

# MINING

## ARTIFACT COLLECTOR

Issue Number 21 Winter 1994



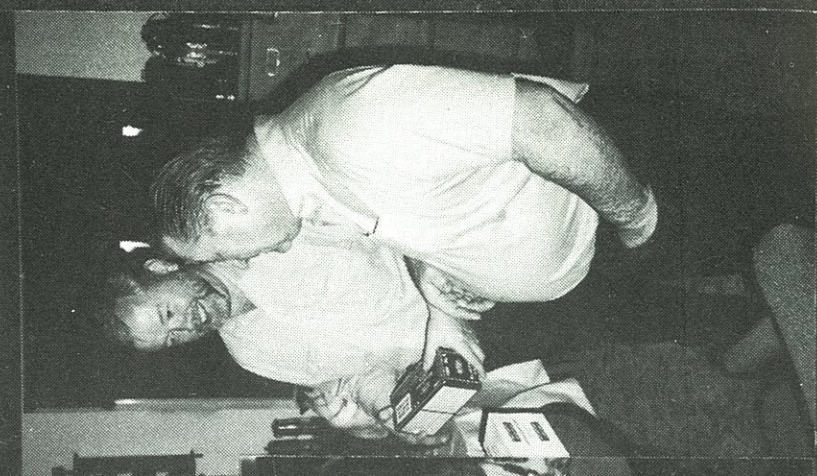
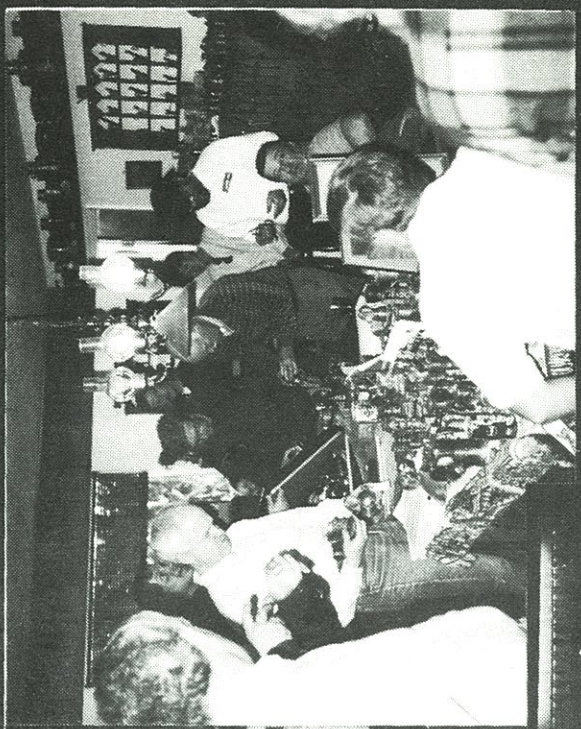
**PEABODY  
COAL  
COMPANY  
CHICAGO**

**36 MINES  
WITH ANNUAL CAPACITY OF  
18,000,000 TONS**

**MINERS AND SHIPPERS  
GOOD COAL**

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THESE PHOTOS WERE  
TAKEN AT ERROL  
CHRISTMAN'S GREAT  
WESTERN MINING SWAP  
MEET ON JANUARY 15, 1994



# **Mining Artifact Collector**

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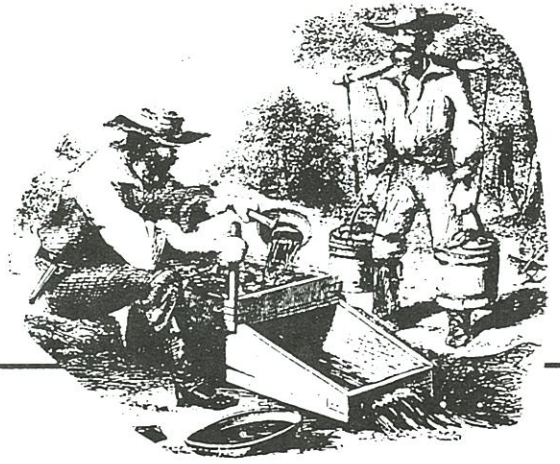
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# Notes from the Editor



## A NOTE TO THE EDITORS

The job of putting together an issue of the *MAC* is very time consuming and a lot of work, especially since all of the editors have "regular" jobs besides the *MAC*. Therefore, it is always pleasing and uplifting to receive letters--like the following--from our readers.

"Hell yes! Sign me up for another year's subscription to the *MAC*. I have been a subscriber off and on for four years, but because the quality of material reported in the *MAC* is so good, I'll not let my subscription lapse again. In the past several years the material in the *MAC* has taken a substantial turn for the better. What I like about it is that all aspects of mining and mining artifacts are fairly represented. The *MAC* does not focus purely on lighting sources and cap tins. Rather, the *MAC* features articles on miners' personal items, hardware big and small, unique items, decorative items, etc. Examples of what I'm talking about are: Wilson's article on the Wolcott tray, Bobrink's variety articles on a lot of stuff, Bohannan's past articles on rockdrills, and articles on surveyor's spads, rock drilling accessories, belt buckles, miners' unions, and various mining towns and districts.

I got tired of reading about details, ad nauseum, of carbide and oil wick lamps that I'll probably never see in "other mining artifact magazines" (I'll not name names, now). There is more to mining and mining artifacts than innumerable lighting sources. However, don't get me wrong, I do want to read about lamps, but too much is too much."

Eric R. Twitty

## UPCOMING EVENTS

The **First Annual Black Hills Mining Collectors' Meet** is being held on Saturday and Sunday, **May 28-29**, in Lead, South Dakota. Scheduled for Saturday is a tour of the Black Hills Museum, Homestake Mining Company surface tour, a lunch and dinner, mining antique show and sale, and an auction in the evening. Planned for Sunday is an underground tour of the Homestake Gold Mine, lunch and open time sight seeing. For more information contact one of the following. Al Winters--605-584-3970, Brad Ross--307-686-7070, Keith Schillinger--605-584-2430, or Chuck Tesch--605-584-2382.

Be sure to make your plans to attend the **9th Annual Mining Artifact Collectors' Reunion on Saturday, June 18**. It is being held at the same location as last year (see back page) at the Good Nite Inn, 1801 East G Street, Ontario, California. Great lamps, great deals and great conversation will be had by all, from 9 a.m. to 4 p.m. Some people show up the night before for a little early action.

A block of rooms have been reserved for reunion attendees. If you wish to make a reservation for a room, please tell them that you will be there to attend the Ninth Annual Mining Artifact Collectors' Reunion.

The annual **NSF Convention** is being held at Fort Clark Springs, Bracketville, Texas on **June 20-24**. For more information write to: 1994 Convention Center, P.O. Box 43747, Austin, TX 78745, or call 512-441-0050.



# AN UNUSUAL FOLDING

## CANDLESTICK

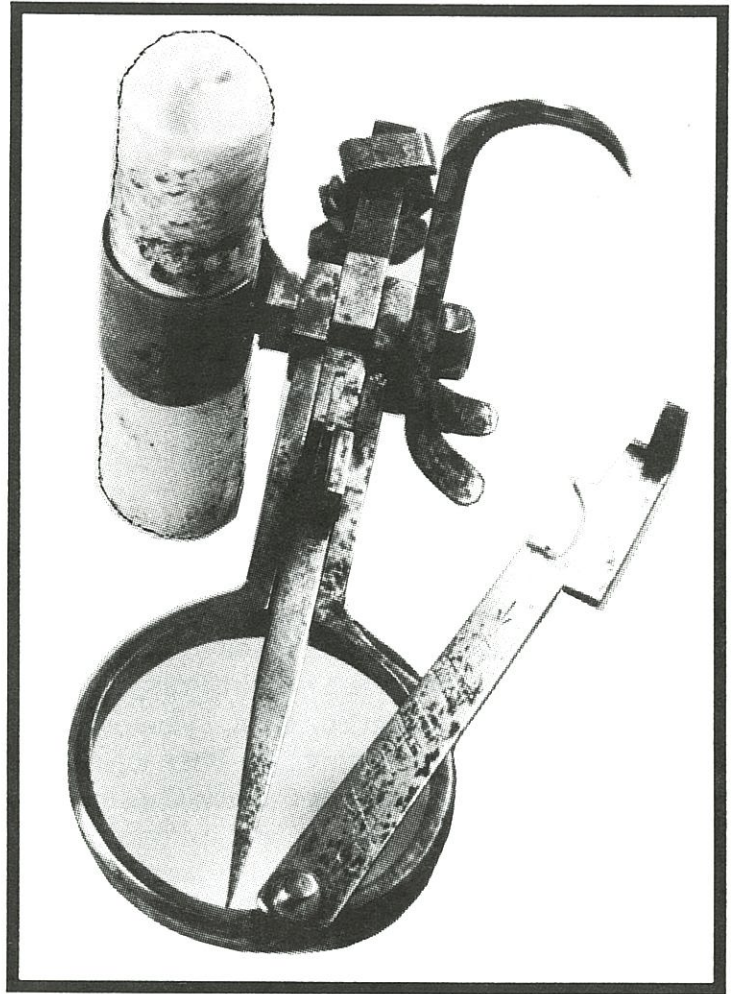
by **Tony Moon**  
Sandy, Utah

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About four years ago, during my one and only trip to the Lead, South Dakota area, a friend took me around the local museums. The Black Hills Mining Museum was a highlight of the trip, but at the Adams Museum in Deadwood, I was greatly surprised to find one of the most remarkable candlesticks I have ever seen. There tucked away in a back case buried behind mundane items was a fantastic, engraved folding candlestick. As I crawled on my hands and knees (literally!) and peered into the case, I wondered how many people, even serious mining history buffs, had overlooked this remarkable item.

Well, Al and Brenda Winters have come to our rescue! First, I must thank them for the excellent photograph that accompanies this article, and second, for providing the information on John Blatchford. As can be seen from the photograph, the point folds into the handle as well as the hook which folds into a special recess. I believe the swing-out arm is part of a locking mechanism, but it may be part of a cap crimper. Only detailed examination of the piece itself will tell us the whole story.

The top of the arm is engraved with the name "J. Blatchford." John Blatchford was superintendent of the Golden Reward Mining and Milling Company of Terry, South Dakota, which was in operation between 1887 and 1918. The Golden Reward Mining and Milling Company was formed in May 1887. The president of the company was Harris Franklin. All of the mines, the Golden Reward, Toronado, Double Standard, Boscobel, and Little Bonanza, were under the direction of John Blatchford. In 1918 the mines



were closed after over 30 years of continuous bullion production. From 1902 to 1918 the Golden Reward properties under John Blatchford's direction produced 956,992 tons of ore from which 371,381 ounces of gold and 734,223 ounces of silver were recovered. No accurate records were kept from 1887 to 1902 when the richer ores were processed.

I understand that the museum has now placed the candlestick in a more prominent location. Perhaps those who go to the Black Hills Mining Collectors Meet over the Memorial Day weekend can visit the Adams Museum and see this remarkable artifact for themselves. The Adams Museum also has other mining items on display, including a very nice pocket gold scale in its tin with the Seattle Hardware Company logo on the lid. To see the logo, crawl on your hands and knees and peer upward into the case! Good Lock!



# TWO CANDLE-LIKE CARBIDE LAMP PATENTS

by Mark Bohannon  
Oro Grande, California

The two patents shown below are for miner's carbide lamps of a similar design as that of the Arnold Carbide Candle patented by Ralph R. Arnold in 1912. At this time, there are no examples of these lamps known to exist--only the patent drawings and text.

The lamp shown in Figure 1 was patented on April 13, 1920, by John D. Luttrell of Benton Harbor, Michigan. The patent was assigned to the Service Carbide Lamp Company of Terre Haute, Indiana--which was a co-partnership.

This lamp consisted of a cylindrical housing or casing with a burner tip at the top of the lamp. Unlike the Arnold Carbide Candle--which has the water in the top and the carbide contained in the bottom part of the lamp--this lamp had these items reversed. To charge the lamp for use, it was "to be inverted after the plug 5 and receptacle 6 have been removed therefrom and a quantity of calcium carbid introduced into the same to fill it about one third of its total capacity. Thereupon, the receptacle 6 with the wick 11 and the rod 9 projecting therefrom a predetermined distance, is inserted into the receptacle and the plug 5 thereafter inserted." This receptacle was one-third of the length of the casing and equipped with a screw cap. This receptacle was adapted "to contain water which is fed by capillary attraction to maintain the exposed portion of the wick projecting from or above the tubular element continuously moist." The lamp was then turned to its normal position causing the lumps of carbide in the top portion of the lamp to be brought into contact with the moist wick. As the carbide was decomposed, "the calcic residue will

drop down upon the top of the receptacle 6 and fresh carbid will be automatically brought into contact with the wick."

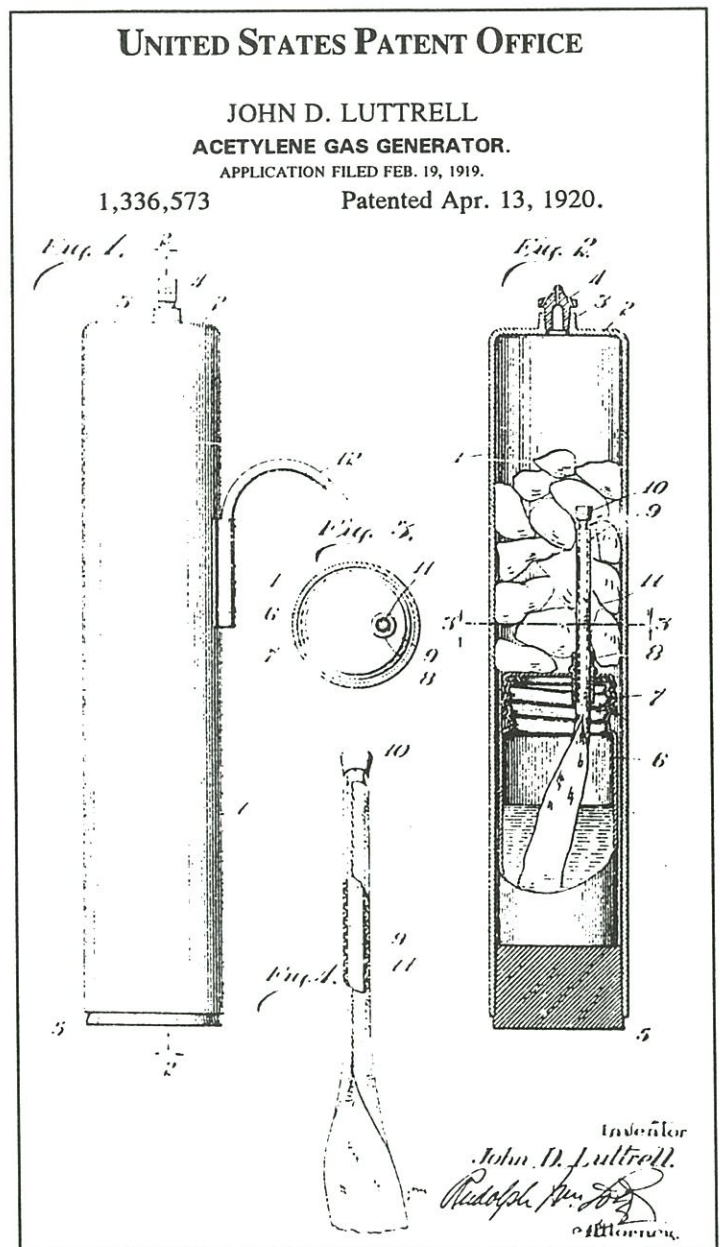


Figure 1. The patent drawings for John D. Luttrell's 1920 patent drawing for Improvements in Acetylene Gas Generators.



UNITED STATES PATENT OFFICE

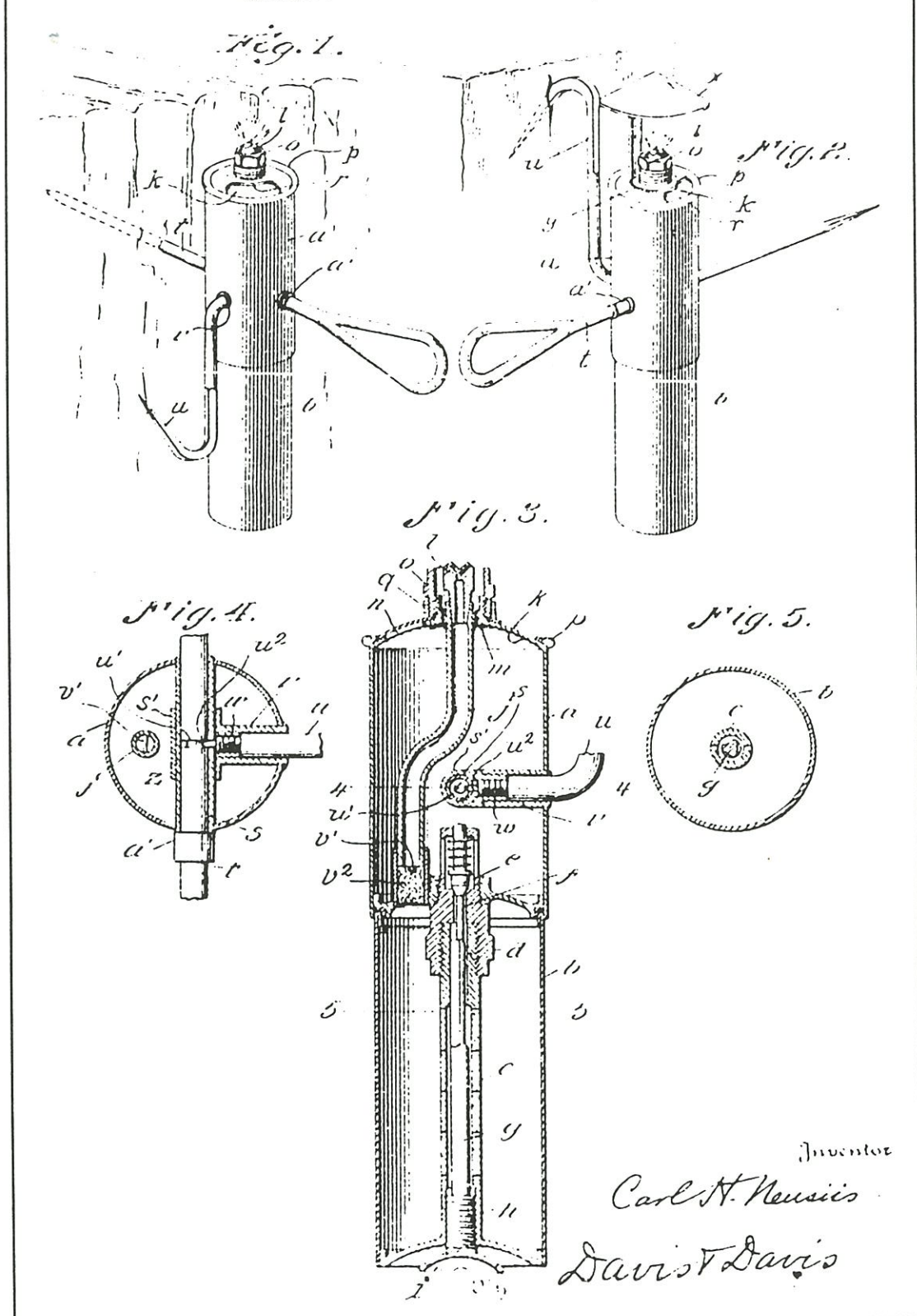
CARL HENRY NEUSIIS

ACETYLENE MINER'S LAMP.

APPLICATION FILED NOV. 30, 1921.

1,420,133

Patented June 20, 1922.



Inventor

Carl H. Neusii

Davis & Davis

Figure 2. The patent drawings for Carl Henry Neusii's 1922 patent for Improvements in Acetylene Miners' Lamps. Figure 1 of the patent drawing shows a perspective view of the lamp showing one way of supporting the lamp, while Figure 2 is a similar view showing another way of supporting the lamp and also one way of protecting the flame from dropping water.



