Rocky Forge News

Volume 7, issue 7 – July, 2008

Hello everyone, we have a big month ahead of us with lots of chores to prepare our new building for the show. Remember the show is July 18th, 19th and 20th.

Lets do have a meeting on the 12th which is our regular meeting time. Carol will not be here to cook, she has a blood drive at the fire station that day. (Feel free to donate.) Plan on a brown bag lunch on the deck and maybe will have a pot of something going.

Be sure to bring iron in the hat items and lets keep the quality of our junk up to par. We have done a good job in the past.

For the meeting I have several projects that need to be done:

1. Make a sign for the building that says "Blacksmiths". Greg Searcy may have this one covered, I took him a nice thick pine board and he will use the router to make the letters, then fill them in with black paint.
2. We need to restore several wrought iron fence panels and apply undercoat and black paint. (anyone have a paint sprayer for this job?)
3. Someone needs to repair a bench by straightening the iron and putting on new wood. A couple of guys could work on that. Benches will be an asset in the new building.
4. Other signs that are needed:
    - Cold cut saw raffle sign
    - List of donors and contractors for the new building
    - For our items that are for sale
    - "Cooper"
    - A donation jar and sign
5. Need a hay rope for the perimeter of the building
6. Need four standoffs to drive into the porch posts to hang flowers.
7. Temporary electrical will be provided by Don Evans electrical Company. Each of you who want power to your area will need an extension cord that will be run overhead in the rafters and dropped down at a post near you.
8. Make things to sell.
9. I trust you will all agree that coal should be supplied by the club; therefore we will need buckets to transport coal to the site a few days before the show.
10. I have already put a table in the building for selling raffle tickets.

We will need to man the raffle ticket sales and things for sale table.

There are probably others things to do, but I am out of ideas. Let me know what I have forgotten. Dominick and I spent a day installing the metal fence down the middle of the building and leveling a load of asphalt around the porch and entry area. They both look really good. Carol and I traveled to Waveland and paid the balance of the building. We felt guilty, the Amish only charged us an extra $53 for the hurricane straps and expanding the porch from 8' by 30' to 10' by 30'.

With this new building, all eyes will be on us, so we have a responsibility to put on a good show. Be thinking of how you want to set up your area and get every thing you bring in nice working condition. If you need help with anything please let me know. If your spouse is available to help with the tables that would be appreciated. Don't forget the Friday evening meal for all Illiana members, demonstrators and vendors. This year it will be hot dogs, ear corn and potatoes cooked with the steam engine. Fresh coal slaw will also be on the menu. Non refrigerated deserts are the only thing they are asking people to pitch in.

On July 12th at 9:00 bring your dinner, iron in the hat, your favorite hammer and tongs and lets put in a days work.

Someone want to bring doughnuts? Call me 419-2194

See you all on the 12th.

Ted

Smoke and Noise

Articles from e-mail and the Internet

Compiled by David Childress

A few pieces on making the forms for a tree or stump - DEC

Wed, Jul 2, 2008 at 5:16 AM

I'm trying to make a stump, but no seaming to work out. I started with a piece of 6 inch pipe and attached several tapered pieces of 5/8 round with bark texture. I'm looking to get the look of roots and a wider base area. Anyone have any suggestions.

Thanks,

Ralph

Maple Leaf Forge

Ralph Neumeister

Peter Hirst
Wed, Jul 2, 2008 at 7:37 AM

Ralph:

I just finished a table base with much the same goal. Here is what I can offer.

The basic geometry is a slight taper upwards overall, with a more abrupt taper just above ground level. This is approximately a parabolic or centenary curve. You can approximate the curve by hanging a chain about the length of your stump height or longer so that the end just reaches the floor, then move the lower end of the chain to one side about 2", without tensioning it. This will give you a curve that is more pronounced just above floor level. This is the curve you are trying to achieve.

Also note that the base of a tree right at ground level is not very round, but is more like a soft polygon formed by the ridges where the roots join the root crown. You can get both the polygon effect and the centenary curve by forging one end of the pipe on the anvil horn. Take a heat at one end of the pipe, rest the INSIDE edge on the horn. In-line blows just off the edge will give you the curve you want and begin the ridges. Off center blows at the edge will stretch and lower edge of the stump closer to the point of the horn thin that edge to provide the extra circumference you need for the wider base and ridges. Note, however, that if you just forge in the shape of the horn, the individual ridges will taper the wrong way. Each of the root tops ridges is actually thinner closer to the ground and wider as it blends upward into the trunk. This means that you have to forge the, and as you work the curve up the stump, move the work up toward the fatter part of the horn. Careful. You will likely find that just a little curve goes a long way. I actually had to reforge some of my piece to take some curve out.

