# N.J.B.A. Newsletter

**NJBA Volume 16, Issue 2 8/12/11**
http://njba.abana-chapter.com

## Editors Soapbox

### We need some more activity from our members!

As editor I would appreciate some help in writing up events for the newsletter. Recent events in the lives of some of our directors have made it hard for NJBA to be all it can be. We need more people to help out other than the same few doing everything. It would be great if we could have some of you helping scheduling meets that are local to you. You can see we do not have much to list here. Please talk to one of the directors to find out what you can do to help!

We are also looking for members who have a pickup and would be interested in helping bring the NJBA trailer to meets. If you are interested in helping please contact one of the board members listed on page 2. Larry Brown, Editor

## Upcoming events for 2011

Get you calendars out and mark these events down. Please bookmark our web site and check for updated meet information. Remember most of our meets have an "Iron in the Hat" drawing, so be sure to bring something. Meet information starts on this page and continues on page 3.

**August 27th and 28th** Seafarer's Weekend in Historical Cold Spring Village. Cape May NJ See this page for more info

**September 11th,** Sunday, 10:00am - 4:00pm Red Mill Tool Swap/Picnic, See page 3 for more info

**September 17th,** There will be a demonstration by Jonathan Nedbor to be held at Marshall's farm

**September 16 - 18,** Old Time Engine Show Washington Crossing Park, NJ, see page 5

**October 1st,** Walnford Park See page 5 for more info

**October 8th,** PV Pig Iron Fest See page 6 for more info

**November 6th**, NJBA and an antique tool collectors group at Josh Kavett's shop. See page .

## Seafarer's Weekend in Historical Cold Spring Village. Cape May NJ.

**August 27th and 28th,**

I will again have two forging stations. There are some great displays of boats made in the bay area of Cape May county. Some darn realistic pirates with accurate and authentic weapons. Again great family event. This is the middle of the Macauley Family vacation. Please come and enjoy the blacksmithing and the beach. This is a particularly great location to have people experience blacksmithing first hand. In July when I was demoing there, I had some great help running the blower and few striker candidates. Here is the URL: http://www.hcsv.org/

David Macauley

**Directions:** Take exit 4A south from the Garden State Parkway and follow the signs to Historic Cold Spring Village 720 Rt. 9 Cape May NJ 08204 (609) 898-2300.

## Renewals

If you have not renewed, this maybe your last newsletter! Send in the renewal soon!

## The NJBA Web Site!

The NJBA Web Site is:
http://njba.abana-chapter.com/

The Newsletter is at:
http://
members.bellatlantic.net/
~vze25jcc/index.htm

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

## Official NJBA Address

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

**Rather than use room in the newsletter, All correspondence between ABANA and NJBA is now being posted on the NJBA web site. If you cannot access it there, contact me and I will send you copies. ABANA is communicating again so check it out**

## NJBA Board of Directors

Directors are available on request or on the hard copy version

# BLACKSMITH HAMMER-IN & TOOL SWAP

## At the Red Mill Museum Village

**Sunday, September 11th, 10:00am - 4:00pm**

The Red Mill Museum Village is pleased to announce its annual Hammer In and Tool Swap on Sunday, September 11th from 10-4pm. This event is hosted by the NJ Blacksmith's Association, under the direction of association trustee, Eric Cuper, and our own resident blacksmiths Dave Ennis and Robert Bozzay.

NJBA members who want to demonstrate should contact Dave Ennis and register for a time slot in the schedule so the museum can publicize them and the event

One Blacksmith we recently met and who has agreed to demonstrate is Leonid Karelshtayn, an artist-blacksmith well known in several countries, who opened his workshop in Moscow in 2003. His professional activity started in Kiev, Ukraine, a city with considerable resources of such skills. Beginning in the 1980's, Leonid was trained to work with metal and learned from the best blacksmiths in workshops in this ancient city. He was engaged in the restoration of the old part of the city: Gates, fences, balconies, and many other things bearing Leonid's touch mark, can be seen on Andreevsky Promenad and in other historical places of the city. Later, he worked as a key craftsman of a firm to train many students. In 1992,

Leonid was invited to Germany, where for a year he received training and exchanged experience with German blacksmiths. Now his work can be seen not only in Kiev and Moscow, but also in many cities of Europe and the US. He is a regular participant of Russian and international exhibitions. Leonid Karelshtayn is a vice-president of the Union of Blacksmiths of Russia.

At the Red Mill event on Sept. 11, Leonid will demonstrate forged elements that typify his style of blacksmithing.

The day's activities will center at the Museum's Blacksmith Shop where local blacksmiths and the New Jersey Blacksmith's Association, a non-profit organization dedicated to the promotion of the art and craft of blacksmithing, will have members on hand to demonstrate and sell their work. Tool dealers and collectors are invited to tailgate, sell and swap their smithing tools and accessories. We are currently registering blacksmiths and tool collectors. Among the items to be found will be anvils, blowers, forges, vises, hammers, and

tongs. Should anyone have a "what is it" cluttering up the garage, bring it along and we will be glad to identify it for you.

Admission for the day's activities is $8 for adults, $6 for seniors, and $5 for children (6-12). Free for children under 6, museum members and for NJBA members. Included in the price is admission to the Museum's historic buildings and exhibits. The Red Mill Museum Village is located at 56 Main Street in Clinton, NJ. For more information, or to register call the Museum at (908) 735-4101.

**Directions:**
Red Mill Museum; Take exit 15 on I-78 onto old route 22 going North (routes 513 and 173), make a left onto main street before bridge. Museum straight ahead.

## September 17th Meet With Jonathan Nedbor at Marshalls Farm

Marshall Bienstock will be hosting a meet at his shop in Howell NJ. on the 17th of September at 9AM and it will feature Johnathan Nedbor of High Falls, New York as the demonstrator. There will be an Iron In The Hat on this day, so bring and buy as this helps pay for the demonstrators!

Jonathan is an experienced teacher, demonstrator and the current President of the Northeast Blacksmiths and was instrumental in arranging the ACBC Conference held 2 years ago at the Ashokan Center near Kingston NY to replace the cancelled ABANA conference. A full time blacksmith for over 30 years, Jonathan is a popular teacher and demonstrator, able to share his insights into the forging process. He specializes in historic forged ironwork focusing on early hardware of New York's Hudson Valley. Much of his work is used on historic houses and museums, many of which are listed on the National Register. He also designs and produces contemporary furniture and household ironwork.

Jonathan's demonstrations seek to communicate the beauty and simplicity of a pure forged approach to shaping iron. He covers tool making, forge welding, scrolls, approaches to authentic reproduction of historic hardware and much more.