The lamp shown in Figure 2 was patented by Carl Henry Neusiis of Baker, Oregon, on June 20, 1922.

This lamp was designed to be made in two main cylindrical parts, the top containing the water and the lower for carbide. The water feed valve was a "thumb-piece being converted upwardly to enable it to fit up into the convexed bottom wall of the carbide-chamber, so as to be in a measure housed by said bottom wall in such manner as to be out of the way." The water valve was spring actuated at the top.

One of the features that Carl Neusiis considered of great importance was an exposed burner tip "permitting the flame to radiate in all directions without forming shadows, shadows being, of course, frequently very objectionable to the miner. In view of this capacity to radiate the light in all directions, the miner will have a wider choice of positions for locating the lamp than would be the case if the light were permitted to radiate toward one side only. In fact, I have constructed my lamp to be as nearly like a candle as possible, since a candle is an ideal illuminating device for mine use, except that its illuminating power is too limited.

Probably the most unique features of Carl Neusiis's carbide lamp were the hook, "skewer" and canopy. These features are described in the patent text in detail and the concepts are very novel. The following are the descriptions of these features as taken from the patent text.

"Extending through the water-chamber at a point above the center of gravity of the lamp is a rigid tube open at both ends. Through this tube is passed a skewer which consists of a rod pointed at one end and provided with a finger-receiving ring-handle at the other end. In putting up the lamp, it is simply necessary to pass the skewer through the tube and then push or drive the pointed end of the skewer into the mine timber. The skewer passes loosely through the tube so that the lamp swings on the tube in the manner of a pendant, thus always maintaining an upright position and relieving the miner entirely of the bother of holding the lamp upright during

the driving of the skewer into the timber of the mining chamber.

"For use in those cases where it is impossible or inconvenient to support the lamp on the skewer, I provide a hook as shown in Fig. 2. To connect this hook to the lamp, I provide another tube which enters the water-chamber at right angles to the [other] tube and has its inner end supported on said [other] tube by a T-coupling. At the inner end of the short tube. . . I provide a series of internal screw-threads into which the threaded end of the hook may be screwed. The end of the hook is screwed loosely into the threads so that the lamp will swing to upright position as freely with the use of this hook as when the skewer is employed as a support.

"As shown in Fig. 2, I may protect the flame by a canopy which is clamped to the upper face of the cover-plate by a flat ring. It will be observed that the shape of the hook enables it to be readily screwed home in the tube, the hook part serving as a sort of crank, and it will be observed also that it may be screwed far enough to cause [the] pin formed on its inner end to pass through an opening formed in the tube so that when desired this hook may be used to lock the lamp from sliding off the skewer, said pin being arranged to enter an annular groove formed in the skewer. To properly locate this groove with respect to [the] pin, the skewer is provided with a shoulder to limit its passage through [the] tube.

"It will be observed that a feature of importance is that the lamp will always hang straight on the skewer or hook, whichever support is used. . ."

"It will be observed also that my lamp is virtually reversible in that the skewer may be passed through the lamp-body from either side, thereby enabling the miner to locate the hook on either the right or left-hand side of the lamp. This is a great convenience to the miner."

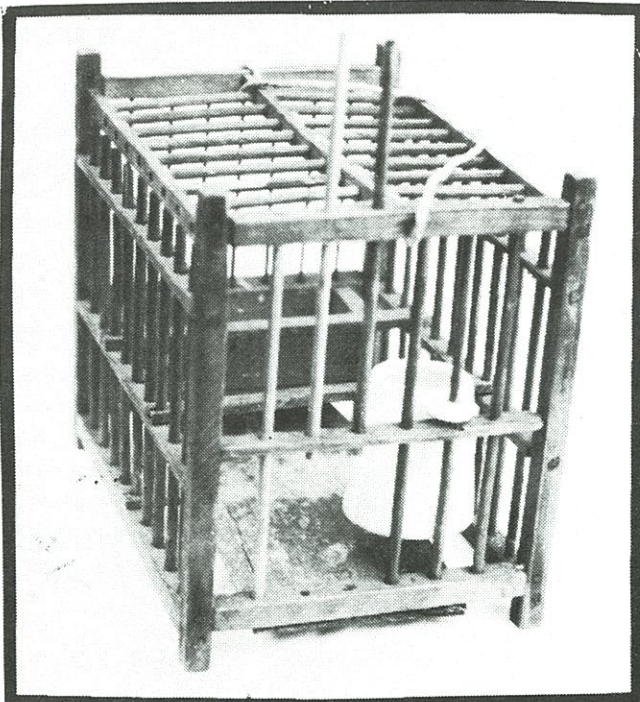


# CANNARIES IN MINES

by **Jim Steinberg**  
Pasadena, California

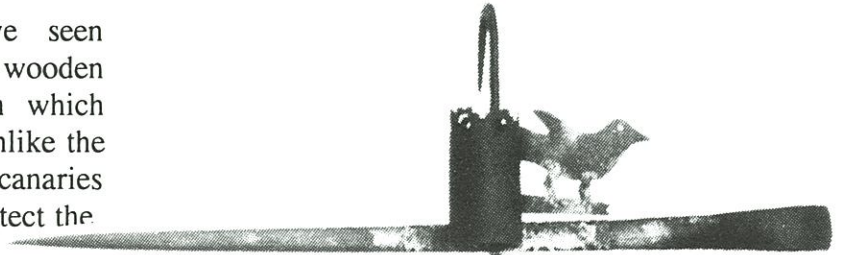
Many mining collectors have seen photographs of miners carrying small wooden cages. These are the containers in which canaries were taken into the mines. Unlike the birds people keep in their homes, these canaries serve a specific purpose and help to protect the miners' lives.

Miners face many dangers, but one of the most insidious is an odorless, poisonous gas, carbon monoxide. There are many ways to generate carbon monoxide, but the most common involve combustion where there is a restricted oxygen supply. Most of the substances that miners encounter burning are hydrocarbon compounds. Coal, the methane gas it releases, and the wood used inside mines, are all such substances. In normal combustion, the one



This canary cage is 5 inches wide by  $6\frac{3}{8}$  inches deep and  $6\frac{1}{4}$  inches high. Note how the cage is opened by sliding up the bars at this end. This cage contains a white ceramic water feeder.

MINING ARTIFACT COLLECTOR



This fancy candleholder is one of two that I have seen with a bird on them. Is it the miners' protector; a canary, or just a generic bird?

hydrogen atom in these compounds combines with two atoms of oxygen to create  $H_2O$ , which is water, and one atom of carbon combines with two atoms of hydrogen to create  $CO_2$ , which is carbon dioxide. While carbon dioxide will not support a human life, it is not poisonous. When hydrocarbon compounds burn where there is limited access to oxygen, part of this process is changed. As the carbon is burned it combines not with two atoms of oxygen, but only with one, creating deadly carbon monoxide.

How dangerous is carbon monoxide?

It only requires a few moments reflection to recall that every winter, we read or hear about people injured or killed by the carbon monoxide put out by faulty heaters. In fact, the people that use the exhaust of automobiles to commit suicide, are poisoning themselves with carbon monoxide.

How dangerous is carbon monoxide?

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At the other end of this canary cage the bars slide wide open above the bird seed tray. The label at the seed tray is orange with black and white writing and a yellow canary singing. The text of the label reads: Always Feed Hartz Mountain Bird Food. The apparent original price of this cage was 69 cents.

One might be surprised to find that even in a mine that has sufficient oxygen to support life, if carbon monoxide is mixed in with it, the combination can be lethal. Why? The danger of carbon monoxide involves the way in which hemoglobin works. In animals, the hemoglobin in the blood carries oxygen from the lungs to all the parts of the body. The hemoglobin does its job by forming a weak chemical bond, strong enough to carry the oxygen, but weak enough to release the oxygen where it is needed. Not so with carbon monoxide. When carbon monoxide and hemoglobin meet, they have a much greater affinity for each other than do oxygen and hemoglobin. In fact, the hemoglobin and carbon monoxide won't come unstuck.

What does that mean? Consider--every time a molecule of carbon monoxide encounters a cell of hemoglobin, they form a "till death do us part" bond. Scratch one hemoglobin cell from the work force of oxygen carriers. Over longer exposure times, fewer and fewer cells of hemoglobin remain to continue the job of distributing oxygen throughout the body.

Imagine breathing pure oxygen from a gas bottle, and smothering anyway because your blood won't carry the oxygen anywhere. That is carbon monoxide poisoning.

Enter the scientists. Tests were conducted decades ago to explore the effects of carbon monoxide at differing levels.

It was noted that levels of carbon monoxide too low to form a "cap" on a safety lamp could nonetheless be dangerous and lead to sudden loss of consciousness. A concentration of merely 0.2 % can reach a hemoglobin saturation of 50 % in a man in 30 to 70 minutes.

What does that mean for humans?

- 20 % saturation leads to dizziness and shortness of breath.
- 50 % saturation causes difficulty standing.
- 80 % saturation is reached if lethality is attained slowly.

Carbon monoxide can be lethal at saturation below 80 %.

Exposure for humans is:

Unsafe at 0.03 % over long intervals.

Dangerous at 0.15 %

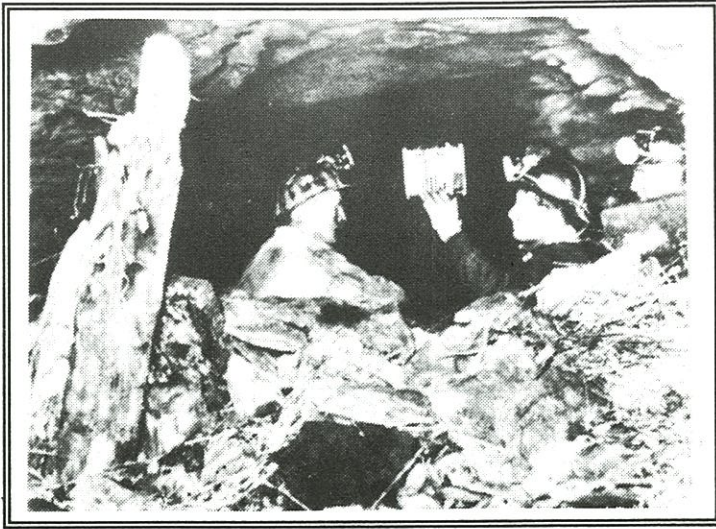
Quickly lethal at 0.4 %

Of small animals tested, canaries were found to be a very sensitive and reliable indicator of carbon monoxide (CO) danger.

#### SENSITIVITY OF CANARIES TO CO

<u>% CO in air</u>	<u>Effect</u>
0.09	Slight distress in 1 hour.
0.12	Weaker in 1 hour than at 0.09.
0.15	Distress in 3 minutes, fell off perch in 18 minutes.
0.20	Distress in 1.5 minutes, fell off perch in 5 minutes.
0.25	Distress in 1 minute, fell off perch in 3 minutes.
0.29	Fell off perch in 2.5 minutes.





This photo shows men checking their canary for its reaction to the air in the mine.

Mines were expected to have or have access to canaries for use in entering after explosions, fires and during rescues. Anytime the miner or rescue worker observed the canary to fall from its perch, he knew to withdraw from the area immediately unless he was using breathing apparatus.

This wooden cage design seems to have many variations and is so effective that even today, birds are sold in Mexico in cages of similar design and dimensions.

One special type of canary cage for testing mine air is called a Haldane cage. It consists of a small aluminum box with mica windows, a tight sealing door, an interior perch and an oxygen bottle on top. If the canary is overcome while the door is open, it can be closed, the cage filled with fresh oxygen, and the bird revived. If any readers have a photo of one of these, please send a copy so that it may be shown in collectors talk.

#### REFERENCES:

Frank de Falco of the Hartz Mountain Corporation, Harrison, New Jersey.

*Mining Engineers Handbook*, edited by Robert Peele, 1918, John Wiley & Sons, New York.

Pasadena Star News, August 29, 1922

*A Pictorial History of American Labor*, William Cahn, 1972, Crown Publishers, New York.

An original photograph of rescue team on the back of a train car. Two of the men in this rescue team are carrying canary cages on their shoulders.





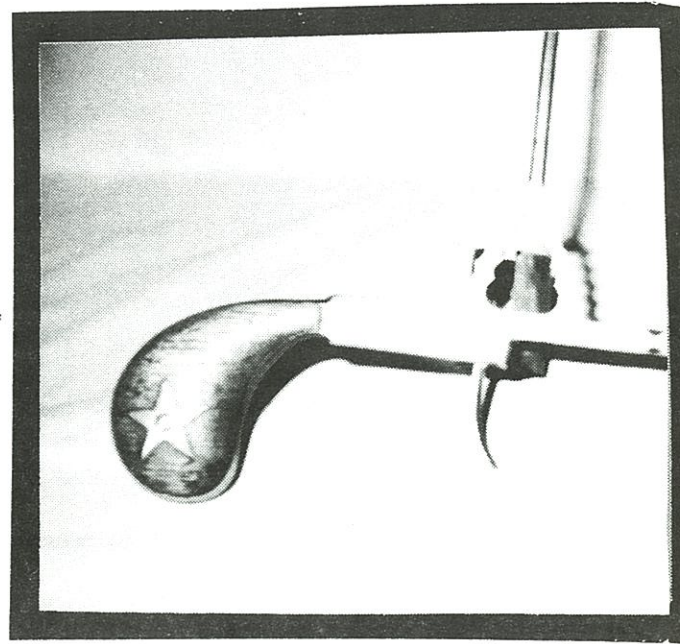
# A PISTOL GRIP CANDLESTICK

by **Bob Schroth**  
Twin Peaks, California

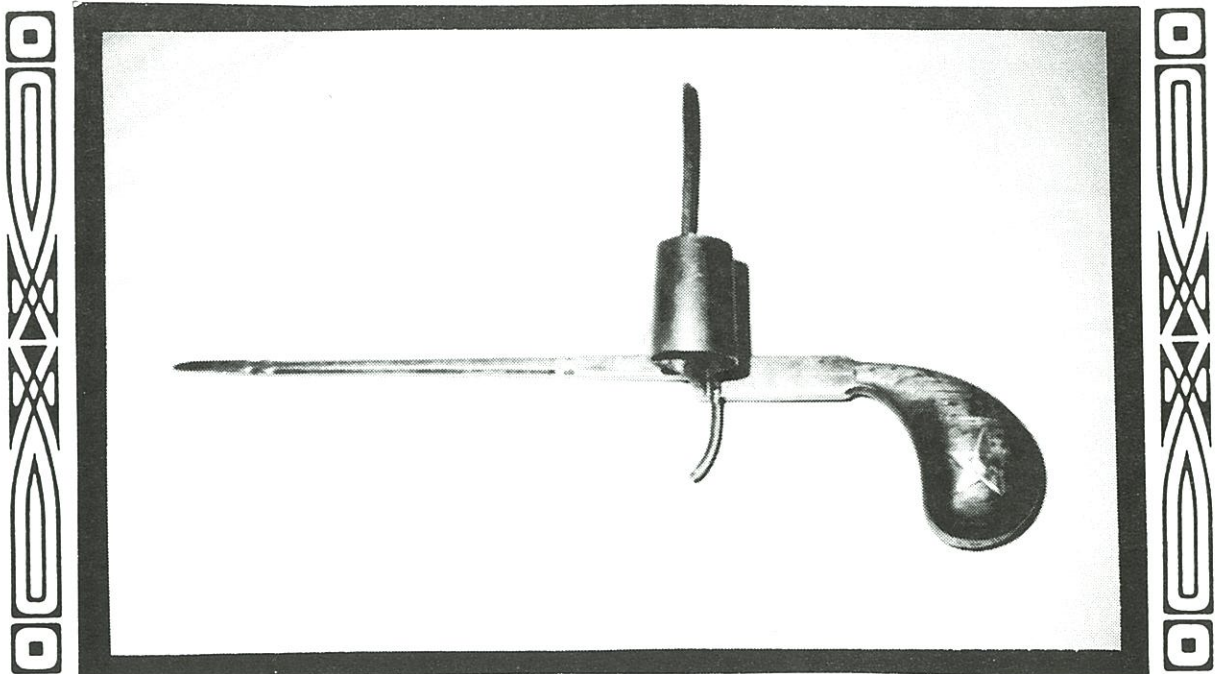
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Pictured is an unique miners' candlestick. I found this stick some years back while exploring the vast Brimfield Antique Market located in Brimfield, Massachusetts. The stick measures 10 1/2 inches long, and the hook is 4 inches high from the shaft. The stick is very well made, and has wooden grips carved to make the pistol's handle. These grips are held together by a star shaped rivet. The thimble is opened by a trigger fashioned to make removal and replacement of the candle easier. The dealer I got this from sadly did not know anything of its history.

Finding any unique mining related artifact can make your blood start to race. When you find something neat, you have to keep a cool head so as not to arouse the antique dealer's suspicions. I then try to casually inquire about the price and what he thinks he is selling me.



Oddly, at this same show, and only about ten tables away, another dealer sold me two brass-handled "ice picks"--otherwise known as Lindahl candleholders. All of this happened in a space of about ten minutes. I did not find much more at the show until I bought a real nice brass "ink well" that fits nicely on a Simmons Pioneer. This has pretty much cured my old habit of going from table to table asking if they have anything related to mining. From now on I look first, then ask.





# A SHORT HISTORY OF CLEAR CREEK COUNTY, COLORADO, AND SOME IMPORTANT RESIDENTS

by **John M. Shannon**  
Lakewood, Colorado

and **Geraldine C. Shannon**  
Lakewood, Colorado

---

Driving west from Denver on Interstate 70, one travels into the foothills of the Rockies and after approximately ten miles drops into the valley of Clear Creek. It was along this stream that early explorers and travelers discovered the glitter of gold and became part of the 1859 gold rush of Colorado.

## **IDAHO SPRINGS**

After mining in California for a number of years, George A. Jackson, a cousin of Kit Carson (Smiley, 1901), returned to his home in Missouri in 1857. The following year he came to the Pike's Peak region in Colorado. He wintered with Tom Golden at the place where the town of Golden, Colorado, was eventually built.

During January 1859, he and a companion known as Black Hawk tramped the mountains toward the source of Clear Creek (at that time still called Vasquez fork, creek or river), with Jackson eventually going ahead alone, no doubt crossing Squaw Pass (located some five miles south of the present town of Idaho Springs). Apparently he was the first white man to see the hot springs which later made the town of Idaho Springs a famous resort (Gillette, 1978).

Dropping down off Squaw Pass, he camped and explored along what is now known as Soda Creek. On the morning of January 7, 1859 (Henderson, 1926), he moved a little farther west and up the next creek, where he camped as he had done on Soda Creek; the fire he built melted enough snow to expose the

ground and thaw it enough to dig a little with his hunting knife. Using a tin cup to do the washing, he had soon placered enough dirt to show a few flakes of gold and convince him that this might be a worthwhile site. Marking this area for later identification, he returned to his camp in Golden (Gillette, 1978).

Further development of Jackson's discovery had to wait until spring. On April 17, he took a party of men (most of whom were from Chicago, for which the creek was subsequently named) and some supply wagons back to the place he had previously marked. The going was extremely difficult; since there were no roads, the wagons had to be disassembled, carried over barriers and obstructions, and reassembled several times before they arrived at their destination. Having no lumber, the wagon boxes were converted into sluices. The place was called variously Chicago Bar, Jackson Bar, Jackson Diggings, and Sacramento City, and in 1860 became the town of Idaho (the "Springs" was not added to the town name until the Idaho Territory became a reality in 1863 and there was confusion over where to send the mail)(Gillette, 1978).

The first seven days netted the men nineteen hundred dollars in gold, which Jackson took back to Auraria and used in payment for more supplies. (\$1900 equates to approximately 105 ounces of gold at \$18 per ounce.) Because of this, news of the strike spread rapidly and the area soon swarmed with prospectors. The most important of the newer developments on the



upper reaches of Clear Creek at that time were at "Spanish Bar" (probably so-called because it had been discovered by a small party of Mexican miners), which consisted of the creeks and bars in a three-mile area on the western outskirts of Idaho Springs (Gillette, 1978).

