handled by Mark Morrow, swordsmith2001@verizon.net,
(732) 458 5823
www.swordsmith.net

Saturday, Oct. 8, or Oct. 15 (TBD). Open Forge Meet at Princeton University.

We have been holding this open forge for years for the benefit of Princeton U. student. Additional blacksmiths always welcome to help show them the basics and help with the forges. Bruce is attempting to firm up the date.



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Meets outside of NJBA

Ashokan Sword Seminar:

September 16-18, 2016

The New England Bladesmiths Guild's annual seminar provides an opportunity for both beginners and advanced knife makers to learn from and work with some of the most skilled bladesmiths in the world. This year's seminar will focus specifically on swords. You will learn design concepts, metallurgy, forging and finishing techniques, heat treatment, and using your finished pieces. This is a multi-level workshop for beginners and experienced craftsmen alike, with both forging demonstrations by world renowned craftsmen and hands-on forging opportunities. Equipment, steel, and

coal will be provided and available for sale to begin your own home workshop!
http://ashokanknifeseminar.com/

Northeast Blacksmiths Meet

Sept. 30th, Oct. 1st & 2nd 2016
John Rais is the demonstrator this weekend.
http://www.northeastblacksmiths.org
www.johnraisstudio.com

Mini MakerFaire at Newark Museum

by Bruce Freeman

On Saturday, April 30, the Newark Museum held the 2016 Mini MakerFaire, an assemblage of people and organizations that make things. NJBA was present, demonstrating blacksmithing. I arrived, along with my friend Marie, registered, and got the museum staff to open the west gate for me. I drove my little pickup truck into the "garden" area and backed it as close as possible to our designated site. Unfortunately, that was not as close as I would have liked, so there still was a distance that our things had to be carried -- as I had assumed we'd be in the same place as last year and hadn't loaded a hand truck.

While I unloaded the truck, Marie carried the lighter, cleaner equipment to out site, set up my small folding table, and set out the examples of blacksmith work. She then helped me set up the EZ-Up canopy. About this time, Billy Barrett arrived with his equipment, which he had to trundle in in two or three loads on a platform truck, as his vehicle wouldn't fit through the west gate. The lightweight equipment I'd brought set up as quickly as usual, so I was soon ready to go. I had some difficulty getting water for the slack tub. There was water spigot, so the hose I brought proved useless. Eventually, the museum staff trundled out a 40-gallon wheeled "trash can" of water, from which I offloaded the 10 gallons I needed!

Then, with a flourish, I unfurled the banner I had made for me. (The NJBA Board had never come to agreement on such a banner, so I just designed and had one made myself. For the benefit of those viewing this in B&W, I'll point out that the background of this banner fades from a welding-heat yellow at the bottom, to a forging heat orange at the top.) Billy approved. At least this year or audience knew who we are.

One problem I always have at these demonstrations is coming up with something to demonstrate. In the past I've made spoons, but this time I made hearts. I started by making two "Hockenbury Hearts." (See the last newsletter.) I've found that the difficulty making these is to keep the two halves parallel so that the bending operation goes smoothly the first time. I dealt with this difficulty by grabbing the two crosswise with a tongs during the bending.

Next I made a heart that required a weld. Welds are always difficult in the bright sunlight, but this one came off perfectly, much to my amazement, and the heart came out well too. I finished each of my example pieces with beeswax and set them out for the public to view.

The MakerFaire had given us $10 lunch vouchers for the food vendors, so Marie and I

took a break for lunch. Before and after lunch, Marie spent some time -- with my encouragement -- viewing the museum exhibits, including the Ballantine House, which impressed her considerably.

After lunch, I made one final heart, this one by splitting the end of a bar, drawing out the split end like a fork, and bending them over into a heart shape. Before I began, I marked off the split with a centerpunch so did a better job centering the split this time. The opposite end I drew out and cut off. This process took an inordinate amount of time and, in my opinion, was quite unsatisfactory both as a demonstration and as a procedure. In light of the ease with which I was able to weld, I may forgo splitting techniques at future demonstrations.

During my demonstrations, I collected a small but persistent audience. One young girl watched for quite a while, but I could scarcely get a word out of her -- questions or comments. Many other people came and went. Billy, meanwhile, entertained a large crowd, by talking about blacksmithing and making and handing out to all the kids "swords" made from nails. Some of the younger recipients of these little swords proved a bother to me when they obnoxiously begged me to make them something too. Some of these little beggars were quite persistent, even when their parents told them to knock it off! (I choose never to hand out sample wares, especially to very young children, due to the possible liability.)

A little before 4 PM, I realized I was out of energy and ideas, so I broke down my fire and started stacking equipment for loading into the truck. After closing, Marie and I disassembled the canopy. Then I fetched my truck, pulled it in through the west gate and backed it to the site -- closer this time because the other nearby sites had been vacated already. Once again I was thankful for the lightweight equipment, which I was able to load easily by myself.

Unfortunately, across the entire day, I had had no time at all to see the MakerFaire -- not even the "sketch in iron" by Samuel Yellin, on the second floor of the North Wing of the museum. The problem, of course, was our low attendance. Last year there were four smiths present; this year, only two. What with the unpleasant drive to and from the museum, the extra trouble this year loading in and out due to the site the MakerFaire selected for us, the hold-up getting water for the slack tub, the preponderance of children in attendance, and our low turn-out of blacksmiths, I deem this a marginal event. I will probably skip it in future years.

