

#### Issue Number 20 Fall 1993

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# Yotes from the Editor



#### FIVE YEARS OF THE MAC

Wow! Who would believe it? We hardly do. This is the 20th issue of the *Mining Artifact Collector*. Here we are, entering our 6th year of publication. In 1988, when we first began discussing the idea of putting together a journal/magazine for the mining collecting community, we never dreamed that we would still be at it six years later. To use a hackneyed phrase: "Time sure does fly."

To begin with, we conceived of putting out a twenty page publication that would cover topics tightly related to just mine lighting devices such as carbide lamps, oil wick lamps and miners' candleholders, with a smattering of other topics as well. The *MAC* started out illustrated mainly with drawings, was reproduced on a copy machine, and then hand collated and stapled. Collating, stamping and stuffing parties were always a day long event.

Well, variety is the spice of life, and for us at the *MAC*, this has proven as true as for anyone else. There is so much that is collectable and exciting in the field of mining that we just couldn't help but include as much of it as we were able. Fortunately, our readers' letters have conveyed enjoyment of the wide range of topics covered, and have made producing the *MAC* that much more gratifying.

Its funny to look at how the appearance of the MAC has improved from year to year, and

sometimes even from issue to issue. There is no substitute for experience, and we have found publishing the *MAC* to be an enjoyable effort of continuous learning. At the same time, as the *MAC* has gone from copy paper to printed pages with a glossy, wrap-around cover, the layout of the articles inside it has improved as the skill and eye of the editors has grown. Is the *MAC* perfect? We certainly hope not. We truly enjoy the challenge of seeking to make a better publication.

Then there are the articles. Without the articles and contributions of many people, there would be nothing to print in the *Mining Artifact Collector*. Nobody knows everything there is to know about mining collectibles, including us, and we are constantly amazed at the wealth of information that our contributors bring to light and share with all of us. Sometimes our eyes are opened to whole new areas of collecting within the field that we were ignorant of before. So often in thanking people, it is said; "There are too many people to mention now," but we are going to take exception to that and list the people who have helped to make the production of the *MAC* what it is.

But, before that list, we at the *Mining Artifact Collector* want to thank you, our loyal readers, for your support over the years. We're looking forward to your continued readership as we begin our sixth year of publication.

#### MAJOR CONTRIBUTORS TO THE MAC

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## **ATTENTION READERS!**

# IT IS NOW TIME FOR ALL READERS TO RENEW THEIR SUBSCRIPTIONS!

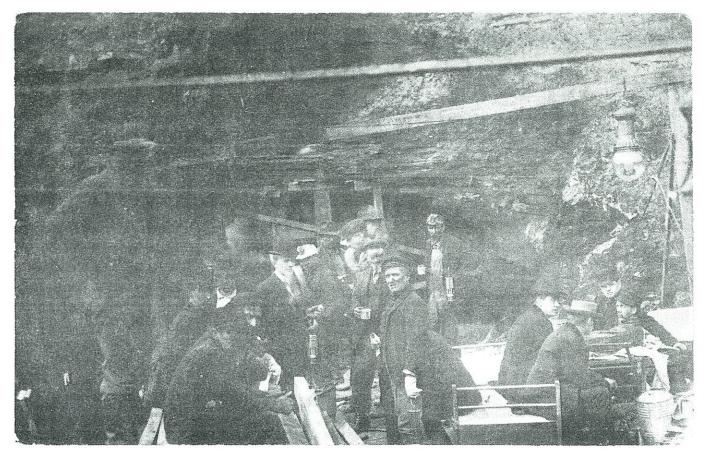
PLEASE USE THE SUBSCRIPTION FORM AND STAMPED ENVELOPE PROVIDED FOR YOUR CONVENIENCE IN THIS ISSUE.

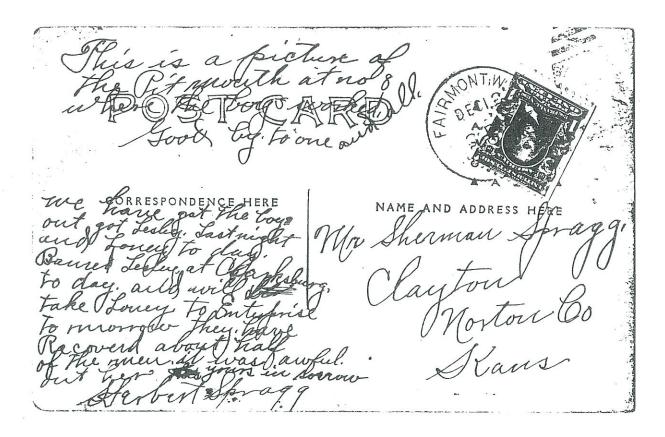
#### A POST CARD FULL OF SORROW

Any mining artifact collector worth their weight in carbide cannot resist picking up a mining related post card now and then, especially when you have been out all day and haven't found that cap lamp or candlestick to add to the pile. Over the last twenty-five year I must have picked up a couple hundred of them. One that I found about ten years ago has always had a special meaning to me because I have never seen anything else like it.

Mine accidents are a terrible thing, and right after the turn of the century, you usually only read about them in newspapers. This picture post card pretty much tells the gruesome story, but there are a lot of pieces missing.







Shown above is the back side of the original photo post card depicting the awful tragedy that happened to a Kansas family.

The real picture on the front shows about twenty men standing and sitting in front of what appears to be the mouth of an incline or tunnel. There are beds in the foreground, no doubt meaning that the men had been working around the clock attempting a mine rescue. By the looks of their clothes, miner's hats and wolf safety lamps, I would guess the year to be between 1907 and 1920. Note that none of the miners are using any open flame lights, only safety lamps, which suggests the mine incurred an explosion rather than a cave in.

I have to estimate the year because the postal cancellation on the back side of the card shows only the city, state, month, and day. The year cannot be made out. What can be identified on the postal cancellation is "Fairmont, W. VA, Dec. 12. 2 P.M." The fact that the back side of the card has room for correspondence means it has to be after 1907. Before that you were only aloud to write on the front, thus leaving the back for the address only.

The writing on the back describes a very sad happening:

We have got the boys out. Got Lesley last night and Loney to day. Baured Lesley at Clarksburg to day. And will take Loney to Interprise tomorrow. They have recovered about half of the men. It was awful out here. Yours in sorrow Seabert Spragg.

At the top of the card it reads;

This is a picture of the pit mouth at no. 8 where the boys worked good by to one and all.

The card was mailed to Mr. Sherman Spragg of Clayton, Norton Co,. Kansas.

I am not familiar with the mining towns of West Virginia, though I'm sure there are a number of our readers who are, and might be able to find a newspaper article on some micro film in one of their libraries. I'm sure our readers, along with the *MAC* staff, will be very interested in what turns up about this very sorrowful, but interesting part of our mining past.

#### THE ARNOLD CARBIDE CANDLE - AN UPDATE

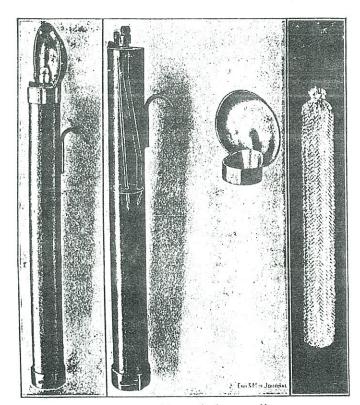
by Mark Bohannan Oro Grande, California

There has been some new information found concerning the Arnold Carbide Candle since the article in the Spring 1989 issue of the *MAC* first appeared. One of the main sources of information is from the patent specifications which gives an insight into the original design of the Arnold Carbide Candle invented by Ralph R. Arnold.

Ralph Arnold--a mining engineer from Cripple Creek, Colorado--filed for a patent for "new and useful Improvements in Acetylene-Candles" on August 7, 1911, and was granted a patent for his lamp on October 29, 1912.

The main basis for this type of carbide lamp was his assertion that with "the use of ordinary acetylene lamps, it is known that their unhandy shape and size render them impractical for the use of the miner, who will discard them for the ordinary tallow candle which he may use in his miners' candle stick." Arnold claimed that acetylene light was superior, and therefore preferable, to the ordinary candle as long as it was economical, easily refiled, and more importantly, "readily adjustable to the miners' demands." Arnold planned to overcome those objectional features "by providing a gas generator of approximately the size and shape of the ordinary candle and adapted to be used in the standard miners' candle stick."

This aspect of the original intention of the Arnold Carbide Candle has been overlooked because of the actual size of the lamps. Further information about the original intent of the Arnold Carbide Candle can be found further on in the patent in the description of item #19 on the patent drawings. The patent description of this



The Arnold Carbide Candle

Figure 1. A picture of the Arnold Carbide Candle showing the added reflector and a filled, cloth carbide bag from a January 18, 1913 issue of *The Engineering & Mining Journal*.

item is as follows: "A preferably metal encircling band 19 is rigidly attached to the exterior periphery of the tube 1 at a point intermediate of its ends and effectively controls the position of my improved carbid candle in the standard miners' candle stick in which it is designed to be used."



Whole No. 2749 VOLUME 100 NUMBER 13

SAN FRANCISCO, SATURDAY, MARCH 29, 1913

THREE DOLLARS PER ARRUM Single Copies, Ten Cents

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#### THE

## ARNOLD CARBIDE ANDLE

Has solved the underground illumination problem

and is rapidly gaining in favor, owing to its substantial construction, convenient form, and to the ease with which it may be recharged.

Fully described in Circular No. 9.

tridge containing two ounces of calcium carbide supplies a four candle power light for four hours, and when exhausted holds the residue and may be instantly withdrawn and replaced by another carried in a tube in the pocket, no cleaning being required.

Simple—Clean—Convenient—Durable

Will outlast two or three inferior lamps.

Price \$2.50. If your dealer does not carry them, a sample lamp will be sent postpaid upon receipt of price.

WM. AINSWORTH

& SONS

THE PRECISION FACTORY

DENVER.COLO. U.S.A.