It was also during 1860 that Dennis Faivre arrived on the scene. As was probably the case with others, he saw opportunity in this new camp and by driving a team of oxen laden with miners' supplies into this area, he became its first merchant.

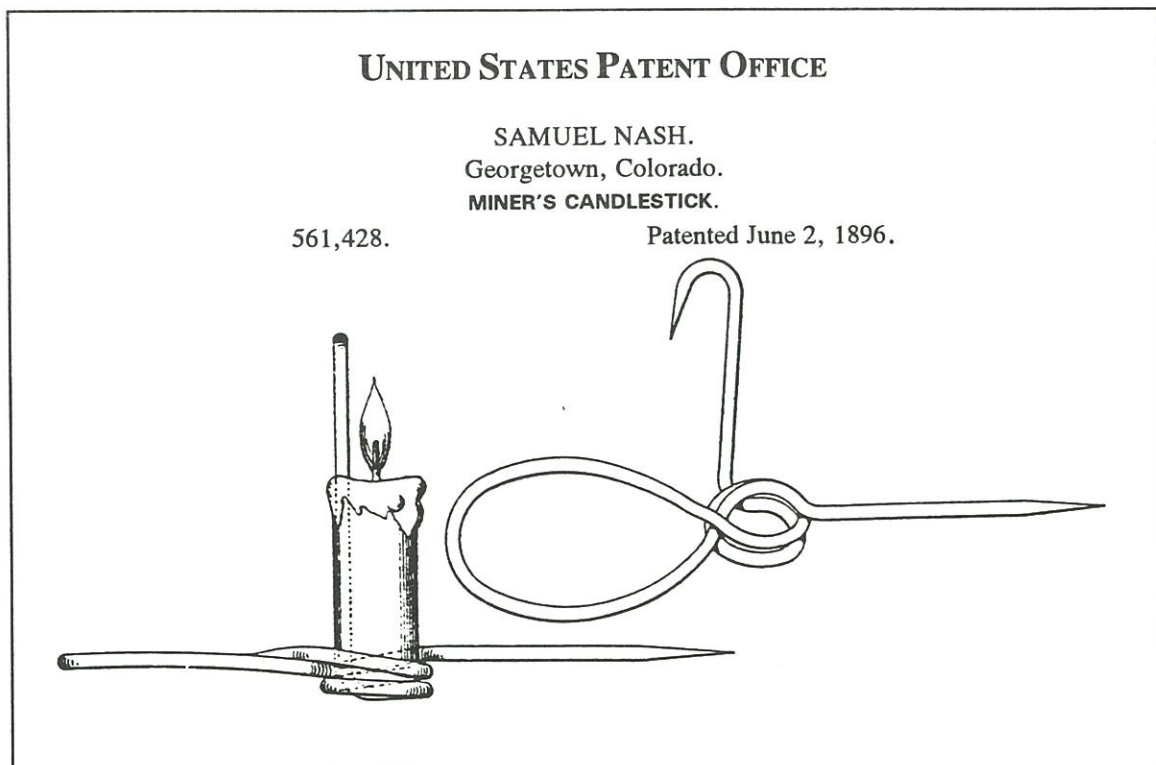
From a base at Idaho and the well-established mining area of Central City to the north, prospectors began arriving and proceeded to explore many of the other creeks and valleys in the area, eventually establishing the many other mining communities in Clear Creek County.

### GEORGETOWN

Farmers George and David Griffith, coming from Bourbon County, Kentucky, reached the Denver area on October 25, 1858. Early in May of 1859, they heard the news of John H. Gregory's discovery, which caused a wild rush to the area of Black Hawk and Central City. Unfortunately, the Griffiths arrived too late to get any of the better claims. George, leaving his brother in Russell Gulch (located

approximately four miles to the north of the present town of Idaho Springs), finally arrived at the camp that was then called Sacramento or "Idahoe." He continued to prospect upstream on Clear Creek until he finally arrived in a much less populated area. Finding some likely looking ground, he scraped up some gravel for his pan and was elated to find a glitter of gold. He staked the claim and immediately returned to Russell Gulch to get his brother. That summer the two brothers and three other men took out \$500 in gold and by common consent called their camp "George's Town." During the spring of 1860 they returned with their brothers William and John, John's wife Elizabeth and their father, and together they staked the entire valley as a homestead and built a cabin (Wolle, 1949 and Gillette, 1978).

"By 1866 there were really two camps a half a mile apart, separated by a beaver dam. The original camp, Georgetown, was located on the flat beside the creek, but as more men arrived, buildings were constructed at the base of Leavenworth Mountain, and this 'suburb' . . . was called Elizabethtown after John's wife. When the place was granted a post office in 1866, a public meeting was held and both camps agreed to combine under the name of Georgetown" (Wolle, 1949).





## EMPIRE

Toward the end of August in 1860, Edger Freeman and H.C. Cowles came over the mountains from Central City in Gilpin County and dropped down into a valley located approximately ten miles west of Idaho Springs. They prospected and found two bits of wire gold on Eureka Mountain. Those two small pieces of gold sparked discovery of the Empire and Keystone lodes and the organization of mining districts in this area. People came from Gilpin County and upstream from Idaho Springs, building cabins and bringing prosperity for several years (Frost, 1880).

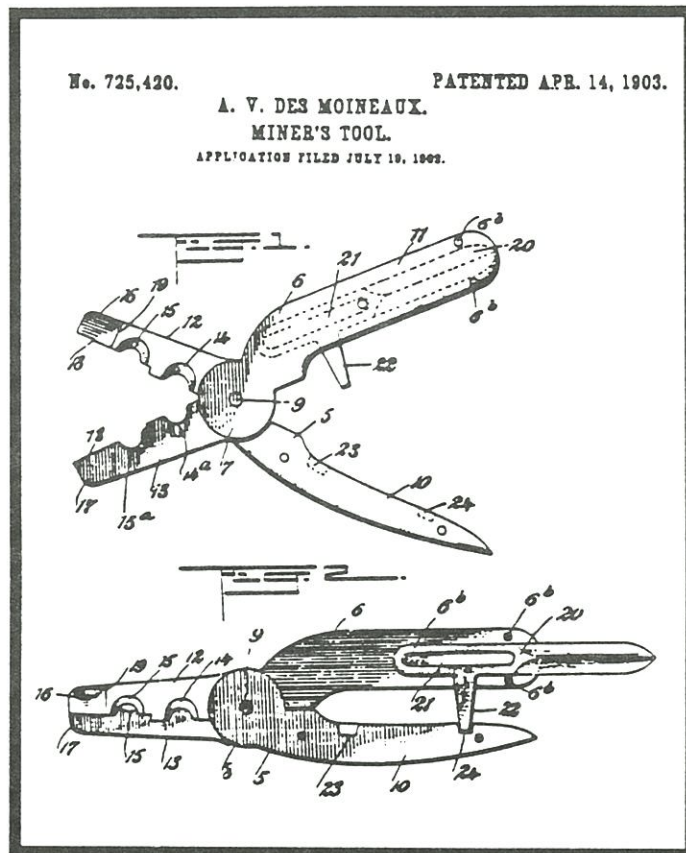
D.C. Daley, one of these miners, has the distinction of discovering the first silver lode in Colorado, the Ida Lode on Silver Mountain near Empire, in September 1860. It was assayed and found to contain 100 ounces of silver per ton. This was not an isolated case. Documentation exists regarding two claims in the Union District (Empire) and one in the Lincoln District (Alice). However, in the rush to find gold, the silver "leads" didn't get the attention they should have until 1864 (Frost, 1880).

From 1860 to 1865 Empire was very prosperous, owing to the ease with which gold could be sluiced from decomposed quartz lodes, which could be treated in the same way as placer gravel (Henderson, 1926).

In September 1864, R.W. Steele, James Huff and Robert Layton started out in search of silver, which they expected to find in and around the range near the headwaters of the southwestern branches of Clear Creek. They discovered the Belmont silver lode in the East Argentine District that month. The primary importance of this event is that it "first awakened the public to a sense of importance and value of Clear Creek's argentiferous veins" (Frost, 1880).

## SILVER PLUME

Although prospecting and gulch mining were certain to have taken place in the valley about two miles west of Georgetown, it was not until 1870 that it became a full-fledged mining camp. Several mining companies existed there and about twenty men worked the Snowdrift, Silver Plume and other lodes. The Silver Plume



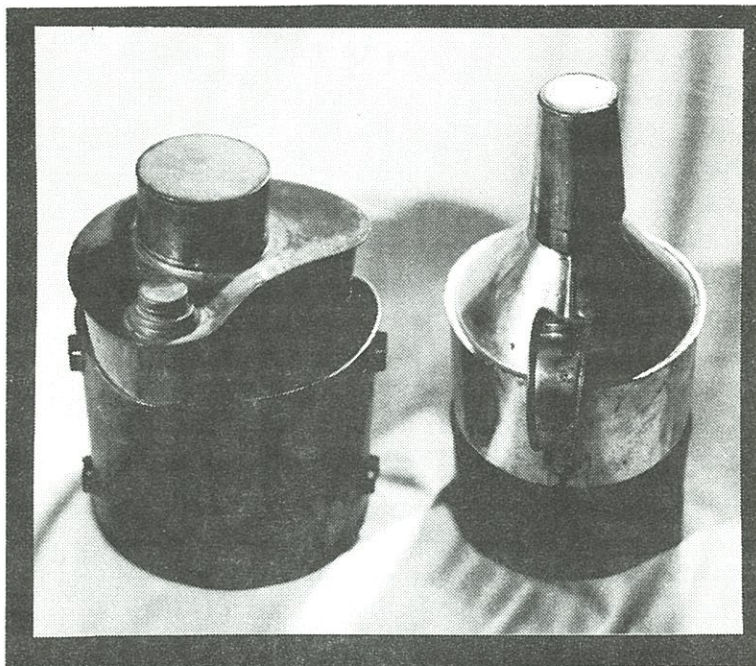
Mine, having been named for the white streaks of silver which appeared "plume-like" in the rocks, is probably the source of the town name.

Much of the early notoriety of Silver Plume stems from the story of Owen Feenan and the Pelican Mine, which he discovered during his off-hours while employed in another mine. Becoming dangerously ill and believing that he was going to die, he confided to two friends the location of his mine. For more than a year he hovered between life and death and when he finally recovered, it was only to learn that the mine had been opened in the spring of 1871 and that he had been completely left out of the transaction. Shortly after, it was found that the Pelican and the Dives had been working the very same silver vein, and of course each management thought the other had been stealing. This circumstance brought on many squabbles between the two mines. At one time there were more than twenty lawsuits and counted-suits pending between the two mining companies. Both mines were eventually purchased by W.A. Hammil, of Georgetown, and the Pelican-Dives came into being (Brown, 1968).



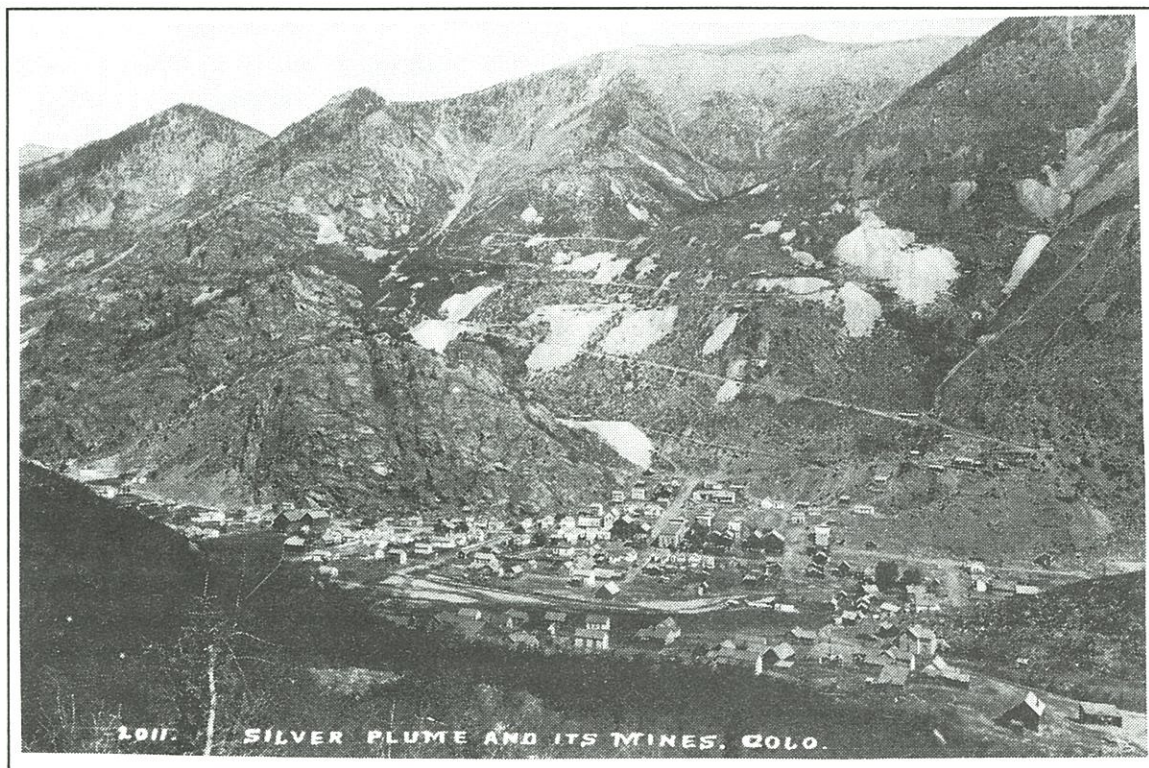
Samuel Nash was born January 10, 1842, in London, England, and immigrated to the United States in 1843 with his parents. They spent a short time in Morris, Illinois, before moving on to Chicago in 1860. It was here that Sam enlisted in the Illinois Volunteers and served until 1864. He arrived in Georgetown in 1867, where he was a tinsmith living at 206 Rose Street at least as early as 1871. He and his wife Alice had three children, two of whom survived to early adulthood: Edward S. born in 1881 and Clyde H. born in 1883. Nash was known to have made excellent tinware and copperware, but for the mining collector he was most famous for his wire candlestick. We can conjecture that after repairing numerous sticks and seeing the need for a rather inexpensively made model, he designed the wire stick that was finally patented on June 2, 1896, patent No. 561,428. (See Wilson/Bobrink, 1984, p. 52, No. 86.) At one point his candlesticks were wholesaling for 10 cents apiece. In 1892 Samuel Nash's advertisement indicated he was a plumber, a tin, sheet iron and copper worker, and a dealer in stoves, tinware, hardware and cutlery. Some of his tinware patterns, as well as tinsmithing equipment, can still be found in Georgetown. A lunch box and a powder tin in the collection of Leo Stambaugh in Georgetown are gangstamped "S. Nash." Sons Clyde Nash died in 1917 and Edward in 1919; By this time Sam was 77 years

old. Since he was not listed in the Colorado Business Directory after 1919, we assume he closed his business and retired. Samuel Nash died September 18, 1927, and is buried in Georgetown (U.S. Census 1880, 1900 and 1910, Obituary 1927).



Shown above are two examples of the tinware of Samuel Nash. On the left is a lunch bucket stamped "Nash" and on the right is a powder carrier stamped "S. Nash."

Shown below is an original photograph of the town of Silver Plume dated 1889. (Ted Bobrink collection)





## LAWSON AND DUMONT

Mill City was first inhabited by some Californians who pitched their tents in the area in 1859. As mines were discovered, cabins were built, along with several stamp mills and smelting furnaces; the community became a smelter and milling center. Unfortunately the mines didn't live up to expectations and although mining continued, the small city didn't prosper. John M. Dumont eventually became the owner of several of the big mines--the Whale, the Freeland, the Lincoln and others. Around 1880, he made every effort to revive Mill City, but only succeeded in causing Mill City to be renamed Dumont (Eberhart, 1959).

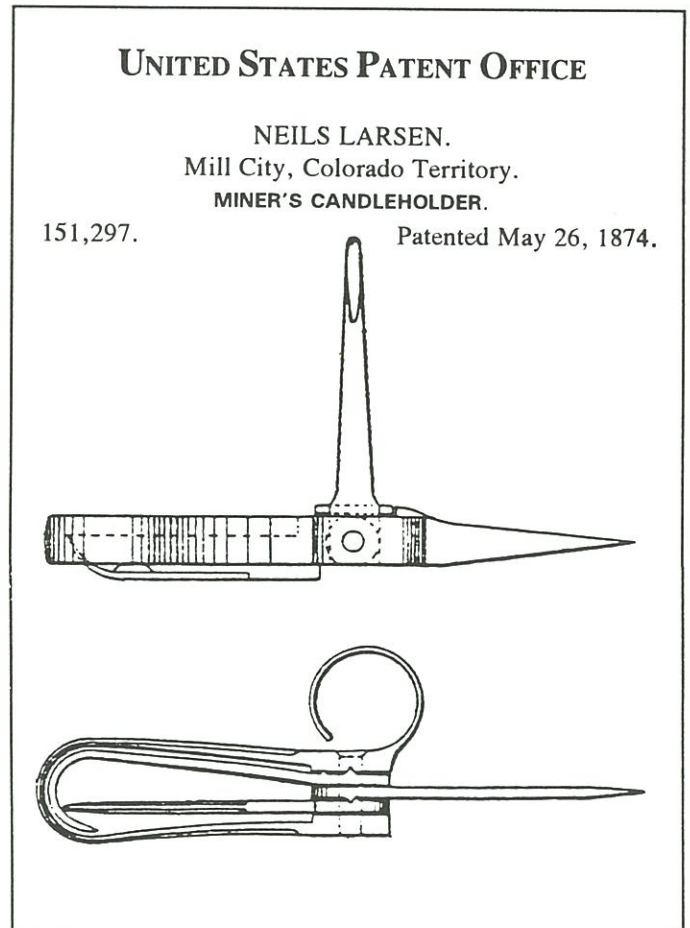
In 1872, Alexander Lawson built a new inn six miles downstream from Georgetown and called it the Six Mile House. Lawson ran the inn, owned a freighting business serving Central City, Black Hawk, Leadville and Georgetown, and operated a stage-coach line between Georgetown and Silver Plume. New mines were discovered in 1876, causing an influx to the area; the resulting town was named Lawson. The workings on Red Elephant Hill and at Silver Creek in the eighties increased the population to 500, including development of a reduction works, four stores, a school and a post office (Wolle, 1949).

Other mining towns such as Silver City (Alice), Freeland, Lamartine, Red Elephant, Swansea, Growville, Mexico, Ocean Wave, Soda City, Mad Creek, and Chinn's Town have long since disappeared. Only a few homes and service stations still mark the existence of Lawson, Dumont, and Downieville.

## EARLY ENTREPRENEURS

On the heels of the miners came merchants, doctors, lawyers, newspapermen and others, all anxious to make a living providing the needs of these "soon to be prosperous" miners and mine owners. Because of the remoteness of these new mining communities, those who were imaginative and innovative were quick to realize particular needs, whether large or small. Although much of the larger mining machinery would come from businesses in Denver and the fast-growing Central City, many mining inventions would come from local blacksmiths, tinsmiths and miners who were able to bring their ideas to fruition.

One of the earliest to patent a new mining idea in Clear Creek County was Neils Larsen. He was born in April of 1841 in Copenhagen, Denmark, where he learned the blacksmith's trade. In 1864 he arrived in the United States and spent a year in Michigan working at the machine-shops in Grand Rapids. He then came to Golden, Colorado, and from there went to Central City for a short time. He tried his hand at prospecting at Mill City (Dumont), where he developed his idea for a folding candlestick. The Larsen candlestick may be the earliest manufactured folding candlestick. (Further discussion on this possibility may be found in an article by Ted Bobrink in *MAC* #19 Summer 1993, p. 3.) His patent was No. 151,297 and was dated May 26, 1874 (Wilson, 1983 and Wilson/Bobrink, 1984). In May of 1878 he moved on to Leadville; there he became famous as the discoverer of the Highland Chief Mine and eventually became the operator of the Big Chief Mine (Frost, 1880).