Blacksmithing Workshops and Classes:

Academy of Traditional Arts
Carrol County Farm Museum
500 South Center St. Westminster, MD 21157
(410)848-7775 (410)876-2667

Adirondack Folk School
P. O. Box 2, 51 Main Street
Lake Luzerne, NY 12846
Phone: (518) 696-2400
http://www.adirondackfolkschool.org

Center for Metal Arts,
44 Jayne St.
Village of Florida, New York
(845) 651-7550
info@centerformetalarts.com

New England School of Metalwork
7 Albiston Way
Auburn, Maine 04210
207-777-6211 Toll Free 888-753-7502
Fax 207-784-5383
http://www.newenglandschoolofmetalwork.com/

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

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

BLACKSMITH TOOLS FOR SALE!
John Chobrda
Has a large selection of tools for sale.
Anvils – Forges - Leg Vices—Blowers Tongs – Hammers and/or resurfaced Anvils
Call John for prices and availability
(302) 838-1960 cell (609) 610-3501

Business Members

We would like to thank those who joined with our new Business Membership category .
Business dues are $40
Please show them our support

Marshall Bienstock, Marshall's Farms
663 Casino Dr., Howell, NJ 07731
732-938-6577, 732-780-0871
jlfmib@optonline.net

Eric Cuper Artist Blacksmith
109 Lehman Lane, Neshanic Station, NJ 08853
908 642-6420 ericuper@msn.com

Bruce Hay, Jr.
50 Pine St., Lincroft, NJ 07738

Open Forges

If any members have a forge at home and work in the evenings or weekends and want to open it up to help a few local guys, let me know, Larry Brown, editor, as we get requests from members who have a hard time traveling to some of the open forge locations.
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 , (732-221-3015)

Open Forge in Long Island

Sunday from 10:00 am to 6pm.
Starting the 1st Sunday in November 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
In Northern Delaware and Southern NJ, contact Kerry Rhoades or John Chobrda
Kerry (302) 832-1631 John (302) 838-1960
(609) 610-3501 (cell)

Controlled Hand Forging Lesson 12

Forging a Shoulder

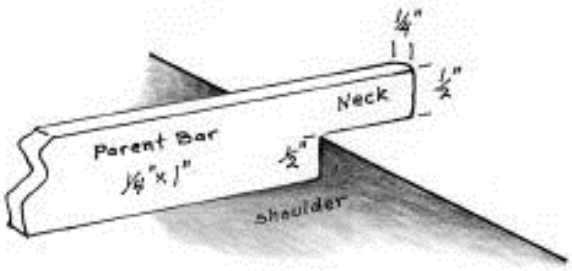
by Bob Fredell

Illustrations by Tom Latané

Lesson #12- Forging a Shoulder

Definition: A shoulder is the abrupt change in width and/or thickness of a bar. A shoulder is normally made by decreasing a dimension by drawing down, although it may be formed by upsetting.

Intent: To learn how to forge two different shoulders using a minimum of tools. The use of few tools emphasizes the handforging processes. which with practice, allows one to more readily master the procedures.



Near-side shoulder.

Near-side Shoulder

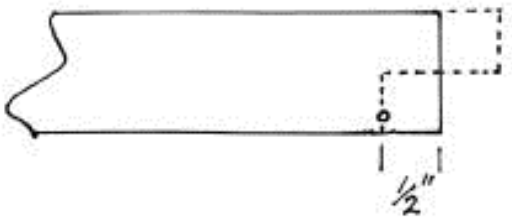
Definition: A near-side shoulder is formed on the near edge of the anvil with the neck extending from the end of the bar.

Tools: Anvil, hammer and center punch.

Materials- Mild steel 1/4"x1"x 24". Intent. To forge a near-side shoulder on one side of a bar using the near edge of the anvil. Note- See Drawing under Definition, above,

Step One

Place a center punch mark on the wide side of the bar next to the edge, and 1/2" from the end. This measurement will make a 1/4" x 1/2" x 1" neck.

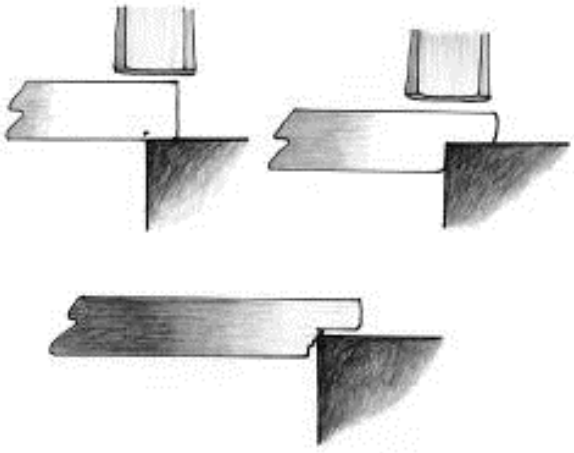


Bar marked with punch.

