

# Hot Iron News

THE VOICE OF THE NORTHWEST BLACKSMITH ASSOCIATION

First Quarter 2015





# Northwest Blacksmith Association

*"To promote and preserve the Art and Craft of Blacksmithing while building friendship and good will."*

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## Quick Reference for NWBA Members

Submit articles, photos, how-to's to HIN:

[nwbainfo@gmail.com](mailto:nwbainfo@gmail.com)

NWBA Website: [www.blacksmith.org](http://www.blacksmith.org)

For NWBA correspondence or membership, or to change your address (must be in writing) send to:

Northwest Blacksmith Association

4742 42nd Ave SW #185

Seattle WA 98116

Annual dues 2015: \$60 (foreign, \$70)

Dues include quarterly subscription to Hot Iron News.

Dues may also be paid online at

<http://blacksmith.org/membership-payment-gateway/>

**Want to be sure to keep up to date?**

**Sign-up to receive email announcements monthly so you don't have to miss another event!**

**Sign-up online:**

**<http://blacksmith.org/sign-up-email-announcements/>**

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## ON THE COVER



Element of sculptural forging in progress by Dennis Dusek. Dennis will be demonstrating at NWBA's Conference May 15-17, 2015, Longview, WA

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*May 15-17 2015*  
***NWBA Blacksmith Conference***  
***featuring demonstrators:***  
***Frederic Crist***  
***Dennis Dusek***  
***More info on page 20***

**SAVE THE DATES:**  
**Mentoring Center Monthly Events**  
**February 28, 2015:** Mentoring Center Tooling Workshop. Help make some new tools and repair old ones for use at the Center. A great open forge learning opportunity while contributing to the NWBA.  
**March 28, 2015:** Mark Aspery Demonstration. Also, Mark will be giving 2 workshops in the week prior. (see page 19)  
for most current info see our online events page:  
<http://blacksmith.org/events/>

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## From the Presidential Scrap Heap

Greetings All Blacksmiths:

Well, here we are, 2015, a new and exciting year with the NWBA! We have a new board of directors who are enthusiastically jumping in with both feet. We really want to know what you want from the NWBA, please take a moment to reply to our the survey below.

We are working to move the library to the Mentoring Center so it will be more available to our members.

Rashelle Ham is our new coordinator for the Mentoring Center events so if you have a great idea for a demo or workshop, get a hold of her.

We took a look at the hand tools at the Mentoring Center and we are lacking in square punches, fullers, etc. February's event will be Rashelle demonstrating making the tooling and then we'll all jump in and get some tools made for the center. The rest of the day will be open forging.

Plans are firmed up to have another workshop with Mark Aspery in March. He will be doing our 4th Saturday demonstration at the Mentoring Center, and in the week prior will be giving two, 2 day workshops. (See info page 19 and at the website, [www.blacksmith.org/events](http://www.blacksmith.org/events).)

Mark your calendars for the Spring Conference May 15 – 17, 2015. I am looking for a few volunteers to bring extra forging kits and allow others to use them so we could offer more than 4 hands-on classes. I'd like to offer beginner and intermediate classes. Get a hold of me if you can help.



We are also looking for volunteers to help run the registration desk. Contact Scott Rash if you'd be willing to help out.

Don't forget the Western States Conference, April 23-26, in Hollis, Ca. Should be a great time!"

Hope to see you all at the Mentoring Center in February.

Good Forging,

Lynn

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## NWBA Members Survey

The new board met in January and we are excited to see what we can bring to the organization. We would like to hear from the members your opinions, good and bad, and new ideas. Please take the time to respond to the survey either by mail or on the website. This is an opportunity to let us know how we can best serve the NWBA members.

1. What are your complaints or in what areas do you feel the NWBA needs to improve?
2. What has been successful, past or present, that you would like to see continue?
3. What classes or topics would you like to see at either the conference or the Mentoring Center?
4. What demonstrations would you like to see at either the conference or the Mentoring Center?
5. Would you or is there any person in particular you would like to see as a demonstrator?
6. Comments.

Respond to our survey in the manner that is convenient for you; website form, email your reply, or snail mail:

**Website Survey Form:** <http://blacksmith.org/nwba-member-survey-2015/>

**Email** your survey answers directly to Peggy Gudgell: [peggygudgell@msn.com](mailto:peggygudgell@msn.com)

**Snail mail** directly to Board Member Peggy Gudgell:

Peggy Gudgell  
2819 NW 68th St.  
Seattle WA 98117



**2014 NWBA Year-end Report****Income:**

Dues Income	\$24,827.81
Conference Registration & Banquet	\$17,779.69
Hands On Classes	\$690.00
Merchandise Sales	\$1,567.11
HIN Advertisements	\$838.95
Refund Income	\$406.95
<b>Total:</b>	<b>\$46,110.51</b>

**Expenses:**

Hot Iron News / Website	\$16,111.50
Conference Expenses	\$17,003.66
Insurance	\$1,580.00
Printing (ballots & brochures)	\$1,045.91
Al Bart Grant	\$300.00
Refunds	\$25.00
Administration:	\$2,725.36
<b>Total:</b>	<b>\$38,791.43</b>

**2014 Mentoring Center  
Year-end Report****Income:**

Donations to Mentoring Center	\$8,591.25
Event Fees	\$3,688.00
Workshop Fees	\$6,815.00
Conference Auction	\$6,409.50
Refund Income	\$61.95
<b>Total:</b>	<b>\$25,565.70</b>

**Expenses:**

Demonstrator Fees & Handouts	\$6,962.86
2014 Site Rental	\$4,800.00
Supplies for Camp Hahobas	\$1,097.67
Propane	\$1,047.73
Bronze for workshop	\$574.44
Library	\$439.83
Administration	\$592.45
Outreach at Cowlitz Co. Fair (lodging)	\$286.00
New Equipment	\$132.48
<b>Total:</b>	<b>\$15,933.46</b>

**A Note from the Editor** Amy Mook

Hello NWBA Members,

Great things are happening for the NWBA.

First things first. Take note of the survey on the previous page and take action. Send in your ideas, this new board of directors is energized and eager to serve the NWBA.

This issue of the Hot Iron News has information about our conference coming up May 15-17, 2015. We have a great lineup of demonstrators; Dennis Dusek and Frederic Crist. Both are focusing on sculptural aspects of blacksmithing, and both are great demonstrators. Register for the conference by mail (page 28), or online, [www.blacksmith.org/events](http://www.blacksmith.org/events)

We have two how-to articles in this issue. Hardie Swage brings us a report on Tri Ficker's January Mentoring Center demo, with photos by myself and a few from members who have sent me photos. (Any time you have photos from one of our events that you are willing to share, send them to me, [webmaster@blacksmith.org](mailto:webmaster@blacksmith.org). I may not get to use them all, but they are all a great help.)

Mark Aspery's excellent article on his Miner's Candlestick takes up a good portion of this issue. It is a very high caliber how-to which will probably be making up a full chapter in a new book. So many skills and design ideas are included in this 'simple' project, it is well worth saving, which is why I dedicated nearly 12 pages to printing it. Thank you to Mark Aspery for the generous permission to print it.

Also added to this extra fat issue is a new feature which will appear from time to time, in print and on the website, a tour of an NWBA member's blacksmith shop. Thank you Matt Alford for your great submission. Other smiths, send me your shop story and photos!

As always, it is an honor to serve the NWBA, hope you enjoy this Hot Iron News.

~ Amy Mook



# NWBA Mentoring Center Monthly Hammer-In January 24th, 2015 Tri Ficker: *Forging pipe*

Notes by Hardie Swage, photos by Amy Mook except as noted

Farriers rasp pipe handle. Clearly follows Joe Elliott's rule: Tools should be eye sweet and hand friendly.

Tri benefits from using his own tongs, they grip firmly and have enough mass to work well without being overly heavy. His pipe tongs have a tapered round upper jaw that nests in a wide "V" lower jaw, it holds the lip of the open pipe very firmly.

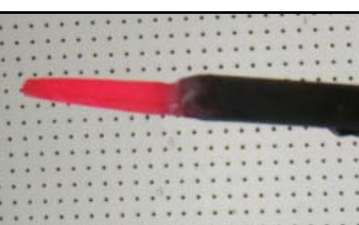
Start with 6 1/2" of 3/4" ID Schedule 40 pipe. Draw 2 1/2" of pipe into a long tail.

The tail is a long taper and the open end is worked on the end of the horns (Nimba anvil used) to keep it from forming a fold (pucker). Keep turning the piece as you work it to keep squaring it, making sure not to collapse it. The end result is a tapered tail with no fold lines, the pipe walls have been upset on themselves to become thicker as the outer shape is transformed.

Start at the base of the tail (2 1/2" mark), pipe at 45 degree angle to near anvil edge. Keep pipe end cool by dipping in water as you work to form the step. When step is fully formed, bring tip of the tail down to a small square, and then taper the area between. Important to keep top line straight during whole process.



Photo courtesy Gregg Watson



Reverse hold and start drawing down the other end. Do the anti fold/pucker work you used before. If you do not have an anvil with the fine ends to the horns make a vice or hardie tool for this purpose. The goal is a rectangle opening that fits the taper of the rasp tang. Make a drift that reproduces the area of the tang you wish the finished handle to grab. Once you drive the drift in, the challenge is to get it out. Grab the struck end on the vice and wiggle pipe slightly side wise and up/down until it releases. Not difficult if the pipe end still has color.



Next form the gentle reduced valley on the middle of the parent pipe. Tri used a radius hammer on top and the radius of the horn below, with light blows and constantly rotating the pipe. Important to keep things straight. Follow the basic blacksmith rule "Be aware". The hammer was not as pronounced radius as the horn, so the horn did most of the work.



The last step is to form the tail into an eye. Start the bend by bending away from the intended direction to form the eye and then bring the end around. Work over the horn to get the desired round shape of the eye's inside.

Make sure the angle of the loop handle is oriented to the same plane as the flat of the rasp, or it will tend to irritate the hand when gripping.





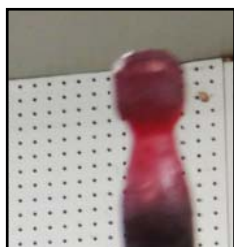
## The finished rasp handle.



Tri went on to show his exceptional forging skills by rounding a pipe end to a perfect circular dome. He upset the end of the pipe into itself using the step of the anvil to nestle it and enable the gentle hammer blows to work opposite sides of the opening at once. He used a sweet spring fuller tool that was part of the on-site tooling at the Mentoring Center. The flat area on the top fuller bar is to add spring to the fuller. He forged the ball into a pointed dome using the heavily radiused edge of the anvil, demonstrating one way to make a finial using this technique. Another version Tri demonstrated was the squared dome.