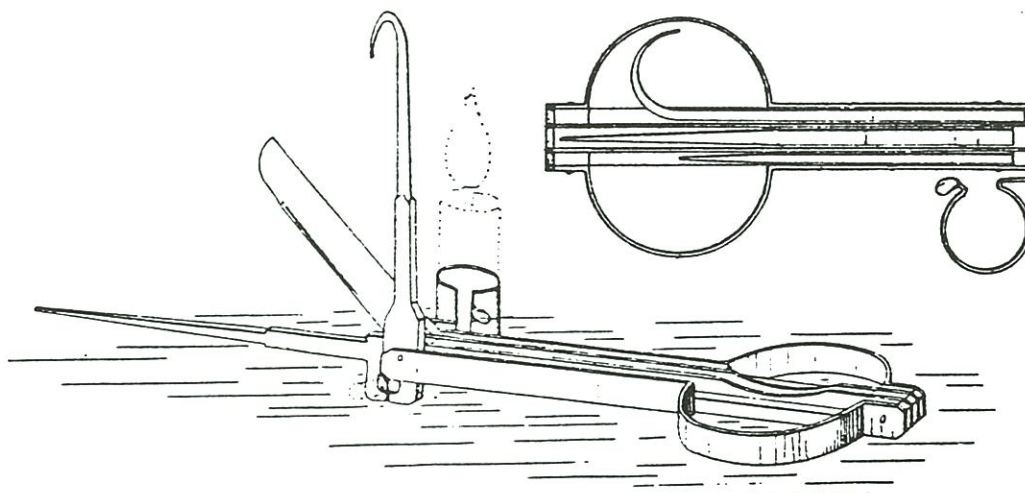
The original patent drawings for a Miner's Candlestick patented by Neils Larsen of Mill City, Colorado Territory, on May 26, 1874.



UNITED STATES PATENT OFFICE

CHARLES P. DESMOINEAUX  
Leadville, Colorado.

COMBINED MINER'S CANDLESTICK AND LOADING TOOL.  
264,636. Patented Sept. 19, 1882.



Silver Plume was the home of another inventor, Alfred Victor DesMoineaux. Donza, France, in 1828 was the birthplace of Alfred's father, Charles, who at an early age served in the French Navy. Upon being discharged, he sailed to Havana, Cuba, bought a supply of coffee, sugar, rum and tobacco and sold it in St. Louis, Missouri, at a profit. In Iowa, he met and married Sara Moorehausen and not long afterward they moved to Colorado. Charles ran a bakery in Central City and became involved in a number of mining ventures. It was here they raised their family, a daughter and five sons, including Alfred Victor, who was born in October of 1862. After living for a time in Black Hawk, the family moved to the Silver Plume area and by 1880 they lived in Brownville, where father Charles became the postmaster. (Located a short distance beyond Silver Plume, Brownville was buried under a massive mudslide in its early years and the original townsite is now under Interstate 70.) It was also during this time that son Charles P. ventured out to Leadville; while living there, he invented and patented a folding candlestick (see Wilson/Bohrink, 1984, p. 116). In 1883 Alfred

Shown above is the original patent drawings for a Combined Miner's Candlestick And Loading Tool patented on September 19, 1882, by Charles P. DesMoineaux of Leadville, Colorado.

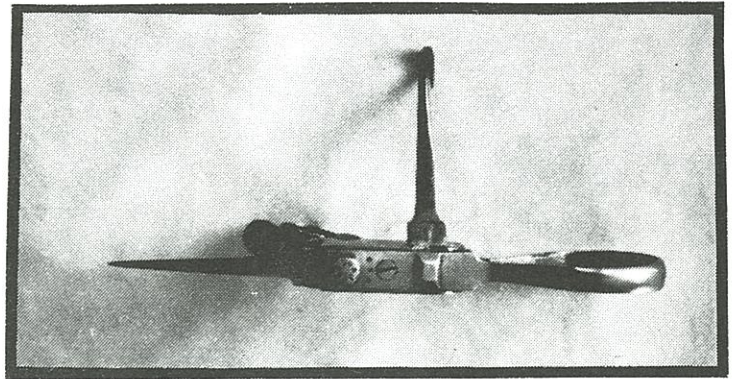
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Shown to the right is a close-up view of C.H. Garland's fancy "Lady's-leg" candlestick. The hook is threaded and inserts through a hole in the shaft and screws into place.

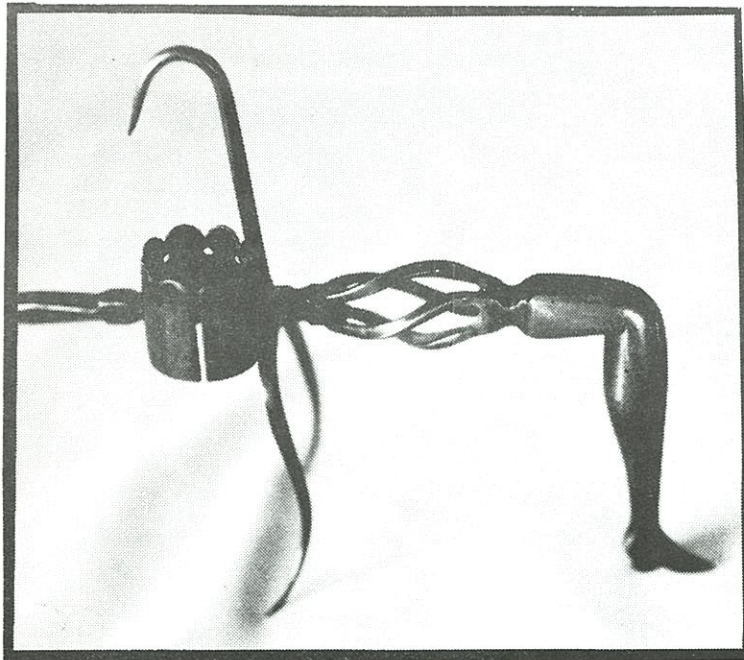
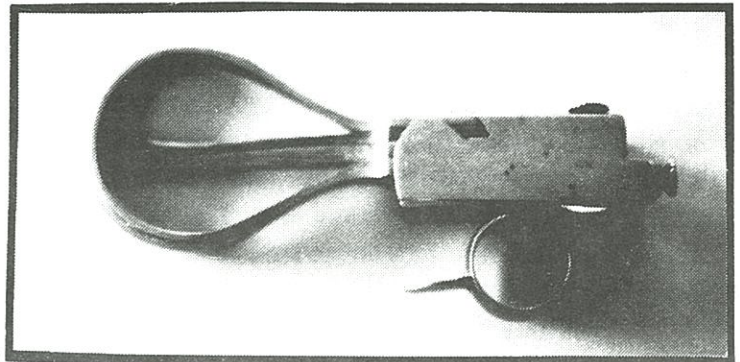
Victor, together with brother Frederick Leon, moved to Creede, where they became involved in the Solomon Mine. They were successful in their business ventures, at one time owning a hotel, a restaurant and several houses. It was also in Creede that Alfred Victor met and married his wife Helen. In 1899, word came from Silver Plume of a death in the family and they immediately packed up and moved back to Silver Plume. It was there in 1902 that Alfred Victor invented and patented his Miner's Safety Loading Tool (see *MAC* #7, p. 25). Alfred also became a friend of John Lindahl and often helped assemble Lindahl's famous matchesafe candlesticks (DesMoineaux, 1993).



Charles Henry Garland was born in Lands End, Cornwall, England, in March of 1842 and along with his wife Mary and three children immigrated to the United States in 1867. Around 1870 he moved to Central City and later to Silver Plume, where he gained a reputation as a top-notch blacksmith. The Garlands had ten children living with them in Silver Plum and additionally took in four boarders. One source indicates that Garland Street in Silver Plume was named for him. He made the folding combination-lock candlestick pictured here. These desirable collector candlesticks, which were never patented, were originally made around April 1, 1889, (the date stamped on the candlestick) and raffled off to local miners to help pay for fire equipment for the town of Silver Plume. Garland also plied his blacksmithing trade in Aspen before moving to the state of Idaho, where he died in 1926. One of his candlesticks and a set of his miniature mining tools are in the collections of the Idaho State Historical Museum in Boise. In addition to the combination-lock candlestick mentioned above, he also made a fancy lady's-leg candlestick with a removable hook (Garland, 1993).

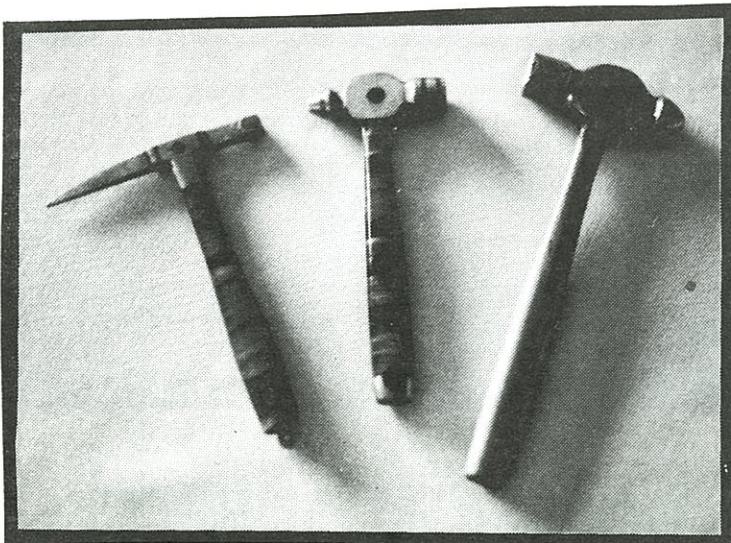


The top photo is of the C.H. Garland combination lock folding candlestick in the open position. The lower photo is of the C.H. Garland combination lock folding candlestick in the closed position. The folding candlestick shown here is one of four C.H. Garland combination lock folding candlesticks known at this time.



The honor of being the first Colorado-born manufacturer of mining machinery goes to John George Leyner, who according to some sources was the first white child to be born in Boulder County. The date was August 26, 1860. "Leyner as a youth had worked in Colorado mines, specifically at Silver Plume, where he studied the faults of hand operated drills under the old 'single' and 'double-jack' methods, also the failures of the first steam-operated drills to alleviate the dust danger to the miner. Leyner invented a compressed-air-driven hammer drill which rotated in the hole, thus speeding up the drilling process. Another improvement he added was the introduction of holes in the head of the





Shown above are the miniature tools of C.H. Garland. The hammer length is approximately 1 1/2 inches long.

drill so that a stream of water could be injected, and the dust allayed" (Mitick, 1947). He eventually built offices and shops in the Denver area and in 1904 his drills, compressors and hoisting equipment took prizes in the St. Louis World Exposition of 1904. An auto accident in 1921 resulted in his death and caused the interests of the company to be sold to Ingersoll-Rand (Mitick, 1947).

Anthony J. August was a miner living in Georgetown in 1871, having come from New York with his wife Mary and son Joseph around 1868. However, the 1880 United States Census indicates he was living in Lawson and dealing in grain and hay, so he must have decided that mining was not in his best interest. In 1888 he teamed up with Albert Vannatter and developed a cap crimper with fuse cutter which was patented on January 17, 1888, (patent No. 376,493). According to the Census, neither he nor Vannatter was in Clear Creek County in 1900.

These are but a few of the men across the United States who developed their ideas in an effort to make a little extra money to support their families and at the same time make the miner's job a little easier. We as collectors know of the tools they made, but perhaps these stories will help us appreciate the people themselves and the contributions they made to the mining industry in the United States.

## ACKNOWLEDGMENTS

Special thanks to Leo Stambaugh, who not only furnished items from his personal collection for photographs, but also assisted with research and supplied much information regarding some of the families.

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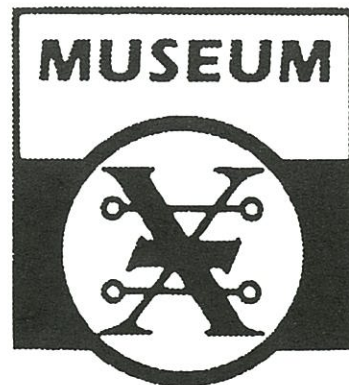
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# THE ARIZONA HISTORICAL SOCIETY

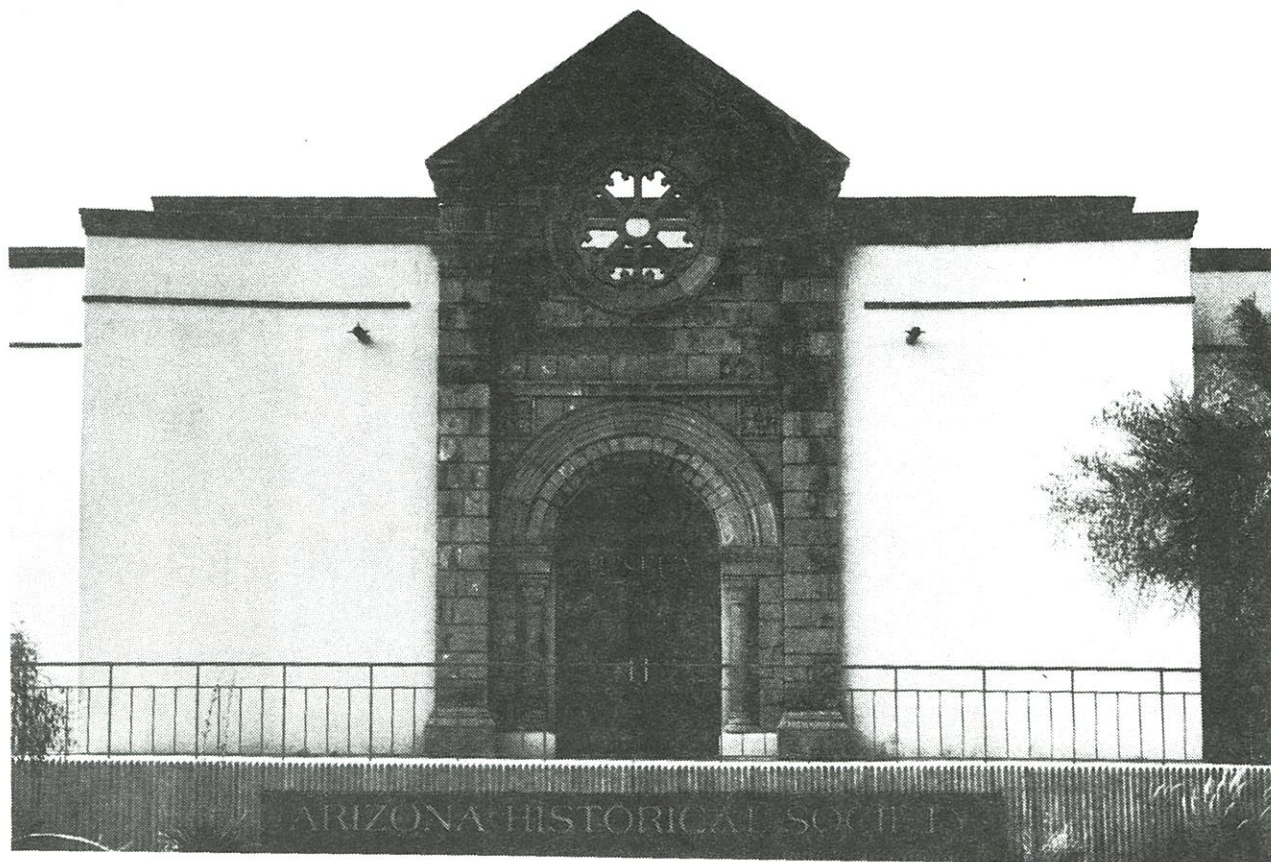
## MUSEUM, TUCSON

by **Wendell E. Wilson**  
Tucson, Arizona



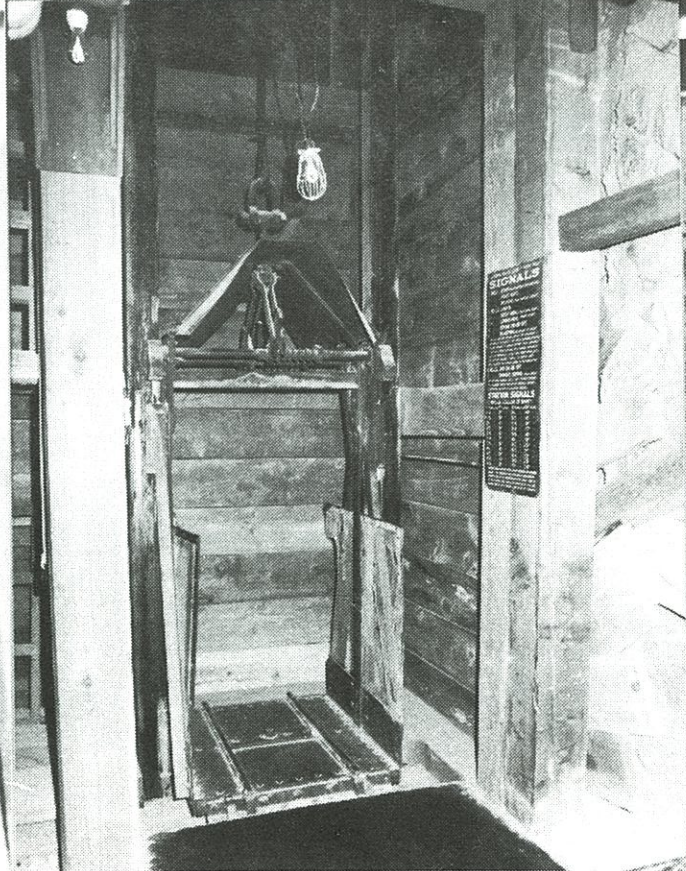
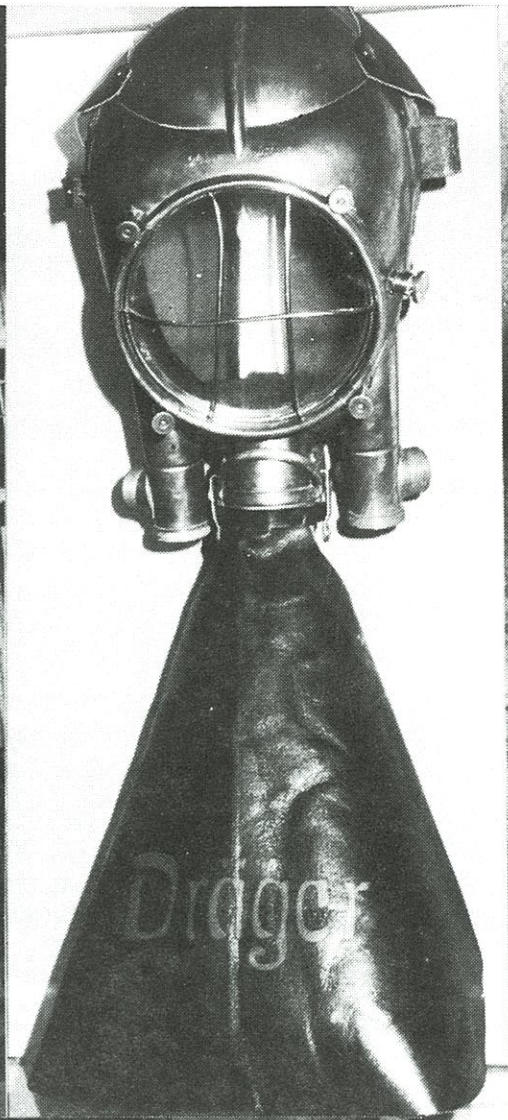
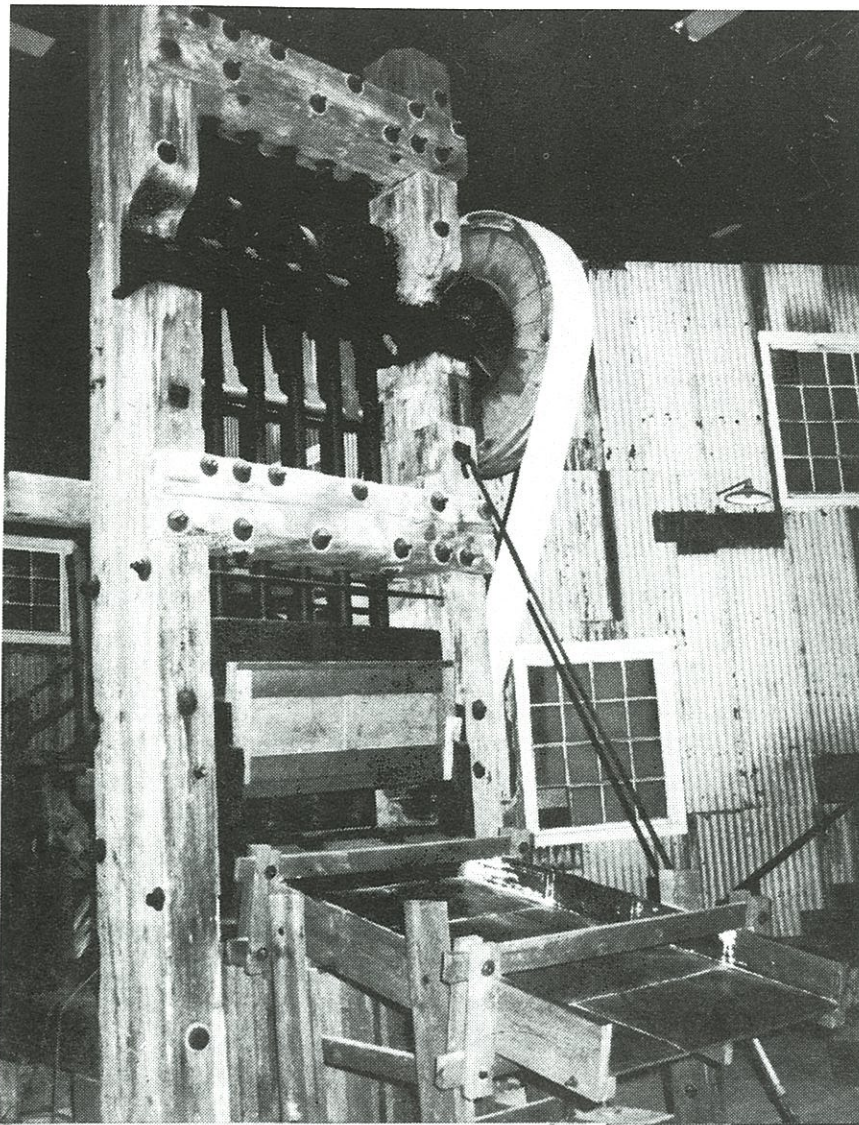
The Arizona Historical Society was founded in 1884 to begin the task of recording and preserving Arizona's rich historical heritage. A significant part of that heritage involves the history of mining in Arizona, from the Spanish Conquistadors to the modern underground and open-pit mining operations of the 20th century. Consequently, the Society's museum has devoted a significant portion of its space to mining artifacts and exhibits about mining in early Arizona.

