

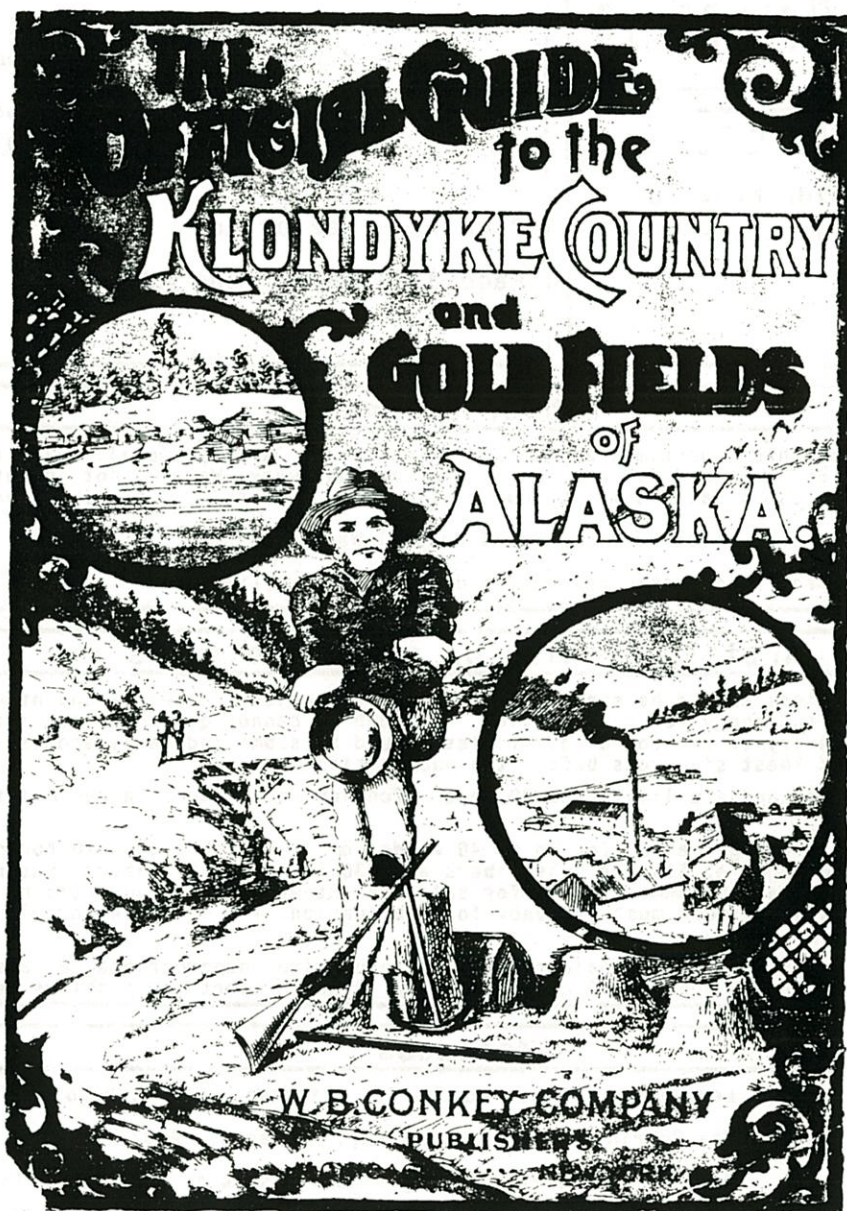
# MINING

## ARTIFACT COLLECTOR

Issue Number 2 Winter 1989

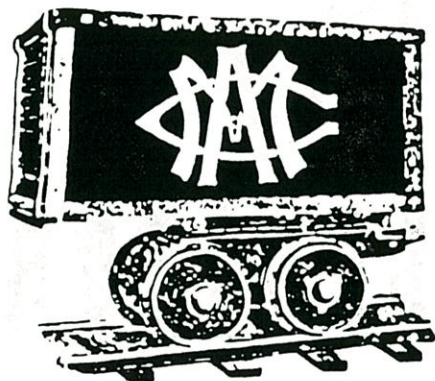


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PEOPLE'S SERIES.—Vol. 6, No. 3, July 31, 1897. Issued Weekly. Annual Subscription, \$13.00.  
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## MINING ARTIFACT COLLECTOR

### On the Cover

Front cover of a guide book to the Alaska gold rush. See article within this issue.

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### Subscriptions

The MAC newsletter is published four times a year in the months of January, April, July, and October. The cost is \$12 for domestic delivery and \$16 a year for overseas delivery. We will not accept subscriptions for more than one year (4 issues) at a time. A subscription form appears on the back cover.

Mail subscription requests to: Ted Bobrink, 12851 Kendall Way, Redlands, CA 92372

Back issues are available for \$4 domestic delivery and \$5 overseas delivery.

### Article Submission and Ad Policies

Articles and other submissions should be sent to the appropriate editor. Drawings and other artwork should be of high quality and ready for reproduction. Although we cannot guarantee publication of any submission, we will make every effort to do so. Articles should be submitted early and as a general rule, should reach the editor at least six weeks before the publication date.

Ads for trade items are free and are limited to 80 words. Continuing ads must be resubmitted for every issue.

Ads with items for sale are charged at \$5 for up to 40 words for subscribers and \$10 for non-subscribers. Four consecutive ads are charged at \$15 for subscribers and \$30 for non-subscribers. Business cards may be submitted for publication at the same rate as for sale ads. Other types of advertising are available upon inquiry. All advertising artwork must be ready for publication. The deadline for all ads is three weeks before the publication date.

We reserve the right to refuse ads deemed objectionable or otherwise inappropriate. We are not responsible for the accuracy of any ad or the honesty of any advertiser. Please report any problems to the editor.

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All other articles that do not fall into the four main categories should be sent to Len Gaska.

## The Editor's Page(s) by Len Gaska

### A Pat on the Back

You might think that it is intended for us. And quite a few readers were kind enough to call or write us and let us know how excited they were about the first issue of Mining Artifact Collector. Thanks to all of you! Although compliments are appreciated, what we really need is material from you, dear reader. You are going to continue to hear that plea until we can convince you all that your submissions are important to making this newsletter interesting and informative. Enough said?

Back to the pat on the back. The first one goes to mine artifact collectors in particular and collectors in general. You may not realize it, but it is the amateur collector like yourself that is responsible for preserving most of the artifacts and history in this country. Museums cannot do it as they do not have the money or manpower. The history makers rarely do it because of a lack of interest or foresight. How many companies ever kept records and samples of the products they produced? It is the collector and amateur historian who tackles the horrendous task of reconstructing an entire history of a company, product, or activity. Ya didn't think you were so important, did ya? I would have a hard time proving this, but I believe at least 99 % of all the mine artifacts preserved in collections today are in the hands of private collectors.

A double pat on the back to the serious researcher who spends hours in libraries ferreting out bits and pieces of information. Who also writes hundreds of letters to libraries, historical societies, companies, and individuals trying to gain a few pieces in that complex puzzle called history. You know who you are, but for the benefit of others, I will name a few of you in no particular order. They are Henry Pohs, Bill Spence, Dave Thorpe, Greg Clemmer, and Mark Ballard. I am sure I missed others, but I personally know that these collectors have spent a great deal of time and money as mine artifact researchers. Perhaps they will be an inspiration to the rest of us.

How does one go about researching lamps, candlesticks, or other mining artifacts? Your local library is a good place to start. Old mining journals, books, and catalogs often have advertisements that give important clues as to the age of an artifact. An advertisement may show a lamp or other item that is presently unknown in the collecting community. Hardware catalogs can also be a good source of information and can sometimes be purchased at flea markets or antique shops.

Other good sources of information are historical societies, city directories, manufacturer directories, and even individuals. There are people alive today who actually worked at companies who made carbide lamps and other mining artifacts. They may well remember important bits of information that can complete a puzzle. So get out there, fellow collector

and historian and discover a bit of heretofore unknown information about your specialty. And don't forget to share it with others via the Mining Artifact Collector!

We welcome Brian Levine to the staff of MAC as our mining stock and paper editor. Brian is a dealer in mining related items such as stocks, maps, mining paper, and hardware. Write him if you have any specific wants or interests.

I would also like to congratulate Jim VanFleet on the article on carbide dispensers. This is the kind of meaty information your editors love to see. How many of you out there actually knew such things existed? Not many, I will bet. Now you have a new item to look for. Such a dispenser would be a prize addition to any collection. Finally, we wish to thank Don and Dave White for their article on the 10 cap blasting cap tins.

### **Artwork Submission Policies**

It didn't take long for the editors to realize that slides were by far the best medium for submission of photos. For those of you with a steady hand and little talent for drawing, you may wish to try the following technique. Take a good slide of the lamp or item you wish to draw with the item positioned in the same way as the final drawing will appear. Take particular care that the item is lighted properly and that important details are clear. The slide can then be rear projected onto glass on which a sheet of paper is taped. The item is then traced directly from the projected slide. For clear and crisp drawings, ink is a necessity. Professional drawing pens with a variety of point widths are the best tools, but hard felt tip pens will also give good results. Pencil just does not give the quality of ink, but is better than nothing. The drawing should be done at several times size of the final artwork and then reduced on a copy machine. Reduction tends to minimize small imperfections in the drawing.

### **In Proper Perspective**

Sometimes when collecting seems overly difficult, I have to bring myself back to reality with a bit of reflection. Every collector experiences those difficult times when you missed three good items in a row by just minutes, or a friendly competitor and fellow collector scores big with a rare item for a bargain price. Yes, we all experience jealousy, envy, and frustration especially in these times when good mining items are either expensive or just hard to find.

Those are times at which it is best to reflect on why we collect. For the enjoyment of the hunt, the pride of ownership, the knowledge that building a good collection takes dedication and hard work, and finally, the socializing with other collectors in sharing information and "war stories." Collecting is about the good experiences and not the occasional negative aspects. Every one of us who works at collecting finds some good items and misses many more. Never take your collecting so seriously that it becomes a burden.

So much for the philosophical filler....

## The Pocahontas by Ted Bobrink

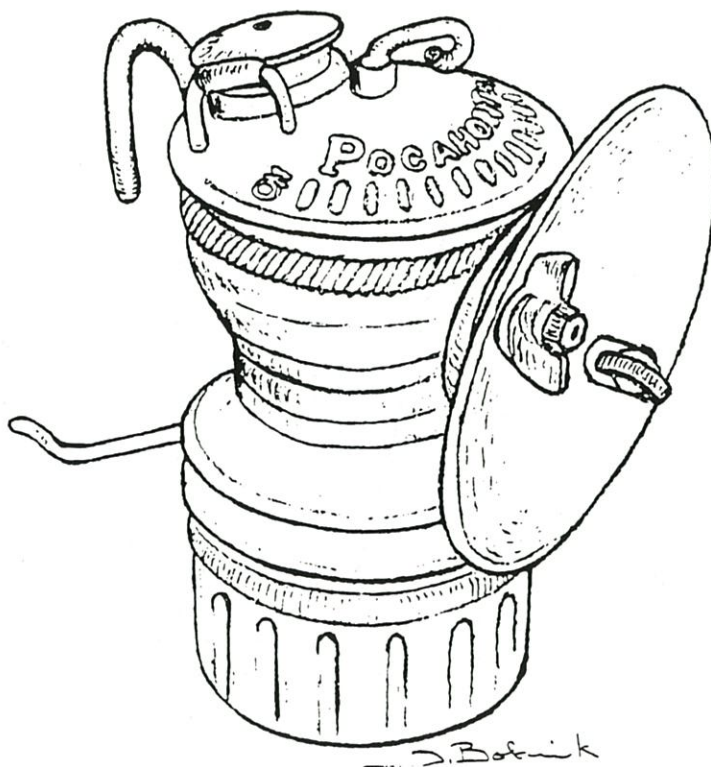
The Pocahontas is one of two known cap lamp brands whose name relates to the American Indian. While Universal Lamp Company was advertising the Arrow cap lamp, Shanklin Manufacturing countered with the Pocahontas. The manufacture and distribution of the Pocahontas was evidently short-lived as less than ten of these lamps are known to exist in collections.

The name Pocahontas is elegantly stamped across the top of the lamp. The other unique feature of the lamp is the small reflector brace that is permanently attached to the reflector with a rivet. The reflector is affixed to the gas tube with a conventional wing nut. Two patent dates, 11-26-14 and 9-19-16 are stamped in the top of the lamp to the right of the water door. These dates are identical to those on the two-date Guy's Dropper cap lamp.

The bottom and hat brace are conventional Guy's Dropper designs. The bottom is stamped "Manuf'd by Shanklin Mfg. Co., Springfield, Ill., USA" in incuse (recessed) lettering. Evidently, the Pocahontas was not supplied with a unique base, but with standard Guy's Dropper bottoms.

For those of you who are fortunate enough to own this rare lamp, we would appreciate hearing about any variations in your specimens. Did it come in a nickel plated version? Is the clip-in brace the only known type or did it also come with a soldered brace? We would also love to receive any advertising you may have for this lamp, especially if the date is known.

