

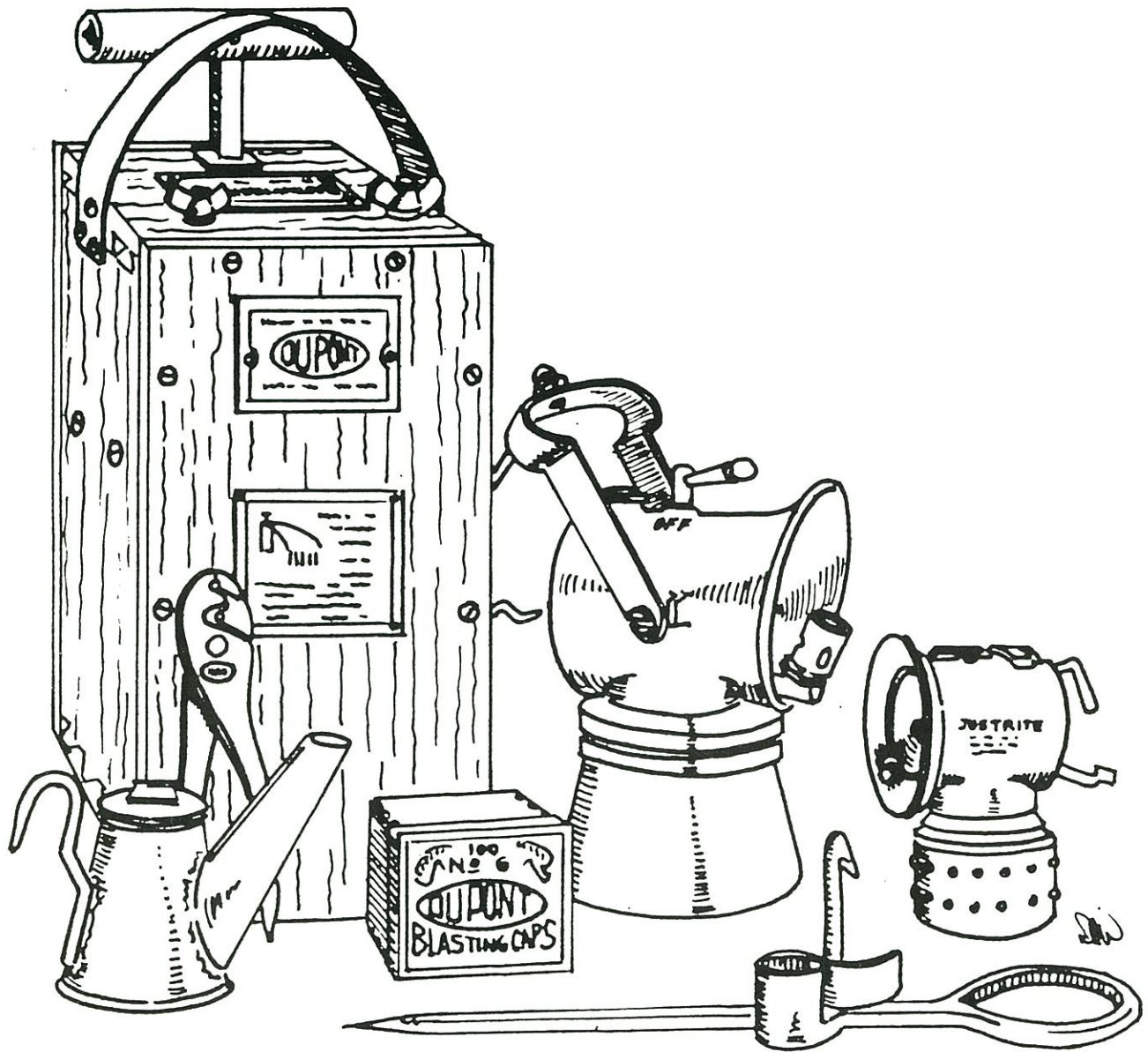
# EUREKA!

THE JOURNAL OF MINING COLLECTIBLES

ISSUE 1



JANUARY 1992



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**SUBMISSIONS:** EUREKA! welcomes unsolicited articles, reviews, information, photos, and artwork. All photos and artwork need to be of high quality and readily reproducible. All articles should reach the Editor in Chief no less than six weeks prior to publication. Every effort will be made to publish any articles submitted. Ideas for future articles are always welcome and may be suggested to the Editor. Materials submitted for publication may be subject to alteration at the discretion of the editorial staff.

# EUREKA!



*A PUBLICATION DEDICATED TO THE COLLECTING,  
PRESERVATION, AND HISTORICAL RESEARCH OF  
EARLY MINE LIGHTING AND COLLECTIBLES*

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COVER: Pen & ink art by Dave White.