The "Arizona Mining Hall," as that portion of the museum is called, was dedicated in 1979, thanks to corporate donations from Arizona's most prominent mining companies. It includes a full-scale, 85-foot underground mine tunnel, complete with timbers, track, ore cars and stopes being worked by mannequins in period dress. At one end of the tunnel is a miner's cage (elevator) and shaft station, complete with mine bell signal sign. Even the rock and dust on the floor is surely authentic; I

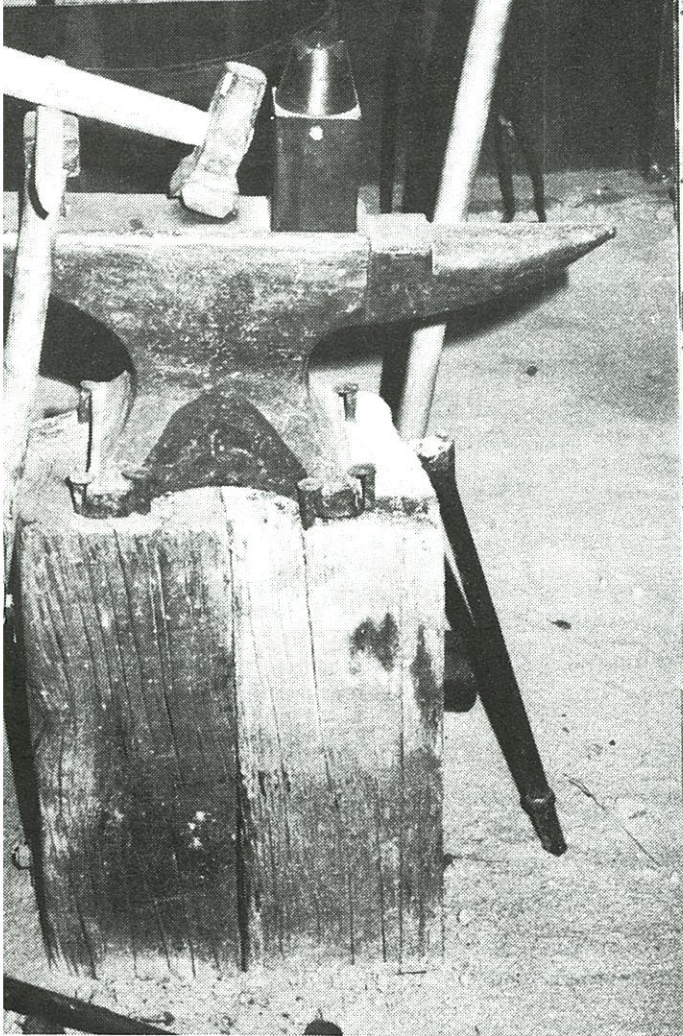
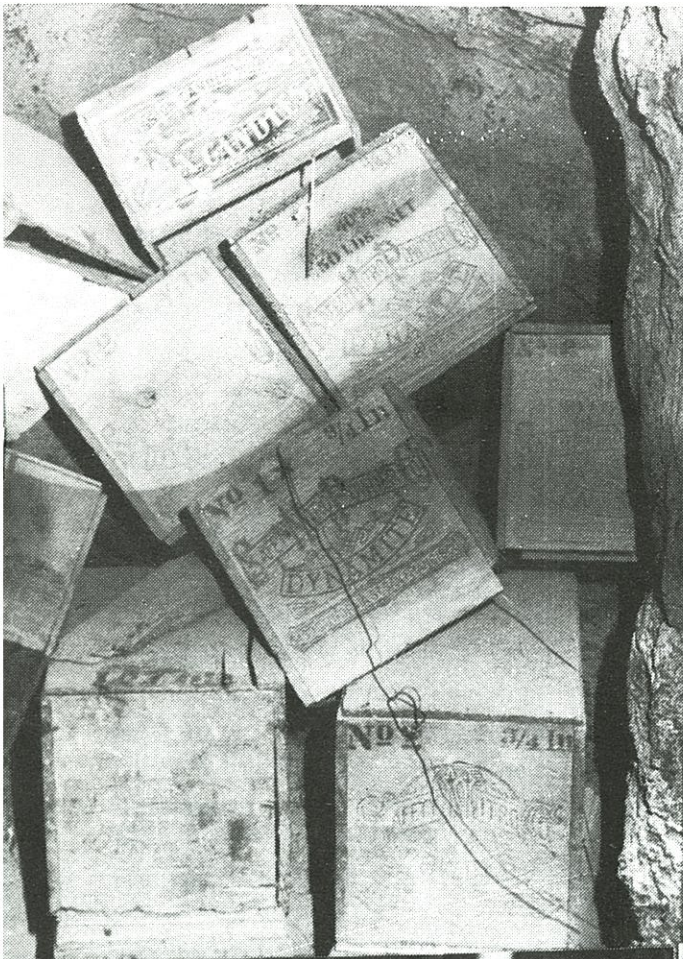


The Arizona Historical Society Museum. The entrance structure was salvaged from an early Arizona church.









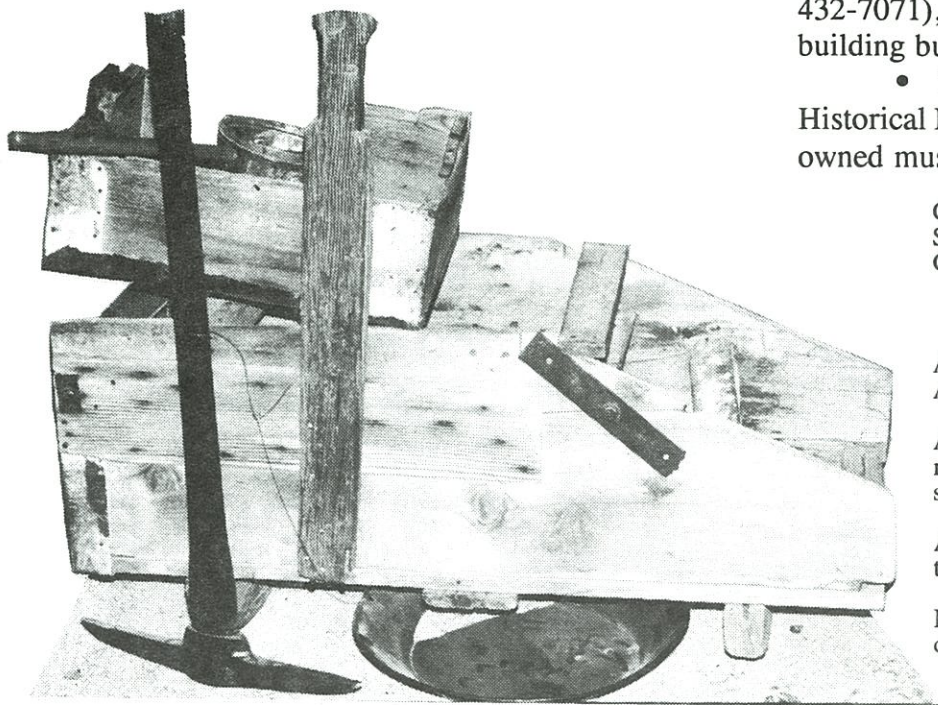


remember when this exhibit first opened, it even *smelled* like a mine, although that effect has diminished over the years. Odd little corners and dark recesses in the tunnel contain typical refuse (e.g. empty powder and candle boxes) piled carelessly just as the old miners would have done.

In addition to the tunnel there is a fully equipped assayer's office, a mine blacksmith shop, a miner's tent stocked with memorabilia, and (remarkably) a full-size five-stamp mill, crusher and Wilfley gold concentrator.

Among the most interesting old lighting devices in the museum's collection is a fancy miner's candlestick, a one-of-a-kind blacksmith model with a heart-shaped thumb lever and the initials (E.F.H.) of its owner. This piece is not in the Arizona Mining Hall, but out in the area devoted to general early Arizona history, where there is a case or two on mining as well.

Surveying instruments, a large brass bullion scale, a Dräger mine rescue mask, and a wide range of other items (e.g. gambling equipment) used by miners are complemented by an interesting array of old photos.



A 'rocker' used by placer miners; it could process a larger volume of stream gravel than the traditional gold pan, although the pan was usually used to make the final separation from the heavy concentrate produced by the rocker.

The Arizona Historical Society Museum is located near the University of Arizona campus at 949 E. Second Street in Tucson (phone 602-628-5774). Museum hours are 10-4 Monday through Saturday and 12-4 on Sunday. Admission is \$3. The society's historical library and a gift shop (with fake candlesticks usually on sale) are also in the museum building.

Readers may be interested to know that, although rather sparsely populated relative to some other states, Arizona is home to more than 175 museums of various sorts. Many of these museums also have mining artifacts in their collections. Examples include:

- The Jerome Historical Society Mine Museum, corner of Main and Jerome Streets, Jerome, AZ (602-634-5477).
- The Gold King Mine and Museum, located one mile northwest of Jerome on the Perkinsville Road (no phone).
- The Arizona Mineral Museum on the grounds of the State Capital in Phoenix. (602-255-3791)
- The Bisbee Mining and Historical Museum, 5 Copper Queen Plaza, Bisbee (602-432-7071), in the former Phelps Dodge office building built in 1897.
- The Tombstone Courthouse State Historical Park and several other small, privately owned museums in Tombstone.

CAPTIONS FOR THE ILLUSTRATIONS SHOWN FROM LEFT TO RIGHT IN THE CENTERFOLD.

#### TOP ROW

A full-size five-stamp mill salvaged from an old Arizona mine.

A Dräger mine rescue outfit, designed to allow miners to breathe for a short time in bad air situations while carrying out rescue operations.

An assortment of candle and powder boxes tossed carelessly in an alcove.

Miners (mannequins) operating a jack-leg drill; charges and fuses are set in the working face.

#### BOTTOM ROW

A view down part of the recreated mine tunnel; the elevator is to the rear, and stopes are developed off to the right.

Mine elevator and mine bell sign.

Anvil and tools in the reconstructed mine blacksmith shop.

Assayer's oven and cupelling equipment.



# THE PATENTED OIL WICK LAMP OF E.K. ROLLINS

by Tony Moon  
Sandy, Utah

Who is E.K. Rollins? His name does not appear on any oil wick lamps and yet he patented one of the more practical oil wick lamps that, judging from the number found today, must have been quite popular as it was made by a number of manufacturers in Pennsylvania.

On June 12, 1883 a patent was granted to Edward K. Rollins of Scranton, Pennsylvania, for a miner's lamp as shown in the patent illustration shown in Figure 1. The patent was assigned to Hunt Brothers and Company (Limited) of Scranton. The essential feature of the patent is the one piece cylindrical body and spout with soldered seams only at the top of the spout and at the back of the cylinder. This eliminated the soldered seam normally found between the spout and the lamp body. The patent logically claimed that the lamp would not leak oil as readily as lamps with conventional

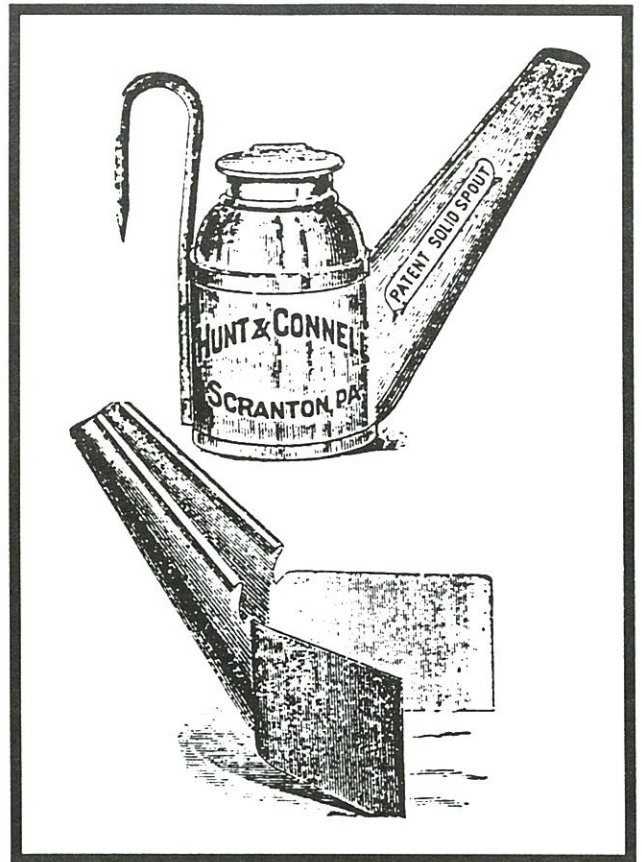
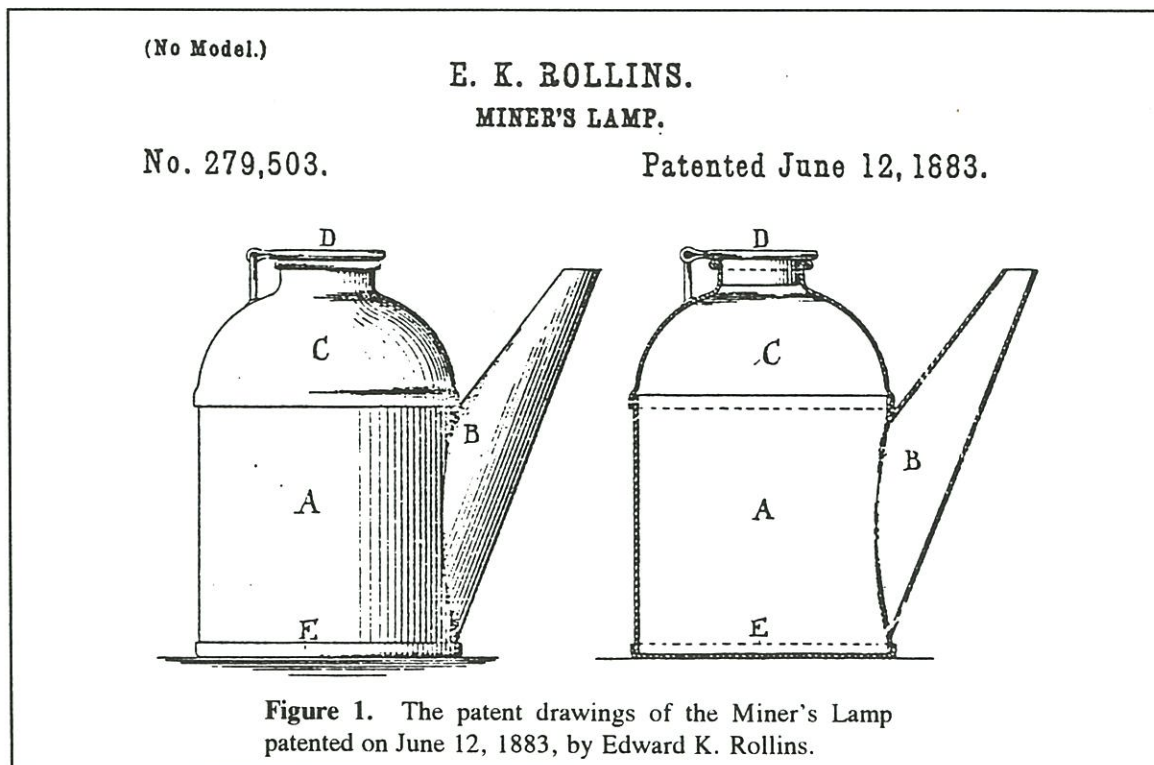


Figure 2. The solid spout miner's lamp as illustrated in *The Engineering and Mining Journal*.





construction. Excessive heat would sometimes melt the spout/body seam in conventional lamps and many of us have seen well used oil wicks with this problem.

The lamp was given publicity in the July 31, 1886 edition of *The Engineering and Mining Journal*, one of the very few articles on oil wick lamps in this publication. The *E & MJ* illustration is shown in Figure 2 and, as can be seen, the lamp was now made by Hunt & Connell of Scranton.

The author has six examples of this lamp in his collection and these are shown in Figures 3, 4, and 5. The lamps in Figures 3 and 4 are essentially identical except for the maker's markings and the hook details. The lamps in Figure 5 were both made by Trethaway and have



**Figure 5.** Oil wick lamps made by Trethaway Brothers of Parsons, Pennsylvania. The lamp on the left is marked Alex E. Hunt, while the lamp on the right with the unusual flat hook is marked Trethaway Bros.