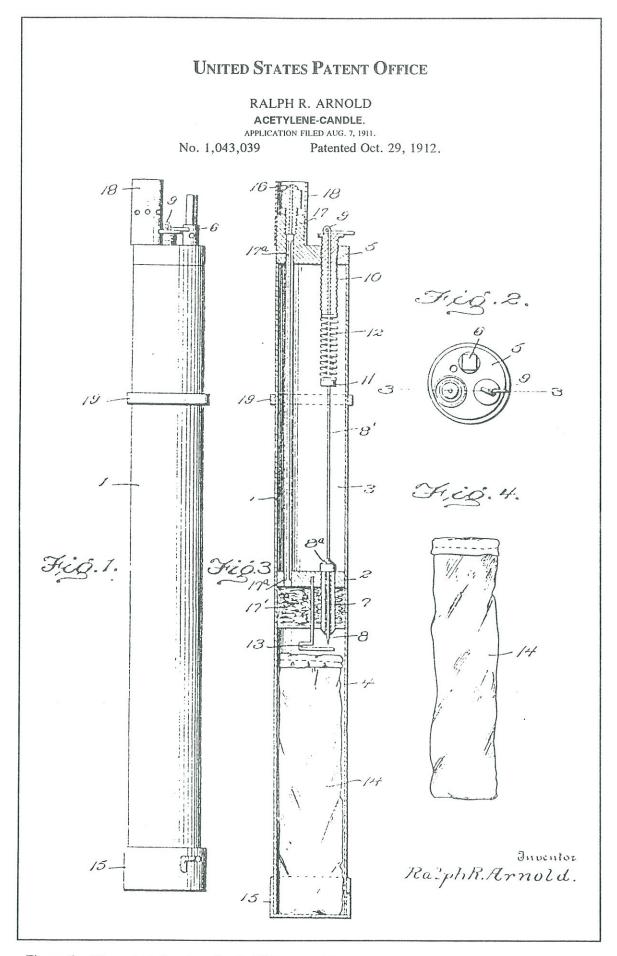


Figure 2. The patent drawings for Ralph R. Arnold's 1912 patent drawing for Improvements in Acetylene-Candles. Item 14 is the cloth carbide cartridge bag and 19 is the retaining band that was to control the position of the carbide candle in the standard miners' candle stick in which it was originally

In order for the Arnold Carbide Candle to have been used in a standard miners' candlestick, the lamp would have had to have been  $^{3}/_{4}$  of an inch in diameter—the same diameter as an ordinary mining candle. A lamp of this small of a diameter would have probably had a capacity that was insufficient to generate the desired amount of acetylene gas for a prolonged period of time. This is probably why all of the known manufactured Arnold Carbide Candles are  $1^{-1}/_{4}$  inches in diameter and 12 inches long. The increased diameter—even though only half an inch—would increased the gas production considerably.

Most of the other features concerning the Arnold Carbide Candle have also been changed slightly as compared to the patent, but this is to be expected as a prototype lamp becomes a manufactured lamp. The basic concept of the Arnold Carbide Candle has remained the same, especially concerning the carbide cartridge (item 14 on the patent drawings).

The reason for this carbide cartridge was fourfold. 1) "The quick replacing of the carbid and insures the economical operation of the lamp. 2) "The water has free access to the carbid from all sides and the cartridge is of such shape that the oxidized carbid cannot form in a cake about its unused portion." 3) The carbide cartridge "make it impossible for the ashes to enter and clog the water tube or to enter the gas feed tube." And 4), The cloth exterior of the cartridge "retains the waste material until the same is manually removed."

Up until recently, all of the Arnold Carbide Candles known have come with this cloth carbide cartridge bag. The lamps were sold with an extra bag and a tin container with lid, 1 inch in diameter by 6  $^{7}/_{8}$  inches long, to hold the extra full carbide cartridge.

Just recently, an Arnold Carbide Candle of basically the same design was acquired by Chuck Tesch of Lead, South Dakota. As shown in Figure 3, this lamp is identical to all of the other Arnold Carbide Candles except that instead of having the cloth carbide cartridge, this lamp has a metal cylinder—open at the top—that slides up into the bottom of the lamp. This cylinder was probably designed to replace the cloth

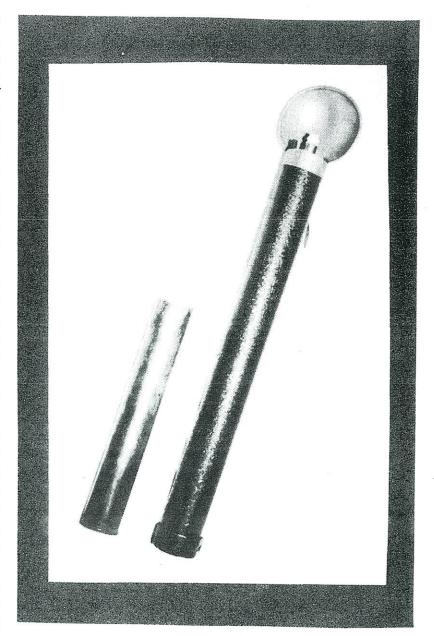


Figure 3. A photograph of the Arnold Carbide Candle showing the metal cylinder--open at the top--that slides up into the bottom of the lamp. (Chuck Tesch collection)

cartridge because the cloth cartridges probably tended to get soggy and fall apart after a number of uses. It was probably also very difficult to clean the used carbide out of the bags--especially after the used carbide had a chance to dry out and get hard.

The other distinctive feature about this lamp is that, unlike all of the other Arnold Carbide Candles known--which are brass and originally came with gilt paint--this lamp has a crinkled black paint finish.

Probably soon after Ralph Arnold received his patent, he contracted with William Ainsworth & Sons to manufacture his lamps. It was probably during this time that modifications in the lamp's design were made.

According to advertisements, the Arnold Carbide Candle had a two year tryout underground in the Cripple Creek mining district.

It also appears that originally, the Arnold Carbide Candle was designed without a reflector as no reflector is shown in the patent drawings or mentioned in the patent text. The reflector was probably added when Wm Ainsworth & Sons began manufacturing the lamps.

WM. AINSWORTH & SONS DENVER, COLO. U.S.A. SEND FOR CATALOG

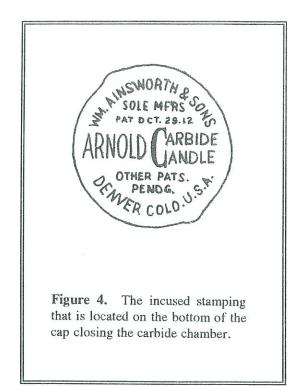




Figure 5. An advertisement describing the attributes of the Arnold Carbide Candle.

#### THE DAVIS HORSE WHIM

by **Ted Bobrink**Redlands, California

Throughout my years of roaming the deserts in search of abandoned mines, I have on several occasions had the pleasure of finding a most unusual devise for hoisting ore buckets. I would have loved to have brought one home, but they are quite large and heavy and it seems that whenever we came across one, we were already loaded down with ore cars, timber cars and powder boxes. It would be nice to have one in my back yard, as a few years back I was able to trade a friend of mine out of his Davis Horse Whim brass plaque. Of all the Davis Whims I

had encountered, none of them had the plaque still intact. Though the original plaque is curved so it could be bolted to the center post, Mark Bohannan was able to make a nice pencil rubbing as seen in Fig. 2.

The Davis Horse Whim was invented by Francis M. Davis of Denver, Colorado, and patented on Dec. 11, 1888. The horse whim was used in developing prospects where fuel and water were hard to attain and as the windlass did not work well below 40 feet. As you can see by the illustration, the whim was turned by a horse

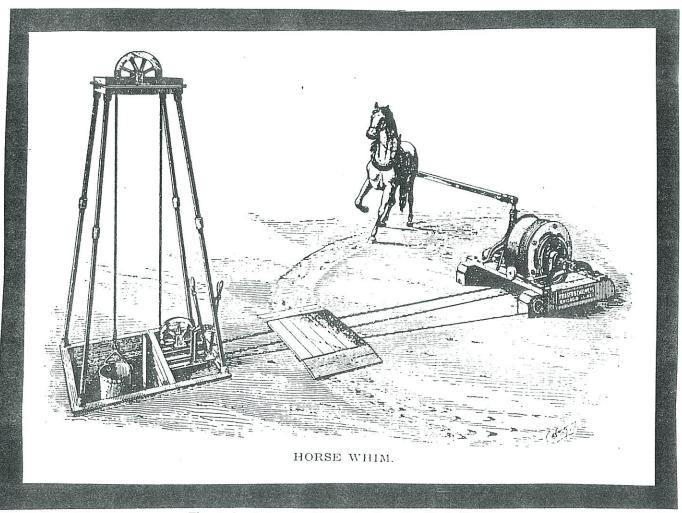


Figure 1. A drawing illustrating how the Davis Horse

### F. M. DAVÍS.

HOISTING APPARATUS.

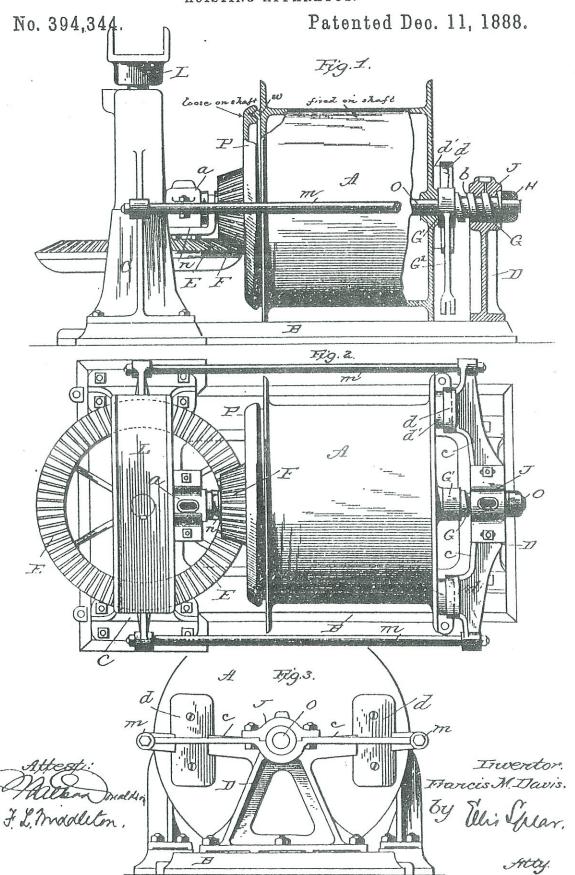


Figure 2. The patent drawings for the Davis Horse Whim patented by Francis M. Davis on December 11, 1888.

