An Invitation to the Board, with an Introduction to the NJBA Bylaws

by Bruce Freeman

I think it important for NJBA members to have a general understanding of the NJBA Bylaws. It is too much to expect each member to read the bylaws so I am summarizing the key provisions. (If you'd like to read them, you'll find them posted to the website. [Left side main page])

I cannot emphasize enough how important these provisions are. Literally, any member who works to further the objectives of NJBA can become a director, very quickly. If you are an active NJBA member, consider joining the NJBA board of directors.

Quoting the Bylaws:

T he New Jersey Blacksmiths Association (NJBA) is an independent forum and voice for blacksmiths in New Jersey and adjacent areas.

NJBA is structured to be a vital group in which the most active, interested persons rise quickly to positions of responsibility. Accordingly, there are no elected offices, but only elected directors who divide all responsibility between themselves at every board meeting. To rapidly involve new people in the activities of NJBA, the board is authorized to add to its own membership. To keep the board beholden to the membership, directors are reelected annually by the membership. To provide stability and continuity of the board, directors may serve an unlimited number of terms.

At each board meeting, the directors shall divide among themselves the responsibilities of the organization in any manner they see fit.

There is no upper limit to the number of directors. The board of directors may increase its size at any time by electing as a director any active, participating member in good standing of NJBA. ... Any member who lives within the area served by NJBA, and who shows leadership in or works on behalf of NJBA is qualified to serve on the board and shall be considered by the board for election as a director, and may petition the board on his own behalf for such consideration.

Active participation may include ... any of the following activities: Acting as newsletter editor or treasurer or keeping membership records. Running or hosting a membership meeting at least once per year, running or hosting a board meeting, hosting an open forge meeting, providing major assistance at a membership meeting, such as by demonstrating, by running the iron-in-the-hat, by assisting with a picnic or other activity, etc., Attending at least two of the board meetings per year. Writing, or providing photographs or other materials for newsletter articles. Acting as a liaison to an outside organization of importance to NJBA (such as Peters Valley Craft Center). An active director will typically perform several of the above activities. There is no explicit minimum number of activities a director must perform, but it must be clear from his actions that he is actively supporting NJBA's goals.

I f you decide you're interested, email any board member(s) to introduce yourself and to remind us of what you have done to support NJBA goals. If you're known to the board and we agree your activity warrants it, we can elect you at the next board meeting or even sooner. If few of us know you, we can invite you attend the next board meeting to introduce yourself. Give it some thought.

Albert Paley

I get an email from a bookseller advertising a book on Albert Paley's sculpture display on Park Ave in Manhattan. The display was from June 29th to November 8th. Unfortunately this is the first time I hear about it and it is due to be removed in eight days. It has been there for months but I never heard about it. So I ran up there with my camera and tried to get some picture before they were removed and without gettting run over (Park Ave at midday, hoping for decent light, is not a good place to stand in the street). There were thirteen sculptures to start and I got pictures of 11 of them. Some had already been removed but most were there and as usual his work is on an impressive scale. He uses a combination of heating and forging to create the pieces which a then welded together. Some were stainless, some powder coated and painted and some rust finished. Here are a few of them (The online newsletter will have them in color). I might post more on the web site if I have time, so check!

Progression, Painted steel

Cloaked Intention, Weathering Steel

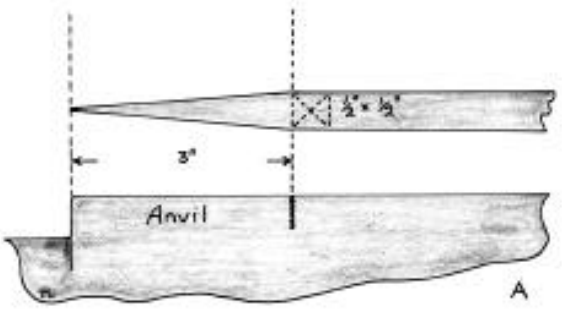
Between The Shadows, Painted and Weathering

Lesson One: Drawing Out

By Peter Ross and Doug Wilson Illustrations by Tom Latané

Lesson Number One– Draw a sharp point on a 1/2" square bar.. The taper should be straight, three inches long and in line with the axis of the parent bar. The cross section of the taper should be square. The surfaces of the bar should be smooth with no discernable hammer marks. The beginning of the taper should be a crisp line. Intent: Students will learn to draw out tapers of specified length and check their results for accuracy.