Type: Cap  
Material: Brass  
Rarity: Very rare, less than 10 known  
Owner: Jim Steinberg



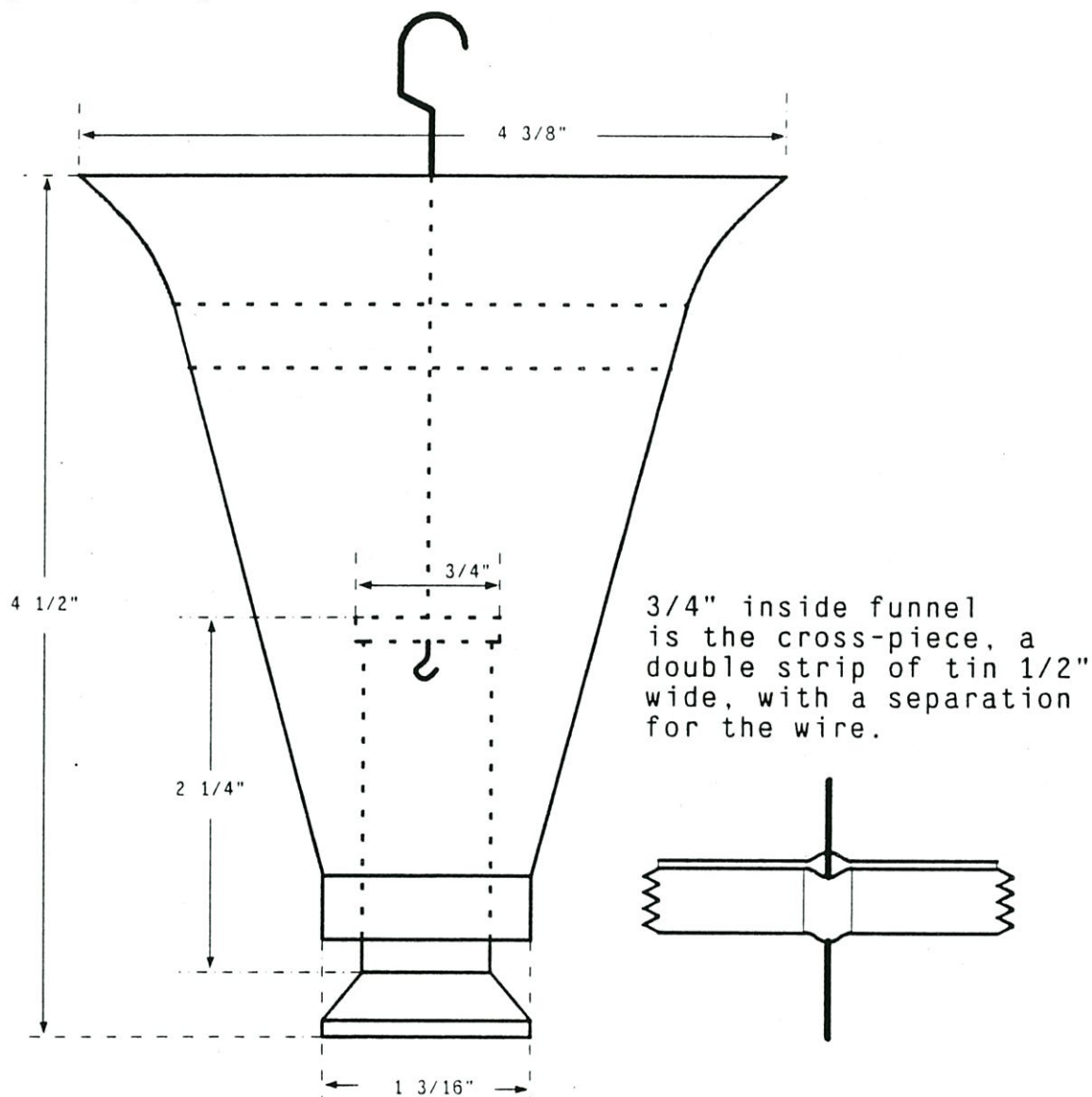
# Carbide Dispensers by Jim VanFleet

As with most new technology, the carbide lamp met with resistance when first introduced, due in part to the new difficulties of operating the lamps. It would seem that filling the lamp with carbide was the least of these, but apparently, some saw the need for a mechanical means of filling lamps. One result was the "carbide funnel," pictured below, designed to fill a single lamp base with a charge of carbide. The funnel is too large for cap lamp bases and may have been designed for either hand lamps or half-shift lamps. The funnel is made of 7 tin components, neatly soldered, and bears a printed label for its use:

## DIRECTIONS for the use of FILLER FUNNEL

Drop into neck of lamp ... (unreadable) ... is removed and pour carbide into funnel until the carbide stops running; then hold funnel down with one hand and raise the wire ring in the middle of the funnel with the other hand and lift out of the lamp by the wire ring and set it in the carbide can and the carbide in the funnel will run back into the can. This insures the filling of the lamp to the proper level each time.

When placing the funnel into the lamp see that the wire ring is down to the cross-piece in the funnel to insure its being open so that the carbide will run into the lamp, and when removing the funnel from the lamp be sure that the wire ring is drawn up so it is closed. Always lift out of the lamp by the wire ring to avoid spilling carbide.



The next step in this line of thinking was the regulation of the amount of carbide miners were allowed to use on their shift. Details of Practical Mining, 1916, includes a plan for a "carbide container and measurer" used by the Republic Iron and Steel Co. to fill miner's carbide tins with "enough carbide to last one shift," boasting that "consumption has been reduced nearly one-half."

**Carbide Container and Measurer (By E. W. R. Butcher).**—With the introduction of carbide lamps, it has been found unsatisfactory to allow the miners to help themselves from the carbide cans. The Republic Iron & Steel Co. therefore furnishes each of its miners with a small screw-top can which holds enough carbide to last one shift. These cans are filled from the carbide container, a drawing of which is shown

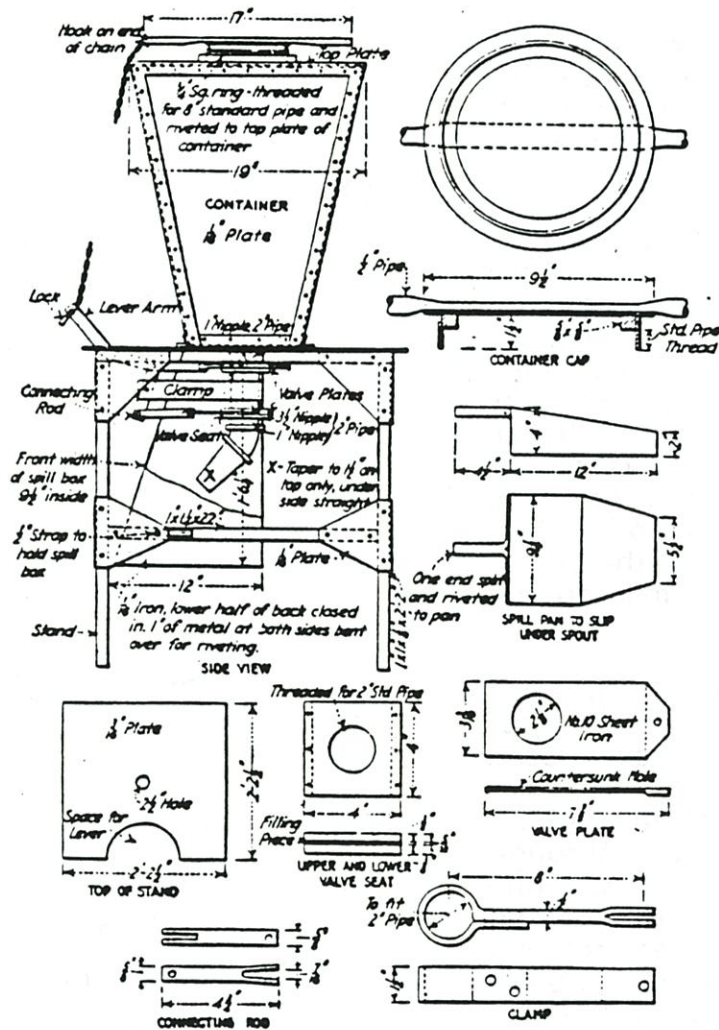


FIG. 26.—ASSEMBLED CARBIDE CONTAINER AND DETAILS OF CERTAIN PARTS.

in Fig. 26. By means of the valves, one motion of the lever arm, up or down, gives out just enough carbide to fill a miner's can. The spill pan is used to catch any carbide which falls. Since the container has been in use, the carbide consumption has been reduced nearly one-half.

## The Ever-Ready Cap Lamp by Len Gaska

Wendall Wilson in his oft quoted rarity guide of carbide cap lamps states, "It should be remembered that rarity is only one of the factors determining value. Other considerations include uniqueness and beauty of design, condition, and variety or sub-type." The uniqueness and elegant design of the Ever-Ready makes it one of the most popular and desirable American carbide cap lamps.

The most striking feature of the Ever-Ready is the spherical water tank. Another unusual feature is the placement and operation of the water adjustment mechanism. The adjusting lever is on the side of the Ever-Ready at the very bottom of the water reservoir. The lever rotates a small cam which raises and lowers a valve at the end of the water tube. Because of the small size of the adjustment lever and the absence of positive click stops, stable and consistent regulation of the water flow was probably difficult.

The Ever-Ready was patented April 28, 1914 by Charles Hoppe and was manufactured by the Charles Hoppe Co. of Cincinnati, Ohio. The Charles Hoppe Co. merged with the Harker Manufacturing Co., also of Cincinnati, Ohio, in 1915. The Harker Manufacturing Co. began production of the Brite-Lite carbide cap lamp in 1916. Some models of the Brite-Lite also had the water control lever on the side of the lamp. The placement of the burner tip on the Brite-Lite was very similar to that of the Ever-Ready.

Minor variations such as the configuration of the burner tip and the reflector attachment configuration have been reported for the Every-Ready. However, the lamp apparently did not have a long production period and thus went through very few changes. At least one advertisement for the Every-Ready, shown on the next page, pictured an optional small oil lamp that could be used in place of the water cap. The idea being that the oil lamp would function as an emergency light source when the carbide lamp failed. The miners of the day must have thought this to be impractical as the author is not aware of the existence of a single example of the optional oil lamp.

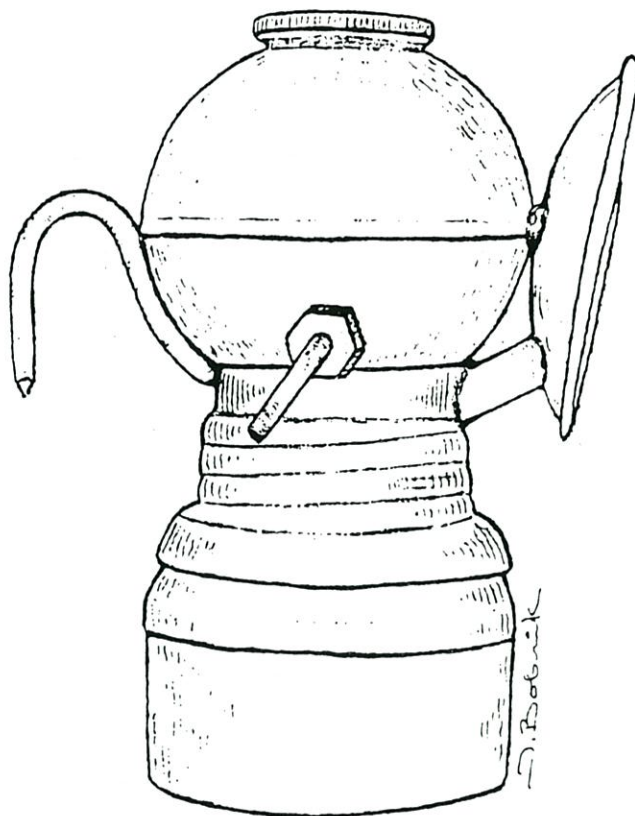


Fig. 1

Type: Cap  
Material: Brass  
Rarity: Rare  
Owner: Ted Bobrink



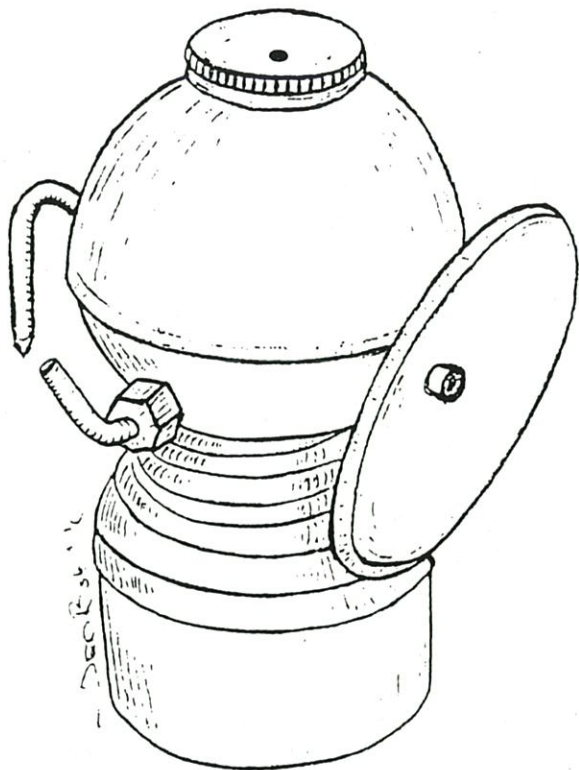


Fig. 2

Type: Cap  
 Material: Brass  
 Rarity: Very Rare  
 Owner: Errol Chrisman

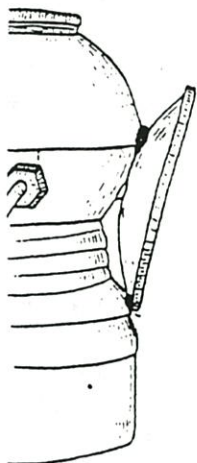


Fig. 3



Fig. 4

The Ever-Ready illustrated on this page (fig. 2) is apparently an earlier model than the one pictured on the previous page (fig. 1). The earlier model has a slightly larger water tank (57 mm.) than the later model (54 mm.). On the earlier model, the reflector is larger and is soldered to the water tank and the lower flange (fig. 3). In the later version, the lower part of the reflector is soldered to a brace which is in turn soldered to the area just below the water tank (fig. 4). In the earlier Ever-Ready, the threads go all the way up to the water tank whereas in the later version, the threads terminate 1/4" below the water tank.



See  
Interesting  
Figures  
Below

In making up your next estimate of overhead expenses figure on using the **Ever Ready** lamp at a cost of two cents per day instead of six to ten cents for candles or oil lamps. See result below.

100 men using candles 300 days per year at .06c. per day.....	\$1800.00
100 men using Ever-Ready Lamps 300 days per year at .02c. per day..	\$600.00
	<u>\$1200.00</u>
100 Ever Ready Lamps.....	75.00
	<u>\$1125.00</u>

A test will convince you.      Send us a trial order today.

**The Chas. Hoppe Co.,**      111-113 OPERA PLACE,  
CINCINNATI, OHIO

# The Lamp Cleaning Cookbook

## by Len Gaska

### To Clean or Not to Clean

The decision to clean one's lamps is a purely a matter of personal taste. Many collectors do clean their lamps, but some prefer to leave them as is. A cleaned and polished lamp is definitely more identifiable as to markings, the presence of plating, and other details. A cleaned lamp is also more pleasing, especially if it resembles an unfired lamp directly out of the box. The disadvantage of cleaning your lamps comes into play when you want to trade. One can always trade an uncleaned lamp and leave the decision up to the recipient.

There is one overriding concern. If you do decide to clean your lamps, **DO THE JOB CORRECTLY**. Every collector has probably run across lamps that have been permanently ruined by improper cleaning. Take the time and pride to do the job correctly and the results will be worth the trouble. This article is intended as a **GUIDE**, not a recipe book. You **MUST** experiment because there are no shortcuts to expertise here!

If you decide to clean your lamps, there is a further decision to be made. And that is whether to limit your cleaning to the exterior of the lamp or to clean it inside and out. The inside is the most difficult to clean, partially because of access and primarily because that is usually where the most stubborn corrosion and tarnish is found.

### The Theory of Cleaning

The fundamental theory behind cleaning anything is deceptively simple. That is to remove the offending material without affecting the object in any negative way. Simple in theory, but often difficult in practice. To remove stains, corrosion, and other foreign material, one must either apply chemicals that attack the foreign matter or use abrasives for removal. The two rules for lamp cleaning are then as follows.

1. Use the mildest chemicals possible to get the job done and use the right chemical on the right material.
2. Use the finest abrasives available. Most polishes have diatomaceous earth as an ingredient. This should be the only abrasive used on the outside of the lamp. For the inside, one can generally use 0000 steel wool and obtain an acceptable result.

### Where to Clean Your Lamps

Many of the chemicals used in lamp cleaning are caustic to skin, lungs, and less important things such as drainpipes. It is best to perform the cleaning outside or in a very well ventilated area. Remember that chemicals such as hydrochloric acid have a propensity to eat drain pipes, so forewarned is forearmed. Dilute your chemicals with lots of water before pouring them down a drain. My approach to disposal of hydrochloric acid is to throw it in a large plastic bucket and let it evaporate. One can also neutralize it by adding baking soda, limestone, or spent carbide. Since cement has limestone as an ingredient, chunks of concrete in the waste acid bucket will also neutralize it in time.