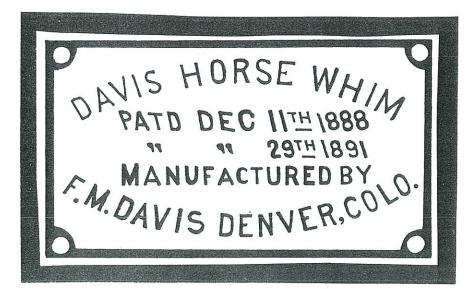


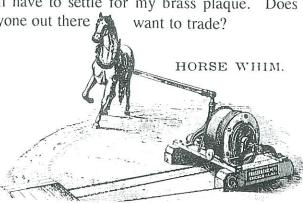
Figure 3. A pencil rubbing of the brass plaque for the Davis Horse Whim. The plaque measures 6 inches long by  $3^{-1}/_{2}$  inches wide, and is  $^{-1}/_{4}$  inch thick.

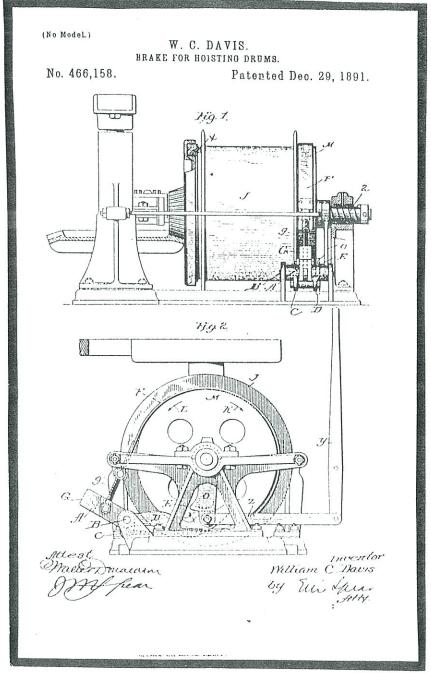
Figure 4. The patent drawings for the brake for the Davis Horse Whim patented by William C. Davis on December 29, 1891.

or mule simply by walking in a circle. A horse whim could handle the rock and water to a depth of 300 feet. According to the patent information, you could bring a bucket from a shaft a hundred and fifty feet deep in two and a half minutes with a seen hundred pound capacity, in forty-five trips you could raise fifteen tons a day.

Two years later, another patent was granted on Dec. 29,1891 to a William C. Davis-I presume a relative. This patent was for an automatic safety brake to be used in connection with the Davis Horse Whim. I would assume that early on, the Davis Whims encountered some problems with whatever kind of brake it first came with. You can only wonder what would have happened if the main post that attached to the horse had ever come loose or broke off while pulling up or sending down a heavy load.

Over the years I'm sure the Davis Horse Whims I encountered have by now been removed and are sitting in some proud collectors back yard or better yet in a museum. So for now I will have to settle for my brass plaque. Does anyone out there want to trade?





#### MINE EXPLORING AROUND

#### SEARCHLIGHT, NEVADA

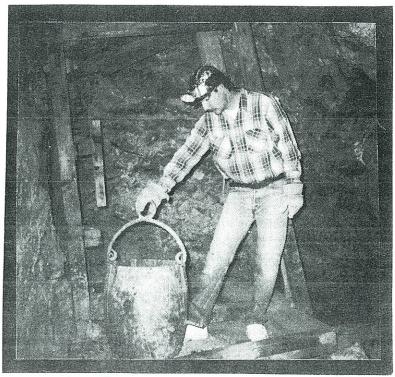
by **Bob Schroth**Twin Peaks, California

Over the years I have made several trips to mining camps across the California desert. The town of Searchlight is just across the California border in the state of Nevada.

The Searchlight District was discovered in 1897. Good ore was found on the Searchlight claim--what is now the Duplex mine--in 1898. The principal mines are near the town, but the mining district of Searchlight is usually considered as extending east to the Colorado River, at the Arizona boundary, and north to the Eldorado District.

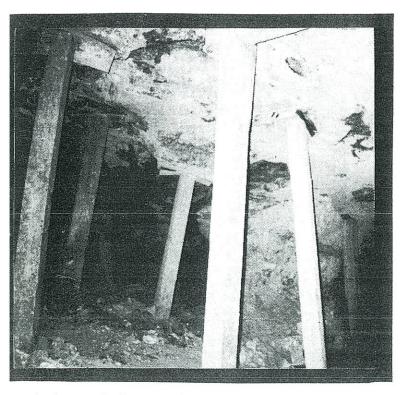
One of my underground mine exploring buddies, Larry Kuester, and I have made several productive trips to this historical area. Evidence of heavy mining in this region abounds, head frames are everywhere standing guard over their deep and history filled shafts. Most of the very early mines have been worked and reworked many times over the years, but often this is good for the artifact collector. Often times, the old trash left by the miners before was dumped in an unused drift, or used to backfill an old stope. The mine that Larry and I have been exploring has proven this to be true. The range of mining artifacts in this mine date from the late 1890s to 1965.

When you look at the entrance to this mine, and from the size of the waist dump, you would not think much of it. We entered thinking that we would not find much at all. Then, to our surprise, on the first station we found several powder boxes and carbide cans. These were



A photo of Larry Kuester with the small pig-tailed bucket that we found at the end of a tunnel.

mostly from a more recent vintage, but it was still fun to find them. As we explored more on this first level, I noticed why newer things were mixed with older artifacts. The 1930s miners mined out all of the support columns that had been left by the earlier miners. These were replaced with pathetic little two by fours to hold up the roof. As you descend down an incline shaft, about every thirty to fifty feet you come across another level. The old bell wire is still mounted on the timbers, but we did not find any mine bells or bell signs. The deeper we went, the newer the boxes and cap tins got. When we reached the bottom level, you could tell it was probably mined in the 1950s. The mining trash left in the 1950s is still interesting, along with the old graffiti the miners left on the walls, either with a candle flame or a carbide lamp. seemed that on every level some old timer left his mark on the wall with either pictures or jokes. Some of the pictures, like one of a sailing ship, were drawn with the soot of a carbide lamp and were very well done.



A photograph of a stopped out area showing the two by fours and four by fours that were used by later miners to hold up the roof as they mined out the older support columns. Shown towards the right, behind two four by fours, is one of the original support columns.

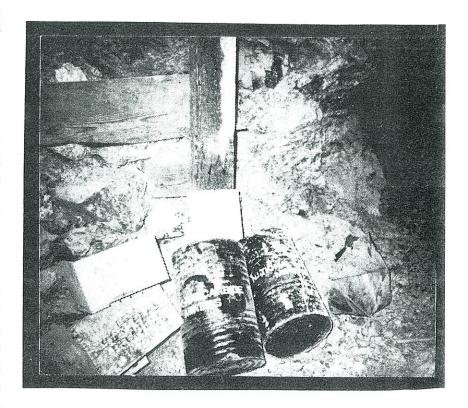
This mine was like a giant maze, sometimes you would have to climb up one level in order to go back down two levels. I would pile up things that I wanted to take up to the surface, and then spend half an hour looking for where I had left them. One time, I could hear Larry but we could not find each other.

Over all, after four trips, I think we have explored most of the major parts of this mine. But, I thought that on our last trip and we then found a new tunnel. At the end of this tunnel, a small windlass was set up and the neatest little pig-tailed ore bucket was hanging just as the miner had left it 75 years ago. You can imagine how much fun Larry and I had dragging this bucket well over a mile and a half up, down, over, and under cave-ins and timbers!

As time goes on, finding mining relics is a much harder task. Most all of the easy mines have been cleaned out, or blasted shut by the land owners. I have done some very dangerous vertical mines. It is hard to describe how it feels to be on a rope, hanging over an 800 foot deep

shaft, praying that you will drop down to a station or level before you reach the end of a three hundred foot rope. The two most dangerous things about vertical mine exploring are: 1) Having to change over from repel to your ascending gear while hanging on the rope, and 2), the danger of falling debris from above. Over the years I have decided that there is nothing in an old mine that is worth risking your life for. The purpose of this article is not to encourage anyone to go out, unprepared, and think that they are going to come back with a load of neat mining artifacts. It takes lots of research, equipment, experience, and luck to be successful. Many a time I have driven out to what should have been a promising area and came back with only box pieces or a cap tin lid.

I am planning a few trips this winter and if your interested in exploring, or think you might want to come along, please give me a call at 909-337-7102.



A photograph down one of the drifts in the mine where we piled up a group mining artifacts to be taken up to the surface. Shown in this pile of artifacts are two Hercules Powder boxes, two 100 pound National Carbide cans, and some other miscellaneous items. These cans are red with white lettering.

#### THE HIGH-GRADER HANDLE MINERS' CANDLESTICK

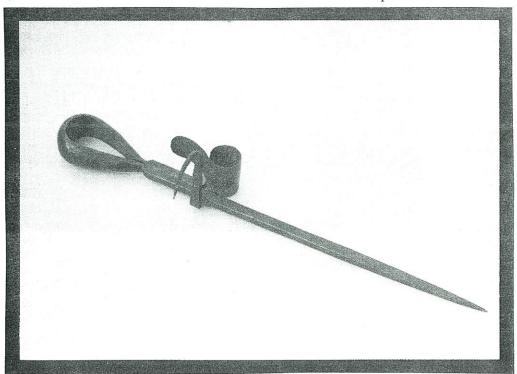
by **Ted Bobrink**Redlands, California

One mining development which seldom or never appeared in the engineering textbooks, but could make or break a gold mining operation was high-grading. In some of the Western gold mining districts it was so prevalent that the expression for it became common english usage. From the miners' viewpoint, pocketing a bit of extremely rich ore was merely a traditional right for working on the job. Some even considered it a bonus, especially when there was free gold to be seen everywhere. That was surely the case in Goldfield, Nevada, around 1905.

From the mine owners' point of view, high-grading was outright theft. All gold miners denied doing it, most of them were collectively accused of it, and the mine superintendents hoped at best to keep it to a minimum.

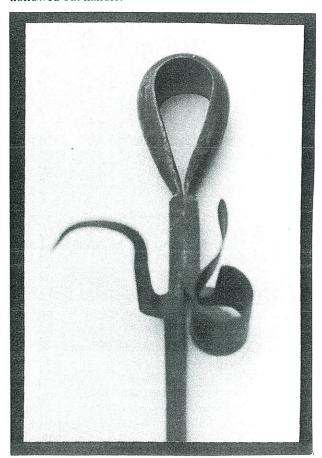
But at Goldfield, Nevada, in 1907, the issue came to a head. Discovering that it was losing up to forty per cent of its bullion to high-grading, the Goldfield Consolidated Mining Company started collecting the miners' lunch pails (the favorite receptacle for the removal of high-grade ore) after their lunch break by strapping them all together and hauling them to the surface for inspection.

