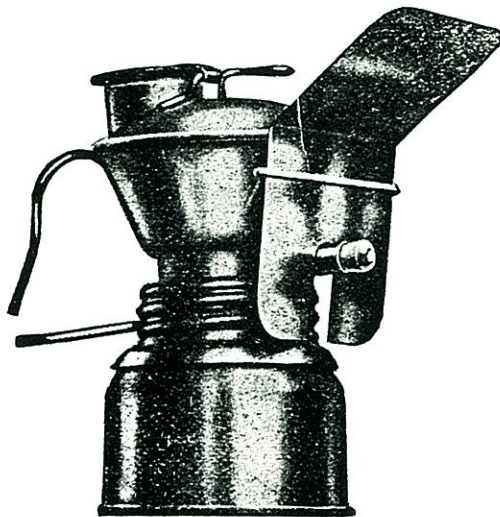


# Mining

## ARTIFACT COLLECTOR

Issue Number 17 Winter 1993

### Baldwin Acetylene Mine Lamp



Patented for the Cap.

An agent wanted in every mine. We already have hundreds of agents making good money selling these lamps. Write for catalogue and testimonials to

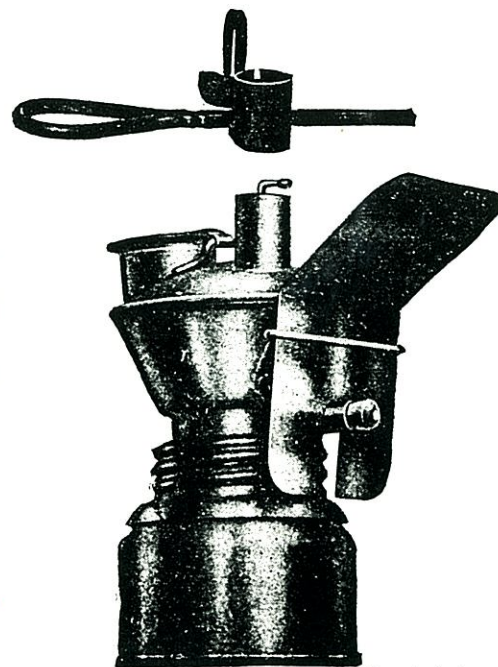
**F. E. Baldwin Mfg. Co.,**

110 Centre St., New York

THOUSANDS IN DAILY USE

**NO SMOKE  
NO GREASE**

CHEAPEST LIGHT KNOWN



Patented for a Candlestick.

# HOISTING CODES and OTHER SIGNS for MINES



No two states use the same code of mine bell signals. Miners are a wandering class. No miner can remember every state code. The above man, from another state, his first shift, what is he to do? Take a chance on that bell cord, or wait for the shift boss? In any case the company pays for the loss of time. Suppose he gives the wrong signal and there is an accident—the company is liable—to the state for not having a legible code posted—to the miner if he is injured—and for damage to the mine.

A code that is not at all times legible does not comply with any state law.  
These Enamelled Steel Signals and Signs for mines are made by fusing pure imported enamels on a sheet of steel under 1,600 degrees of heat, and are impervious to all underground mine conditions. They wear forever.  
We carry numerous STATE MINE CODES in stock. We will make any State Code not in stock to order. Price quoted upon receipt of copy and quantity required.

**ARIZONA STATE CODE OF MINE BELL SIGNALS**

1 BELL. STOP IMMEDIATELY IF IN MOTION  
HOIST MUCK.  
RELEASE CAGE SKIP OR BUCKET

2 BELLS. LOWER  
3-1 HOIST MEN. IF BELLS RING SIMULTANEOUSLY  
3-2 LOWER MEN. MOVE SIGNAL  
4 STEAM ON OR OFF  
5 BLASTING OR READY TO START  
THIS IS A CAUTION SIGNAL AND IF THE ENGINEER'S INTENTION IS TO ACCEPT THE MUCK FROM THE BUCKET IN CASE HE FEELS THIS SIGNAL IS BEING GIVEN BY ACCIDENT THE SIGNAL SHOULD BE REPEATED IMMEDIATELY AS SOON AS SIGNAL 1 BELL IS GIVEN AND MUST ACCEPT NO OTHER SIGNAL BY THE MEN. 6 BELLS. AIR ON OR OFF.

7 DANGER SIGNAL. FOLLOWED BY STATION SIGNAL CALLS FOR THE STOP OF THIS SIGNAL. THIS IS A DANGER SIGNAL. REPEAT BLASTING SIGNAL.

**STATION SIGNALS**

1-2 BELLS. COLLAR OF SHAFT.	3 BELLS. LEVEL	4 BELLS. LEVEL
1-4	2	14
1-5	3	15
2-1	4	16
2-2	5	17
2-3	6	18
2-4	7	19
2-5	8	20
3-1	9	21
3-2	10	22
3-3	11	23
3-4	12	24

OTHER SIGNALS MUST BE GIVEN BEFORE HOISTING OR LOWERING SIGNALS. THE ENGINEER SHALL NOT IN THE LEAST STOP OR BLOCK UNLESS HE UNDERSTANDS THE SIGNAL. THE TOP OF THIS SIGNAL SHALL BE POSTED ON THE WALLS OF THE SHAFT AND AT EACH SECTION & ONE IN FRONT OF THE ENGINEER'S POSITION. THE SIGNAL SHALL BE CLEARLY VISIBLE.

No. 1110 Arizona Code  
Size 18x36 in.

IN ALL SHAFTS AND SLOPES WHERE PERSONS, COAL AND OTHER MATERIALS ARE HOISTED BY MACHINERY THE FOLLOWING

**CODE OF SIGNALS**

SHALL BE USED

1 RAP or WHISTLE TO HOIST COAL

1 RAP or WHISTLE TO STOP CAR OR CAGE WHEN IN MOTION

2 RAPS or WHISTLES TO LOWER CAR OR CAGE

3 RAPS or WHISTLES TO HOIST PERSONS

THE ENGINEER SHALL SIGNAL BACK WHEN READY. AFTER WHICH THE PERSON SHALL GET ON THE CAR OR CAGE. AND THEN ONE RAP OR WHISTLE SHALL BE GIVEN TO HOIST.

4 RAPS or WHISTLES TO TURN THE STEAM ON TO POWER.

No. 1107 Penn. Bituminous Code  
Size 14x20 in.

**SIGNALS**

FROM BOTTOM TO TOP

1 RING or WHISTLE—Hoist Coal or Empty Cage

1 RING or WHISTLE—Stop When in Motion

2 RINGS or WHISTLES—Lower Cage

3 RINGS or WHISTLES—Lower Car or Skip

4 RINGS or WHISTLES—DANGER Hoist Slow

5 RINGS or WHISTLES—ACCIDENT Hoist Stop

6 RINGS or WHISTLES—Hoist Car or Skip

FROM TOP TO BOTTOM

1 RING or WHISTLE—GET ON CAGE

2 RINGS or WHISTLES—Send Away Empty Cage

No. 1135 General Code  
No. 1106 Illinois Code  
Size 14x20 in.

Station and Level Signs 3 in. x 9 in.  
All other signs (except Codes) are 7 in. x 10 in. Made of 18-gauge Steel Porcelain Enamelled. \$1.10 each.

No. 1110 Arizona Code Size 18x36 in.

STATION 20 LEVEL 20

CAGE CALL PUSH BUTTON GOING UP-1 DOWN-2

HANDS OFF DO NOT GIVE SIGNAL UNLESS ON CAGE

TO RELEASE CAGE SKIP OR BUCKET SIGNAL 1

THIS WAY OUT TO SHAFT TO MAIN SHAFT TO AIR SHAFT TO ESCAPE SHAFT TO SURFACE

HANDS OFF BELL CORD TROLLEY WIRE DANGER FOR CAGE FLASH 1-2 FOR SKIP FLASH 5-4 PARA JAULA TOCA 2-2 HANDS OFF FOR CAGEMEN ONLY

**Stonehouse**  
SIGNS, INC.  
STONEHOUSE BLDG. 842 LARIMER ST. DENVER, COLO. U.S.A.

# Mining Artifact Collector



## NOTES from the EDITOR

*Mark Bohannon and Ted Bobrink . 2*

## ARTICLES

The MAC's best cover  
*Ted Bobrink . . . . . 3*

The Baldwin "pinchwaist carbide lamps"  
*Mark Bohannon . . . . . 4*

A carbide cap lamp holder from Butte, Montana  
*Ted Bobrink . . . . . 8*

A Leadville miners' lunch pail  
*Jim Steinberg . . . . . 9*

Leadville, Colorado  
*John M. Shannon and Geraldine C. Shannon . . . . . 10*

Powder box blueprints  
*Curtis Kremer and Ted Bobrink . . . . . 14*

The Illinois blasting cap tins  
*Mark Bohannon . . . . . 15*

The V. L. oil lamp - An update  
*Tony Moon . . . . . 16*

Surveyor's spads  
*Michael Ebers . . . . . 19*

The grand daddy of candlesticks  
*Ted Bobrink . . . . . 20*

The Jack Davy safety lamp  
*Tony Moon . . . . . 22*

Frog lamps - part V  
*Wendell E. Wilson . . . . . 24*

Notes on some good collecting in Nevada  
*Martin Jensen and Lane A. Griffin . . . . . 29*

The Cool Hat  
*Ted Bobrink . . . . . 30*

Bit racks  
*Richard W. Graeme . . . . . 31*

Getting a taste for mayhem  
*Jim Steinberg . . . . . 32*

Beware of "By Dale"  
*Paul and Nancy Hyatt . . . . . 33*

A new candlestick patent  
*Ted Bobrink . . . . . 34*

Belt buckle mining artifacts  
*Lane A. Griffin . . . . . 35*

**COLLECTOR'S TALK . . . 36**

**TRADES & SALES . . . . 38**

## Winter 1993 • Number 17

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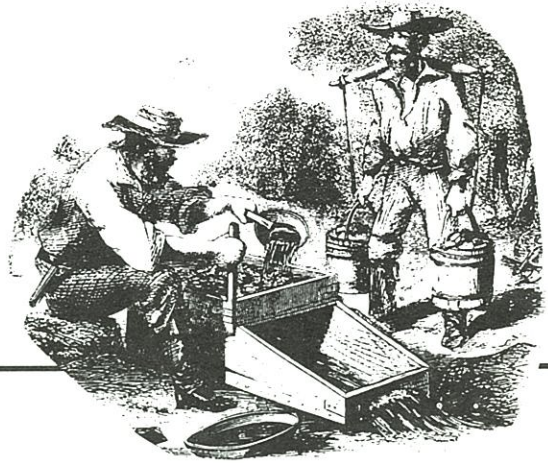
*One year (4 issues): \$25 U.S.,  
\$35 foreign  
Two years (8 issues): \$50 U.S.,  
\$70 foreign*

### Back Issues

*All back issues are currently available at \$7.50 U.S. (\$10 foreign) each, but supplies are limited. Order from Ted Bobrink.*

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# Notes from the Editor



## WESTERN REUNION

This is an early reminder that the 8th Annual Mining Artifact Collectors' Reunion will be on **Saturday, June 19**. It is being held at the same location as last year at the Holiday Inn, 1801 East G Street, **Ontario, California**. More information will be in the Spring issue of the MAC.

## ANOTHER ERROL CHRISTMAN SWAP MEET

Errol Christman of Cedar Ridge, California, held another one of his mining collector swap meets at his home on Saturday, January 9, 1993. Mark Bohannon and myself flew into Sacramento Friday afternoon and drove the remaining 35 miles to arrive at Errol's around 6:30 so that we could get in on some early trading.

Most of the evening was spent checking out what was on the tables and having a good old time sitting around Errol's table B.S.'ing and telling stories. I know that when I have some good things for trade, I prefer to wait until Saturday after everyone has arrived so I can get the best offers I can.

By noon on Saturday, about fifteen collectors had arrived and the buying and trading was starting to pick up. I can't list all of the trades and sales that went on, but here are a few. Bob Samay traded a rare Fulton cap lamp bottom and a Justrite Jiffy bottom with lid to Errol for a rare Pocahontas cap lamp. I traded a nice Defender cap lamp to Dave Thorpe for a fancy candlestick, and Bob Schroth traded a Ramstead & Johnston folding candlestick to Chris Vels. Mark Bohannon traded Errol Christman a mint No. 8 round Atlas Powder Company cap tin and a Wolf cap lamp for an early unfired Justrite cap lamp in the box and a box of one gross early Justrite felts. Gregg Millar traded a super assayer's blow-pipe kit to the White Bros. for a couple of nice carbide lamps. Gregg also had a large assortment of dynamite boxes, gold molds, and a nice, early wooden ore bucket from

Virginia City, Nevada, for sale. Dave DesMarais had a table full of nice lamps and candlesticks and was busy most of the day. Paul Johnson and Keith Williams sent out an assortment of carbide lamps and candlesticks for trade and sale. Everyone that I talked to went home with something neat and said they had a great time.

The White Brothers made everyone's day by showing up with three of their fantastic miniatures. There were two different ore cars and a potty car. They were well over a foot tall and made to exact scale ( $1/4$  scale), complete with moving parts so that the cars could be operated just like the real thing. (I don't know about the potty car!)

Errol will be having about three or four of these swap meets a year, so if you would like to attend the next one, give Errol a call at 916-273-3268. Tell him that you would like to be notified of the time and date of the next swap meet. Hope to see you there!

Ted Bobrink

## ERRATA

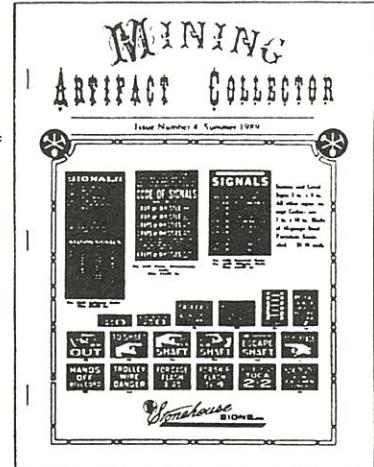
We would like to fix a couple of errors that appeared in the last issue. First, in the article on The Third Annual Eastern Mining Artifact Collectors' Swap and Reunion, it should have been thanks to Guy Bindocci (not Gary). Secondly, the article on Mining Artifact Collecting In Nevada was written by Martin Jensen of Reno, Nevada, and Lane Griffin.

## BACK ISSUES

Due to the ongoing increases in shipping and handling costs, we are now forced to increase cost of our back issues. As of January 1, 1993, all back issues of the *Mining Artifact Collector* will be \$7.50 each (\$10 foreign). All back issues are currently still available, but the supply of the 1988-89 issues are very limited. Order now while they are still available!

# THE MAC'S BEST COVER

by Ted Bobrink  
Redlands, California

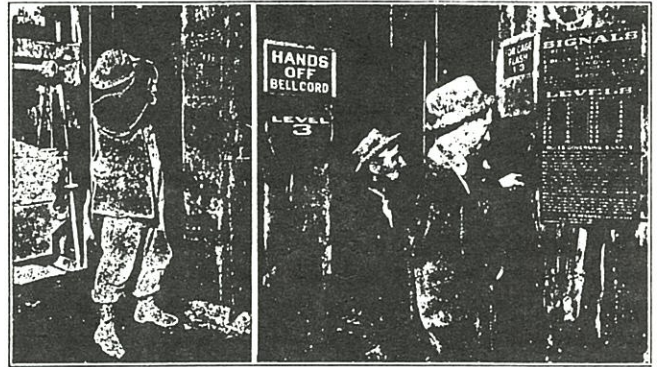


The *Mining Artifact Collector* is starting its fifth year and we have had quite a few nice comments about our past front covers. The cover that received the most recognition was the Stonehouse Sign Company ad that was illustrated on the cover of Issue Number 4, Summer 1989. For all of our early subscribers and for those of you who have ordered our back issues, you will remember that the ad was done in a beautiful royal blue, just like the original signs.

I thought it would be nice to show you the original ad that we found that was in a 1923 issue of the *Mining Congress Journal*. As you can see, due to our limited space, we were unable to illustrate the complete ad. The top half shows two unique photos of miners reading a mine bell sign. The photo on the left shows a miner from another state who, on his first shift, is scratching his head trying to read a well tattered cloth mine bell sign. The photo on the right shows two miners reading a Stonehouse porcelain sign that the ad claims will wear forever.

You can see a larger illustration of this great ad on the inside of the front cover of this issue. If you have a nice ad relating to mining, and think it would make a nice cover, send it to the MAC. If the MAC editors can incorporate your ad into an article, we will use your ad for our front cover and give you a free one year subscription. What a deal!

## HOISTING CODES and OTHER SIGNS for MINES



No two states use the same code of mine bell signals. Miners are a wandering class. No miner can remember every state code. The above man, from another state, his first shift, what is he to do? Take a chance on that bell cord, or wait for the shift hoist? In any case the company pays for the loss of time. Suppose he gives the wrong signal and there is an accident—the company is liable—to the state for not having a legible code posted—to the miner if he is injured—and for damage to the mine.  
A code that is not at all times legible does not comply with any state law.  
These Enamelled Steel Signals and Signs for mines are made by fusing pure imported enamels on a sheet of steel under 1,600 degrees of heat, and are impervious to all underground mine conditions. They wear forever.  
We carry numerous STATE MINE CODES in stock. We will make any State Code not in stock to order. Price quoted upon receipt of copy and quantity required.

ARIZONA STATE CODE OF MINE BELL SIGNALS

1 BELL STOP	HOIST MUCK
2 BELLS LOWER	3 BELLS LOWER MEN
4 BELLS LOWER MEN	5 BELLS LOWER MEN
6 BELLS LOWER MEN	7 BELLS LOWER MEN
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STATION SIGNALS

1 BELL LEVEL 1	2 BELLS LEVEL 2
3 BELLS LEVEL 3	4 BELLS LEVEL 4
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99 BELLS LEVEL 99	100 BELLS LEVEL 100

No. 1110 Arizona Code  
Size 15x26 in.

IN ALL SHAFTS AND SLOPES WHERE PERSONS, COAL AND OTHER MATERIALS ARE HOISTED BY MACHINERY THE FOLLOWING CODE OF SIGNALS SHALL BE USED

1 RAP or WHISTLE TO STOP CAR OR CAGE ON CAGE

1 RAP or WHISTLE TO LOWER CAR OR CAGE

2 RAPS or WHISTLES TO STOP CAR OR CAGE

3 RAPS or WHISTLES TO STOP CAR OR CAGE

4 RAPS or WHISTLES TO STOP CAR OR CAGE

THE ENGINEER SHALL SIGNAL BACK WHEN READY AFTER WHICH THE PERSON SHALL GET ON THE CAR OR CAGE, AND THEN ONE RAP OR WHISTLE SHALL BE GIVEN TO HOIST

No. 1107 Penn. Bituminous Code  
Size 14x20 in.

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99 RINGS or WHISTLES TO STOP CAR OR CAGE

100 RINGS or WHISTLES TO STOP CAR OR CAGE

No. 1155 General Code  
No. 1100 Illinois Code  
Size 14x20 in.

Station and Level Signs 3 in. x 9 in. All other signs (except Codes) are 7 in. x 10 in. Made of 18-gauge Steel Porcelain Enamelled. \$1.10 each.



Please send either the original ad or a very clear photo copy. The MAC will gladly return by insured mail any books, magazines or photographs.

STATION 20 LEVEL 20

CAGE CALL PUSH UP TO GOING UP - 1 DOWN - 2

HANDS OFF DO NOT GIVE SIGNAL UNLESS ON CAGE

TO RELEASE CAGE SKIP OR BUCKET SIGNAL 1

THIS WAY OUT

TO SHAFT

TO MAIN SHAFT

TO AIR SHAFT

TO ESCAPE SHAFT

TO SURFACE

HANDS OFF BELL CORD

TROLLEY WIRE DANGER

FOR CAGE FLASH 1-2

FOR SKIP FLASH 5-4

PARAJAULA TOCA 2-2

HANDS OFF FOR CAGEMEN ONLY



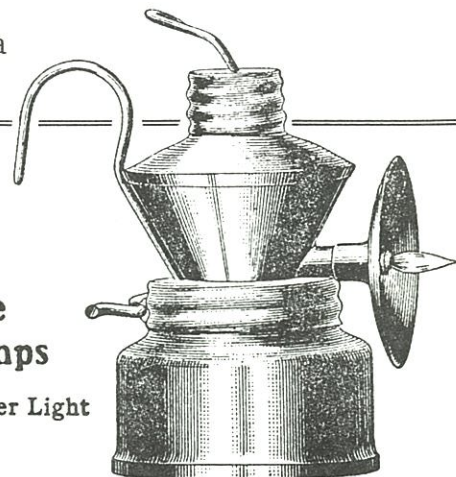
# THE BALDWIN "PINCHWAIST" CARBIDE LAMPS

by Mark Bohannon  
Oro Grande, California

Frederic Baldwin was probably the pre-eminent designer and inventor of acetylene mine lamps. In the early 1900s, Baldwin began manufacturing small carbide lamps for miners. All of these early Baldwin lamps are extremely hard to find. The early years and associations of Frederic Baldwin are obscure with what little is known being gathered together by Paul Kouts and Gregg Clemmer.