Photo courtesy Hardy Swage



Tri spread the other end of the pipe way past the trumpet mouth to a wide lip 90 degrees to the center line of the pipe; thus forming a stand base that is effective in candle sticks and other uses. A lot of it was the pipe end hanging a little ways off the far anvil side and striking the lower lip edge with a round hammer peen. Again always rotating the pipe and using mild blows while keeping everything in line.



*Thank you Tri for the great demo, as always, you make it look easy.*

# Mark Aspery's Miner's Candlestick

## aka Sticking Tommy By Mark Aspery, California

Originally published in *The Hammer's Blow*,  
Journal of the Artist's Blacksmith Association  
Winter 2015. . © Mark Aspery  
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Sometime last century, I worked weekends at a historical museum in Colorado. The job was a 'first person, interpretive' position. The shop was depicted as being 1904 era and the smith was dedicated to mining and agriculture. Thus started my affair with the miner's candlestick.

I had watched Francis Whitaker demonstrate a candlestick at a Rocky Mountain Smiths conference in Carbondale, Colorado, and that was my starting point.

Of course, centuries pass and I had moved on to other things when fellow smith and friend Ron Shannon of the Weaverville Smiths showed a candlestick at the Weaverville Hammer-in last year.

This method of making the candlestick differs from both Francis' and Ron's method, but there are hundreds of designs of candlesticks out there, and I'm hoping that mine resembles one of them. Fig. 1

One thing I like to keep in mind is that this is a tool that has to fit a blue collar worker's pocket book. I have seen a 1923 advertisement for these candlesticks from the California Hardware Company, selling 10 and 12 inch long candlesticks by the dozen. *10-inch long overall \$7.00 a doz., 12-inch long overall \$8.00 a doz.* so they had to be made quite quickly to make any money.

I have added some upset corner embellishments to this version which would probably blow the budget.

You need a nine-inch length of  $\frac{1}{4}$ -inch by  $\frac{3}{4}$ -inch flat bar from which to make the candlestick. I typically cut a bar that is 27-inches or 28-inches in length to negate the use of tongs for the first few moves.

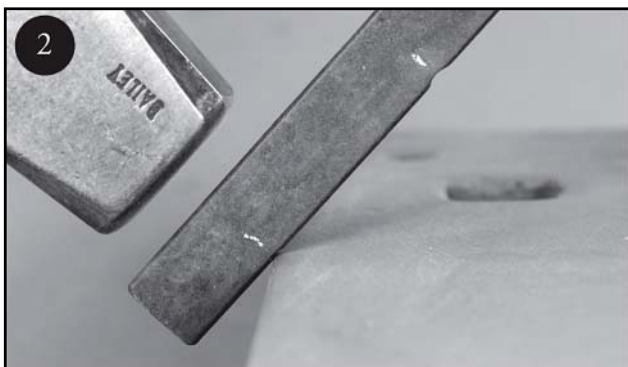


This example employs a split and open out method of attaining the hook, but forge welding as well as a mechanical joint (mortise and tenon) could be used with historical accuracy.

Mark the bar on edge at one-inch, three inches, seven and a quarter inches and at nine inches. Use the edge of the anvil to create permanent marks on the bar. All marks are on the same side of the bar. Fig. 2

At the one-inch mark, shoulder in to past halfway. The end of the bar will be further forged to a taper in a later step. Shoulder the bar, with a step transition, down to  $\frac{5}{16}$ -inch square.

Use a round edge on the nearside of the anvil or an anvil block to create this first shoulder. Finish drawing down the bar over the bick. Figs. 3 - 5



Marking the bar at the edge of the anvil leaves marks that are visible when the bar is hot.



Shoulder the bar over a round edge at the one-inch mark.



Shoulder the bar deeper than half-way.



Draw down the result to about  $\frac{5}{16}$  inch square.



## Mark Aspery's Miner's Candlestick

On the offside of the anvil, again over a soft or rounded edge, shoulder in another step transition at the three-inch mark. Figs. 6 & 7

DO NOT correct for any growth in width of the stock. We will use this increase in width to form sharp upset corners later on in the forging process.

Ultimately, all the stock between the three-inch and the seven and a quarter-inches marks will be drawn down to about ¼-inch square with three upset corners along its length.



Shoulder in over the offside edge at the three-inch mark.



Extend the forging as far as the heat will allow.

Try to extend the heat a little along the bar and draw the stock between the two marks down. Use the bick or horn now as it creates a curved transition and can be extended later without fear of creating a cold shut in the bar. Figs. 8 - 10

Shouldering at the 7¼-inch mark now, in a solid fuel fire, would mean moving the heat to a different area of the bar and may not be an efficient practice. If you are working in a gas forge, then that portion of the bar may already be hot.

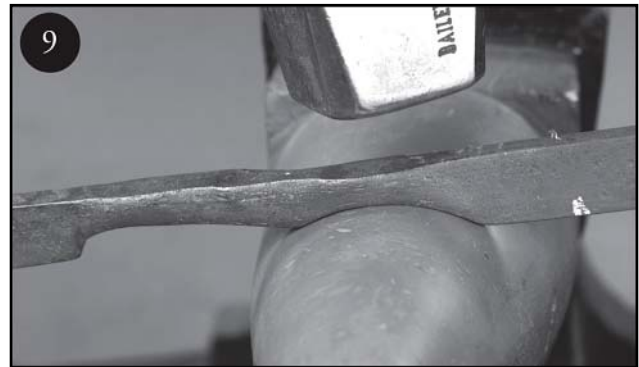
Draw the bar down so that it is equal in width for a length greater than the thickness of your vise jaws so that it can be grasped in the vise without causing a problem.

You should have isolated a two-inch length of unforged bar as a result of the two shoulders.

The corner at the three-inch shoulder point needs to be removed as it will interfere with the hook material when you move it away from the parent bar.



Drawing down over the bick allows the forging to be extended without fear of cold shuts.



Take care not to go past the 7¼-inch mark.



Forge the bar so that it is flat and straight taking care not to remove the curve put in by the bick

You can rasp, hammer in or hot cut (chisel) away the offending corner. As you will have a hot cut in your hand later, you might be inclined to cut the corner away. Hold the hot cut at an angle to match the edge of the side closest to the stock to vertical. Failure to do so will cause the hot cut to fall away from the cut leaving you with a chamfered corner. Figs. 11 - 14

Use your hot-cut (chisel in my case) and split the isolated material in two along its length starting at the end furthest from you.

Stop the cut when you are half-inch to 7/16-inch from the second shoulder. In theory, you should see two bars, each ¾-inch wide, joined at one end. Fig. 14

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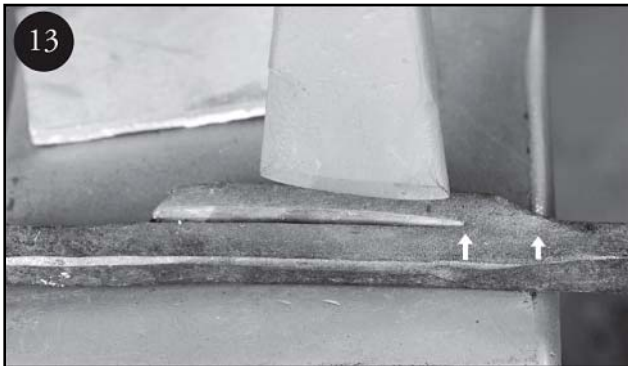
## Mark Aspery's Miner's Candlestick



Forge in the corner at the three-inch shoulder.



Split the stock using a hot cut chisel or bandsaw.



Leave approximately 7/16" of material at the root of the split material.



Finish the cut over the edge of the anvil or on a sacrificial plate to protect both the chisel and anvil.



You can cut away the corner at the three-inch mark if you didn't already forge it in.



Even out the root of the cut with a sharp fuller.

Use a set of vise jaw inserts to protect the stock from being marked by the vise as you equal the depth of cut and then lift the hook away from the parent bar.

The vise jaw inserts feature a backing plate on one side and a piece of angle iron with a rounded corner (to match your anvil) on the other.

Clamp the hot bar in between the vise inserts and using a sharp fuller, convert the sharp cut termination into a half-round end. A sharp cut termination will only serve as a stress riser and propagate a crack when you move the hook material away from the parent bar. Fig. 16

My fuller is curved to allow it to gain access to a cut that is below another feature proud of the bar; not an issue in this case.

If the corner is still hot (not warm) go ahead and lever the hook material away from the parent bar a little. Fig. 17



Lever open the split material using your fuller or your hand hammer.

I bring the hook material down as close to 90° to the parent bar as I can, using the fuller to start and my cross peen to finish. Keep your eye on the underside of the moving bar in case it decides to buckle - not a good thing in his case.



## Mark Aspery's Miner's Candlestick

Once the hook material has been pulled sufficiently away from the parent bar, heat the whole area and, moving to the bick, put a convenience bend into the parent bar. Figs. 18 & 19

A convenience bend is a bend that may be removed later, but gives us immediate access to an area that may be difficult to forge otherwise.

Don't make the bend too tight or the stock will crack when you straighten it. Use your cross peen to help finish the bend on your side of the hook material.

At this stage the hook should be sticking out like a sore thumb, begging to be drawn down into a taper.

Hopefully, the fire has taken care of any sharp rag from the cut, if not, rasp it away now.

Remember to hold the hook material at a slight angle to the anvil initially as you forge in the chamfer created by the hot cut.

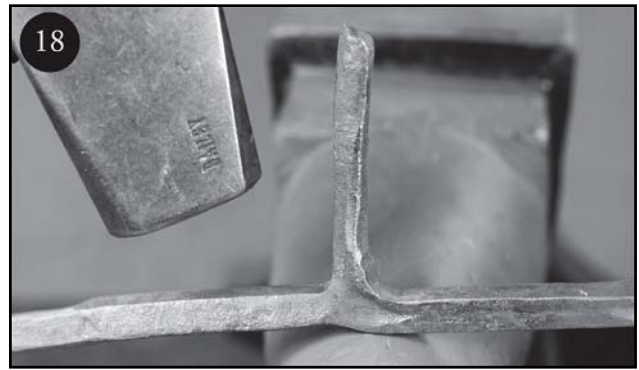
Once the chamfer is forged in, hold the bar flat on the anvil and draw down the hook material into a taper. I tend not to make my hooks too sharp, as this will be a tool often handled. Fig. 21

Take care not to forge down the growth in thickness that you left earlier making the shoulder at the three-inch mark. You will need this extra material for an upset corner.

If you are using a gas forge, leave a little extra material in the taper to allow for oxidation of the material.

Straighten the convenience bend out of the bar. Fig. 22

At this stage, draw down the bar that forms the spike into a blunt taper. Too sharp, and the point will bend as it is driven into an oak timber or soft rock/ crack during use in the mine.