The mining companies also instituted change houses at the head-works. These were buildings where the miners going off shift had to discard their work clothes, shower under the benign eye of a supervisor, and then don there street clothes before walking home with there trusty miners' candlesticks—the only item they were allowed to take into and out of the work place.



The miners, of course, deplored all of these new efforts to halt there God given right. After all, even the clergy--whom the frantic mining companies enlisted in anti high-grading crusades-dealt very gently with the topic. Frank Crampton, a Goldfield miner, told of one such clergyman in Goldfield who persuaded by the mining interests to excoriate the sin of theft. The pastor did very we!l until he came to high-grading. gauging the Correctly temper of his

Shown at right and below are photos of an excelent example of a high-grader candlestick showing the bulbous, hollowed out handle.

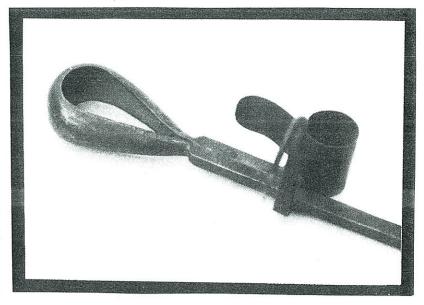


congregation, he concluded his sermon by saying, "But gold belongs to him wot finds it first."

Obviously, the gathering of the miners' lunch pails and the changing rooms brought the rampant high-grading to a halt. Still, a few very clever miners devised a somewhat easy way to get a small, but worthwhile, amount of concentrated high-grade out of the mine. This was accomplished by using the only tool that they were allowed to leave the mine with--their miners' candlesticks.

The fact that some miners' candlesticks were very unique in size and design made it very easy to modify the handle of the candlestick to make it a receptacle for holding small amounts of concentrated gold ore. They accomplished this by making the handle of the candlestick appear to be very thick at the end and sides, when in fact, they had hallowed out the metal to form a cavity. Fine gold could then be placed into the cavity and held in place with candle wax. Candle wax will become quite dark from the soot of the wick, thus camouflaging the gold.

The fact that the miners were left with such a small hiding place to conceal the gold that was to be smuggled out meant that they had to concentrate the ore. By that I mean getting rid of all of the waste rock that they could. This was accomplished by using a homemade device called a "tube mill." This was a short length of capped iron pipe with a bolt or a piece of rod for a pestle. By dropping a piece of high-grade ore into the pipe and shaking it up and down, the ore would be pulverized enough so that the residue could be washed out in a coffee cup with any readily obtainable fluid. Such a tube mill was easily concealed behind a loose piece of lagging and was very difficult to connect to any given man.



You will see a number of candlesticks with handles that have a rolled edge that creates a small cavity. I do not consider those to be high-grader specimens. The candlestick in the photographs is an excellent example of a high-grader handle candlestick. Note how bulbous the hollowed out area is. It would be quite easy to smuggle a fair amount of gold in that cavity. Also, the deeper the cavity, the better the holding power. High-grader candlesticks are very rare and should be valued on the quality of the workmanship. Just an average, classic style candlestick with a good, deep high-grader handle should bring a minimum of \$500 in today's market.

So get out there and beat those bushes. And if your real lucky, you'll own one of these remarkable candlesticks of our gold mining past.

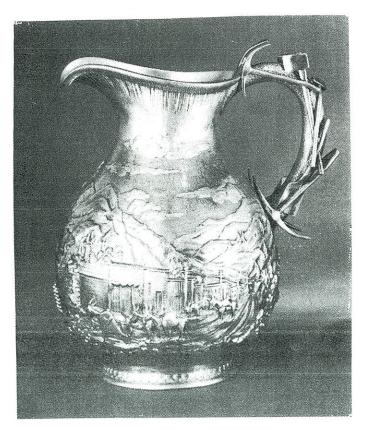
## THE WOLCOTT PITCHER AND TRAY

by Wendell E. Wilson Tucson, Arizona

Few mining artifacts are more attractive and precious than those made of solid silver, especially if the silver metal itself was taken from a known mine. The Wolcott Pitcher and Tray (shown here) are among the most beautiful and fascinating of such objects. Although these two items can't exactly be called "collectibles"—the Colorado School of Mines, which owns them, is not likely to put them on the market—they still cause collectors to salivate uncontrollably when gazing into the exhibit case at the School of Mines Geology Museum in Golden.

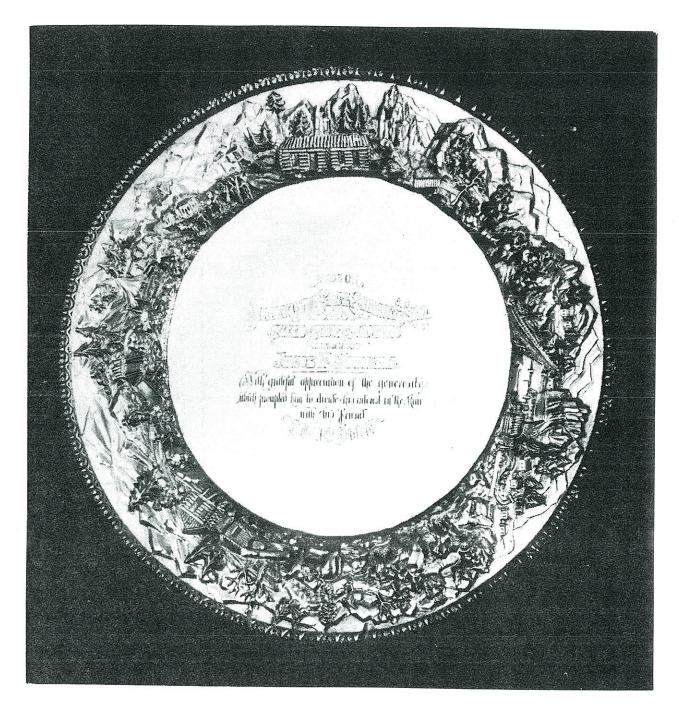
The story of these extraordinary artifacts goes back to the famous mining district of Creede, Colorado. It was there that Colorado's last big silver boom began in 1889, when N.C. Creede staked his claim on the Holy Moses mine. The Last Chance mine was found two years later, in August of 1891, by two impoverished prospectors from Salida. They sold the claim for a few thousand dollars three months later and moved on. The new owners included Jacob F. Sanders of Leadville.

Sanders was a good friend of Edward Oliver Wolcott (1848-1905), who had been elected a U.S. senator from Colorado in 1888. Wolcott had been born in Massachusetts, and moved to Colorado in 1871 to practice law in Georgetown. In 1879 he entered politics and moved to Denver, continuing his activities in the mining business. Between his law practice and his mining and smelting properties he eventually became a millionaire, and lived with his brother, Henry, in a Victorian Denver mansion called "Wolhurst."



Sanders invited Wolcott to share his interest in the Last Chance mine, an opportunity which Wolcott seized and never regretted. The Last Chance soon became the second largest producer of silver in Creede, yielding over \$1,600,000 in its first year.

Wolcott was understandably grateful to Sanders for this good fortune, and decided to show his gratitude by having two presentation pieces created from silver bullion from the Last Chance mine. The bullion was shipped to the factory of S. Kirk & Son, Baltimore, Maryland, where it was melted down and alloyed with copper (11 parts silver to 1 part copper, or .917 fine, just a little under the .925 fine of "Sterling" silver). The tray was worked from a single cast sheet weighing 85.7 troy ounces. Hand-chased repoussé around the rim depicts Colorado mining and mountain scenes, most of them probably showing the Last Chance mine. The pitcher was hand-raised (by hammering) from two flat cast sheets weighing a total of 75.2 troy ounces, the two finished halves then being soldered together. The decorations, as on the tray, are all handchased, depicting mining scenes at Creede. The mining tools on the handle were probably made separately and soldered on. The inscription on the tray reads:

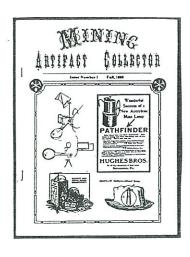


# MADE OF SILVER from the LAST CHANCE MINE CREEDE CAMP COLORADO AND PRESENTED TO JACOB F. SANDERS

With grateful appreciation of the generosity which prompted him to divide his interest in the Mine with his friend

Edw'd O. Wolcott

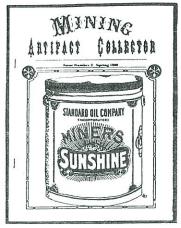
The Wolcott pitcher and tray, together weighing over 13 troy *pounds* of solid silver, were eventually acquired by Robert E. and Wilma E. Nye, who presented them to the Colorado School of Mines. The Geology Museum (Berthoud Hall) is open 9:00 to 4:00 Monday through Saturday and 1:00 to 4:00 on Sunday. An exhibit of mining artifacts, safety lamps, ore cars and so on is included within the museum and is worth seeing as well (not to mention a fine mineral collection). The photographs of the Wolcott pitcher and tray are courtesy of the Colorado School of Mines.

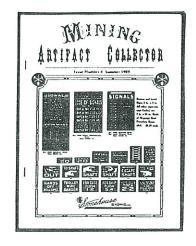




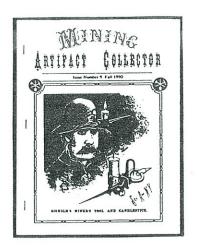


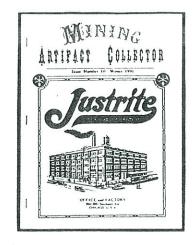










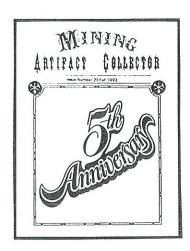


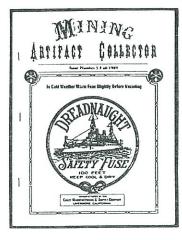




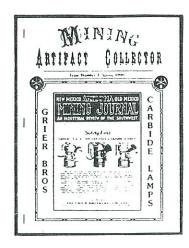






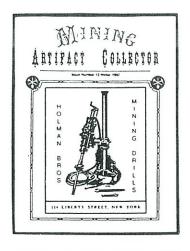




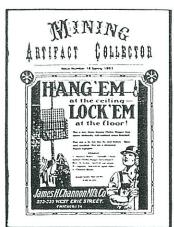














#### SAFETY LAMP PATENT MODELS FROM THE

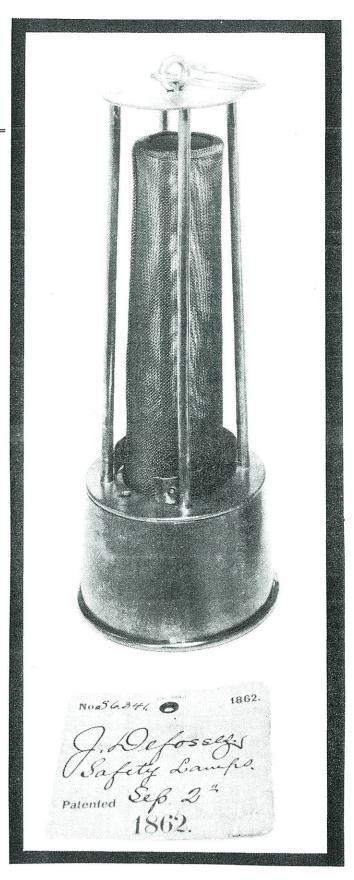
#### **SMITHSONIAN INSTITUTION**

by Tony Moon Sandy, Utah

Many thanks to Wendell Wilson for sending three photographs of safety lamp patent models that are in the Smithsonian collection. All of the photographs are courtesy of the National Museum of American History. Two of the lamps still have their Patent Office tags and, although the third lamp has no tag, I am sure it is a patent model.