Step Two

Heat two inches of the end of the bar to a light yellow. Place the punch mark at the near edge of the anvil with the 1/4" side of the bar flat on the face of the anvil (the bar is to be horizontal at all times to make the shoulder as close to 90° as possible.) Strike one or two light blows to establish this location on the bar, Be sure that (1) the face of the hammer is half on and half off the edge of the anvil and (2) the face of the hammer is parallel to the upper edge of the bar.

Continue forging until the shoulder is almost halfway through the bar.



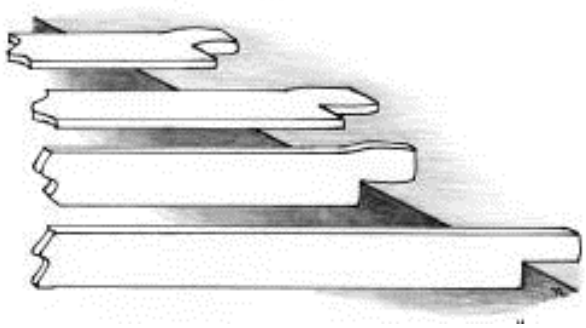
Shouldering on the near edge of the anvil with hammer blow half over anvil and half off. In the third example, steps and cold shuts formed when the bar bounces because it is not held firmly against the anvil.

Hint: —Be sure to maintain a steady and gen-

tle pressure on the bar to keep the now-forming shoulder tight to the edge of the anvil. Failure to do this will result in a ragged shoulder. —Should a specific project call for an angled shoulder, the bar must be placed at an angle to the face of the anvil.

Step Three

At this point, the bar has become thicker. Place the wide side of the bar on the anvil and forge it back to the original 1/4". Rotate the bar 90° and return it to the edge of the anvil with the shoulder facing down. Continue forging as in Step #2 and Step #3 until the shoulder is halfway through the bar (the neck will be 1/4"x1/2"x1").



Forging the thickness of the bar back to 1/4"and returning the shoulder to the edge of the anvil to reduce the width of the neck to 1/2".

Step Four

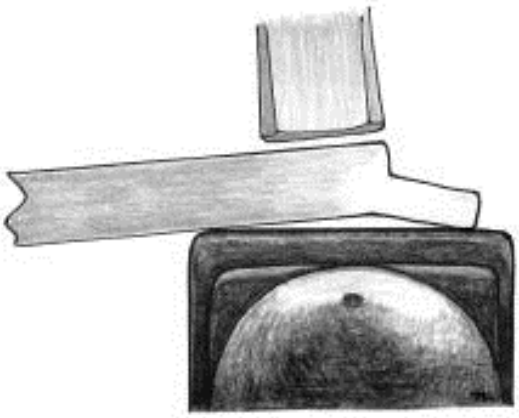
Depending on the effectiveness of Step three, the bar may be misaligned. The most common misalignment is a bend in the neck, away from the shoulder, caused by holding the end of the bar too high. This can be corrected by placing the bar on edge, shoulder up and striking the parent bar.

Targets:

The neck is to be 1" long and 1/2" wide; the thickness remains 1/4".

To emphasize craftsmanship and accurate forging, the finished shoulder and neck should be within 1/16" of the required dimensions.

It is to be straight according to the eye, although a beginner may need to use a straightedge.



Correcting a bend.

The angle of the shoulder may be slightly more than 90°.

Note that the outside corner will not be 90° using this method. The material at the corner will be pulled down by the forging action.

Practice this lesson until you can complete it in one heat.

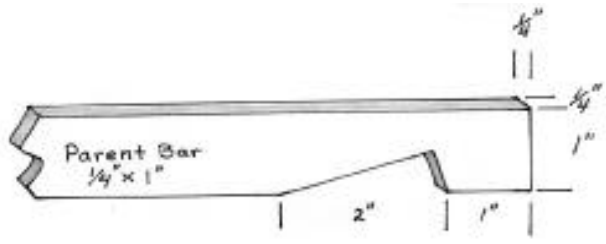
Note: An alternative to using a center punch to mark where the shoulder is to be placed on the bar is to mark the face of the anvil with soapstone, chalk, or a felt tip marker. Mark the 1/2" length with a line on the face of the anvil, 1/2" in from the new side of the anvil. When the bar has reached forging temperature, place the end of the bar even with this line. Apply downward pressure to ensure that the bar does not move. Proceed to forge the shoulder as in Step two.

Soapstone and chalk marks are easily erased from the anvil's face. The felt tip marker will provide a line that lasts longer if you need to make several shoulders.

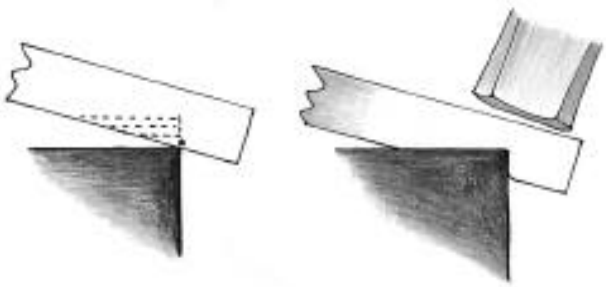
Part Two-

Far-side Shoulder

Definition: A far-side shoulder is formed on the far edge of the anvil and will result in a taper from the full width of the 1" bar to the 1/2" inside shoulder.



Far-side shoulder.