For the demo, The first day, he will demo a variety of items, with lots of forge welding. Some items will be a soup ladle (forge welded, shouldering, whitesmithing, planishing), a side hinge (hot splitting, shearing, punching), Dutch style thumb latch, Dutch Style Ring Latch (forge welding, upset corners).

## Old Time Engine Show September 17th, 18th, 19th

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

**Directions:**

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

## Walnford Park

**October 1st,**

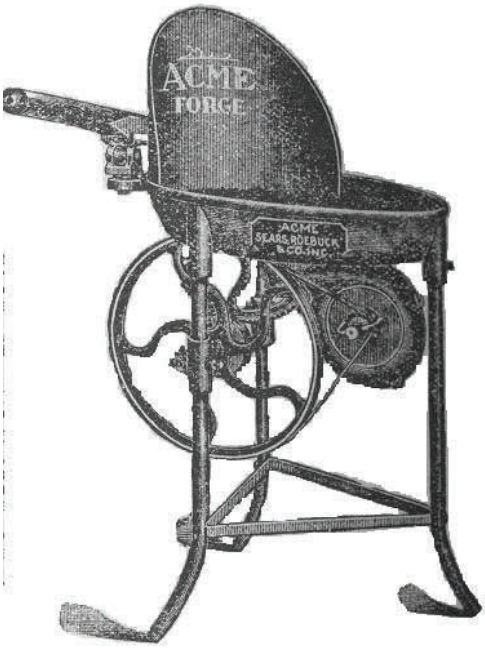
We will be demonstrating and holding a membership meeting at Walnford Park on October 1st. Walnford is also known as Crosswicks Creek Park and is in Upper Freehold, N.J
Hammer in and demo at Walnford Park. Please come out especially with your family to enjoy a day at the hidden jewel of he Monmouth County Park system - Walnford park. NJBA will have the trailer with three forges at the demo. We will be immediately across from the working gristmill. There are many activities for children so this is another great family event.

Coordinator David Macauley,
drmacauley@att.net , 732-310-1300

Historic Walnford is the 36 acre Historic District at the heart of Crosswick Creek Park. This country estate and former mill village provides a window to view more than a century of social, technological, and environmental history in Western Monmouth County.

The site includes a large home built for the Waln Family in 1774, an 1879 Carriage House, and assorted outbuildings and farm structures. Much of the site's interpretation is connected to the newly restored and operating late 19th century Gristmill.

**Directions:** Please note: If you choose do an internet search for directions to this address, be aware that the parking lot on site is not accessible from the Walnford Rd/Hill Rd intersection. Directions below. From the East Via I-195: Take Exit 11 (Imlaystown/Cox's Corner) and turn left onto Rt.43 (Imlaystown/Hightstown Rd). At the first intersection, turn right onto Rt. 526/Red Valley Rd. At the first light, turn left onto Sharon Station Rd and follow approximately 2 miles. Turn right onto Rt. 539 North. Travel a short distance and turn left onto Holmes Mills Rd. Make first right onto Walnford Road which leads directly into the park.. From the West: Follow I-195 to Exit 8 (Allentown), Rt. 524/539. Turn right and follow Rt. 539 through Allentown. Turn right onto Holmes Mills Rd and then right onto Walnford Rd, which leads directly into the park. From the North: Take Rt. 9, 79, or 34S to 537W to Rt. 539 in Upper Freehold. Turn right onto Rt. 539 (Forked River Rd), then left onto Burlington Path Rd. Turn right onto Holmes Mills Rd and then left onto Walnford Rd, which leads directly into the park.



## Mini Press Workshop

The 2011 July Mini Press work shop went well ,we had all ten spots filled and had a addition of several people show up to help with the welding and assembly , aside from a little glitch with the drawing dies being welded to make a large X the day went well , about 4 pm it was decided that we would stop and finish the presses on Monday nights at the open forge , many thanks to Marshall and all the participants and welders that made the workshop a success , Mark Morrow

## Historic Cold Spring Village Demonstrations

David Macauley supported Historic Cold Spring Village for two event so far in 2011:

6/11 – 6/12/2011 Celtic Festival:
On both days David worked in the shop with Jerry Goldman ( the village blacksmith) and Bill Banks his assistant. I demonstrated making leaves for the kids – you have to love the smiles you get when they receive something. I also made a few courting candle holders for the village.
7/16 – 7/17/2011 Hands-On & Homespun
For this event I was working under the trees. The weather was absolutely wonderful – cool and a little breezy. No other smiths showed up, but we had the chance to demonstrate for the public.

Here are some photos:

## Middlesex County Fair 2011

Submitted by David Macauley

Folks we had a long but successful week at the Middlesex County Fair. A lot of sweat, a lot of sun and a little rain. We had many visitors - I would imagine close to 50 a day. Almost all of the flyers and cards that I put out were gone. Hopefully we will see more volunteers. We spent quite a bit of time with Boy Scouts again. They are really interested in blacksmithing and are doing pretty well. The club earned $300 for the demonstrations. We were also asked to do demonstrations at the Hunterdon County Fair next year. We would also be paid for those demos. In my opinion this is not a bad way to earn some money for the organization and increase our membership.

A big thanks for the following folks who came out to demo:

Marshall Bienstock
Bruce Freeman
Larry Brown
Dan O`Sullivan

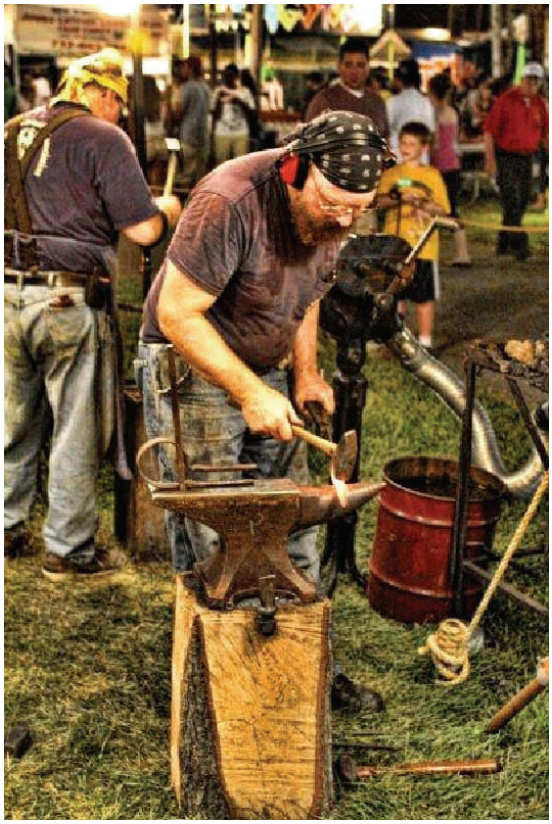
Marshal demonstrated making a “dibble” A pointed gardening implement used to make holes in soil. Dan demonstrated making a snail and folded leafs. Larry demonstrated making an spiral end for a handle. He also assisted instructing some scouts

to make hooks. David broke down and made some more courting candles. Bruce demonstrated make in a ladle.

