Rocky Forge News

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November Meeting (11/14)

By Ted Stout

Well our next meeting on November 14th should be fun and educational. Don Neuenschwander from Brazil, Indiana will be our featured demonstrator. He will be showing us how he makes his beautiful copper vessels. Don has been teaching this part of metalsmithing for several years. He spends a lot of time at the John C. Campbell Folk School, Brasstown, N.C.

Be prepared to participate after he gives his demonstration. Hopefully, Gene H. and Dominick A. will also bring their setups to be available for instruction after Don's demonstration.

Plan on spending the day watching and learning.

Be sure to bring some quality iron in the hat items and for lunch bring some pitch-in that will go with soup. The soup may be chili, vegetable or bean, depending on the weather.

The coffee should be ready by 8:30. See you all on the 14th.

October Meeting (10/10)

By Ted Stout

On Saturday October 10th at about 8:00 A.M., at the Illiana Show grounds I got out of my truck to open the gate and found ice on the grass. My first thought was "oh my, we're going to work outside to day. If the wind blows it is going to be miserable trying to forge." By 9:30 the temperature came up and the winds died down and we had a wonderful day of forging. The attendance was good, the fellowship was good and the treats and food was very good. Thanks to Jim Bolen we had a large cast iron pot of soup cooked over his encampment stove. Thanks Jim you did a good job.

Gene Hollingsworth did some of his copper work and made 3 or 4 vases that were very nice with a hammered copper finish. Ted made a tomahawk from a discarded farriers rasp. After lunch two or more of us made a handle for an odd cast iron container Ted brought.

A lot of instruction was done for two newcomers who are showing good potential as blacksmiths.

All and all we had a good time Saturday and look forward to next months meeting (November 14th) at Ted's heated shop. At that meeting we will have a guest demonstrator for a hands on class to learn making copper vessels. The demonstrator, Don Neuenschwander, is an instructor that gives classes at many of the folk art schools. He spends a lot of his time teaching at the "John C. Campbell Folk Art School" in Brasstown, North Carolina. Don resides near Brazil, Indiana. Anyone interested is welcome to attend.

December Meeting (12/12)

The December meeting of Rocky Forge Blacksmith Guild conflicts with the December meeting of the IBA. That meeting will be held at Chaz Kaiser's shop in Batesville and is usually a great meeting in a very interesting shop. As a result, Ted and Dominick decided it would be great if our December meeting coincided with the meeting at Chaz Kaiser's. Ted and Dominick will provide transportation leaving from Ted's at 6:45AM.

Having Fun With Metal

By Ted Stout

Time flies when we are having fun and I have been having some fun this month. Shane came over and taught me how to make kitty-cat coat hangers. We spent a good part of the day making the tools and the remainder learning to use them. Thanks Shane. I also made a bowl adze for one of our church members who saw bowls being made at the "Feast of the Hunters Moon". Dominick worked at that show, he made nails for three days. Menards put in an order, but I don't know if he was able to fill the order. Carol and I entertained 10 Red Hat ladies from Indianapolis for a day. I impressed them with what a blacksmith can do. (I made a hook.)

Making Nails

By Dominick Andrisani

This year I participated as a blacksmith at the Feast of the Hunter's Moon in West Lafayette. I spent four days making nails (October 8-11). On the first rainy day, Thursday, I tore my hair out. The nail header would not release my headed nails and I was taking 4 heats per nail. My nail heads were either too big and ugly (I call these disasters Z-heads) or non-existent (I call these finishing nails).

On the second rainy day, Friday, I made a square punch and opened up the bottom of the square hole in the nail header a little bit. This allowed the header to release the nails cleanly without much more than a gentle tap and without quenching. I also

decided to use a cold-cut Hardy tool and cut the nails cold rather then taking an extra heat and using a hot-cut. These changes greatly speeded up my nail making.

On the first sunny say, Saturday, I decided to fit the tapered proto-nail in the nail header before cutting in order to accurately determine where to cut the nail in order to get enough metal to form the nail head. This ended my problems with Z-heads and finishing nails. I let the nail be whatever length the nail header indicated it wanted to be.

By Sunday I was routinely making a nail in less then 45 seconds. I started having some fun with the audience by asking them to time how long it took me to make a nail. My record was 29 seconds.

I would like to encourage smiths to practice making nails. Nail making involves some very basic blacksmithing skills (drawing out, cutting, and decorative shaping) and it makes a great demo. You can produce a finished product quickly, at low cost, and give something to the audience to take away and remember.