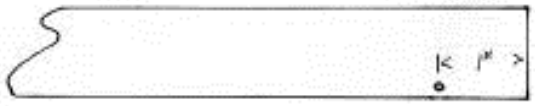


Shouldering on the far edge of the anvil– matching the hammer angle to the angle of the bar.

Tools: Anvil, hammer and centerpunch.
Material: Mild steel, 1/4"x1"x24". Intent- To forge a far-side shoulder on one side of a bar using the far edge of the anvil. Note: See drawing under Definition above.

Step One

Place a center punch mark on the wide side of the bar next to the edge, and 1" from the end.



Bar marked with a punch.

Step Two

Heat three inches of the end of the bar to a light yellow. Align the punch mark on the far edge of the anvil. The angle of the bar to the anvil face should approximate the angle of the finished 2" taper. Strike one or two light blows to establish this location on the bar.

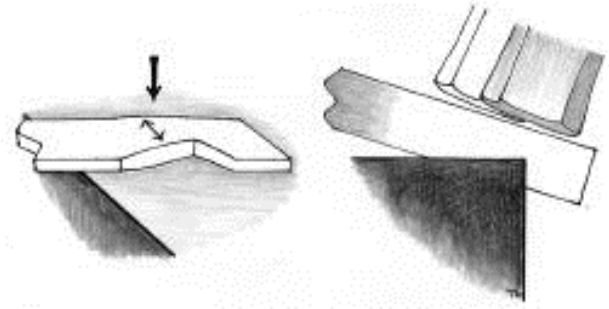
Be sure that (1) the face of the hammer is half on and half off the edge of the anvil and (2) the face of the hammer is parallel to the upper edge of the bar.

Continue forging until the shoulder is not quite halfway through the bar and the hammer remains half on and half off the anvil.

Hint: Be sure to maintain a steady and gentle pressure on the bar to keep the now-forming shoulder tight to the edge of the anvil. Failure to do this will result in a ragged shoulder.

Step Three

At this point the taper has become thicker. Place the wide side of the bar on the anvil and forge it back to the original 1/4". Rotate the bar 90° and return it to the edge of the anvil with the shoulder facing down. Continue forging as in Step two and Step three until the shoulder is halfway through the bar (the taper will be 2" long and 1/4" thick).



Forging the thickness of the bar back to 1/4," then dressing the tapered neck.

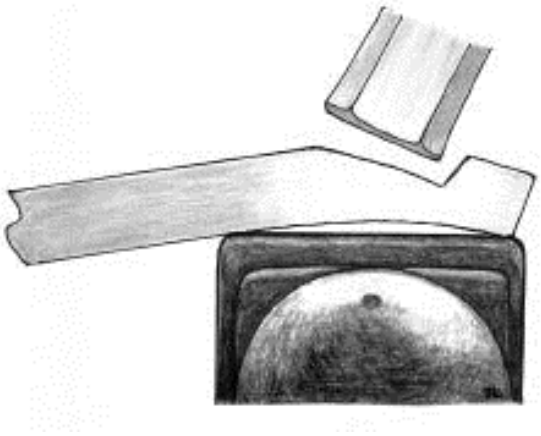
Step Four

The bar may have a tendency to form an arc. Straighten the bar by placing it on the anvil with the concave side of the arc down, making sure the two ends of the arc are touching the anvil. The taper is now facing up. Strike the taper with one or two decisive blows until the bottom edge of the bar is flat to the anvil.

Note: You may find (through forging dynamics) that from the initial downward blows to shape the shoulder, a thick mass is created in the neck, and when forging the neck back

down to the original thickness of 1/4", this arched shape is eliminated during this part of the procedure.

Hint: To avoid nicking the taper with the edge of the hammer, be sure to match the face of the hammer with the taper.



Correcting a bend.

Note: An alternative to using a centerpunch to mark the bar where the shoulder is to be placed is to mark the face of the anvil with soapstone, chalk or a felt-tipped marker. Since the end of the bar will be placed off the far side of the anvil, (and you cannot draw a line in space), you must draw your line measuring 1" in from the far edge of the anvil on the anvil's face.

When the bar has reached forging temperature, place the end of the bar even with the far edge of the anvil. Next, take your hammer and press the edge of the hammer's face to the bar at the 1" line. Slide the bar and the hammer beyond the far-side edge of the anvil until the hammer edge meets the edge of the anvil and stop. Apply downward pressure to insure that the bar does not move. Proceed as in Step two.

Soapstone and chalk are easily erased from the anvil's face. The felt tip marker will provide a line that lasts longer if you need to make several shoulders.

Targets: The shoulder is to be 1" from the end of the bar. Halfway through the bar, the thickness remains 1/4" and the length of the taper is 2". The finished shoulder is to be within 1/16" of the required dimensions.

It is to be straight according to the eye. However, a beginner may need to use a straightedge.

The angle of the inside corner will be slightly more than 90°. Note that the outside corner will not be a 90° angle using this method because the material at the corner will be pulled down by the forging action.

Practice the lesson until you can complete it in two heats.

Alternate method: In Step two, we say "The angle of the bar to the anvil face should approximate the angle of the two-inch taper." It must be said that a far-side shoulder can be created with the edge of the bar laying flat on the anvil face. You may note when using this method that a longer taper is created, and a greater area must be forged back down to the original 1/4" thickness.