Patentees prior to 1880 were required to provide models of their inventions. After 1880 the submittal of models was optional and the front page of all patents, even as late as 1904, have the notation whether models were submitted or not. After about 1884 very few models were submitted and it is believed that they were only submitted when the Patent Office requested them, or for specific categories such as flying and perpetual motion machines. As some 250,000 patents had been granted by 1882 it is not surprising that models became optional--the Patent Office was inundated with them! Two fires, one in 1835 and another in 1877, destroyed significant numbers of models. In 1907 it was decided that models would not be required for any category and the Smithsonian Institution was permitted to select models for their permanent collection. In the 1920's the Smithsonian selected more models and from just a personal observation they must have obtained most of the mine lighting models as none have been available in various patent model sales over the past 20 years!

Figure 1. A photograph of the patent model of the Safety Lamp patented by Joseph Defossez on September 2, 1862. (Photo courtesy of the National Museum of American History)



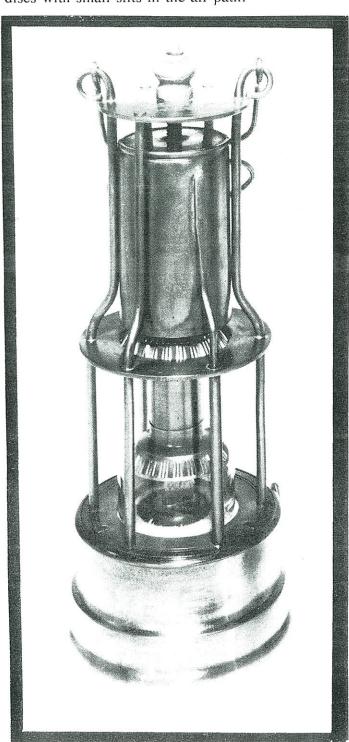
Patent Number 36,341: Safety lamp patented by Joseph Defossez of Paris, France, on September 2, 1862. See Figures 1 and 2. The patent is for a pneumatic lock on a conventional Davy lamp. The lock is a spring loaded pin which can be retracted (allowing the lamp to be opened) by overcoming the spring force using an air pump applied top point "g" in the patent illustration.

# United States Patent Office JOSEPH DEFOSSEZ. SAFETY-LAMP. Patented Sept. 2, 1862. No. 36,341.

**Figure 2.** The patent drawings for the Safety Lamp patented by Joseph Defossez on September 2, 1862.

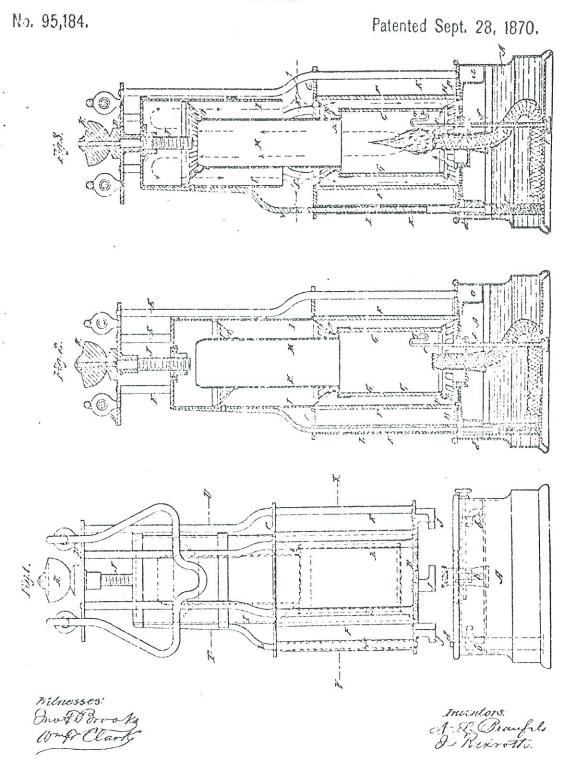
Figure 3. A photograph of the patent model of the Lantern patented by Nicolas Beaufils and Jacques Rexroth on September 28, 1870. (Photo courtesy of the National Museum of American History)

Patent Number 95,184: Lantern patented by Nicolas Beaufils and Jacques Rexroth of Paris, France, on September 28, 1870. See Figures 3 and 4. This lamp uses an ingenious and complicated mechanism to ensure that the lamp cannot be opened when the lamp is lit. In order for the lamp to be opened the top screw, which moves the top cylinder, must be adjusted so as to lower the cylinder and this closes off the air supply to the lamp thus extinguishing it. The lamp can then be opened using the bayonet mechanism. The lamp does not use conventional gauzes but depends on two discs with small slits in the air path.



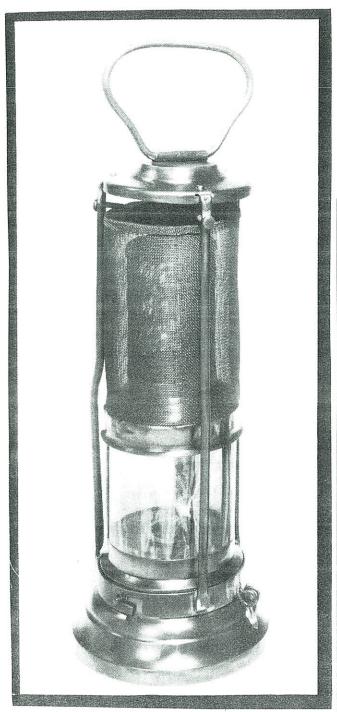
#### BEAUFILS & REXROTH.

Lantern.



**Figure 4.** The patent drawings for the lantern Patented by Nicolas Beaufils and Jacques Rexroth on September 28, 1870.

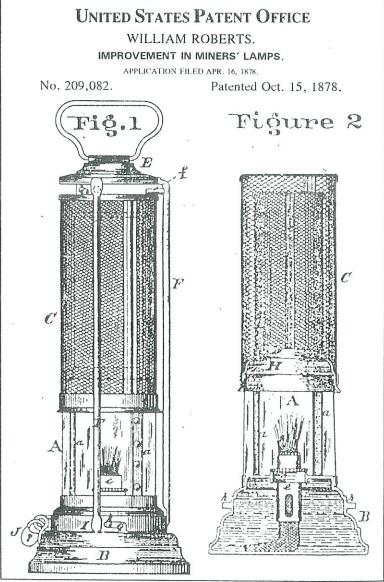
Patent Number 209,082: Miner's lamp patented by William Roberts of Cincinnati, Ohio, on October 15, 1878. See Figures 5 and 6. This is almost a home-made version of the well known Marsaut lamp with double concentric



**Figure 5.** A photograph of the patent model of the Miner's Lamp patented by William Roberts on October 15, 1878. (Photo courtesy of the National Museum of American History)

gauzes. The most unique feature is the use of a mica cylinder in place of glass. This, it is stated, "obviates the danger likely to occur from glass chambers by cracking when exposed to varying temperatures, or when water is accidently brought in contact therewith." The mica cylinder was not part of the claims which essentially covered the way in which the lamp was constructed similar to later design patents. Another interesting feature is the bayonet oil vessel attachment.

The author does not know any commercially made lamps which match the patent models. Pneumatic locks were used for a limited time on some English lamps.



**Figure 6.** The patent drawings for the Miner's Lamp patented by William Roberts on October 15, 1878.

#### THE MILLER WATERPROOF MINING

#### **CAP PROTECTORS**

by Mark Bohannan Oro Grande, California

Even after years of collecting mining artifacts--both underground and through antique shops and shows--it's amazing the number of never-before-heard-of items that still surface. One such item is the Miller Waterproof Mining Cap Protector invented by William Elias Miller in 1899.

The Miller Waterproof Mining Cap Protector was designed to provide a quick and easy waterproof seal between the connection of the blasting cap and safety fuse. On November 14, 1899, William Miller patented "a new and useful Device for Applying Protectors to the Fulminating-Caps of Explosive Charges." The device for applying the protectors to blasting caps consisted of a staff consisting "of a piece of wood, metal, or any other appropriate material, and it may be either solid or hollow. I prefer to employ a cylindrical stick of wood to constitute the staff, and the staff is of a diameter slightly less than the interior diameter of the fulminating-cap at one end."

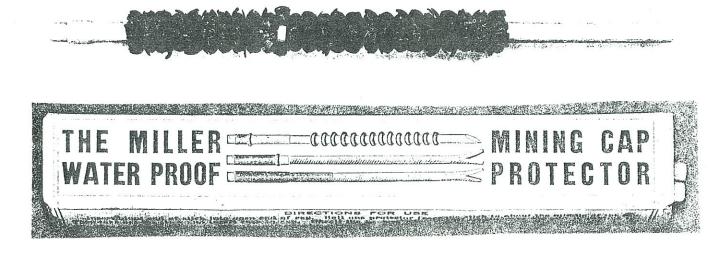


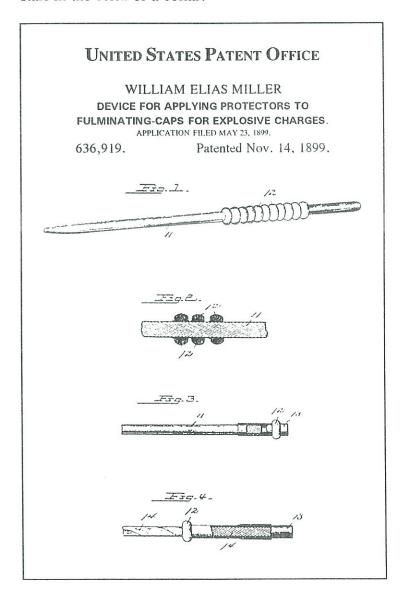
Figure 1. The Miller Waterproof Mining Cap Protectors shown here were packed in a white cardboard box  $6^{1}/_{2}$  inches long by 1 inch square and printed in black. The wooden holders are also six and a half inches long and contain twenty-five protectors per holder. The box held four holders for a total of one hundred protectors per box.