Also, on the bark. If you study the bark of most trees, you will find that it is made of a series of more or less flat, more or less rectangular plates. The bark texture does not vary much from the top to bottom of the stump, so the taper you put in the round may not be doing what you intended. So part of what is not currently working out for you may be the round bar you are using for bark.

Keziah

Robert Hensarling
Wed, Jul 2, 2008 at 2:01 PM

A blacksmith by the name of Joe Miller has done that before. He talked about it, and even demoed a little of it on a DVD that I got from Roger Degner. Miller is a fantastic artist. He makes jigs and what not, to build all of the various items he makes. The DVD is very interesting. It can be bought for about $7, or I believe you can rent it.

Show the results when you've made one

Bob.

Grant Marcoux
Wed, Jul 2, 2008 at 4:04 PM

I have had good luck using pf varying diameters, and cutting "gores" of differing lengths to induce the taper. These gores are cut on a taper the length of the pipe and the pipes is then closed and welded. Bark texture has been done with torch and/or plasma cutter held at an angle. I have an example in my "sculpture" section on my website, with pictures of the Almond Eagle, at:

http://www.grantsforge.com/.

These methods work

Grant

lee robbins
Fri, Jul 4, 2008 at 7:56 PM

A neat way to add roots to the stump is to half smaller pipe longitudinally. Then take a heat and spread it apart. Applied to the lower stump it gives the sense of roots standing up around the base and becoming more narrow as the pipe gets pinched. Flattened, they can be rippled and textured, or even repoussed as applied scars.

Another question. How can you get a nice bend in a piece of 3/4 inch pipe. I need to make 8 galoshes for a tarantula with 1/2 inch legs. Anyone know of easy jigs?

Lee

Wesley Marquart
Fri, Jul 4, 2008 at 8:09 PM

Hi Lee,

A possibility that was suggested to me at one time when I needed to bend some pipe...

Fill it with dry sand before attempting the bending... its supposed to help keep down the crimping...

Just a thought to get other ideas moving...

Bob Willman
Fri, Jul 4, 2008 at 8:45

Make sure the sand is absolutely dry if you are going to heat it. The old method to prevent crimping while bending was to fill the pipe with melted rosin and do the bend cold, then melt the rosin out.

Some miscellanies that I found interesting.-DEC

Grant Marcoux
Sat, Jun 21, 2008 at 9:33 PM

Note also that formal blacksmithing curricula died out after WW1, for the most part. Didn't the RJ Lillico industrial forging guide predate 1930?

It is amazing what the old time craftspeople could do prior to the age where assembly line production was the norm.

I had a coworker once who had lived in Barrow, Alaska in the late 40s and claimed she had seen an Inuit man repair a piston top from a Jeep by using a section of walrus ivory. It supposedly worked.

How about the fellows who made rifle barrels by the twist steel Damascus method and rifled them using hand-powered machinery. You'd really have to trust your welds! In all fairness however, many such barrels did not hold up well. It took a true master to consistently make good barrels

Interesting how modern life requires one to be obedient vs. skilled

There is a really cool book called "Better Off", written by a man who, with his family, lived in a community that even by Amish standards, was primitive. They had no electric or motor power and the heavy work was done by animals connected to many types of machinery. Most noteworthy was the fact that most of the children, boys and girls alike, were skilled with livestock handling and food processing operations by age 12.

It wasn't so much that they worked hard as much as they worked smart.

Grant

Mike Spencer
Sun, Jun 22, 2008 at 1:27

Lefty Griswold (of Amherst, Mass, now surely gone to the dirt-track pits in the sky) reportedly burned up a rod bearing during tryout for a stock car race some time in the late 40s. With only a short time before the race, he pulled the pan, replaced the bearing with a piece whacked off his belt with a pocket knife and went on to win the race.

> Interesting how modern life requires one to be obedient vs. skilled

Knowing how to do stuff is very suspicious. Pushrod tubes from 36HP Volkswagen engines are just the right size to make .22 zip gun barrels. Anybody that knows that *might* actually make a zip gun so (s)he's probably a "terrist".