Other notes: You may desire to form sharper corners. To accomplish this, take a yellow heat and place the inside of the shoulder over the far-side edge of the anvil. Pull the bar towards you so it meets the far vertical side of the anvil. Proceed to upset the end of the bar by lightly hitting the end of the bar into the far vertical side of the anvil. Hitting the bar too hard may cause the bar to fold, and this error must be corrected by lightly hitting the width of the bar.

Note that this procedure will somewhat reduce the length of the end of the bar, and increase the thickness and the width of the bar. Forge the bar back to the 1/4" thickness, and the 1" width of the bar (Similar to Step three).

If a precise measurement is desired at the end of the bar, you may want to use a test bar to determine how much length (if any) is lost by this procedure.

BLACKSMITHING IN HISTORICAL PERSPECTIVE

By T. S. Jacobson (Sent in by Tim Jacobson)

Blacksmiths today are often wistful in their thoughts of blacksmithing in earlier centuries. Usually when one's thoughts turn to blacksmiths-of-old, the first thing to pop into one's mind is the important role that blacksmiths played in daily life, and the high standing and respect that was accorded to them. It is easy to visualize the "spreading chestnut tree" and the children watching and admiring the smith at work. Despite this prominence, blacksmiths of the past still had their problems.

Research I did for a college paper about the Chippewa Indians of northern Wisconsin brought to light some of the problems blacksmiths had in the 1800's--some of which are not uncommon today and others which are rather unique.

A treaty between the United states Government and the Chippewa Indians stated that a blacksmith, assistant, and shop would be provided to each band of the Chippewa. Things did not always go well for these government blacksmiths. For example, a conflict arose between one of these smiths and the Bois Fort Indians. The Indians had apparently become quite dissatisfied and angry with their blacksmith, Lars Lenroot, and had burned his shop and threatened to kill him if he returned (Citizens of Superior to Luther E. Webb, Indian Agent, June 19, 1863).

A blacksmith from the Bad River Reservation, W. E. VanTassel, had complained that he had received poor iron in two consecutive years, and that the Indian' agent said there was not enough money for good iron (VanTassel to Comm. of Ind. Aff., May 1866, 694). The agent did not provide him with coal either, and VanTassel claimed that the other blacksmiths were provided with coal.

Making a decent living as a blacksmith In the 1800's was not always easy either, even for salaried government smiths. In 1866, these blacksmiths were paid an annual salary of $600 (VanTassel to Comm. of Ind. Aff., Hay 1866). VanTassel wrote that the smiths had tried to get their salaries raised, but that the Indian agent said it could not be done without an act of Congress. I certainly would not want to depend on an act of Congress for a raise, unless I was a Senator or Representative.

It was not always the blacksmiths who got the short end of the deal, however. For example, the Lac du Flambeau were not supplied with a blacksmith for nine years after the treaty had been made (Webb to Dole, June 16, 1865, 555).

Good money, iron, and coal are still sometimes hard to come by, but at least today's blacksmiths generally do not have their shops burned down by angry customers.

(The above information from Nat'l Archives Microfilm Pubs, Record Group 75, Microcopy 234, Roll 393.)

Reprint from the Upper Midwest Blacksmith Organization

3D Snowflake

Michael Wollowski

In this article, you will find constructions notes for a three dimensional snowflake. Don Neuenschwander showed me one that Ken Dettmer made based on Don's specifications. Don himself saw someone up north make one of these.

The snowflake is made from a 3" piece of ¾" square stock. It needs to be cut it several ways. To start, make two 1 ¾" cuts along one side, splitting the side three ways. From the opposite end, make two cuts that are ¾" long, again splitting the side three ways. You will be left with ½" in the center that is not cut. The cut layout is shown on the left side in figure 1 below.

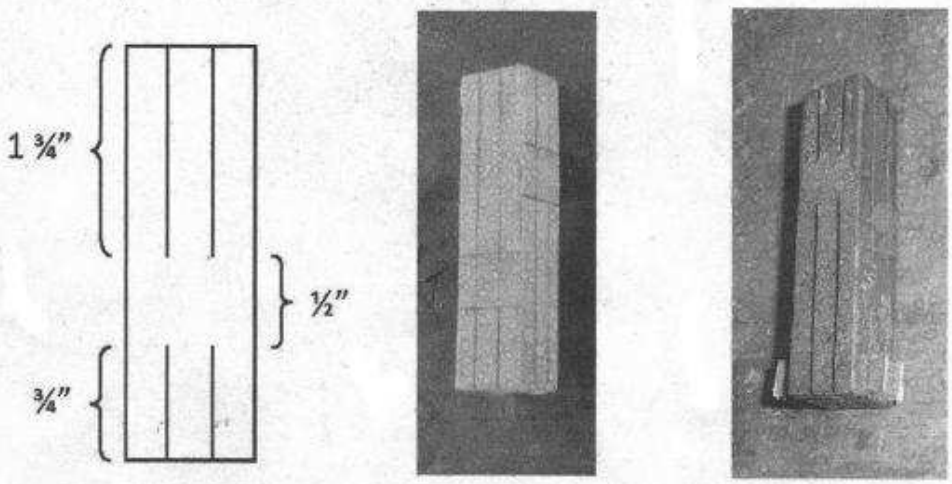
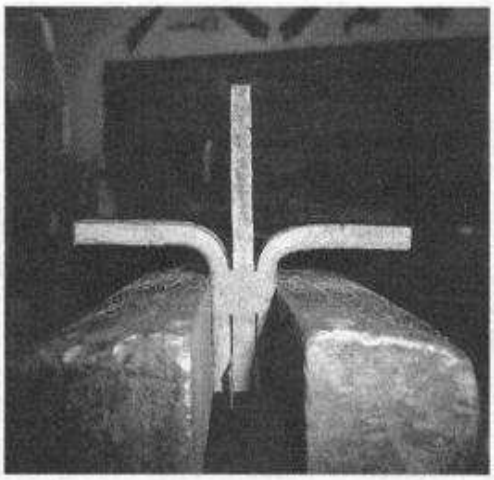