It appears that the first lamps--except for the patent models--were manufactured and marketed by Albert H. Funke in the spring of 1900. This relationship did not last very long, and soon Baldwin's lamps were being sold by the Ingersoll-Sergeant Drill Corporation and the A. L. Derry & Company.

In 1906, Baldwin entered into a marketing and manufacturing agreement with the John Simmons Company. This was to become one of the most profitable ventures in the history of early carbide mine lamps.



## Baldwin Acetylene Mine Lamps

10 Candle Power Light

The John Simmons Company was a large manufacturer of plumbing fixtures, gas and steam fittings, machinery and tools with the means, knowledge and reputation to successfully market Baldwin's lamps. Over the next eight years, the Baldwin Pit Lamp enjoyed a growing popularity with the miners in both metal and coal mines. According to a December 21, 1912, ad, the John Simmons Company was exulting that "Every Year The Sales Are Greater" and that "Four-Fifths of all Carbide Lamps at present in use are BALDWIN MINE LAMPS."

As the popularity of the Baldwin Pit Lamp increased, Frederic Baldwin and the John Simmons Company began marketing a larger variety of mine lamps to meet with every mining need. They offered a selection of 15 different reflector styles and finishes to meet the requirements of all branches of mine work. A sparker lighter could also be attached to all of the reflectors.

## The Baldwin Mine Lamp



Is an Acetylene Gas Lamp

It can be worn in the cap like an ordinary miner's lamp, but

**It Gives Five Times as Much Light**

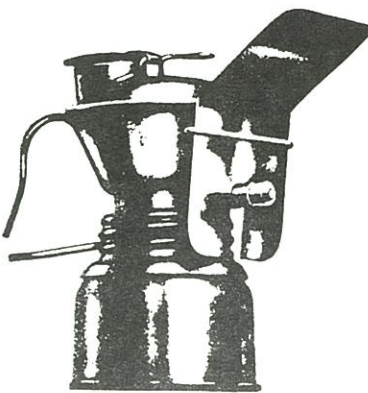
The gas is made from carbide and water and costs less than oil.

Write for free circular.

**A. L. Derry & Co., Sales Agts.,** Connell Building  
SCRANTON, PA.

One of the earliest advertisements for the Baldwin pinchwaist mine lamp sold by the A. L. Derry & Company of Scranton, Pennsylvania. Note: The ad mentions that the lamp "can be worn in the cap like an ordinary miner's lamp." This was at a time (1905-08) when the merits of carbide lamps were beginning to compete against the long standing miners' oil lamps.

At right, a 1908 advertisement from *Mines and Minerals*, advertising the Baldwin pinchwaist Pit Lamp with the very rare flat, slip-on tin reflector.

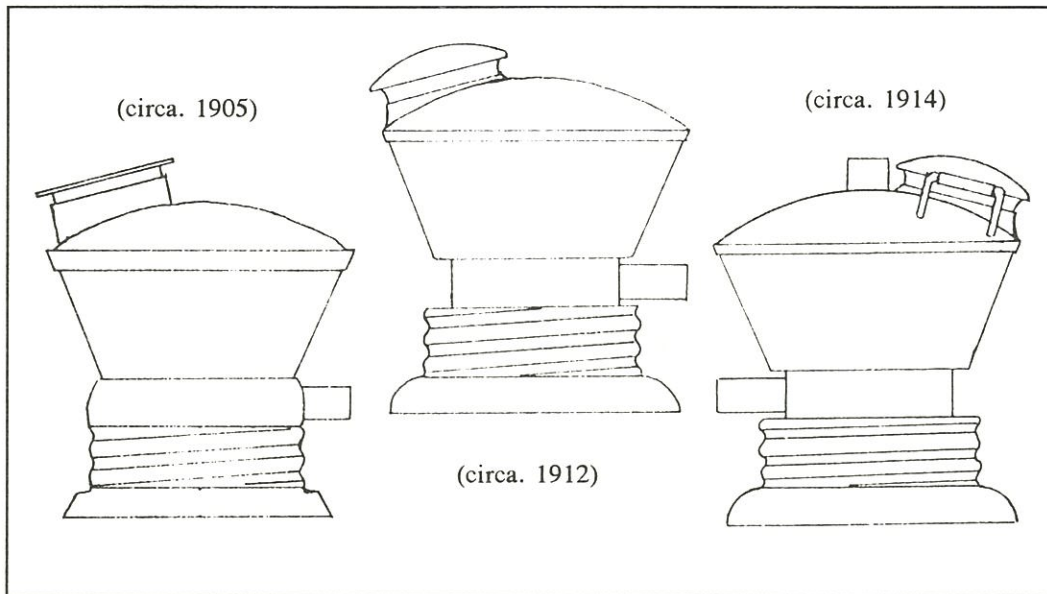


## Baldwin Acetylene Pit Lamp

The Baldwin Acetylene Mine Lamps are adapted for the superintendent and Engineers as well as the man with the pick. NO DIRT—NO TROUBLE. Catalog on request.

**John Simmons Co.,**  
102 Center Street,  
NEW YORK.

Patented

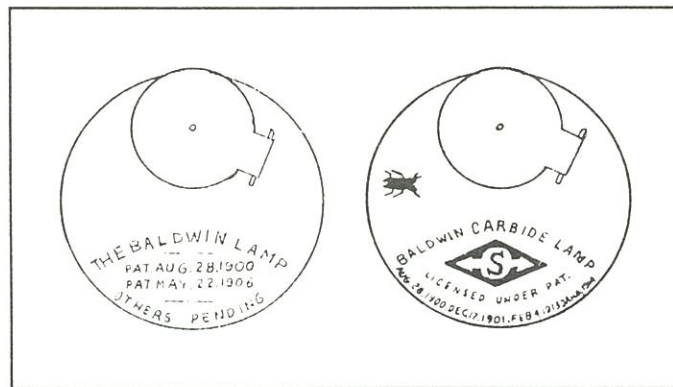


The three main styles of water tanks for the Baldwin pinchwaist lamps. The style on the left is of the earliest style. The middle style is that commonly found with just the raking wire feed. The style on the right is the latest style and incorporates the new water control valve patented on October 27, 1914 (No. 1,115,157). Drawings from Paul Kouts' *Miner's Carbide Lamp Reference, Vol. VIII.*



A photograph of a brass Baldwin pinchwaist cap lamp with the hard to find flat reflector. This lamp also came nickel plated, but is much rarer than the brass lamp.

At right, a photograph of a Baldwin pinchwaist brass cap lamp and the box that it came in. As can be seen on the end flap of the box, the lamp originally cost \$1.00. The box is 6" long by 3 1/4" wide by 2 3/8" deep and has instructions written on the sides in four different languages. The box is tan with blue printing.



The two most common top water tank markings for the Baldwin pinchwaist lamps. Both have raised letters. Drawings from Paul Kouts' *Miner's Carbide Lamp Reference, Vol. VIII.*



In 1912, the John Simmons Company introduced their New **Model No. 29** Baldwin pinchwaist mine lamp that was "particularly adapted for Superintendents and Engineers." This new style lamp was a standard pinchwaist pit lamp, but was fitted with a hook and hand handles. This is probably the most commonly found style of Baldwin lamp.

For some reason, Frederic Baldwin decided to leave the John Simmons Company in 1913 and form the Zar Manufacturing Company (see MAC Issue No. 16, Fall 1992). The reason for his departure is unknown, but all of the rights to manufacture and sell the Baldwin pinchwaist lamp remained with the John Simmons Company.

After the departure of Frederic Baldwin in 1913, the John Simmons Company began marketing the pinchwaist Baldwin Pit Lamp with the Simmons' logo on the top of the lamp. Simmons advertised the lamp as "the New Baldwin - The Miner's Lighting Bug." Around this same time, the John Simmons Company also began producing the "Pioneer" carbide lamp (see MAC Issue 14, Spring 1992).

## UNITED STATES PATENT OFFICE

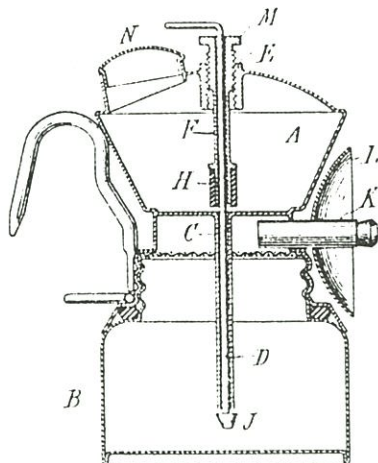
JOHN SIMMONS COMPANY  
New York, New York  
**TRADE-MARK FOR ACETYLENE-LAMPS.**  
Application filed April 24, 1915  
No. 105,876 Registered Aug. 24, 1915



On August 24, 1915, the lighting bug trademark was registered by the John Simmons Company. Prior to being registered, this trademark had been used by this company since June 1, 1914. An interesting note is that this trademark was filed for just fourteen days after Baldwin filled his "ZAR" trademark.

## UNITED STATES PATENT OFFICE

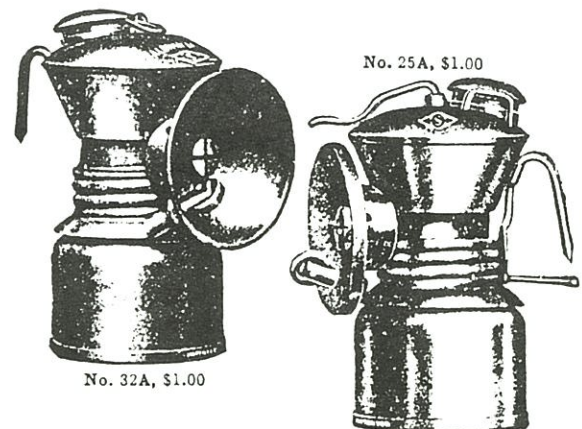
F. E. BALDWIN.  
**ACETYLENE GAS LAMP.**  
APPLICATION FILED MAR. 30, 1910.  
1,115,157. Patented Oct. 27, 1914.



Patent number 1,115,157 was an improvement for controlling the flow of water. This was one area of lamp design that Baldwin was very concerned about.

**BALDWIN**  
THE MINER'S  **LIGHTING BUG**

**Rigid Removable Reflector**



**JOHN SIMMONS CO.**  
100 Centre St., NEW YORK

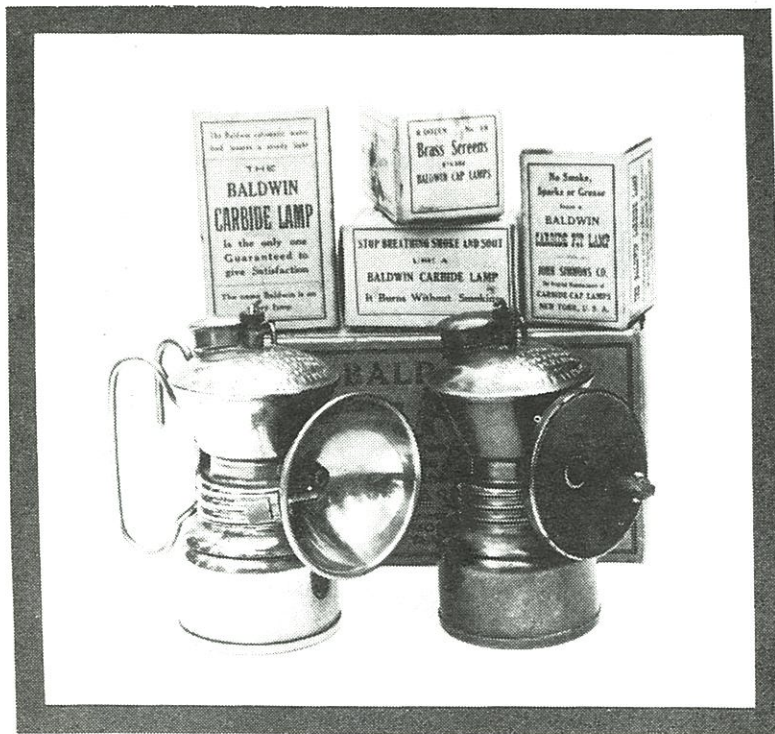
A 1914 advertisement from *The Engineering and Mining Journal* for the Baldwin Miner's Lighting Bug.



By 1918, the John Simmons Company was in the process of shutting down their carbide lamp operations. By 1921, they were almost completely out of the lamp manufacturing business, having sold some of their patents to other lamp companies.

There were many design and appearance changes during the early years (1900-1913) of the Baldwin pinchwaist lamps. One of Baldwin's great concerns throughout his involvement with carbide lamps was of maintaining a "steady, even flame at all times, whether the miner is standing still or swinging a pick." Another area of lamp design that Baldwin was very interested in was the problem of the lamp's flame going out during increased atmospheric pressure and air currents due to blasting and other sources. As can be seen, many of his patents dealt with one or both of these concerns.

Although one of the most commonly found lamps, the Baldwin "pinchwaist" carbide lamp is also one of the most unique looking carbide lamps to be found. For as common as these lamps are, they are very difficult to find in excellent shape. The design, gauge, and composition of the brass used in the manufacture of these lamps seem to made it prone to denting, especially on the very top. Because of the nature of the slip-on reflector, many Baldwin lamps are found with the reflector missing. Also, like most cap lamps, the wire hat braces were lightly soldered to the lamp resulting in many lamps being found with these wire hat braces missing.



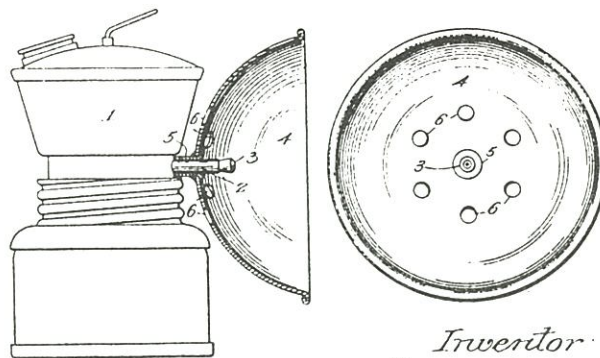
## UNITED STATES PATENT OFFICE

F. E. BALDWIN  
REFLECTOR FOR GAS LAMPS.

APPLICATION FILED JULY 30, 1912.

1,066,241.

Patented July 1, 1913.



*Inventor*  
Frederic E. Baldwin  
By his Attys.  
Phillips, Sawyer, Rice & Kennedy

Patent number 1,066,241 was for an improvement in the cup-shaped reflector commonly found on Baldwin lamps. This improvement consisted of providing perforations in the base of the reflector "to allow the escape of some of the air collected by the reflector when the lamp is moving rapidly or is exposed to a strong wind . . . so that the luminosity of the flame is not diminished by the forcing of excess oxygen thereinto." This is also another one of the patents listed on the side of the Zar carbide lamp.

Photograph of a nickel plated Baldwin pinchwaist Superintendent's lamp with hand handles (left) and a brass Baldwin pinchwaist cap lamp (right). The lamps show the two styles of reflectors which came with the lamps. Shown behind the lamps is the box that the cap lamp came in. On top of the lamp box are four Baldwin lamp parts boxes. These boxes held six dozen, No. 10 brass screens. The box on the left is 1 7/8" by 1 1/4" by 3", while the other boxes are 1 1/2" by 1 1/2" by 2 3/8". All of the parts boxes are a light tan and are printed in red-brown.

### References:

Clemmer, Gregg S., *American Miners' Carbide Lamps: A Collector's Guide to American Carbide Mine Lighting*, Westernlore Press; Tucson, Arizona, 1987.

Kouts, Paul L., *Miner's Carbide Lamp Reference*, Volume VII; Published July 1982.

# A CARBIDE CAP LAMP HOLDER FROM BUTTE, MONTANA

by **Ted Bobrink**  
12851 Kendall Way  
Redlands, California 92373

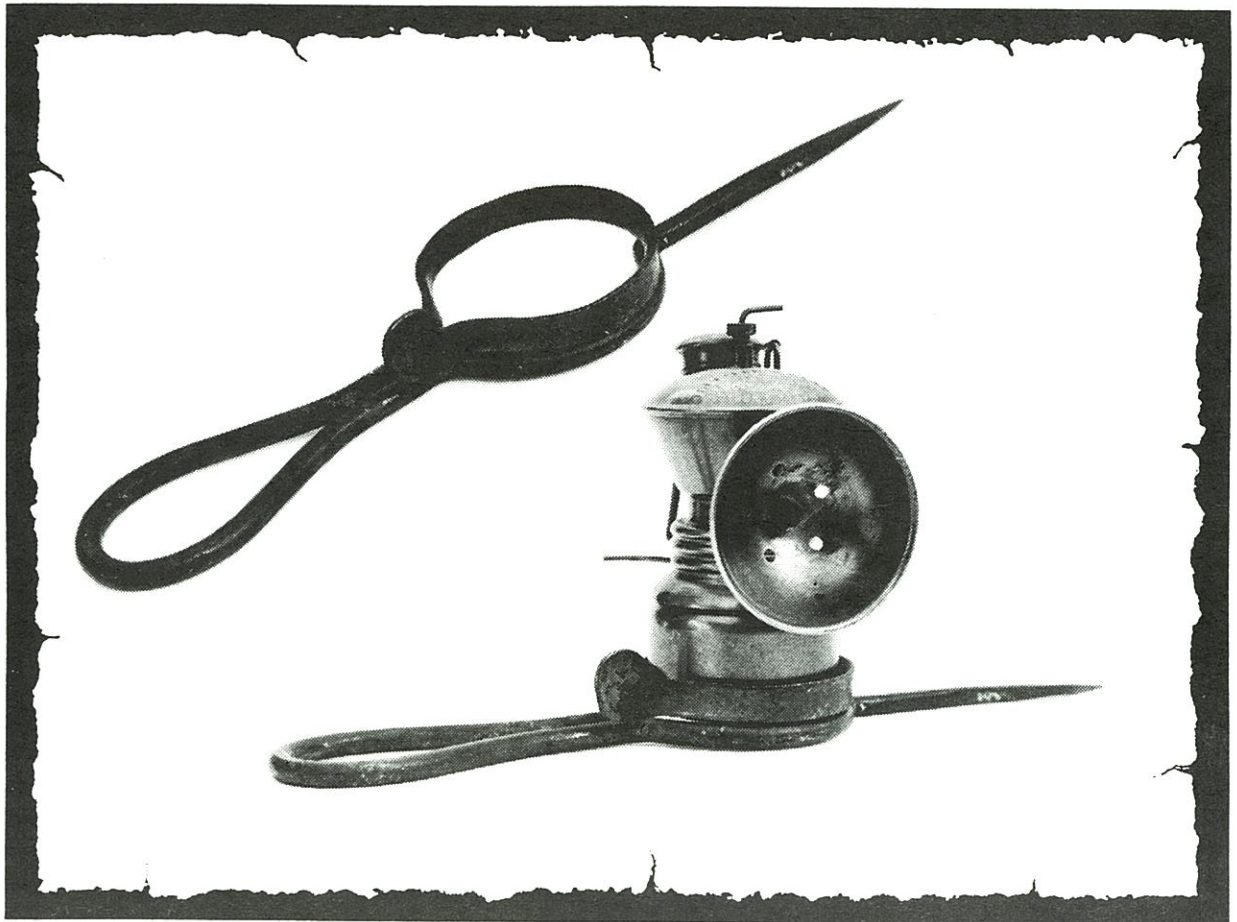
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Jerry Darrell from Butte, Montana, sent us a nice photograph of a carbide lamp holder that he had recently picked up. He wanted to know if we could tell him anything about it.

Over the years I have owned, or seen in private collections, several of these unique holders. Every one of these holders were found in or around Butte. Most of the collectors are familiar with the standard Justrite and Shanklin carbide stick holders (sometimes called carbide candlesticks). The Butte carbide holder is by far the nicest of them all. So far, all of the Butte holders I have had a chance to examine have been identical, which suggests that they were manufactured as opposed to being made one at a time by a local blacksmith.

The most unique feature about the Butte carbide holder is the finely made holder itself, that being the part that holds the carbide lamp. The outside of the loop is flat and .375 inches wide. The inside has a very smooth reverse bevel, so as to allow the lamp to slide in and out of the holder without damaging the lamp. Another unique feature is the candleholder style thumb tab that opens the diameter of the holder to allow the bottom of the lamp to be easily inserted into the holder and when released, causing the lamp to be held nice and firmly.

I have also seen a larger version of this holder that would accommodate a carbide hand lamp, so you will want to keep your eyes open for both types of these Butte holders.