Here's an interesting little squibb for y'all old guys who remember Stuart Hill. Stuart was -- I think it's safe to say -- a genius blacksmith and metal hacker. He did a demo at Ripley in '82 and IIRC at Hereford in '80. I've used stuff I learned from him to great effect. I still have a clay model of one of his clever tricks in the shop.

I googled around some years ago and learned that he had given up metalwork for other art pursuits but just the other day I spotted his name on comp.risks (aka Risks-Forum Digest 25.20) and sent him email.

His reply included:

> Here's what I'm working on now - a surveillance-free state where the citizens are in charge of the running of the state:
>
> http://www.forvik.com/
>
> My Declaration of Dependence goes live on the website tomorrow, the longest day, or what is called here 'the Simmer Dim'.

Don't forget to google for "captain calamity" too, and look for his name.

If Stuart is as good at radical pollyticking as he was at metalwork, Gordon Brown is in for a rough ride. :-)

- Mike

I had to leave out some of the earlier posts, but you will get the idea. DEC

Chuck Robinson
Sat, Jun 21, 2008 at 11:39

Obviously no blade smith's in the crowd.

This is a centuries old Japanese technique. You brush water on the anvil, dip your hammer in the slack tub then in one smooth motion you strike your billet with the wet hammer as you touch the billet to the anvil face.

The resultant steam blows the scale off the billet instead of pounding it into the billet face.

Chuck

Mike Spencer
Sat, Jun 21, 2008 at 12:57

When I moved into my first big shop -- a 30x90 former general store --in the seaside village of Port Medway, all the old geezers in town were overjoyed. They all recalled hanging out in the old marine blacksmith shops as kids in 1910. So of course they started hanging out in mine. Since I had failed to provide old car seats, orange crates or the like for them to sit on, and since old legs and backs get tired just standing around (as I can now, 30 years later, readily confirm), they had to find something to lean on. By 'n bye, there were two of them, each with one foot up on the anvil stump, leaning on their knees.

So I got a piece of 1/2x2 up to a real good welding heat, spat on the anvil, said "Mind the sparks" and wailed on it with a 5# hammer. Of course there was a very gratifying bang and lots of hot crap flying around. When I looked up, all the old guys were over in the far corners, checking their pant cuffs for smolders. And that put an end to the hanging-out problem without having to be cranky and tell them to buzz off.

Tod Estes
Sun, Jun 22, 2008 at 12:24 AM

My Grandad taught me that trick he said he used to keep kids at a distance with it.

Tod Estes

A little post on finishing from a long thread. -DEC

Peter Hirst
Thu, Jun 26, 2008 at 12:19 AM

Sounds like finishing hell to me, but I'm not all that adventurous. On the other hand, I did discover one neat trick that results in an interesting texturing. Put the work piece on the negative clip for a day or two, and you get a huge, fast and unevenly distributed rust build up. Then reverse the polarity back to normal, popping the new rust off and you get texturing that raises pitting to an art form: more like cratering. But since the rust happens so fast, its not evenly distributed like it is if you leave a piece of iron where it can rust slowly and evenly. Instead, you get a deep rich texture which when cleaned up bright gives a real organic look, something you could never do with a tool, and very different from the tell-tale pitting of the merely neglected or abused piece. I discovered this when I was setting up electrolysis on a piece that has been kicking around my shop for a couple of years and built up a nice even pitting from a couple of rust/wire wheel cycles. It just looked like a piece that had been rusted and brushed bright, so I decided to see what would happen if I exaggerated the effect by deliberately rusting it one more time. Pretty cool result.

As rust is a nemesis for all of us this info should be useful.-DEC

Peter Hirst
Tue, Jun 17, 2008 at 12:31 AM

By coincidence, my first Evaporust arrived today as well. My shop is literally a stone's throw from salt water, and at times it seems as if rust control is half of my shop maintenance effort. I keep a permanent electrolytic setup that I can clip a piece into any time. Since I set it up 3 months ago it has been shut off for no more than a day or two at a time. I am not sure yet, but I think the optimal rust removal regime is going to be first treatment in the electrolytic rig and finished with Evaporust. Depends on how Evaporust works on black oxide. I also keep a tub of 9:1 molasses solution for low cost, long term treatment. Anything I don't need for two weeks goes in the molasses. Really small stuff goes right in the Evaporust. Everything else gets zapped for a few hours then finished in Evaporust. Evaporust is definitely on my short list of products that I can endorse, and I ma thinking about bottling the stuff and handing out samples with every major purchase. I already do that with my wax finish, and its a great promotion.