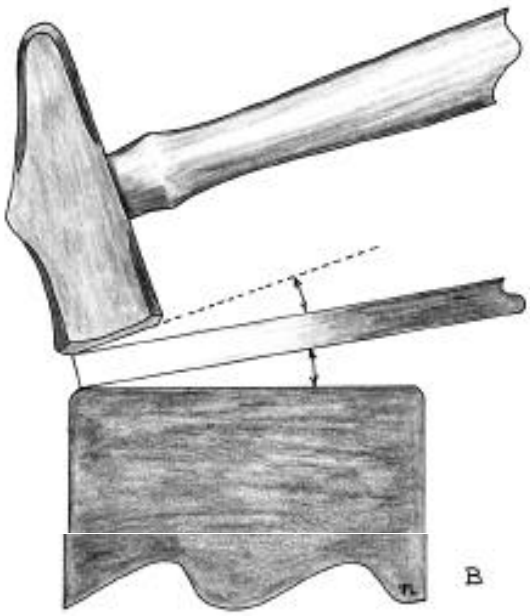
Tools Needed: Forge, anvil, hammer, ruler, square.
Materials: 24" of 1/2" square mild steel bar (this is enough material to practice the exercise several times).
Method: When working to a specified length, establish the point first, then extend the taper to the desired length.
Step One: Mark the anvil with soapstone or marker three inches from the anvil step. This is the finished length of the taper you will forge.



The measured piece held over the anvil.

Take a yellow-white heat on the end of the bar. Place the bar on the anvil so that the end of the bar is at the far edge of the anvil and only the end of the bar is touching the anvil face. This way, the hammer won't strike the anvil surface if it overhangs the hot bar. Strike a blow on the end of the bar with your hammer. The hammer should strike at an angle. There will be a wedge-shaped daylight space between the hammer face and the anvil face which corresponds to the angle of the taper you want to forge.

As you work, adjust the height of the bar as you hold it on the anvil and the angle of your hammer blows. If you hold the bar too high it will bend down in the middle; too low and the bar tip bends down. The bar will remain straight if you are gauging the angles just right.



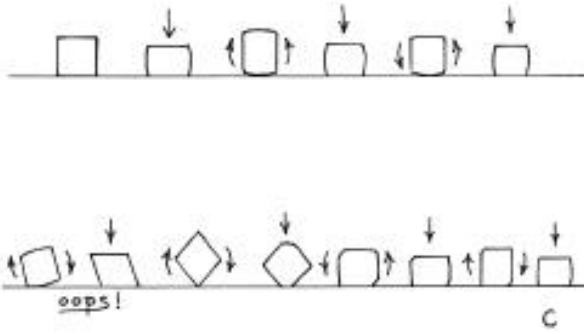
Placement of steel and position of the hammer blow.

Rotate the bar 90 degrees after every one or two blows to keep the bar from getting too wide as the forging progresses. Hit, turn 90 degrees, hit and turn 90 degrees back again. You need only turn the bar back and forth as

the underside of the bar is worked against the anvil. Continue this sequence of forging until you have made a sharp point.