Figure 1: Cut layout (left), blank with marked cuts (center), cut blank with spacers (right)

Turn the bar 90 degrees and make the same cuts except from opposite ends. I like to put masking tape on the steel and draw my lines on it. The marked up blank can be seen in the center of figure 1. I insert some old saw blade pieces in the short cuts of one end. This is the end that gets to be put in the vise first. By placing the spacers in the cut, it is easier to open them up later on. The sawn blank, prepared for heating is shown on the right in figure 1.

In order to get the three dimensions, the primary bends are along the long cuts. When bending this piece, it is advisable to use tongs and a vise rather than a hammer and anvil, as the folds will be rather delicate and can easily be bent beyond repair.

To begin, heat up the bar and place the end with the saw blades in the vise so that the saw blades are parallel to the jaws. You need to place the bar in the vise so that the long cuts are about ¼" proud of the top of the vise. This ensures that there is space for the jaws of your tongs. Bend down the outer two long sides. Before bending the long sides, it helps to open them up with a chisel first and then use flat tongs to grab a side and bend it out. You may have to perform a sequence of grabbing part of the side, bending it, grabbing some more, straightening it with the tongs and bending it. See about producing a nice bend, not too tight and not too wide. The picture on left side in figure 2 gives you a sense of the radius of the bend as well as how much the long cuts have to be proud of the top of the vise. If the arms are not straight, a chisel can be used to pry them off the vise jaws.



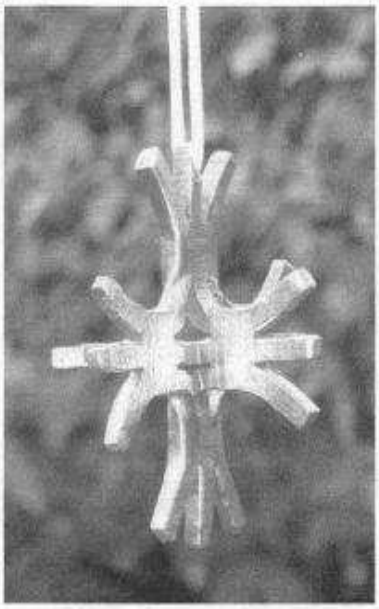


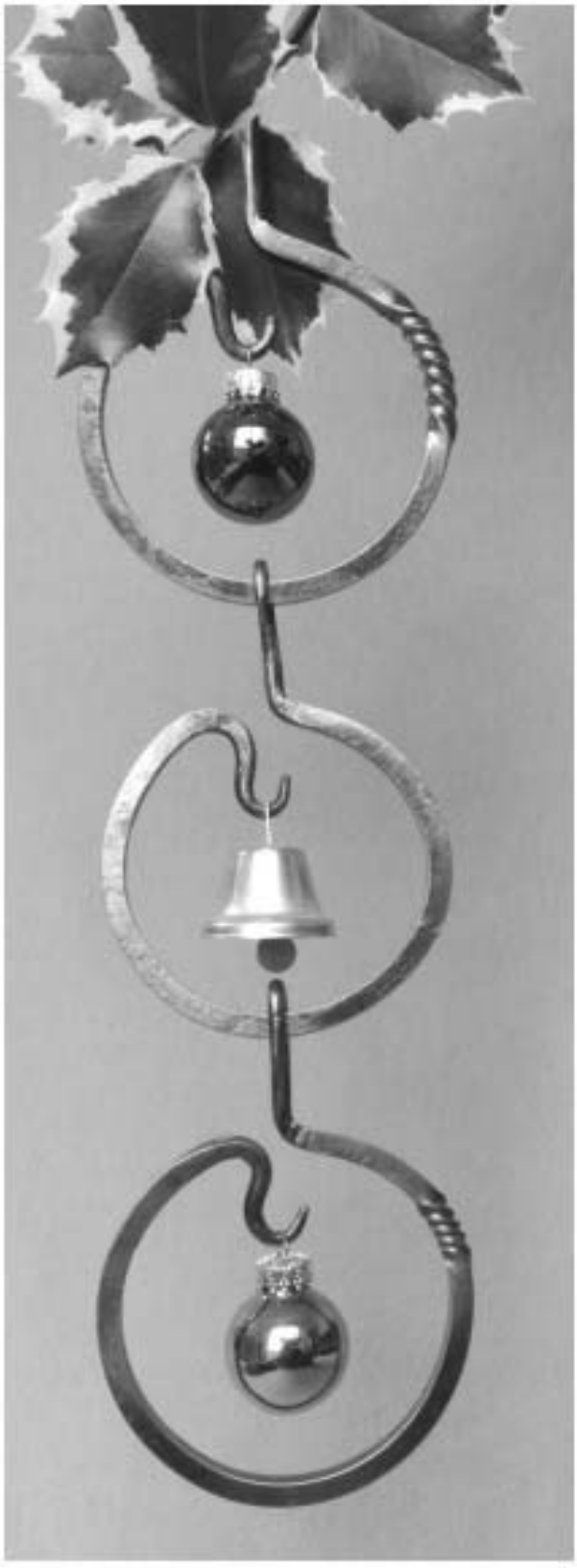
Figure 2: Blank after first set of bends, notice the spacers (left), finished snowflake (right)