# EDITORIAL



## OUR NAME

**Eureka!** I found it! We don't get to shout it often enough. When a collector finds a rare miner's lamp at the flea market, or a blasting cap tin in grandpa's tool shed, there is real excitement and pleasure. When a researcher unearths a rare photograph or advertisement, or interviews an old-timer who remembers driving mules in the mine, there is nostalgia and a glimpse of history. We hope this new publication will capture that excitement, and explore that history.

We plan to make **Eureka! The Journal of Mining Collectibles**, a source of information about every aspect of mining history, and the tools of the trade that have become highly prized collectibles. We hope this journal will become a place for collectors to share information, stories, and opinions... to act as a voice for the collecting community.

Our editorial board is drawn from across the country, and brings an impressive collection of talent and knowledge to **Eureka!** Look for contributions from all of our editors. We are ready to share our ideas, research, and discoveries. We hope you will share *your knowledge* with the rest of us; send us bits of information, letters, complete articles, photos or artwork, or just ideas.

We also share the concerns of collectors, such as rising prices, and the appearance of reproductions on the market. Our editorial and advertising policies seek to address these issues. **Eureka!** will be run as a strictly not-for-profit venture, with all proceeds going into the production of a better journal. The editors have adopted a set of bylaws, copies of which are available to subscribers on request.

We "collect" for the excitement of the hunt, and the thrill of finding something worth keeping; for enjoyment and relaxation; and not least of all, for the connections that we make with fellow collectors. We believe that collecting mining memorabilia, and learning more about mining collectibles, should be fun and satisfying. We hope to satisfy, and we plan on having some fun.

Join us!

## NOTES ON SUBSCRIBING

The January 1992 issue of **Eureka! The Journal of Mining Collectibles**, has been sent to you free "on approval." If you like what you see, we ask you to consider entering a subscription for 1992. Fill out the enclosed subscription form, and a check for \$25 made payable to James Van Fleet, and send them to Jim Van Fleet / 222 Market St. / Mifflinburg, PA 17844. You will receive three additional issues of **Eureka!** in April, July, and October 1992. Subscriptions will run for a calendar year, and include four

quarterly issues. Subscriptions will be accepted for one calendar year at a time.

I'll end with an editorial from long ago, and a wish for the New Year; More and Better mining collectibles for all!

James Van Fleet  
Editor in Chief

## MORE AND BETTER CARBIDE LAMPS

The Editor  
Engineering and Mining Journal  
April 30, 1927

Sir - My plea, to quote the dying words of Goethe (who, as you may remember, was something of a geologist himself), is "Mehr licht;" or , as the Kiwanis would doubtless translate it, "more and better light."

Since the carbide lamp has (Dieu merci) replaced the candle, it has incidentally entered into a neck-and-neck competition with the broken ladder-rung for first place as a cause of profanity among miners. The offending instrument finds itself tickled with a wire, shaken, opened, spat into, and perhaps, in a fit of exasperation, thrown down the nearest winze amid an obscene and blasphemous flow of English, American, Spanish, or Cousin-Jack, according to locality and linguistic preferences.

Though occasionally some rare paragon among lamps may be cherished by its jealous owner above much fine gold (and this for a miner, is no mean valuation), the common product of the factory is not thus but far otherwise. It flickers and sputters, it bubbles over with fiendish glee, and when raised to heaven, or at least as high as the back of the stope, it exudes a mighty outpouring of hot water into the sleeve of its long-suffering collaborator. The perpetrators of the instrument have endowed it with automatic lighter, automatic water feeds, and automatic cleaners (few of which work), but entirely forgot (and it troubles me much) that one of the objects of a lamp is to give light and not (for example) to economize in carbide.

I for one, shall be content to light my flame with a match, and adjust the drip with my thumb, but my prayer to the lamp makers is that they hasten the millennium when we may have a reflector that shines as a good deed in a naughty world behind a flame that permits us to see. If some benefactor will give us this, what a generation of mining men will rise up to call him blessed!

Aladdin, Jr.  
Mazatlan, Sinaloa, Mexico



*Hansen's first cap lamp: The Drylite*

# Hansen Cap Lamps

by Dave Thorpe

Made with diamond-plate sheet metal, industrial strength steel bracing, and state-of-the-art accessories, Hansen cap lamps looked more like miniature juggernauts than the other simple miner's lights of the 1920's. These rugged lamps *were*, in fact, better equipped than their contemporaries to combat the abusive mining conditions, while their special patented accessories sought to overcome the problems inherent with carbide-acetylene lights.

By 1920 Augie Hansen had worked for the Justrite Manufacturing Company of Chicago a full decade.<sup>1</sup> Solely responsible for developing their line of acetylene lights, he was known for brilliant, sometimes eccentric designs. He had provided them with at least 33 highly creative patents. Some, like the "horizontal" cylinder tank design, saw extensive use, while others, such as the pivoting base model, were not developed at all.

