

## RESTORING MINING ARTIFACTS

by Roger Peterson

Mining artifact collectors generally find the subject of this article to be an issue that will spark debate among the most stoic of our membership. Historically, most collectors seem to favor items that were representative of how they “came out of the mine”, with little or no restoration to improve the artifacts condition. This leaning was probably driven by sad experiences with “replica” items and pieces that may have been restored and sold by unscrupulous people who failed to mention that the items had new, or repaired components. Unfortunately, as artifacts become harder to find, many times the only items available to the beginning collector are those that are in very poor shape: the “rejects” of more advanced collectors.

As one who began looking for mining artifacts fairly recently (about 5 years ago), and faced with a somewhat limited budget, I began to realize that attaining unique or rare items in most, if not all popular product areas (candlesticks, carbides, oilwicks, etc.) was going to be very difficult.

Through a series of interesting circumstances, I had the opportunity to restore one of the most desirable of all candlesticks: an Aetna Powder Company folding design which dates back to the late 1890's (see Fig 1).

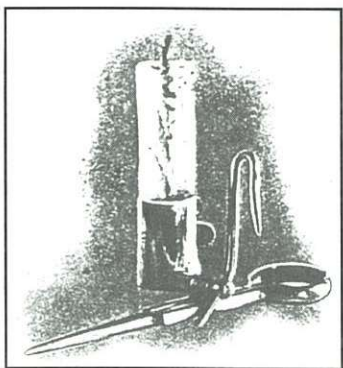


Figure 1. Advertisement for the Aetna Powder Company folding candlestick: from Fairbanks, Morse & Co. catalogue 49 issued in 1901 (authors collection).

Because of this experience I've become a strong proponent of restoration as long as the following criteria are met:

- 1) The item should be restored as closely to it's original condition as possible. The restorer should not take any license to go beyond what the original manufacturer/builder apparently had in mind. (In the case of Patented items, or pieces that were advertised in trade or catalogue publications, it is easy to follow this guideline: “Blacksmith” and custom-made items are often more difficult to evaluate in this regard.)
- 2) Any item that is replaced on a restored artifact should be durably marked as such so future buyers will not receive an unpleasant surprise (As far as I'm concerned, discrete markings are acceptable).
- 3) If at all possible, the item should be marked with the restorers name, date of restoration, and location of the restorer so that future collectors can identify the source of the restoration. Years from now this marking may help collectors identify and value the item based on the history and work quality of the restorer.
- 4) I like to mark the item, where possible, with a bit of history about who may have previously owned the piece, so future generations may find the artifact of more interest. To my surprise, I have found many items I get for restoration have

interesting histories to go with them. I believe this may be because these items, while undesirable to many, have been held on to by the really concerned collectors as they sense the historical value of the piece. Accordingly, they have saved it out of their concern to preserve that history regardless of outward appearance. These are also the type of collectors who take time to preserve what little may be known about the relic in hopes that someday it may further contribute to a better understanding of what mining and life was all about during that period.

Here's the story behind the first candlestick restoration I undertook:

Jim Watchous was a Denver collector of many historical items. His interests centered largely around gem and minerals, but as is so common with most of us, he couldn't ignore the opportunity to pick up an item of historical interest. Jim was born in 1931 in Collinsville, OK. His father was an employee of Boeing Aircraft and Jim apparently picked up interests in mechanical things from him. The family moved to the Denver, Co. area in the mid-1940's when Jim was in his last years of high school. He married his wife Betty in 1961, and enjoyed a career working for Albert Sechrist Co. (a manufacturer of lighting equipment) and later with EMJD, a Denver metal fabricating company. Working as a machinist with these companies led him to develop skills in silver smithing, metalworking and jewelry making that would ultimately lead to many awards, among which included the "Best Of Show" in the 1968 Denver First Federation Show.

While "rockhounding", Jim was able to pick up some very nice mining items from other gem and mineral enthusiasts. Unfortunately in 1993, at the age of 61, Jim

succumbed to a heart attack. He certainly had a keen eye for good mining artifacts, particularly miners candlesticks. At the time of his death he had managed to accumulate some excellent items, including a Kaba and Pelham patented folding candlestick, (Colorado Springs, Co. 1913) a "Hendrickson Cripple Creek Co." as well as the Aetna folding candlestick referred to above. Unfortunately, the Aetna had lost its original thimble ( someone had attempted to replace the thimble with an inaccurate and unworkable design of the wrong material). It had suffered some severe corrosion on its steel components due to their galvanic differences with the brass material used in the handle. (See Fig. 2).