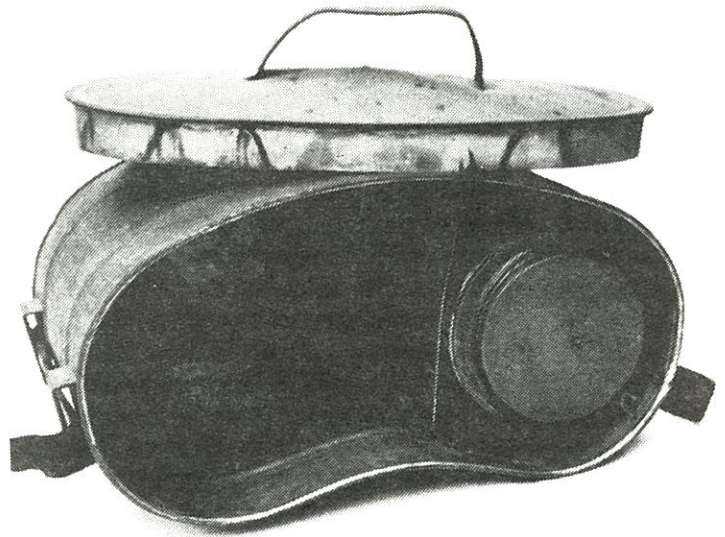


# A LEADVILLE MINERS' LUNCH PAIL

by **Jim Steinberg**  
Pasadena, California

Anyone who has seen enough photographs of groups of miners, has likely noticed the presence of the ubiquitous tin lunch pail. In just about any group photo of miners going on or off shift, usually several have their lunch pails in their hands. The most frequently observed style of pail appears to be the round pail that is similar in shape to a paint can, with a cup on the top. While this design shows up in a number of fairly old photos, the design remained in use for many years. Among collectors, I have heard some speculation that cold food went in one compartment and hot in the other. Recently, while reading a book based on the diaries of a coal miner, I ran across a description of the use of the pail. The book was *The Long Tunnel, A Coal Miner's Journal* by Meade Arble, published in 1976 by Atheneum, New York. When gearing up for work in a Pennsylvania coal mine, Meade was about to purchase an ordinary thermos, but was admonished by a shop keeper that it wouldn't hold enough water. It was explained to him that a regular miner's lunch pail (the round type) could hold a lot more water. The round silver miners lunch pail which he did buy, held a tray in the top for food, leaving the bottom for a generous amount of water. Meade was told that miners carried thermoses only for coffee in addition to the water that was in their lunch pails.

The smaller section contains a tin, screw top cylinder 5.5 inches tall by 3.5 inches in diameter. The divider is soldered all the way down to and across the bottom of the lunch pail to prevent liquid from passing from one compartment to the other. The lid of the pail snaps into the top and has a handle to assist in opening the pail.



In addition to the round lunch pails, there are a large variety of other miners' pails that are encountered. How frequently any given style or design of pail was used by miners is a matter for speculation. Recently, I obtained a tin lunch pail with a brass manufacturers tag on it. The tag reads "Manufactured by Western Hardware Co., Leadville, Colo." This pail is equipped with metal loops on the sides for a leather shoulder strap, of which some of the original strap still remains. The lunch pail is made of galvanized tin about 10 inches wide by 8.5 inches high with a curved back to ride against the hip. Inside, the pail is divided into two compartments. The larger comprising about 3/5 of the total space.



# LEADVILLE, COLORADO

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

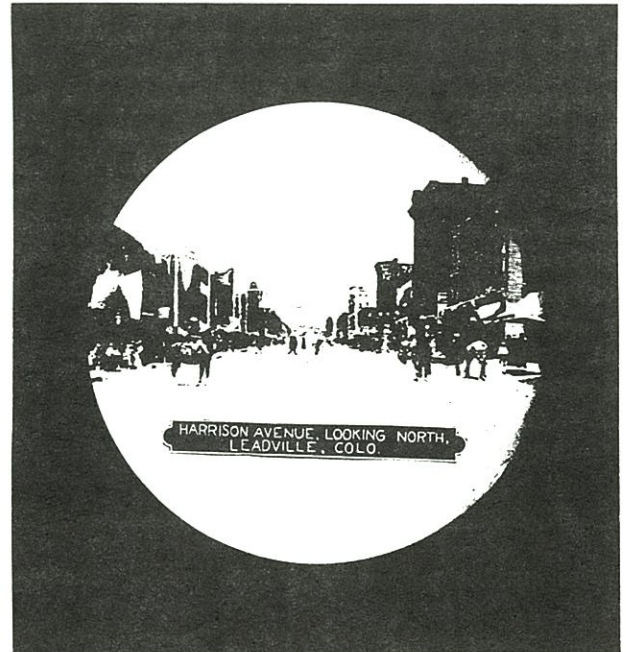
and **Geraldine C. Shannon**  
Leadville, Colorado

The town of Leadville is located on the western edge of the Leadville mining district, on the western slope of the Mosquito Range, in Lake County, Colorado, about 128 km (80 miles) southwest of Denver. Altitudes range from 3,070 to 4,000 meters (10,000 to 13,000 feet), and the mountain scenery in that area of Colorado is spectacular. Leadville is one of Colorado's great mining districts, with a long and complex history.

In 1859, those who found themselves left out at Mountain City and other Gilpin County, Colorado mines continued to push relentlessly onward. Prospectors, their numbers fed by the thousands who flocked to the West in the aftermath of the terrible financial panic of 1857, pressed forward throughout the summer and fall of 1859. Into areas now known as Georgetown, Boulder, Gold Hill, Tarryall, Fairplay and over the low divide into Arkansas Valley they drove, always in search of the yellow metal. When winter came they returned to Auraria and Denver to wait for another season to continue the search.

Finally, on February 15, 1860, A. G. (Al) Kelley (sometimes spelled Kelly) led 25 men from Auraria via Colorado City and Ute Pass across South Park, over the Mosquito Range to the west, probably via Trout Creek Pass, to the upper Arkansas River to a spot he had prospected the previous fall. This first group to work the Arkansas River chose a site that was approximately 20 miles south of present-day Leadville; they called it "Kelley's Diggings," "Kelleysburg" or "Kelley's Bar" (Smiley, 1901; Blair, 1980).

Meanwhile, another miner who had also prospected the Arkansas Valley briefly that fall of 1859 told S. S. Slater in Mountain City (near what is now Central City) of a rich placer he had located. As a result, a small party from Mountain City journeyed down Bear Creek, up the South Platte and across South Park to the Mosquito Range and entered the area near the present-day Granite. Because their information indicated that they should continue north, this



A mirror-back showing Harrison Avenue, Looking North, Leadville, Colo. The mirror is 2 1/4 inches in diameter. (Mark Bohannon collection)

second party did not prospect at Kelley's Bar, but went on.

Several other small groups joined them and they agreed to divide "into three groups: (a) Iowans led by Jones would prospect the first likely gulch, (b) Slater's bunch (later called 'Stevens' group') from Mountain City would prospect the second likely gulch, and (c) a third group, which seems to have been made up of odd lots and led by a stranger named Johnson, would prospect the western side of the valley along the base of Mt. Massive" (Blair, 1980).

Iowa Gulch bears the name the Jones group gave it. Stevens' group prospected a gulch about 1 1/2 miles north of Iowa Gulch, and, finally, Abe Lee found "a pan that promised to make rich men of them all" (Blair, 1980). Soon thereafter this gulch was named California Gulch.

The Johnson party, the third group prospecting, tried their hand in California Gulch, but soon returned to the gulch they had previously worked at the base of Mount Massive. Using a skillet to pan the dirt, they found gold there and named this creek opposite California Gulch, Frying Pan Gulch. (It was later renamed Colorado Gulch [Griswold, 1961].)

Sometime during the first five years of the 1860's, the first and one of the most famous lodes of the Leadville area, the Printer Boy, was discovered in California Gulch. Due to improper management, however, its full potential was not realized until 1868, when large masses of free gold were found.

Once these and other discoveries became known, men flocked in and a "camp" developed. The first unofficial, overall name of the settlement, which was scattered in a most unordered manner for about 6 miles up and down the gulch, was Boughtown, a name of "appearance" (Griswold, 1961). According to the *Daily Chronical* of April 7, 1879, "Men in those days were in too much of a hurry to even build houses to live in; they contented themselves generally with erecting four posts and covering the tops and sides with green pine boughs."

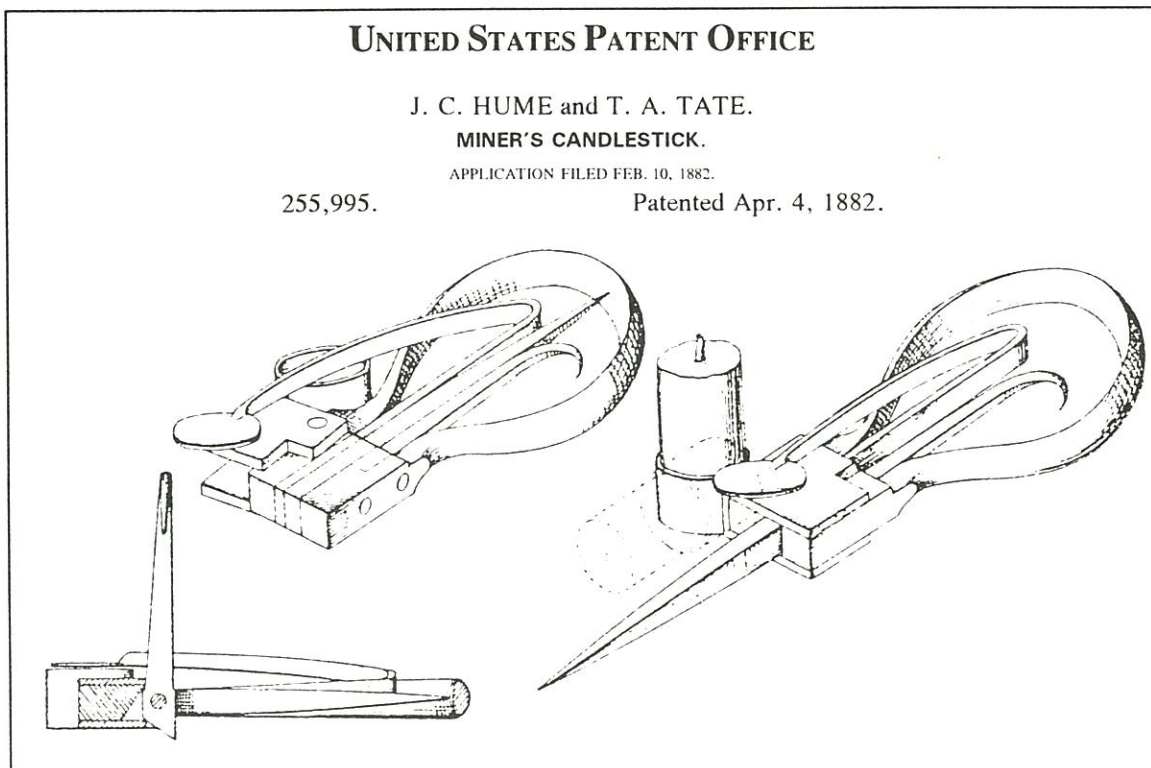
In this area grew "Oro City, as it was finally dubbed, (and it) became the social and economic hub of the area. It had one long main street that ran the length of California Gulch" (Blair, 1980).

The most productive years of placer mining in California Gulch were from 1860 to 1867; however, some placering continued until 1871.

A third period in the history of the area, the carbonate period, began around 1874, when William H. Stevens and Alvinus B. Wood formed a partnership in order to construct a 12 mile ditch to transport water from the Arkansas River to California Gulch to assist with sluicing operations. The ditch "was an immediate success after its completion in 1875, except that Wood and Stevens were plagued with that same black sand that had confounded placer operations in the gulch since those halcyon days of 1860." They collected samples from the gulch; an Alma assayer showed the ore "ran twenty-seven percent lead and fifteen ounces of silver to the ton" (Blair, 1980).

Wood and Stevens kept their discovery a secret until they were able to tie up the major claims. "By the fall of 1875 they controlled a considerable portion of California Gulch" (Blair, 1980). The names of the principal locations were the Dome, Rock, Stone, Lime, Bull's Eye and Iron claims. The ore was first found in place on the Rock claim, where it was over 10 feet thick.

The original patent drawings for the Hume & Tate folding candlestick patented in Leadville, Colorado on April 4, 1882.



"In 1877-78 the greatest rush to any camp in the history of the state occurred, resulting in the building of a new town, called Leadville, seven miles below the old town of Oro" (Henderson, 1926). The name was derived from that decided upon when requesting a new post office for the area in 1877. "Naming the post office did not necessarily name the town, but by the fall of 1877 the name was in general use throughout Colorado. When the city framers met in January of 1878, they had either to approve 'Leadville' or come up with an acceptable substitute." Eventually, "Leadville" was accepted unanimously (Blair, 1980).

It was also in 1878 that two poor German shoemakers, August Rische and George Hook, who had been grubstaked by H. A. W. Tabor (Blair, 1980), "happened to sink a hole where the 'contact' or the mass of the ore approached

the surface and found the ore body on which was developed the Little Pittsburg mine, the foundation of the fortune of H. A. W. Tabor" (Henderson, 1926).

During 1883 "Iron Hill continued to be the largest producing district from the Iron Silver, A. Y., Minnie, Colonel Sellers, Tucson and other mines. The Little Jonny mine was actively worked, the product being silver-lead ores carrying some gold" (Henderson, 1926).

During the period from 1899 to 1915, zinc became the important mining product of the Leadville area. Zinc mills were established and shipments of zinc sulfides became quite large. Numerous large bodies of zinc carbonate were found in 1910, many in the old workings.

The years between 1918 and 1940 saw many ups and downs in the mining at Leadville. Several small booms took place during these years, brought about by a demand for some of the metals or a chance discovery of a new pocket or small orebody, but these always seemed to play out, resulting in a period of inactivity.

**GURNSEY'S**  
**ROCKY MOUNTAIN VIEWS.**  
 Published at Colorado Springs, Colorado. Pike's Peak Avenue.

152  
**LEADVILLE, COLORADO.**

No. \_\_\_\_\_

This, the most important Mining Camp in the State, already has a population of over 6000, although but twelve months old. Four Smelting and two Ore Sampling Works are among its permanent industries, while over three thousand mules and horses are employed in its transportation business. California Gulch, from which \$15,000,000 in gold has been washed since 1869, lies on the south side of the town.  
 Leadville has an elevation of 10,500 feet above sea level.

An early Gurnsey stereo view of Leadville's main street and the descriptive paper label that is on the reverse of that stereo view which is shown below. (Ted Bobrink collection)



UNITED STATES PATENT OFFICE

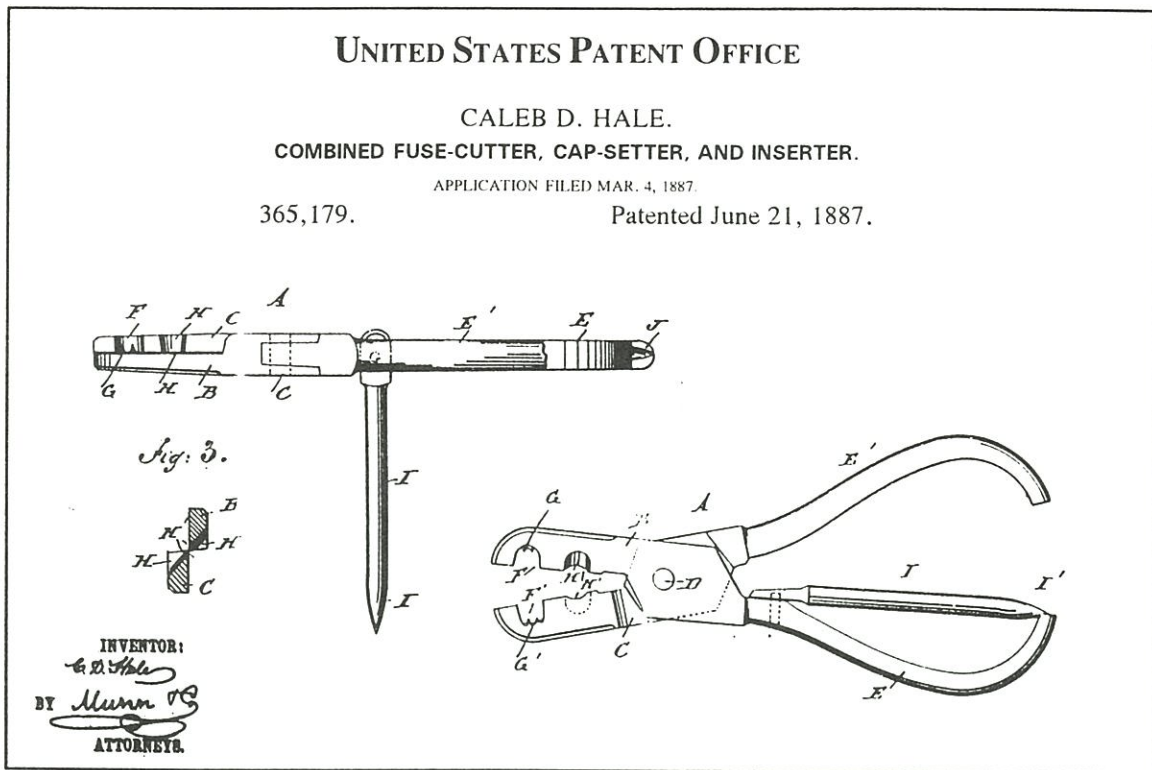
CALEB D. HALE.

COMBINED FUSE-CUTTER, CAP-SETTER, AND INSERTER.

APPLICATION FILED MAR. 4, 1887.

365,179.

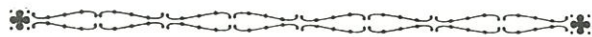
Patented June 21, 1887.



Mining became active once again as a result of the demand for metals during World War II and on into the Korean conflict. In 1943 the government appropriated money for a 4 km drainage tunnel to drain the Leadville district. It was hoped the tunnel would open large deposits of lead, zinc and manganese ores for production, but the project was halted in 1952 because of the rising costs and a decline once again in metal prices.

In recent years mining has been carried on with the discovery of a block of down-faulted ore near the old Black Cloud claim and is being worked through the new Black Cloud shaft.

"In some respects, Leadville is the most remarkable city the world has ever seen" (Ingham, 1880). Certainly it has been able to survive the vicissitudes of fortune for more than a century, and it remains a working monument to mining in Colorado.



GRISWOLD, D. L. and GRISWOLD, J. H. (1951) "Names in the Leadville District." *Carbonate Chronicle*, 7-9.

HENDERSON, C. W. (1926) "Mining in Colorado." U.S.G.S. Professional Paper 138.

INGHAM, G. T. (1880) *Digging Gold Among the Rockies*. Hubbard Brothers, Philadelphia.

SMILEY, J. C. (1901) *History of Denver*. Times-Sun Publication Co., Denver.

Shown above is the original patent drawings for a Combined Fuse-Cutter, Cap-Setter, and Inserter patented on June 21, 1887, by Caleb D. Hale of Leadville, Colorado. This crimper was equipped with a fuse cutter (H), a cap crimper (F) with small "inwardly-projecting tusks or prongs" (G). These small tusks or prongs were designed to indent the cap into the fuse so that the cap could not be removed from the fuse. This crimper also had a tool (I) making a hole in the dynamite stick. This "inserting-tool" was to be used, the handles were opened and the pointed end was swung out at a right angle to the crimper. When the tool was not in use, the pointed end rested in the groove (J) in the outer end of the handle. There no examples of this cap crimping tool known to exist at this time.

This article was excerpted from "The Mines and Minerals of Leadville" published in the *Mineralogical Record*, vol. 16, May-June, 1985, and is used by permission.