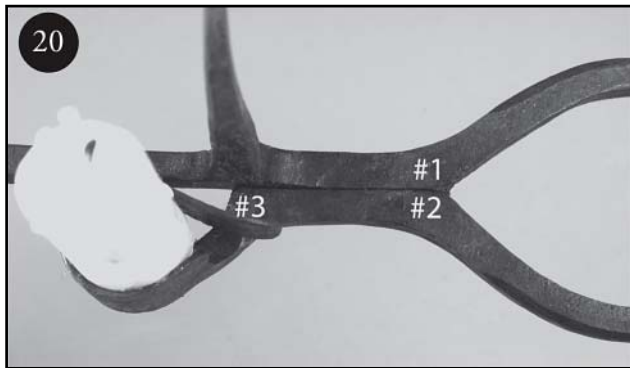


Put a convenience bend in the bar around the hook material.



Forge in a lazy bend that allows the hook material to be drawn down without impedance.

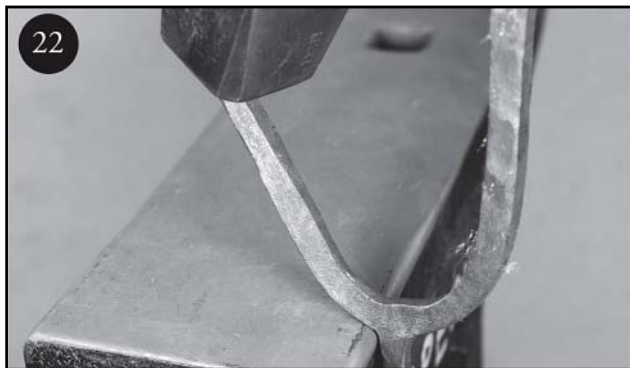
I draw a taper down from the hook as it gives me a chance to clean-up the hook to parent bar transition. I have seen many examples with a taper drawn over the last inch or so of the stock, the remainder being left parallel. Fig. 23



The three upset corners used on my version of the miner's candlestick.



Draw down the hook material into a taper and chamfer the corners.



Remove the convenience bend over a soft edge to prevent galling the work.



Draw down the spike, chamfering the corners and dressing the transition area of the spike and hook.

## Mark Aspery's Miner's Candlestick

With both tapers drawn, I bend the hook material out of the way using another convenience bend. Again, don't make the bend too tight. Fig. 24

You will now start the first of the three upset corners. Label them as per Fig. 20.

The growth in width of the material as you forged in your initial shoulders will form the material for the upset corners. Fig. 25

Work over a rounded nearside edge or anvil stake. Place the bar on the anvil so that the back of the hook material is about one-inch from the side of the anvil. Face the hook towards the bick as this will place the hook on the correct side of the candlestick when finished. Fig. 26

Using a half-faced blow, create a shoulder. Set the stock down to the parent bar thickness of a quarter-inch. Fig. 27

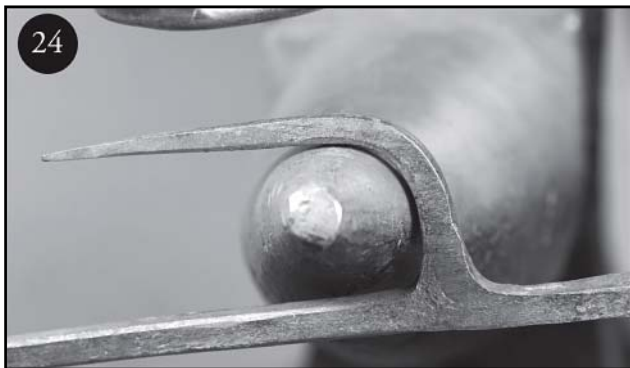
Draw the material between the hook and this new shoulder down to about 1/4-inch square, protecting the shoulder from damage as you work. Fig. 28

Take another heat and line the edge of the shoulder to the offside (rounded) edge of the anvil. Shoulder the bar again down to a quarter-inch, leaving a sharp V of material in the bar. This will be the first of three upset corners on the candlestick. Fig. 29

Draw the bar down to a strong 1/4-inch square for two inches or so past this new shoulder. Leave a little room for cleanup later in the forging process. Figs. 30 & 31

Changing ends, cut the candlestick from the longer bar and work on the opposite end.

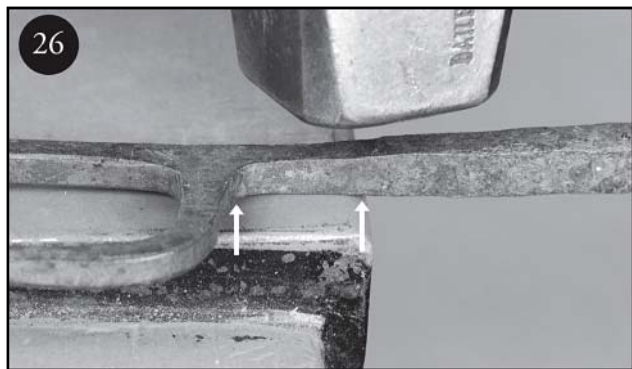
There is an argument for making the candle holder portion of this candlestick out of a separate piece of material and brazing/soldering it onto the remainder of the candlestick.



Bend the hook out of the way for now using an open, lazy bend.



The isolated material for the three upset corners.



With the hook facing the bick, lay off 1" from the nearside edge and create a shoulder.



Draw the stock down to 1/4" square.



Dress the transition area to the rear of the hook material.



Align the edge of the anvil with the tip of the shoulder. Work over a round edge of the anvil.



## Mark Aspery's Miner's Candlestick

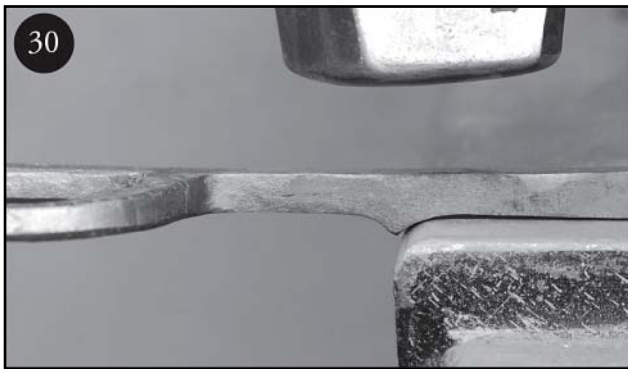
You can see many examples of this practice in historic pieces, where the candle holder may have been made from brass and embossed with the mine's name or logo.

After the stock has been cut from the longer bar, create another set transition (shoulder) at the 7¼-inch point, leaving a flag of material at the end of the bar. Figs. 32 & 33

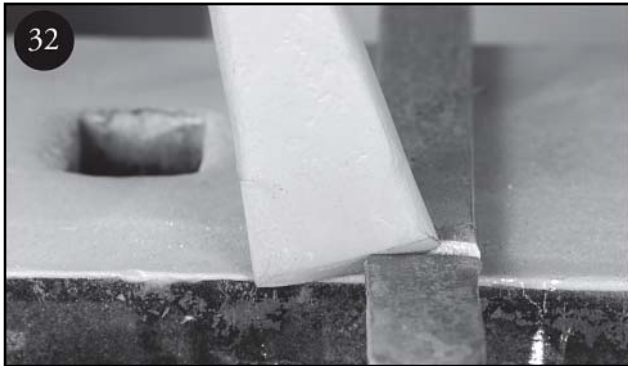
Take the stock down to a quarter-inch wide, letting the bar grow in thickness. Do not dress the sides of the forging yet as this will be another upset corner. Fig. 34

All isolated material for the upset corners will be on the same side of the bar. This will dictate in which direction the flag faces as you shoulder in to create the V of material for the remaining two corners.

Place a little less than ½-inch of the material below the flag



The objective is a sharp V of material that will later be formed into a sharp corner.



Turn the bar around and sever the candlestick from the longer bar.



Allow the stock to grow in width as you draw it down.

on the anvil and begin a new shoulder over the nearside rounded edge. Fig. 35 & 36

Once you have started to form the sharp #3 corner, it's time to start the candle holder while you have the heat in that area of the bar.

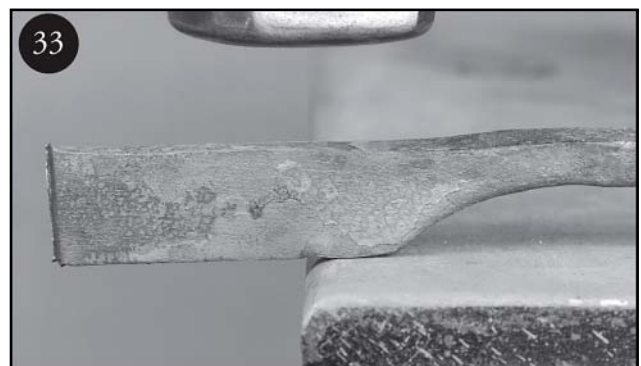
I like a candle holder that is one-inch tall and 1/16-inch thick or less. With ¼-inch by ¾-inch bar, I have way more material than I need.

Draw down the flag material, on edge, over the bick or horn. Bring the material down to ½-inch wide by ¼-inch thick. Fig. 37

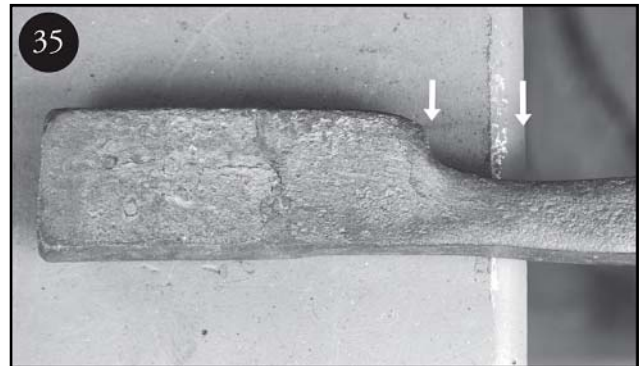
You can set a shoulder at the base of the flag now, or wait until a later stage in the forging. If you are in a gas forge, you might want to wait a while. Fig. 38



Make the most of your heat and draw the bar down to ¼" square for a couple of inches.



Shoulder in at the 7¼" mark.

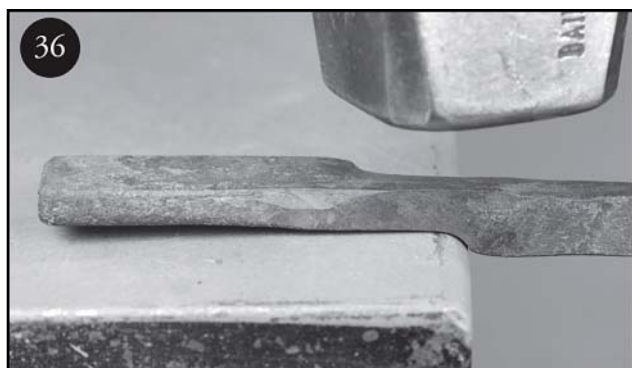


Lay off ½" from the shoulder over a round edge. This next shoulder is on the same side of the bar as Fig. 30.

