

DSM DIY SERIES

# COIN CONSERVATION AND CLEANING GUIDE



**This booklet will explain how to clean your new piece of history.**

## **Coin Hoards**

The practical definition of a hoard or trove is two or more coins brought together for a specific purpose. There are essentially four sorts of "Hoards" or "Trove's":

### **1. Emergency/Currency:**

Hidden during an emergency, usually with the intent of later retrieval. These are most often of random denominations, and may include other things, like gems, jewelry, etc.

### **2. Savings:**

Hidden because someone is saving money or things. These often tend to be a limited number of denominations. Often dominated by coins of high quality and value. They are often the least worn and heaviest of their denomination. Strangely, they are often in odd containers that may be difficult to extract the money from. Modern examples include saving silver dollars, saving to buy something, setting aside your pennies in a jar, a piggy bank, etc. Includes what are known as "Mercantile Hoards" and "Bullion Hoards".

### **3. Purse/Accidental Losses:**

This is money that is being carried by a person. It is usually of a small size, or in a compact mass.

### **4. Abandoned Hoards:**

This is a collection of coins that the hoarder has no intention of ever going back to collect. Grave goods, shipwrecks and wishing wells fall into this category.



This hoard of coins consisted mainly of Roman, English, and Spanish Maravedi coinage. The Maravedi coins were named for the Spanish monetary unit, the maravedi. In some respects, the **maravedi** was comparable to today's penny, and, considering the function of the galleons. It was highly used during the age of the pirates.

## **Cleaning coins**

### ***Coin collecting guide on how to clean old coins, common coin cleaning methods for copper pennies, and other collectable coins like corroded Roman coins***

The truth about cleaning coins has remained to be full of uncertainties. Until today, debates about this still go on even among professional numismatists.

#### **Is it really not safe to clean your collectable coins?**

As a general rule, it is not advised to clean old coins and other collectible coins especially when you do not know their numismatic value. Coin experts and buyers would usually prefer coins to be in their original state and condition. Most of the time, cleaning the coins only decreases their value. However in certain cases like ground dug or shipwreck coinage, coins need to be cleaned to stabilize the coin.

#### **Ask coin experts about cleaning coins**

Before thinking about cleaning coins with vinegar, baking soda, jewelry and metal polish, coke, detergent and all other coin cleaners available in the market; always have your coins checked by a professional and reliable numismatist first.

This way you will know about the qualities of the coin that you own and whether it is safe & worth to clean it or leave it as is. Valuable, graded, and high graded coins should not be cleaned.

Many new coin owners clean their coins to make their coin collection look nicer and appear valuable – without consulting a coin expert. They will realize later that cleaning could only devalue their coins. The sadder thing is, there is no way to reverse the mistake and the coin is worthless forever.

You should or may clean coins when there is presence of corrosion and dirt. But this too, should be advised by a professional since not all kinds of dirt effect to coin devaluation. Corrosion and dirt are usually found on antique coins.

Cleaning coins may also be done in incidence of coin damage. A common example of coin damage is caused by polyvinyl chloride (PVC). PVC is a chemical added to plastic to make it less brittle.

Some coin cleaning supplies like holders and coin flips contain this chemical. Metals such as copper, silver, and gold adversely react to PVC and this causes some stubborn greenish or gray stains on the coins. These stains have to be removed.

#### **Coins that can be cleaned**

Cleaning coins should never be done on proof coins and un-circulated coins. These coins inherently have excellent eye appeal, outstanding shine, and high value – even the purest water could ruin the quality of these collectible coins.

## **Here are some collectable coins that may be cleaned:**

1. *Gold and silver coins* – there are types of gold and silver coins which may be cleaned but specific methods should be used. Learn more about **silver coin cleaning** solutions in a separate article.
2. *Circulated coins* – circulated coins (also referred to as business strikes or regular issue coins) are those which are used as regular money and are showing signs of wear.

These coins are very dirty being passed on from one hand to another. A few examples of collectible circulated coins that can be cleaned are:

Penny coins – Pennies are the coins with a face value of one cent. They are very common collectibles for novice coin collectors. You will learn how to clean penny coins as you read on.

Jefferson nickels – the Jefferson nickel values usually do not reach a dollar in the coin collecting market nowadays. They are, however, used by some beginners to start a coin collection.

You may decide to clean a Jefferson nickel for hygienic purposes. Use warm distilled water and a small amount of mild detergent to clean your nickels. Rinse them well, put them on a soft clean towel, and air dry.

3. *Dug and Shipwreck coins* - ground dug or shipwreck coinage, coins need to be cleaned to stabilize the coin. Reminders when cleaning coins

It is strongly advised that cleaning coins should be done by a professional coin cleaner. But should you decide to clean coins yourself, follow these reminders:

- Do not ever try cleaning a valuable coin.
- Handle the coin properly – you may not use bare hands; only hold the coin by the edge and not on the surface
- Clean coins one by one – unpleasant chemical reactions among metals may occur.