### The Tools of the Trade

One needs a decent set of screwdrivers, nut drivers, and wrenches to disassemble lamps prior to cleaning. Use the right tools to avoid bugging up nuts and other parts. A vice-grip pliers is no substitute for the correct size of socket or wrench. Hemostats make really good tools for cleaning and polishing small or less than easily accessible areas. Discarded toothbrushes are necessary items to remove corrosion after a lamp has been dipped. Fine steel wool, grade 0000 is recommended for cleaning the inside of the carbide chamber and the area where the felt and water feed is found.

One final tool that I have starting using recently is a brass turbo-tumbler. They are sold commercially at gun stores to clean and polish shell casings for home reloading. They utilize ground up walnut shells and polishing chemicals. They usually take several days to polish a lamp, but it is worth the wait to avoid the tedium of hand polishing. A decent size commercial tumbler costs over \$100, but one can be constructed for \$10 to \$15 in materials.

A fairly complete list of chemicals and their uses follows.

1. Hydrochloric acid. Also known as muriatic acid. This is used for removing spent carbide and corrosion from brass or nickel plated brass lamps. It is obtainable at most swimming pool supply houses for a few dollars per gallon. **This is strong stuff!** Although it is not highly caustic to skin in this concentration, it can cause eye damage, will hurt like hell when it gets into open sores, and eats up many metals and other materials. Use this stuff with caution and observe common sense safety precautions. I don't use rubber gloves when removing lamps from an acid bath, but I do rinse my hands with haste. An alternative to hydrochloric acid is sulfuric acid which is also found at pool supply houses. I don't recommend its use as it is much more damaging to organic matter. Like skin and eyes, for example.
2. Ammonia can be used to remove corrosion. It does not remove spent carbide and make take days to soften up stubborn tarnish, but it is much gentler on brass. I have had some strange and undesirable results with ammonia, so I do not use it. I would appreciate hearing from anyone who has successfully used ammonia for lamp cleaning.
3. Carburator parts dip is wonderful stuff for removing organic material from lamps. Old tape and bits of rubber gasket can be softened up and removed easily after dipping the lamp in the parts dip for 15 to 30 minutes. It has no apparent affect on metal.
4. Lime-Away. A commercial product used to remove hard water scale. This stuff appears to be more effective in removing thick hard water scale than hydrochloric acid. It is much slower than hydrochloric acid in removing tarnish and carbide, but is much less caustic and therefore more gentle. I often use Lime-Away on valuable lamps as there is less chance of ruining the finish.
5. Rust removers such as Rust-Biox or Naval Jelly are effective for removing light rust from steel.
6. Aluminum Jelly. Made by Duro. Very effective in cleaning aluminum lamps.
7. Lacquer or an equivalent clear coating. Steel lamps or parts that are rusty or have had rust removed should be coated after cleaning and a thorough drying. Lacquering brass lamps will protect them from further tarnishing, but my personal preference is to leave them uncoated.
8. Brass polishes. There are many different brands on the market, but I have had the best results with Simichrome and Never Dull.

### Attacking that Tarnish

The first operation is to disassemble the lamp as completely as possible. There are two reasons for this. First, different parts are made of different materials and must be cleaned with different procedures. Secondly, some parts may not need cleaning and there is no reason to subject them to caustic chemicals. I have always been able to remove frozen lamp bottoms by applications of hydrochloric acid. Invert the lamp and apply the acid sparingly in the crack between the top and bottom. Rinse and repeat as often as necessary. After disassembly, remove as much of the spent carbide and other foreign materials as possible. A dull knife works well for getting rid of spent carbide. If a sharp knife is used, there is danger of puncturing the carbide chamber. The next step is to use dilute acid to completely purge the insides of spent carbide. This procedure consists of putting a small amount of acid in the carbide chamber and letting it work until there is no further bubbling action. Acid and spent carbide react with vigor, so use a small amount at a time and keep raising the level of acid until it reaches the top and all the carbide is gone. The use of a small amount at a time is to prevent the acid from bubbling up and spilling over the sides of the lamp. One can use straight acid for this operation, but a 1/5 to 1/10 dilution will minimize getting acid on the outside of the lamp. If the carbide chamber has holes in it, seal them with silicone putty or equivalent.

After a thorough rinsing and drying, the lamp is ready for the parts dip or paint remover (if necessary). This operation will dissolve and/or soften organic material such as pieces of rubber gasket or old tape. Fifteen minutes to a half-hour is usually sufficient. Washing with soap and water or a rinsing in gasoline will rid the lamp of residual parts dip which smells awful. Again, do this operation in a well ventilated area.

Further cleaning depends on the type of material. Nickel plated reflectors demand a different procedure than aluminum lamps, so separate the parts as to material and proceed.

### **Nickel Plated Lamps, Reflectors, and Other Parts**

Nickel plated items are the easiest of all parts to clean, primarily because tarnish and corrosion do not form or do not stick as for brass lamps. The best chemical to use for this operation is very dilute hydrochloric acid. A quarter cup of acid per half-gallon of water usually does a very nice job. Dip the parts in the acid for a few minutes and remove and brush with a soft toothbrush. Repeat as necessary until the tarnish is gone. If the Ni is corroded through, do not leave the part in the acid for more than a few minutes at a time as the plating will tend to peel away. After a thorough rinsing and drying, the part is ready for polishing.

### **Aluminum Lamps and Parts**

Aluminum reacts with much vigor when exposed to hydrochloric acid, so limit its use to removing spent carbide from the inside of the carbide chamber. Lime and scale can be removed from aluminum lamps with Lime-Away. Either spray it directly on the scale or dip the entire lamp. Repeated applications of 10 to 15 minutes each are sometimes necessary. When the scale is gone, rinse thoroughly and dry. Aluminum jelly is then used for the final cleaning. This stuff is a fairly thick blue jelly-like substance that does a nice job of ridding aluminum of corrosion, yet does not adversely affect the metal. Simply coat the part with the jelly and let it work for about 15 minutes. Rinse and brush with a soft toothbrush. A light rubbing with grade 0000 steel wool can sometimes improve the appearance. The keyword here is a LIGHT rubbing, as too much pressure will leave scratch marks. Aluminum can be buffed to a high sheen if you know what you are doing, but I prefer the dull appearance that is typical after cleaning.

### **Steel Lamps and Parts**

Steel is the hardest material to clean for several reasons.

1. Rust actually pits the steel and these pits are almost impossible to clean.
2. Many steel lamps are galvanized or lead dipped. Use of acid will remove this protective coating.

Strong hydrochloric acid will remove rust as will commercial rust removers such as Rust Biox or Naval Jelly. If the rust is thick, do not waste your time with rust removers. Just remove the thicker portions with steel wool and then coat with a spray lacquer or equivalent. The protective coating is important to impede further rusting which will occur in virtually any climate. Light rust usually can be removed with the rust removers. Follow the directions and rinse thoroughly. A quick drying with paper towels or a cloth is necessary as further rusting will occur almost immediately if the metal is wet. Again, after cleaning and a thorough drying, the part should be coated.

### **Brass Lamps and Parts**

Brass is by far, the most common material that you will have to deal with. Tarnish varies from the very thin and easy to remove to the really thick and stubborn stuff that requires strong measures. The really stubborn tarnish is invariably found in the carbide chamber and above. Felt holders and washers are also problems to clean. I prefer use of strong acid to remove this stubborn tarnish as cleaning is much quicker. The key is to apply the full strength or nearly full strength acid to only the inside without letting it touch the outside of the lamp. If the carbide chamber is not cracked and does not otherwise leak, repeated applications of full strength acid followed by brushing and rinsing will do the trick. The area below the water chamber can be treated by inverting the lamp, plugging the gas tube, and pouring full strength acid into the well. To clean the end of the water valve, screw the top onto the carbide chamber when it has acid in it. Use of fine steel wool in these areas poses no problems as they are not visible anyway. Furthermore, these areas are often pitted anyway, so use of fine steel wool will only improve the appearance.

Processing the outside of the lamp requires a gentler approach. Dilute acid (1 part per 20 of water) will usually soften the corrosion within 5 to 10 minutes. Repeated dippings, brushings, and rinsings are often necessary. If you do decide to use hydrochloric acid, start with a very weak solution and experiment. Repeated experience will give you a good feel for the concentrations to use. Note that some brass lamps, especially some early Justrites, will turn pink in acid. This is due to the zinc being dissolved out of the brass. This pink coating can be polished out, but it requires a lot of work. The point here is to use very weak acid concentrations for early Justrites and some other types of lamps. The quality and composition of brass in carbides varies greatly, so again, experience is necessary.

Ammonia is an effective tarnish remover, but it takes considerably longer to work. Soaking for days at a time will often be necessary to remove thick tarnish as is found on the inside of lamps. The advantage of ammonia is that it will not dissolve zinc out of the brass, so final polishing is much easier. But as I stated earlier, I have had some strange results with ammonia, so I do not use it.

Lime-Away is a good alternative to hydrochloric acid, but takes longer to work as it is a much more mild caustic. I have used it successfully on lamps with moderate corrosion with a ratio of about 1 part Lime-Away to 5 parts water. The lamps I have processed with Lime-Away required 2 to 4 hours of soaking before the corrosion could be brushed away.

### Final Polishing

This is the most tedious of all the operations. All nickel plated and brass parts may be polished using a commercial brass polish. I highly recommend Simichrome, a metal polish made in Germany, and available in auto parts stores. Never Dull is also a fine product. These two products do a better job with less work than any other commercial products I have tried. Despite the claim that some polishes require no "elbow grease," the primary polishing mechanism is due to the diatomaceous earth or other very fine abrasive scrubbing the lamp. This simply means that some pressure is required to gain an acceptable sheen. Cotton balls make a good applicator. A hemostat is a really good tool to polish small areas as it can firmly hold a bit of cotton that has been dipped in polishing compound. After the polish dries, buff it with a soft cloth. Of course, repeated applications may be necessary until the desired effect is achieved. I do not recommend polishing a lamp to a mirror finish. A moderately shiny lamp looks more like the original product than one that has been highly polished.

I recommend the use of fine steel wool to polish the inside areas and parts such as felt holders and washers. Unless the lamp is in really good shape, these areas are difficult to polish with chemicals.

### Some Final Notes

The key to successful lamp cleaning is experimentation. Always start with the weakest acids, the least pressure, and the most care. Work up to the point where cleaning takes the least amount of time while giving the best results. If you care to spend the money, use of Lime-Away with an ultrasonic cleaner should theoretically do an exceptional job of tarnish removal. Be prepared to spend \$150 and up for an ultrasonic cleaner with an adequate capacity.

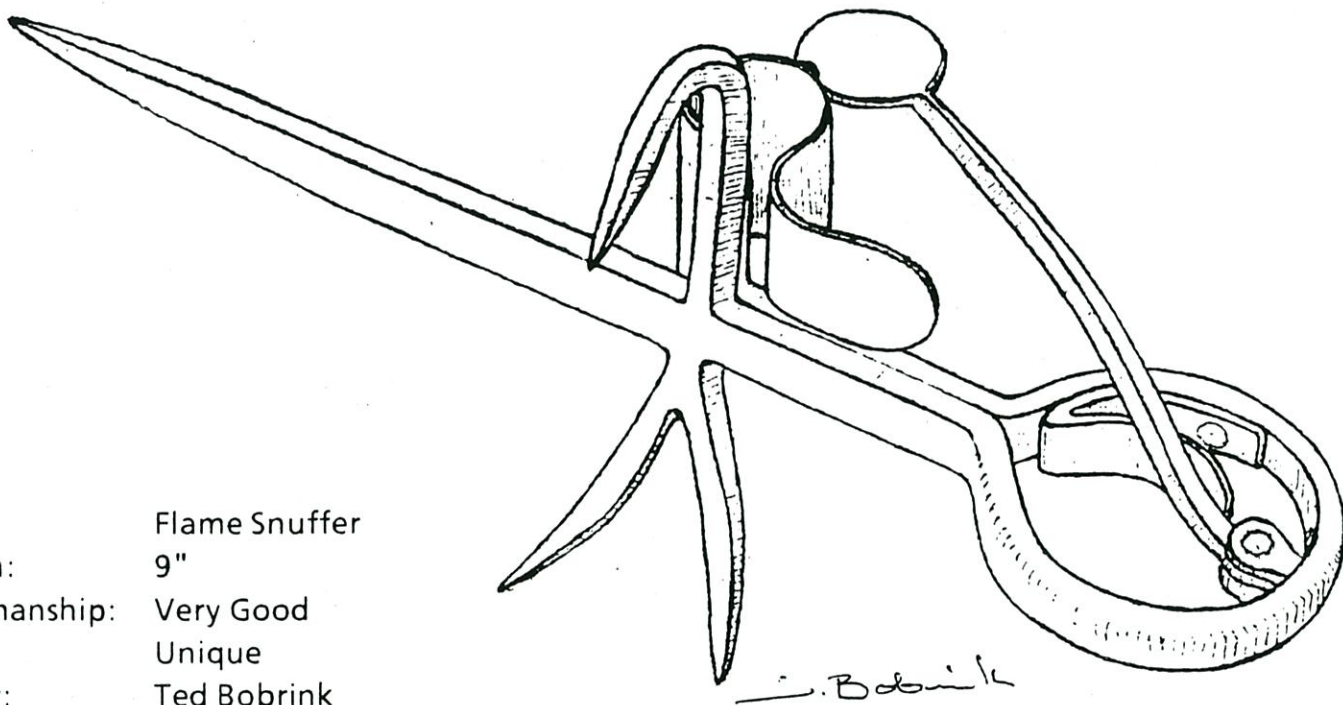
While this article puts forth a lot of procedures for lamp cleaning, the list of effective methods is by no means complete. If you have some good methods, I would appreciate hearing about them.

## Flame Snuffer Candlestick by Ted Bobrink

This is a well made example of a flame snuffer model which also has a "claw" to steady the stick and keep the candle vertical when the hook is used.

This stick was designed to extinguish the candle as soon as it burned down to the top of the thimble. The spring steel arm presses a round plate against the side of the candle. When the candle burns down far enough, the plate cuts across the wick and extinguishes the flame.

Flame snuffer candlesticks proved to be unpopular with miners and are very rare to find today. [Editors note - A flame snuffer stick would extinguish a candle suddenly and leave the miner in the dark. In a conventional stick, the candle would sputter and dim thus giving some warning to the miner.]