Because of the fact that the cap protector holders shown here all have a shoulder at one end of the stick, it is most likely that these protectors were manufactured sometime after 1942--the year John Curtiss applied for a patent with this feature.

The device also consisted of "a series of rolled tubular protectors rolled upon said staff and adapted to be removed successively and individually therefrom by rolling them in their rolled condition from the staff to a cap."

Each protector was a single tube of elastic rubber that was of the proper diameter to fit over the blasting cap and safety fuse.

Because of the elastic nature of the protectors, some difficulty was initially experienced in slipping them over the blasting caps and safety fuses. To overcome this difficulty, Miller coiled each cap protector upon itself and then arranged the protectors onto the staff in the form of a collar.



**Figure 2.** The patent drawings for William Miller's blasting cap protectors patented in 1899.

In using the Miller Waterproof Mining Cap Protectors, "first transfer one of the collarlike protectors from the staff to the cap. The open end of the cap is brought into juxtaposition to one end of the staff, and the operator then proceeds to transfer one protector from the staff to the cap by rolling the protector over and over the staff until it passes from the staff onto or upon the cap. In this operation of transferring the protector from the staff to the cap said protector retains its rolled-up condition, so that it at once fits on the cap in the form of a collar. and the cap, with the protector thereon, is now detached from the staff. The next step in the operation is the assemblage of the fuse with relation to the open end of the cap, and finally the protector is uncoiled by turning the same in the opposite direction from the direction in which it was manipulated to transfer the protector in its collar-like condition from the staff to the cap. In unrolling or uncoiling the protector from the cap to the fuse a part of the protector adheres to and closely embraces the cap, while the other part of the protector is made to embrace a part of the fuse where it enters the open end of said cap. This protector is thus adapted to closely embrace the cap and fuse, so as to cover the joint between the elements for protecting the fulminate against the admission of moisture at the joint between the fuse and cap. It will be seen that I have provided a device adapted to carry a number of elastic protectors which may be easily and quickly transferred to the cap and the fuse used in connection therewith. The miner may thus be supplied with fresh and elastic protectors, and the staff may be easily carried in the pocket without inconvenience."

On August 17, 1909, Miller patented an improvement to his 1899 patent "to facilitate the rolling of the protector, and their positioning either on the holder or staff, of their transference from the roller or former directly to the caps." This patent mainly encompassed a device for rolling his cap protectors onto the wooden staff more easily.

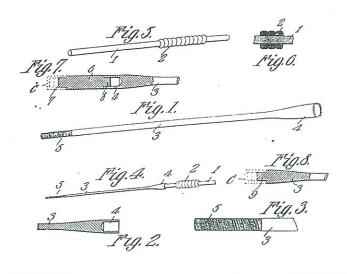
#### UNITED STATES PATENT OFFICE

## WILLIAM ELIAS MILLER DEVICE FOR APPLYING PROTECTORS TO FULMINATING-CAPS.

APPLICATION FILED MAR. 28, 1908.

931,454.

Patented Aug. 17, 1909.



**Figure 3.** The patent drawings for William Miller's patent that mainly encompassed a device for rolling his cap protectors onto the wooden staff more easily.

On November 6, 1945, John S. Curtiss of El Paso, Texas, was granted two patents that were based on William Miller's 1899 and 1909 patents. Curtiss's first patent--applied for on October 23, 1942--was for a combined cap protector roller (towards the right on the patent drawings) and a cap protector carrier with the protector application end at the left. A major difference between the Miller and Curtiss patents is that in Miller's patent, the application end of his carrier or staff was designed to slip inside the open end of a blasting cap and then the protector was rolled off onto the cap. This could be dangerous because if the staff was inserted into the cap to abruptly, or with too much pressure, or with excessive twisting, a premature detonation of the cap could occur. In Curtiss's patent, this danger was eliminated by the addition of a shoulder towards the end of the loading stick which prevented the stick from

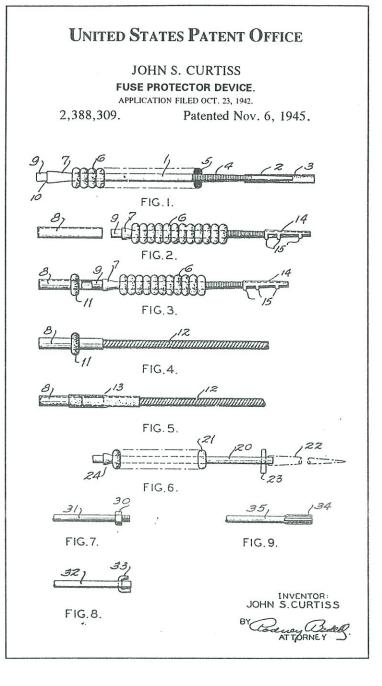


Figure 4. The patent drawings for John Curtiss's 1945 patent that was based on William Miller's 1899 and 1909 patents. In the drawings, Figure 2 shows the stick with its discharge end about to be inserted into a blasting cap and with a safety device applied to its loading end to prevent the insertion of the same into the blasting cap and to guard against the unrolling of the fuse protector over the loading end. Figure 3 shows the stick applied to the blasting cap and one of the protectors rolled onto the cap. Figure 4 shows the blasting cap with the protector stick removed and a length of fuse inserted into the open end of the cap. And Figure 5 shows the protector unrolled into its functioning position.

## 

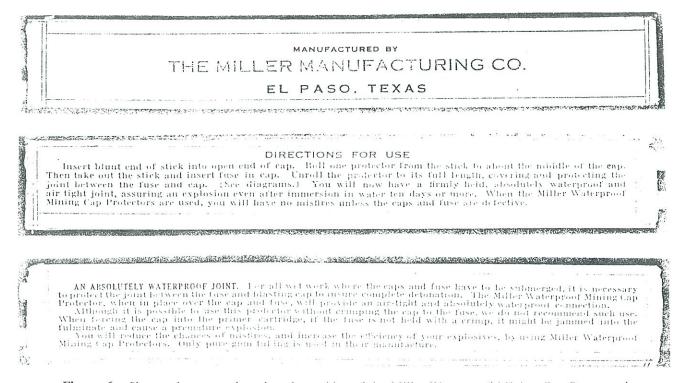
being inserted into the blasting cap too far.

The second patent granted to Curtiss-applied for on September 1, 1943--was still based on Miller's two patents, but consisted of a "short sleeve and a relatively long tube, the latter being rolled inwardly from each end over and over to form doughnut-like roll portions around the end portions of the sleeve." The sleeve and tube were made of a fairly thick rubber-like material.

When William Miller first invented his waterproof cap protectors in 1899, he was living in Denver, Colorado. Sometime between then and 1908, he moved to Salt Lake City, Utah.

It appears that probably sometime after 1909, William Miller formed The Miller Manufacturing Company to manufacture and distribute his Mining Cap Protectors. Sometime between 1909 and 1942 he moved to El Paso, Texas.

Figure 5. The patent drawings for John Curtiss's other 1945 patent that was based in part on William Miller's 1899 and 1909 patents. This patent consisted of a short sleeve and a longer tube that was rolled inwardly from each end over and over to form doughnut-like roll portions around the end portions of the sleeve.



**Figure 6.** Shown above are the other three sides of the Miller Waterproof Mining Cap Protector box showing the location of the company, instructions and information about the cap protectors.

#### INFORMATION ON DEADWOOD'S ASSAYER FOUND

by **Ted Bobrink**Redlands, California

The article in *MAC* #19 about the assayer's bag from Deadwood, South Dakota, produced a number of interesting replies. Most were in the form of a photograph of Moses H. Lyon, like the one in this article sent to us by Deric English of Boron, California. This photograph appeared in a recently published book entitled *The Gold Belt Cities, Deadwood And Environs - A Photographic History* (Taylor Publishing Company, Dallas, Texas. 1988.). As you can read in the photo's caption, Mr. Lyon was an early mining engineer.

Photo credit — Adams Memorial Museum)

Moses H. Lyon, early mining engineer and Deadwood resident. (Photo by J.C.H. Grabill, Deadwood, Dakota Territory)

Another reader found Mr. Lyon listed as the general manager of the Tinton Mining Company in the town of Tinton near Deadwood. Yet another reader found him listed as a coowner in the Bottleson mine located in Fantail Gulch, Deadwood, South Dakota.

The Tinton Company, operating at Nigger Hill, in western Lawrence county, has built a 100-ton tin mill. The vein, which is over 100 feet wide, and can be followed for miles on this and adjoining properties, has been well developed to supply the mill. The plant is equipped with late improved concentrators. A neat village, run on the co-operative plan, has been built. The president is Charles Waite, Chicago; secretary-treasurer, E. W. Noakes, Chicago; general manager, M. H. Lyon, Deadwood. As this book goes to press we learn that the company is already shipping its ore to Liverpool, England.

The Bottleson mine owned three claims, the Livingston, Monte Cristo and Marzbury. These claims were situated in the bottom of Fantail Gulch, and were located in April of 1886. The person or persons that located the claims are not known, but in 1891 the property was bonded to Mose Lyon and Perry Ankeny. Several short tunnels and open cuts were developed and by the end of 1891 a shaft was sunk and ore was found at the 100-foot level. The shaft was deepened to 165 feet, but the water flow into the shaft was so large that a steam pump had to be installed by mid-1892. When the shaft had been dewatered by the Dean pump, the shaft was deepened to 168 feet.

I have to admit, for a while I was a little disappointed that no one was able to find him listed as an assayer until we received a letter from Keith and Kristi Schillinger of Lead, South Dakota. They found Mr. Lyon listed in a 1902 Deadwood business directory as follows:

Lyon, M.H. & Co., Henry P. Cheairs. Assayers, 37 Lee St., Deadwood, South Dakota.

A few weeks later, we received another letter from Keith and Kristi with a copy of a billhead that they had just found dated Jan. 1, 1900 from the Union Assay Office, Deadwood, S.D. On the billhead M.H. Lyon was listed as the "Proprietor."