Our big bonus was meeting Leonid Karelshtayn on Sunday 8/7. Leonid is an experienced and extremely talented blacksmith from Russia who recently emigrated to the USA. He does not speak a lick of English, but his sister was kind enough to translate as much as she could Unfortunately, she does not know how to translate blacksmithing terms. Larry and I have asked Leonid to demonstrate how to make a pintle which he did. There was quite a bit of sign language going back and forth, but we were successful. I am quite sure Leonid will be appearing at our upcoming event.

Big thanks to Bruce and Marshall for help in setup and tear down - both on hot days. I can also report that as of Monday 8/8 Marshall modified the fire pot on the smaller square forge. We remove the 2" tuyre and replaced it with a 3" tuyre. That should improve the blast from the forge.

Here are some photos from the event.



# Tool Group Meet

We have been invited to a joint meet with a a tool group at Josh Kavetts Shop / Fisher Anvil Museum

Nov.6 Sunday
Plans:
Coffee, donuts, Tailgating from 7am on
Maybe blacksmith demo ongoing (up to njba)
Send everyone to lunch, on their own, around 11
Open the museum at 12:30 Tour and talk at 1am
Maybe IITH, I have to talk to tool group

NO SMOKING on the property. If you need a smoke, you must go and stand on the street.

The museum will not be open until after lunch.
Park in the front field if you are only here to look.
Park by the museum as directed if you are selling (tailgating).
There is no rain date.
There will be a portapoty on site
**Directions:** Josh's shop is at 471 Casino Dr Farmingdale, NJ, near Marshalls farm, East off of Route 9. Casino Dr. is a few miles north of 1-195. and a few miles south of Rte. 33.

# Meet outside of NJBA,
## Northeast Blacksmiths Meet At the Ashokan Center

The Meet is on September 30, October 1, 2, 2011

The demonstrator for the Fall meet is Fred Crist. We had Fred as a demonstrator over 20 years ago and thought it was time to bring him back. He has had an impressive career. Mr. Crist received a BFA in sculpture from Philadelphia College of Art in 1977. He was employed by Samuel Yellin Metalworkers from 1977 until 1988. While at the Yellin Shop he advanced to the position of Mastersmith and has executed major works for the city of Philadelphia, the National Cathedral in Washington DC, the University of Pittsburgh, Yale University as well as numerous other commissions.
Since going out on his own in 1988, in addition to his traditional ironwork, he has developed a body of his own modern work that is very sculptural.

Frederic A. Crist has over 30 years experience in designing and forging metalwork of all kinds including gates, exterior and interior lighting, railings, furniture and sculpture.

Fred's plans for the weekend are as follows: "Time permitting I will work on 3 pieces. On Sat I will do an interpreted reproduction, forged from one piece of material based on one done in 1918 by Sam Yellin for a film by the Metropolitan Museum of Art. That will be followed by a sculptural piece, using the same techniques. On Sunday morn I will do another sculpture using traditional techniques, tapering, forge welding and development with the torch."

For more info on Fred check out his many references online. His website is:

http://www.facristmetalsmith.com/arch.html

http://www.facristmetalsmith.com/

http://www.youtube.com/watch?v=4Jvpp4O9w6o

For more information visit the web site:
northeastblacksmiths.org

# Looking for Demonstrators!

A good chance to show your work and skills!
These events are next year so you have time to get ready!

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## Jefferson Township Day

NJBA,
As president of the Jefferson Arts Committee, we would like to explore the possibility of scheduling a demonstration of your blacksmithing talents at our 26th annual Jefferson Township Day celebration scheduled for Saturday, July 14, 2012 held on the fields of the Jefferson Township High School, 1000 Weldon Road, Oak Ridge, NJ.

It would be greatly appreciated if you could contact me. Thank you.

Carol Punturieri
Jefferson Arts Committee, President
973-697-3828/973-663-8404
Contact them directly or contact David Macauley

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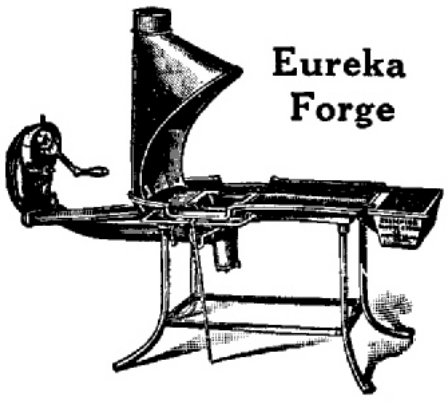
## Hunterdon County Fair in 2012

We have been asked to do demonstrations at the Hunterdon County Fair in 2012. For 2011 it is WEDNESDAY, AUGUST 24TH - SUNDAY, AUGUST 28TH, So I would imagine that it is at the end of August in 2012. These are paid demonstrations. We can get the NJBA trailer there and back.

