

# Rocky Forge News

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## Indiana State Fair

*By David Childress*

We have had another successful State Fair. Fair attendance was off in general and we have been moved off the center of traffic. As a result we saw less crowds and will have to refine our crowd gathering methods. I was told that our move was part of an effort to gain move traffic to the North edge of the Pioneer Village. Someone must think well of us if they think we are part of a recipe for successes.

Due to my schedule I had to have a much less hands on approach to coordinating the IBA State Fair demonstrations. I am now gathering data and planning how to increase our success next year. To be honest we had no problems, which was good because I had no contingency plans in place. I got lucky. I would appreciate any suggestions, comments, or complaints about the event to aid in planning next year. As things fall into place I will let you know.

The last day I was at the Fair a new event came up, The Barn Association is planning a School Days event at the Pioneer Village, much as we at Rocky Forge have in the Spring, only this is five days (Oct, 16-19) and maybe 3,000 fourth graders. They are asking for volunteers. The demonstrations will be essentially the same forty-five minute presentation six times a day. I am thinking that the IBA will need about 24 demonstrators and I already have 4-6. There will be over-night accommodations in the 4-H dorms. I know that this is short notice but anyone who can help will be appreciated. Let me know as soon as possible.

The IBA has done well and the Fair Board is pleased. On a related subject, the possibility of the IBA having a permanent building on the State Fairgrounds came up and the Managers of both the Pioneer Village and the Barn are enthused about the possibility and with the backing of the Indiana State Fair Board grants and other funding should be available. There are planned changes in the layout of the fairgrounds and we would fit very well with

the change in direction the fair board wants. We need to consider this.

Rocky Forge is also going to have a building and this month gives us a chance to get started before winter. We need plans on paper and to break ground soon.

## Rocky Forge News

*By Ted Stout*

The Rocky Forge group entertained visitors to the Illiana Steam and Power Show for three days July 20, 21 and 22nd. We had the best show ever, excellent weather, good exhibits and many tractors and small engines (over 150 of each). Best of all we had more blacksmiths than we had equipment. There were up to 14 smiths with 8 forges and anvils. One of our new guys Greg Searcy made roses and other items, Gene Hollingsworth made tongs, and Dominick Andrasini made a very nice shell bench with the back being patterned after the spiral of a conch shell. One of our big attractions is Rob Durrett giving his talk and demonstrations of the Lewis and Clark expedition, he portrayed Captain William Bratton, blacksmith for the original expedition. Also very popular is the blacksmith encampment set up by Jim Bolen. He literally lives blacksmithing for three days, a very nice display for the crowd. We appreciate Gary Leeman of the Rural Smiths of Mid America for his effort during the show. Traveling from Tipton he and wife spent the whole weekend at the show doing some creative blacksmithing. Parts were made for a Silver Cane tractor and many other things of interest were fabricated. All the members worked very hard and had a good time. We all missed Charley Terril and hope he makes a speedy recovery. As forgemaster, I am very proud of this group.

Due to working at the State Fair and other commitments we will be taking the month of August off and will resume our normal meeting times starting September 8th.

## Are You Having Trouble Forge Welding???

By Ted Stout

There are a lot of good blacksmiths out there having trouble making a forge weld. No matter how hard you try some of those welds work and some don't. Maybe I can shed some light on your dilemma.

Some few years ago most of our suppliers of steel sold 1018 or 1020 as the standard steel for the needs of blacksmiths and others. Now, due to the increasing domestic costs and supplies from across the ocean, the commonly stocked steel is A-36. If you look at the specifications for A-36 is it very near 1020 except A-36 has more carbon (about 0.27 to 0.32). But the most critical difference is A-36 contains about 0.2 % copper. It is well documented that copper inhibits forge welding. You can get a forge weld if you are good, but it will not be a good fusion weld and can be ripped apart.

The A-36, considered a structural steel, is made totally for recycled metal, which is why it has such a variation in components and has copper present.

The sad part of all this, besides the poor forge welding part, is that 1020 is now a specialty metal and based on quotes I have it is 2-3 times the cost of the A-36. So go ahead and buy A-36, but if your project calls for forge welds, my advice is go with the no copper and lower carbon of 1020. Also, you will note a difference in the forgeability between the two; the added carbon makes the A-36 slightly more difficult and more prone to cracks and failure when worked a little to cool.

For you modern blacksmiths, A-36 arc welds just fine.

## Blacksmith's Gold....

By Ted Stout

You have probably seen it done, but, for those who have not a blacksmith can be an alchemist and convert iron into GOLD.