In the paragraphs below I describe a procedure for a making nail in two heats. Then I describe a fast procedure for making nails with two irons in the fire. I learned these basic methods from the late Tom Clark at the Ozark School of Blacksmithing. Tom was an incredible nail maker!

To start making nails you need some metal and a matching nail header. I suggest ¼ inch square stock and a matching ¼ inch nail header. This metal is cheap and readily available. A good discussion of nail making and nail header design can be found on the World Wide Web at the address listed in the reference. As mentioned I use a cold cut Hardy tool to cut the nail.

Procedure for making a nail in two heats

Heat One (Taper and Cut): Place the raw (untapered) stock metal in the fire. When the 3 inches near the tip are hot, take the stock to the anvil and taper the metal to a point of suitable length. Draw out the tip on the top of the anvil using the edge of the hammer or on the edge of the anvil.

In the drawing out process you will make ripples in the metal formed by the edge of the hammer on top or by the edge of the anvil on the bottom. After you have moved enough metal to form the taper, place the piece on the top on the anvil and smooth out the ripples as you develop the straight square taper. If you are making nails for speed, do not worry so much about the length of the nail. The point should be straight and evenly tapered.

Slip the point of the taper into the nail header to see how long the nail wants to be. Place the tapered metal with header on the cold-cut hardy in the appropriate place. Line up the metal on the hardy to leave about 3/8 - 1/2 of an inch of material on the topside of the header to form a head. Remove the nail header while leaving the stock on the cold-cut at the measured location. Cold cut most of the way through the stock. Rotate the stock as you cold cut so that you cut on all sides of the material. This helps to keep the material symmetric and helps create a more symmetric nail head. Do not separate the nail from the stock at this time or you will have to deal with a small piece of metal in the fire using tongs. Use the edge of the anvil and hammer to bend the tapered and partially cut portion to an angle of about ninety-degrees. Place the metal back in the fire with the tip pointed up so you can see the tip and insure that it does not burn. In this step you can use a hot-cut hardy tool but in my experience the nail is no longer hot enough for a hot cut. So rather then wasting another heat, I just cut it cold.

Heat Two (Head): When the tapered and partially cut piece is hot where the head will be, place the tapered end in the nail header and break it off with a twisting motion. Place the header with nail on the anvil over the Hardy hole and make the head of the nail. The first few hammer blows should be directed to make the metal centered on the stem of the nail. This may require some angled blows. Once the metal is centered it should take about five finishing blows to make a decorative head on the nail. The first four decorative blows form four facets on the four quadrants of the head. The fifth blow is in the center of the head and creates a pleasing head design. The domed design of the nail header facilitates these decorative blows.

If your nail header is properly designed and maintained (with no burrs in the opening) the nail should fall out of the header onto the floor. Generally you should not have to quench the nail and header although this will help extract a stubborn nail.

Making Nails for Speed Using Two Irons in the Fire

Preliminary Step: Place two raw (untapered) irons in the fire. When the first iron is hot, taper and partially cut it and return it to the fire. At this point the first iron is tapered, partially cut but cold, and the second iron is raw (untapered) but hot. A helper is useful but not necessary to manage the fire and make sure the iron is ready when the blacksmith is ready.

Step 1 (Taper and cut): Remove the hot raw iron from the fire. Taper and partially cut the raw iron and return it to the fire. At this point you have two tapered and partially cut irons in the fire.

Step 2 (Head): Remove the now hot other iron from the fire and head the nail. Drop the hot nail onto the floor. Replace the remaining raw iron to the fire.

At this point you have completed a cycle. One iron is tapered, partially cut but cold, and the other iron is raw but hot and ready to be headed. *More importantly, there is a completed nail on the floor.*

Repeat steps 1 and 2 until you have made enough nails or your arm falls off.

It should be possible to make a nail in 30-45 seconds. That amounts to 80-120 nails per hour. The taper step should take about 25 seconds and the heading step about 5 seconds.

Happy nail making!

Good Nail Making and Nail Header Reference

http://appalachia**blacksmiths**.com/Documents/**Making**%20**Nails**.doc

Dates to Remember

November 14: Rocky Forge meeting at Ted's with demonstrator Don Neuenschwander, coppersmith
December 12: IBA Meeting Chaz Kaiser's (Board Meeting). Ted and Dom provide rides.
June 2-5, 2010: ABANA Conference, Memphis, Tennessee
June 25-27, 2010: IBA Conference, Tipton
July 16-18, 2010: Illiana Antique Power Association Show, Rainsville

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