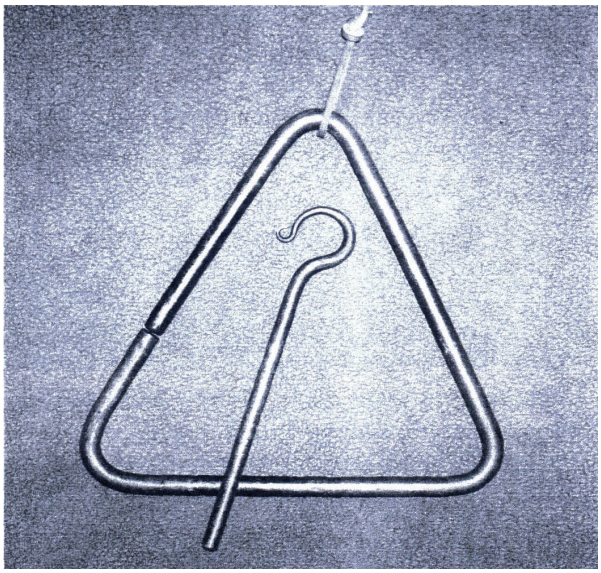
Contact David Macauley



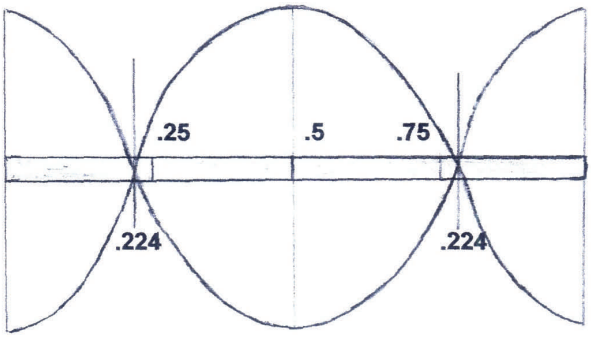
# Bells

By Bill Clemens

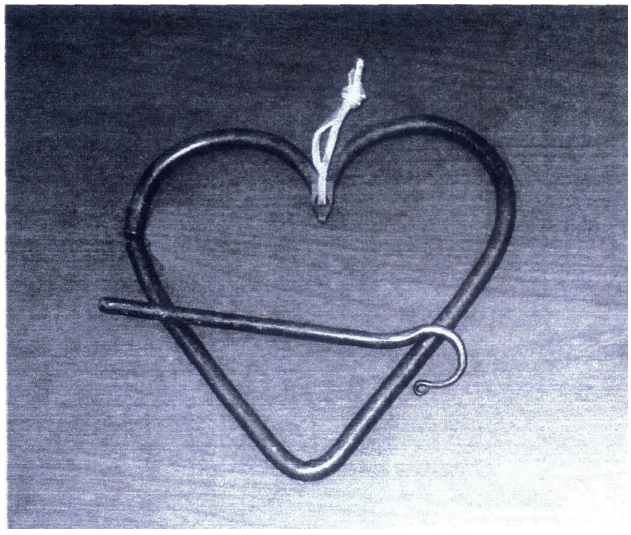
Here's a picture of the normal triangle shaped dinner bells that I make. Take note of the gap that is not in the corner but along one side. Making a dinner bell this way requires making three bends instead of just two but the results are worth it. When



I set out to make a dinner bell I went looking for some information on what length and size of stock to use to make a good sounding bell. While I found much discussion about others trying to do the same thing, I didn't find a definite answer on what to use but several that did suggest lengths around 30 inches and using 1/2" round bar. In searching the web I did find some info on Wind Chimes and the fact that the best tone could be achieved by hanging them at the node of their vibrations. The fundamental vibration of a rod or tube has nodes at .224 of their length as shown here:



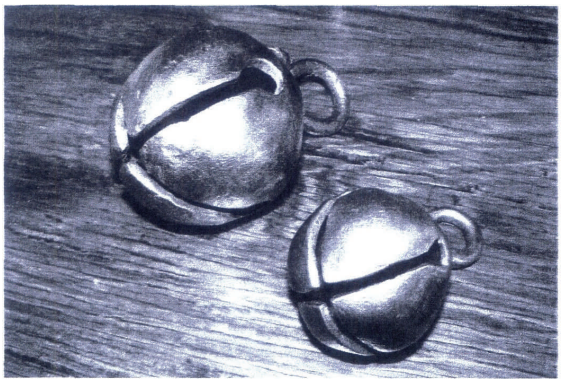

A triangle made from 30 inches would be 10 inches on a side but applying the .224 node distance for the suspension point yields a first bend at .224 x 30 or 6.72 inches (I used 6 3/4") with the other 2 bends at 16 3/4" and 26 3/4 " (3 1/4 " from the other end) The triangle I made had a much deeper and richer tone than one made with bends at 10 and 20 inches.



As for the Heart Dinner Bell pictured here, I made it from the same length (30 inches) and made the first bend at 6 3/4 inches. The bell was made by making the bottom bend at (30 - 2 x 6 3/4)/2 or 8.25 inches. Two things that are important are first, the leather through the hole to hang it can't be tight (don't turn the knot down against the hole) and second the bend at the bottom which is not at a node of the vibration should not be a tight bend.

In my research on what others had done to make triangles, there was some discussion about the tightness of bends with many leaning towards making the bend sharp but I've discovered that unless the bends are at a node (at .224 from either end of the overall length) that a loose bend is better.

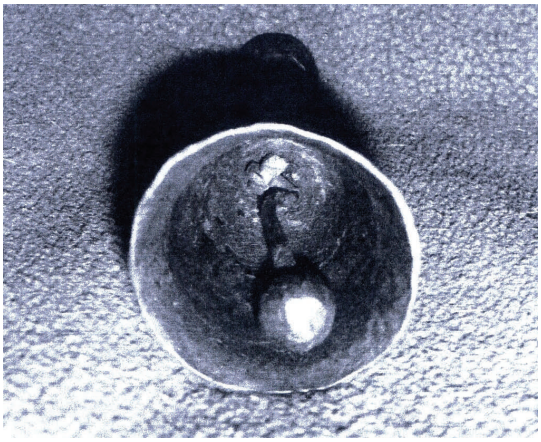
Other Bells I have made are the Jingle bells that were featured in an article in the Jan/Feb 2007 Issue of the Hammer and tong and can be found online at:
http://wiki.bgcmonline.org/bin/view.cgi/BlacksmithInfo/JingleBell
in BGCM's Blacksmith Wiki, an online encyclopedia that you can use and contribute to, check it out at: http://wiki.bgcmonline.org



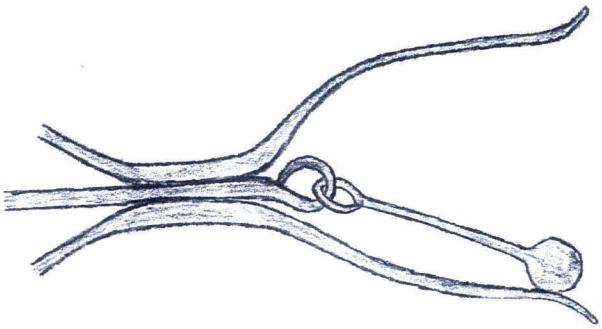
I also made a school bell from a 2 inch piece of pipe and a smaller version of it from a piece of

one inch pipe. In both cases, the handle was formed by fullering the pipe down to form it and using a short section of the pipe on the top to form the ball.

The clappers were attached to a hook inserted in the top of the bell as shown here:



Before closing the pipe to form the handle insert a hook with the clapper attached into hole as shown here. Make a bell and help ring in the new year!
Blacksmith Guild of Central Maryland HAMMER & TONG January / February 2009



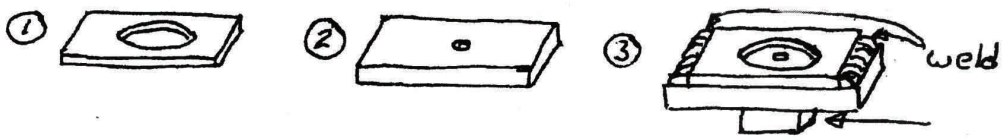
# Tool for Decorative Rivets

By Joel Clark

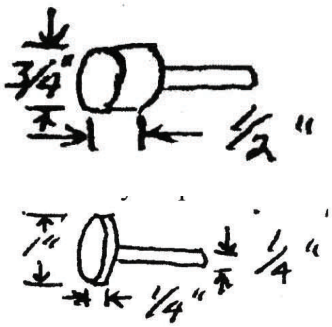
I recently made a number of large headed decorative rivets and experienced difficulty in centering the heads on the shafts and in making the heads uniform in size and shape. The tool described here allowed me to make rivets rapidly and accurately.