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## Mark Aspery's Miner's Candlestick



Shoulder down to parent stock thickness.



Draw the flag of material down to ½" tall by ¼" thick.



Set a shoulder at the base of the flag. This can be delayed until later if desired.



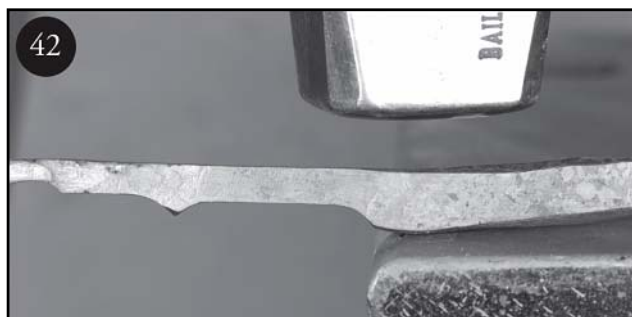
Complete the isolation of material for the upset corner. Take care to leave material for the next corner.



Use a flat topped fuller, one inch wide to start the next corner one-inch from the last corner.



Draw the stock between corners down to ¼" square.



Finish isolating the third corner over a round edge of the anvil.



Draw the stock between corners down to ¼" square with 6" between corners 1 & 2.

Setting the shoulder is a heavy hit move and with the remainder of the bar being reasonably thick at this stage it will resist twisting. You also have a heat in the area and I wouldn't want to waste it.

Move the stock to the offside edge of the anvil and line the

initial shoulder of corner #3 with the edge of the anvil.

Hold the stock at a slight angle to the anvil as you need another corner one-inch away from this corner and you don't want to lose the extra material that you have positioned there. Fig. 39



## Mark Aspery's Miner's Candlestick

Let's talk details for a moment. The stock at the base of the hook was probably forged back down to parent bar thickness as you drew down both tapers. You left the stock that grew in thickness as you forged the shoulder at the three-inch mark.

You placed one-inch of this stock over the anvil as you made the initial side of the first V of material for the upset corners.

This means that by the time you had finished dressing the material between the hook and the upset corner, it should have increased in length.

You need the distance between the #2 and #3 corners to measure the same as the distance between the #1 corner and the hook.

When I made the #1 corner I laid one-inch of somewhat flared material onto the anvil. I'd like to do the same thing to create the #2 corner, so I need to keep the flare in the material in the hopes that it will forge out to the same length as between #1 and the hook.

I have a one-inch wide flat-topped anvil block that I use when working the two upset corners #2 and #3. Short lengths of one-inch square bar stacked and welded with an angle-iron peg would achieve the same tool.

The angle-iron as a peg is convenient because you can weld on the inside of the bar avoiding the edges of the hardy hole and quickly file or grind the angle iron to fit a hardy hole.

The edges of the block are ground to resemble the rounded nearside and offside edges of my anvil face.

The one-inch thick block gives me clearance between the two upset corners and allows me to hold the stock flat as I forge the material between them into a square cross section.

Once you have the #3 corner complete, Place one inch of material onto the anvil face (or over your one-inch thick block) and start corner #2. Fig. 40

The stock between corner #1 and the hook and the material between corners #2 and #3 should be about the same length and cross section dimensions.

Finish isolating the material for corner #2 and then draw down the material between corners #1 and #2. I'd like about six-inches of material between the peaks of both corners. Figs. 42 & 43

I have six-inches of stock between corners #1 & #2. I want to give the outside of the stock some flat facets to add visual interest to the candlestick. Fig. 44

I have a shallow V bottom swage that measures two-inches from side to side. Fig. 45

The facets will be on the opposite sides of the bar to the upset corners. Drive the bar into the V bottom swage without causing damage to the upset corner with your hammer.

Hang the upset corner a half-inch outside of the bottom swage, giving you clearance for your hammer. Fig. 46

Drive the bar into the V bottom swage a few times, then lightly dress the edges. You may need to repeat these steps to get a good result. Fig. 47

If all has gone well, this last move should leave you one-inch of unforged material in the middle of the bar between the corners #1 and #2 as seen in Fig. 44.

Measure the distance between each upset corner and the end of the facets to ensure that the one-inch length of unforged stock is truly in the middle, between the corners #1 and #2. Adjust the forging as necessary.

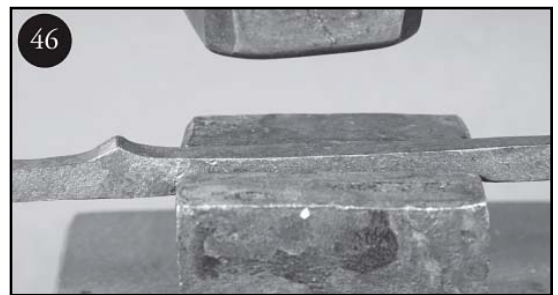
At this stage you have the candle holder to finish and you will be ready to forge the upset corners into their final position.



The eye has chamfered corners over a portion of the surface.



A shallow V swage is used to chamfer the corner of the eye material.



With the corners up and away from the swage for protection, drive the eye material into the V swage.

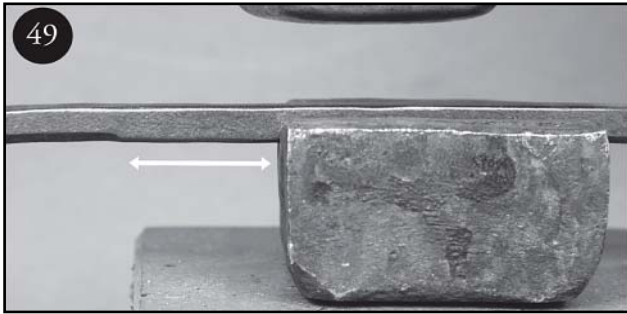


Here is the result thus far.

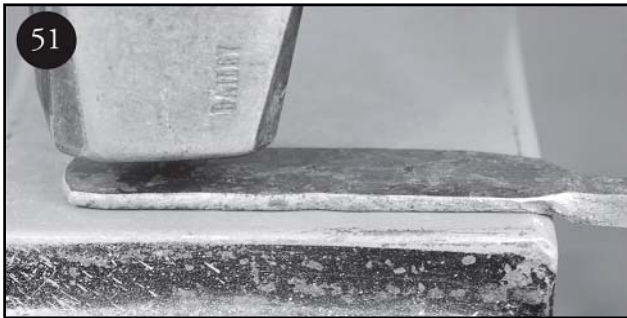


Dress the sides of the forging.

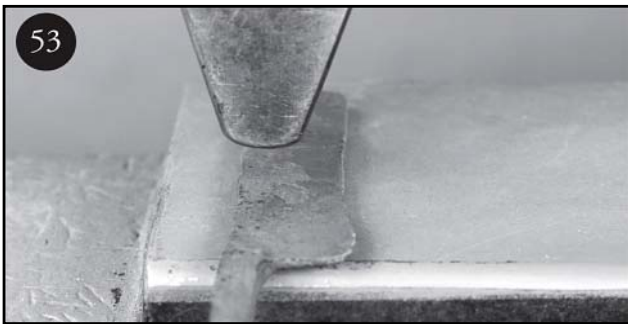
## Mark Aspery's Miner's Candlestick



Repeat at the other end of the eye leaving about 1-inch of unchamfered material in the middle of the eye.



Using the flat face of your hammer, flatten the stock until it reaches  $3\frac{1}{4}$ -inches in length.



Continue to use your peen to spread the material perpendicular to the centerline of the stock.

If you haven't already done so, set the shoulder at the base of the flag that makes the candle holder. Fig. 50

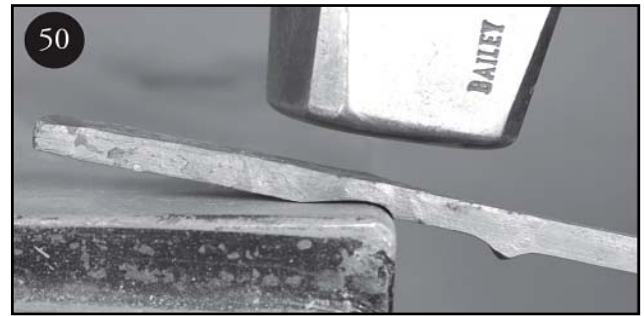
Place or create the shoulder of the base of the candle holder. Staying with the flat face of your hammer, flatten the stock until it grows to a length of  $3\frac{1}{4}$ -inches from the shoulder. Figs. 50 & 51

Ultimately, you will want a length of  $3\frac{1}{2}$ -inches from the shoulder, but I think the extra  $\frac{1}{4}$ -inch is coming your way like it or not.

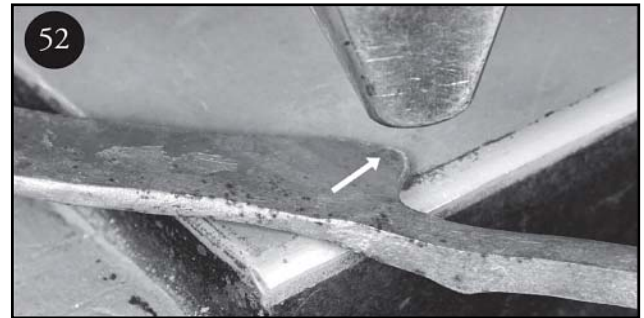
My candlestick will never see action away from a book shelf or



The thumber passes over the arm that supports the candle holder



If you haven't already done so, set the shoulder at the base of the candle holder.



Use the peen of your hammer to draw material into the corner of the candle holder.



Dress the result, you may have to cycle these two moves, peen and dress, peen and dress.

tabletop, and as such I want it to lie flat on the presenting surface. I don't think that a miner would really care about this, just so long at it held a candle and could be driven into a timber or seam.

Draw some material into the top corner with your peen and then work along the whole length of the holder with your peen, spreading the material perpendicular to the cross section. Dress the result. Figs. 52 - 54

When cross peening, try to keep the top edge of material even. Having a straight and even top edge will mean that you will have to remove less material when dressing the edges of the candle holder.

Peen for a couple of passes and then dress the result with the flat face of your hammer. Look for one-inch of material measured from the bottom of the tool, not the width of the spread material. Fig. 54

The candle is  $\frac{3}{4}$ -inch in diameter, using three times that ( $C=\pi D$ ) for my actual holder you need  $2\frac{1}{4}$ -inches of spread material for the holder, the remaining  $1\frac{1}{4}$ -inches is for a 'thumber' to open the holder when replacing the candle.