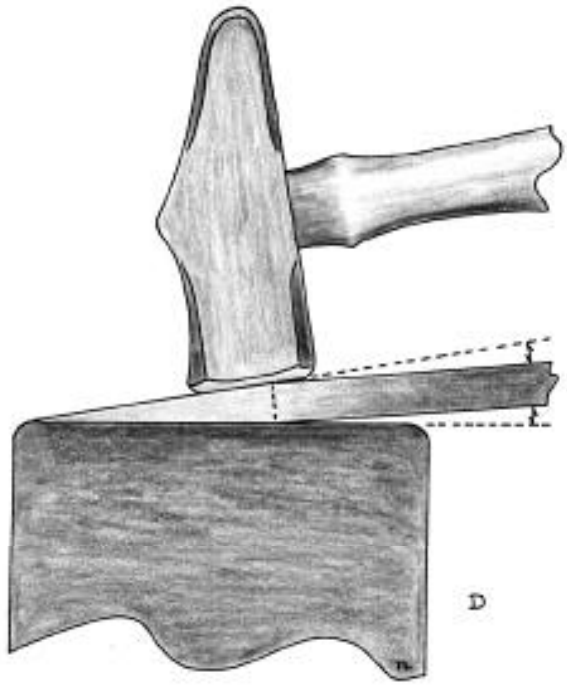
Hint: It is very important to rotate the bar exactly 90 degrees each time. Use the original flats of the bar as a reference. If the turn is either more or less, the bar will become a parallelogram in cross section and that makes it difficult to attain the desired result. If the bar does become a parallelogram, hit the corner of the long diagonal; then return to forging the flats of the bar. The sooner you catch and correct this error, the better. Keep a square cross section

Step Two: Once the point is established, start working back from the point until the taper is 1/4 " short of the desired length . Work with heavy hammer blows at a bright heat while you are reducing the cross section. Lighter hammer blows at lower heats will help you refine the shape of your taper and smooth the surface. Establish a clear and well-defined beginning of your taper.



Rotation and deformation of the bar by the hammer, and correcting a parallelogram.

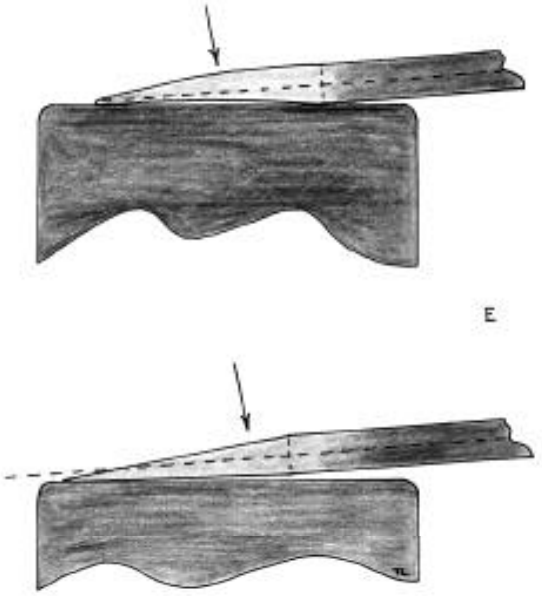
Step Three: Now focus on smoothing the surfaces and straightening the taper at the same time. Make the taper straight and true. Refine the shape of the taper with light overlapping hammer blows. Do this as the bar cools to dark orange and red color. The bar scales less at this



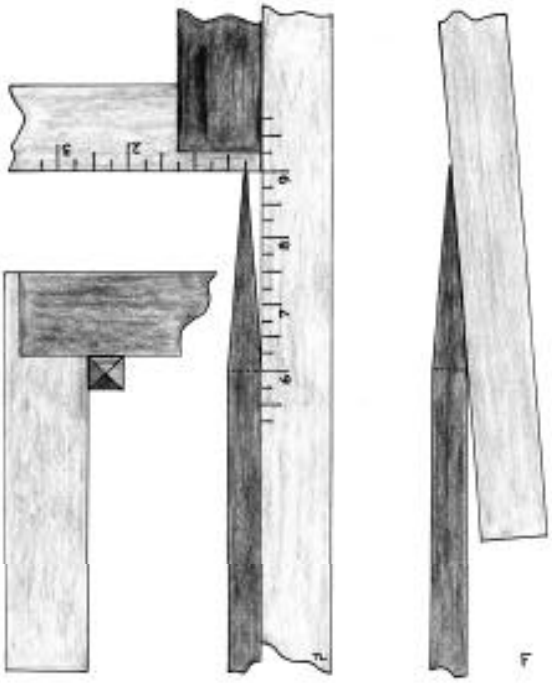
Angle of the bar and hammer when dressing the final taper.