To make tool:
For rivets with heads 1" diameter 1/4" thick and with 1/4" diameter shafts, construct a tool as follows. The same principle can be used for rivets with different dimensions.

1) Drill a 1" diameter hole in a 1/4" x 2" x 2-1/2" flat bar (center the hole)
2) Drill a 1/4" diameter hole in a 1/2" x 2" x 3" flat bar (center the hole)
3) Weld the bars as shown with the holes concentric




A short piece of square tubing is welded to the bottom to fit the hardie hole of your anvil or treadle hammer.




**To make rivets:**

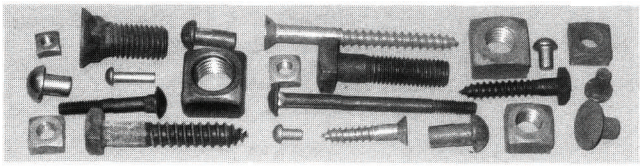
1) Form a 1/4" diameter tenon on the end of a 3/4" round bar and saw off bar 1/2" from tenon.

2) Insert the tenon of the orange hot rivet in the 1/4" hole of the tool and hit several times with a heavy hammer or treadle hammer. Quench and tap out rivet. The head will be 1" diameter, 1/4" thick and will be centered and properly shaped.

3) Place the rivet in a heading tool to hold it while decorating the head with chisels and punches.

Reprinted from the May 2008 The Anvil's Horn a publication of the Arizona Artist Blacksmith Association Dan Jennings editor. Here is a website I ran into. I haven't purchased from them yet, but their site looks like just what we need.

www.blacksmithbolt.com

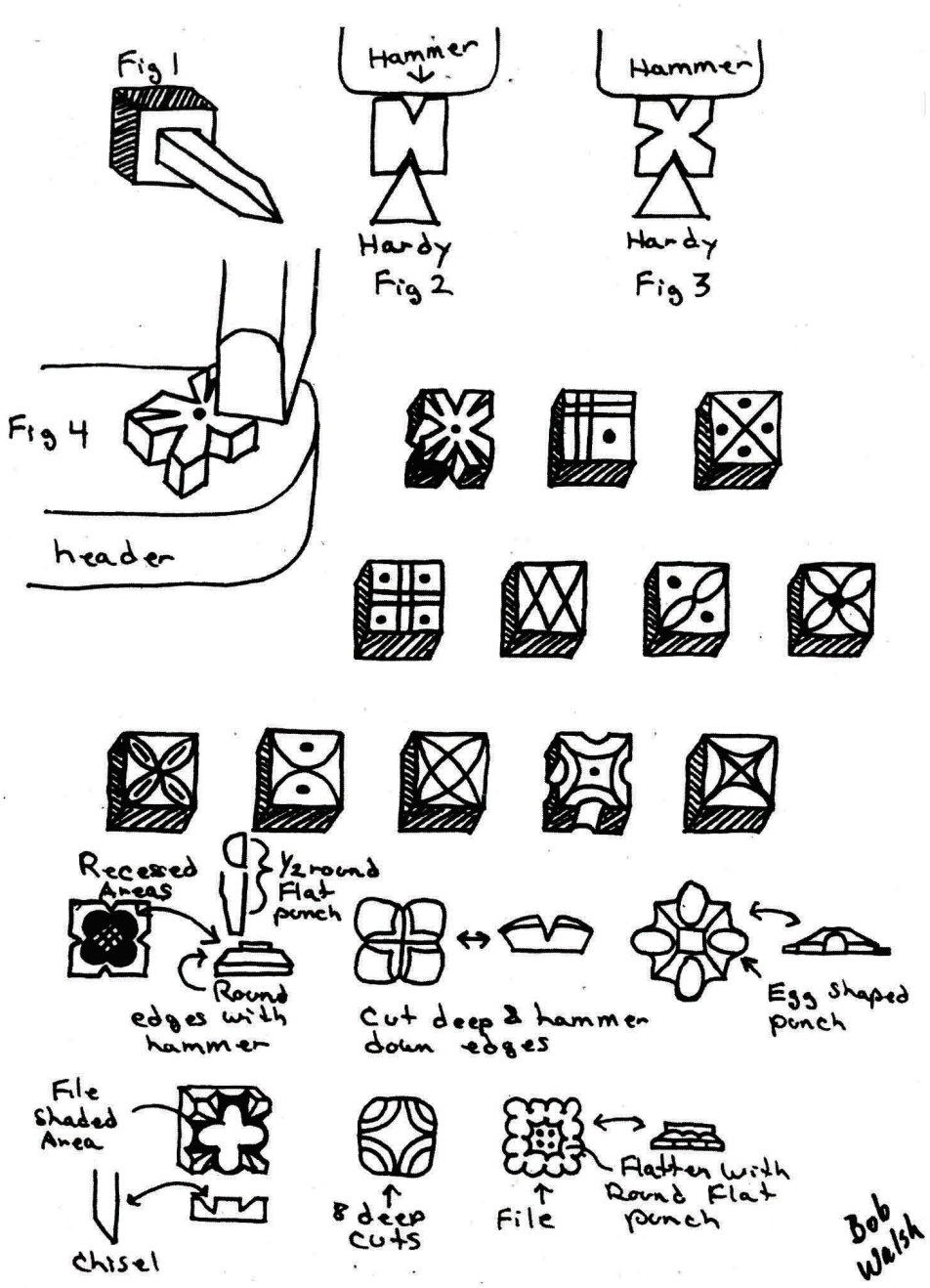


"In the image, you will find the cornerstones of our inventory: Square Head Lag Bolts, Square Head Machine Bolts, with square nuts, of course, Slotted Head Wood Screws, and Solid Iron Rivets.
We also have a few Iron Tire Bolts, Plow Bolts, Step Bolts and Carriage Bolts in stock. For these and the machine bolts, in addition to the square nuts, we also have flat washers and split lockwashers.
Nothing ruins the appearance of a nice piece of metalwork faster than a hex-head bolt or a Phillips head screw. Accordingly, you will not find any of either one of those items here. Recognizing that the majority of blacksmiths and other metalworkers may wish to make their fasteners more than simply functional, we have chosen not to carry zinc-plated or hot-dipgalvanized fasteners. The material finish will be either plain, plain & oiled, or black oxide, in almost all instances. No one really wants to have to burn the zinc off their fasteners before re-working them."