# POWDER BOX BLUEPRINTS

by **Curtis Kremer**  
Lebanon, Pennsylvania

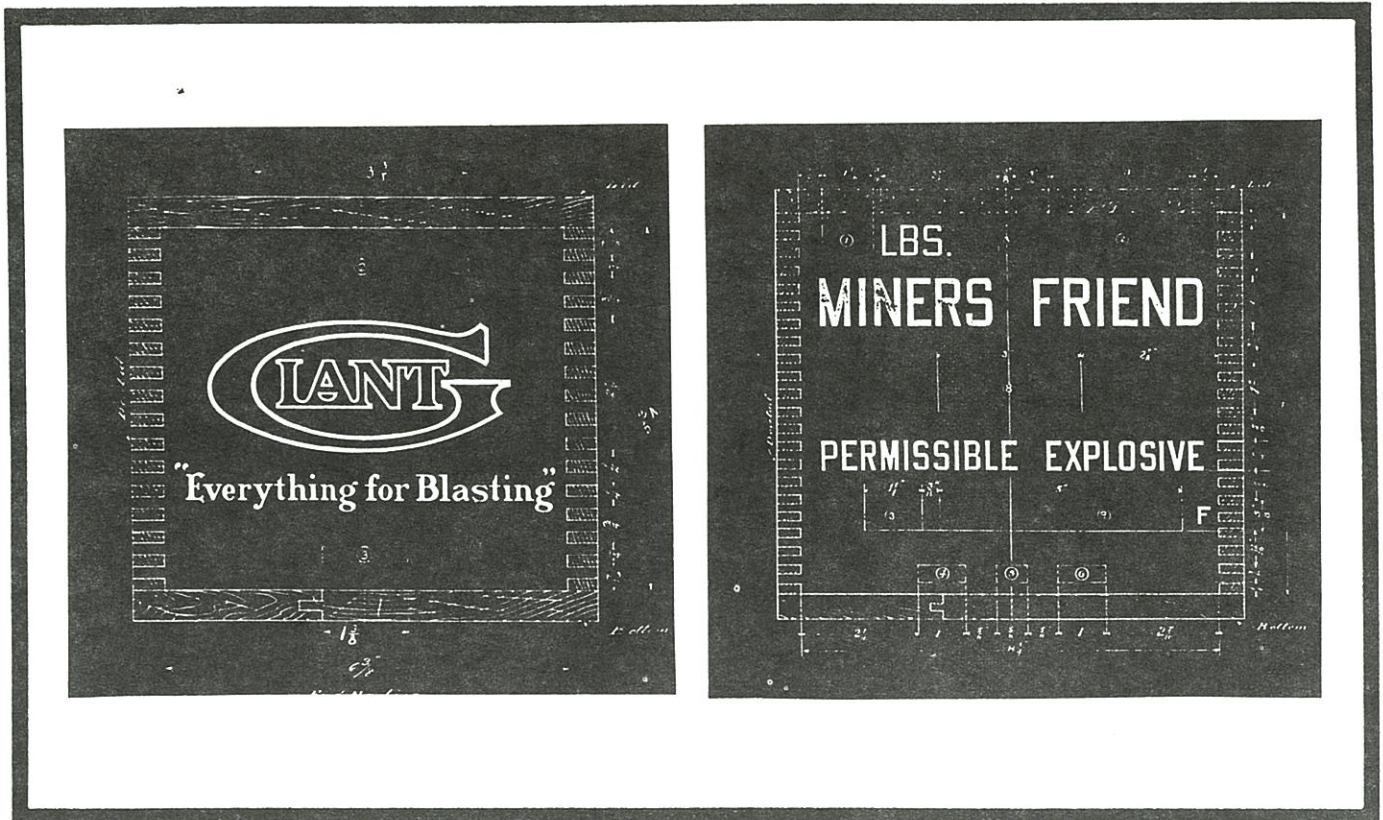
and **Ted Bobrink**  
Redlands, California

Just when you think you have seen or heard of about every kind of mining artifact there is to collect, someone pulls something nifty new out of an old barn or attic. That's just what happened recently to Curtis Kremer of Lebanon, Pennsylvania.

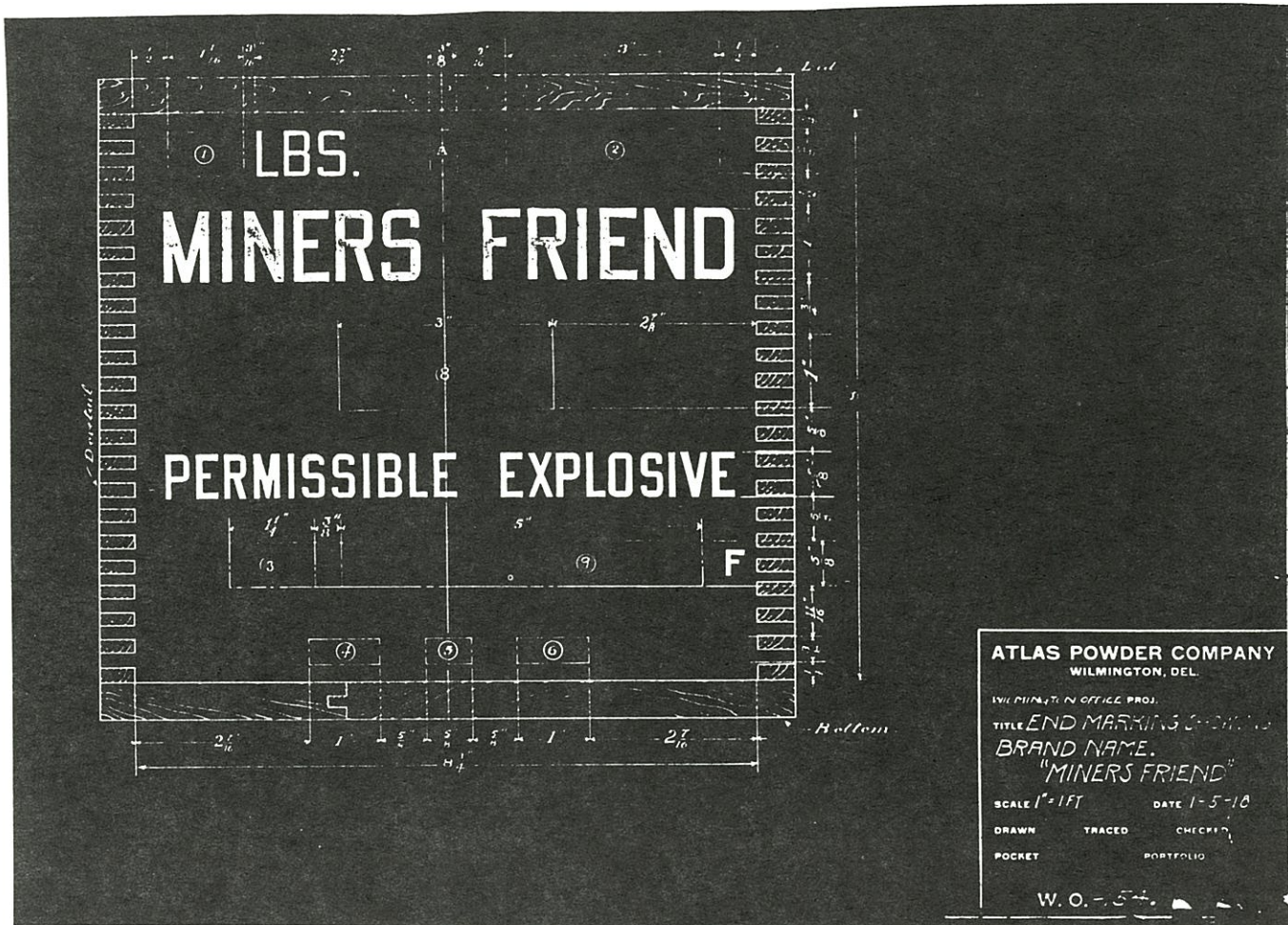
Curt found several of these superb end panel blueprints in the attic of the old dynamite box factory at the Atlas Powder Company's Tamaqua, Pennsylvania, plant before Atlas tore it down two years ago. The prints are 8 inches by 11 inches, black and white, and show all the exact dimensions and detail of the lettering for the final production of the box end.

Shown in this article are two of the best that Curt found. The Giant end is for a ten pound box and the Miners Friend is a brand of powder that I have never seen or heard of before.

As described by Mark Bohannon in his Giant Powder Company article (MAC Issue Number 16, Fall 1992), Atlas acquired a controlling interest in the Giant Powder Company in 1914 and started managing the company in 1916. This just happens to be the same year that is on the Giant blueprint--May 19, 1916. The Miners Friend blueprint is dated January 5, 1918.







## THE ILLINOIS BLASTING CAP TINS

by Mark Bohannon  
Oro Grande, California

On May 3, 1907, the Illinois Powder Manufacturing Company was incorporated in Missouri by J. Lowe White, with a factory located near Grafton, Illinois. On October 1, 1957, all of the assets of the Illinois Powder

Manufacturing Company were sold to the American Cyanamid Company.

There are four major styles of cap tins from this company. The two on the left are very rare while the two on the right are common.



White with black lettering



Bright red with gold lettering



Metallic red with gold lettering



Maroon with gold lettering

# THE V. L. OIL LAMP - AN UPDATE

by **Tony Moon**  
Sandy, Utah

Since the initial information on the V. L. lamp (Steinberg, J., "Notes on the V. L. Lamp," MAC Issue No. 1, Fall 1988) was published, one distinctly different style of V. L. lamp has been found, one minor variation of the lamp sketched in the original article has been identified, and a total of three patents have been traced.

Two different styles of V. L. lamps were manufactured and are shown in Figure 1. The lamp on the left is very similar to the one sketched by Jim, but the lamp in the photograph follows the 1914 patent more closely. The differences are in the hinge construction. (There are no spot welds and the bottom part of the hinge is comprised of a bent piece of the lamp body.) The hook fastening (spot welding is not used and the hook is attached with a plate or brace which is riveted to the lamp body), the hoop or hinged heater attachment is not by rivets, and finally the words "PAT PENDG." are not present on the lid. The lamp on the right works using a principle similar to the others but its construction is very different. The lamp has two fixed tin discs at the end of the spout which allow the flame to heat a single copper strip.

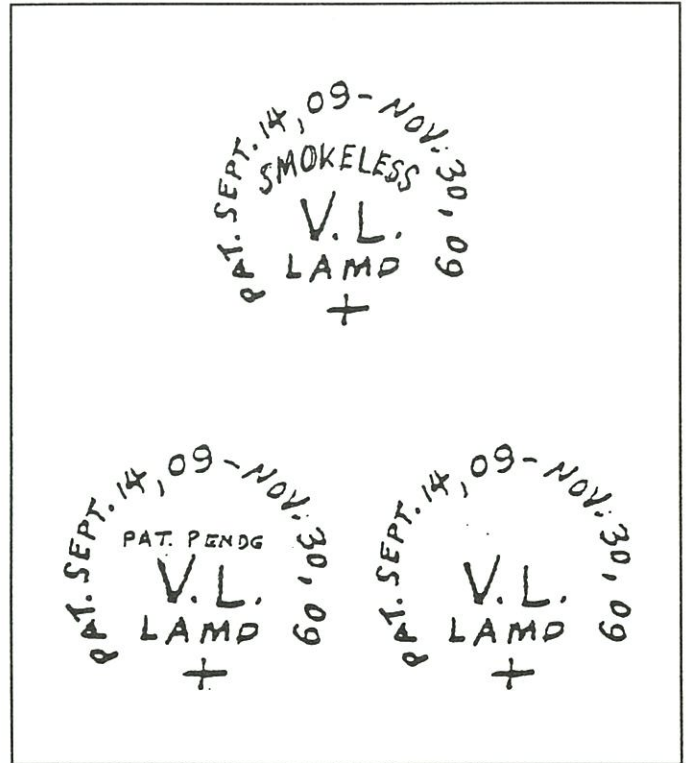


Figure 2. The different V. L. lid markings.

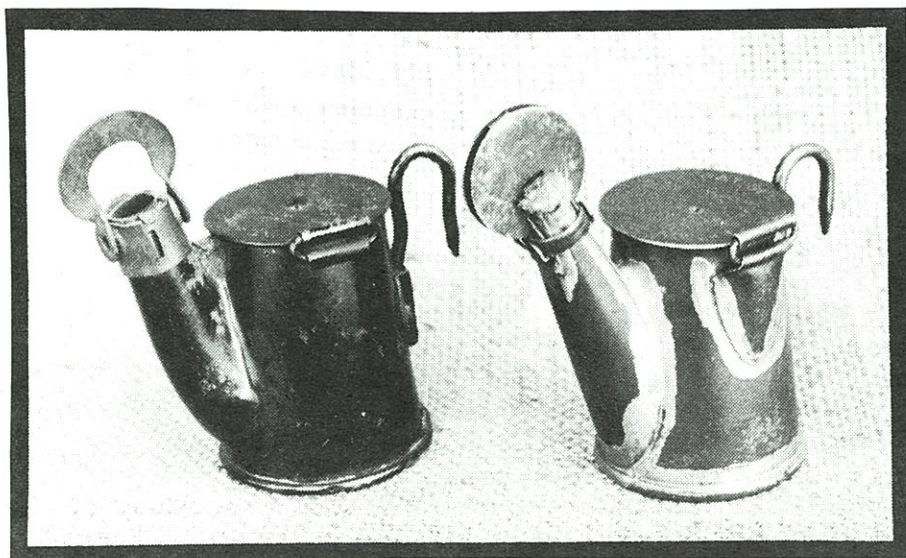


Figure 1. The two distinctly different styles of V. L. lamp. (Tony Moon collection)

## Miner's Sunshine

*Brightest and Cleanest  
Light a Miner Can Use*

The strip is in contact with the discs and goes down the inside of the spout and across the base thus heating and melting the sunshine fuel. The wick is split at the top of the spout and divides on either side of the discs. This design is somewhat impractical as the discs make it very difficult, if not impossible, to raise the wick. The lamp is of conventional, unpainted (not Japanned) tin construction. The lid has the word "SMOKELESS" added to the other markings. The various lid markings are shown in Figure 2.

The lid markings indicate that there are two patents for the lamp. A third patent, which illustrates one of the lamps actually manufactured, has also been found. The patents were granted to either (or both) Adletia Mae Van Liew or John Van Liew (the surname is presumably the origin for the V. L. name) who resided in Houghton, Michigan, in 1909, and by 1914 were residing in Chicago. The patent dates and numbers are as follows and the more important patent illustrations are shown in Figures 3, 4, and 5.

Application Date	Patent Date	Patent Number
Dec. 2, 1908	Sept. 14, 1909	934,243
Mar. 31, 1909	Nov. 30, 1909	941,897
Apr. 23, 1912	Mar. 17, 1914	1,090,250

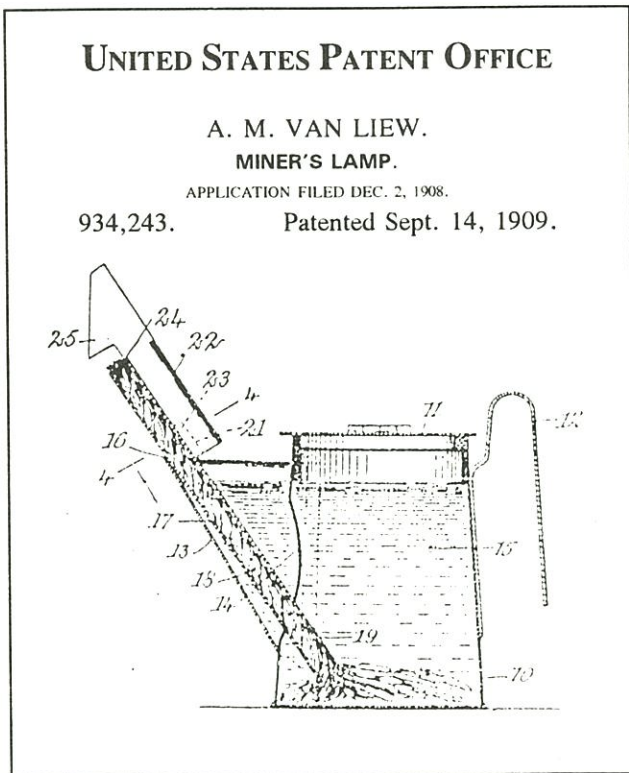


Figure 3. The September 14, 1909, patent drawing for patent No. 934,243.

As pointed out in Jim's article, the V. L. lamp was of late vintage for an oil wick lamp. The 1914 date of the third patent and advertising which has been found dating as late as 1914, indicate that it was one of the last oil wicks trying vainly to compete with the carbide lamp.

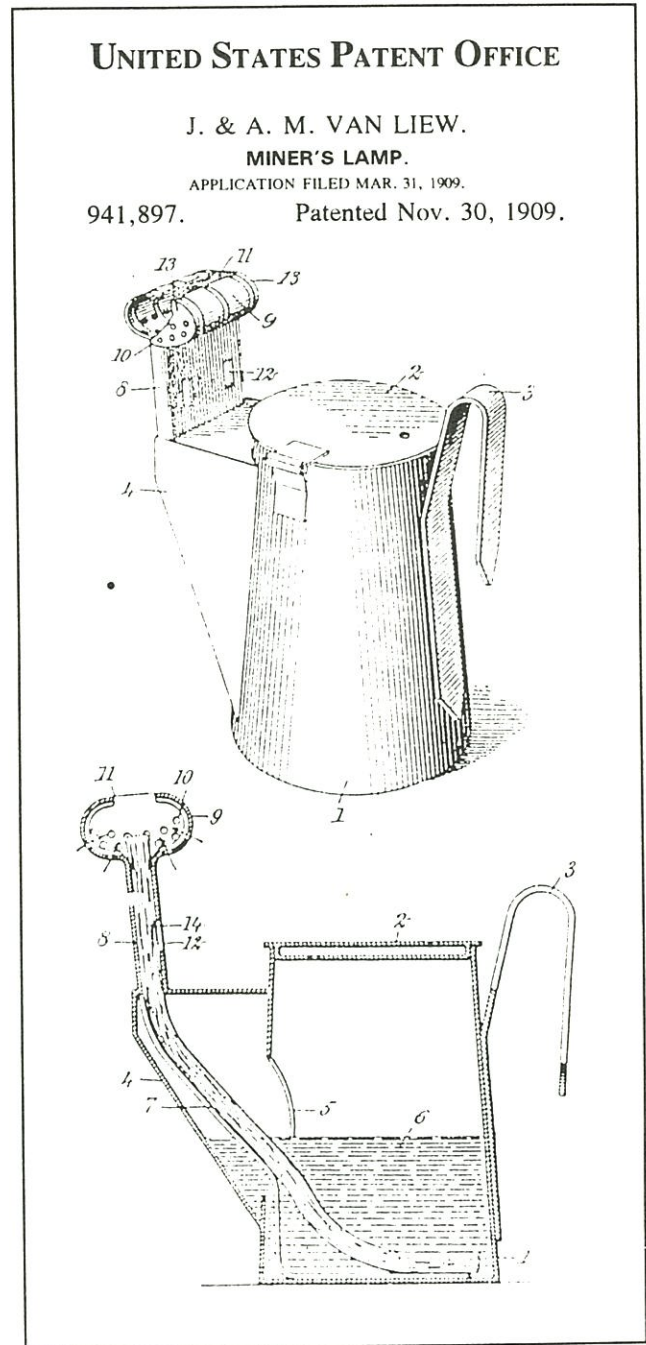


Figure 4. The patent drawings for patent No. 941,897, dated November 30, 1909.

UNITED STATES PATENT OFFICE

J. VAN LIEW.  
MINER'S LAMP.

APPLICATION FILED APR. 23, 1912.

1,090,250.

Patented Mar. 17, 1914.

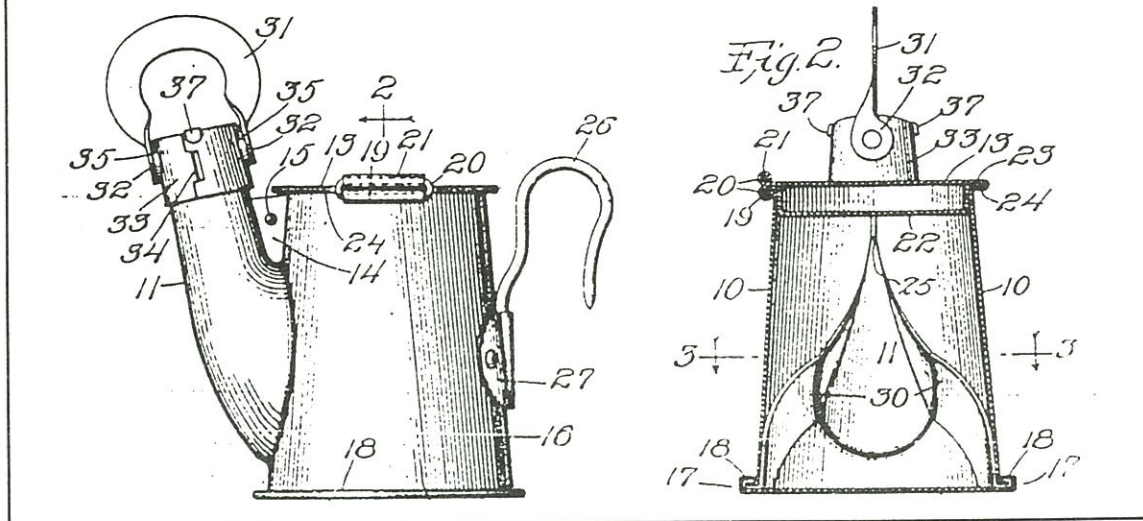
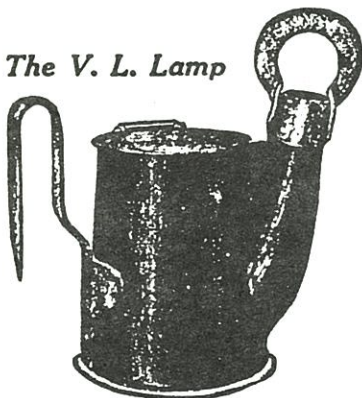


Figure 5. The patent drawings for patent No. 1,090,250, dated March 17, 1914.

The V. L. Lamp



Sectional View, Showing Heater

# Miner's Sunshine

*Brightest and Cleanest Light a Miner Can Use*

Office of  
STATE INSPECTOR OF MINES  
Room 110 State House  
INDIANAPOLIS

STANDARD OIL COMPANY:

Gentlemen:—Some two years ago I gave you a recommendation on Miner's Sunshine, stating at that time I had always advocated its use in our mines and that my reason for this was it produced better light and comparatively no smoke at all.