For example, when copper is cleaned with other coins, it may cause discoloration to other coins. It is for the same reason that you should use a plastic container such as a plastic basin (and not a metallic one) when washing your coins

- Use distilled water – tap water is chlorinated and may have undesirable effects on your coins which are made of metals and alloys
- Do not use abrasive coin cleaning products – coin cleaning products with abrasive substances could remove the luster on your coins and could cause minute hairlines or visible scratches.

- a) Abrasive coin cleaner – toothpaste, metal polish, some types of coin dips
  - b) Abrasive cloths and other objects – steel wool, sponge, stiff toothbrush, sandpaper
- Do not over clean.**

## **Common coin cleaning methods for ordinary coins**

Here are some common ways to clean your coins. These are very easy methods that you can do yourself at home.

Cleaning coins with running water – To start with, clean your coins under running water. It is often discouraged to rub or brush them for it might scratch the surface of the coin and surely, they would not look very good when you display them.

Cleaning coins with baking soda – Another method is using baking soda in old silver coins (since it may not be effective on others). Just gently brush a wet coin with baking soda and in no time, they will look shiny again. Baking soda is actually a common household cleaner.

Cleaning coins with vinegar – White vinegar is often used by many people on their jewelry but also used as a coin cleaner. All you have to do is soak the coin in vinegar, leave it there for a few moments. You may also gently brush the coin with a very soft toothbrush but make sure this does not scratch the coin surface. Be careful though as vinegar is acidic.

Lastly, do not forget to rinse the coin well with distilled water and air dry. Do not wipe the coin but only let them lie on a soft cloth until all excess water is “strained”.

To reiterate, old and rare coins are most of the time best left untouched especially when their value is still unknown to you, so, cleaning old coins is not often needed. The key is always to ask and be knowledgeable to prevent avoidable mistakes. So, always look at every side of the coin and realize that the dirt is just actually worth it.

### **How to clean old coins by electrolysis**

Electrolysis coin cleaning is a quick and well-used technique of cleaning very old and dirty coins. This is mostly done in **cleaning ancient Roman coins** and other corroded coins.

However, the process may remove the patina or natural coin toning. More so, you need maximum care, common sense, and presence of mind in performing this coin cleaning method. Aside that it can cause permanent damage on your coin, it can also be risky to your own safety.

### **Coin cleaning supplies that you need in electrolysis coin cleaning**

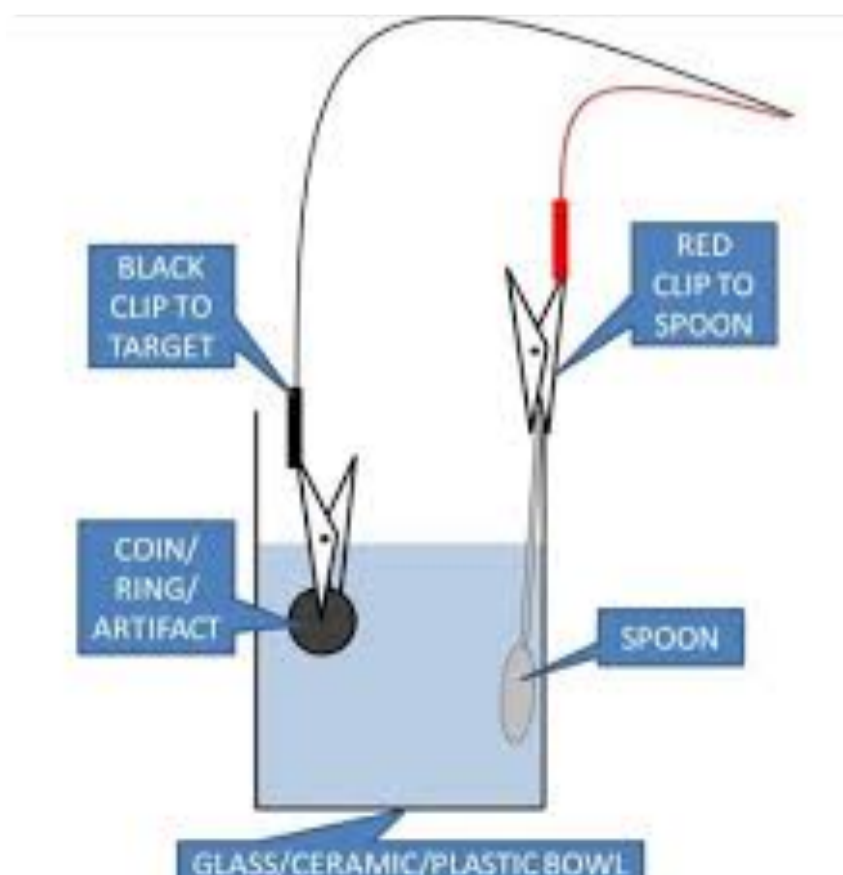
- - 12 or 18 volt AC/DC adapter
- - 2 Stainless alligator clips
- - A glass of tap water with a teaspoon of salt and lemon juice stirred well
- - Stainless steel spoon
- - Baking soda (optional)



