

Rust

by *Lynne Belluscio*

It seems like I've been dealing with rust recently. It started at the beginning of the summer, when I decided it was time to paint the steps into the Jell-O Museum. It had been quite a few years since Ron Paganin painted them. I knew I didn't have the money to have them sand blasted, so armed with a variety of scrapers, I started picking away at the little rust "blisters." I think the word "tedious" describes it best. I even found a couple of "volunteers" to help. I made the mistake of using the wrong paint on one side of the steps and the rust is coming back up through the paint - - and I still haven't figured out how to fix that. The other side we have sprayed with an iron consolidator. This spray paint bonds with the rust. (I think I need a chemist to explain exactly what happens to the rust.)

In the meantime, I've been concerned about the Marion Steam Shovel on Gulf Road which is pretty rusty. It was placed on the National Register of Historic Places in 2008, and recently the Town has secured a grant to build a new fence around it, which will replace the chain link fence. Eventually there will be signs that will explain why the steam shovel is so important, but in the meantime, I have contacted the National Park Service at Steamtown in Scranton, PA. They are willing to send a team to LeRoy to examine the steam shovel and give us a condition report and some suggestions about how to stabilize it. Part of that project will be to have a drone fly over the top of the shovel to determine the condition of the roof. Hopefully the condition report will give us an idea of what can be done to preserve the shovel and mitigate the rust.

And speaking of rust . . . I recently attended the European Outdoor Air Museum conference in England. The hosts for the conference were the Black Country Museum and the Iron Bridge Museum near Birmingham. It was in this region that Abraham Darby patented a method of casting iron kettles that used coke from coal instead of charcoal. Charcoal production denuded the for-

ests. Coke was made from coal. Darby's Coalbrook coke-fired blast furnaces utilized the local deposits of iron ore, limestone and coal. The entire region soon became filled with blast furnaces, foundries and mines. During the day, the sky was filled with black smoke and by night the whole region glowed red with the fires of the furnaces. Everyone worked - six days a week - fourteen hours a day. Seven-year old kids worked in the mines. Women sorted coal and made chain. (In fact, I learned that it was the women chain-makers, that decided to go out on strike in 1910, that propelled the formation of unions and the suffrage movement in England.) With the newer methods of making cast iron, Abraham Darby decided to build an iron bridge across the Severn Gorge in Shropshire. It would become the first iron bridge in the world. The entire region was filled with iron furnaces and foundries and even today, there is no agreement as to where the bridge was cast. It was designed by Thomas Pritchard, whose plans were based on wooden bridge construction with dovetails, wedges, mortises and tenons. The bridge survived floods and geological shifting but in 1926 there were plans to demolish it. In 1934 it was closed to vehicular traffic and was listed as an Ancient Monument. Today, only 200 people are allowed on the bridge at any one time. In 1967 the Ironbridge Gorge Museum Trust was formed and restoration work began in 1972. In 1980, the bridge was covered in scaffolding and contractors blasted off all previous layers of paint - - - and rust. On our visit, we were told that unfortunately this sandblasting was so "successful" that all vestiges of the original paint were removed, and they don't know what color the bridge was in 1777. However, they did discover some of the joints were numbered and that might help historians understand how the bridge was erected. So when I start to worry about the rust on the steamshovel, I'm glad I don't have a bridge to worry about.

I found it interesting that Thomas Jefferson, while he was the U.S. Minister to France in 1786, bought an engraving of



Bucyrus at Beamish in England



The Iron Bridge in England



Volunteers scraping the rust on steps

the Iron Bridge through a friend in London. American industrialists, including the LeRoy family, sent representatives to England to learn about these advances in the industrial revolution. Edward Augustus LeRoy (Jacob LeRoy's son) traveled to England in the 1850s and brought ideas back to his brother, Thomas, that encouraged them to establish a manufactory that produced lead water pipe

and lead shot in New York City.

One other "discovery" in England that caught my eye, was on my visit to the Beamish Museum near Newcastle. On exhibit is one of the last Ruston Bucyrus steam shovels. Built in 1931 it weighs 125 tons and is a little bigger than the Marion shovel in LeRoy. The dipper rests on the ground and kids climb in and out and have their pictures taken.