I am pleased to state that my views regarding this product are the same today, if not even stronger than they were at the time I gave you the recommendation referred to and, furthermore, in making our rounds of inspection I find practically every mine of any consequence using Miner's Sunshine.

It is my desire and I should like very much to see the time when Miner's Sunshine takes the place of oil entirely in the mines.

You may rest assured that not only myself, but my deputies (who agree with me that Sunshine is better than oil) will take pleasure in recommending its use, fully believing that in so doing we are aiding a good cause.

Yours very respectfully,

(Signed) JAMES EPPERSON,

Inspector of Mines.

## STANDARD OIL COMPANY

(AN INDIANA CORPORATION)

# SURVEYOR'S SPADS

by Michael Ebers  
Clinton, Tennessee

In answer to the Fall 1992 issue of the MAC, I will try attempt to provide a description of how surveying spads or pins were used during mine surveying.

A hook type of spad was used at the Austinville Zinc Mine in Austinville, Virginia, in the 1970's where I worked for five years. These spads were driven into wooden plugs in holes drilled in the roof of drifts and raises. These control points were called *grade and control plugs*. The wooden plugs were always in pairs, 10 to 20 feet apart and spaced about 150 feet apart along the drift or raise.

The grade and control pins were installed as a drift or raise was being driven to insure that the grade/inclination and bearing were being maintained. If the drift or raise had been advanced 150 to 200 feet beyond the existing grade pins, or if a change in direction or inclination was called for, a new set of pins were installed. The surveying crew would drill a six inch deep hole in the roof of the drift or raise near the face with one of the development crew's jackleg drills. Then a pine plug and spad were inserted into the hole. This was now the new rear control pin. The surveying crew would then set up the transit directly below the new rear control pin. They would hang a surveyor's light on one of the previously installed control pins 150 feet back down the drift and turn the proper angle. Then, by sighting through the transit, the surveyors would be able to align the drill to drill the new front control pin hole in the roof of the drift about twenty feet closer to the face. A pine plug and spad were also inserted into this hole.

Back at the office, the surveyors would calculate the exact location and elevation of the two new control pins. It was important that the drift maintained the proper bearing and grade. The grade in a drift was normally  $+1/2$  degree, so that water would drain back towards the entrance. The surveyors would then cut two pieces of steel chain about four feet long and stamp on the washer either "Front" or "Back." The length of each chain had been calculated so

that the proper grade would be maintained. The development crew would, prior to drilling each new round of holes at the face of the drift, hang the two chains from the two control pins. They would then, using the two washers as a sight, mark the aligned point on the face of the drift. This point should be in the center of the face of the drift, four feet from the floor. If the sighting was off, the drillers would know to "pull" the drift to the right or left, or bring the drift up or down during the next round. This same procedure was used for driving inclined raises also.



Shown above are two spad markers. The marker on the left, which is aluminum, is from the Anaconda Copper Mining Company and is the most recent type used. The marker on the right (stamped 311) is brass and was found in the Waterloo Mine at Calico, California, and dates to the early 1890s.



The top spad is brass and is unmarked from the Howells Mining Drill Company. These spads have a hole drilled in them for hanging the plumb bob. The two marked steel spads on the bottom are from the Keuffel & Esser Company. Note the hook at the end of the spad for hanging the plumb bob.

# THE GRAND DADDY OF CANDLESTICKS

by **Ted Bobrink**  
Redlands, California

Just about one year ago I was in the process of buying a collection of mining artifacts from a private party who had been running an antique shop and museum in southern Colorado. While going over the list of items to choose from, I kept passing over an item described as a large candlestick with three thimbles. In my mind I pictured a large, hand made candelabra type holder that you sometimes see in the early rush light books.

The person I was dealing with kept telling me that I should not pass up this candlestick as it was very unique and not like any of the other sticks I had bought. Finally, after some stiff persuasion, I agreed to add this item to my list on the grounds that if I didn't like it, I could return it with no hassle.

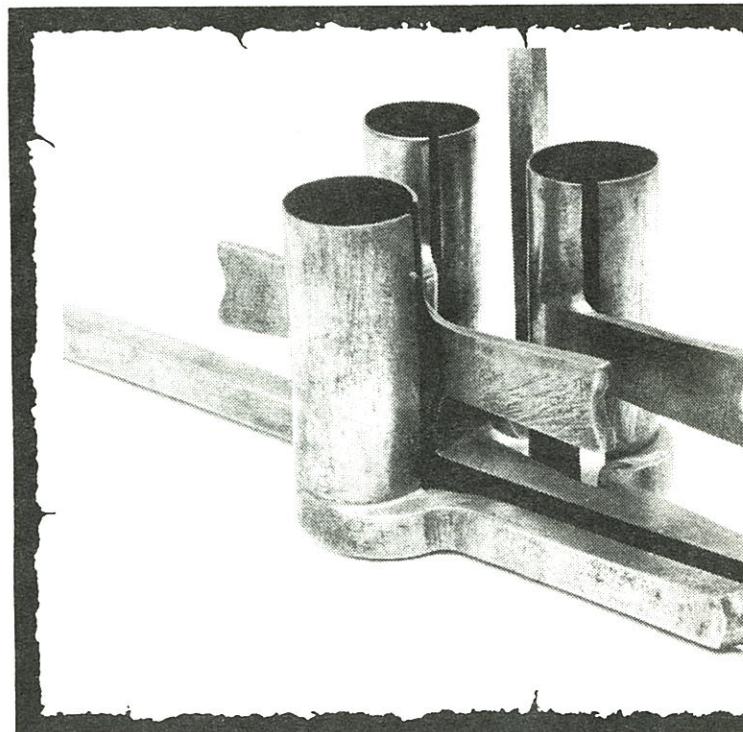
When the box of items I had bought finally arrived, the miners' candlestick you see just happened to be packed on the very top and was the first thing I unwrapped. I really don't know how to put into words what an unexpected surprise it was to unwrap such a magnificent piece of workmanship. I have seen as many miners' candlesticks as anyone ever has, and this one, to me, is the utilitarian "grand daddy" of them all.

Obviously, the most unique feature of this candlestick are the three thimbles. I have seen double thimbles on candlesticks many times before, but I have never seen three. If you are wondering why someone would want to burn three candles at once, one can only speculate that the mere size of this candlestick would indicate that it may have been used around a drilling rig or a main ore shoot. In just about every underground photograph I have seen of a drill being worked, there are always several candlesticks either stuck in a wall or hanging on the drill itself. There is also the possibility that the miners using this candlestick may have only wanted to burn one candle at a time and would only have to light the next candle when one was going out without having to reload.

This candlestick is very well proportioned considering it's a full eighteen inches long. The hook is six inches high and has a double bend to extend it past the thimbles. The three thimbles are each two and a half inches tall and are aligned in a triangle with the hook in the center. This gives the stick a good center of balance while the hook is actually being used. Balance would be very important considering the weight of the thimbles with unused candles in them.

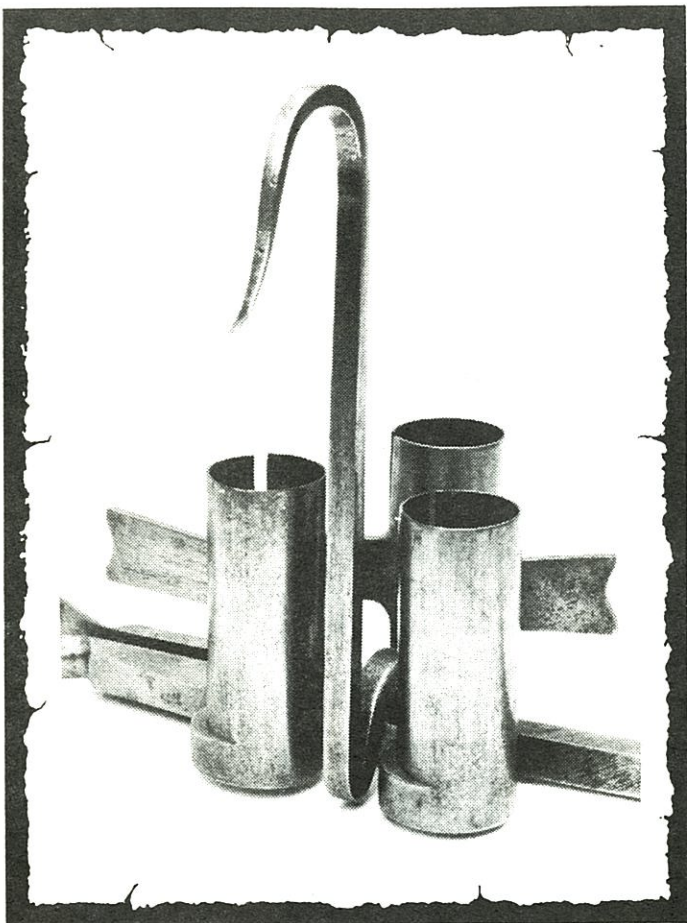
Another interesting feature relating to the weight of this candlestick is that the point of the shaft has been filed down on the top and bottom to give it the shape similar to that of a rock chisel. This allows for considerably more metal to be at the very end making it more durable and less likely to break off.

Shown below is a close-up view of the left side of the candlestick showing the three thimbles and thumb tabs.



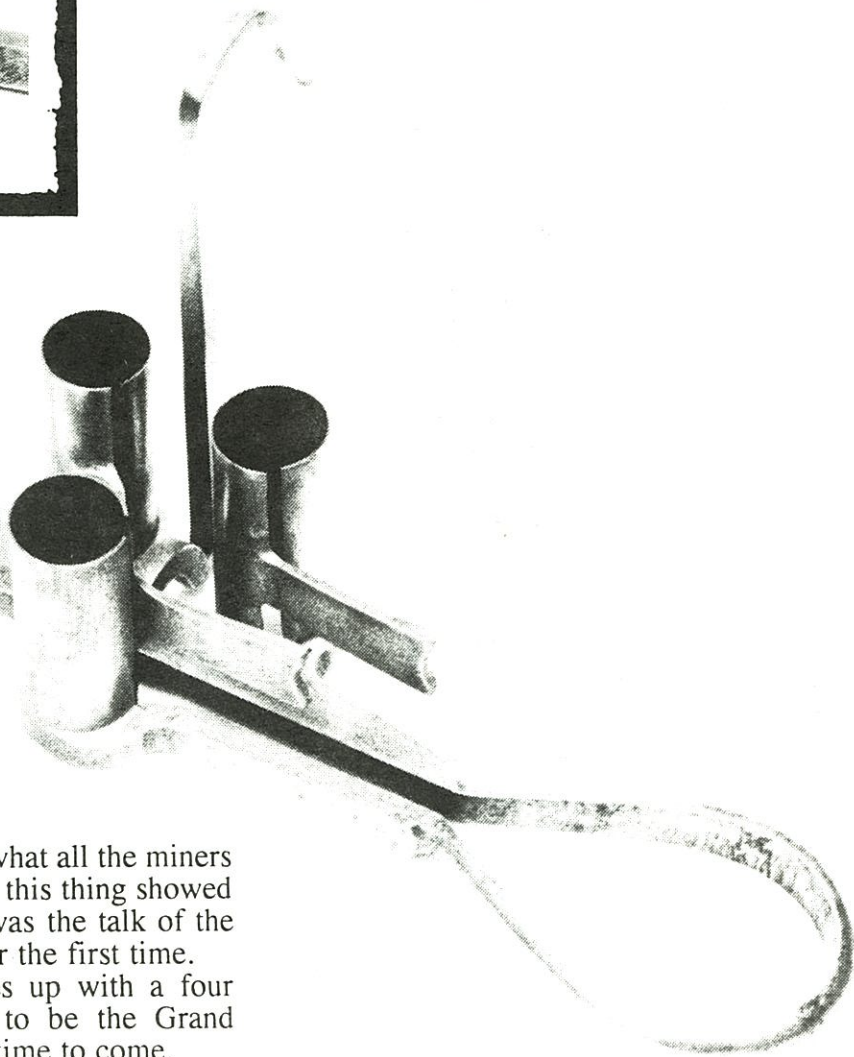
At the left is a view of the right side of the candlestick showing the design of the hook in relation to the thimbles.

This candlestick had so much tarnish and wax in between the thimbles that you could not even tell how the hook was formed. There was a tag tied onto the handle and it stated that it had been bought in 1981 from Owen Fuhlrodt of Victor, Colorado, for \$200. Well, as luck would have it, I have had the pleasure of knowing Owen ever since my candlestick book came out in 1983. So I gave him a call to see if he could tell me anything about the history of this three thimble giant. The first thing Owen said to me was that this was the only candlestick he was sorry he ever sold. Owen went on to say that he had bought the stick from a guy who had found it in an attic in Colorado Springs, and that no one knows for sure where it had been used.



One can only wonder what all the miners thought when whoever owned this thing showed up at the mine. I'm sure it was the talk of the camp wherever it was seen for the first time.

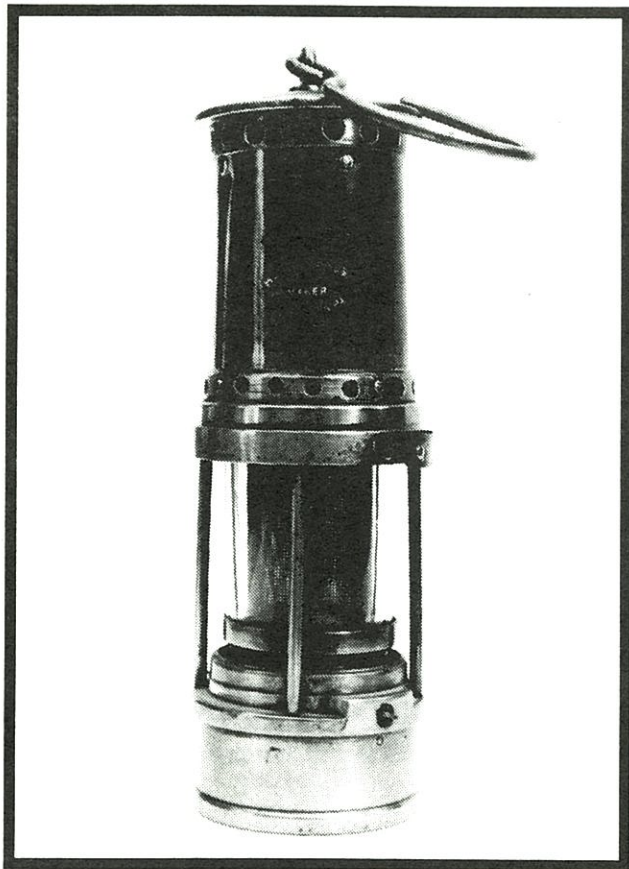
Until somebody comes up with a four thimbler, this one is going to be the Grand Daddy of them all for a long time to come.



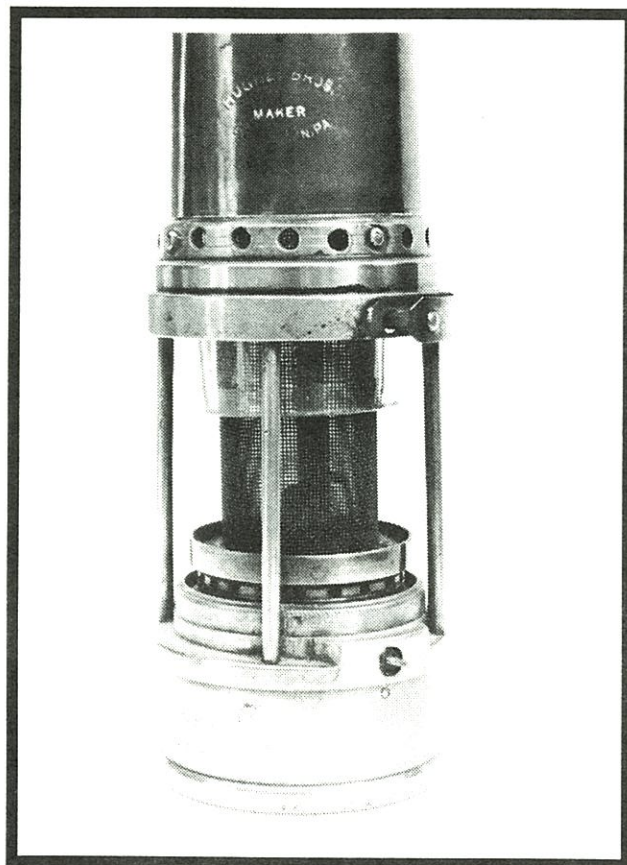
# THE JACK DAVY SAFETY LAMP

by **Tony Moon**  
Sandy, Utah

The first "Jack" Davy lamps were standard Davy lamps with the addition of an external glass cylinder surrounding the lower two-thirds of the gauze. This type of lamp was used in the North of England from about 1850.<sup>1</sup> The glass was supported from metal pegs above the oil reservoir which provided a gap and allowed air to enter through the gap and thus through the bottom of the gauze next to the flame. This modification allowed the common Davy lamp to be used in stronger air currents. An illustration of a similar lamp manufactured by Hughes Brothers of Scranton has been found,<sup>2</sup> although an example of this lamp has not been seen by the author.



**Figure 1.** Jack Davy lamp by Hughes Brothers of Scranton, Pennsylvania. Ted Bobrink collection



**Figure 2.** Jack Davy lamp by Hughes Bros. with the glass cylinder partly raised.

Some time later a bonnet was added and this form of Jack Davy must have achieved some degree of popularity in the United States judging from the number that have turned up in the Eastern part of the country. Three examples of this lamp manufactured by Thomas and Williams of Aberdare (South Wales) and one manufactured by Hughes Brothers have been examined by the author. Examples of both are shown in Figures 1 and 3. The Hughes Brothers lamp is also shown in their advertisement shown in Figure 4.



The lamp was intended as a testing lamp for use by fire-bosses. Normally the lamp is carried with the glass in the down position (as in the photographs) thus protecting the flame from strong air currents. Holes in the brass ring supporting the glass allow air to enter the lamp through the gauze next to the flame. When the lamp is used for testing, the glass cylinder is pushed up inside the bonnet where it is held in place by a peg and spring mechanism (Figure 2). The bonnet can be removed from the lamp without unscrewing the oil vessel.

This type of lamp is also referred to in the literature as a "bonneted" Davy (incorrectly, as there are several different types of Davy lamps with bonnets) and a "Cambrian." The origin of the "Cambrian" name is not known, but Thomas and Williams referred to many of their lamps as "Cambrian Model 1, 2, etc."

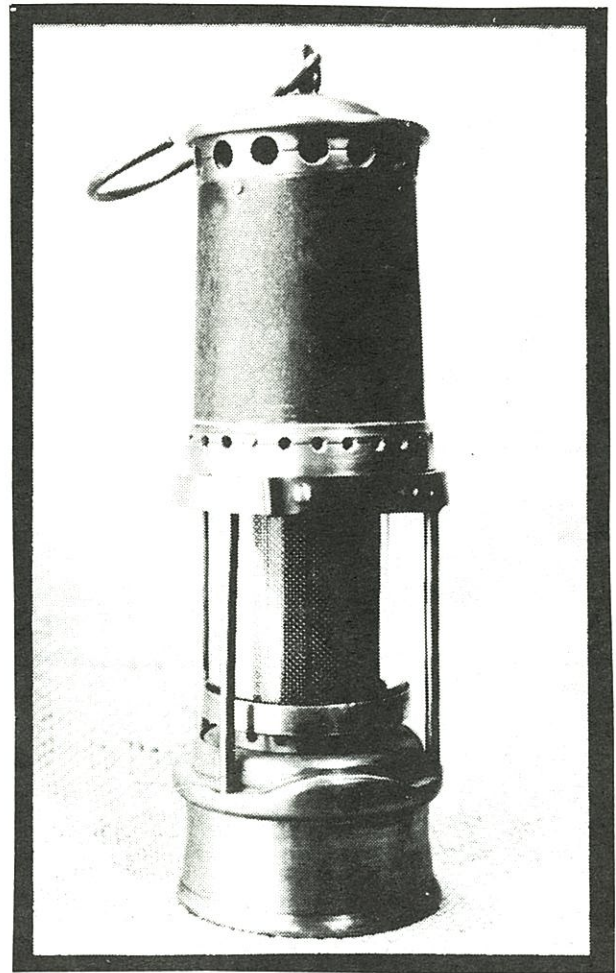


Figure 3. Jack Davy lamp by Thomas and Williams of Aberdare, South Wales. Tony Moon collection

**HUGHES BROS.**  
 Manufacturers of  
 Safety and Acetylene  
**MINE LAMPS**  
 Supplies of All Kinds  
 424 No. Main Ave., Scranton, Pa.

Figure 4. An advertisement for Hughes Brothers safety lamps from a 1915 issue of Coal Age (Vol. 8, No. 19). The Jack Davy is fifth from the right.

**HUGHES BROS.**  
 Manufacturers of  
 Safety and Acetylene  
**MINE LAMPS**  
 Supplies of All Kinds  
 424 No. Main Ave., Scranton, Pa.