Collecting mining artifacts has been a fascinating and fun part of my life as I know it is with yours. It is really the icing on the cake when you are able to share that fun with your friends that have a mutual interests. To me, it's always as much fun finding out a little history about something I have as it is in finding the item in the first place. And when you can share that information with friends, it makes collecting all the more fun. After all, it wouldn't be fun if you were the only person in the world collecting mining artifacts, would it? But, on second thought, I can think of a few collectors that act like they would love to own it all to themselves, but are they having fun?

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SOCIETY AND BUSINESS DIRECTORY-DEADWOOD

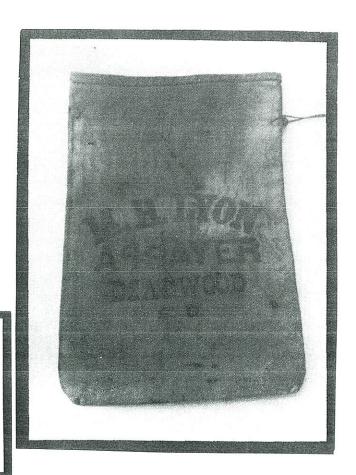
Harrison Telephone Co., G. G. Bennett, pres.; George Cornwall, mgr.

HATTENBACH, J. & Bro., (Jeseph and Aaron), Grocers.
Hawley, Clermont E., musical in-

Hawley, Clermont E., musical instruments. Hayes, Robert C., attorney. Hiawatha Gold Mining and Ex-

ploration Co. Herrman, John, (est. of) Wm. A. Ickes, mgr. Lowenthal, Louis, Junk dealer.
Lubben, Co., John Westpheling,
pres., general mdse.
Lyon, Libble M., dressmaker.
Lyon, M. H., & Co., (Henry P.
Cheairs), assayers, 37 Lee.
McClintock, John S., propr. Deadwood and Spearfish stage line.
McDONALD, Edward (Mayor),
Saddlery and Harness.

McGill, Henry, contractor.
McHUGH, CHARLES E., Mining



Theadwood, S. J., JAN 1- 1900 189\_
M. Masp #2 Dr. Co

To UNION ASSAY OFFICE, Tr.

Foot of Lee Street Stairs.

189 M. H. LYON, Proprietor.

Dec 1 to 30 assaying 400

#### THE MAN FROM SILVER CITY

#### MINERS' UNION NO. 66

by **Jim Steinberg**Pasadena, California

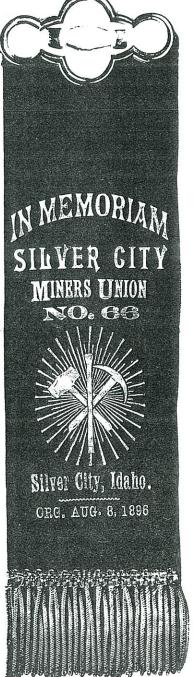
Located in Southwest Idaho, apart from the Coeur d'Alenes mining district, is the mining community of Silver City. Silver City is set between the imposing peaks of War Eagle Mountain and Florida Mountain.

The mines in Silver City, Idaho, were discovered in 1864. The principal mines were two miles Southeast of Silver City on War Eagle Mountain and consisted of the Golden Chariot, the Minnesota and the Mahogany. In 1867, an effort to establish a Miners' League met with failure due to the disinterest of the miners, during the peak of the boom. On March 20, 1872, the miners, angry with their treatment at the Mahogany mine by the foreman, massed some 300 for an evening meeting and demanded the firing of John Jewell. They won. Then, on March 21, they formed the Fairview Miners' Union, which boasted 250 members a day later.

During the summer of 1872, while many of the miners were off in the hills prospecting, the mines dealt with a shortage of miners by employing Chinese as surface laborers. Come winter, returning miners found that jobs were hard to find. The Union demanded that Chinese laborers only be used when white workers were not available. The mine operators weren't interested. The Fairview Miners' Union struck

Figure 1. This is the member's ribbon of the Silver City Miners' Union. It measures 9  $^3/_8$  inches tall by 2  $^1/_2$  inches wide. The main ribbon is blue with the writing and fringe in silver. The flags on the fore-piece are red, white and blue. The hammer, pick and drill are red. Close inspection of the medallion also reveals yellow and blue radiant rays. The funerary side of the ribbon is in silver and black.





the mines on the day after Washington's birthday. Two weeks later, the superintendents of the mines capitulated and the Chinese laborers were replaced with whites.

Mines frequently failed to pay their miners, defaulting on their obligations. The Golden Chariot closed down on June 30, 1876, owing its miners about two months pay. When the superintendent, one M.A. Baldwin was about to leave without paying the miners, they seized him, refusing to set him free until he promised to see that they were paid. The miners' union endorsed this action and raised relief funds to support the miners' destitute families. After three weeks the miners released Baldwin to allow him to attempt to obtain their money. A few months later, Baldwin returned, paid the miners and reopened the mine.

Years later, the failure of these mines weakened this Union.

In 1895, the most prominent mines in Silver City were the Black Jack, the Florida, the Trade Dollar, the Blaine and the Poor Man.



**Figure 2.** At age 32, William D. Haywood was already the Secretary-Treasurer of the Western Federation of Miners. This photo is from 1901.

It was in the summer of 1895 that a 24 year old man arrived who would one day be regarded as one of America's most radical labor leaders. William D. Haywood was a large man, later known by the nickname "Big Bill Haywood."

Already an experienced miner, he was seeking work in Silver City. He spent his first few nights in town sleeping in a shaft house, but soon found work pushing ore cars in the Blaine Mine. One of Haywood's associates in the mine told him the details of the destruction of the Molly Maguires and the spy/agent provocateur, James McParlan, who did them in.

It was in the Blaine mine that an accident seriously mangled Haywood's right hand in June of 1896. Unable to work, he was assisted by a collection given to him by the miners. This was helpful, as his wife and daughter had just arrived in town.

On August 8, 1896, the president of the Western Federation of Miners, Edward Boyce, came to Silver City to organize the miners. Not



Figure 3. Edward Boyce was the president of the Western Federation of Miners from 1896 to 1901. He leaned well to the political left and gave fiery, inspiring speeches to the miners.

knowing if he would ever return to the mines, William D. Haywood attended the meeting that Boyce held. Boyce told of the troubles of the Coeur d'Alene mines in which he had participated. He told of the labor spy, Charles Siringo, and of the formation of the Western Federation of Miners in Butte in 1893. Boyce told of the Union's first big strike in the Cripple Creek mining district in 1894. The miner's formed the Silver City Miners' Union Number 66. William Haywood became a charter member of this union on August 10, 1896. Several hundred miners also joined.

Haywood started as a member of the finance committee of the local. The Union managed to get all but two of the miners in Silver City to join, and those two men were driven out of town. By 1897, Haywood was running the Silver City Miners' Union.

In 1898, Bill Haywood was elected to be the representative to the convention in Salt Lake City. At this convention, the Western Labor Union was formed with Haywood as a member of the executive board. The Western Federation of Miners became a part of the Western Labor Union.

After the convention Haywood returned to work in the Blaine mine at Silver City. The city was completely organized and fully unionized and the Western Federation of Miners began to publish the Miners' Magazine.

Bill was elected to attend the 1899 convention also in Salt Lake City, but just before leaving, on April 29, 1899, the miners of Silver City received the wire from the W.F.M. telling of the destruction of the Bunker Hill & Sullivan mine by the miners in the Coeur d'Alenes.

Like other miners, Bill Haywood was very angry at the way in which Idaho Governor Frank Steunenberg placed the Coeur d'Alenes under martial law and allowed the mistreatment of the miners and their allies.

At the 1899 convention, Bill Haywood suggested that the union's current emblem was not inclusive enough of all the members of the union. That emblem was of a dangerous piece of equipment--a rock drill mounted on a tripod--known to miners as a "widow-maker." After discussion, a new emblem was adopted for the Western Federation of Miners. The emblem included 3 stars symbolizing education, organization and independence. Between the stars were a feather pen, a hammer and a drill.



Figure 4. The original emblem of the Western Federation of Miners was a tripod mounted rock drill which was commonly referred to by the miners as a "widow-maker."

Figure 5. William D. Haywood felt that the emblem of the Western Federation of Miners should be changed. After several efforts, this is what resulted.

## Western Federation of Miners

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P. O.BOX 300 JOPLIN MISSOURI Also during this convention, Big Bill was elected to the executive board of the Western Federation of Miners. In the fall, Haywood attended a board meeting in Butte, Montana, where it was decided that Haywood and another representative were to be sent to the mining towns of the Coeur d'Alene to bring the support and sympathy of the union to the miners there. Here, Bill Haywood saw the conditions of the miners who had been incarcerated without due process in the unsanitary wooden "bull pens".

Haywood returned to Silver City and went back to work in the mines. One day, while working in the Florida tunnel, Haywood stopped to write a resolution on the side of a box. In June, 1900, it became his first writing to appear in the "Miners' Magazine."

"Resolved that we condemn such arbitrary action of the said governor of Idaho as a usurpation worthy of the tyrants of the Middle Ages and such a man is unworthy of the respect and support of all liberty-loving people."

In 1900, Bill Haywood was elected to the presidency of the Silver City Miners Union.

It was while Haywood was attending the convention of the W.F.M. in Denver, Colorado, that the president of the W.F.M., Edward Boyce, asked Bill Haywood to run for Secretary-Treasurer of the Union. Haywood's companions from Silver City encouraged him, so he ran and won.

Haywood's new office was to be in Denver, Colorado in the Mining Exchange Building. Thus, in 1901 Bill Haywood bade farewell to his home in Silver City, Idaho.

#### References:

Haywood, William D., The Autobiography of Big Bill Haywood, International Publishers, N.Y., 1929.

Dubofsky, Melvyn, 'Big Bill' Haywood, St. Martin's Press, N.Y., 1987.

Watkins, T. H., Gold And Silver In The West, American West Publishing Co, Palo Alto, Calif., 1971.