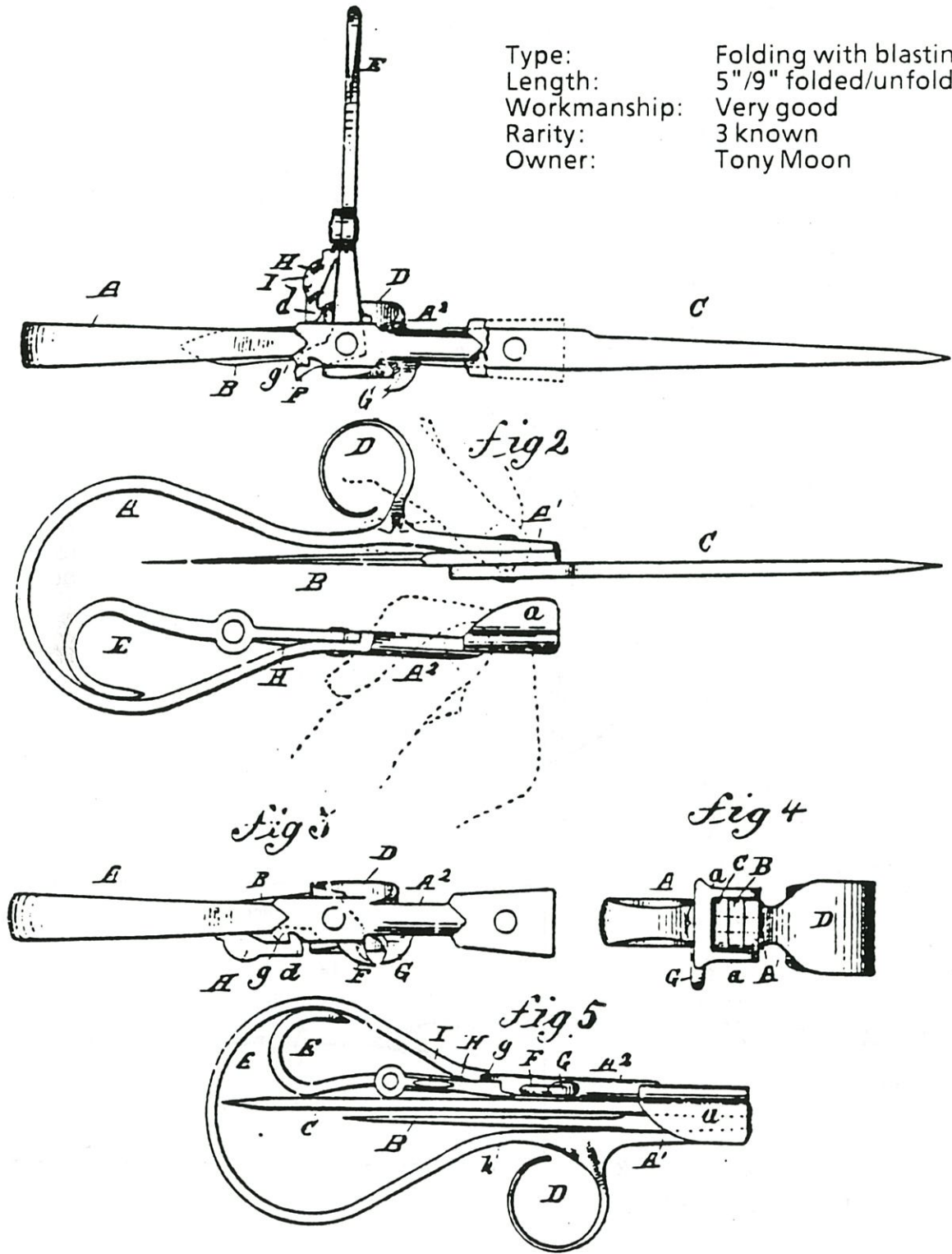
Type:	Flame Snuffer
Length:	9"
Workmanship:	Very Good
Rarity:	Unique
Owner:	Ted Bobrink

# The Martin Folding Candlestick

by Ted Bobrink

This folding stick was patented in 1883 by J. C. Martin of Tuscarora, Nevada. Not only does it have a unique locking method, but also incorporates a fuse cutting blade and a blasting cap crimper.

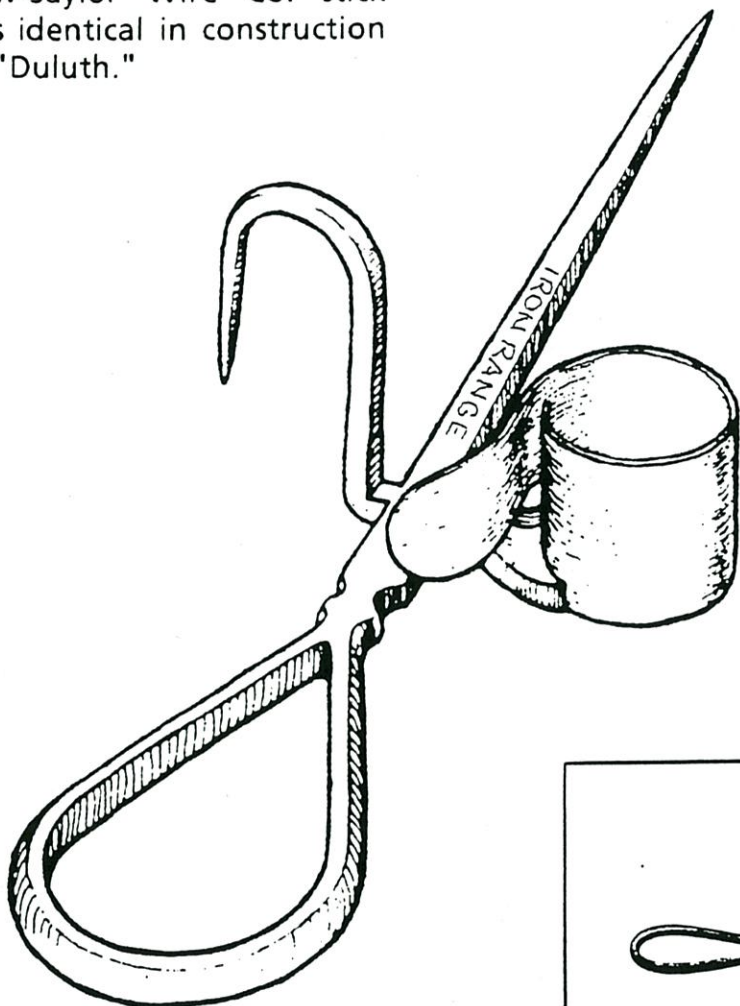
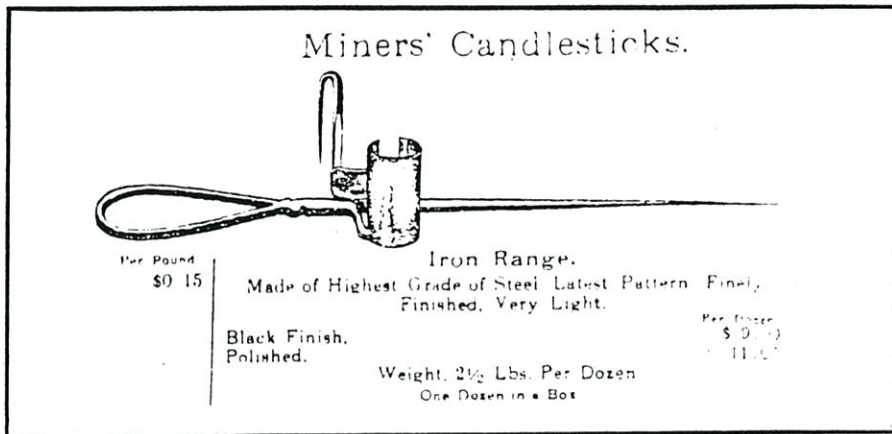
Type:	Folding with blasting tools
Length:	5"/9" folded/unfolded
Workmanship:	Very good
Rarity:	3 known
Owner:	Tony Moon



## The Iron Range Candlestick by Ted Bobrink

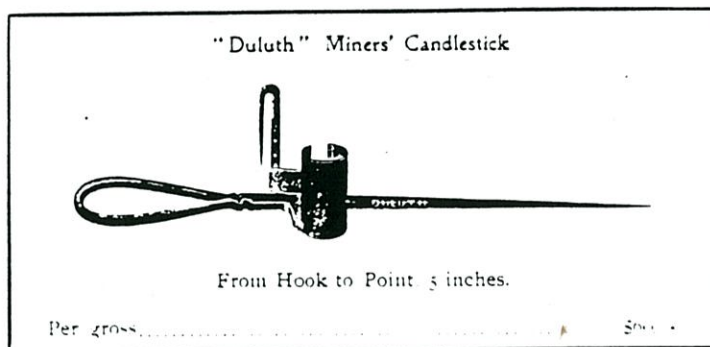
The "Iron Range" is one of a small number of brand named candlesticks that related to eastern mining. It is of cast steel construction with a sheet steel thimble fastened by brazing. It came with a black paint finish and has been found with the western wide bend hook as well as the tight bend eastern hat hook. The "Iron Range" stamping is very large and distinctive.

Another Ludlow-Saylor Wire Co. stick that is identical in construction is the "Duluth."



Type:	Iron Range
Length:	9"
Workmanship:	Average
Rarity:	Rare
Owner:	Randy Marcotte

The Iron Range Candlestick made by the Ludlow-Saylor Wire Co. of St. Louis, MO.





(No Model.)

J. W. BRAY.  
MINER'S TOOL.

No. 582,112.

Patented May 4, 1897.

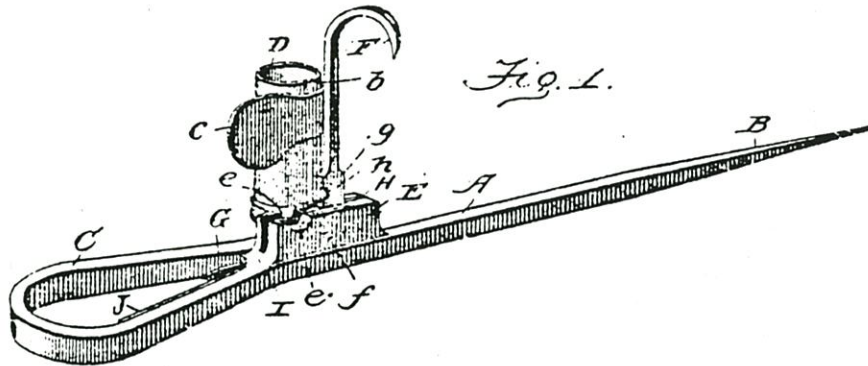


Fig. 1.

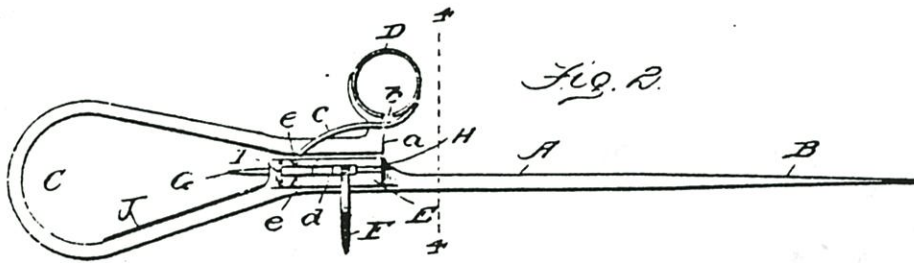


Fig. 2.

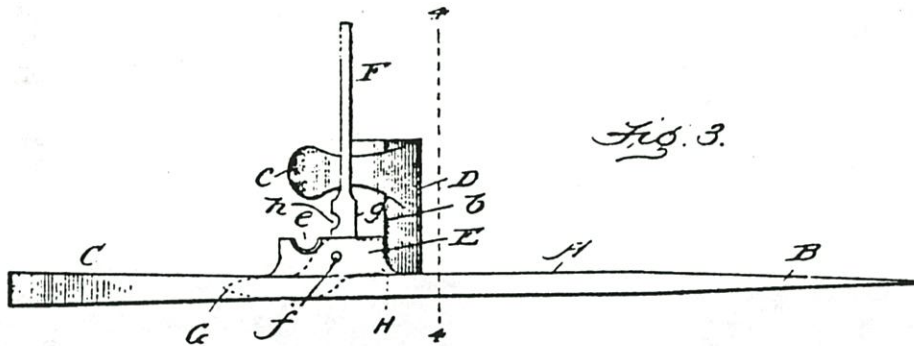


Fig. 3.

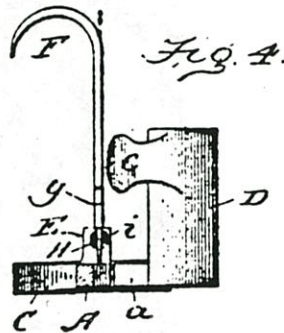


Fig. 4.

WITNESSES:

Edwin L. Bradford  
Robt. D. McPherson

INVENTOR

James W. Bray  
BY  
J. P. Dyer  
ATTORNEY

MISSING!

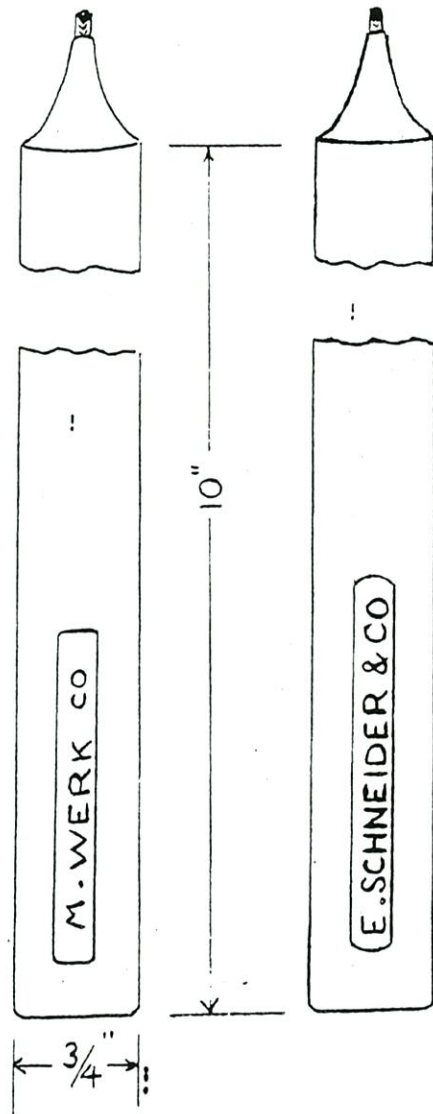
Have you seen an example of this candleholder? If so, please let us know!

## Mining Candles by Ted Bobrink

The Schneider & Co. of Chicago, IL and the Werk Mfg. Co. of Ohio were two large suppliers of mining candles to the western mining communities. Schneider & Co. was the second largest supplier of mining candles surpassed only by Goodwin. As illustrated by the box ends, Schneider & Co. made both stearic wax and adamantine mining candles. Werk candles are stearic wax and of all the western mines that I have explored, I have only found the Werk candles in southern California mines. Both Schneider and Werk candles are nicely embossed on the lower half of the candle.



This Werk candle box was found underground in the Randsburg mining district of Southern California by Ted Bobrink.