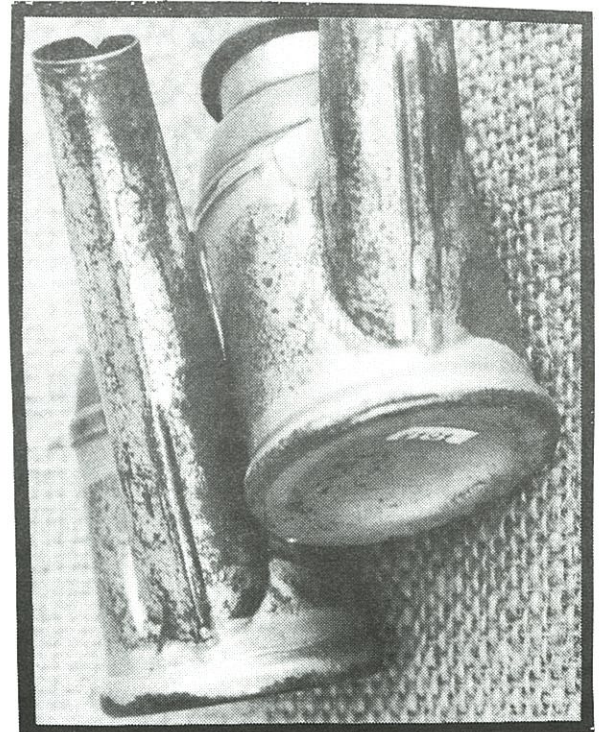


**Figure 3.** Oil wick lamps by Hunt & Connell (left) and Quinn & Murray (right) both of Scranton.



**Figure 4.** Oil Wick Lamps made by Alex E. Hunt of Scranton. Note the unusual double and flat hooks.

the characteristic hollow, curved base. Both of these lamps have an unusual reinforcing rib at the base of the spout as shown in Figure 6. All the lamps are tin except for the upper curved portion of the body which is brass. The markings on the various lamps are shown in Figure 7.



**Figure 6.** Details of the lamps by Trethaway showing the reinforcing rib at the base of the spout.



HUNT & CONNELL  
PAT'D  
JUNE 12  
1883 PA.  
SCRANTON, PA.

QUINN & MURRAY  
MAKERS  
SCRANTON PA.

ALEX E. HUNT  
SCRANTON, PA.

TRETHAWAY  
BROS.  
PARSONS, PA.

Figure 7. The markings on the solid spout oil wick lamps. Alex E. Hunt marking has two lettering styles, one roman and the other straight letters.

## THE BUCKEYE CARBIDE

### AREA LAMP

by Errol Christman  
Cedar Ridge, California

I recently got a large area carbide lamp that I did not have before. The lamp is called "The Buckeye" and is painted black with yellow letters. I was also able to get an advertisement insert flyer for this brand of lamp. The flyer is 9 inches high by 8 inches wide and a portion of it is shown to the right.

PRICE, Each \$7.50

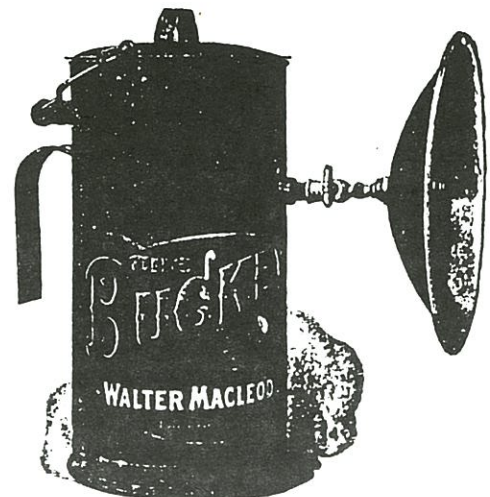
Throws a strong, white light, and is indispensable around mines

Weight, 10 lbs.

Size,  
6x12 inches

Carbide  
Charge, 2 lbs.

PRICE  
Each .. \$15



"BUILDER" PATTERN



# GEORGE GRAHAM RICE: PIRATE OF PROMOTION

by **Brian Levine**  
Victor, Colorado

Strange thing happened the other day. I stumbled onto a mystery. One surrounding a notorious confidence man. His name--George Graham Rice. An expert ad writer. A charismatic speaker. A "sharper" of the highest caliber when it came to gold and silver mines. But most of all, a brilliant pirate of promotion.

His life up until 1936 was well documented. News items about or by him appeared in the *New York Times* regularly. Also in the *Goldfield News and Weekly Tribune*. As well as *The Mining Investor*, *Mining & Metallurgy*, and *The Engineering and Mining Journal*. That's because Rice's activities were constantly newsmakers. That is, every activity except his death.

For over 30 years, Rice made news from San Francisco to New York. His promotional schemes were the rage of the stock markets--literally. His defiance of powers greater than he legendary. The millions he made and lost astounding. And the court battles--too many to list. But his death, well, that's a complete mystery.

Rice was born in New York in 1871, and given the name Jacob Simon Herzig. He first made news in 1890, when at age 19, he was convicted of larceny and sent to the Elmira reformatory for two years. Rice learned a lot at Elmira. Enough to get himself convicted of forgery in 1893, and sent to Sing Sing for a six year term.

He was released in 1897, and after that changed his name to George Graham Rice.

Under the corporate name of Maxim & Gay, Rice started a tipping service on horse racing. His ingenious schemes and seductive advertising netted his company \$1.5 million in its first two years. Problem was, he was a sucker for his own illusions. Rice spent his income just as fast as it came in.

He spent it mostly on gambling. And on clothes. Fashionable suits he often changed up to four times in a single day. And he spent it on advertising, and promoting his own schemes.



GEORGE GRAHAM RICE

And on disposable luxuries. And in other flamboyant ways that made him generally innocuous to those who disliked him.

But "dislike" is a mild word. His critics detested him. And he knew it. So, Rice went out of his way to step on their toes. Especially those enemies who had more power and money than he. What a fatal flaw. But it made him news.

Look at George Graham Rice in Goldfield, Nevada. He moved there in 1904, after the U.S. Postal Service initiated a relentless investigation of Maxim & Gay for mail fraud. The investigation bankrupted Rice and his company. So, with less than \$150 in his pocket, Rice left New York and horse racing to get involved in gold mining. Once in Nevada, he opened the Goldfield-Tonopah Advertising Agency. By the summer of 1905, Rice was \$65,000 richer.





How did he do it? With "news" he wrote himself. Enthusiastic stories about the mines of Goldfield and Tonopah. Tales of astonishing riches and the ease with which they were had. Tales that not only graced the headlines of every Nevada newspaper, but those in California, Colorado, and Utah, too. These stories drew in investment capital from the eager public who were just waiting to be "trimmed." Investment capital purported to be used for developing the newly discovered goldfields of central and southern Nevada. Capital that generally went into Rice's pocket. And then to the faro table in "Larry" Sullivan's Palace Club.

Now, "Larry" Sullivan--he's a character worth mentioning here. Sullivan liked Rice. And for good reason: Rice spent a lot of money in his saloon. But Sullivan also liked the way Rice so easily came up with cash. They teamed up on a Manhattan, Nevada, property in 1905--the Jumping Jack Mine--and within weeks made \$250,000. Such gambling was definitely more lucrative than faro tables. Besides, the way Sullivan saw it, there was no gambling with Rice's promotions. They were always slanted

toward his wallet. So, the firm of L.M. Sullivan Trust Company was established, and Rice was once again in the news.

Soon, the Sullivan Trust was promoting mines in Goldfield, Bullfrog, and Manhattan, Nevada, as well as properties in Greenwater, California. The Company's payroll quickly grew to \$50,000 a month. And, oddly enough, seven of the Trust's mines actively produced gold.

All looked prosperous for the Sullivan Trust in 1906. Only, Rice, feeling somewhat heady, started knifing the Goldfield power structure. Thumbing his nose at Nevada Senator George S. Nixon and wealthy mine owner George Wingfield. Not a smart thing to do, considering Nixon's powerful connections in Washington, D.C.

Of course, Nixon and Wingfield rebelled. In January 1907, due to legal and financial pressure levied by Nixon and Wingfield, the Sullivan Trust collapsed. Rice and his partners lost millions. However, they made exquisite headlines all over the country. Failure of the Sullivan Trust, atop a prolonged labor strike, sent the Goldfield stock market into a tailspin, one from which it never fully recovered.



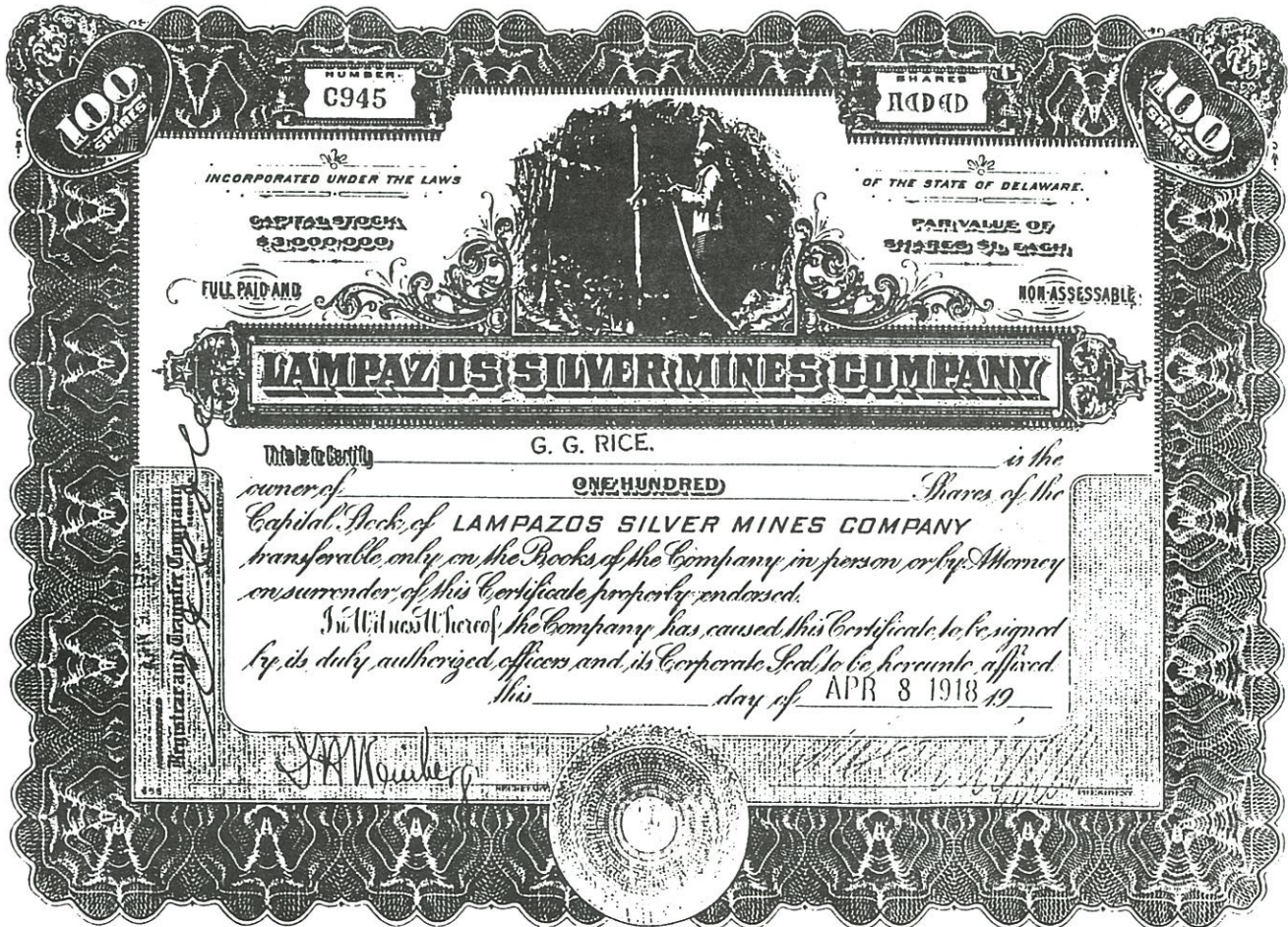
Once again, Rice left his failure just ahead of authorities. He was seen in New York for a time. But it wasn't long before he returned to Nevada--Wonder, Nevada. To promote the Rich Gulch Wonder Mining Company. This property, however, turned out to be a miserable failure even for Rice. So, Rice moved on to Reno where he financed the *Nevada Mining News*.

This publication renewed his tirade against Nixon and Wingfield, targeted not only their mining, but also their banking operations in Goldfield. And, once again, Nixon used his influence to crush Rice. Right after the sudden demise of the *Nevada Mining News* (August 1907), Rice was off to Mexico. Tidy exit. But not the healthiest place to go at the time.

There was a hasty return to Nevada at the beginning of 1908. This time, Rice set up a partnership with noted comedian, Nat C. Goodwin. Together, they ran Nat C. Goodwin and Company and B.H. Scheftels and Company. They promoted the Rawhide Coalition Mines in Rawhide, Nevada, as well as managed the *Mining Financial News*. Money began to flow again. In fact, Rice generated millions of dollars with this starlit partnership. So, it was long before the U.S. Postal Service noticed Rice and revived its investigation of his operations.

What really got him in trouble, though, and made him red-line news was his management of the Jumbo Mining Company of Goldfield. This company owned the Dick Bland, Gold Wedge, Paloverde, and Vinegarroon claims. They were moderate producers, but the Paloverde and Vinegarroon sat right in the middle of Senator Nixon's and George Wingfield's plan for the enormous Goldfield Consolidated Mines Company. And Rice wasn't about to let them have those claims for nothing. Nixon, quite tired of Rice, employed some of his most vindictive muckrakers to shut down Nat C. Goodwin and Company. After all, there was a \$50 million consolidation at stake. And two fractional claims weren't going to stop Nixon and Wingfield.

Suddenly, all sorts of indictments from the U.S. Postal Service rained down on George Graham Rice. He was imprisoned and his operations bankrupt. While awaiting trial, Rice wrote a memoir called, *My Adventures With Your Money*, which implicated Nixon, Wingfield, the Guggenheims, John Hays Hammond, Charles M. Schweb, and a host of others in all kinds of stock scandals. The publication didn't stop Rice from serving a year at Blackwell's Island (1912).







Shares \$1.00 each.

NON-ASSESSABLE

**RICE  
OIL  
COMPANY**

**Capital Stock \$5,000,000;**

And another prison term after that didn't stop Rice from working up any more stock promotion schemes. Several years after his release, Rice was in Jerome, Arizona, promoting the Monster Chief Mining Company (1916). Then, he was in Salt Creek, Wyoming, pushing the Rice Oil Company (1918). And, in Broken Hills, Nevada, touting the Lampazos Silver Mines Company (1918).

In July 1918, more indictments for larceny and mail fraud were filed on him. In February 1919, Rice filed bankruptcy. On January 31, 1920, more larceny charges were filed against him in New York. The federal government estimated that between the years 1916 and 1918 at least \$35 million had passed through Rice's hands. But where was it?

Rice was convicted of larceny in 1920, but he didn't serve any prison time. That same year, he was in Salt Lake City, Utah, promoting his Bingham-Galena Mining Company. In 1921, he was in Rocky Bar, Elmore County, Idaho, making news with his Idaho Gold Corporation. And that's how it went for Rice throughout most of his career. Promotions. Millions. Indictments. Convictions. Prison terms. Bankruptcies. Back to promotions--and the cycle started again.

Atlanta Penitentiary had Rice in 1930. While serving time there, the federal government tried him for tax evasion. He beat these charges while acting as his own attorney. Released from Atlanta in 1933, he was once again off to Reno to promote the Halifax Mine of California, and Buckskin National of Humboldt County, Nevada.

IN 1934, Rice made news with *The Financial Watchtower*. Federal authorities watched Rice carefully for months. Watched his promotions in the *Watchtower*. Watched his operations in connection with the International Silver and Gold Corporation. They worked quietly, patiently, and shrewdly this time because they wanted to put Rice away forever.

November 1936: federal authorities froze all of Rice's operations. Rice was charged with fraud and several violations of his probation. It was the last time Rice would make the news.

Rice suddenly disappeared.

His name no longer appeared in the *New York Times*. No longer appeared in connection with any mining promotions. No longer appeared on mining newspaper mastheads, nor on stock certificates. George Graham Rice was gone.

In August 1939, *Mining & Metallurgy* mentioned briefly that Rice had been reported as running a cabaret in Milwaukee. Even this report was considered questionable. But it was all anyone could ever surface on Rice after 1936. There were no more indictments. No more trials. Not even a death record. A wild chapter in Western American mining history had abruptly ended. Its main character vanished from the page without resolution.

"What is the lesson of my experience--the big broad lesson for the American citizen?" Rice wrote in *My Adventures with your money*. "This is it. Don't speculate in Wall Street. You haven't got a chance. The cards are stacked by the big fellows and you can only win when they allow you to."

Once again, the call goes out for any information on George Graham Rice. What happened to him after 1936? Where did he go? Did he ever get back into stock promotions? Did he leave a family behind him, or a fortune? And most important, where and when did he die?

If you have any documented information about George Graham Rice, please contact the author at: Syzygy Gold Mining Co., P.O. Box 465, Victor, CO 80860-0465, or through the editors of the *MAC*.



# A TIMBER SPLITTER ???

by John Kynor  
Albuquerque, New Mexico

There is a trite saying about something like this, "necessity is the mother of invention." Well, I believe with the devices described in this article the saying is very true. First, let me say that this tool may never have been used to produce a timber used for a mine support, but who knows if some miner, somewhere, didn't give it a try. If he did I'm sure that he gave up after several attempts.

I obtained several examples of the "explosive ax" about twenty years ago, one was obviously home made, the other, a commercial variety. However, I could not determine the name of the manufacturer of the device. I was not totally sure the person who sold me the devices was correct as to what they were, as I could not locate any data on them.

Then, one Saturday A.M., as I sat in my den nursing a cup of coffee trying to forget the night before, the TV program my young children were watching caught my attention. The program? Lassie, and ol' Ranger Bill was showing the local ranchers how logs could be split with this NEW device he'd discovered. As I watched, ol' Ranger Bill produced a chunk of pipe that looked like a piece of junk I'd had laying about for years. At least now I knew the ax was for sure an ax. The Lassie program, a rerun, was circa 1955.

## THE EXPLODING WEDGE

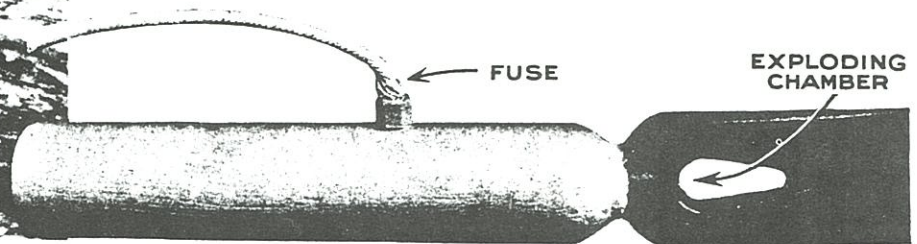
*A simple device, but a most useful one, for those who have logs to split and no inclination to waste time in back-breaking labor*



IN almost every section of the United States and Canada are found many varieties of timber, such as cottonwood, elm, gum, water poplar and the like—woods so tough in texture that it is almost impossible to split them with ordinary hand tools. On this account many farmers have considered them as practically worthless. The labor involved in splitting the logs was said to be out of all proportion to their value when reduced to merchant-

able form, and so this wood was allowed to rot on the ground.

Now, this timber can be quickly made into firewood, fence-posts, mine-props or pulpwood, at a good profit. Small charges of black powder are loaded into a device called the "exploding wedge," which is driven into the butt of a log as illustrated. The fuse is lighted, and shortly thereafter . . . Bang! The log is split. It is as simple as that. This device, for which a patent is pending, is a product of the Hutchinson Manufacturing Company, located at 7721-23 Susquehanna Street, Pittsburgh, Pa.