lower heat and you will get a smoother surface. Sight down the length of the bar for straightness. Straighten with light blows at low heat. Another way to tell if the taper is straight is to stand the bar up with the point on the anvil face and spin it in . If it is straight there will be no wobble. The four flat sides of the taper should be in line with the original flat sides of the bar and the taper should align with the original centerline of the bar. Any deviation should be corrected with your hammer at the anvil.

Targets: Try to draw out and finish the taper in two heats. Beginners may take several extra heats. Maintain a square cross-section in the taper. Check this with a square. Hammer-finish with smooth surfaces and without discernable hammer marks. Maintain a perfectly straight axis in the bar and in the 3" long taper. Check this with a rule and also practice sighting down the length of the bar until you can attain the



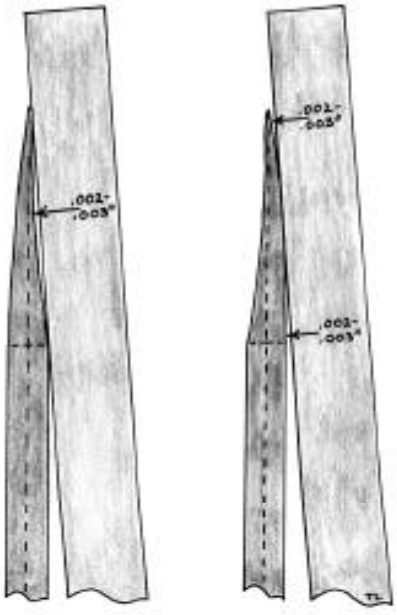
Straightening a bent point (above) and centering an off-center point (below).



Methods of measuring the dimensions.

same results by eye. Measure your results using a square and a rule. The four flats of your taper should be straight within two or three thousandths of an inch, length within 1/16" and square in cross section. With practice you should be able to forge to this accuracy by eye. Repeating this exercise with care and attention will enable you to achieve these results quickly and consistently.

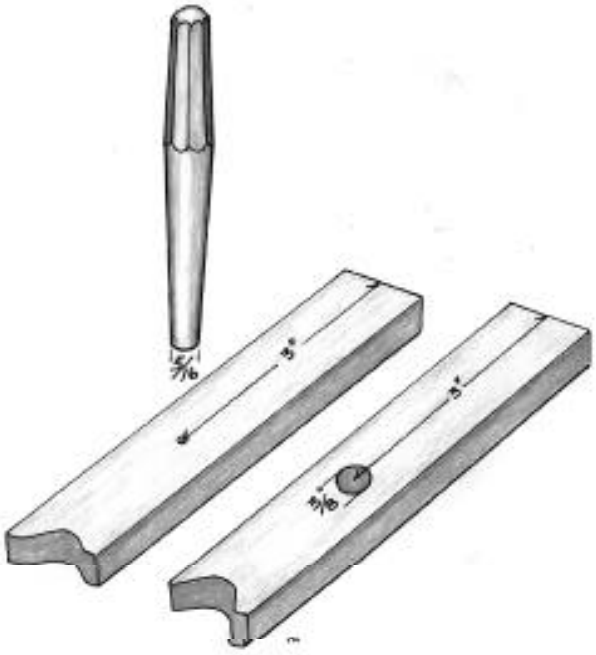
Forging Dynamics : Angle of the bar and hammer when dressing the final taper. In this exercise, when the square bar is struck, it gets thinner top to bottom but wider side to side. When you turn the bar 90 degrees and hit again, (you are restricting the spread of the bar, but allowing lengthwise stretch. Repeating this hit, turn, hit, turn sequence results in creating a taper. You are redistributing the mass of the bar with your hammer. As the bar become thinner it becomes longer. Notice that the thinner steel heats faster. It also chills faster. This is because there is less mass. Also note how much the bar you tapered has stretched in length.