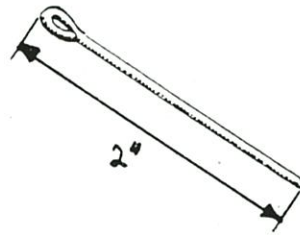
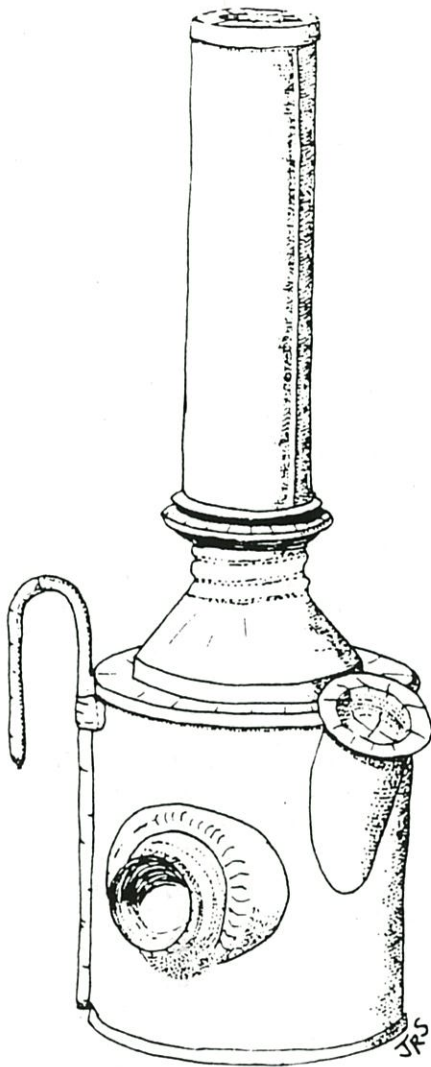
Both of these Schneider candle boxes were found underground in the Olinghouse mining district of Nevada by Mark Bohannon.

## Mine Surveyor's Oil Lamp by Jim Steinberg

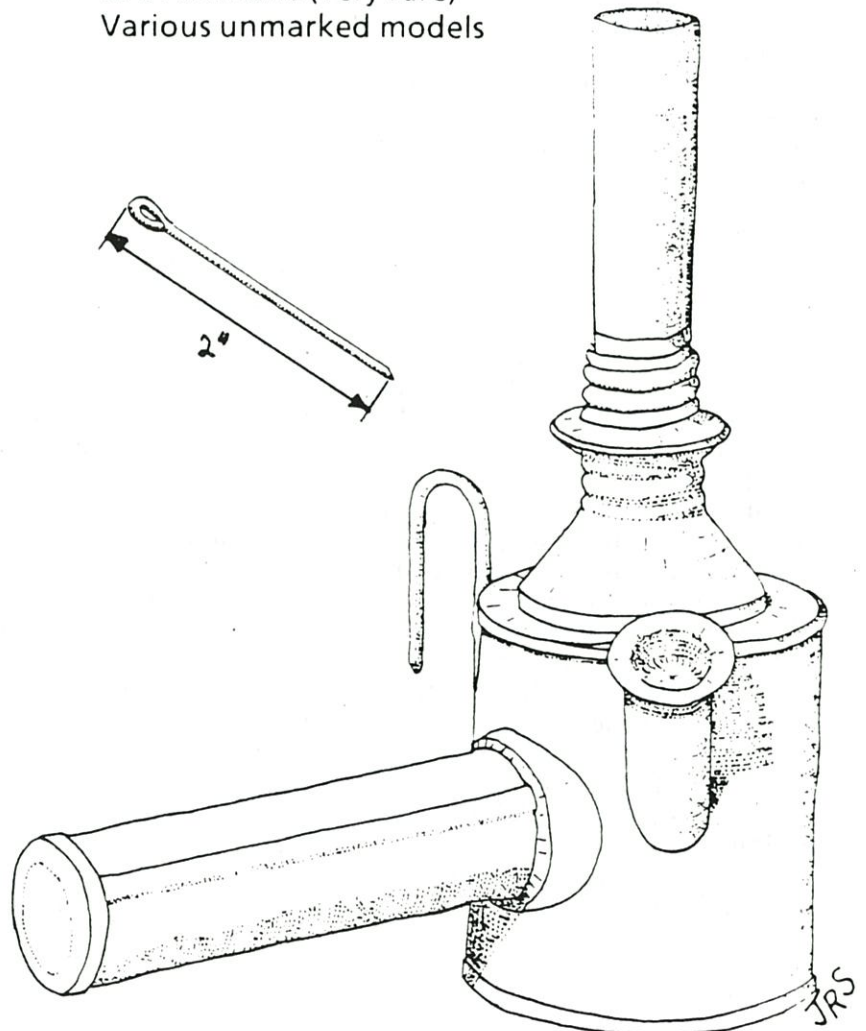
Perhaps one of the more interesting miner's oil lamps patented was that of David D. Williams. The most unique feature of this lamp is the screw-on wick cover that is cleverly designed to double as a lamp handle. The patent text describes these features and mentions its leak resistance while carrying the lamp in a pocket, but makes no mention of surveying. An advertisement which does list such a lamp as a surveyor's lamp has been reported, but has not been seen by the author.

These lamps are known to exist in both tin and brass. There are many styles including some without the hat hook. Known brand names include the following:

Trethaway  
Crown  
Grier Bros.  
B. D. Williams (very rare)  
Various unmarked models



Style: Surveyors  
Material: Tin  
Maker: Trethaway  
Height: 6 3/4"  
Owner: Ted Bobrink



# UNITED STATES PATENT OFFICE.

DAVID D. WILLIAMS, OF WILKES-BARRÉ, PENNSYLVANIA.

## MINER'S LAMP.

SPECIFICATION forming part of Letters Patent No. 252,234, dated January 10, 1882.

Application filed August 16, 1881. (Model.)

*To all whom it may concern :*

Be it known that I, DAVID D. WILLIAMS, of Wilkes-Barré, in the county of Luzerne, and in the State of Pennsylvania, have invented certain new and useful Improvements in Miners' Lamps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to certain improvements in lamps, and is specially designed as a miner's lamp; and it has for its objects to produce a lamp that may be conveniently carried by hand or attached to the miner's hat, and when not in use carried in the pocket without danger of spilling. These objects I attain by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a side elevation of my improved lamp; Fig. 2, a detached sectional view of the filling-tube; and Fig. 3 a vertical sectional view of the lamp.

The letter A indicates the body of the lamp, which is provided with a screw-threaded tube, B, at its top, upon which the screw-threaded cap B', which carries the wick-tube C, is adapted to be secured. The cap B' is provided with a tubular extension, D, which surrounds the wick-tube, and is internally screw-threaded for the purpose hereinafter described.

At one side the body of the lamp is provided with a short screw-threaded tube, E, in which is adapted to be secured the screw-threaded end of the tube F, which serves as a handle to the lamp.

The letter G indicates a hook secured to the lamp-body, by means of which the lamp may

be handled; and the letter H indicates a filling-tube provided with a cross-bar, I, to which is secured one end of a cord or chain, K, to the other of which is attached a screw-cap, L, by means of which the tube may be closed. The wick is so arranged in the wick tube and bottom of the lamp, as indicated in the drawings, as to pack around the lower end of the wick-tube and prevent the oil from rising too freely in said wick-tube.

The handle, when the lamp is not in use, is placed over the wick-tube and screwed in the threaded extension surrounding said tube, thus forming a cap for the same, and preventing the fluid from spilling when the lamp is not in use.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In combination with the lamp-body and its removable screw-threaded handle, the cap secured thereto, and provided with a screw-threaded extension surrounding the wick, into which the handle is adapted to be screwed to serve as a cap for the wick-tube, substantially as specified.

2. In combination with the body of the lamp, having the tube E and cap B' and its extension D, the detachable screw-threaded handle, adapted to be attached to the lamp-body or secured to the wick-tube, as desired, substantially as and for the purposes specified.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of June, 1881.

DAVID D. WILLIAMS.

Witnesses:

RICH. J. WILLIAMS,  
E. L. EVANS.

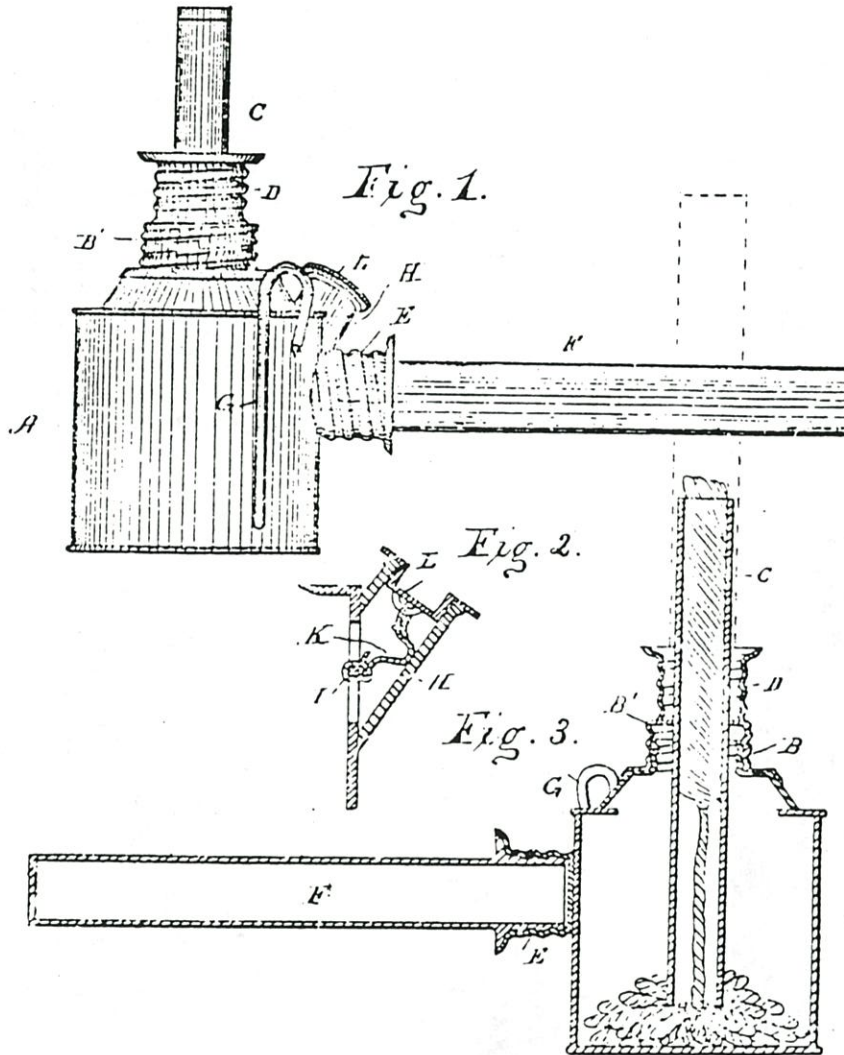
(Model.)

D. D. WILLIAMS.

MINER'S LAMP.

No. 252,284.

Patented Jan. 10, 1882.



Witnesses,  
Edwin L. Jewell,

H. Aubrey Toulmin

Inventor,

David D. Williams

-By C. M. Alexander,  
his Atty.

## The Wolf Pocket Safety Lamps by Jim Steinberg

Of the more novel practical safety lamps, most collectors have a reasonable chance of owning one or more of the

### Wolf's Baby Safety Lamps

Also advertised as the Wolf superintendents lamp, it is found in a wide variety of styles and materials. To give a rough idea of its relative size, an illustration of Wolf's #600 lamp is shown below next to a model #100. The model #100 is the large size so often found. The model #600 shown below is from page 1056 of the 1922 Keystone Mining Catalog, courtesy of Mark Ballard. The #600 shown below was available only in aluminum but allowed the chose of the familiar spark wheel or the harder to find paraffin igniter. However, the #600 shown from the 1914 Wolf catalog on the right page was available only in brass or nickel plated brass and only with the paraffin igniter. Although both lamps are cataloged as the #600, the brass lamp is the earlier of the two. There are additional differences. Examination of the number of posts on each lamp will reveal that the #600 below has four support posts around the glass cylinder and the gauze, while the lamp on the right has only three. Lamps were available with either key or magnetic locks. The lamp you are more likely to own is the #602C. This pocket safety lamp came in aluminum and in addition was provided with an aluminum bonnet to improve lamp operation in drafty areas. Wolf made many variations on these basic design. If you have an unusual one, please let us know.

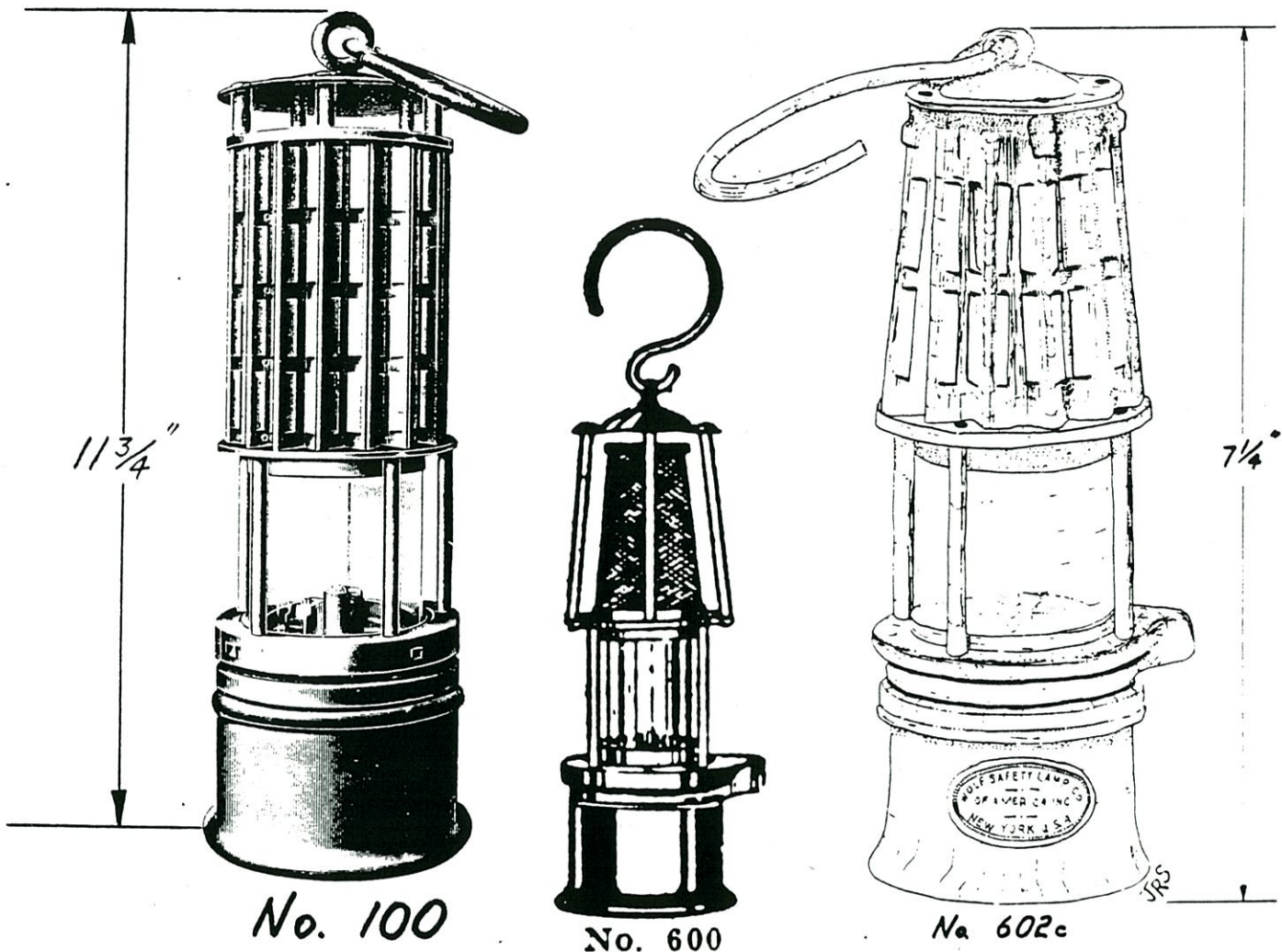
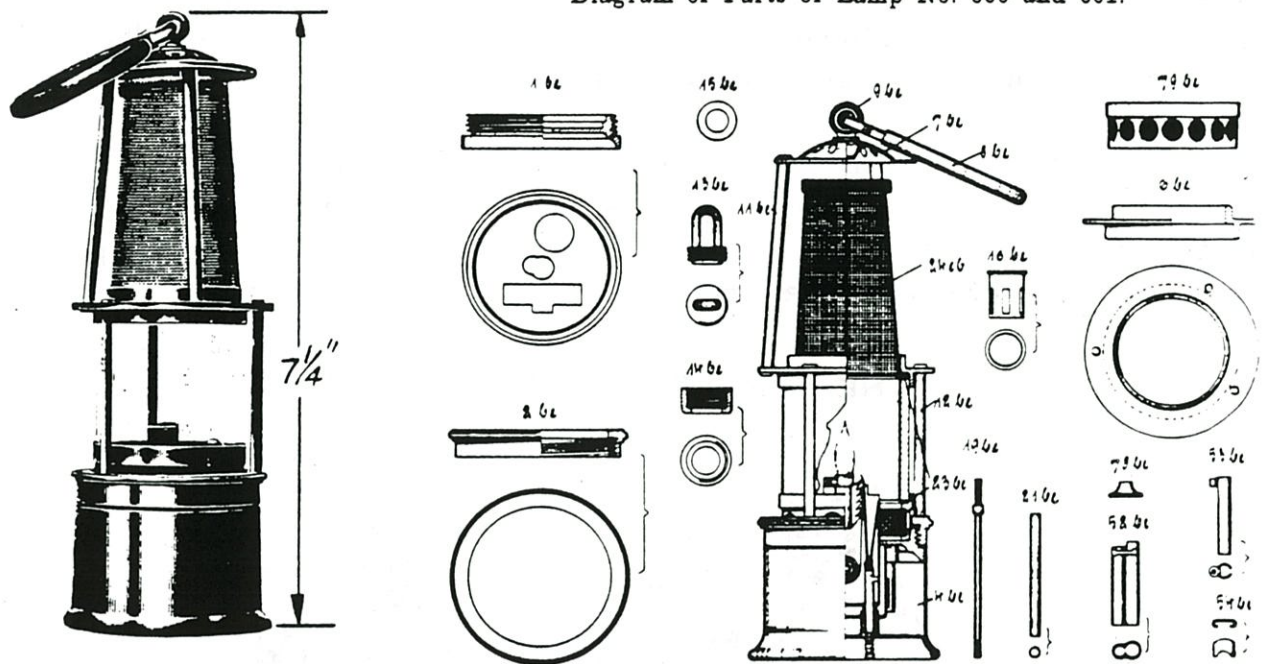