## The steps in coin electrolysis

1. Cut off the other end of the adapter (not the plug). You will then see two inner and thinner wires. Scrape off a small part of the insulator or covering of each wire to show the copper wires inside. Attach the wires on each of the alligator clips.
2. Test which wire or clip should be attached to the coin and to the spoon. Plug in the adapter and place the two clips in the glass of water (with salt and lemon juice) in a few seconds. The one that sizzles is the negative wire and should be the clip for the coin. The other wire is clipped to the spoon.
3. Place the spoon in the glass. Plug the adapter again and submerge the coin in the water. Be sure that the coin does not touch the spoon. During the entire electrolysis coin cleaning, only the side of the coin should be creating sizzles and bubbles. Later clouds of dirt will form which may have a foul smell, so work in an airy space.
4. Wait for about five minutes or until you think the process is done. You must check on the adapter plug once in a while because it could get too hot. That will be unsafe; it could burn your house.
5. When you are done with the coin electrolysis, unplug the adapter and remove the coin from the solution. Further cleaning the coins with baking soda will give better results. Rinse well.

Disclaimer : This article has presented to you the bad and good possibilities in how to clean coins. One of the easiest ways to ruin and decrease the value of your coin is improper coin cleaning. You can damage the piece beyond repair. Also note that cleaning dirty coins can be done using specific methods depending on coin type. Keep in mind that **YOU DO THE CLEANING PROCESS AT YOUR OWN RISK**. You shall be solely responsible for whatever results obtained in trying to clean old coins yourself.



# Electrolysis Coin Cleaning Tutorial

## How to build a cheap Electrolysis system

**NOTE: DO NOT CLEAN COINS THAT YOU SUSPECT ARE VALUABLE! It will cut their value in half! Ask a local coin dealer first.**

**Disclaimer:** You're doing this at your own risk. We will not be held responsible for any damage in case you burn your house down or any injuries caused by this project.

The first thing you need to get is a 9, 12 or 18 volt **DC** adapter from an old phone, transistor radio, or something like that. The higher the voltage, the better it will work. We found an 18 volt adapter at a thrift store for two dollars. Maybe you have one laying around in a drawer in your house somewhere. Make sure that the charger you use is DC Voltage. **Never use an AC voltage as this could cause an electric shock or death!**

Cut off the small plug at the other end of your adapter, and separate the wires. Strip the ends and attach an alligator clip to each wire with the screws that are supplied.



We also recommend that if you are building a bigger unit to use often, that you should get a high end power supply like the Radio Shack Micronta regulated 12V power supply. Do not use more than 3 amps. Most of these come 2.5 amps, which is great.



You can find alligator clips at a local hardware store or WALMART.

Don't buy the copper colored ones!!!





Find a stainless steel spoon, a glass cup, some baking soda, and you are almost ready to roll!



Fill the glass cup with cold water and add a teaspoon of baking soda and stir it up well.

For better conductivity of the water you could add several drops of lemon juice concentrate, but if you don't have it around don't worry, it will still work! I would just use the baking soda as the lemon juice adds acid.



Now you will have to figure out which clip has the positive and the negative wires. The negative goes to the coin and the positive to the spoon. If you don't have the tester to figure this out, don't worry, it's simple to figure out.

Put the stainless steel spoon in the glass and attach one of the alligator clips to it and attach the other clip to the coin.

Plug the adapter into the wall outlet and submerge the coin in the salty solution so it's completely covered without touching the spoon.



If your spoon starts bubbling you need to switch the alligator clips around. After finding the negative wire, I put a knot on it so I know it goes to the coin.

If all is well the coin will start fizzling and bubbling within a few seconds. Make sure the alligator clip is touching the bare metal on the coin. You may have to remove a little of the corrosion to get to the bare metal.

In a couple of minutes it should look like a small cloud of dirt is forming around the coin.



The electrical current is passing through the coin and separating all nonmetallic particles from the coin.

After a few minutes the cloud will get bigger and it will start smelling not so good, so keep your window open.



Usually it takes about five minutes to clean up a coin. But it won't hurt to occasionally lift it out of the solution to check how it's doing.

After five minutes it should look something like this. Lots of black gunk floating on top.



When you feel it's done, unplug your unit. Don't ever leave the unit plugged in unattended because it gets real hot and could melt or catch on fire.

Here's what our coin looks like after pulling it out. I didn't disturb it while it was "cooking" so you could see better how the corrosion is just peeling off the coin.

It looked pretty horrible before we started



Here's a closer view. To stop the reaction get some baking soda and while rinsing your coin under a faucet, use an old toothbrush and rub some of the baking soda on it. I usually use my fingers, which works good also, but the black will stain your fingers.

After cleaning this coin up I was surprised to see many details including the date on this Standing Liberty quarter.

Hope you found this tutorial useful. If you need info on researching your coin after cleaning is done, you may email us or stop back into the museum.