Exaggerated deviations show how to measure goal tolerance.

Lesson Two: Hot Punching

By Doug Wilson
Illustrations by Tom Latané



Punching- layout and specifications

Lesson Number Two–
Create holes or recesses in bars or plate by driving punches into or through hot material. (Holes or impressions can be made any shape you can make a punch.)
Punch a 3/8" round hole through the center of a 3/8" x 1" bar with the hole's center 3" from the end of the bar. Drift (stretch) the hole to finished size.
The finished hole should be 3/8" round, with clean sharp edges.
The hole should pass through the bar at 90 degrees.
The wide surfaces of the bar should be flat with no discernible hammer marks.
The bar should remain 3/8" thick.
The bar will bulge out slightly on either side of the hole.
The original edges of the bar should be straight in line on each side of the hole and without any twisting.

Intent: Students will learn to hot punch clean accurate holes and to check their results for accuracy.

Tools Needed: Forge, anvil, hammer, round punch, center punch, square and ruler.

Materials:
24" of 3/8" x 1" hot rolled mild steel.
24" of 3/8" hot rolled round bar (to check final size of punched hole).

Method:
When working to a specific hole size, start with a punch slightly smaller than the finished hole size. After the hole is made it can be enlarged to final size by drifting (stretching) with the punch.

The Punch
The punch may be made of plain carbon tool steel at least 5/8" in cross section, forged to shape and normalized (air cooled until room temperature from a red heat). W1 or O1 drill rod, available at industrial supply shops, would be a good steel for this punch.

The business end of the punch should be a tapered round cross section 2 1/2" long, 9/32" to 5/16" round at its end and filed or ground flat with sharp edges after normalizing.

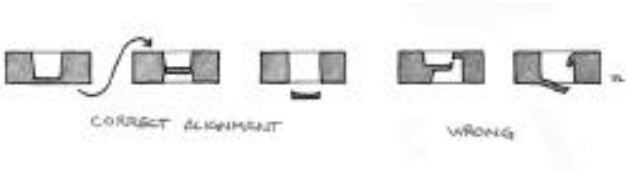
The top end should be tapered slightly to reduce mushrooming in use.

A hand held punch should be 10" to 11" long.

A punch held in tongs should be 3 1/2" to 4" long.

Some different styles of punches

Step One:
Make a center punch mark in the center of the bar 3" from its end. Take a bright yellow heat where the bar is center punched. Place the bar flat across the face of the anvil, center punch mark up. Carefully place the punch over the center punch mark. Strike a single solid blow to sink the punch into the hot bar. Make sure the end of the punch is still where it is supposed to be. Continue striking solid blows until the punch is nearly through; another two or three blows. The punch will feel solid against the face of the anvil. If you have done this quickly the bar will still be at a bright orange heat.



Correct and incorrect alignment of the punch

Hints:
Wear a glove on the hand that is holding the punch.
Quench your punch after every four or five blows. This will help to prevent the punch from deforming.
A few soapstone X-marks on the center punched side of the bar will help you get the punched side of the bar facing up when you first put it on the anvil.
Scraping the surface of the bar with your hammer will help you locate the punch mark. (Scale will fall into the punch mark leaving a small black spot.)
Learn to hit the punch directly and hard on the first blow. Avoid aiming blows.
The cold end of the bar can be supported on your thigh or on an adjustable stand set anvil high.

Step Two:
Immediately turn the bar over on the anvil. Look for slight bulges on either side of the hole and a dark spot where the punch was driven into the first side of the bar. Position the end of the punch exactly over the dark spot. Strike several heavy blows. You will feel the punch solid against the anvil face again. Move the bar, with the punch in the hole, over the pritchell hole (the round hole in the heel of the anvil). Strike one or two more blows over the pritchell hole and a small slug will be driven out of the hole. Now, straighten and flatten the bar with light hammer blows on the anvil face. (The bar should still show color during this part of the process.)
At this point you will have a hole. It should be a bit smaller than the desired size.