Diagram of Parts of Lamp No. 600 and 601.



The lamps are of excellent finish, very small size and are mainly for the use of officials. The lamp is constructed on the same model as the normal safety lamp and will burn 5 hours.

These lamps are made in brass or nickel plated, and can only be delivered with our Paraffin Friction Igniter, Mod. 1914.

Order No. 600—Wolf Superintendent Safety Lamp, round burner, single gauze, internal igniter and (Fig. 32a.) key lock.

Order No. 601—Wolf Superintendent Safety Lamp, round burner, single gauze, internal igniter, with (Fig. 32a.) out lock.

**Names of the Single Parts.**

- |                                            |                                               |
|--------------------------------------------|-----------------------------------------------|
| No. 1 be—Complete screw top of lamp fount. | No. 15 be—Leather washer.                     |
| No. 2 be—Screw ring.                       | No. 16 be—Cotton spreader.                    |
| No. 4 be—Lamp fount.                       | No. 19 be—Wick adjuster.                      |
| No. 6 be—Middle ring.                      | No. 21 be—Wick adjuster tube.                 |
| No. 7 be—Dome top of lamp.                 | No. 23 be—Expansion ring.                     |
| No. 8 be—Handle of lamp.                   | No. 24 be—Gauze.                              |
| No. 9 be—Eyelet.                           | No. 52 be—Burner.                             |
| No. 11 be—Upper rods.                      | No. 53 be—Wick holder with nut for burner.    |
| No. 12 be—Rods fronting glass chimney.     | No. 54 be—Wick stop.                          |
| No. 13 be—Filling hole stopper.            | No. 78 be—Wick adjuster knob.                 |
| No. 14 be—Filling hole.                    | No. 79 be—Air admission ring with wire gauze. |

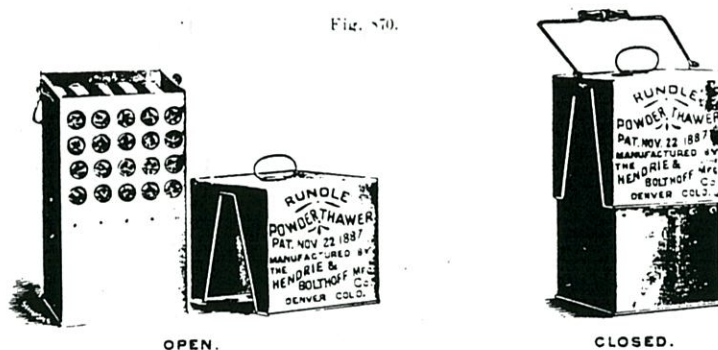
## Powder Thawers and Thawing Kettles by Mark Bohannon

Powder thawers, and later, thawing kettles, were used to thaw dynamite that had been frozen. Nitroglycerin, the explosive component of dynamite, crystallizes as it freezes and consequently separates from the absorbent base as minute crystals. If thawing is done slowly with the cartridges lying flat, the nitroglycerin will be re-absorbed as fast as it liquifies. Quick thawing at high temperatures tends to cause leakage of the cartridges.

Early powder thawers such as the Rundle Powder Thawer (Fig. 1) were constructed of galvanized iron and the tubes for holding the cartridges were open at both ends. Warm water completely surrounded the tubes which held the cartridges, and a hood kept the heat contained and also prevented the cartridges from falling out when carried.

### THE RUNDLE POWDER THAWER.

Fig. 570.



This Thawer is endorsed by the Colorado State Commissioner of Mines, and recommended by users generally.

We feel in presenting this Thawer to the public that it is about the only safe device made for thawing giant powder and other high explosives.

The powder is less confined, as both ends of the tubes are open, and there is no danger of a part of the stick sticking in the tubes. Warm water completely surrounds the tubes, and the powder is constantly kept in a working condition.

They are constructed of the best galvanized iron, and are very durable. They are also economical and safe. In fact, accidents are almost impossible when handling explosives in these machines.

#### DIRECTIONS.

Fill reservoir with water. Place the powder in the tubes and put two snuffs in bottom of can. It is a good idea to fill the bottom of candle-stick with water.

Price .....each, \$5.50

Fig. 1

From a Hendrie & Bolthoff catalog, 1901

Thawing kettles that were manufactured in later years, and often advertised for sale by DuPont, Atlas, Giant and other powder companies, were made of galvanized iron with a water-tight compartment for the cartridges. The cartridge compartment was surrounded by warm water.



DuPont advised that "under no circumstances must the water be heated in the thawing kettle itself." The water was to be heated in another container and then transferred to the thawing kettle. Before filling the dynamite compartment with cartridges, the water should be tested, and if the water was hot enough to burn the hand, the dynamite was not to be put into the kettle.

Shown below are three different styles of powder thawers, the Catasauqua Thawing Kettle (Fig. 2) was made in one piece, while the Bradford Thawing Kettle (Fig. 3) consisted of two pails. The outer container held the warm water while the inner container held the dynamite. The Miner's Thawing Kettle (Fig. 4) will better protect the dynamite from the cold and keep it in good condition longer than either of the other thawers, but its capacity was small.



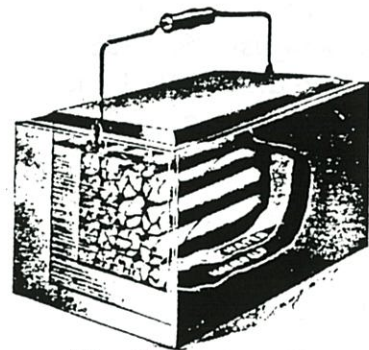
Catasauqua Thawing Kettle

Fig. 2



Bradford Thawing Kettle

Fig. 3



Miners' Thawing Kettle

Fig. 4

Most powder thawers and thawing kettles seem to have been used primarily in Colorado, Montana, and Idaho where extremely low temperatures were common for long periods of time.

With the development of low-freezing and very low-freezing explosives, the use and need for powder thawers was almost entirely eliminated.

Very few powder thawers or thawing kettles are still around in good condition. Most probably rusted away in a short period of time due to their use in cold and wet climates. A few remain in collections and museums.

# The Judson Dynamite and Powder Company

1890 - 1905

by Mark Bohannon

In 1890, the Judson Dynamite and Powder Company was incorporated in California with an authorized capital of \$2,000,000, of which 13,445 shares of a par value of \$100 were issued.

The Judson Dynamite consisted of 40 parts nitroglycerine, 15 parts barley, corn, or wheat flour, 40 to 50 parts of sodium nitrate, and sometimes containing 5 parts of sulphur.

In early September of 1898, to supplement their line of regular dynamite, the company started the manufacture of geletine dynamite.

In August of 1903, practically the entire capital stock of the Judson Dynamite Company was acquired by the California Investment Company, which was organized by the DuPont Company to buy out other powder companies. The entire assets were then transferred to the DuPont Company in April of 1904.

Dynamite continued to be made and sold under the Judson Dynamite and Powder Company name until August 16, 1905, when the dynamite mixing house at the plant exploded. The plant was then dismantled and the property sold. The Judson Dynamite and Powder Company was finally dissolved in 1912.

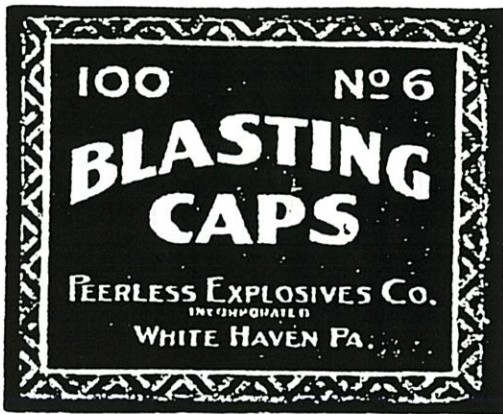


Peerless Explosives Company  
by Mark Bohannon

The Peerless Explosives Company was incorporated in December, 1923 with an authorized capital of \$300,000 of preferred stock and 15,000 shares of no par value common stock.

In 1922, the Peerless Company acquired the property of the old Miller Powder Company at White Haven, Pennsylvania. A dynamite plant was built and the first dynamite was produced on June 15, 1923.

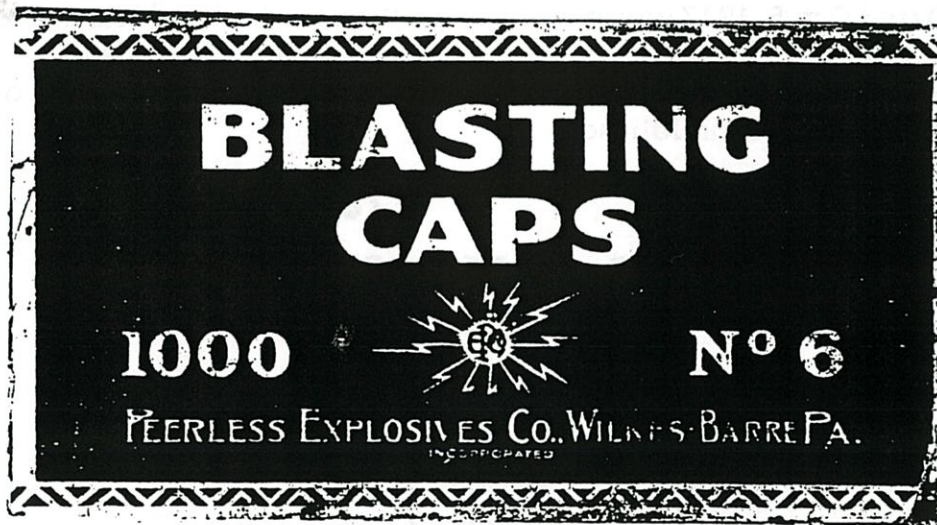
There are two tins from this company as shown below. The main difference between them begin that one is from White Haven, Pennsylvania, and the other from Wilkes-Barre, Pennsylvania. Also shown below is the cardboard box which held ten blasting cap tins.



(Owner Unknown)



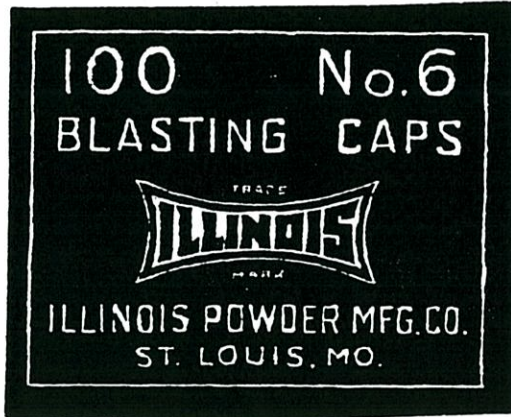
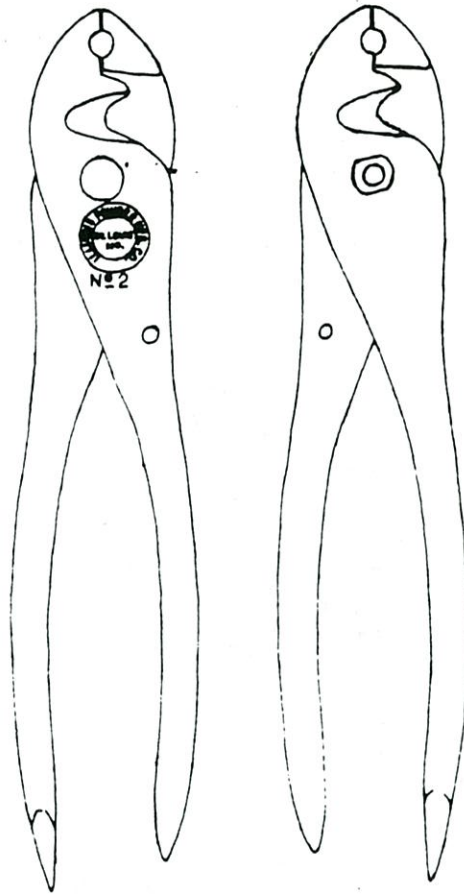
(Ken Roberts Collection)



(Ted Bobrink Collection)

## A New Name on a Cap Crimper by Mark Bohannan

There seems to be a much greater diversity of styles and names of blasting cap crimpers than most collectors realize. Shown to the right is a No. 2 crimper from the Illinois Powder Mfg. Co. This crimper was previously unknown to the author. This crimper is in the collection of Ted Bobrink. Shown below is a blasting cap tin from the Illinois Powder Mfg. Co.



