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**Wagner and Griswold Society Information > Cast Iron (general info) > Cleaning and Restoration**  
(Moderators: [Scott Sanders](#), [Jeff Friend](#))

🚩 Prolonged Electrolysis Sessions (Read 569 times)	
👤Mike Knight	<div><div>📄Prolonged Electrolysis Sessions</div><div>Sep 16<sup>th</sup>, 2011, 10:05am</div><div>Posts: 70</div></div> <div>I've started using the advice I gleaned from Chuck Rogers' treatise on the cleaning and care of cast iron, especially with regard to putting a piece in the electro bucket and just letting it sit. I tried it with a corn cob pan (12 hours) and the thing came out looking like it was brand new, even with the oxide coating (until the flash rusting visited of course, but that's something else). I really like this method, and if used in conjunction with others (not really necessary from what I see) such as lye and perhaps an SCO session, a piece should be Marine clean.</div> <div>Well, I got my welcome package from WAGS in the mail last night (VERY nice and classy touch I must say) and in it was a prior issue of "Casting Call." Sure enough, as if the gods of doubt are following me, there was a cautionary piece about members' experiences with eroding and pitted iron at the point of the negative connection, potentially caused by "setting and forgetting" and perhaps some other things.</div> <div>Chuck, have you had this happen to any of your pieces? If so, have you been able to figure out and/or fix the problem? Anyone else?</div> <div>Man, getting comfortable with a method seems like trying to stomp a bubble out of a wall-to-wall carpet.</div> <div>Thanks, Mike</div>
👤Roger Barfield Forum Administrator WAGS member ★★★★★	<div><div>📄Re: Prolonged Electrolysis Sessions</div><div>Reply #1 - Sep 16<sup>th</sup>, 2011, 2:55pm</div><div>Posts: 7399</div></div> <div>Mike, the key is to not leave the leads hooked up to the piece. Disconnect the positive and negative leads from the piece and it can stay in the solution no problem. If it is left connected, then it can make a type of cell that will cause what you describe. I soak all my pieces in lye then if they have rust put them in the electro. I rarely need to leave a piece in more than a few hours to have it clean that way.</div>
👤Mike Knight	<div><div>📄Re: Prolonged Electrolysis Sessions</div><div>Reply #2 - Sep 16<sup>th</sup>, 2011, 3:08pm</div><div>Posts: 70</div></div> <div>Roger: When you refer to disconnecting the leads, is that for if you end up leaving the piece in the electrolyte <i>without</i> it charging?</div> <div>Is this a problem when running the piece in the electro where you (obviously) need to have the connections? I wouldn't otherwise leave it in the solution.</div> <div>Thanks, Mike</div>
👤Roger Barfield Forum Administrator WAGS member ★★★★★	<div><div>📄Re: Prolonged Electrolysis Sessions</div><div>Reply #3 - Sep 16<sup>th</sup>, 2011, 3:14pm</div><div>Posts: 7399</div></div> <div>Mike this refers to leaving the piece in the solution without the charger running. Example you are cleaning a piece and don't want to leave it on overnight. I would unhook the leads then reconnect in the morning and start cleaning again.</div>
👤Scott Sanders Moderator ★★★★★	<div><div>📄Re: Prolonged Electrolysis Sessions</div><div>Reply #4 - Sep 16<sup>th</sup>, 2011, 3:20pm</div><div>Posts: 1300</div></div> <div>Roger....Thanks for bringing that point up again, and Mike, thanks for asking the question. As for leaving the piece of iron in the electro....sometimes you may want to run the electro some more, but may not want to run it overnight or when you are gone. Or, you might not be ready to proceed with the cleaning and seasoning at that time. So, at times the iron may be in the electro while it is not running. Roger is saying to disconnect one or both of the leads so that you are breaking the circuit.</div> <div>Scott</div> <div>Edit.....😬😬😬OK Roger....looks like you had the faster fingers this time...😬</div>