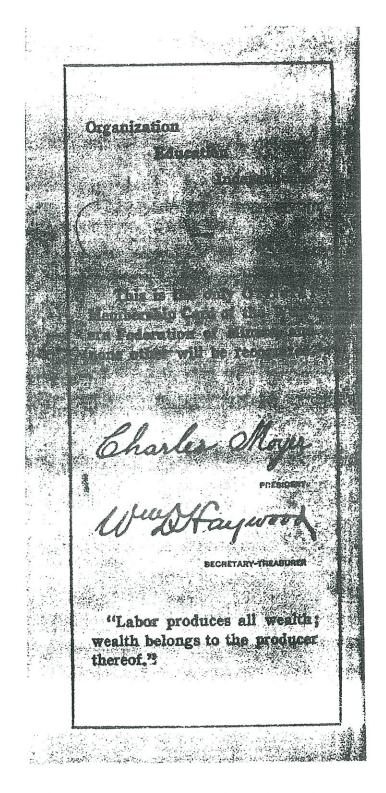


Figure 6. Wm D Haywood is how Bill haywood's name appeared on the membership cards of the Western Federation of Miners. Big Bill's middle name was originally "Richard," after an uncle whom he disliked. Haywood changed that to "Dudley," after the father whom he loved, but lost while very young.

#### A POCKET OIL WICK LAMP

by **Tony Moon** Sandy, Utah

One of the most unusual lamps in my collection is a face size Grier lamp with a screw lid and a screw cap for the spout. The lamp has the common Grier Bros. "STAR" marking in a shield on the side and is 2 <sup>5</sup>/<sub>8</sub> inches high to the top of the lid and 3 <sup>7</sup>/<sub>8</sub> inches high to the end of the spout cap. The lamp is all brass, including the hook, except for the inner spout which is copper. The lamp is shown in Figures 1 and 2.

The only plausible explanantion that the author can think of for manufacturing an oil wick of this design would be to provide a lamp that could be put in ones pocket. The large spout cap would act as a snuffer and would prevent the contents from spilling. If any reader has another explanation or has seen other lamps of this type, please let me know.





Figure 1. The brass Grier Bros. pocket oil wick lamp with the spout cap in place. (Author's collection)

**Figure 2.** The brass Grier Bros. pocket oil wick lamp with the spout cap removed. (Author's collection)



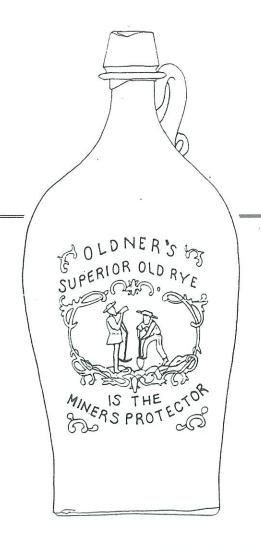
## A MINING RELATED WHISKY BOTTLE

by Leo Stambaugh Georgetown, Colorado

Some time ago I was visiting a Mr. John Eatwell of Conifer, Colorado, who is the premier collector of "Pikes Peak" historical flasks. In his display of 94 flasks and 175 Colorado embossed whisky flasks, he has this two quart handled whisky jug. The jug is 11 <sup>5</sup>/<sub>8</sub> inches tall and is a rich, deep puce color. Mr. Eatwell bought the jug years ago from a man who had kicked it with his foot at a bottle show. This man had paid four dollars for it.

This whisky jug is now more valuable to bottle collectors than a folding Varney candlestick is to mining artifact collectors.

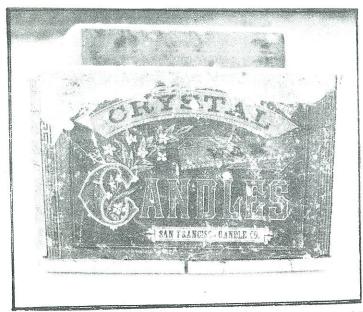
The whisky jug shown here was drawn by John Eatwell and is shown at 61% of actual size.





Another San Francisco Candle Company Box

I recently found this 20 lb. San Francisco Candle Company box in an abandoned mine. The southern California mining district in which I found the box was active during the 1880's and 1890's. The box has square nails, blank sides, and the name of the mining company has been ink-stamped on the opposite end. You might notice in the photo that the paper label is place over another paper label--for some reason two labels were put on the end of this box end. As you remember, Andy Martin's stamped San Francisco Candle Company box was illustrated in MAC #7 and Herb Dick followed with a letterhead in MAC #9.



#### A New Miner's Union

A new union badge recently surfaced in the wastelands (?) of Utah that is from a union that I had not heard of before. It is from the "United Mineral Mine Workers Union of North America" (or U.M.M.W.U. OF N.A. for short-no wonder the U.M.W.A. was more popular!) which was organized on November 27, 1895. The badge is for Local No. 16 from Elvins, Missouri, which is located in the old lead belt. The badge is quite similar to many UMWA badges with red, white and blue crossed flags on the front and the bacd is black with the words "In Memorium" in silver. Does anyone have any information on this union?

Tony Moon



An Unusual Fraternal Badge

Once in awhile fraternal badges show up with a mining theme. Illustrated is a badge from a meeting in Butte for the Fraternal Order of Eagles (FOE) on July 7-8-9-10, 1915. badge depicts a miner in a cage descending the saft together with crossed picks and shovels. Suspended from the pin-back portion of the badge is an ore bucket with the date. The author has seen three or four of these badges over the years and at least one of them was missing the ore bucket. Does anyone else have any FOE badges with mining themes?

Tony Moon



#### A Packing Slip From A Giant 'Eagle' Powder Box

This is a photocopy of a paper slip that was apparently packaged inside 50 pound Giant 'Eagle' powder boxes prior to sealing. This example is in good condition and was recovered from a dusty pile of lumber, boxes, and cap tins found in a dry Nevada mine. The number in the upper left corner, ending in 2-06, indicates that the printing date of this paper slip was February of 1906. The paper itself is pale green in color, with black lettering. The Giant Eagle symbol in the center is stamped in red. Only one of these slips was recovered from this locality.

Form 17-60 M-2-06

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FOR TRADE: Just picked up a nice collection of assorted mining artifacts. I have carbide lamps, cap tins, candlesticks, photographs and other mining artifacts on hand to trade. I like to trade, what do you have and what do you want? Be sure to attend the next Western Swap Meet at my house on January 15th, 1994. Contact: Errol Christman (916-273-3268)

FOR TRADE OR SALE: Blasting machines, carbide cap lamps--common and semi-rare, carbide hand lamps, assorted powder boxes, candle boxes, wood blasting cap boxes, miner's soft hats, and other misc. mining related items. Send SASE for list of what I have. Mark Bohannan, P.O. Box 127, Oro Grande, CA 92368 (619-246-4418)

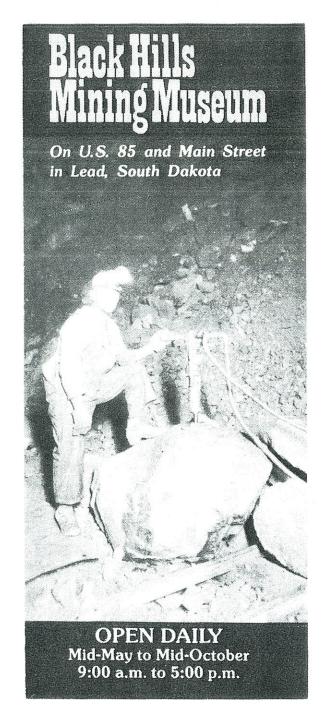
**FOR TRADE:** Organized Labor, by John Mitchell, copyright 1903, 436 pp., hardbound with photos. John L. Lewis - Leader of Labor, by Cecil Carnes, copyright 1936, 331 pp., hardbound. Jim Steinberg, (818-791-3795)

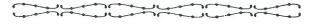
FOR SALE OR TRADE: 1 just got a nice collection of cap tins and have many hard-to-get tins for trade or sale. Also other nice mining artifacts for trade or sale. Bob Schroth, P.O. Box 687, Twin Peaks, CA 92391 (909-337-7102)

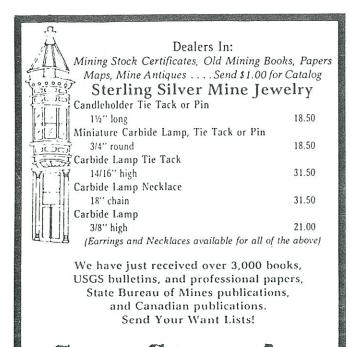
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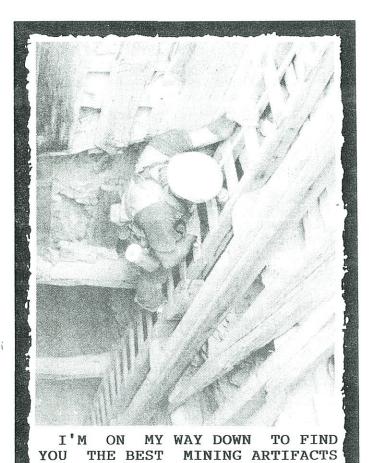
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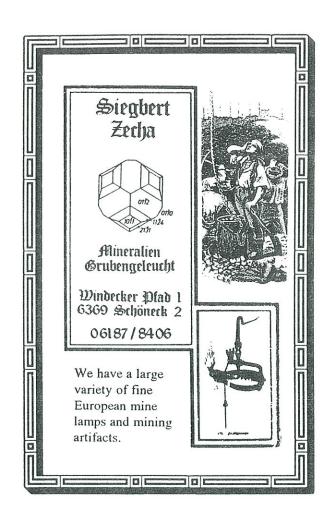
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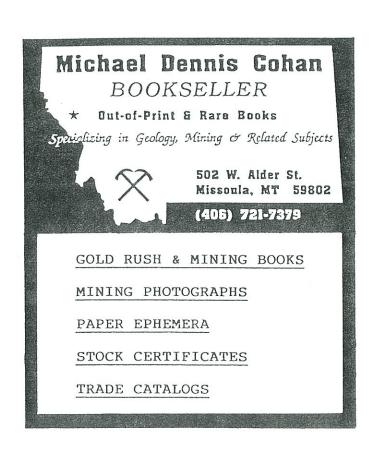
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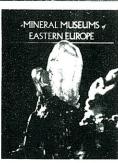
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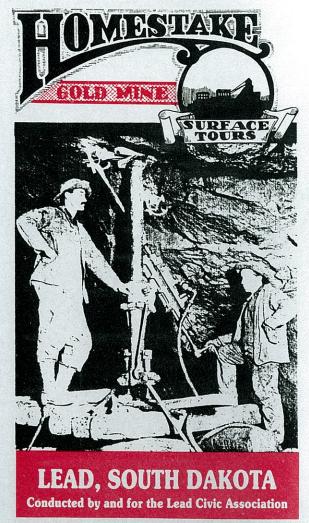
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