## A New Style of Giant Dynamite Box by Mark Bohannan

Shown below is a different style of an Eagle dynamite box end from the Giant Powder Company. The box is Dated Oct. 5, 1917 which is a bit later than the box end illustrated in the Fall, 1988 issue of Mining Artifact Collector. This is the only box end of this style that I have ever seen and thus have no other information about the size of the box or its period of use. The box end is in the collection of John Johnson.



## Two More Cap Tins Found by Don and Dave White

The blasting cap tins shown below are both DuPont and hold 10 No. 6 blasting caps. Both have crimped bottoms.

The oval tin is 1 1/16 " x 3/4 " x 1 23/32 ". The graphics are printed in black on a white paper label. The back has no message. This temporary label may have been used prior to or during a shortage of painted tins. The lid is painted red and has no graphics. Similar oval tins are dated from the early 1900's to 1930.

The round tin is 1 " in diameter and 1 21/32 " tall. The graphics are painted in white on red. This tin dates from the 1930's to the 1940's.

[Editor's note - 10 cap blasting cap tins of any make and variety are rare.]



(Lid)



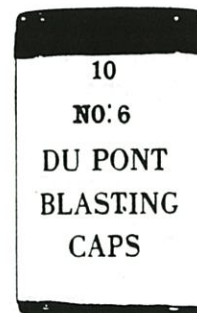
(Lid)



(Front)



(Back)



(Front)



# INDEPENDENCE MINE

W. S. STRATTON.  
OWNER.

*Victor, Colo.*

Brian Levine

## SYZYG GOLD MINING CO.

P.O. Box 465

Victor, CO 80860-0465

(719) 689-2155

A company for historians and collectors who want a share of America's mining past. Whether that be stock certificates, USGS publications, maps, prospectuses, photos, ore specimens, mining hardware, directories -- whatever history has to offer.

### Tracing a Share of Mining History by Brian Levine, Syzygy Gold Mining Company

Tracing down property represented by a bond or share certificate can be enlightening, and almost as rewarding as discovering a gold lode. Take THE SYLVANITE MINING AND MILLING COMPANY certificate for example. This one came across my desk in a lot of Colorado mining material I'd seen before and was able to easily identify. Not so with the SYLVANITE. I'd never seen it before and had absolutely no idea where the property it represented was located.

That meant I had to do some work. Which was fine. But, as many of you know, research doesn't always fulfill its promise. In the case of the SYLVANITE, though, I uncovered quite a rich strike.

After a few hours of thumbing through Colorado mining directories and Government Printing Office publications, I found the SYLVANITE to be located on Elk Mountain in the Ruby District of Gunnison County. Great! Now the SYLVANITE was no longer one of those lost fragments of history. But that was only the beginning.

I looked over the certificate again, and although it was disappointingly plain, it had on it the signature of William Andrews Clark. What a surprise! I knew Clark was one of the major copper barons of Butte, Montana, but I didn't know much else about him. So, I decided to do some research on him.

What I discovered was Clark was quite the "plunger." A cold, calculating, yet brilliant capitalist who had gambled with enormous sums of money. Clark, though wasn't whimsical. He didn't invest in any venture he hadn't thoroughly studied. But when he finally decided upon a scheme, he plunged into it on a grand scale.

Clark was born into a relatively poor farming family on January 8, 1839 in Fayette County, Pennsylvania. Farming held no interest for Clark, so in 1856 he embarked on a law education at Wesleyan College in Iowa. Shortly thereafter, Clark taught for several years in Missouri. But that, too, didn't suit Clark's ambition. Gold, however, did. He joined the rush to Colorado, and initiated his long mining career.

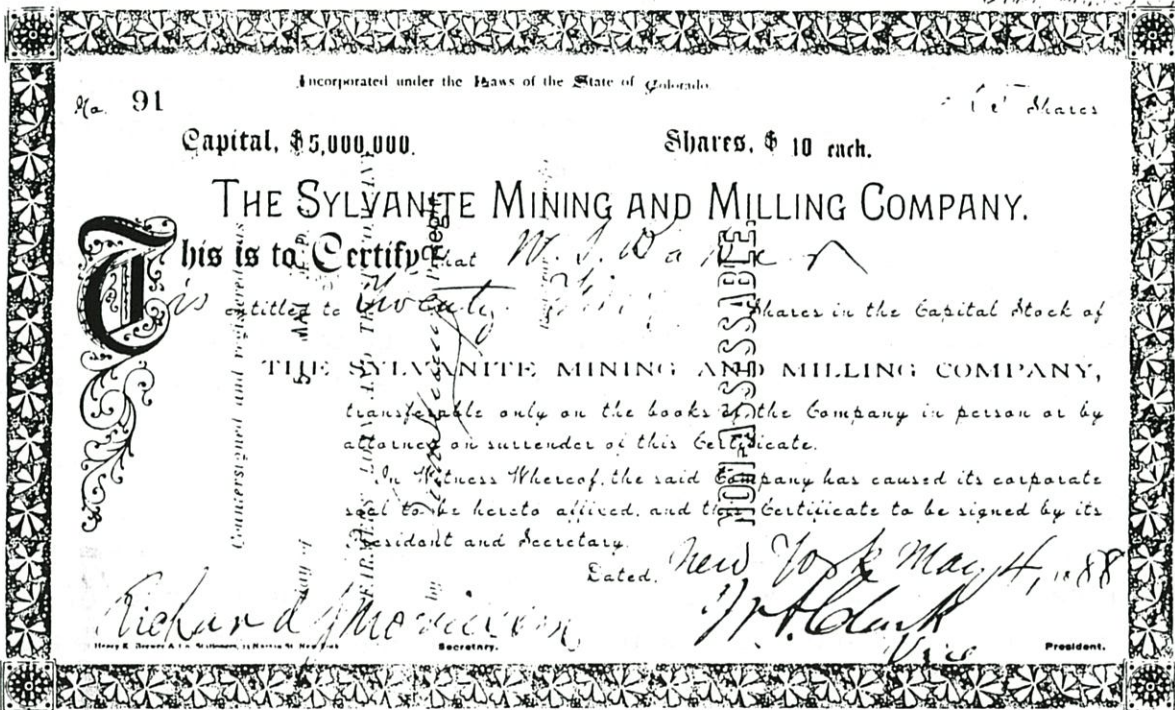
In the late 1860s, Clark was attracted to the Montana gold camps. He worked a number of placer claims, but soon realized they wouldn't make him rich. He sold these claims and entered into the freighting business. In 1869, he was emersed in a wholesale and retail merchandising business at Deer Lodge, specializing in the buying and selling of gold dust. Profits from this business allowed him to open the First National Bank of Deer Lodge in 1872.

That same year, Clark looked over Butte -- at the time, an almost completely abandoned mining camp. He purchased the Original, Mountain Chief, Gambetta, and Clousa mines. All these produced rich copper ores. But they were highly refractory. Clark searched several years for a process that would make these ores profitable. In 1877, he found that process and the man who had invented it: Colorado's Nathaniel P. Hill. In 1878, Clark and Hill formed the Colorado and Montana Company (later known as the Colorado Smelting and Mining Company), and opened a reduction plan at Silver Bow Creek, near Butte.

The Colorado and Montana Company made fortunes for both Clark and Hill. Clark used his wealth to acquire more mining properties in Montana, Colorado, Idaho, Utah, New Mexico, and Arizona. One such property was the United Verde, around which he built the town of Jerome, Arizona. Another was THE SYLVANITE MINING AND MILLING COMPANY. The Sylvanite proved to be only a moderately productive operation, while the United Verde ultimately employed 1500 and produced an annual profit of \$10 million for Clark.

Clark is said to have bought his way into public office in 1900. While serving in the U. S. Senate, he built a 131-room mansion on Fifth Avenue in New York City. He died in February 1925, leaving most of his \$200 million estate to his family.

Now, that information certainly made THE SYLVANITE MINING AND MILLING COMPANY certificate a much more attractive item. If not decorative, definitely rich in history.



## Gold Scales by John Shannon

Many of us have at some time or other visited an antique show or shop and noticed a wooden-cased balance prominently displayed with the label "GOLD SCALE" affixed to it. And we have wondered whether or not it truly was a "gold scale." Perhaps the following explanation will help in that determination.

First, a weighing device with two pans or dishes is properly called a balance. As many as four types of balances were used in the fire-assay laboratory: some type of rough scale or balance for weighing ore samples, a flux balance, a pulp balance, and a button or assay balance (the terms button balance and assay balance are used synonymously). In large laboratories, one could usually find bullion and chemical balances as well. The problem with identifying any of the above as being used only for "flux" or "pulp" is that those balances (except for the assay balance) were also used in many different kinds of stores and laboratories. They cannot be positively identified as having been used in any assay lab. However, the opposite is true for the assay or button balance. It was made for only one purpose and that was to weigh the button (a small pellet of the metal of interest) which was the final result of a gold or silver assay. It is therefore the only balance of all the above which can properly and reliably be referred to as a "gold scale."

The construction of an assay balance includes a wooden or metal frame with glass on all the sides as well as the top. An analytical balance has the same basic construction. The best method to tell the difference between the two is the size of the pans. The pans of an assay balance vary from 1/4" to 5/8" in diameter while the pans of any analytical balance are 2" in diameter or larger. At the time of their use, the assay balance was the most sensitive of all the balances and therefore the manufacturers made every effort to reduce the mass of the parts of the balances. An assay balance has small thin hangers and stirrups, and also smaller and lighter beams. The stirrup is the part that attaches to the beam and holds the hanger while the hanger is the part that extends downward from the beam and holds the pan. Although an assay balance always has smaller and lighter beams, stirrups, and hangers, the primary method of identification is the small size of the pans. Illustrated on the next page are an assay balance and an analytical balance from the 1920 Mine and Smelter Supply catalog. Note the size difference between the hangers and the pans.

U.S. makers of assay balances were:

**William Ainsworth** (which later became **Ainsworth & Sons**)  
**Smith & Thompson** (which later became **Thompson Balance Co.**)  
**Denver Balance Co.**  
**Keller Balance Co.**  
**Heusser Balance Co.** (which later became **Heusser Instrument Co.**)  
**Troemmner Balance Co.**



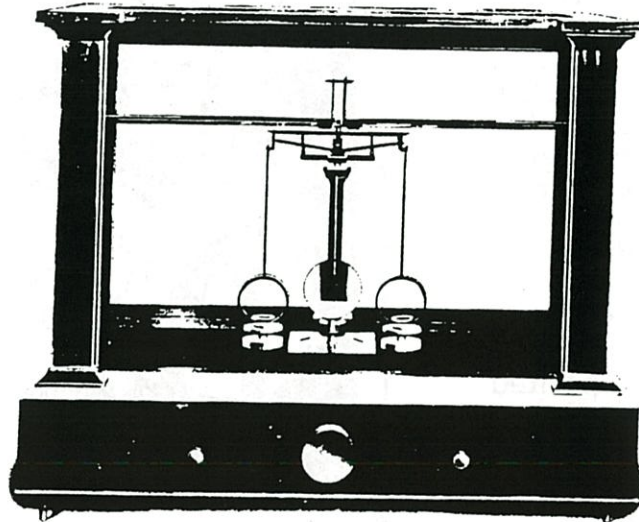
Becker & Sons (which later became Becker Brothers, Christian Becker, and finally was absorbed by the Torsion Balance Co.)

Voland & Van Zelm (which later became Voland & Sons)

Herman Kohlbusch, Sr. (which later became Seederer-Kohlbusch and then SEKO)

Many of the chemical supply houses sold assay balances with their company name affixed, but in reality, they were made by one of the above companies.