1. Spencer, A. J., *Catalog of the Collections in the Science Museum; Miner's Lighting Appliances*. HMSO, London, 1926.

2. Beard, James T., *Mine Gases and Ventilation*. New York, 1920. Figure 60.

# FROG LAMPS

## PART V

by Wendell E. Wilson  
4631 Paseo Tubutama  
Tucson, Arizona 85715

### FROG LAMPS FROM OTHER REGIONS

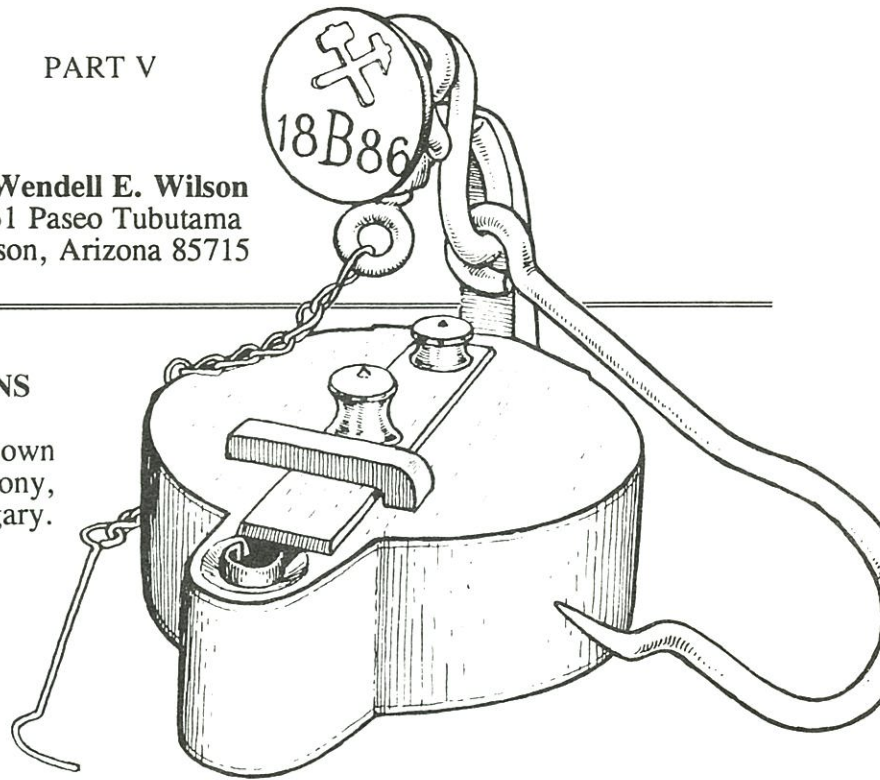
A number of frog lamps are known definitely to be from regions other than Saxony, Westphalia, Hessen, and Austria-Hungary. These regions are:

- (1) Bavaria
- (2) Tiffin, Ohio
- (3) Mexico City
- (4) New York
- (5) London
- (6) Poland
- (7) Russia

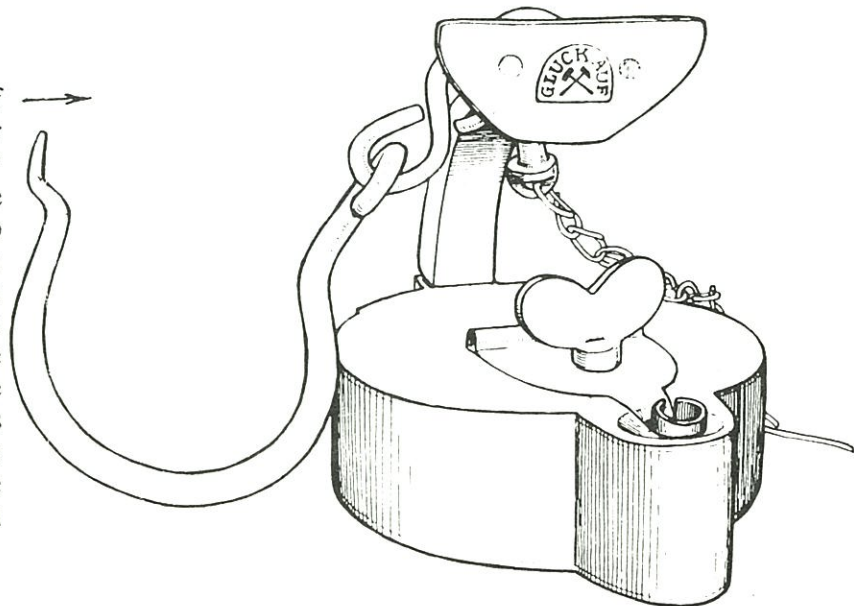
Though most of these have distinctive design aspects, it is conceivable that all but the British example were made in Germany and exported. The alternative for the Ohio example, however, is the Black Forest in Baden-Württemberg. No other frogs are known definitely to be from Baden-Württemberg, but the Ohio example is essentially indistinguishable from what is classified as a Westphalian frog, suggesting that the Westphalian design was produced over a larger area.

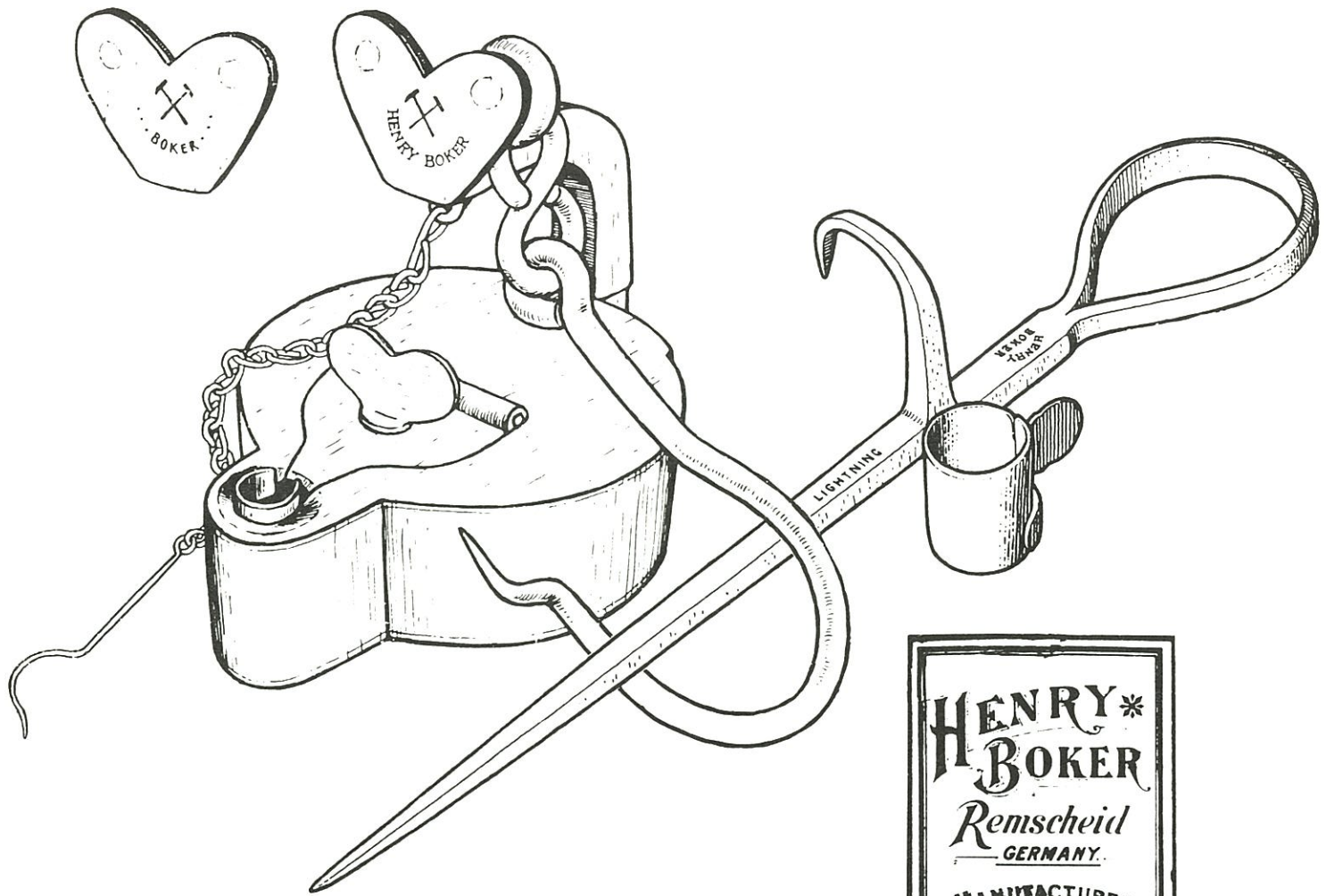
**Figure 65. Ohio Frog.** This lamp is clearly of rather common Westphalian design, except for the cartouch which encloses the "GLÜCK AUF" and the *Schlägel* and *Eisen*, . . . the only example I know of which is so marked. According to Mrs. Rhea Mansfield Knittle, "When German migrants settled in Seneca County, Ohio, in 1843-47, several blacksmiths came and settled in and near what is now Tiffin, Ohio. They came from the Black Forest, and they made these lamps, and other kinds of metalwork. The lamps burned bear grease,"\* If this is true, it appears the blacksmiths of Baden-Württemberg made frog lamps in the Westphalian style. (Collection of Bertram K. Little)

\* Letter in the possession of Bertram Little.



**Figure 64. Bavarian Frog.** Frogs with a round shield are rare. This all-brass example was used in the silver mines near Bodenmais in Bayerischer Wald. The finely crafted quality, pivoting font lid, large embossed *Schlägel* and *Eisen*, and dated shield make this a very desirable lamp. (Bodenmais Museum collection)





**Figure 66. Henry Boker Frog.** Heinrich Böker operated a hardware and cutlery company in Remscheid, Germany, in the early 1800's. In 1837, *Hermann* Böker moved from Solingen, where the family owned a cutlery factory, to New York City and there established the Henry Boker Company. (The H. Boker Company is still alive in Scarsdale, New York, but it is an inoperative holding company now.) Later, in 1867, another branch office was opened in Mexico City, a factor which no doubt accounts for the large number of Boker frogs found even today in Mexico. These American offices were apparently distribution centers only, for items manufactured in Remscheid and imported for sale here. The items stamped "Henry Boker" must have been made primarily for the American distributors, considering that "Henry" is an Americanization of "Heinrich." However, the company also sold miners' candlesticks (stamped "SUNSET," "LIGHTNING" and "HENRY BOKER"); the box for these states:

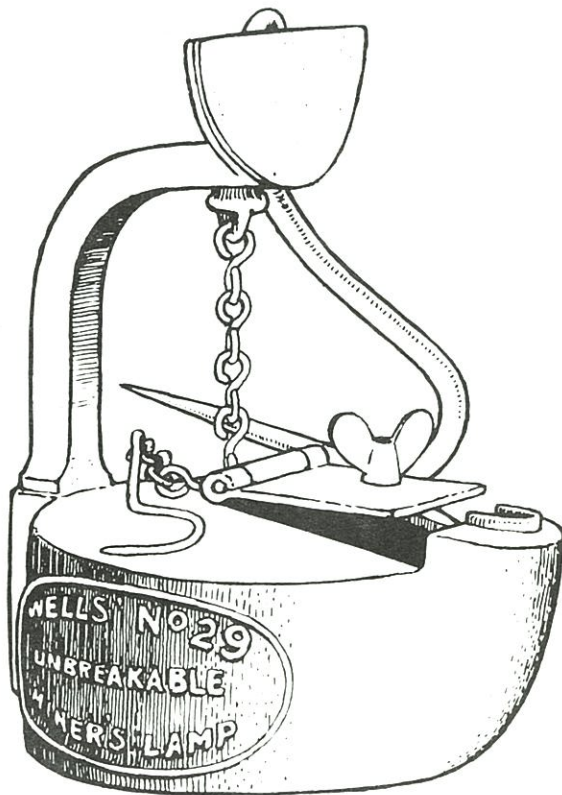
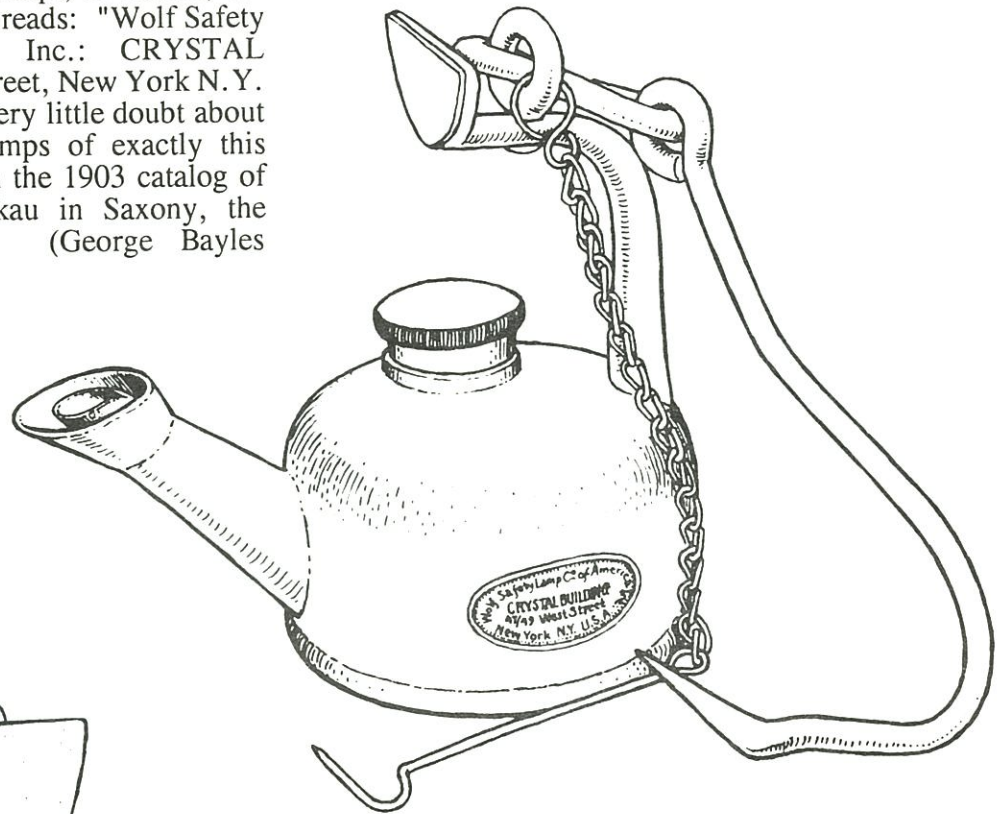


Label from box of candlesticks, Ramsdell collection.

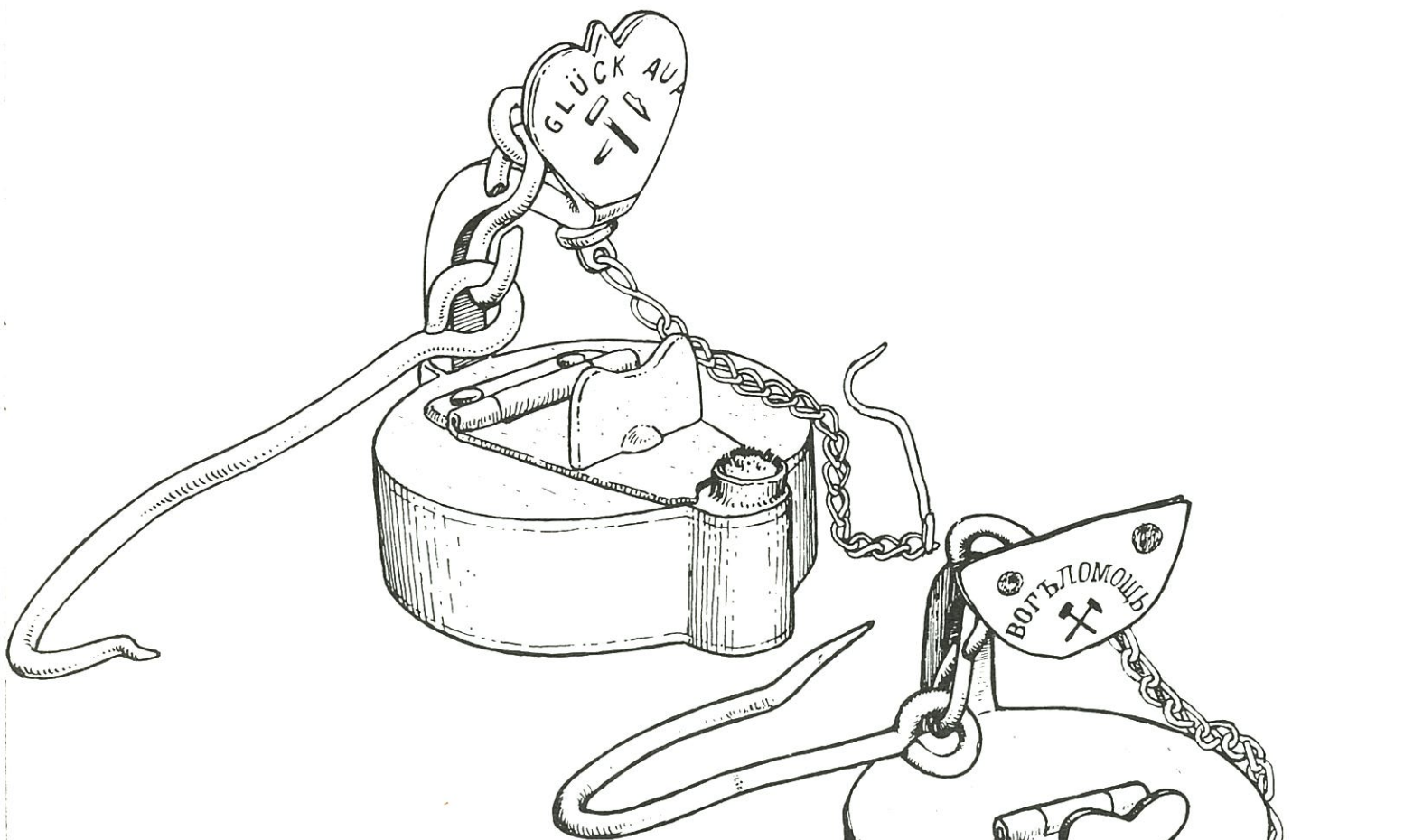
"Well known throughout the world is the high standard of all articles bearing the name of Henry Boker."

So it is possible that "Henry Boker" items were marketed in other countries besides America. Two types of shield stamping are known on the frog lamps. The one bearing only the last name, "...BOKER...", is by far the rarest of the two. (Collection of the author)

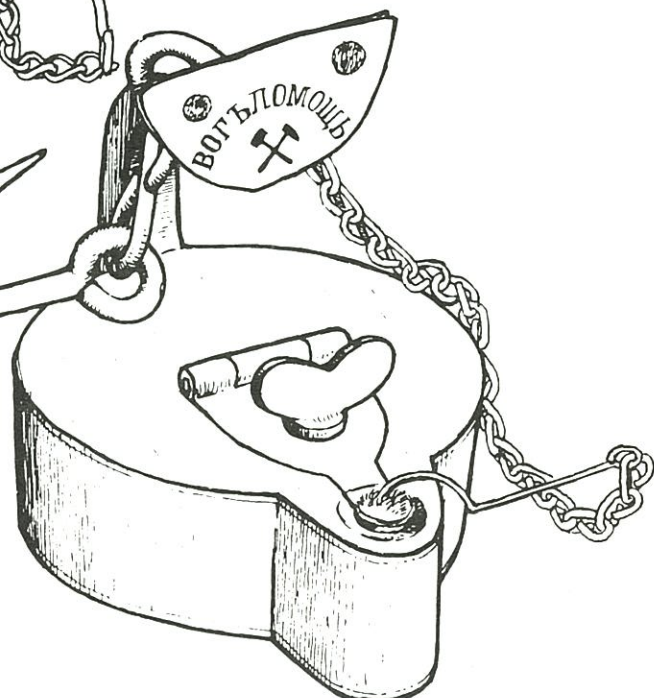
**Figure 67. Wolf Spout Frog.** The unusual feature of this frog is the spout and the cannister-like construction of the font. The shield plate, font cap and chain are brass; the rest is steel painted a metallic gray. Except, of course, for the brass name-plate which reads: "Wolf Safety Lamp Co of America Inc.: CRYSTAL BUILDING, 47/49 West Street, New York N. Y. U.S.A." . . .which leaves very little doubt about who the maker was. Lamps of exactly this design were also offered in the 1903 catalog of Friemann & Wolf, Zwickau in Saxony, the German Wolf company. (George Bayles collection)



**Figure 68. Wells Frog.** The firm of A. C. Wells & Co. in London (with works in Cheetham, Manchester) made the only known British frog lamp. The lamp is cast iron for the most part, and has text cast prominently into both sides. One side reads: "WELLS' N°29 UNBREAKABLE MINER'S LAMP," and the other side reads: "A. C. WELLS & CO./ STRENGTH & DURABILITY." Wells also made a Giesser lamp, similarly stamped. Their advertisement in the September 19, 1902, edition of *Engineering* said this lamp was made to burn "Colza and other heavy Oils for use in Miner, &c. Price 3/- each. Fitted with an oil Save-all, Hook, Pricker and Chain, and Malleable Faceplate for stamping owners' name or number on. Burns 12 hours. Holds half-a-pint." In the only example I have actually seen, the shield looked like iron, definitely not brass, though perhaps it was purposely softened iron. (David Crawford collection)



**Figure 69. Polish Frog.** There are a number of unusual features about this frog from Poland: (1) "GLÜCK AUF" is written in German, instead of Polish, possibly suggesting German manufacture or use in a German-speaking part of Poland. On the other hand, perhaps the phrase was so universal among miners that it crossed language barriers. (2) The "spiked heart" shape of the shield. (3) The crossed hammers punched in one part at a time instead of by a single punch. Also, the letters appear to have been punched individually, since they do not all line up. (Some collectors would consider this as evidence of possible forgery of the shield markings, because a lamp-maker would be expected to have his own single stamp for "GLÜCK AUF" and the crossed hammers.) (4) The unique shape of the latch handle. (5) The very round shape of the font. (Karsten Porezag collection)



**Figure 70. Russian Frog.** Probably made in Germany on a special order, this frog carries a cyrillic inscription meaning "God Protect Us." It was used in the nickel mines near Karel'skaya, Yakutsk, U.S.S.R., and is presently the only known example. (Karsten Porezag collection)

### CONCLUSION

This concludes our series on frog lamps. Obviously there is a tremendous variety of devices in this category, a fact which makes the collecting of frog lamps a richly historical and fascinating endeavor. There are doubtlessly many other interesting examples beyond those illustrated in this series, and we'll be happy to illustrate them in future articles if readers can provide photos.