Next, put a little bit of heat in the end that contains the saw blades and knock them out. Heat up the bar and cool down the center of the piece. Use a chisel to open up the long ends that are to be bent next. Put the piece back into the forge and heat it up. Now comes the hard part. The entire snowflake will be orange hot and any attempt to cool parts of it invariably cools down other parts that should not be cooled. Furthermore, any bending you do, will upset other parts of the piece. When opening up one of the hands, you will bend the snowflake out of shape, just ensure that when you bend the other hand, you bend it back into shape. You may consider using several heats to open up the two long hands.

The four bent arms should be in one plane. You may consider placing the piece in the hardy hole, placing a piece of pipe over the hands that need to be aligned and gently tapping on it. Notice that the sum of the two hands that have not been bent remains 3" long, yet the sum of the bent hands making up either of the two other dimensions are about 3 ½" long. This is due to the fact that the outside hands are ¼" off the center of the bar. The unequal length cannot be helped except for cutting ¼" of the ends of each of the bent hands and then deepening the cuts by ¼". You may consider hanging the snowflake so that the bent hands are vertical.

You are now left with having to bend the outside fingers made by the ¾" cuts. If you split open the fingers with a chisel, you need to cool down the center of the snowflake as the hammer blows will compress the delicate bends at the center of the snowflake. You want to use some fairly narrow tongs to open up the fingers to about a 45 degree angle. Here again, consider using a process of repeatedly grabbing, bending, re-grabbing, straightening and bending. Notice that fingers of neighboring hands will end up parallel to each other.

I finished my snowflake by immersing it in vinegar overnight, brushing off the scale using a brush and water and polishing it with an angle grinder and the Dremel tool.

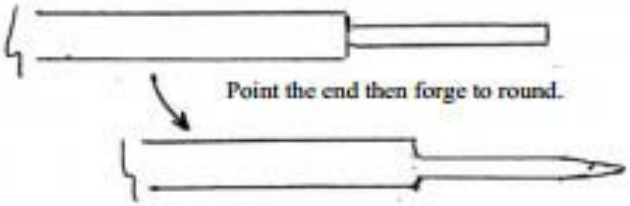


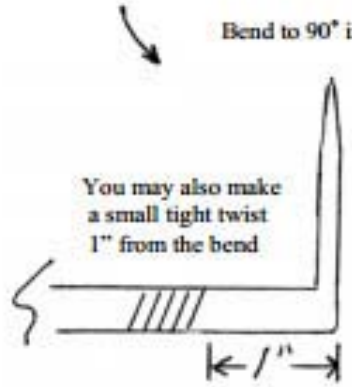
Christmas Ornament Hanger

By Steve Anderson,
a MABA member

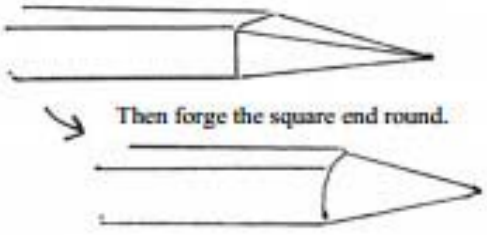
Stock: 3/16" square x 9-3/4"

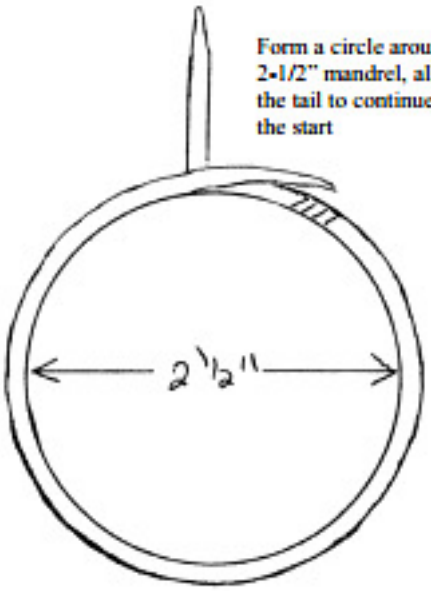
Starting 1-1/4" from the end, forge to 1/8" square.