# Bolt Heads

By Bob Walsh Minneapolis, MN Fellow Ironworkers,

I'd like to share with you some ideas and procedures that work well for me concerning decorative bolts. If you want a totally hand forged lag bolt, forge yourself a square tenon with a square point. (Fig I.). Heat, holding the point in a vice and turn counter-clockwise. The square point will twist first because it has the smallest cross sectional area, when it has the thread pitch you want, pour a little water on it, freezing your pitch, and continue to twist.

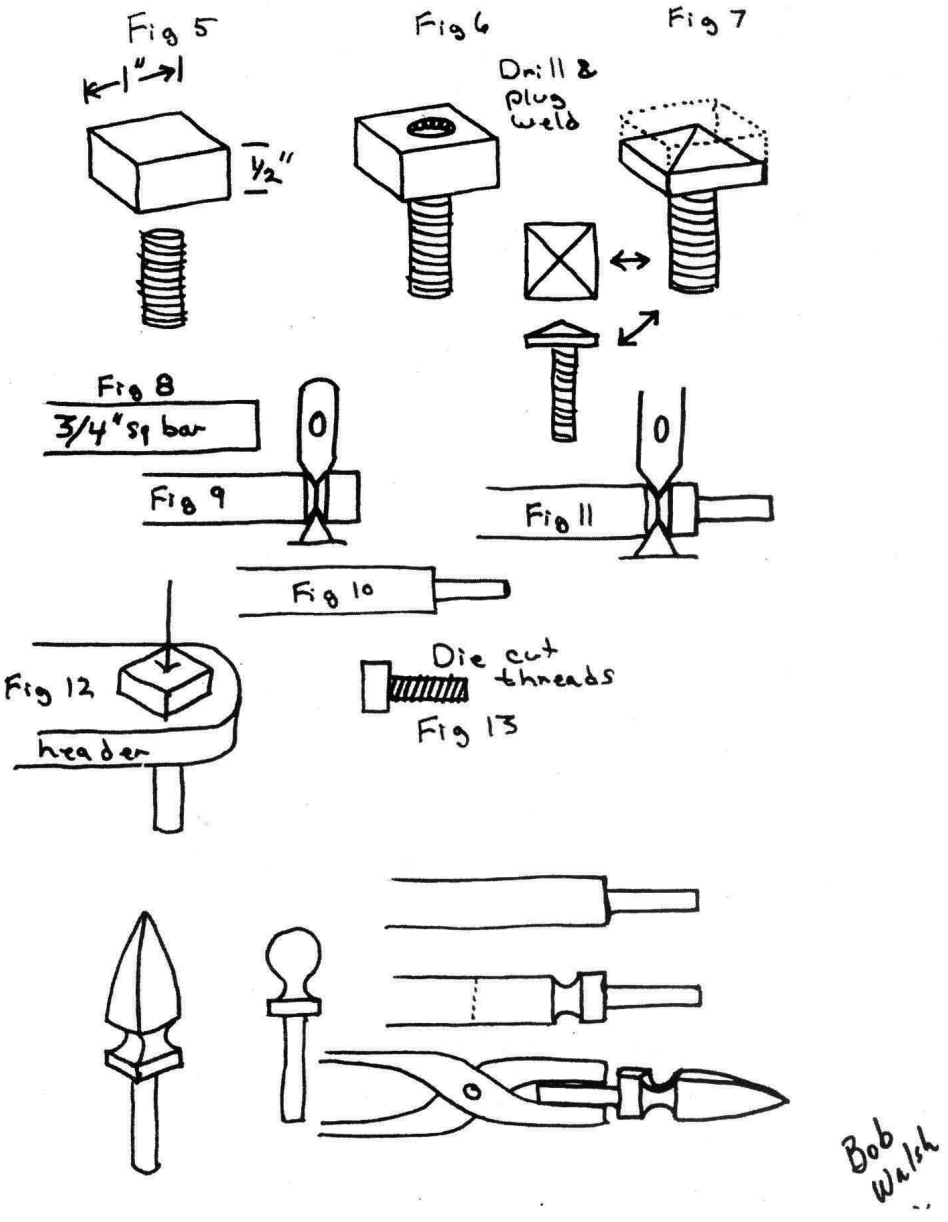



This process is quite easy, the part I usually forget is to twist counter-clockwise, and a clockwise twist will give you a left handed thread.

When making nails or bolts, I feel the desired shape has parallel sides with a point on the end. This is in comparison to a long taper. If you have ever pulled out a store-bought nail, you probably notice that the wood tries to grip the nail uniformly for the duration of the parallel sides. When pulling a tapered nail, after a 1/4" it pops right out.

Early door hardware nails were deliberately made to be longer than the door was thick. After installing, the point protruding through the back side was hammered over which acted as a locking device. Once the nail was hammered over, it was then considered "dead" (without movement), hence, the term "deader than a door nail".

I don't make a lot of nails or truly hand forged lag bolts as store-bought threads are sharper, deeper, and always uniform. I do, however, customize a lot of hardware store lag bolts which works well.
One style which has worked well for me is to start with a conventional lag bolt (6 sides), square off and head or start with a square headed lag bolt, set on your hardy, notch opposite sides, turn 90 degrees and notch the remaining sides (Fig. 2 and 3). Now reheat, place in your header and with a cold chisel put in the four accent lines and center punch (Fig. 4). With a straight and couple of arced chisels, the number of patterns you can come up with is endless.

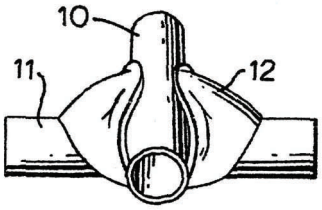



Recently I worked on some English gates that had some huge bolts that came to a blunt square point. (Fig. 7). After looking at them closely, it appears that the smith cut off about 1/2" from a piece of 1" bar and drilled a hole through the center. He then put a 3/8" machine bolt about half way through the hole, plug welding it from the top. In the case of the bolt, I saw they were then ground to a point (Fig. 5-7)
This process might be worth a try only as some alternatives to grinding to a point, try some decorative chisel work. This large headed bolt could also be achieved by using traditional methods (Figs. 8-13) which I feel would give you a better product as the one piece unit would be stronger than the plug welded unit.