With this data I made some more inquiries and learned the ax was in fact known to some folks I knew. I received information from friends in Canada and Arizona who had these devices and had used them. They both said "they work, but. . ." And this brings me back to why the miner may have given the ax up after a couple of tries. Sure the timber is split, but one then has to chase the "explosive ax (wedge)" down after its lengthy flight through the air, assuming you paid attention to its flight path.

After receiving this data I thought to myself, this is an interesting piece of hardware of fairly recent invention. I placed the ax into the pile of other junk gathering dust in the collection room. The ax has been unmolested for almost 20 years now. But. . ., on a recent trip to Bisbee, Arizona, for a little R & R, I was rooting through a book store when I came onto a DuPont magazine. When I looked through the small magazine for articles on explosives what jumped out was an article titled, "The Explosive Wedge." Needless to say the magazine was

returned to Albuquerque with me, and I learned that the ax in the collection also was manufactured by Hutchinson. What was of interest to me was that the article was dated 1932. A copy of the article from the DuPont magazine is shown here.

Now I'm beginning to wonder just how long these devices have been around. Does anyone know?

Yep! Necessity is the mother of INVENTION.

Data was obtained from the following sources:

"The Exploding Wedge," The DuPont Magazine, Vol. XXVI, February, 1932.

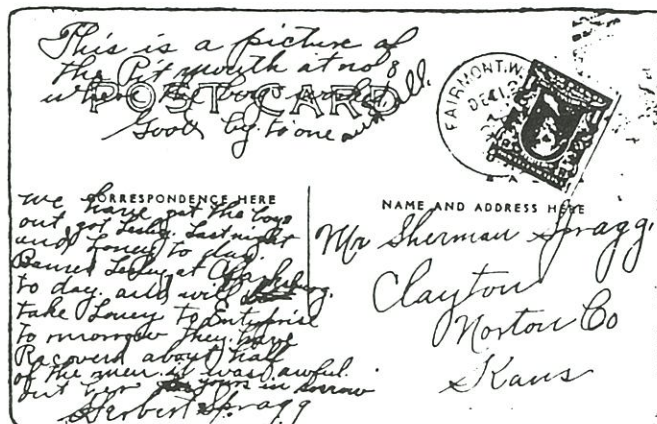
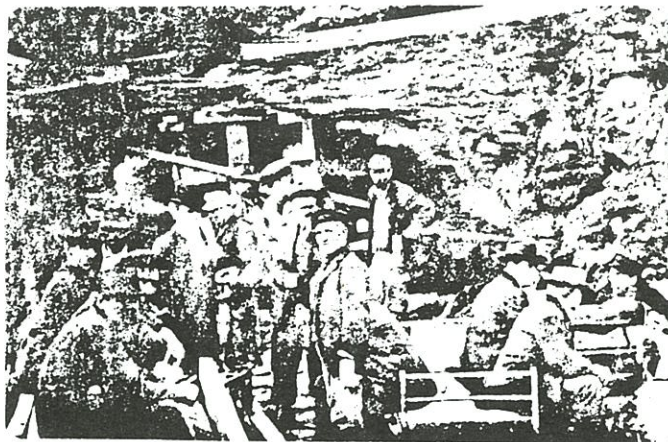
"Legal Pipe Bomb????," The Detonator, IABTI, Vol. II #3, May 1984.

"Log Splitting," Explosives for North American Engineers, by Cedric E. Gregory.

## AMERICA'S WORST MINE DISASTER

by Ted Bobrink  
Redlands, California

In the last issue of the *MAC*, (Number 20 Fall 1993) the first article on page 4 was titled, "A Postcard Full Of Sorrow." In that article I showed you a post card that I owned that depicted what I believed to be a mine accident of some kind at a coal mine near Fairmont, West Virginia. The writing on the back side of the card was informing a friend or relative that two men had been killed in a mine accident and had been taken out of the mine and were going to be buried. The only information as to the location of that accident was that the picture was taken at the mouth of pit # 8, and that the card was mailed on December 12 from Fairmont, West Virginia.



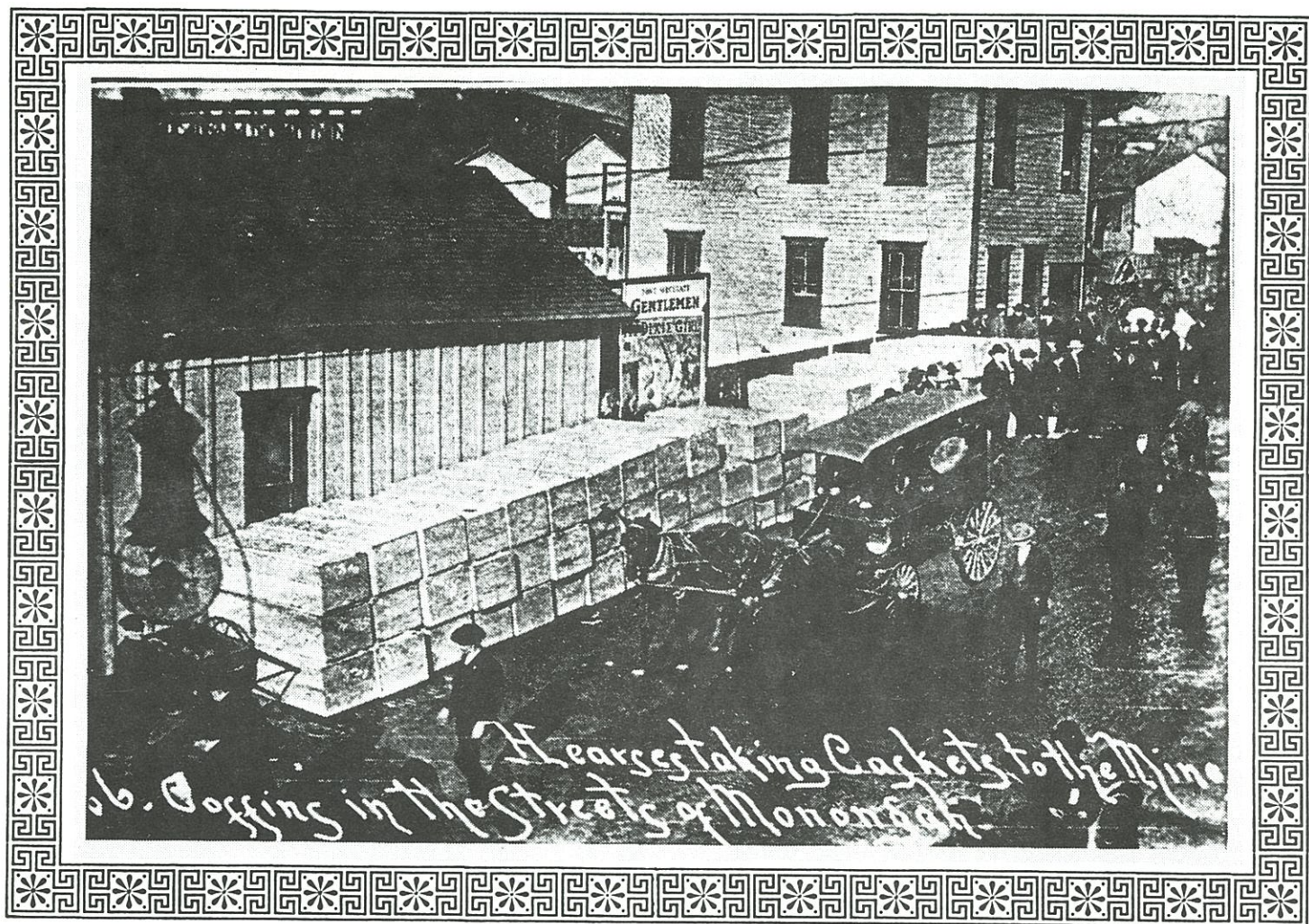


Well, I have to tell you that we were certainly surprised to find out from over a dozen readers that that post card was of the worst mine disaster in the history of the United States. On December 6, 1906 an explosion at the Monongah No. 6 & 8 mines snuffed out the lives of 361 miners. For five full days following the mine explosion the whole nation was consumed with the day by day information coming from the small town of Monongah where, almost overnight, several thousand people had gathered while mine rescue teams were pulling dead men out of the mine. At one time it was reported that over 500 men had lost their lives, but after five days the toll had dropped to 361. Every day as the bodies were brought out of the mine they were put into open caskets and laid out in the middle of the main street of town so that

relatives or friends could hopefully identify them.

The fact that this mine accident was such an important part of mining history, there are several readers who live near the town of Monongah doing research for an extensive article, complete with photos and day by day newspaper accounts. If you would like to be a part of that article for the next *MAC*, please contact us with any information that you would like to share.

Shown below is a photograph of a horse drawn hearse with caskets lined up on the sidewalk. (Photo courtesy of the West Virginia and Regional History Collection, West Virginia University Libraries, Morgantown, West Virginia)





# NINETEENTH CENTURY SAN FRANCISCO MINT BAR

by **Harriet Schon**  
Sun City, Arizona

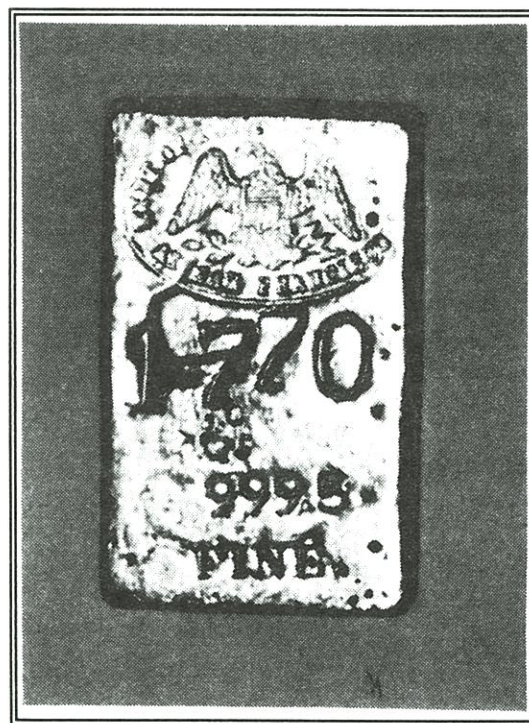
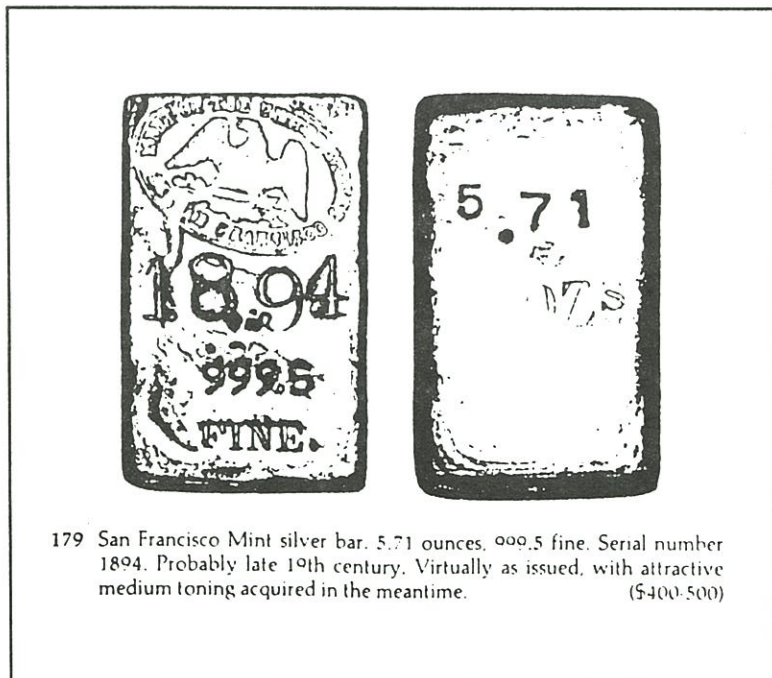
Small gold and silver bars from the San Francisco mint are stamped with the words "The Mint of the United States at San Francisco" surrounding the heraldic eagle with a hand stamped weight, fineness and serial number. The silver bar example shown here is stamped with a serial number of "1770" and "999.5 FINE" on the front and "5.22 OZS" on the back.

Two similar silver bars were auctioned in the 1982 Henry H. Clifford collection by Bowers and Ruddy Auction Galleries of Los Angeles, California. This sale included many rare gold and silver ingots from mining companies, assay offices and the U.S. Mint. Lot #179 and lot #180 brought bids of \$900 and \$950 respectively at auction. The example shown here is of the same type as those in the Clifford sale.

U.S. Mint bars of any type are rare. The United States Mints at Carson City and San Francisco were placed in high gold and silver producing areas. Almost all bullion produced in the western states ended up at these two mints.

This is an interesting piece of Western Americana and rarely offered for sale.

The bar shown here is crudely made by today's standards and most probably of nineteenth century origin. This bar is guaranteed genuine!



A photograph of an original San Francisco Mint bar that measures 2 inches long by  $1\frac{3}{16}$  inches wide and is  $\frac{3}{8}$  of an inch thick. Note the hole just below the first 7 used for assaying the bar.

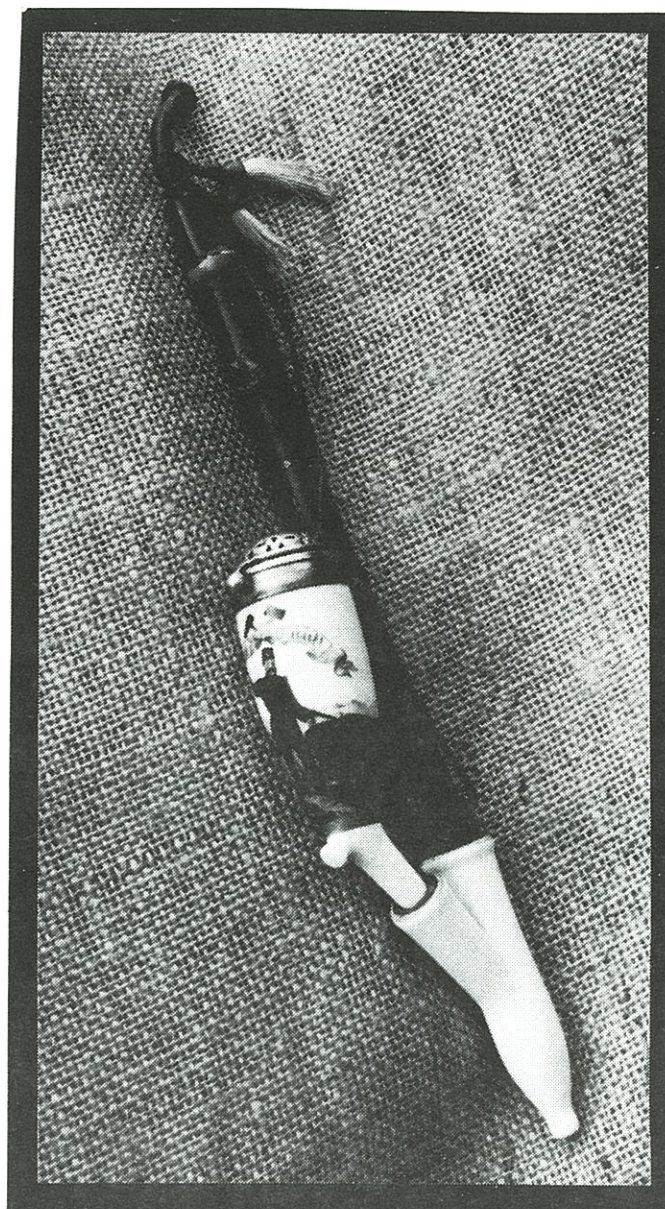
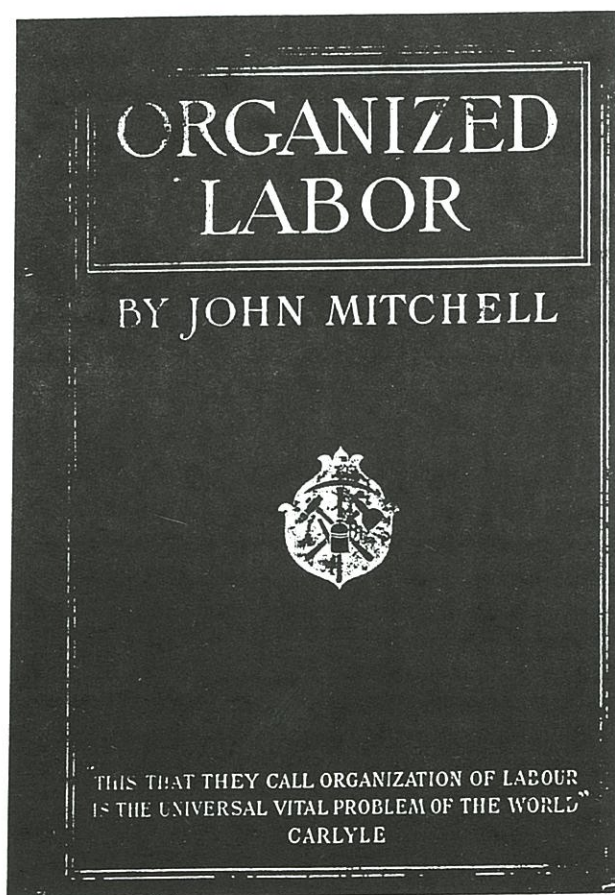


# Collector's Talk

## A Mining Pipe

One of the most unusual mining artifacts in the author's collection is a mining pipe--yes a pipe! It is unfired! It is a typical German porcelain pipe but this one has a mining theme. A miner in full dress uniform complete with his Geisser lamp and pick is shown outside the mine portal. Above the miner are the typical crossed hammers and the traditional miner's greeting "Gluck Auf." The picture appears to be a transfer which was then hand colored.

Tony Moon



## Books About Miner's Unions

In the Winter 1990 issue of the *MAC*, I wrote about the rise of John Mitchell as the leader of the United Mine Workers of America. I recently came across a book by John Mitchell that was published in 1903. By that time, Mitchell had been president of the United Mine Workers of America for 5 years. The book is entitled: *ORGANIZED LABOR, Its Problems, Purposes and Ideals and The Present and Future of American Wage Earners*. I have just begun to read this book of 436 pages. My count shows that this book has 47 full page photos and illustrations, some of which appear to match the content of postcards I've seen. What I am now wondering is, what other books have been written by leaders among the mining labor movement? If anybody knows, please drop me a note.