<b>Galvanic Series*</b>	
<i>Corroded end (anodic)</i>	This series is built up on actual experience with corrosion and laboratory measurements. Metals grouped together have no strong tendency to produce galvanic corrosion on each other; connecting two metals distant from each other on the list tends to corrode the one higher in the list. Voltage figures are not given because these vary with every new corrosive condition. Relative positions of metals change in many cases but it is unusual for changes to occur across the spaces left blank. The chromium-irons change position as indicated depending non oxidizing conditions, acidity, and chloride in solution. The series as it stands is correct for many common dilute water solutions, such as weak acids and alkalis.
Magnesium	
Aluminum	
Duralumin	
Zinc	
Cadmium	
Iron	
Chromium iron (active)	
Chromium-nickel-iron (active)	
Soft solder	
Tin	
Lead	
Nickel	
Brasses	
Bronzes	
Monel	
Copper	
Chromium Iron (passive)	
Chromium-nickel-iron (passive)	
Silver Solder	
Silver	
Gold	
Platinum	
<i>Protected end (cathodic)</i>	
*McKay & Worthington, "Corrosion Resistance of Metals & Alloys," A. C. S. Monography 71, 1936	

Figure 2. Galvanic Series Table—note the difference between Iron and Brass: This accounts for the corrosion often seen on old items which have components of both Iron and Brass. From *Burndy Electrical Connector Catalogue # 50*, issued in 1950, and as noted at bottom of table (authors collection).

After Jim's death Betty Watchous was reluctant to part with any of his various collections as she knew how much they meant to him. In 1994 she met Leo Stambaugh of

Powder Cache Antiques in Georgetown, Co. and was impressed with his interest in preserving mining history. Not only did he have a interesting shop with many unique Colorado and Western items for sale, he had also acquired one of the finest collections of mining artifacts in the Denver area and had housed it in a separate museum that told the background of many items and how they related to Colorado's history. Betty decided that was where Jim's mining artifact collection should reside and there is where you can now view it! Figure 3 shows the display Leo put together highlighting the collection and showing a picture of Jim with some of his prizes!

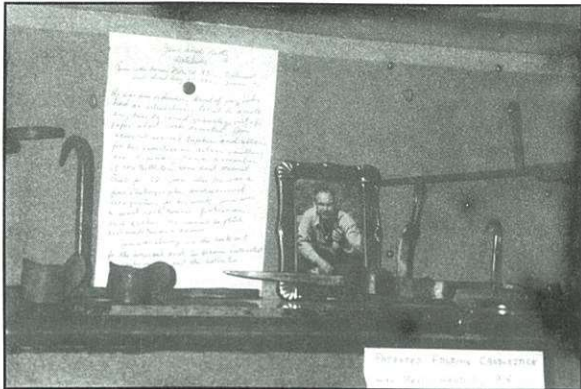


Figure 3. A photo of Jim Watchous surrounded by some of his prized mining items. Displayed in the museum of Leo Stambaugh, @ Powder Cache Antiques, 612 6th St., Georgetown, Co. 80444 – (303) 569-2848.

Leo knew I was interested in restoring and preserving artifacts and ask me if I would be interested in attempting to repair the Aetna. We were certain original parts would never be found to replace those that had been lost or corroded beyond salvation.



Figure 4. The Aetna folder pre-restoration: note the severe corrosion on the spike and the improper thimble.

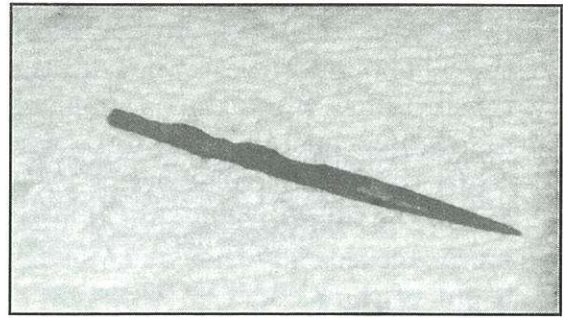


Figure 5. The heavily corroded spike of the Aetna pre-restoration.

Figures 4, & 5 shows the Aetna pre-restoration while figure 6 shows the finished product. Along the way I received lots of help and advice from folks like Chuck Tesch of Lead, S.D. who let me borrow one of his Aetna's (yes, you read right... he has **TWO!**) to make exact measurements on thimble size, print, thumb piece details etc., Steve Rush of Conifer, Co. whose sharp eye spotted one of my little dimensional "boo-boo's", Henry Pohs for telling me that proper restorations are O.K. ("they restore auto's don't they?") , Leo Stambaugh for having the faith to let me try it, and my wife Connie for putting up with some of my emotional outbursts when things didn't go just right! Lastly, a **HUGE** appreciation of Jim and Betty Watchous for having the good sense to hang on to the rough Aetna pieces and not let them end up in the trash!!