The thumber will pass over the arm that supports the candle holder, requiring that a portion of the thumber material be cut away for clearance. Fig. 55



## Mark Aspery's Miner's Candlestick

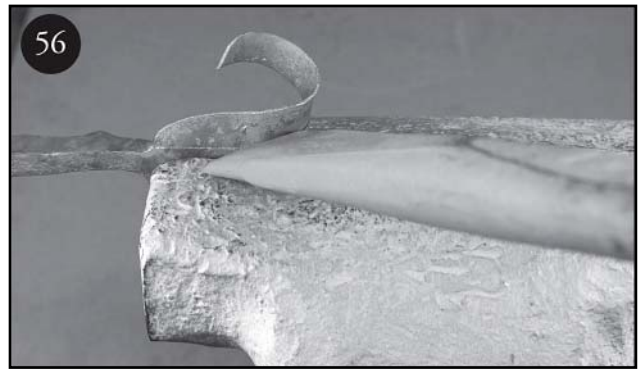
Remove the excess material from the bottom of the holder if, as I am, you are making a table ornament. Fig. 56

Cut away the extra material over 3½-inches in length and the material that will give you clearance to the supporting arm of the holder. Remove a strip about ⅜-inch up from the bottom of the holder stopping at 2¼-inches from the shoulder. Fig. 57

I have shown the use of a hot chisel for the cuts, but a vertical bandsaw makes a very nice job of this step.

Round the corners with your hot cut or saw to save on the filework. "A minute at the forge will save five at the bench." This is probably a pre-grinder quote. Fig. 58

File or rasp the result to suit. Fig. 59



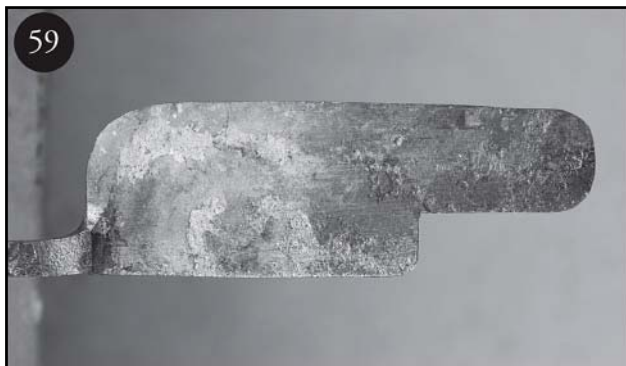
For my candlestick, I require that the excess stock of the candle holder below the candlestick be removed.



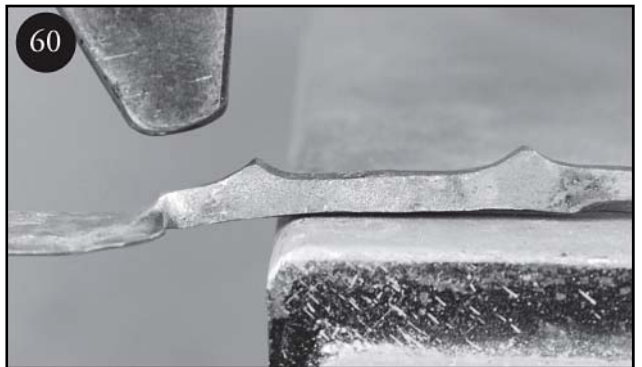
Cut to length and then cut the clearance for the thumb to pass over the supporting arm.



Cut away corners the corners for the thumb.



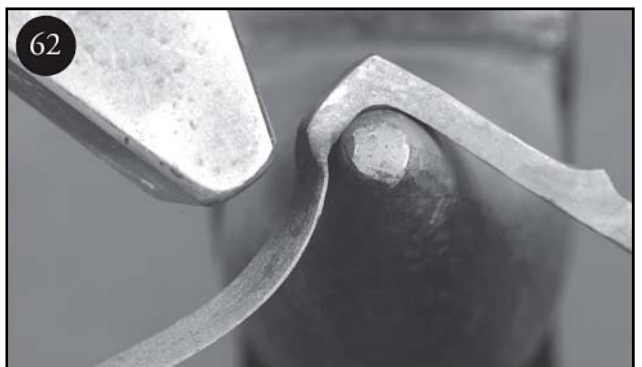
File or rasp the result to suit your needs.



Use a soft edge or the back to support the stock as you bend corner #3. Leave the bend open of 90°.



Dress the material at the corner taking care not to thin the surrounding stock.



Bend the candle holder away from the shoulder as if turning an eye on a bar.

Over the round edge or back of the anvil, bend corner #3 to slightly open of 90°. Work up the corner taking care not to thin the adjacent material. Figs. 60 & 61

Bend the root of the candle holder as if forming the start of a turned eye. Fig. 62

## Mark Aspery's Miner's Candlestick

Bend the thumber away from the shoulder, in the same heat, start to turn the candle holder. I use an appropriately sized bottom swage and a short length of 3/4-inch round bar for this procedure. Figs. 64 - 67

Finish the holder at the edge of the anvil. Fig. 68

Work up corner number two, taking it to about 135°. Leave a curve to the outside of the corner. Figs. 69 & 70

Turn the bar around and remove the convenience bend from the hook material, replacing it with a hook turned to the outside of

the candleholder, away from the upset corners. Fig. 71

Work up corner #1 to look the same as corner #2. Check to ensure that the one-inch strip of material is still in the middle of the two corners. Fig. 72

Heat the eye material and bend it around a mandrel or the bick until the corners touch. Fig. 73

Dress the eye and other material until everything is symmetrical. Figs. 74 & 75



Place a slight bend in the thumber away from the shoulder.



Do what you can now and then place a pin the size of the candle to fully turn the candle holder.



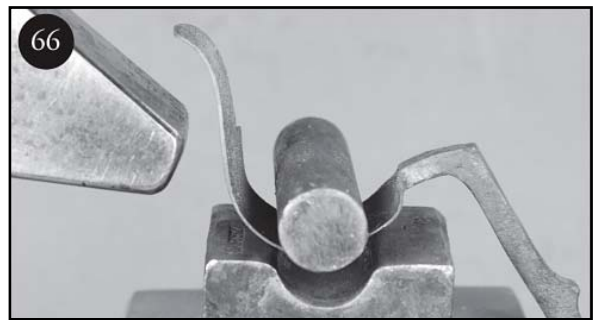
Rotate the stock within the bottom swage to help generate a round candle holder



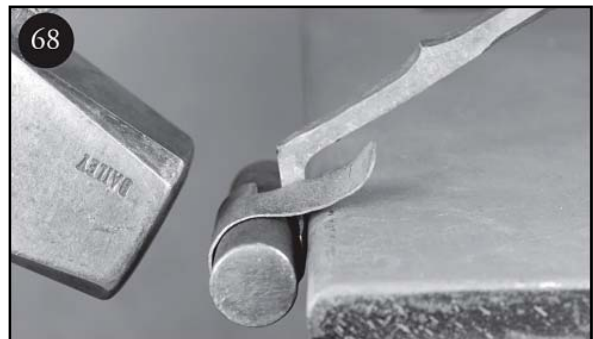
Bend corner #2 to about 135°



I use a bottom swage with relieved edges to turn the candle holder.



Take care not to bend the thumber as you turn the remainder of the candle holder.



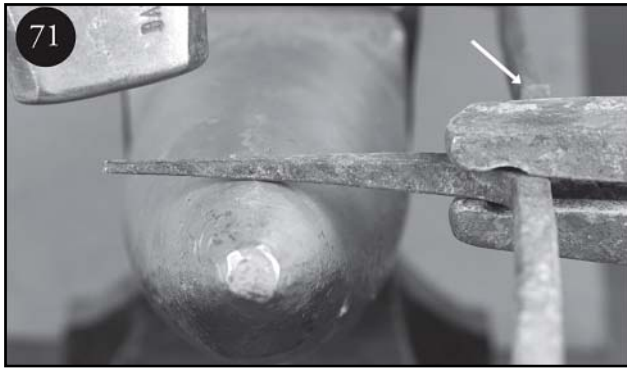
Use the edge of the anvil if you cannot reach all of the candle holder in the bottom swage.



Dress the corner over the bick leaving a generous curve at the back of the corner



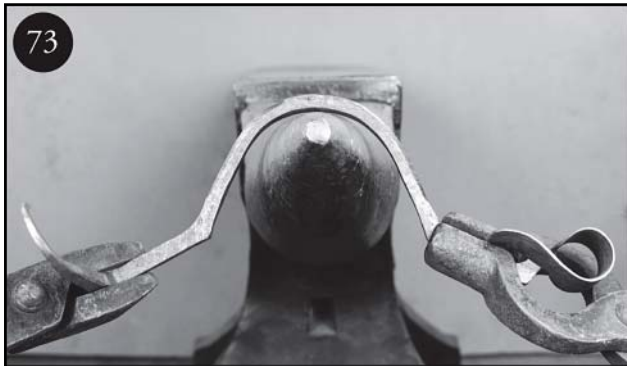
## Mark Aspery's Miner's Candlestick



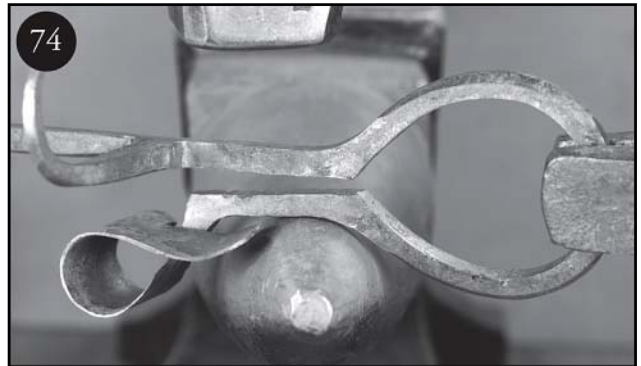
Straighten the convenience bend out of the hook and turn the hook away from the sharp inside corners.



Bend corner #1 to about 135° and dress over the bick.



Bend the eye over a suitable mandrel or use the bick as shown above.



Finish closing the eye with your hand hammer and dress the result.



Use scrolling wrenches if things are not going well with lining up the corners etc.

Many thanks to Mark for sharing this great article with the NWBA. The combo of your blacksmithing expertise, excellent and illustrative photos, and clear instructional writing style is unsurpassed.

More information about author Mark Aspery:  
<http://www.markaspery.com/>

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NWBA is pleased to announce

### Mark Aspery will be giving two workshops at our Mentoring Center:

**March 24-25, Tuesday and Wednesday. National Blacksmith Curriculum Level I**  
2 Full days (9AM - 5PM), \$250. Deposit required. Limit 7 Students.

**March 26-27, Thursday and Friday. National Blacksmith Curriculum Level II**  
2 Full days (9AM - 5PM), \$250. Deposit required. Limit 7 students.

To arrange your reservation and deposit  
Contact Darryl Nelson, [meridianforge@hotmail.com](mailto:meridianforge@hotmail.com), Phone: 253-318-1842

Mark Aspery will also be demonstrating at our  
monthly Mentoring Center event on March 28, 2015.  
Don't miss this world class opportunity!