Good luck and let's keep on swingin! Editor's note: Safety Warning- don't forget conventional bolts are coated (zinc, cadmium and chrome) and give off poisonous vapors when the coating is burned off in the forge. California Blacksmiths March 1985

The Stuart Hill Joint
by Paul Boulay
Campbell, California

Around 1980, designer and artist blacksmith Stuart Hill of Suffolk, England, invented a means for connecting two bars or tubes meeting at right angles. The Hill joint is strong and quick to produce and results in a distinctive. design at the joint location. Smart was granted British and US patents for his "Method of Forming Forged Joints" (U.S. Patent 4,631,797 issued Dec. 30, 1986.) 1 have heard some of our senior members mention that this joint was patented. What I had not heard in those conversations was that the patent was no longer in force. (Actually the patent lapsed in the US in 1998 due to non-payment of the year 12 maintenance fees. The patent has expired in Britain as well.)




The figure above, taken from the patent, shows the component parts of the completed joint. Items 10 and 11 are of course the bars to be joined. Item 12 is a stub of round or square tubing - roughly 2 times the diameter of the tubes in both length and diameter. I am going to call this short length of tubing a collar. This seems an apt description of what it does but it is clearly not the sort of collar that traditional blacksmithing would recognize. The joint is made with the bars being joined cold and the collar at red/orange heat. The joint is pressed together until the bars touch. Then the collar is immediately cooled. This cooling causes the collar to shrink and lock the assembly tight.

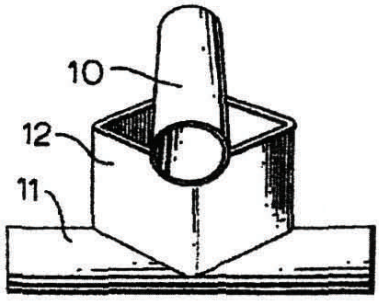



FIG. 1

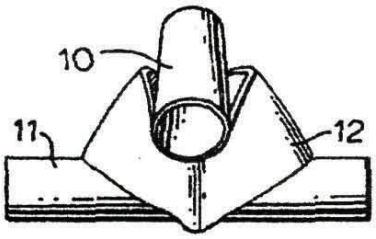



FIG. 2

Figures 1 through 3 from the patent illustrate the sequence, as the tubular stub is progressively deformed in order to lock the 2 bars together.

The collar can be made of either square tubing or round. Also the proportions can be varied somewhat to change the aesthetic result.

Stuart's patent teaches a second design. This design makes a "T" joint between a bar and a larger diameter tube. This time there is no separate collar piece, but rather the larger diameter tube is plastically deformed to become a sort of self-collar wrapping around the crossbar.

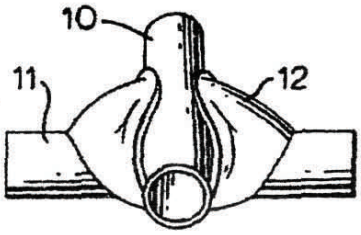



FIG.3

Figures 4 through 7 show the steps in making the "T"joint. Here the end of the large tube is heated and a

saddle for the smaller tube to sit in is formed. While the end is still at red heat, the
crossbar is presented and quickly pushed down to cause the ears of the large tube to wrap themselves around and lock it in place.
As with the first design, as soon as possible the joint is cooled and the contraction locks the elements together.
These joints are obviously not traditional blacksmithing design patterns. But under the right circumstances they would be right at home in contemporary designs.
Well, that's all I have time for this time. Next issue I will report on my experiments. There will be some ideas about tooling with photos of trials with square and round collars, varying the length and diameter ratios, and some more about Stuart Hill.
References:
.US Patent 4,631,787 issued to Stuart Hill of Croydon, Suffolk, England on Dec 30, 1986.
Klaus Pracht, Metal Works: Stuart Hill. (c) 1999, Ernst Wasmuth Verlag Tubingen, Berlin.
A one page article from ABANA-Hammer's Blow, Spring 2010
THE UPSETTER
NEWSLETTER OF THE MICHIGAN ARTIST BLACKSMITH ASSOCIATION NOV DEC 2010

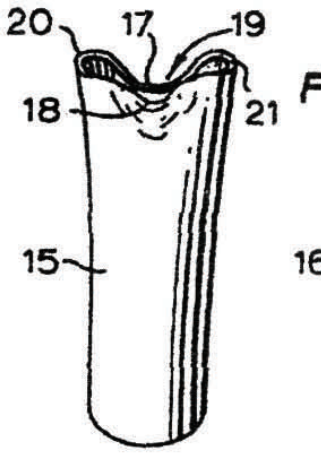


FIG. 4

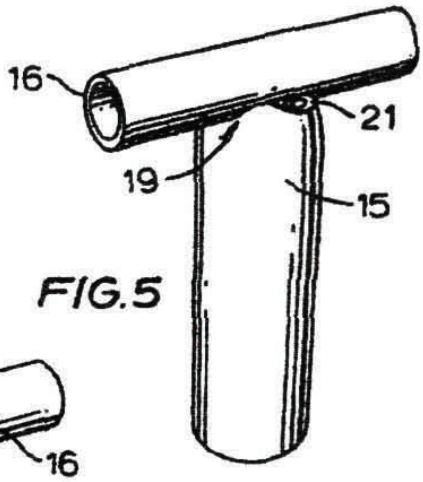


FIG. 5

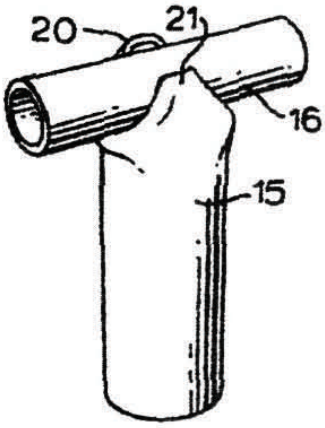


FIG. 6

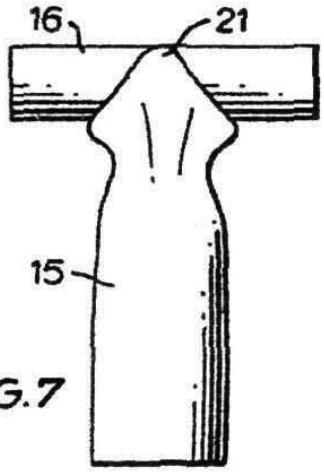


FIG. 7

## Running A Small Business

By Harold Hilborn

I have been a small business owner for 1 1/2 years now and work by myself most of the time. I have had the most difficulties trying to price my work. Am I charging to much or not enough? When you're done with the quote you look at it and say, that's to much they will never pay that because I would not. So you lower your price get the job, complete it. Then look back at it and feel you left some money on the table. Figuring the costs of a job has always been easy as far as materials and time goes but when it comes on how much to charge per hour is a different matter.

Looking on the internet I found this article which seems to work well for me. Just plug in your own numbers and may be it will help some of you also.