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# NOTES ON SOME GOOD COLLECTING IN NEVADA

by **Martin Jensen**  
Reno, Nevada

and **Lane Griffin**  
Reno, Nevada

It's dark now, the rain from the intense thunderstorm is waning, and we're inside a real Nevada cafe/truck stop/bar having two frosty Budweisers. The heat of a typical dry Nevada summer day is behind us, as are a large variety of abandoned mine workings which we had explored for mining artifacts. More than a third of our time was spent examining the workings in a district dating from the 1870's. Just about everything we explored had square nails, but a disgusting lack of artifacts. Another third of our time was taken up checking out locally moist mines in a more recent district. After being skunked in the 1870's district, we were "rewarded" with three immense light bulbs that were dated 1904, and one perfect 1912 fifty pound Hercules powder box.

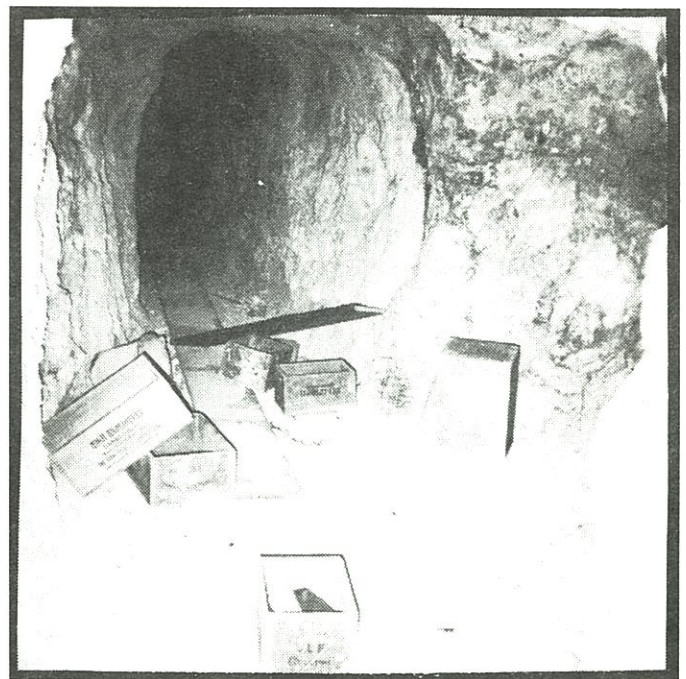
Feeling better, we decided to check out other shafts and prospects in this district. To our disappointment, all of our time and effort was in vain; more barren shafts and more fruitless searches.

As the sun was starting to get low and the mountain ranges started to become silhouetted on the skyline, we struck out for a few isolated workings away from the main district. The first decline we came upon had already been explored by field geologists with a major company--they had left their telltale pink flagging as evidence of their presence from sampling (and, incidentally, extracting most mining artifacts of interest). In this instance, however, they had left some important pieces, believing them to be of little value. It turned out that the original workers had utilized Giant Eagle products, vintage 1905-1906. We recovered two ends from Eagle boxes of a style never before seen, especially for such a rare and desirable item!

Our motivation was obviously heightened, and we thus hastily headed for another nearby area. The sun was going down, it was late, and we were tired. The mine displayed a fair-sized dump, and was well timbered and dry. Descending, a level was encountered at about 75 feet with extensive workings, but was devoid of artifacts. Descending further, another level was met with at about 150 feet. This level was similarly extensive, and peering down the shaft, we could

tell we would have at least one more level before the bottom. The 150 foot level produced a California Cap Company No. 3 cap tin, a Velvet tobacco tin, and a beautiful fifty pound Hercules Dynamite (not Powder or Gelatin) box of a type never before observed by us. This box was not ICC-14 vintage, nor was it Du Pont controlled, and it was in mint condition. The bottom was reached at about 350 feet and proved to be fruitful. This level was similarly extensive and was literally strewn with artifacts, most in perfect conditions of preservation. Another Hercules Dynamite fifty pound box was present--this time labelled California Powder Works--as well as several other more typical brands of powder boxes from the era (about 1905) and a couple of perfect bottles. All of the items were extracted carefully, and upon reaching the surface, proved to be excellent examples.

By this time the temperature had reached near-perfect. The sunset was deep orange, and our truck was well loaded with artifacts to warm the collector's heart. And that's what mining artifact collecting is all about, Nevada-style.



Some of the boxes we found in one of the mines we explored.

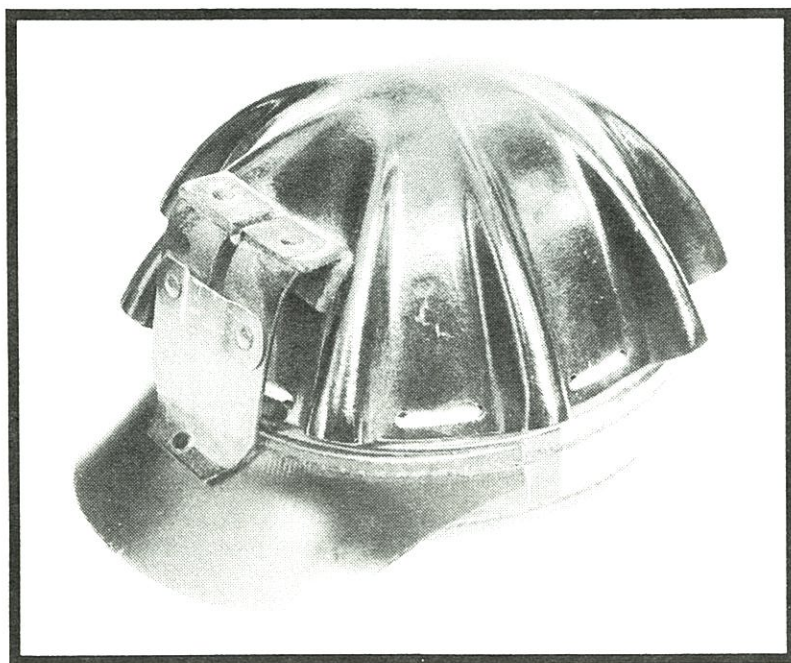
# THE COOL HAT

by Ted Bobrink  
Redlands, California

To me, one of the most enjoyable mining artifacts to collect are the early miners' hats. I'm talking about any one of the many different types that incorporate a device for holding a candlestick, oil wick or carbide lamp. These hats can still be found at quite reasonable prices compared to other mining collectibles. Most of the hats you will find are going to be the cloth type with either leather or cloth brims. There were also hats made from cardboard and leather similar to a more modern day hard hat.

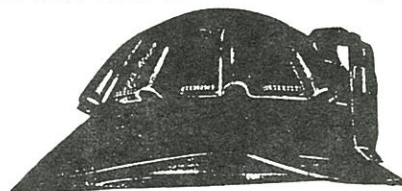
The miners' hat that I find to be the favorite among collectors is the "COOL HAT," also known as the turtle shell hat. The Cool Hat shown in the photograph is in mint, unused condition and has a paper label on the side that says:

FLEXO BOND COOL HAT  
PAT USA JUNE 1933  
MINE SAFETY APPLIANCE CO. PITTSBURGH, PA.



## COOL HATS

*In Two New and Distinct Styles*



The COOL HAT with Sou'wester Brim



The COOL HAT with Hard, Stiff Brim

## COMFORTABLE

*Head Protection Assured*

These new hats, comfortable companions to the COOL CAP now so widely used by the coal mining industry, have been developed to satisfy a demand for a specific type of head protection in the mining, quarrying, and heavy construction industries.

The COOL HAT, with Sou'wester brim, permits carrying of materials over the shoulders of the workmen with assurance that the hat won't easily be knocked off. . . The hard-brim style will positively deflect falling materials and give neck and shoulder as well as adequate head protection.

WRITE FOR COMPLETE INFORMATION

## PORTABLE

LAMP & EQUIPMENT CO.

MANUFACTURERS AND DISTRIBUTORS OF SAFETY EQUIPMENT

405 Penn Avenue, Pittsburgh, Pa.

Figure 1. (Above) An ad from a 1935 issue of the *Explosive Engineer* advertising the two new styles of Cool Hats.

Figure 2. (To left) A mint, unused Cool Hat showing the paper label on the side. (Author's collection)



The later model Cool Hats like the one shown in the photograph (Figure 2), have a fiber type shell with a leather bottom and brim. The earlier models are made completely out of leather.

Compared to the earlier miners' hats that are available to collectors, the Cool Hats are late. You would think that they would be very common, but in fact they are quite uncommon. I would attribute this to the fact that they probably cost considerably more than the light weight cloth hats they competed with. All of the Cool Hats I have seen have been black except for one, and it was light brown in color.

According to the ad in Figure 1, there were two new styles available with wide protective brims. The hat at the top of the ad is described as a "SOU' WESTER" (Southwestern) brim and permits carrying of materials over the shoulders with the assurance that the hat won't be easily knocked off. I have never seen one of these new styles of Cool Hats and would like to hear from anyone that has.

**Figure 3.** (Opposite) An ad from a 1935 issue of the *Explosive Engineer* advertising the Cool Hat most commonly found.



The  
COOL  
CAP

**COMFORTABLE  
Head Protection**

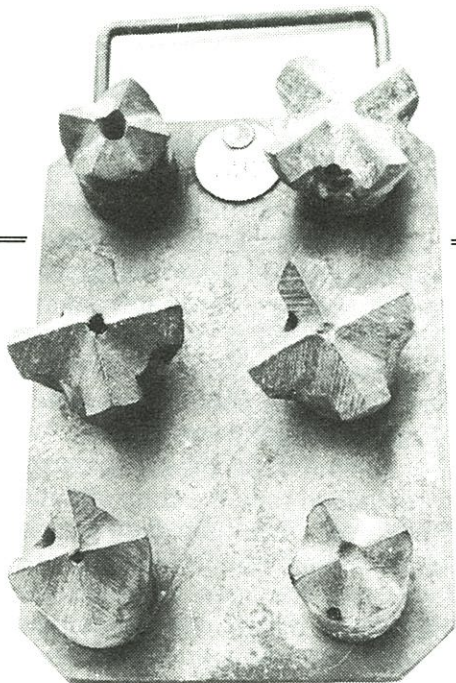
When you equip your men with COOL CAPS or COOL HATS you can assure them comfortable head protection . . . that's why thousands of workers in coal and metal mines, quarries, and the heavy construction industries so willingly wear them.

Write for Descriptive Literature

**PORTABLE LAMP & EQUIPMENT CO.**  
Manufacturers and Distributors  
405 PENN AVE. . . . . PITTSBURGH, PA.  
\*\*\*\*\*  
ANTHRACITE REPRESENTATIVE  
G. A. Luckenbach . . . . . Scranton, Pa.

## BIT RACKS

by **Richard W. Graeme**  
Tucson, Arizona



In the most recent issue of *Mining Artifact Collector*, under Collector's Talk, there is a photo of what is referred to as a drill bit carrier. Items similar to the illustrated were still very much in use when I started work as an underground miner in Bisbee more than 30 years ago.

Locally, they were referred to as bit racks. However, metal boxes capable of holding 24 bits were more commonly used at the Copper Queen.

Both were used prior to the introduction of knock off, disposable, carbide insert bits.

The intent of the rack was more than just a transport form for the miner, but also a simple way of returning the bits to the blacksmith shop where the bits were re-sharpened.

As might be expected, bit usage was a direct function of the rock type being mined. In soft carbonate or oxide ores, one rack (6 bits) of six would last several days. In normal limestone, three racks would be used in one day. Siliceous rock or ores would require 40 or more bits to drill out the six foot by eight foot by six foot deep round typically completed and blasted in a shift.

# GETTING A TASTE FOR MAYHEM

by **Jim Steinberg**  
Pasadena, California

On April 29, 1899, rebellious miners blew up the concentrator of the Bunker Hill and Sullivan Mine into match sticks. While this was an important event in the mining labor movement, it was also the real jumping off place for an itinerant miner who would eventually become one of the most infamous murderers of America's early twentieth century.

Albert E. Horsley was born on March 18, 1866, in what would become Ontario, Canada. After leaving Canada after many years of shady business dealings, Horsley headed for Spokane, Washington, where, in 1897 he assumed the new name of Harry Orchard. He then continued on to Wallace, Idaho, where he drove a milk delivery wagon. Harry made most of his deliveries in Burke, Idaho. While there, he invested in a  $\frac{1}{16}$  ownership in a mining prospect known as the Hercules Mine. He soon moved to Burke where he assumed control of a wood and coal company.

Orchard had a weakness for gambling which, by the summer of 1898 had overtaxed his finances despite his lucrative wood and coal business. He sold his share of the Hercules Mine and soon had to take on a partner in his business. Later, he even sold his interest in the business to his partner.



An original photograph of the Bunker Hill and Sullivan Mine concentrator explosion. (Author's collection)

Having no source of income, Orchard applied for work as a mucker at the Tiger-Poorman Mine and joined the Western Federation of Miners. Orchard was about to find himself right at the heart of one of the major events of the Western labor movement.

Orchard had been a member of the WFM for less than a month when the union posted the Bunker Hill and Sullivan Mine to get the miners there to join the union. The WFM was demanding that the Bunker Hill and Sullivan Mine pay their miners as much as all of the other union mines were. While the mine agreed to the new wages, it also fired all of the union miners it could discover on its payroll. By that night, the members of the Wardner Local of the WFM were very angry. On April 29th, Orchard learned that there would not be any work at any of the mines, but instead a morning meeting of the members of the WFM.

Apparently, it had been decided the night before by some of the union miners meeting in the town of Gem, Idaho, that the union would blow up the Bunker Hill and Sullivan. While some WFM leaders opposed such actions, they were unable to stop the miners from proceeding.

Shortly after the meeting, the miners gathered with their weapons at the rail station at Burke. The morning train from Wallace was commandeered and additional cars were added. Hundreds of men, including Harry Orchard, boarded the train which then headed down the canyon to Frisco, where the powder magazine of the Helena & Frisco Company was raided. They then continued on to Gem where guns and ammunition were loaded onto the train and more armed miners boarded. The train then returned to Frisco for more dynamite. In Wallace, even more miners got onto the train. About 1,200 miners and thousands of pounds of dynamite were now headed for the Bunker Hill and Sullivan Mine. Because all of the telegraph lines had been cut, emergency communications outside the region was impossible.

Arriving in Wardner, the miners set out under the command of W. F. Davis, the leader of the WFM local at Gem. The miners were told to advance up the hill to the concentrator. During this time, which he viewed as foolhardy, Orchard spent the time in the depot restaurant.

After the concentrator had been occupied, without resistance, Orchard and some of the other miners were sent to work lugging up the boxes of dynamite to the concentrator. Davis, experienced with dynamite, next put the miners to work setting the powder where it would have the greatest effect. All around the mine and in the bottom of the boiler room charges of powder were placed. Orchard knew nothing about explosives, but was fascinated nonetheless. In fact, when it was time for volunteers to ignite the charges, Orchard was one of the first to step forward. Orchard was sent down into the boiler room where, upon word from Davis to light the fuses, he did so. After all of the fuses had been lit, he then scrambled out through a window

which had to be broken to allow exit. The miners who had lit the charges all ran for their lives down the hill.

When the charges finally blew, they created a blast so large that it was heard fifteen miles away in Wallace. Later, the boarding house of the Bunker Hill and Sullivan Mine was set on fire along with other outlying buildings.

The miners were all brought back to the train by a whistle blast and distributed to their various communities. On the way back, Harry Orchard rode on the top of the train.

Years later Orchard said, "I went to bed that night as usual, without thinking much about it." For Harry Orchard, this was the beginning of a new career.

Reference:

*The Rocky Mountain Revolution* by Stewart H. Holbrook, Henry Holt 7 Company, New York, 1956.

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## BEWARE OF "BY DALE"

by Paul and Nancy Hyatt  
Port Ewen, New York

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A couple of years ago we acquired a miner's oil wick cap lamp, offered as marked B. Y. DALE. The name, like a number of others, was unfamiliar to us at the time. Inspection of the lamp revealed By Dale engraved in script form on the bottom. Our speculation on this well made tin "artifact" dealt on two main possibilities--either a) Dale was the maker, or b) perhaps this might be a large manufacturer's unstamped oil wick that an assembler on a whim "signed" with his or her name. Intriguing and neat eh?

Just recently, a second identical lamp described as unmarked (but signed as before) was offered to us. This lamp is still available. A short time before this second lamp appeared, a conversation with another long time collector took a brief, but illuminating turn to the subject of reproductions and fakes. As it regrettably turns out, the lamps in this article are "known" reproductions. They were made by a person in one of the Eastern coal mining states who makes, offers as reproductions, and sell these and similar lamps for the pure enjoyment of it.

Others have written about different "known" reproductions and expressed their opinions on the negative potential that arises because of them. This is a case in point. Since our intent here is to make everyone aware of another known reproduction, coupled with past commentary, we won't indulge in lengthy discourse, except to cast our vote that we wish people wouldn't create new "artifacts" no matter how well intentioned. Bad intentions, of course, speak volumes for themselves. Beware of By Dale!

If you become aware of any other reproductions or fakes that appear on the scene, please let others know about them as quickly and loudly as you can. We can all be a big help to each other in this respect, as well as all the great and interesting information on the real stuff.

No argument is inferred here in regard to the collecting of reproductions of any kind. Our take is that people should feel free and happy to collect whatever their desire dictates and circumstances allow. Our hope is to contribute to the knowledge of just what, in all its aspects, has been acquired.