# **The Northwest Blacksmith Association Conference 2015**

## **Friday May 15 through Sunday May 17, 2015.**

Demonstrators at the conference will be Dennis Dusek and Frederic Crist. Fred will be our demonstrator from outside the NWBA, and since Dennis is a member of the NWBA he will be our local demonstrator. Dennis is also a members of the California Blacksmith Association.

### **DEMONSTRATORS**

**Frederic Crist:** Abstract Sculpture, traditional forging techniques.

**Dennis Dusek:** Forging a Sculptural Sign Holder

*In addition to our demonstrators, there will be  
Hands-On classes,  
a gallery to display your works,  
an evening slideshow,  
a banquet, an auction fund raiser, and general meeting  
and more...*

**HANDS ON INFO:** Admission to the hands on classes is limited, selection is by drawing names. Submit your name for the drawing at the hands-on station before. Each class is limited to six students. If you are picked a \$20 fee is required, unless noted at the time. If you do not win a place in class, you are welcome to stick around and take notes, OR bring your own setup – tools, forge and anvil, and get in the class free (must set up outside the class area). The drawings for the class will take place before the class at the hands-on area. Winners must be present in the hands-on area at the start of the class in order to retain the spot.

**MEMBERS' GALLERY:** Bring an item for display in the gallery, a great opportunity to show off to fellow smiths and for a little free press. All items in the gallery are photographed for inclusion in the Hot Iron News and online at our website.

**AUCTION ITEM DONATIONS:** Donate your hand crafted item, tools or other blacksmith delights to the auction in support of the NWBA's outreach programs. If your auction item sells for over \$250 you will receive a free year of membership in the NWBA.

**BANQUET DINNER:** **Dinner Tickets are \$25 per person.** Our banquet dinner will be served on Saturday night to meal ticket holders only. Tickets are sold with your pre-registration and issued at registration. Dinner is buffet style. A limited number of meal tickets may be available for purchase on site. Pre-register to guarantee your meal.

**SAFETY GLASSES:** Required of all attendees to wear at all times while observing or working in demonstration and class areas; \$2 fee or bring your own.

### **CONFERENCE FEES**

**Three Day Conference Fees** (attend the whole conference)

Member: \$90

Household: (at the same residence) \$115

**One Day Conference Fees** (attend only one day)

Member: \$65

Household: (at the same residence) \$80

**T-SHIRTS:** \$15 each. Order T-shirts before the conference, by mail in registration form or online. There will only be a very few t-shirts for sale at the conference that were not pre-ordered, if you want to guarantee you get a shirt in the size you want, ORDER NOW.

### **CONFERENCE SCHEDULE**

#### **Friday, May 15, 2015**

9:00 AM: Demonstrations begin and run until 12:00 noon

9:00 AM: Hands-On Class until 12:00 noon

12:00 PM: Lunch until 1:00 PM

1:00 PM: Demonstrations resume until 4:30 to 5:00

1:00 PM: Hands-On Class runs until 4:00 PM

7:00 PM: Evening, Slideshow by Dave Tuthill, of his European Blacksmith trip.

#### **Saturday, May 16, 2015**

9:00 AM: Hands-On Class until 12:00 noon

12:00 PM: Lunch until 1:00 PM

1:00 PM: Demonstrations resume until 4:30 to 5:00

1:00 PM: Hands-On Class runs until 4:00 PM

6:30 PM: Evening (Time may be updated, see information available at the conference). Please plan on attending the Saturday evening banquet, General Meeting and auction.

#### **Sunday morning, May 18, 2014**

From 9:00 until noon: Demonstration/Discussion/... TBA  
AND Clean up and Take down: we need your help!



## CALL FOR GALLERY AND AUCTION ITEMS!

Remember to bring your latest and greatest iron work to the Conference Gallery, show your generosity and donate something wonderful to the NWBA Auction.

To all NWBA members: Please get involved in the festivities by bringing your favorite work to be displayed at the gallery. Stay involved by bringing an item for the auction and the raffle. Our conference auction is the yearly fundraiser which supports our outreach programs, like the Al Bart Grants, our Mentoring Center, Camp Hahobas Blacksmith program and more. Donate your hand crafted item, tools or other blacksmith delights to the auction in support of the NWBA. If your auction item sells for over \$250 you will receive a free year of membership in the NWBA.

*Everyone wants to see what you have been working on . So, don't forget! Whether a piece of work for the live auction, the silent auction, or the gallery, your work will be appreciated by all.*

## NWBA Conference 2015: May 15 - 18 Cowlitz Expo Center, Longview, WA

### Driving Directions to Cowlitz Regional Conference Center

#### Driving North

Take Exit 39 off I-5 at Kelso  
Turn Left onto Allen Street  
Follow Allen Street over the Cowlitz River  
Take 1st Left after Bridge onto 1st Avenue  
Turn Right onto Washington Street  
CRCC located on the corner of Washington Street and 7th Avenue

#### Driving South

Take Exit 39 off I-5 at Kelso  
Turn Right onto Allen Street  
Follow Allen Street over the Cowlitz River  
Take 1st Left after Bridge onto 1st Avenue  
Turn Right onto Washington Street  
CRCC located on the corner of Washington Street and 7th Avenue

### Conference Location

Cowlitz Regional Conference Center  
1900 7th Avenue  
Longview, WA 98632  
360-577-3122  
<http://www.thecenterofthenorthwest.com/>

## Where to stay?

### Hotels

#### Red Lion Hotel Kelso/Longview

510 Kelso Drive  
Kelso WA 98626  
(360) 636-4400  
<http://www.redlion.com/our-hotels/washington/kelsolongview/>

#### Quality Inn & Suites

723 7th Avenue  
Longview, WA 98632  
(360) 414-1000  
<http://www.qualityinn.com/hotel-longview-washington-WA183>

#### Hudson Manor Inn

1616 Hudson Street  
Longview, WA 98632  
(360) 425-1100  
<http://hudsonmanorinn.com/index.html>

#### Guest House Inn & Suites

501 Three Rivers Drive  
Kelso, WA 98626  
<http://www.guesthouseintl.com/hotels/kelso>

#### Super 8 Kelso Longview

250 Kelso Drive  
Kelso, WA 98626  
(360) 423-8880  
<http://www.super8.com/hotels/washington/kelso/super-8-kelso-longview-area/hotel-overview>

### Motel 6

106 No. Minor Road  
Kelso, WA 98626  
(360) 425-3229  
<http://www.motel6.com/reservations>

### Best Western Aladdin

310 Long Avenue  
Kelso, WA 98626  
(360) 425-9660  
<http://bestwesternwashington.com/hotels/best-western-aladdin>

### Town House Motel

744 Washington Way  
Longview, WA 98632  
(360) 423-7200  
<http://www.townhousemo.com/index.html>

## Camping

The Fairgrounds are ours to use. Trailer hook-ups w/ water & electric for \$15 per night. Dry camping in the Tent Barn, \$5 per night, Unsheltered Tent camping available \$5 per night. Pay at registration desk, please.

## Airports:

Kelso Longview Airport: 2.6 mi,  
Portland International Airport: 47.4 m

# NWBA Conference 2015 Demonstrator Frederic Crist

Frederic A. Crist  
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200 Twelfth St.  
Waynesboro, VA, 22980  
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frederic/-crist@yahoo.com

## A Brief Career Narrative

Forging metal has always been my choice of material and process as a sculptor. I was first introduced to this direct manipulation of metal as a student at Philadelphia College of Art (presently University of the Arts) in 1974. I was captivated by its potential as a sculptural medium. Upon graduation with a BFA in sculpture, I began working at Samuel Yellin Metalworkers in Philadelphia in 1977. This studio renowned for its excellence in hand forged metalworks dating back to 1906, was to be my training ground for the next eleven years. I began as an apprentice and worked my way up to Master Smith and head of the forging department. While at the Yellin studios, I assisted and led on many major projects; a gate and railing for the Washington Cathedral in DC, display case for the Book of Kells at the University of Pittsburgh, restoration and new reproduction of forgings at the Wilmington Train Station, Wilmington Delaware. Ironwork for the estate of Frederick Koch in Butler, PA, and numerous private commissions around the United States. In 1987 I received a 1% for the Arts Commission from the City of Philadelphia.



After eleven years at the Yellin Studios, I moved to Virginia to set up a studio with my business partner. Over the next 18 years we completed numerous commissions for private and corporate entities. In 1999-2000 I received a Virginia Museum Fellowship in Sculpture. During that time I spent a week at Rose Industries, an industrial forge shop in Cleveland, Ohio, forging larger scale works. In 2002-2003 we received the Craftsmanship Award from the Virginia and West Virginia Chapters of the AIA for works in forged metals. On going exhibitions at The Reynolds Gallery in Richmond Va.



and Franz Bader Gallery in Washington DC continued the sculptural works and commissions. Some of which included Richmond Times Building in Richmond, Va; Norfolk Academy in Norfolk ,Va.; John and Robyn Horn Collection in Little Rock AR; John Allen Collection in Buchannon WVA; and a new sculpture for Massey Cancer Center in Richmond VA.



In 2007 I established a new studio to concentrate on more individual projects. In the past 7 years I have completed 4 major residential commissions. Exhibitions have included a 2 person show at Page Bond Gallery in Richmond, VA 2009; a group exhibition at the American University Art Museum, Washington DC in 2009-10; a group exhibition at the Art Museum of the Americas in Washington DC in 2009-2010, and a group exhibition at the Historical Society in Washington, DC in 2010. In 2012 I went to Ukraine to an international blacksmithing conference to make a sculpture. I am presently working on a new series of sculpture for exhibition in 2015 and teaching

most recently at Peters Valley Center for the Crafts in NJ, Touchstone Center for the Crafts in Farmington, PA and Center for Metal Arts in Florida, NY. Recent Publications include a portfolio in *The Metal Design International 2014* and *Beauty in the Shadows, Ironwork in the Washington Cathedral* by Nol Putnam.





I live in Charlottesville Va and my studio is located in an industrial complex in Waynesboro Va. It is about 1500 square feet filled with the usual blacksmithing tools, 2 mechanical power hammers, coal forge and gas forge, 5 anvils of varying sizes and a multitude of hand tools made and collected over 33 yrs. of forging. My work covers everything from letter openers and small sculptures, to gates and railings and free standing sculpture. Over the years I have met and briefly worked with Paul Zimmermann, Freddie Habbermann, Serge Marchal, probably the three most important influences in my ironwork outside the Yellin Studio. Other influences include Robert Motherwell, Alberto Giacometti, Franz Kline and Frank Stella and Chillida to mention a few.



My demonstration will consist of making an abstract sculpture using traditional forging techniques and tools, applying the principles of Chaos Theory while formalizing the coincidental and emphasizing the conscious process of composition that is behind seemingly random works.





## NWBA Conference 2015 Demonstrator Dennis Dusek

Dennis Dusek lives in Northern California and is a full time smith producing custom pieces of art, a variety of custom forged items for the home and custom tooling for other blacksmiths.