Jim Steinberg

MINING ARTIFACT COLLECTOR



## Another Brand Of Carbide Can

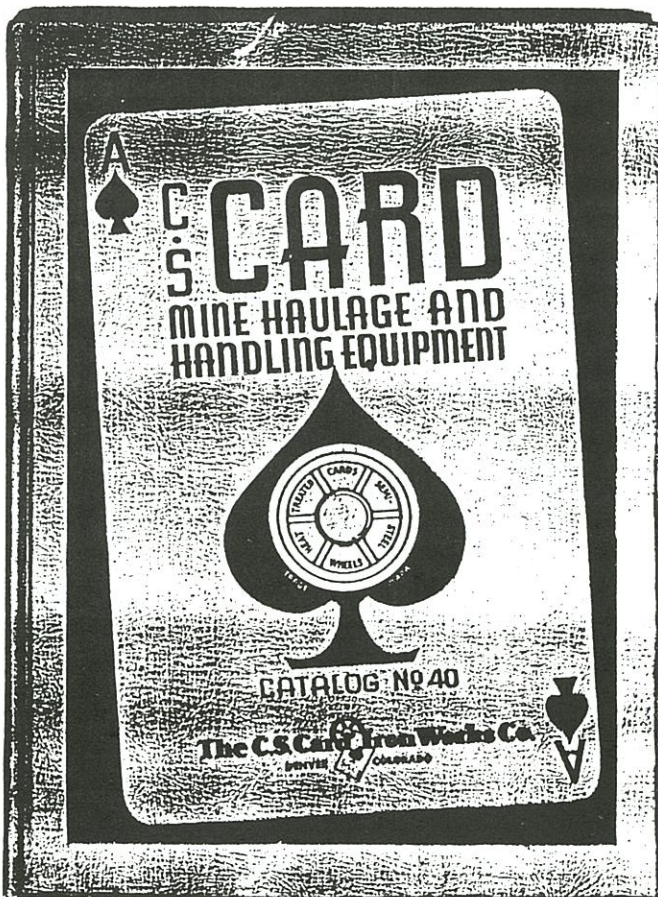
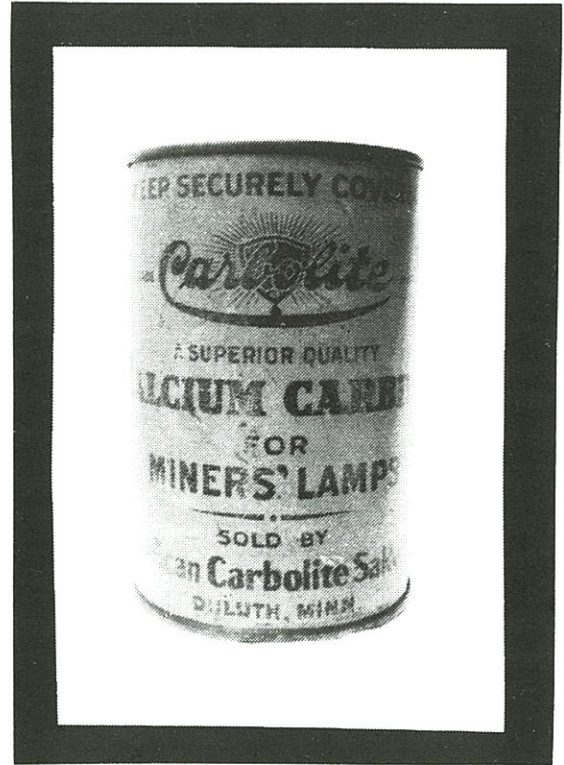
John Neilsen of Lake Elsinore, California, sent us photos of a two pound carbide can called "CARBOLITE" which was sold by the American Carbolite Sales Co. of Duluth, Minnesota. The can is painted yellow with black lettering. The can is 3 1/2 inches in diameter and 5 1/2 inches tall. The photos are of the front and back of the can.

## A Mine Haulage Catalog

I recently picked up this colorful hard bound catalog from the C.S. Card Iron Works Company of Denver, Colorado. The cover is bright yellow with black letters and is dated 1940. Every page of this 120 page catalog is full of great information about every type of mine haulage equipment you could think of.

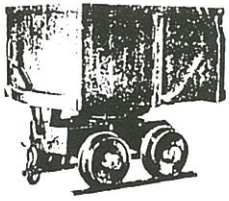
Most books are usually put away in some book case waiting for the day to come to be used for its information. But this book was so attractive I decided to stand it up in the back of a display case to add some needed color.

Ted Bobrink



C. Section THE C.S. CARD IRON WORKS CO. Page 51

### "CARD" ORE CARS TYPE "S"



Type "S" cars are built especially for mine haulage and are recommended for the most severe service.

They are normally equipped with CAPD (Controlled Air Pressure) Friction Drive or Fract Drive (see page 8, Section A).

They are normally equipped with a hopper body which has the best arrangement of the car.

A combination of chain drive and frictionally locked wheels, the car can be rotated without lifting the body.

The body is strongly reinforced and mounted on a heavy-duty axle and also provided with a main body with reinforced gusset that takes part of the load from the king pin when the body is rotated.

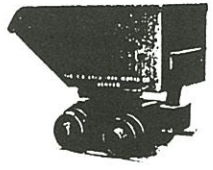
Built to order only. Specifications and prices on page 1.

### "CARD" SCOOP CARS

The standard scoop car with a solid body can be used to advantage in handling iron or steel ores, such as concentrates.

The standard body is mounted on a special tubular roller frame which is adjustable with reinforced gusset that takes part of the load from the king pin when body is rotated. Body is marked by a transferable car number.

Equipped with CAPD Friction Drive or Fract Drive (see page 8, Section A) and Equipped for 100 gpm. and 1000 gpm. pressure. Carried in stock for immediate shipment.



Specifications, Prices and Average Weights in Pounds - Each 16' Track Gauge Car

Car Type	Overall Dimensions	Body Body Dimensions	Capacity of Scoop	Track	With CAPD Standard 100 gpm. Friction Drive	With CAPD Standard 1000 gpm. Friction Drive
K-12	48" x 36" x 32"	36" x 24" x 24"	1200	16'	\$55.00	\$55.00
K-12	48" x 36" x 32"	36" x 24" x 24"	1200	16'	\$55.00	\$55.00

\* K-12 car with CARD TIMBER Truck for 16' gauge.



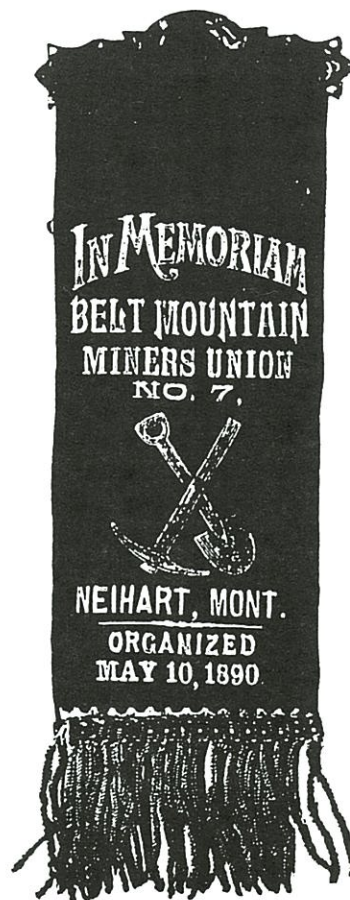
## Another Miners Union Ribbon

Two years ago I purchased a miners union ribbon in Coeur d'Alene which is quite similar to the Silver City Miners Union ribbon in Jim Steinberg's article in the Fall 1993 issue of *MAC*.

The ribbon measures 8 1/2 inches long by 2 1/2 inches wide, and is from the Belt Mountain Miners Union, Number 7, Neihart, Montana. It states that it was organized on May 10, 1890. The front of the ribbon is blue, while the reverse side is black for mourning. There are several noticeable differences between the two ribbons. Primarily, the clasp at the top are different in shape only, but both have the clasped hands. The circular medallion in the center are similar with the pick, sledge, and drill steel. However, the Belt Mountain does not indicate membership with the Western Federation of Miners. The flags are also different. The reverses are similar, however, the Belt Mountain is not quite as elaborate as the Silver City ribbon.

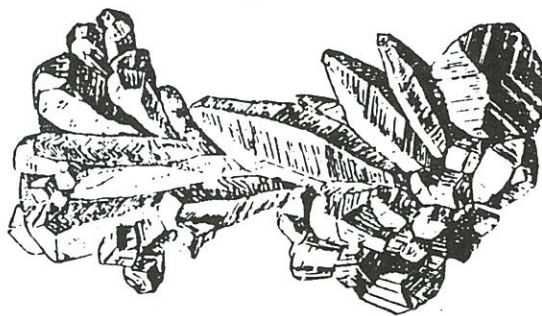
I would appreciate hearing about any information regarding this union and district.

John Pawloski



# Mineralogical Record

magazine



*Crystals* have been called "the Flowers of the Mineral Kingdom." Here is a magazine which does justice to the beauty and fascination of minerals. Every issue contains beautiful color photography, reports on new discoveries and new research, reviews of interesting mineral deposits, and much more. If you collect minerals or just enjoy reading about them, the *Mineralogical Record* is for you. Try a subscription: six issues (one year) for \$33 (add \$3 if outside the U.S.).

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# Trades & Sales

## Advertising Rates

Rates (per ad per issue) are: Full page, \$100; half-page, \$50; quarter-page, \$35. Ads must be submitted camera-ready; we are not

responsible for errors. Any ad may be rejected at the editor's discretion. Classified-style ads for trades or exchanges only (no sales) are free, subject to the availability of space.

## Advertising Deadlines

Winter Issue—Dec. 15  
Spring Issue—Mar. 15  
Summer Issue—June 15  
Fall Issue—Sept. 15

**FOR TRADE OR SALE:** Lamps and other misc. mining items. Send SASE for new list of what I have. *Tony Moon, 2763 E. Willow Wick Dr., Sandy, UT 84093 (801-943-2091)*

**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 Bohannon, 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:** CAP LAMPS - Daylight, Demon Strike Light, Pathfinder and Wolf. OIL WICKS - Alex E. Hunt, brass U.S. Tool, others. Many spare bases. CAP TINS - round Illinois, round Grasselli, round King, 25 cap Union, many others. Lots of other stuff for trade or sale. *Bob Schroth, P.O. Box 687, Twin Peaks, CA 92391 (909-337-7102)*

**FOR TRADE OR SALE:** The "rare" Justrite No. 77 stick lamp, complete. A very nice aluminum Baby Wolf safety lamp, a nice Montana pistol-grip candlestick--rivet style, alate style unfired Auto-Lite in the exact same box seen on page 13 of this MAC, a cloth Nevada mine bell sign on the original wood. *Ted Bobrink, 12851 Kendall Way, Redlands, CA 92373 (909-794-5518)*

**WANTED:** Explosive Boxes - Jefferson, Safety Nitro Powder, Aetna, Vigorite, early Giant. COMPLETE BOXES ONLY! Also looking for good Cap Tins and containers, will trade. Have good selection of tins available (e.g. King, American, 25 ct. walking Hercules, Canadian tins, paper Atlas 25. Contact: *John Kynor, 8905 James NE., Albuquerque, NM 87107 (505-292-2826)*

## THE IRISH ROVERS



DEALER IN MINING  
ARTIFACTS

John Shannon  
7319 W. Cedar Circle  
Lakewood, CO 80226

303-232-1534



I WILL HAVE THREE TABLES FULL OF MINING ARTIFACTS FOR SALE AT THE 9TH ANNUAL MINING ARTIFACT COLLECTOR'S REUNION. SATURDAY JUNE 18, 1994

TED BOBRINK



# BLACK HILLS MINING COLLECTORS' MEET

## Lead, South Dakota

### May 28-29, 1994



#### SATURDAY, MAY 28, 1994

- 9:00 A.M. Tour of Black Hills Mining Museum  
(Gold panning demonstrations, video theatre, mining & local history displays, guided mine simulation tour.)
- 10:30 A.M. Homestake Mining Company Surface Tour  
(Bus and walking tour of the Homestake's surface operation, including the mills, shaft headframe, hoist room, and more.)
- 12:00 Noon Lunch at the Golden Hills Resort & Convention Center
- 1:00 - 6:00 P.M. Mining antique show and sale - Convention Rooms, Golden Hills Resort
- 6:30 P.M. Dinner - Golden Hills Resort
- 7:30 P.M. Auction

\* \* \* \* \*

#### SUNDAY, MAY 29, 1994

- 6:00 A.M. Underground tour of the Homestake Gold Mine (Approximately 3-3 1/2 hour tour) \*\*
- 12:00 Noon Lunch - Traditional Cornish miners' pasties will be served at the Homestake Safety Department. (Available to underground tour participants)
- 1:00 - ? Open Time - A wide variety of attractions are available throughout the Black Hills.



\*\* Those participating in the underground tour of the Homestake must be 16 years of age or older and be in good health. Old clothes and boots are recommended. (Limit 50 people; collectors & dealers first.)

For more information about the Collectors' Meet or Black Hills attractions, contact:

Al Winters - (605) 584-3970  
Chuck Tesch - (605) 584-2382

Keith Schillinger - (605) 584-2430  
Brad Ross - (307) 686-7070





# The Ninth Annual Mining Artifact Collectors' Reunion

The Ninth Annual Mining Artifact Collector' Reunion will be held on Saturday, June 18, 1994, from 9 a.m. to 4 p.m. at the Good Nite Inn, 1801 G Street, Ontario, California. The Good Nite Inn is conveniently located near the Ontario International Airport. Shuttle busses travel to and from the airport and the Good Nite Inn every half hour. The location is the same as it's been for the past four years, just the name of the hotel has been changed. Tables for exhibits, trade and sale items are FREE and will be available on a first come, first served basis. A grill for lunch and snacks is conveniently located near to the exhibit area.

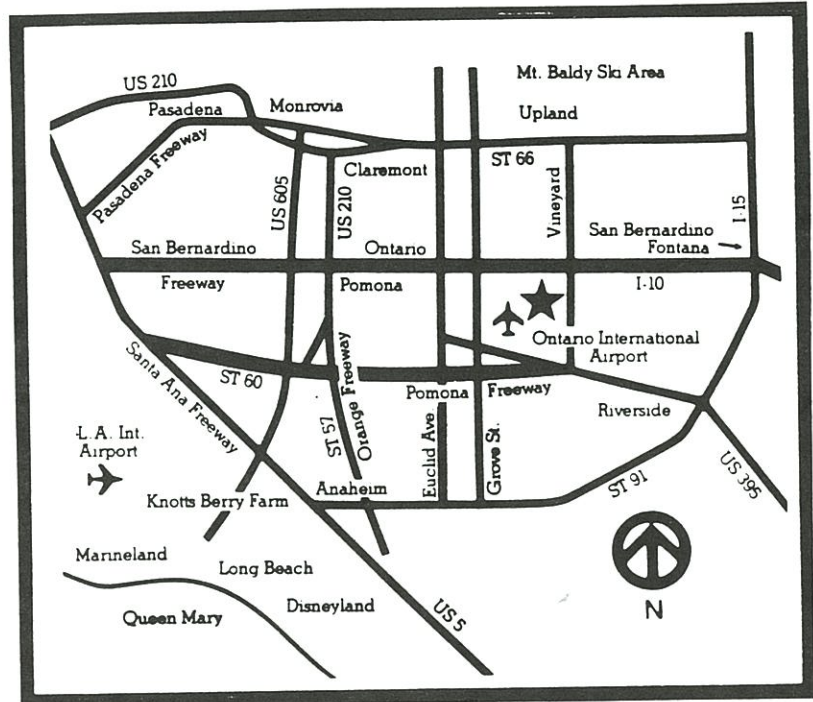
As always, there will be many items for trade and sale. Bring your extra mining artifacts and perhaps you will leave with something new for your collection.

Also at this years reunion:

- A free one year subscription to the Mining Artifact Collector to the person who travels the furthest distance.
- Everyone attending will receive a 9th Annual Mining Artifact Collectors' Reunion button and all first time attendants will also receive last years 8th annual commemorative button.
- A video of going underground in the Homestake mine will be shown the night before on underground mine exploring.

**SEE YOU THERE!**

To get the special room rate, you must call **909-983-3604**, Monday thru Friday between 9 a.m. and 4 p.m. **seven days in advance of the reunion.** Tell them that you are attending the Mining Artifact Collectors' Reunion.



## FOR INFORMATION CONTACT:

Ted Bobrink  
12851 Kendall Way • Redlands, CA 92373  
714-794-5518

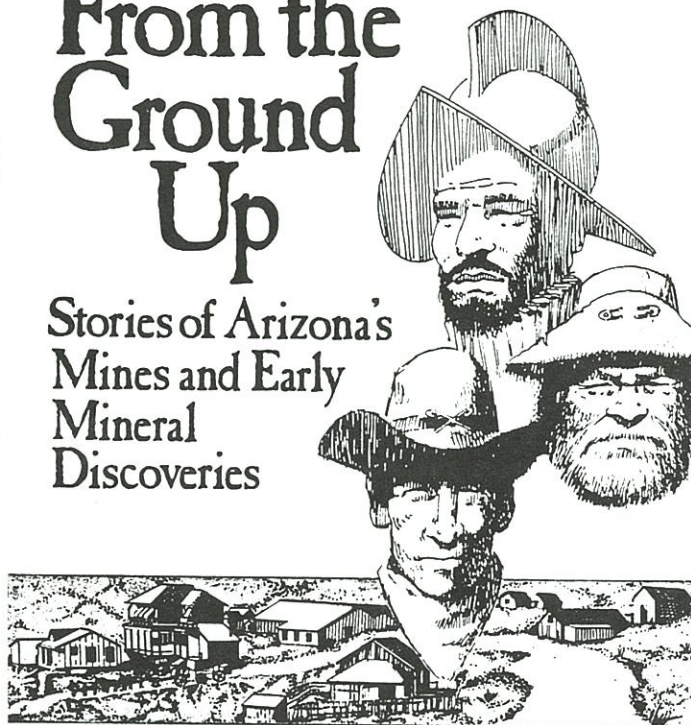


# FROM THE GROUND UP

by Governor Jack Williams

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Mines and Early  
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By  
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"The Apaches had struck during the night and made off with the best horses in the entire ranching area around Silver City, New Mexico. Led by Captain Chase of the United States Army, a band of cavalymen took off in hot pursuit."

So begins the story of the discovery of the Morenci Mine, one of many colorful early Arizona mining camp tales presented in this book written by former Arizona Governor Jack Williams and originally published by Phelps Dodge. Included are tales of the Vulture Mine, Bisbee, the Harquahala, Crown King and many others.

The Department has updated the stories and, with a donation from Phelps Dodge, has reprinted the 37-page book. Copies are available from the Department for \$3.50 or by mail (order form below) for \$5.00.

### ORDER FORM: From the Ground Up

Please enclose \$5.00 total (\$3.50, plus \$1.50 postage and handling) and mail to :  
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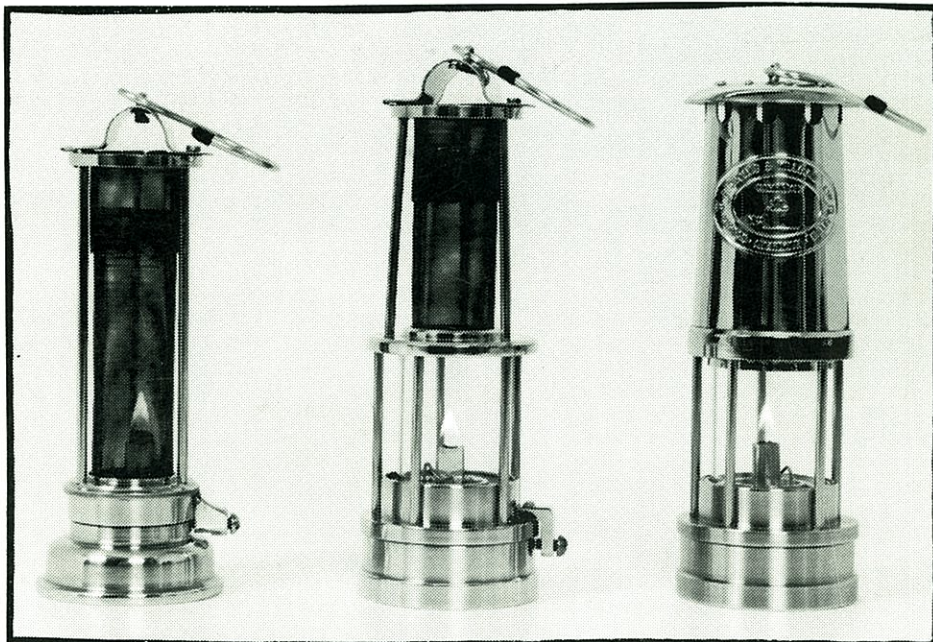


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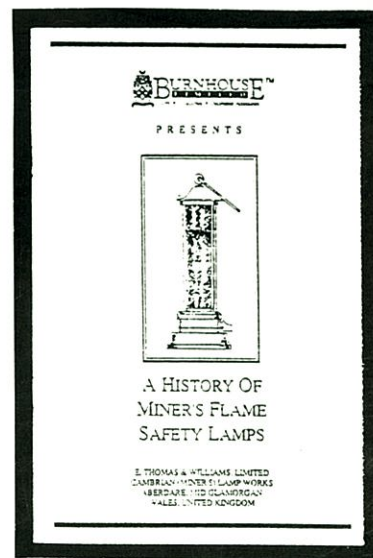
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