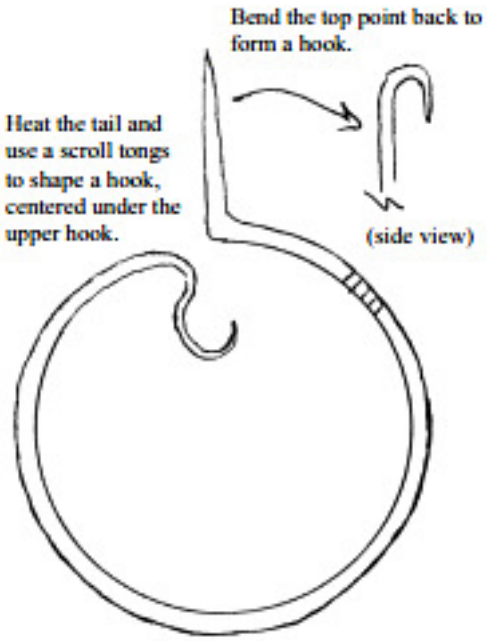
Forge a long square taper starting 1" from the other end.



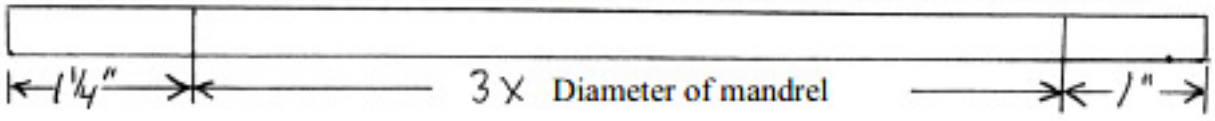


Editor's note: When Steve Anderson sent us a sample of the ornament hangers with his article for the newsletter, we knew the large 3-1/2" diameter hanger would be perfect for a chip carved ornament made by my cousin, Dick Baker.

We hope you enjoy making these hangers to accent your special ornaments. Happy Holidays!



To finish, use hot wax or use a wire wheel and a clear coat to finish. Using a brass brush is optional.
For a different size mandrel, use the dimensions below, you may want to go up to 1/4" square stock for larger hangers.



The Angle-Drop Christmas Tree

Robert Dixon Gumm

This is an easy project to accomplish.
It can be a blacksmith project, using "unplugged" tools and forging techniques, or it can be a welding project, using stick or mig welding, a cutting wheel, and angle grinder. Obtaining angle drops shouldn't be too difficult — ask around your blacksmiths' guild, or a metal fabrication shop. You can also cut angle iron and bend the angle to obtain the desired shape.

Materials:
Angle drops of any (identical) size
Steel pipe proportionate to angle drops
Steel nut
Blacksmith's glue gun (MIG) or glue stick (7018)

1. Line up your drops and determine which ones would look best.
2. Determine the height that you desire and use as many drops as you need. Then mark the cut-off points on the drops to match the preferred shape.
3. Cut a 1" or 2" cross section of steel pipe. I had access to a bandsaw, and cut a 1.5" section at an angle.
4. Take the tree branches and shape them for the desired effect.
5. Line up the completed branches to form the tree figure. Leave a gap between each piece so that there will be enough room to get a weld that will penetrate between the branches.
6. Weld the completed tree to the steel ring. Then weld the nut to the top.

Depending upon the size that you choose, this can be a freestanding tree for mantle or table, or it can be a tree to hang from your Christmas tree. If you choose the latter, make sure that it is small enough not to bend the branch. If you have cats, dogs, or small children, consider hanging it near the floor and away from glass balls and lights.

The Blacksmiths' Guild of the Potomac, Inc. November/ December 2012

NJBA Membership Renewal and Ballot

Mail completed renewal form and ballot, along with check for dues, to:
NJBA Election, P.O. Box 224, Farmingdale, NJ 07727-9998

Name_____
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Evening_____
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Email address
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_
My check is enclosed for [ ] $20 (regular membership dues), or
[ ] $40 (business membership dues).

Ballot

To vote for a nominee, please check the box next to his name.

[ ] Check here to vote for ALL nominees.

Nominee	Nominee
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[ ] Larry Brown	[ ] Eric Cuper
[ ] Dave Ennis	[ ] Bruce Freeman
[ ] Bruce Hay	[ ] Adam Howard
[ ] Ron Jani	[ ] Doug Learn
[ ] Tom Majewski	[ ] Mark Morrow
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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 around 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 different 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,
511 Beaverkill Rd.,
Olivebridge, N.Y. 12461
For more information check the web site;
www.northeastblacksmiths.org

Join The Pennsylvania Blacksmiths Association!

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Home / work Phone # E-mail (optional)

Do you have any particular skills (welder, accountant, carpenter, doctor) that may be helpful to the group or membership?

_____
What is your skill level?
O Beginner O Intermediate O Advanced O Professional

Send completed application and $25 (one year) to: PABA Treasurer - Doug Dayger - 492 Quaker Lake Rd , Binghamton, NY 13903

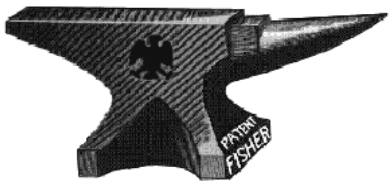
www.pabasite.org

PABA Membership Application
Membership is from
Jan. 1 — Dec. 31

PENNSYLVANIA Artist BLACKSMITHS' ASSOCIATION

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

New Jersey Blacksmiths Association



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Index For NJBA
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NEW NJBA WEB SITE!
www.njblacksmiths.org

How to Join or Renew your Membership in NJBA:

NJBA Dues are $20 per year
NJBA Business Dues are $40 per year
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Comments _____