Dennis loves how metal can be moved and transformed in to anything imaginable and keeps pushing himself to improve his skill set. He is grateful to have worked with many talented smiths on there own project. Many smiths have inspired how Dennis approaches his art. The last number of years his focus has been on forging tooling to get more out of his art. Toby Hickman was a huge part of his growth (and many others) in this area.

For the demo, Dennis would like to share some of his experience being part of a team of smiths forging a large sculpture under the hand of Claudio Bottero, an amazing man with outstanding talents in design and forging skill. Bottero inspires even the best smiths and is truly a Leonardo Da Vinci of today. He hopes to share something that people can add to their art quivers and incorporate into their projects. More info about Dennis and photos of his work can be seen at his web site: [www.artisticblacksmith.biz](http://www.artisticblacksmith.biz)



Forgework by Dennis: Above: Tools. Above right: Tableware. Right: Range Hood.

Below: Conceptual drawing of 2015 NWBA conference project to be demonstrated by Dennis, a sculptural signholder, design influenced by Claudio Bottero.







Elements of the sculptural signholder, Dennis' 2015 NWBA Conference project, to be forged during his demonstration May 15-17, 2015.

**Don't miss out on this opportunity to learn from the talent and experience of Frederic Crist and Dennis Dusek!**

**Register Online Today**

<http://blacksmith.org/events/nwba-blacksmith-conference-2015/>

***Don't Forget!!*** the California Blacksmith Association (CBA) will host the

## **Western States Blacksmith Conference**

~ in conjunction with the CBA Spring Conference.

at the San Benito County Fairgrounds, Hollister, CA

### **Featured Demonstrators:**

Alfred Bullerman – Germany

Assisted by Scott Lankton – Michigan

Leonard Urso – Large Copper Sculpture -Rochester Inst. of Technology – Rochester, NY

Dean Mook – Northwest Native Design – Port Townsend, WA

Kirk McNeill – Sculpture – Freedom Forge – Santa Cruz, CA

Megan Crowley – Pipe Forming – Dolores, CO

Daryl Meier – Meiersteel, Knife Making – IL

Phil Baldwin – Knife Making – WA

**April 23-26, 2015**

### **Power Hammer Workshops** (beginners & advanced smiths):

Mark Krause – CA

Frank Trousil – CA

### **Hands-On Workshops by:**

Mark Aspery – Everywhere

Darryl Nelson – WA

John Mclellan – CA

More information: <http://www.westernstatesconference.com>

California Blacksmith Association websites: [www.calsmith.org](http://www.calsmith.org) NEW SITE: <http://cba47.wildapricot.org/>



# NWBA Member Shop Tour

New Feature Article: Meet a fellow NWBA member and see how they set up their shop, what they are up to and what they want to learn. This issue Matt Alford, beginning blacksmith, generously shares his story, his sources and photos of his shop.

Your shop solutions may be just the inspiration for someone with a little interest in blacksmithing to jump right in. If you are willing to share your shop story, send photos and article to: [webmaster@blacksmith.org](mailto:webmaster@blacksmith.org)

## Matt Alford: Elkhorn Farm and Forge

I am a hobbyist blacksmith, just starting out with less than a year of experience. I got interested in blacksmithing while visiting the smithy at the Antique Powerland Museum in Brooks, Oregon. Every July, the museum has a "steam up" and there are live blacksmithing demonstrations. Hammer, anvil, and fire, what could be more fun than that? I like to make things and I have a full wood shop in my garage. Two summers ago, I decided that I wanted to get into metalworking, so I bought a welder, torch, and an anvil. I kept an eye on Craigslist and eventually picked up a coal forge, two post vices, and miscellaneous tongs and tools along the way. I had no idea where to start, so I Googled "Blacksmith Hillsboro Oregon" and found NWBA member, Tim Gabriel (<http://www.gabrielblacksmith.com/>) who very graciously offered to come out to my house and point me in the right direction. From there, I signed up for a series of beginning blacksmithing classes: two with Tim Middaugh at Old West Forge ([oldwestforge.com](http://oldwestforge.com)) in White Salmon, two with Arnon Kartmazov at Bridgetown Forge ([bridgetownforge.com](http://bridgetownforge.com)) and one co-taught by Arnon and copper sculptor, Greg Wilbur at the Sitka Center in Otis, Oregon. I now have intermediate skills and look forward to continuing my education.

I started blacksmithing with the seemingly simple goal of learning to make a driveway gate for my house and door/hinge hardware for my barn. I still have those goals and after five classes, I've learned that I still have a ton more to learn! And tools to make!! I used to look at smithy photos and wonder why anyone would need 100 different pairs of tongs and now I know. Along the way, I've also learned that I really like knife-making as well as fireplace implements. I'm gearing up to make elk antler-handled fireplace sets. I volunteer with the non-profit, Rocky Mountain Elk Foundation and one of my goals is to make and donate these fireplace sets to the foundation as part of their annual fundraising banquet. If any of you are interested in donating forged items to further the goal of wildlife conservation, please contact me.

I have to say, the blacksmiths I've met have been the most sharing group of people in the world. This is truly an art where we stand on the shoulders of those who came before us and I want to say THANK YOU to everyone who has helped me along this path so far.

Thanks!

--MATT



Welcome to the Elkhorn Farm & Forge! I partitioned a 10' x 20' space on my goat barn. I was going to put battens on the board siding, but the gaps provide a nice breeze in the summer so I left them off. However, they also let rain in during the winter, so I'll probably put them on eventually. I chose to put down gravel initially as it's comfortable to stand on and cheap. I dug out the floor, then put in pressure treated forms around the perimeter, added gravel and leveled it. I left the forms in place, so if I ever decide to put in concrete, I just need to shovel out the gravel and I'm ready to go. The old door is going to be used as benchtop across the back wall. I need to make some doors to help keep the fog out as I currently have to wipe down everything metal with a thin coating of oil to keep the rust off.



My 169# Soderfors anvil that I picked up at the Antique Powerland Museum swap meet that occurs in Brooks, Oregon every July. The Hofi-style hammer was made by Arnon Kartmazov at Bridgetown Forge and the three-legged stand was made by blacksmith artist, Nitzan Lilie, who shares shop space with Arnon. I added the plywood spacer for height.



Propane forge, built by Mike Mathewson at Mathewson Metals in Tacoma (gallery and shop opening soon). Mike teaches at the Tacoma Metal Arts Center and builds/sells custom forges (253.279.4249).

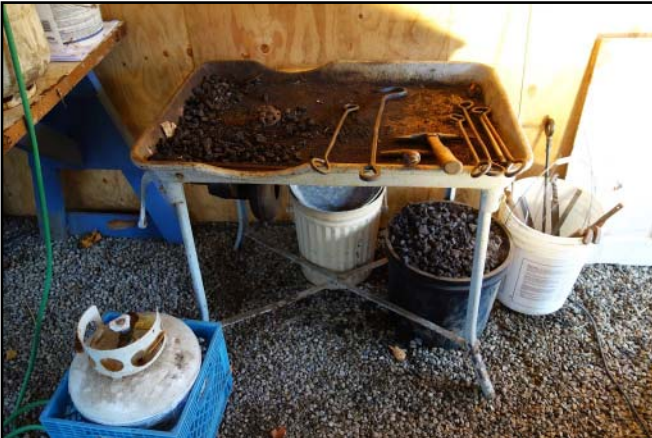




This stump is something that Arnon gave me when he was cleaning out his shop. He also made the planishing hammer, which I bought and used during a metalsmithing class Arnon co-taught with copper sculptor, Greg Wilbur. The divot on top of the stump is useful for planishing, but I also need to buy or make a proper planishing stake. It seems there's no end to the equipment one needs to make or buy...



This is the small bench that is located to the right of my main anvil. My Dad rescued the swage block from a pallet of scrap metal at an auction. Notice that I have two pairs of safety glasses. The pair in the foreground doesn't extend low enough and debris can enter from below. The pair in the background has foam around the eye shield, so nothing can get in; the downside is, they don't breathe and fog up easily. I am still searching for the right/best pair of safety glasses. The stump is something I dragged home from the Arnon/Greg metalsmithing class. I use the propane torch to light the forge.



Before I bought my propane forge, I found this coal forge at a garage sale. I used it exactly twice, which was enough times to learn that I don't like choking on coal smoke. I have since welded up a ventilation hood that will sit on top of the forge and now I need to source some stovepipe. Special THANK YOU goes out to NWBA member, Tim Gabriel, who brought me the coal and graciously came out to my house and showed me the basics of making and tending a coal fire. I intend to leave the forge where it sits now and I'm debating whether to put sheet metal or some other material on the plywood wall behind the forge as a form of heat shielding.



My favorite hammer: Hofi-style hammer made by Arnon Kartmazov. Note: the tape on the handle is my addition. It's self-sticking medical tape (same stuff as vetwrap) and it serves as a reminder that I need to wrap my tendinitis-prone fingers as a preventive measure to increase circulation. The health of my hammer hand has greatly improved since I moved to this hammer with two flat sides on the handle instead of a round-handled hammer.



Side view of the three-legged anvil stand that Nitzan Lilie made for me. Nitzan is a terrific artist and if you aren't familiar with his work, check it out at [NitzanLilieArtistBlacksmith.com](http://NitzanLilieArtistBlacksmith.com). I like this three-legged design as it allows me to stand right next to the anvil (as opposed to mounting the anvil on a stump, which blocks my feet).



My main post vice, mounted temporarily to the wall. It's not mounted securely to the floor, but gets me by for now. My longer term plan is to sink a large piece of square channel into the center of the floor (secured with concrete) and then place a timber inside the channel and mount the post vice securely to the timber. The smaller post vice in the background isn't currently being used, but the price was right at a garage sale, so I have it in reserve when I need it. I also have a wire welder (not shown here), which I used to make the bending jigs out of angle iron and roundbar.



Matt's first knife.



# NWBA combined Registration Forms

## 2015 MEMBERSHIP & NWBA CONFERENCE 2015 May 15-17, Longview, WA

Hot Iron News

USE THIS FORM TO REGISTER FOR THE CONFERENCE, an NWBA MEMBERSHIP OR BOTH.

The NorthWest Blacksmith Association is a Washington corporation and a 501 (c) 3 non-profit charitable organization founded in 1979. Now over 500 strong and growing. We have something to offer to anyone with an interest in blacksmithing, from the beginner to the serious professional.

Members of the N.W.B.A. receive our award-winning newsletter The Hot Iron News, the opportunity to attend N.W.B.A. semi-annual conferences, monthly Mentoring Center demonstrations and open forges, frequent hands on workshops and events, and the camaraderie and support of hundreds of blacksmith enthusiasts.

**Current Membership in the NWBA is required for attendees of the conference.** If you are not currently a member of the NWBA please include the Fee for Membership in your total payment. **If you are not certain about your membership status you will be able to pay the dues at the conference registration desk.** NWBA membership is valid for one year from the date of sign-up. Renewals are sent out on a quarterly basis, look for your renewal letter sometime in the 3 month period around the anniversary of your registering for membership.