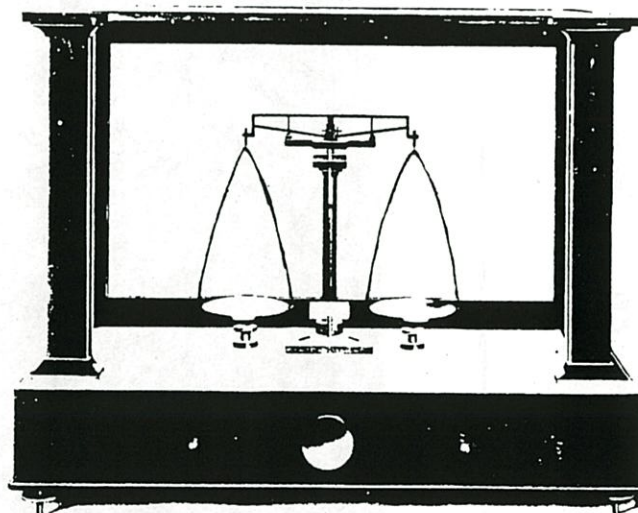
THOMPSON'S



No. 4040A

BUTTON BALANCE, STYLE No. 19

THOMPSON'S



No. 4049A

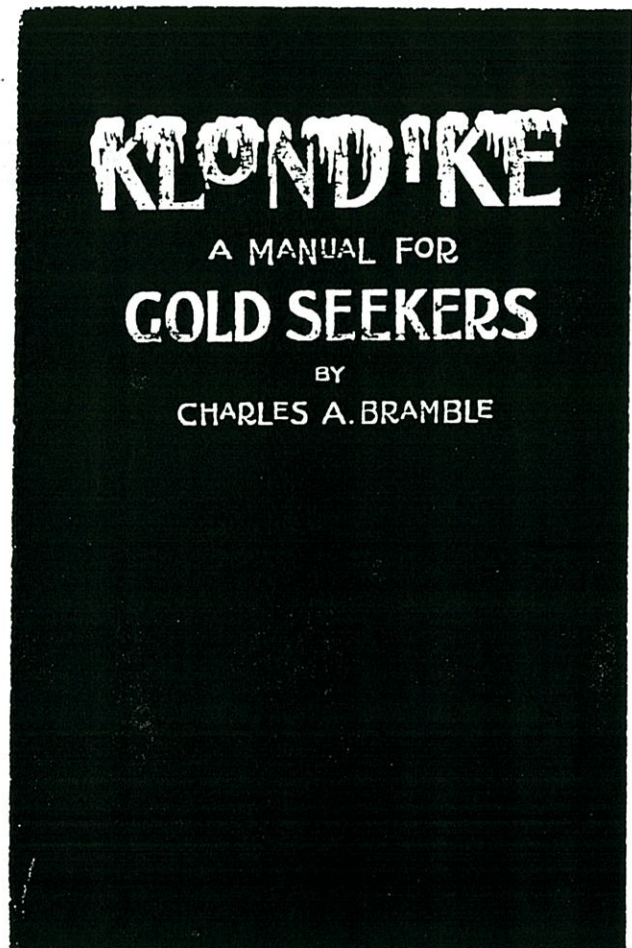
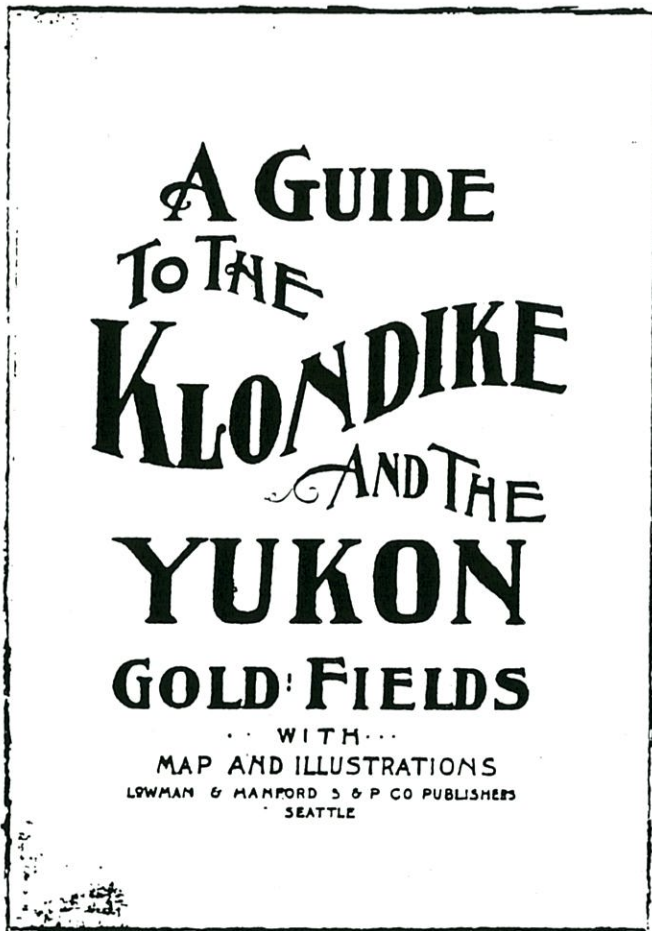
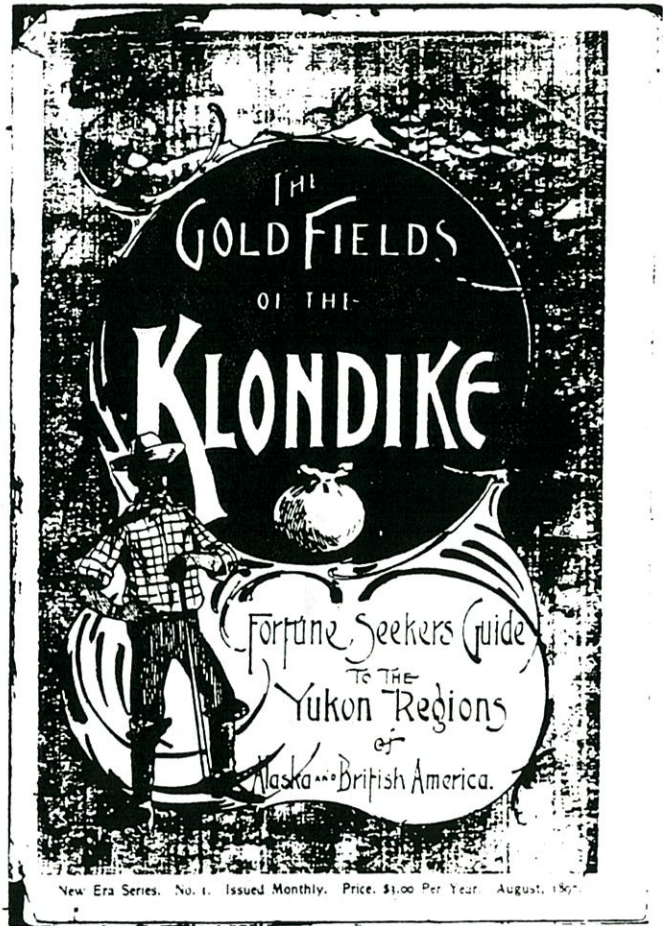
PULP BALANCE, STYLE No. 33

**Collecting Klondike Gold Rush Guide  
Books**  
by Ted Bobrink

The Klondike gold rush of 1897-1898 was the second largest gold rush in North America, only surpassed by the California gold rush of 1849.

Over 100,000 gold seekers set out for the Klondike with only around 40,000 actually making it as far as Dawson. To aid the gold seekers in their difficult journey, many guide books were published to explain how to get to the gold fields and what supplies to take. These guides even explained how to hunt in the wilderness and most important, how to find gold and what to do after a claim was found.

I stress the word guide because these books were only printed during the busy period of 1897 and 1898. Many books printed after 1898 are only accounts of the Klondike gold rush. These accounts, although interesting, are not nearly as desirable as the guides themselves.



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## Mine Bell Signs

by Ted Bobrink

The Nevada state mine bell signs like the one illustrated to the right was issued by the Nevada Bureau of Mines free for the asking to any mining company that required them.

Printed on cloth, the lettering is black on a white background. They are 26" long and 13" wide. The name of the inspector of Mines is found in the lower right hand corner and can be used to give the approximate age of the sign. The Nevada Inspectors of Mines and their terms of office are as follows.

Ryan	1909-1916
Stinson	1917-1934
Murphy	1935-1946
Bernard	1947-1950
Gallagher	1951-1970

# CODE OF MINE SIGNALS STATE OF NEVADA

## BELL SIGNAL CODE

1 Bell - - - - Hoist  
1 Bell - Stop (if in motion)  
2 Bells - - - - Lower  
3 Bells - Men on, run slow

When men are to be hoisted or lowered, give the signal for "men on, run slow" (3 bells). Men must then get on cage or bucket, then give the signal to hoist or lower (1 or 2 bells).

4 bells: Blasting signal; engineer must answer by raising bucket a few feet and letting it back slowly; then 1 bell; hoist the men away from blast.

9 bells: Danger signal; (in case of fire or other danger); then ring number of station where danger exists.

Engineer must slow up when passing stations when men are on the cage.

## STATION BELLS

First Station	- -	2-1 Bells
Second	" - -	2-2 "
Third	" - -	2-3 "
Fourth	" - -	2-4 "
Fifth	" - -	2-5 "
Sixth	" - -	3-2 "
Seventh	" - -	3-3 "
Eighth	" - -	3-4 "
Ninth	" - -	3-5 "
Tenth	" - -	4-1 "
Eleventh	" . .	4-2 "
Twelfth	" . .	4-3 "
Thirteenth	" . .	4-4 "
Fourteenth	" . .	4-5 "
Fifteenth	" . .	5-1 "

## WHERE ELECTRIC BELLS OR FLASHLIGHTS ARE USED IN CONNECTION WITH OTHER BELLS

If cage is wanted, ring or flash station signal. Station tender will answer 1 bell or flash. Reply 1 bell or flash to go up. Reply 2 bells or flashes to go below.

If station is full of ore and station tender is wanted, ring or flash station signal and do not answer back.

2-1-2 bells or flashes: signifies engineer or station tender does not understand; repeat signal.

In case of danger or accident, ring or flash station signal; station tender will reply 1 bell or flash; then ring 9 bells or flash 9 times.

Signals not in conflict with the above code may be used to meet local conditions, but the same must be posted in connection with the above code.

One copy of this code should be posted on the galleys frame, one before the engineer and one at each station.

MERVIN J. GALLAGHER,  
INSPECTOR OF MINES.

## The National Mining Hall of Fame and Museum by Len Gaska

We were pleased to learn that John Shannon, a friend, fellow collector, and MAC reader is the head curator of the The National Mining Hall of Fame and Museum. John reports that museum displays are being developed which cover mining history, prospecting, and placer mining. Additionally, an underground mine is also being developed. Some of the outstanding items currently on display are a working scale model of an aerial tramway, a complete assay office, a working scale model of a coal sizing plant, and a large Troemner bullion balance. The museum is in need of additional material including a small ore grinder for the assay office, items for a mine lighting history exhibit, and items demonstrating mine surveying. Again, the editors of MAC encourage our readers to support the National Mining Hall of Fame and Museum in whatever way they can.



### Parting Shot by Len Gaska, Editor/Layout/Printer

Well, the MAC has increased the number of letters sent and received by your editor. A side benefit, you may be assured. Writing to fellow collectors is always a pleasure, but the real perk is that I almost always learn something new. If that is not what collecting is all about, I will retire from the field.

My one concern is that there appears to be little trading going on within the mine collecting community. For the relative newcomers in our readership, I encourage you to submit a **FREE** trade ad. You may have some item that someone else just might covet. And for you old-timers that grew up on trading, surely there is a few items in your collection that you would love to trade for something else. Remember the old saw "nothing ventured, nothing gained." At "worst," you just might develop a new friendship which is more valuable than any mining artifact you might obtain.

Yes, it may sound corny, but we are all part of an exclusive community. We preserve and research an important part of our history. To further that end, we owe it to ourselves and our hobby to communicate with other collectors. To ignore that aspect is to deprive ourselves and others of the real joy of mine artifact collecting.

P.S. **Dr. Lampbottom** is on an extensive lamp hunting trip in South America and will be back with us in the next issue.

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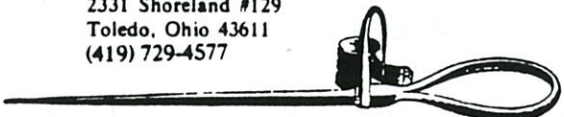
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Selling collection of carbides, oil lamps, safety lamps, and candlesticks.

### Sale and Trade Ads

**For Trade:** Fielding and Peterson folding candlestick complete and in good condition with minor rusting. Lindahl candlestick in good condition with match safe and "PAT. APLD. FOR" on the hook. Minor rusting and dings on end of screw cap. Lu-Mi-Num cap lamp with lug type base. Good condition. Tony Moon, 2763 East Willow Wick Drive, Sandy, UT 84092

**For Trade:** Lu-Mi-Num, nickel plated Sun-Ray, and Shanklin Metal products carbide cap lamps. Varney candlestick. Blasting cap tins: M. C. Mfg. Works, No. 6, red and white rectangular. Hercules No. 6, yellow and black round. Western No. 8, blue and gold rectangular. Will trade for blasting items. Don and Dave White, 1500 Olympic Drive, Milpitas, CA 93035

**For Trade:** Dupont 50 shot blasting machine in wood case. Atlas and Hercules 10 shot metal blasting machines. Oil cadger with oil wick lamp. Unfired Justrite #10 lantern in the original can. Several other cap lamps and safety lamps available. Desire oil wick and flame safety lamps. Mark Ballard, 1204 Anderson Drive, Marion IL 62959

**For Trade:** Carbides: Brite-Lite, Arrow, Springfield, and 4 hour Scranto. Candlesticks: Eureka folding and Marshall folding. Black Diamond oil wick. Safety lamps: American Beard-Mackie and baby Wolf. Errol Chrisman, PO Box 313, Cedar Ridge, CA 95924

**For Sale:** Complete mining museum including lighting, assaying items, ore cars, and books. Errol Chrisman, PO Box 313, Cedar Ridge, CA 95924

**For Trade:** Hercules round yellow #6 cap tin. Atlas #6 cap tin. Hercules rules and instructions pamphlet. Dreadnaught fuse wrapper framed with sample of fuse. Other miscellaneous blasting items. Will trade for other explosive related items, especially from eastern U.S. explosive companies. Mark Bohannon, Star Rt. Box 107E, Oro Grande, CA 92368. (818) 246-4418

**For Trade:** Copper Queen carbide hand lamp, excellent condition. Varney "Bonanza" candlestick, very good condition. Grier Bros. Sunshine lamp, mint and unfired. Western Federation of Miners pin. Desire carbides, oil wicks, safety lamps, and very good candlesticks (fancy, folding, and patented. Jim Steinberg, 2425 Cooley Place, Pasadena, CA 91104

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**For Trade or Possible Sale:** Copper Queen carbide hand lamp, fair condition. Lu-Mi-Num carbide cap lamp, very good condition. Demon Strike Light carbide cap lamp, good condition. "Bendingo" Australian hand lamp. Primitive and unusual. Auto-Lite with set screw reflector. Brace missing, but otherwise in good condition. Almost mint vertical Grier cap lamp with J&T tip cleaner. Semi-fancy candlestick. Nobel blasting cap tins. Three fire assay molds. I also have some very nice oil wick lamps available. Want carbides and related items. Len Gaska, 1688 E. Corson St., Pasadena, CA 91106. (818) 405-0647

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**For Sale:** Carbide cap lamps: Unfired early style Brite-Lite, Np ITP Float-Feed, Simmons Pioneer, and Np Baldwin with deep dish reflector. Brand Name Candlesticks: Brass handle Lindahl, Calumet, Duluth, Improved Ideal, and Crescent. Cap tins: MC Mfg. Co. blue #5, Peerless blue #6, Trojan #6, and five different California cap tins. Other: Pennant carbide flask, Hazlet carbide flask, Nevada cloth mine bell sign, and Colorado porcelain mine bell sign. All sales by phone only! Ted Bobrink (714) 794-5518

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**For Trade:** Comstock candlestick with shape of handle changed. Boker Sunset candlestick. Variation of the #28 Husson candlestick. Rick Yarborough, 4106 Modoc Ct., Concord, CA 94521

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**For Trade:** Boxed unfired Auto-Lite, boxed unfired Guy's Dropper cap lamp, Justrite vertical style cap lamp, Justrite belt generator with fancy headlamp, Justrite spiral feed cap lamp, Milburn No. 22 area lamp, "Liberty" bicycle lamp by C. M. Hall Lamp Co., "Dazzle" bicycle lamp used in mines around Durango, CO, unfired Wolf safety lamp, Justrite No. 2 repair kit box, plain wrought iron miner's candlestick from Honduras, miner's stearic wax candle. Trade for carbide lamps. Rich Finch, Tennessee Technological University, Box 5062, Cookeville, TN 38505

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**For Trade:** ITP carbide cap lamp, excellent condition. Brass Baldwin carbide cap lamp complete and in excellent condition. Mount Shasta candlestick, and a California Miner's Improved gold scale, green case and in excellent condition. Randy Marcotte, 6157 Bellingham Dr., Castro Valley, CA 94552

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**For Trade:** Coal mining postcards, brochures, D & H Coal advertising, and "Blue Coal" uniform patches. Tom Stranko, 2478 Stephanie Lane, Binghamton, NY 13903

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**For Trade:** Patterson safety lamp in nice condition. Porcelain mine bell sign from Victor, Colorado. Grasselli green #6 blasting cap tin, and Trojan brown #7 blasting cap tin. Ken Roberts, PO Box 1267, Twain Harte, CA 95383

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**For Trade:** Lu-Mi-Num carbide cap lamp in excellent condition. Hercules #2 blasting machine in good condition. John Johnson, Rt. 1 Box 199, West Sacramento, CA 95691.

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**For Trade:** Shanklin Metal Products carbide cap lamp in excellent condition. American Beard-Mackie safety lamp, indicator missing. Brad Ross, 107 Westminster Dr., St. Clairsville, OH 43950

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**For Trade:** Carbide cap lamps: Buddy and Sun-Ray. Candlesticks: Peterson and Fielding folder, Sears (Wendell & Bobrink #15), and a few others. Other: Portable assayer's mortar and pestle. John Coons, 1127 Adams St., Denver, CO 80206

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**For Trade:** Carbide lamps: Victor, Arrow, Shanklin Metal Products. Oil wicks: J. J. Murry, Shielded Trethaway. Safety lamps: aluminum miniature Hughes Bros., Clanny style American. Charles Frase, 1015 Noelton Lane, Nashville, TN 37204

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Trade ads up to 80 words are free and encouraged. For-sale ads are only \$5 per issue or \$15 for four consecutive issues. Send ads to the editor: Len Gaska, 1688 E. Corson St., Pasadena, CA 91106.