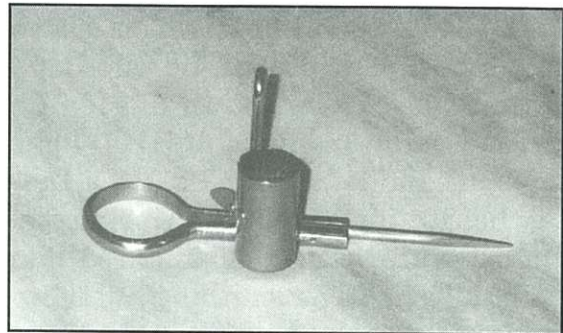


Figure 6. The Aetna after restoration: The print on the outside of the thimble is an exact duplicate of that on existing Aetnas: THE AETNA POWDER CO. CHICAGO The inside of the thimble contains the following inscription:

From the collections of:  
Jim Watchous & Leo Stambaugh  
Georgetown, Co.

Restored by Roger Peterson, Conifer, Co. 9-95

Since I undertook this first restoration I've done a number of pretty exotic candlesticks including a Wythe Walker patent (Beaver, Utah Terr. 1877: apparently one of (Colorado Springs, Co. 1913), Amede Bernier patent (Victor, Co. 1899), and a "Eureka" (Cyrille Pateneau patent: Helena, Montana Terr. 1883). "Before" and "after" photos of the Pateneau restoration are shown in figures 7 & 8.

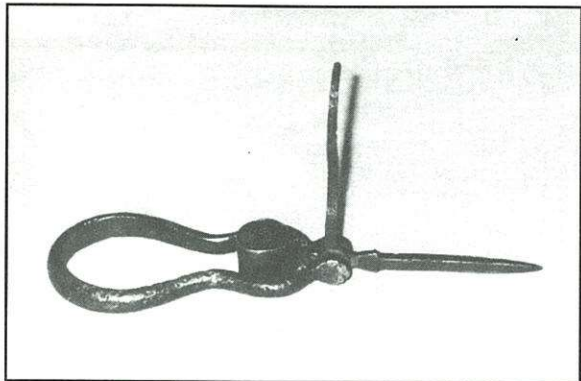


Figure 7. A "Eureka" reciprocating folder pre-restoration (courtesy of George Gaspari, Santa Cruz, CA).

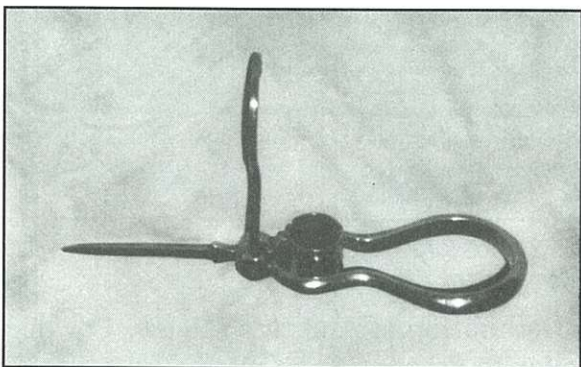


Figure 8. The "Eureka" folding candlestick shown in fig. 7 after restoration.

Inscription inside the thimble reads:

"EUREKA"  
CYRILLE PATENEAU PAT.  
1883

Restored by Roger Peterson  
Conifer, Co. 12-96

Other than having to endure some typical and expected frustrations during the restorations, I've found this provides further rewards to what was already a fascinating hobby. Quite possibly the restoration efforts have prevented these pieces from unwittingly

being thrown away by some person because he or she didn't feel they were of significant value.

**THAT IS A THOUGHT THAT  
MAKES ME FEEL GREAT: IT MAKES  
ALL THE EFFORT EVEN MORE  
REWARDING !!**



### *Postscript...*

Repair or restoration has become a controversial subject not only in the field of mining artifacts but virtually all other areas of collectibles and antiques. The very antiquity we desire creates deleterious changes in the integrity and collectibility of the artifact. This was the subject of the spring issue of the 'Mineralogical Record', vol. 28, no. 2, Mar-Apr, 1997. The mineral collecting community is suffering the same confrontation as we are in deciding whether to accept restoration as an acceptable procedure within the collecting community. I think we can conclude, from Roger's article, that restoration is a part of collecting antiquities if it is done responsibly and clearly identified as such...ED.

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