Go buy yourself a brass wire brush at the hardware store. Better take a magnet because a lot of the packages say "brass brush", but in fact it is just steel coated with brass. Once you have the brass brush

and want to coat something to give it the brass finish let the item cool to a black heat and begin rubbing with the brush. At the appropriate temperature (brass melts around 1700 F.) the brass will rub off onto the steel making a nice brassy look to your piece.

When I do this and want it to look really good I cool the item to be coated and clean it with a wire wheel then reheat enough to take the brass coating. A clear coat of rustoleum or polyurethane makes for a nice looking and well protected item.

## Smoke and Noise

### Articles from e-mail and the Internet

Compiled by David Childress

*Just over two years ago Paw Paw Wilson died of heavy metal poisoning. I happened to receive these two emails one exact and clinical and the other graphic and personal. I hope they make an impression and help prevent future tragedy.*

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From: lee robbins

Date: Jul 30, 2007 10:28 AM

Subject: [TheForge] metal fume fever

Hi all,

I have been a lurker for years and have leaned a great deal from you all.

This is my first posting and I was unclear of the mechanics. I finally have to weigh in on a subject that of Zinc fumes. As an emergency physician I have seen people with metal fume fever due to zinc fumes. It is like the bends; pain in all muscles, nausea and dizziness and can be the worst 24 hours you can spend. I stay away from galvanized steel except to join it with nuts and bolts. It does come off with hydrochloric acid I believe and would like to know more about a vinegar treatment that was mentioned.

Lee Robbins MDMA.

history museum studies

Flying tortoise forge studio

From: Peter Fels And Phoebe Palmer  
Date: Jul 30, 2007 4:17 AM  
Subject: Re: Cutting Galvanized tanks

Jerry;

I wouldn't be bold enough to disagree with you normally... but...

Having had metal fume fever (ZINC SHAKES) from zinc fumes, 3 times worth mentioning...my opinion differs.

Most evident was the projectile vomiting and rapping...really projectile and very vivid. The gut squeezes shut in the middle somewhere and a violent spastic waves travel both directions at once. Then there's the chills which take over your sensory world.

It was comparable to heavy chemotherapy.

I could go on but... that gives you a hint, except to note it seems to be cumulative to a considerable extent.

A good particle filter will take out a fair part of the nasty stuff. Muriatic acid will remove it pretty well...pf

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*As a further safety note; on the storing of coal. DEC*

From: Tod Estes  
Date: Aug 14, 2007 10:57 AM  
Subject: RE: [TheForge] Storing Coal

Hi Grant, and everyone else since you invited my input here it is. I store my coal in a combination of covered drums and old trashcans outside, inside storage in half barrells and 5 gal. buckets. Strange as it may seem Oologah, OK is a coal mining town. Oolagah means dark cloud spelling changed after the postmaster misspelled the town name. We have 2 coal mines within 12 miles, a Clay mine (acme brick), and we have a coal fired power generation plant in town. The BNSF railway that bisects the town brings 40 trainloads of coal a day through here from Wyoming.

From seeing the patients here in the family practice clinic I can testify to the respiratory irritation the coal dust causes. I keep my car in a garage but it still eventually gets a coating of fine black dust that I can only assume is coal. During the windy times

of the year we see tons of bronchitis, sinusitis, and pneumonia, More that what I see when I work in other parts of the state.

A really good gauge of your personal exposure to coal dust as a blacksmith is to blow yer nose. The nose is an incredible filter if ya got black buggers you are exposing yourself to an exceptionally high level of dust and need to consider increasing ventillation and utilizing a dust mask. Also consider using a wet storage method inside, It will moisten the coal allowing less dust in the air.

Coal miners get black lung coverage but blacksmiths don't so it is up to you to protect yer windbags.

Quoting Grant Marcoux:

Jerry: Coal storage requires some thought. Keep the coal dry in bunkers or bins, and try to control the dust. Coal dust, under certain circumstances, is an explosion and fire hazard. Store bulk coal well away from fire and break out what is needed at the beginning of the day. When transferring coal, wear respiratory protection and skin protection. Wash thoroughly after handling coal or coke. Tod, as a med professional, might add to this list.

Grant

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## Announcements

The Rocky Forge News is available by E-mail and on our website (<http://www.rockyforge.org/>). If you wish to receive the newsletter via E-mail sent Dave Childress a note at [trollkeep@gmail.com](mailto:trollkeep@gmail.com), or e-mail directly to [rocky@rockyforge.org](mailto:rocky@rockyforge.org).