👤Mike Knight	<div><div>📄Re: Prolonged Electrolysis Sessions</div><div>Reply #5 - Sep 16<sup>th</sup>, 2011, 5:11pm</div><div>Posts: 70</div></div> <div>Thanks guys. Extremely helpful. The cautionary article in question was published seemingly before anyone figured out the problem. There was a number of things suggested as potential remedies, the main one being hecking on the piece every hour. As one can imagine, this would be quite burdensome if intending to do a 12-24 or even 48 hour stint.</div> <div>Mike</div>
👤Tom Neitzel Forum Administrator ★★★★★	<div><div>📄Re: Prolonged Electrolysis Sessions</div><div>Reply #6 - Sep 16<sup>th</sup>, 2011, 6:57pm</div><div>Posts: 4559</div></div> <div>Mike, one thing about electrolysis to scare the socks 🙄 off you.</div> <div>Remember that those little bubbles you see coming up are gas. Hydrogen and oxygen from the electrolysis of the water.</div> <div>Nothing at all to worry about as long as you have ventilation in the area you are using it in. Ventilation like sitting in a garage or in a shed outside.</div> <div>I think Sam did have a little flash, not of inspiration, once. I don't know if you can get it to ignite with a match but I think I'll go out and give it a try. 😊</div> <div>Tom</div>
👤Rick Gilley WAGS member ★★★★★	<div><div>📄Re: Prolonged Electrolysis Sessions</div><div>Reply #7 - Sep 16<sup>th</sup>, 2011, 7:10pm</div><div>Posts: 3649</div></div> <div>hmmm...didn't know that about disconnect the leads when the charger is not running. I have left pieces in for several days...thanks for letting me know.</div>
👤Scott Sanders Moderator ★★★★★	<div><div>📄Re: Prolonged Electrolysis Sessions</div><div>Reply #8 - Sep 16<sup>th</sup>, 2011, 7:10pm</div><div>Posts: 1300</div></div> <div>Thanks Tom.....which brings up another good point....to prevent the possibility of igniting the hydrogen / oxygen gas mixture make sure you turn off your battery charger before removing the positive or negative leads. This will prevent any sparks from flying around. Also, maybe don't use your electro barrel as an ashtray to flick your ashes into or throw your butts into while it is running....😬😬</div> <div>Scott</div>
👤Chuck Rogers WAGS member ★★★★★	<div><div>📄Re: Prolonged Electrolysis Sessions</div><div>Reply #9 - Sep 16<sup>th</sup>, 2011, 9:02pm</div><div>Posts: 8632</div></div> <div>I haven't had any issues with running the electro for long periods without stopping. I did however have a problem with shutting the electro off, and leaving the piece hang in the tank. There was some sort of yellow drips that collected on the iron, and left some spots on it. To remove the yellow clumps, I ran the electro again, but the spots remained. The drips were thick, sticky, something or other. About the consistency of bubble gum. I think there were some others who had the same issue. There is a thread on it around here somewhere. Does anyone else remember this?</div> <div>As for erosion at the point of connection, I did have one problem, out of the 1000 ++ or so pieces that I've cleaned. I chalked it up to a loose connection that may or may not have been producing an arc. If not an arc, some very high heat that erroded the iron due to the resistance created from the loose connection. It only happened once, so I don't have much info on the issue.</div>
👤Tom Neitzel Forum Administrator ★★★★★	<div><div>📄Re: Prolonged Electrolysis Sessions</div><div>Reply #10 - Sep 16<sup>th</sup>, 2011, 9:04pm</div><div>Posts: 4559</div></div> <div><a href="#">Quote from Tom Neitzel on Sep 16<sup>th</sup>, 2011, 6:57pm:</a></div> <div>I don't know if you can get it to ignite with a match but I think I'll go out and give it a try. 😊</div> <div>Tom</div> <div>Well, I carried out the experiment. Still have all my fingers, eye sight and hair.</div> <div>Was it way cool!!!!!!</div> <div>I was worried about using a match so I grabbed the propane torch. Headed over to the bubbling barrel. Waved the</div>

flame around and nothing happened. Got it a little close to some of the big bubbles and they popped with a little flame and bang. I touched every big bubble I could find with the flame. They all popped nicely. It sounded like popcorn. Great fun.