Notes:
If the punch doesn't clear the slug from the hole it is likely because the punch was misaligned when the bar was turned over or because the punch didn't have sharp edges on the business end. The slug should be driven out from the second side of the bar. Avoid the temptation to turn the bar back over to the first side and try to drive the slug out.
See illustration of misaligned punch with slug hanging from one side of the hole.

Step Three:
Now you need to drift (stretch) the hole to the desired size. Heat the bar to an orange heat again if necessary. Place the hole over the pritchell hole, insert the punch and drive it in a bit further. Remove the punch, turn the bar over and drive the punch from the second side. Continue this sequence until the hole is just large enough for the 3/8" round bar to fit through easily. The drifted hole should be just a bit larger than the 3/8" round bar so that when it is cool the 3/8" round will still fit through the hole.

Hints:
When drifting, work a bit from one side of the bar and then from the other. This will make the hole more uniform in size. If you only drift from one side the hole would be wider on the top than on the bottom.
Finally, straighten and flatten the bar with light blows and a low heat.

Targets:
Try to punch and drift the hole and straighten the bar in one heat.
(Beginners may need a second heat to accomplish this.)
Check you results using the 3/8" round bar, a square and a straight-edged rule. The 3/8" round bar should just fit through the hole you punched. The hole should pass through the bar at 90 degrees. The bar should be flat and uniform in thickness. The bar should be straight and without twist. The surfaces of the bar should be smooth with no discernable hammer marks.

Forging Dynamics:
The flat bottom of the punch pushes the steel beneath it outward as it is driven into the hot bar. The sides of the bar bulge outward slightly.
When the bar is turned over and punched from the second side the sharp edges of the punch end shear out a small slug.
Driving the punch further into the hot bar stretches the hole larger, increasing the bulges on either side of the bar.
Steel expands when it is hot and shrinks as it cools. When hot, the drifted hole should be just a bit larger than the 3/8" round bar so that when it is cool the 3/8" round will still fit through the hole.

Artist-Blacksmith's Association of North America

ABANA

The next ABANA Conference will be held in Harrington Delaware at The Delaware State Fairgrounds, August 13—16th 2014. Register by 30 June 2014 and avoid the $50.00 Late Fee.
Cost to Attend the Conference;
ABANA Members only $175.00
Non - Members $225.00*
Registration can be done through the web site, www.abana.org or call: (423) 913-1022

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___ Regular Member	$55.00
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___ Contributory	$150.00

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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, The Ashokan Center,
447 Beaverkill Rd.
Olivebridge, N.Y. 12461 [914]657-8333
For more info check out the web site;
http://www.northeastblacksmiths.org/

Join The Pennsylvania Blacksmiths Association!

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Name

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Address

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City, State, Zip code

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Home / work Phone # E-mail (optional)

New Member ____ Renewal ____

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

_____

_____
Suggestions for PABA demonstrations

What is your skill level?

O Beginner O Intermediate O Advanced O Professional

Membership paid by ___Cash ___Check # _____

Send your completed application with $ 25 (one year dues) to;
PABA, Jeff McComsey, Treasurer
124 W Franklin St
Strasburg, PA 17579
(make Checks payable to PABA)

PABA Membership Application

Membership is from *Jan. 1 — Dec. 31*

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

How to Join or Renew your Membership in NJBA:

NJBA Dues are $20 per year.
NJBA Business Dues are $40 per year
Please make your check out to: "NJBA"
Please mail checks to:
NJBA, P.O. Box 224, Farmingdale, NJ 07727-9998

Please include payment with the information listed below.
"I want to join NJBA, and I am enclosing my check for $20 ($40 for a business) to cover annual membership dues and newsletter subscription. "I understand and acknowledge that NJBA dues are credited from June to June, that I will receive for my first years dues the current volume, and that dues will be payable again in June."
The following information will be listed in a roster available to other members.

Name _____ Home Phone_____
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E-Mail _____ Skill Level (optional)_____
Comments _____