## Business of Blacksmithing

How to Price and Charge for Your Work. by David Robertson
DavidRobertson@artistblacksmith.com

Blacksmithing like any craft takes a lot of thought when your price your work. We all struggle with what we think should be a fair price. Often we enjoy the work so much it seems hard to price the work at what it should be priced to make a proper living.

Lets look at the reality of pricing your work when you work in a specialized, labor intensive craft. The numbers I will use may be a bit different for your country or location, but I am sure you will be able to adjust the numbers to your situation. In my area minimum wage is about $8.00 an hour. This gives a bare subsistence in quality of living. So what is a reasonable wage for the type of work we do?

Lets look at the nature of our business first. We use specialized equipment to create precision pieces of metal work. We assemble our creations into complex shapes and functional items.

There is a high degree of skill, and planning involved in many of our projects. We also have to deal with customers and suppliers on a daily basis, solve problems and quote projects as well do our own accounting and bookkeeping. There are many hats that we have to wear as one person business operators.

The manual skills required in the blacksmithing business as well as the technical knowledge are closely related to the skills of a welder, or auto mechanic, or a machinist. There are some differences in each of these trades but the skill level is about the same. In my area auto shops and machine shops charge $75.00 to $100.00 an hour. Individual mechanics and welders get paid $25.00 to $35.00 an hour.

So lets take an average of $30.00 an hour over a 40 hour week. That gives $1200.00 a week times 50 weeks (remember that you should be able to take a two week holiday and this is paid). So 50 weeks gives a total income of $60,000.00 . This is considered a good solid income in my country.

You only get paid for the work you sell. The time you spend consulting with your clients you are not paid for. The time spent designing the gate or grill is not paid time. The time spent getting materials and supplies you are not paid for. You are not paid to do your own bookkeeping. If some one else takes care of your bookkeeping then you have to pay them. There are many areas that you have to spend time on that you do not get directly paid for. Everything is paid for by what you sell so you have to take into account all the time spent other than smithing.

To calculate what your time is worth when you are working on actual blacksmithing you will need to at first keep strict records of how long it takes you to make your items. You must include the time to paint and finish your work. If you ship to your customers you need to include the time it takes to package it up.

You also need to keep a log of all the time spent that is work related but you can't charge for. You will need to keep your log-book very detailed so you can isolate what proportion of time actually brings income in, and what proportion supports your income but that you don't get paid for.

You also need to calculate all your consumable costs, electricity, rent, business insurance, vehicle costs, etc and add to your wage costs. This will give you the total that you need to bring in a year.

The next step is to calculate the number of hours used on non paying work. This includes the running around and consultations, or the sitting at the craft show selling your products. This should be part of your log book as well! If you keep track of all the time spent on your business, and the time of actual making of the products you will probably find a 60 / 40 ratio. That is 40% of your time is actually working on salable products. 60% of the time is spent on related but unpaid work. You will have to determine this ratio from your own log book. Lets take a look at some sample numbers in the equation. These are rough yearly totals.
Wage $60,000
Shop Electricity $1200
Shop Rent $3600
Business Insurance $ 1200
Vehicle Costs $6000
Show Fees $2000
Advertising $2000
Equipment Repairs $1000
Total $77,000
You may have other expenses that you only incur since you are in business. These will need to be added to this list. Everyone is a bit different, and check with your accountant.
Our actual equation looks like this:
Hourly Shop Rate = (target yearly wage + business expenses)
(ratio of paid hours per week x 40 hours a week x 50 weeks in a year)
Now lets plug into our time ratio.
0.40 x our a available paid hours (40 hours a week x 50 weeks in a year)
0.40 x 2000 = 800 smithing hours in a year So $77000 / 800 = $96.25 per hour plus your material costs. This should be your shop rate. As you can see your actual wage is much less than what you have to charge.

Going back to the beginning of this article you can see why my local auto mechanic and machine shop is charging $75 to $100 an hour.

Your blacksmith work is the same value!

Lets add another twist to this scenario. Suppose you hire an employee. Obvious expense is wages and deductions. When I was hiring employees it would take a month before they had been trained well enough that they were making me significant money. It took a week before they would break even and I could use the components they were making. If you pay $10.00 per hour, the first week they may just break even. The second week they may get up to $20 per hour in production for you.

After a month I found that they could bring in about $40.00 hour if I kept them busy. If you have the work rolling in this is when you start to make money. Remember you are still paying them $10.00 an hour. If your work dries up, paying employees is a fast way of going broke.

In short you need to start keeping a log book of how much time you spend on each facet of your business. Time for everything. Then break it into time spent directly making your products and time spent on non-billable supporting hours. Do the simple calculations to find what you should be charging in your circumstances. It will probably be more than you guess.

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From The Anvil's Horn

# Blacksmithing Workshops and Classes:

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

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

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

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

**Brookfield Craft Center**
286 Whisconier Road
P. O. Box 122
Brookfield, CT 06804-0122
203.775.4526

# Open Forges

**If any members have a forge at home and work in the evenings or weekends and want to open it up to help a few local guys, let me know, Larry Brown, editor, as we get requests from members who have a hard time traveling to some of the open forge locations.**
Please contact, Larry Brown, Editor.
*We want to encourage all to join us at:*

## Monday Night Open Forge in N.J.

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

## Open Forge in Long Island

Sunday from 10:00 am to 6pm.
Starting the 1st Sunday in November until the end of April. Please call ahead to confirm and get directions. Ron Grabowski, 110 Burlington Blvd. Smithtown, NY (631) 265-1564
Ronsforge@aol.com

## Business Members

We would like to thank those who joined with our new Business Membership category .
Business dues are $40
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**Marshall Bienstock, Marshall's Farms**
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**jlfmib@optonline.net**

**John Chobrda, Dragon Run Forge**
**P.O. Box 315 Delaware City, DE, 19706**
**302-838-1960 jchob@verizon.net**

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

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

**Jayesh Shah, Architectural Iron Design**
**950 S. 2nd St., Plainfield, NJ 07063**
**jay@archirondesign.com**



**In Southern NJ contact**
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(856) 503-5297 iforgeiron88@yahoo.com
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## 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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Do you have any particular skills (welder, accountant, carpenter, doctor) that may be helpful to the group or membership?

_____

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**Suggestions for PABA demonstrations**

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Send your completed application with $ 20 ( one year dues) to;
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Mohnton, PA 19540
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**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. You will receive a postcard confirmation of your membership, and will receive a newsletter within a month. NJBA's "year" runs from June to June. If you join mid-year, the postcard will offer a prorated dues option which will then allow you to extend your membership till the following June. The following information will be listed in a roster available to other members.

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