So what I can infer from this is that there is very little to worry about with the electro setup. The bubbles I could pop were about the size of a small marble (maybe). Unless you get a bubble as big as a watermelon I don't see anything to worry about. It might be pretty neat to try in the dark.

Now I did learn last week that if you think you shut off the power to the tank, but really didn't, there will be quite a big spark when you run the iron into the stainless if you haven't disconnected the lead. The spark is hot enough to melt a little iron, but I was lucky in that it was on the side gate grind marks and I could touch it up with a file to look just like new.

Tom

🔴**Scott Sanders**  
Moderator  
★★★★★

Posts: 1300

📄 **Re: Prolonged Electrolysis Sessions**

**Reply #11** - Sep 16<sup>th</sup>, 2011, 9:17pm

Yep.....Kind of like touching the two charger leads together when it is running, or dropping your pliers across the two battery terminals in your car....sparks, sparks, sparks. Just go slow and think about what you are doing and be careful. Tom, your blow torch vs. gas bubbles was interesting. It does just remind us again that what we are doing with electrolysis is fairly safe unless you really try to do something uummmm, I guess for the lack of a better word, stupid. Thanks again for your experiment and glad you are all still there. Let us know how it looks in the dark.. 😄😄

Scott

🔴**Mike Knight**

Posts: 70

📄 **Re: Prolonged Electrolysis Sessions**

**Reply #12** - Sep 16<sup>th</sup>, 2011, 9:34pm

Yeah Tom, you are on the All-Manhood team for that experiment. Reminds me of the 1942 Bugs Bunny cartoon in which Bugs works for a munitions factory testing artillery shells by whacking them with a hammer.

As Scott said, glad to be able to read your account of the experiment.

🔴**Sandy Glenn**  
Forum Administrator  
WAGS member  
★★★★★

Posts: 6499

📄 **Re: Prolonged Electrolysis Sessions**

**Reply #13** - Sep 16<sup>th</sup>, 2011, 11:14pm

Ummm... Mr. Wizard, you are really starting to scare me.

🔴**Cheryl Watson**  
Forum Administrator  
WAGS member  
★★★★★

Posts: 4009

📄 **Re: Prolonged Electrolysis Sessions**

**Reply #14** - Sep 17<sup>th</sup>, 2011, 3:38am

[Quote from Sandy Glenn on Sep 16<sup>th</sup>, 2011, 11:14pm:](#)  
Ummm... Mr. Wizard, you are really starting to scare me.

Uh... me too!  
Tom... waving blowtorch over electro....  
Now I'm gonna have a recurrent nightmare...  
Tom goes boom!!!!

Jeez... boys will be boys, huh????

Someone take his blow torch away and hide it! 😄😄😄😄

🔴**Tom Neitzel**  
Forum Administrator  
★★★★★

Posts: 4559

📄 **Re: Prolonged Electrolysis Sessions**

**Reply #15** - Sep 17<sup>th</sup>, 2011, 8:42am

Here's the dark report. Not that impressive, pretty much the same as daylight (but I do have it in an open shed). The hydrogen burns with a little yellow pop. The flame of the torch burns a little yellow as you get close to the surface of the tank - I think it is picking up a little hydrogen, but overall there isn't enough gas to worry about.

To be a bit more serious, I really don't see anything that causes any great concern to *me*. The only way the concentration of hydrogen gets high enough to burn is in the bubbles. Otherwise there is so little and it is so light, it dissipates within just a few millimeters of the water surface. I would only be concerned if my outfit was in a very confined space like a small closet or I had a lid on it. Even then, opening the door or taking the lid off would reduce the concentration so fast there shouldn't be any problem.

You should always decide for yourself what is safe and what is not.

You may want to be careful of recommendations that come from the guy that had to learn the hard way not to leave the hammer on top of the stepladder when you go to close it up 😄.

tom