### THREE DAY FEES

☐ Individual: \$90

☐ Household: (at the same residence) \$115

### ONE DAY FEES

☐ Individual: \$65

☐ Household: (at the same residence) \$80

### Dinner Tickets: \$25 per person.

How many meals? \_\_\_\_\_  
Vegetarian meals (included in total of meals): \_\_\_\_\_

Dinner will be served to meal ticket holders only. Tickets are sold in advance and issued at registration. Dinner is buffet style, with main course choices.

### T-SHIRTS: \$15 Each

\_\_\_ Small \_\_\_ Medium \_\_\_ Large \_\_\_ X Large  
\_\_\_ XX Large \_\_\_ XXX Large

### Last day early registration is accepted is May 1st, 2015

Pick up your badges and dinner tickets at the registration desk.

**Camping fees** must be paid in person at registration. (Trailer hook-ups w/ water & electric for \$15 per night. Dry camping \$5 per night, including the Tent Barn)

### RELEASE OF LIABILITY

I hereby acknowledge that I have voluntarily applied to become a member of the NorthWest Blacksmith Association, NWBA.

I understand that blacksmithing is an inherently dangerous activity that involves certain risks and dangers. I acknowledge and understand that those risks include the potential for bodily injury.

Nevertheless, in full knowledge and understanding of the above risks, hazards, or dangers, I freely, voluntarily and knowingly agree to assume those risks. By my signature below, I hereby agree to assume all responsibility for myself and my property and hereby release and discharge Northwest Blacksmith Association, NWBA; its members, employees, representatives, associates, independent contractors, and board from any and all claims, demands, damages, expenses, and any other liability for injuries or damages of any description which may occur as a result of my participation in this organization as a member. This Release shall be legally binding on heirs, my assigns, successors, estate, legal guardians, executors and me.

If I am signing this agreement on behalf of another person, I certify that all representations are true with respect to the participant and that I am the participant's legal guardian or custodial parent with full authority to bind the participant and myself to the terms of the Release.

I have carefully read this Release and fully understand its contents. I am aware that in signing this Release I am releasing and waiving certain rights that I may have and enter into this contract on behalf of myself and/or my family of my own free will.

**THIS IS A RELEASE OF LIABILITY DO NOT SIGN THIS REGISTRATION FORM AND RELEASE IF YOU DO NOT UNDERSTAND IT OR DO NOT AGREE WITH ITS TERMS.**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Print Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

\*E-mail: \_\_\_\_\_

\*(if you are already registered as a user at [www.blacksmith.org](http://www.blacksmith.org) your website user account will be updated to allow member privileges only if you use the same email address as the one used to register on the website)

Return this form with your check as soon as possible.

All payments must be made in U.S. Dollars.

Mail entire page to:

NWBA

4742 42nd Ave. S.W. #185

Seattle, WA 98116

To apply online and pay by credit/debit card go to: [www.blacksmith.org](http://www.blacksmith.org)

No. of Meals \_\_\_\_\_ x \$25 each =

Meal total \_\_\_\_\_

Conference Fees Total \_\_\_\_\_

T-Shirt Total \_\_\_\_\_

Membership Dues \_\_\_\_\_

\$60 in U.S.A.

\$70 outside U.S.A.

☐ New Member

☐ Renewing Member

Grand Total \_\_\_\_\_

# Blacksmithing Schools Around the Northwest

## Backwoods Blacksmith

Between Sutherlin and Elkton Oregon on Hwy 138.  
Instructor and owner is Gene Bland  
Beginning blacksmithing, tool making, organic and garden art.  
541 459 2879  
[bland2879@yahoo.com](mailto:bland2879@yahoo.com)

## Clackamas Community College

19600 Molalla Avenue  
Oregon City, Oregon 97045  
Phone: 503-594-6000  
Website: <http://www.clackamas.edu/>  
Offering blacksmithing classes under the Welding Technology program.

## Clatsop Community College

1651 Lexington Avenue  
Astoria, OR 97103  
Phone: 503-325-0910  
Toll Free 1-855-252-8767;  
website: <http://www.clatsopcc.edu/>  
Blacksmithing classes are taught through the Historic Preservation Program

## Incandescent Ironworks Ltd.

Spokane, WA  
509-456-8321  
At Incandescent Ironworks I teach introductory and intermediate blacksmithing, introductory and intermediate knife making, and tailored instruction on selected smithing topics.  
Contact: Steve McGrew:  
[stevem@incandescent-iron.com](mailto:stevem@incandescent-iron.com)  
[www.incandescent-iron.com/blcl.html](http://www.incandescent-iron.com/blcl.html)

## Meridian Forge LLC

37010 Meridian East  
Eatonville, WA 98328  
360-832-6280  
Contact: Darryl Nelson: [meridianforge@hotmail.com](mailto:meridianforge@hotmail.com)

## Old West Forge

PO BOX 2105  
White Salmon, WA 98672  
(509) 493-4418  
For additional details contact Tim Middaugh:  
[tim@oldwestforge.com](mailto:tim@oldwestforge.com).  
Current classes are listed at [www.oldwestforge.com](http://www.oldwestforge.com)

## Pratt Fine Arts Center

1902 South Main Street  
Seattle, WA 98144  
<http://www.pratt.org/>  
Phone: 206.328.2200  
Fax: 206.328.1260  
Email: [info@pratt.org](mailto:info@pratt.org)

## Studio 4 Forging Facility LLC

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Email David Lisch: [studio4@davidlisch.com](mailto:studio4@davidlisch.com)  
Current class schedule is at [DavidLisch.com](http://DavidLisch.com) - Learn More at Studio 4

## Thorne Metals Studio

13751 Daybreak Ln  
Anacortes, WA 98221  
(360) 293 8257  
Current classes are listed at:  
<http://learnblacksmithing.com>

If you would like to list your blacksmith school here, please send your information to [nwbainfo@gmail.com](mailto:nwbainfo@gmail.com).

Editor's note: As a 501(c)3 non-profit organization there are limitations to how we are allowed promote our members' businesses. The listings will now include contact information and one descriptive sentence for your school, a policy subject to change.

To publicize your class you may send your event listing to the editor for inclusion in our online calendar. A short paragraph about the class and time, location, and fee information only please.

Please send information about your events, school and class listings to [nwbainfo@gmail.com](mailto:nwbainfo@gmail.com)

## CURRENT EVENTS: As listed online (<http://blacksmith.org/events/>)

February 28, 2015 Mentoring Center work party: repairing and making tools for the center, hands on learning while working to upgrade our tooling. Longview, WA  
March 2015 Workshops with Mark Aspery, See page 19 and [www.blacksmith.org](http://www.blacksmith.org) details  
March 28, 2015 Mentoring Center Demonstration by Mark Aspery. Longview, WA.  
April 2015 Mentoring Center event, or other event to be determined.  
**Long Range Events:**  
April 23-26 2015 Forging on the Faultline, Western States Blacksmith Conf., San Benito County Fairgrounds, Tres Pinos, CA  
May 15-17 2015 NWBA Annual Blacksmith Conference, Longview, WA  
July 2-5 2015 CanIronX, Cape Breton Island, Baddick Nova Scotia, Canada

This list does not include many workshops offered by other organizations, you can see the class listings included in the events list online at <http://blacksmith.org/events>.

**Take advantage of your membership benefits and SEND IN YOUR ANNOUNCEMENTS FOR THE WEBSITE CALENDAR AND THE HOT IRON NEWS to [nwbainfo@gmail.com](mailto:nwbainfo@gmail.com) or submit it online: <http://blacksmith.org/submit-event/>**

## Announcements

### CanIRON X

**Thursday July 2nd - Sunday July 5th, 2015**

CanIRON is Canada's national blacksmith conference. It is held every two years, travelling from west to east across Canada. In 2015, CanIRON will make its final eastern stop on Cape Breton Island, Nova Scotia, before heading back to the western provinces. The event will be hosted by the Cape Breton Blacksmiths Association (CBBA).

As 2015 is Canada's Craft Year as well as the tenth anniversary of the CanIRON conference, the CBBA is setting out to make CanIRON X an extraordinary event that will inspire blacksmiths across the country and the world with what can be achieved in the blacksmith craft, while raising public awareness of the vibrancy of blacksmithing in Canada. <http://canironx.ca/>

#### Demonstrator line up so far:

Zeevik Gottlieb   Uri Hofi   Mark Aspery  
Ian Hope-Simpson   Lorelei Sims   Alex Paley

## Al Bart Grant Information

The NWBA's Al Bart Memorial Grant is now open to anyone interested in learning about and spreading the knowledge and interest in the art and craft of blacksmithing. With our new status of non-profit charitable organization comes the unexpected gift of sharing this opportunity with more people. It is the hope of the NWBA that The Al Bart Memorial Grant could enable interested persons to attend an educational program such as a workshop or class with the intention of learning something new and sharing that knowledge and experience within and/or outside of our association. All interested persons are encouraged to download the application and learn something new. Find out more details and download the application at our website: <http://blacksmith.org/al-bart-grant/>

Announcements that are of general interest to blacksmiths and not specifically in the business interest of an individual will be printed free of charge in the Hot Iron News, at the discrepancy of the editor and within the guidelines of the NWBA Board of Directors. Submit your announcements for publication in the NWBA Hot Iron News and our website.

Mail to: Northwest Blacksmith Assoc.  
42nd Ave SW #185  
Seattle, WA 98116

Or email to:  
NWBAinfo@gmail.com

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**For sale: Quality blacksmith coal, coke and charcoal.**

Contact Jim von Mosch at

Mountain Brook Forge 509-493-2246

or [Mountainbrookforge@gmail.com](mailto:Mountainbrookforge@gmail.com) for price and availability.

## ATTENTION MEMBERS

Are you receiving our informative monthly email announcements?

Sign up online:

<http://blacksmith.org/sign-up-email-announcements/>

*Get the up to the minute details of NWBA events and news.*

## Forum Classified Posts

Join the [www.blacksmith.org](http://www.blacksmith.org) Forum and post your blacksmith related classified ads for free, great exposure at a great price!

The ads are monitored, no promoting non blacksmith related items please.

## Advertising Submissions

Mail to: NWBA

42nd Ave SW #185

Seattle, WA 98116

Email to: [NWBAinfo@gmail.com](mailto:NWBAinfo@gmail.com)

or submit online: <http://blacksmith.org/hot-iron-news-advertisement-submission-form/>

Download Ad Specification and Pricing Sheet online at: <http://blacksmith.org/advertising-hot-iron-news/>

If you have any questions do not hesitate to contact editor

Amy Mook at [nwbainfo@gmail.com](mailto:nwbainfo@gmail.com)



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P.O. Box 4828 • Portland, OR 97208

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Book of Kells display case by Frederic Crist