# A NEW CANDLESTICK PATENT

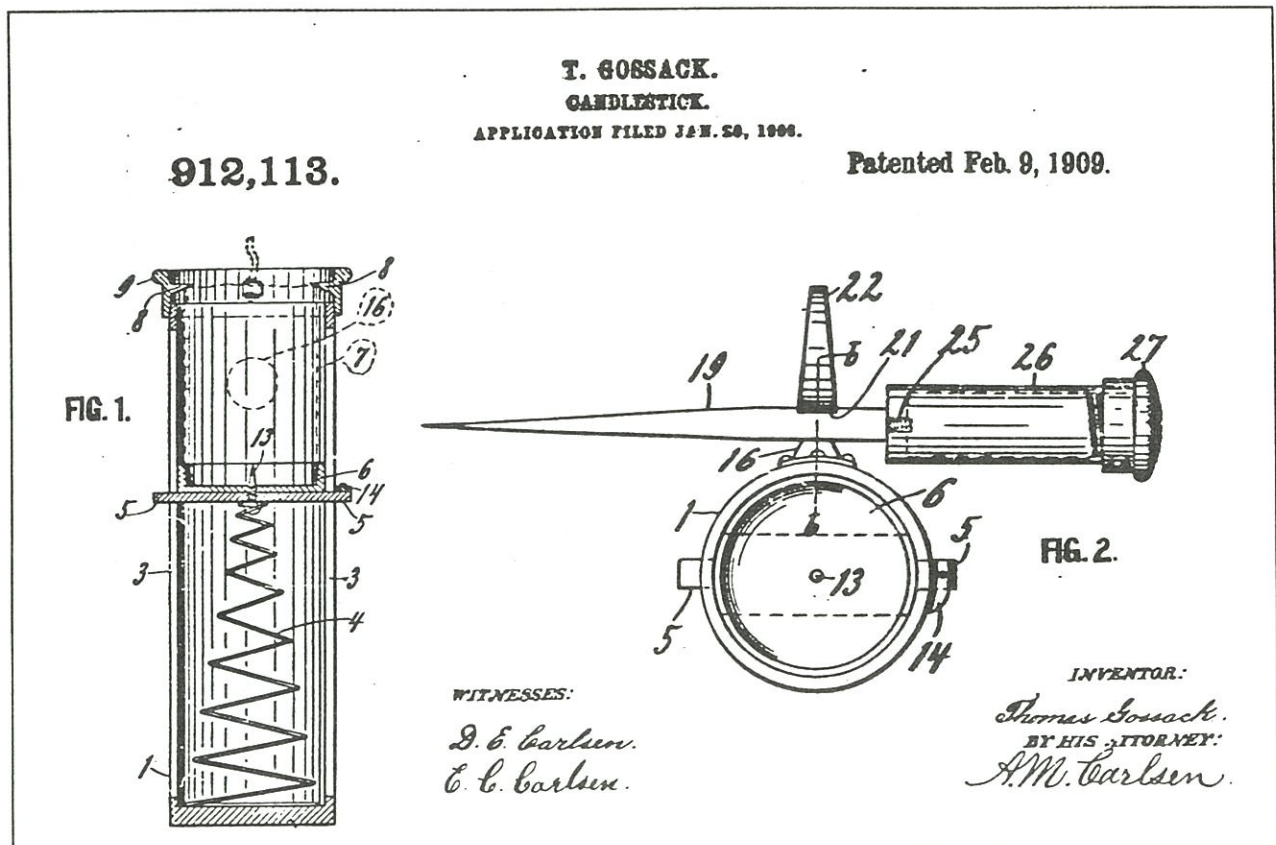
by **Ted Bobrink**  
Redlands, California

A new candlestick patent has recently been found. The patent was granted on February 9, 1909, to the inventor, Thomas Gossack of Taft, Montana. As you can see from the original patent drawings, his new candlestick has a very unique candle holding device. According to the specifications, Gossack came up with the idea for a candlestick that would burn a candle for four hours without changing. This was going to be accomplished simply by using a much larger candle. The cylinder for holding the giant candle also had a device for measuring time. As the candle burned, it would be raised inside the cylinder by a spring. This would also move a pointer which would indicate on a dial how many hours and minutes the candle had burned.

Another feature incorporated into this candlestick was the use of a match safe (he calls

it a match box) just like that of the Lindahl candlestick patented four years earlier. The only difference between the two is that Gossack's match safe had a roughened surface at the end of the screw cap for striking the matches on instead of around the tube like the Lindahl's.

I doubt very much if Gossack's candlestick was ever put into production. I have no idea where the miners were going to buy such a large candle, and even if they could, the candlestick would be so heavy you probably wouldn't be able to use the spike. Never the less, there is always the chance that Gossack's invention might turn up somewhere in an old trunk. There are a number of patented candlesticks of which only one example is known to exist at this time.

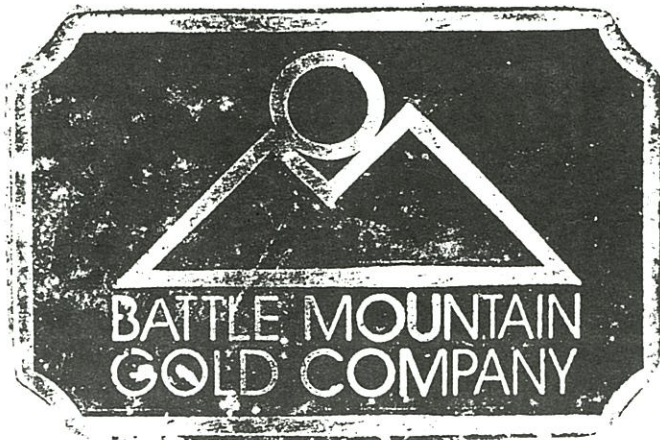
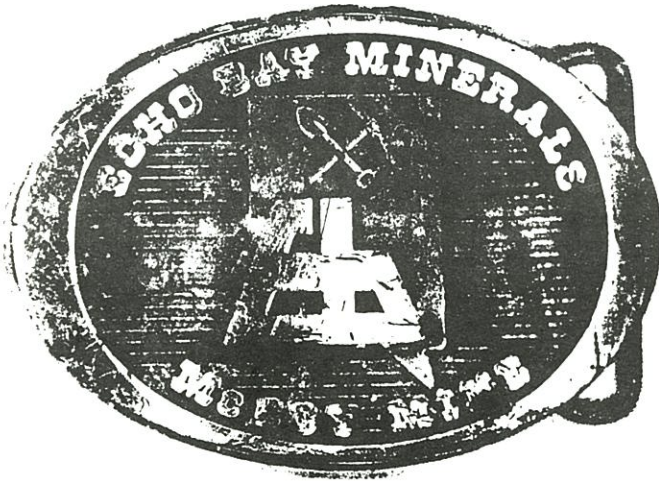


# BELT BUCKLE MINING ARTIFACTS

by Lane A. Griffin  
Reno, Nevada

As mining artifact collectors, we are constantly seeking to discover relics, equipment, or symbols of mining activities of the past. However, we shouldn't lose sight of the fact that mining continues today and artifacts are being created now that will have significant value in the not too distant future.

The venerable belt buckle has achieved status as a commemorative item, no longer is it just an accessory worn with cowboy boots, but a collectible mining artifact. These buckles are usually made to celebrate the opening of a new mine or some other major event such as completion of a mill. They are also created as a marketing tool for advertising exploration and drilling companies or in conjunction with mining conventions.



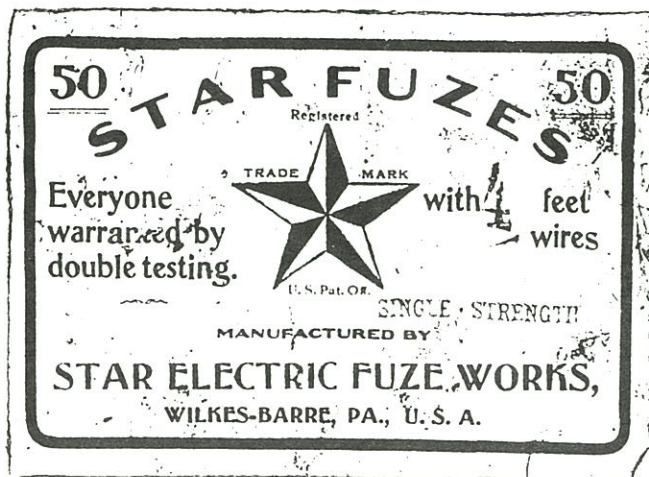
During the 1980's, open pit gold mining in the West created new mines and many of the belt buckles seen today are a result of that activity. Several styles of belt buckles are displayed here to represent the different types created at this time. Those buckles made to commemorate mine openings will someday be of particular interest because they were made only once in a limited quantity at a specific date. Some buckles are even identified as to what number they were in the sequence, i.e. 250 of 500. Property acquisition can make for interesting collecting as in the case of Tenneco's McCoy Mine. Just weeks before the scheduled mine opening, Echo Bay Mines bought the mine and belt buckles designed for Tenneco's grand opening and were never formally distributed. Echo Bay Mines then created their own buckles a few months later. (Both buckles are shown.)

Most of the buckles are well designed, often depicting the company logo or some mining scene and are thus aesthetically pleasing to display on your person or in your collection. Brass is the metal of choice, sometimes with black finish for contrast. Other metals such as pewter have been used and some limited edition buckles are silver or gold plated.

Obtaining mining related belt buckles may be somewhat difficult because of their popularity and limited production. The author received his through contacts in the mining industry. However, correspondence with mining companies or attending mining conventions would also be productive.



## Collector's Talk



### Found In An Abandoned Mine

Lane Griffin of Reno, Nevada, sent us this photocopy of a paper box he found underground in a mine in Nevada. The box held 50 single strength Star Fuzes (electric blasting caps). Electric blasting caps were not used to much in underground mining in the West, regular caps and fuse were the norm.

Lane is an avid and experienced explorer of abandoned underground mines. He, along with Martin Jensen, myself and a few other abandoned mine explorers will be writing about some of our adventures exploring old underground mines. If you have any ideas, or would like to be a part of this new project, please write or give me a call.

Ted Bobrink

## Branching Out

If you want to include smelting and refining to your mining artifact collecting, here are a couple of nifty items from the Great Western Smelting and Refining Company of San Francisco, California.

The watch fob is made of gold plated brass and is about the size of a silver dollar. The front depicts a beautiful maiden with long curly hair. The reverse shows the name of the company in fancy block letters.

The calendar is 7 inches by 4 inches and is dated 1919. The lettering is dark brown on a light brown background. The photo shows a pretty young lady talking on a candlestick phone and has been hand colored in blue and green.



## Another Manufacturer Of Wolf Safety Lamps

Wolf safety lamps made by The American Safety Lamp and Mine Supply Company show up from time to time in collections. A 1915 advertisement from Coal Age (Volume 8, Number 19) reveals that ASL & MSCO sold a "Wolf style" lamp evidently in competition with Wolf Safety Lamp Company of

BEST BY TEST



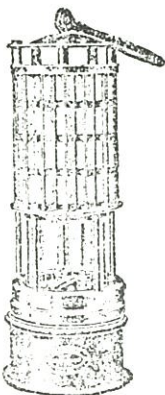
Great Western Smelting & Refining Co.  
SMELTERS AND REFINERS OF METALS  
SAN FRANCISCO, CAL.  
SOLE MANUFACTURERS OF THE CELEBRATED  
Great Western Babbitts

Copper Hardened—XXXX NICKEL—Special No. 1 Railroad

1919 SEPTEMBER 1919						
S	M	T	W	T	F	S
...	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	...	...	...	...
...	...	...	...	...	...	...

America who were in business in New York during this same time period. I have no idea if the lamps are truly identical (they look the same) or if the parts are interchangeable between the lamps. Perhaps a collector who has both lamps in his or her collection can try and let us know!

Tony Moon



## WOLF TYPE SAFETY LAMPS

are safe, and the maintenance expense is low. Don't let manufacturers with untried models experiment at your expense.

The Wolf Type Safety Lamp is not an experiment.

Steel Lamp, paraffin igniter, \$3.00 each.

Steel Lamp, pyro metal igniter, \$3.00 each.

Either key or magnetic locks.

Send for Catalog and price list C.A.

**American Safety Lamp & Mine Supply Company**  
Scranton, Pa. Established 1893

# 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:** Mining stock certificates. Free descriptive lists of old mining stock certificates issued periodically. Each certificate described, giving brief history of company, location, and vignettes. *Russell Filer, 13057 California St., Yucaipa, CA 92399. (714)797-1650.*

**FOR TRADE:** BALDWIN--2 date, nickel plated, wire handles, no reflector, no raking wire, VG cond. GRIER--horizontal brass cap lamp, base poor, top fair. VICTOR--(Justrite) brass, no hook or hat brace or reflector brace, otherwise in good condition. AUTO-LITE--brass lamp, push-on reflector (no Reflector). CHIRRY CHIRRY OIL LAMP--very good tin spout lamp. GRIER BROS.--(STAR) tin spout lamp, avg. condition. ATLAS NO. 6 (red & white) cap tin. PIONEER cap lamp base, bottom seam poor. COAL CUTTER--5' bar, will deal on this item. WANTED: Water door for Lu-Mi-Num cap lamp; Reflector & brace for Simmons cap lamp; Victor reflector & brace; X-Ray reflector & brace; Springfield reflector brace. *Jeff Carnes, P.O. Box 214, Dellroy, OH 44623 (216-735-2923)*

**WANTED:** Calumat & Arizona items and documents. Please send description and prices to: *H. Mason Coggin, 317 E. Griswold, Phoenix, AZ 85020*

**FOR TRADE:** Old Stanley surveyor turnstile, brass in leather case. Name says: STANLEY GREAT TURNSTILE, LONDON W.C., 4321. Excellent cond. Info. and offers welcome. *Mark Mallicoat, 912 Notre Dame Ave., Concord, CA 94518 (510-687-7022 after 5 pm Pacific time)*

**WANTED AND AVAILABLE:** Stock certificates and Bonds! Absolutely largest selection available anywhere. Plus I always seek more--especially for my collection! For more information contact: *Ken Prag, P.O. Box 531, Burlingame, CA 94011 (415-566-6400)*

**FOR TRADE:** PA hard and soft coal mining related post cards. Will trade hard coal post cards for PA built safety lamps (especially Everhart). Have a Simmons steel carbide hand lamp with brass top but no reflector. *Tom Stranko, 2478 Stephanie Ln., Binghamton, NY 13903*

**WANTED:** Blasting cap crimpers. Have blasting cap tins and dynamite boxes for trade. *Tom Stockwell, Rt 1, Box 13, Owatonna, MN 55060 (507-451-2254)*

**WANTED TO BUY:** Carbide acetylene or oil wick bicycle & motorcycle head lamps. Especially tail-lights and generators. Any memorabilia welcome. *John Schlachter, 5701 Bramble Ave., Cincinnati, OH 45227 (513-271-1285)*

**NOTICE:** Please send name and address for list of American mining and western books due out soon. Also interested in buying and trading. Send to *Mining the West, P.O. Box 1035, Georgetown, CO 80444*

**FOR SALE OR TRADE:** Trethaway Surveyor's oil wick (tin); J. Anton & Sons oil wick (tin & brass); Trethaway oil wick (tin); Star--What Cheer Tool Co. oil wick (all copper); ITP carbide cap lamp; Nesco squib container; Atlas Powder Co. No. 2 blasting machine; Simmons Pioneer carbide cap lamp; Unmarked aluminum clanny safety lamp. *Jeff Shanks, 2003 Yardley Road, Yardley, PA 19067 (215-736-9107)*

**FOR TRADE:** Western mining stocks for more of the same. Especially want items related to OR, WA, ID, B.C. and Alaska. Have good selection of paper and mining hardware to swap. What do you want? *Dale McNee, P.O. Box 926, Pendleton, OR 97801 (503-276-1384)*

**FOR SALE OR TRADE:** San Diego Smelting Co. seal stamp, Arizona - July 1923 (or will buy stamped certificates). E.M. Co., Keeler, CA printed ore bags (gunny type). Wooden analytical scale, glassed in case, excellent shape. Looking for candle boxes (or ends), pre-1910 dynamite boxes (or ends), candlesticks and Colorado mining items. *Steven Rush, (619-789-0460)*

**WANTED/NEEDED:** Water doors for Justrite Little Giant and Uncle Sam hand lamps; carbide chamber screw cap for Hardsocg 3-compartment carrier; Grier 3-ribbed bottom for carbide cap lamp. *Paul & Nancy Hyatt, Box 481, Port Ewen, NY 12466 (914-338-9131)*

**FOR TRADE/SALE:** Magazine back issues: Mineralogical Record Vol. 8, no.5 through Vol. 21, no. 1; Rocks and Minerals Vol. 54, no. 6 through Vol. 58, no.1; Mineral Digest Vols. 1-4; Matrix Vol. 1, no. 1 through Vol. 2, no. 2; Tucson Show Catalog 1989. Willing to trade for almost any old mining items. No paper. *Gordon Hills, Box 2385, Colstrip, MT 59323 (406-748-4343)*



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**FOR TRADE OR SALE:** A large selection of uncommon to rare blasting cap tins. Will trade good tins for tins that I don't have or need to up-grade. Also looking for blasting cap crimpers and Blasters' Handbooks. Want list is available. Contact: *John Kynor, 224 Adams NE, Albuquerque, NM 87107 (505-344-4368)*

**FOR TRADE:** Always an assortment of 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? Contact: *Errol Christman (916-273-3268)*

**FOR TRADE OR SALE:** Gem, X-Ray, Pathfinder, Victor (Justrite), Lu-mi-num, Hold-A-Lite, Simmons Pioneer, and other carbide lamps plus candlesticks for trade or sale. Also have a large selection of nice blasting cap tins. For more information contact: *Keith Williams, RR-1 Box 34-A, Baker, WV 26801 (304-897-6619)*

**FOR SALE:** Early Giant and Hercules Powder boxes, Werk candle boxes, carbide cans, safety fuse wrappers, tokens and other mining related items. Call for information about current stock and prices. *Mark or Gary Parker, P.O. Box 144, Randsburg, CA 93554 (619-374-2400)*

**FOR TRADE:** ITP cap lamp, Springfield cap lamp, early Auto-Lite, Buddy and Elkhorn cap lamps, Simmons Pioneer Supt. lamps--NP and brass. Candle boxes, powder boxes and cap tins. Will trade for carbide cap lamp boxes, parts boxes and repair kits (empty ones o.k.). Also looking for certain carbide pocket cans and flasks. *Mark Bohannon, P.O. Box 127, Oro Grande, CA 92368 (619-246-4418)*

**FOR TRADE OR SALE:** Mint nickel plated Elkhorn cap lamp, Gee-Bee cap lamp (excellent cond.), unfired Wolf cap lamp with gilt paint, Very nice early Justrite Victor cap lamp, Simmons Pioneer and Lu-mi-num cap lamps. Rare round B-S (Brewster) cap tin (yellow & black), rare early style rectangular. Illinois cap tin, round, embossed Giant Powder Company cap tin, rectangular, embossed Hercules Powder Company cap tin. Nice Justrite No. 10 catalog. *Ted Bobrink, 12851 Kendall Way, Redlands, CA 92373 (909-794-5518)*

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ARTIFACTS

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REALLY NICE MINERS' IMPROVED  
CALIFORNIA GOLD SCALE

A NUMBER OF EUROPEAN 8-HR  
CARBIDE HAND LAMPS

OTHER GOLD SCALES

AN ASSORTMENT OF COLORADO  
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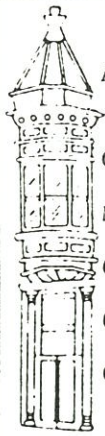
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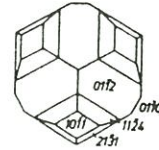
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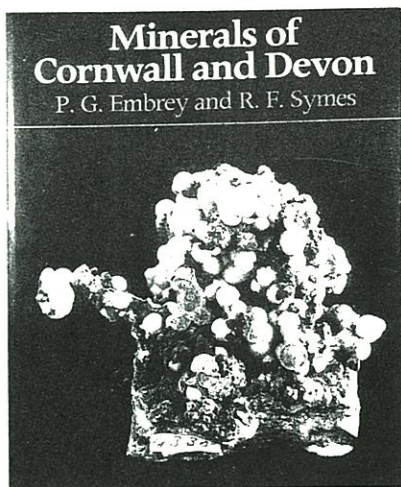
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by P. G. Embrey and R. F. Symes (1987)  
published jointly by the British Museum (Natural History) and Mineralogical Record Inc.;  
available from the Mineralogical Record.  
Hardcover, 154 pages, 9 x 11 inches,  
\$32 postpaid.

This surpasses anything that has been published on the minerals of Cornwall and Devon. That which follows will amply demonstrate the fact that it is a magnificent work. This is not to be wondered at when it is appreciated that both workers were colleagues in the Mineralogical Department of the British Museum (Natural History) where a wonderful collection of choice mineral specimens from Cornwall and Devon is housed. In addition, the authors have a long acquaintance with the mining fields of southwestern England, particularly their

geological and mineralogical character, and with the ancient and modern methods employed to exploit their mineral wealth. For a long time they have also assiduously researched the major collectors and mineral dealers whose activities have been largely responsible for the preservation of those beautiful specimens whose photographs, in color, adorn the pages of the work under review, and for that of many other specimens in many museums of the world.

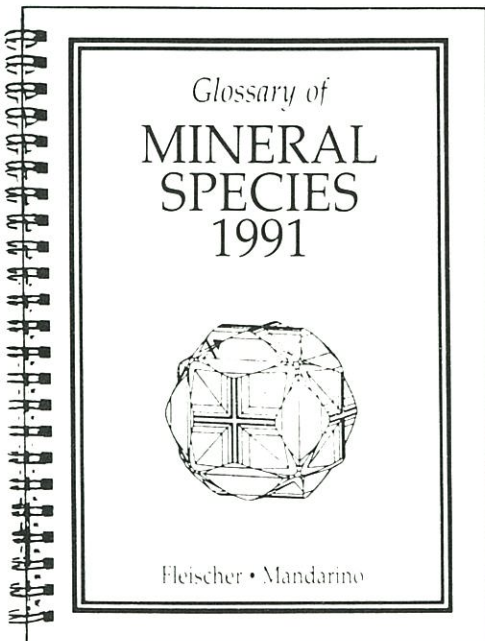
Not surprisingly, *Minerals of Cornwall and Devon* is far from being a collection of excellent photographs of minerals set in a matrix of rather gray, matter-of-fact mineralogical details. Its lively construction is such that the minerals seem to acquire a vital quality. One becomes aware of the nature of their birth, where they were born and who were their mineralogical neighbors. One learns of those who uprooted them and of those who acquired them, and of those who sold them. One is also provided with the means of discovering much more about all these topics and related ones.

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