- Mike

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robert hensarling
Fri, May 30, 2008 at 7:02

Peter,

could that possibly be the same stuff as Ospho? Usually comes in a one gallon plastic bottle, bluish in color. It's one of the acids, maybe diluted hydrochloric? I'm not sure. If you have something that's really rusty, this stuff attacks the rust making it inert, turning it both black, and sort of a white powder. It's a primer also. Good stuff, just have to use the usual cautions. However, this may not be what you're looking for.

Peter Hirst
Fri, May 30, 2008 at 7:23 PM

Nope: Ospho is very different, a rust converter. Evaporust is a chelation agent -- no acid, caustic or solvent involved -- a big fat organic molecule that draws iron out of compounds. Strong enough to break up oxides, but not pure iron or steel crystal, so it strips rust completely down to bright metal. I've seen film demos, and its pretty amazing, but absolutely abysmal marketing. Except for being biodegradable, it has amazingly long useful life, as after chelation, iron precipitates out and its ready to go again.

There are other chelation agents, but none as selective as this for iron in oxides. Some attack other metals, and some will attack bare iron.

Peter Hirst
Wed, Jun 25, 2008 at 10:15 AM

Molasses on rust

, but just a tad more background first: sometimes a little why can save a lot of what. Molasses works by chelation, essentially by grabbing the metal atom at two valence points - pinching it like a crab claw (The word is derived from the Greek root "chelae" the claw or pincer of a crab). It is the process by which plants are able to extract minerals -- especially metals -- from the soil. Ergo therefore hence and consequently... it is very user friendly and works best in a fairly weak solution. You can use rubber gloves, but I don't bother. Get the rawest form of molasses you can find. "Blackstrap" is best. Dilute in water 9 to 1. Best used in a covered container, since natural organisms will set off fermentation in an open container. Plan to soak the work piece in this bath for 2 weeks, although the red rust will turn to black much sooner. The process can be moved along somewhat if the rust is heavy. Outer layers will weaken in a few days and may be removed with an abrasive pad. After 2 weeks, a rinse in clean water will reveal almost bright metal. Bright finish can then be achieved by thorough rinse and abrasive pad.

Note, this stuff may look like a disaster after a couple of days: brown foam black sticky solution, black work pieces. Never fear, it's all benign and cleans up nice in water.

For a really nice satin finish, leave it black. It behaves very much like forge scale. It is chemically the same --FeO-- ferrous oxide, but seems to have a more stable bond with the underlying elemental iron. Judicious application of the abrasive pad and wire brush will take it through every shade from dull black to bright. Seal it with your favorite varnish at just the right shade and voila, a beautiful black oxide finish.

I deal with so much rust around here I have set up a corner of the shop for perpetual treatment. A permanent molasses bath, a quick setup and break down Evaporust bath, and a permanent electrolysis bath. I usually spend some time there every day. Among my projects is a collection of tongs that have been waiting for over 20 years to be made presentable. A tool that is not worth the price even if free because of the restoration time may now be worth the price. A seized monkey wrench, say, might take an hour or more with penetrate, heat, disassembly and wire brush to restore to presentable appearance. In the molasses bath it's the amount of time it takes to drop it in, take it out, scrub and oil it. Tools with tighter fitting parts may still need disassembly, but its still a lot quicker after all the rust that the solution can reach has been broken down. Box of nails left in a corner found rusty? Drop them in the bath. Old post drill too rusted to be worth it? Pick it up for pocket change, degrease and throw it in a tub for a couple of weeks: you really couldn't get to it before then anyway, now could you? Oops, left it in the bath for too long? No such thing. Just take it out when you have time to work on it: it won't rust up or get etched as long as it is submerged.

I'll post more as the experiments continue.

Last but certainly not least, an announcement from our closest (especially for me) associated IBA group.-DEC

Max Hoopengarner
Wed, Jun 25, 2008 at 9:16 PM

Gentlemen,

It is my pleasure, along with the Wabash Valley Blacksmith Shop, and the Vigo County Parks Department to request the honor of your presence at the dedication of the new blacksmith facility at Fowler Park. It will be held on October 11th 2008. Activities will begin at 0930. A carry in lunch will be provided, along with iron in the hat, tailgate sales, and auction. So mark your calendars, and join us for this joyous event.

Hope to see you there....

Max Hoopengarner
Forgemaster
Wabash Valley Blacksmith shop

Announcements

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