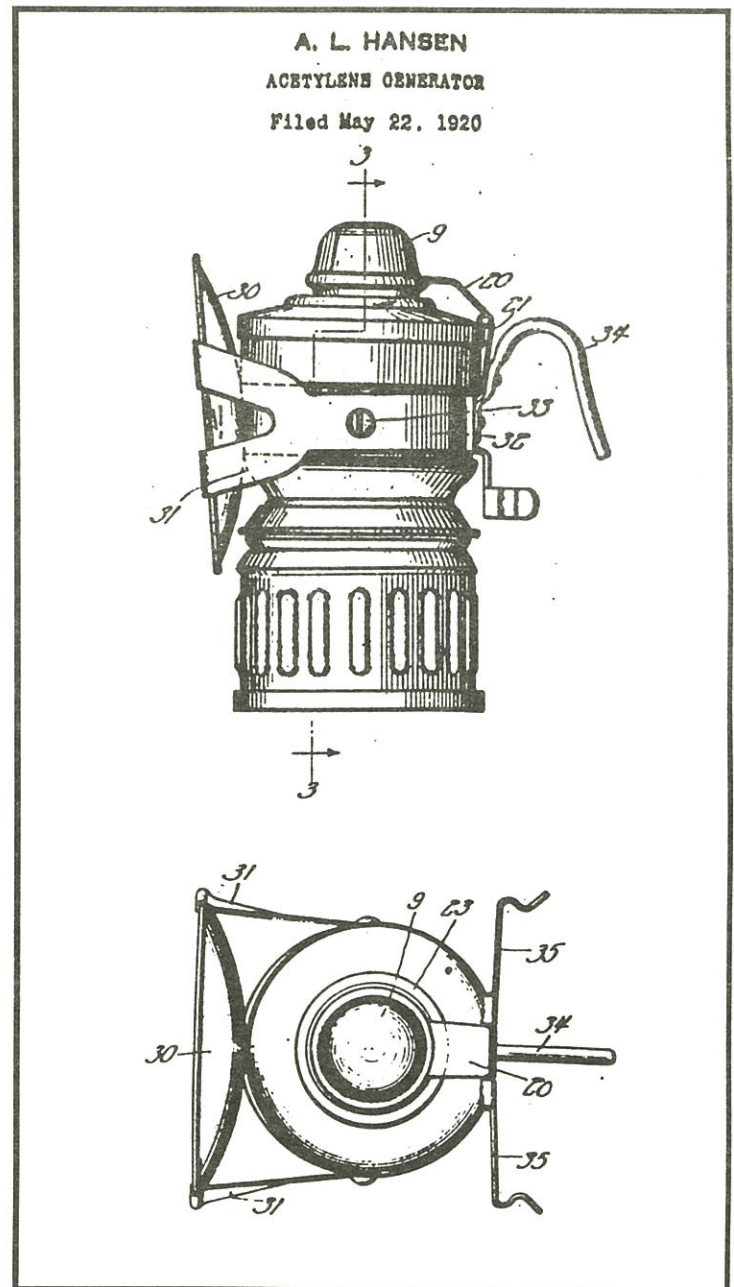
Perhaps Hansen's tendency toward complex gadgetry was not compatible with a company that had decided to follow a simple and proven route. In any event, he left Justrite in 1920 and formed the A.L. Hansen Manufacturing Company. That year, he introduced the Drylite,<sup>2</sup> a cap lamp displaying several new patented and non-patented features. Today, this lamp is both rare and highly desirable to collectors.

A distinctive feature of Hansen lamps is the diamond-plate gripping surface stamped around the base. Functionally no better than the patented ribbed base he designed for Justrite a year earlier, it was visually striking and immediately identified the lamp as a Hansen product. Unlike Justrite cap lamps, the reflector was tipped forward directing the light down where the miner needed it most. Anyone who has used a carbide light to explore caves is familiar with a stiff neck related to keeping one's head tilted down to aim the light toward the floor. While Scranton lamps had used this design for over ten years, their delicate reflectors protruded and were vulnerable to damage from the ceiling above. Hansen reflectors were much less exposed and used the additional protection of a heavy steel brace that wrapped back around the tank to form rugged steel cap braces.

## The "Drylite"

The Drylite was probably manufactured for little more than a year.<sup>3</sup> Its name refers to the unique patented water delivery system whereby a double set of cotton wicks fed water to the carbide. Conventional dropper

feeds relied on gravity and were known for uneven flame due to splashing droplets. Excess gas would, at times, belch back through the water tank wasting acetylene and spilling water. The Drylite, however, wicked water up *above* the water level into the domed cap, then down a central tube to the carbide, ensuring a slow even delivery. Back flow of acetylene was eliminated since the cotton wick was tightly packed in the feed tube. Any gas that did find its way back through this route would be conveniently delivered above the waterline.<sup>4</sup>



Patent illustration for Drylite

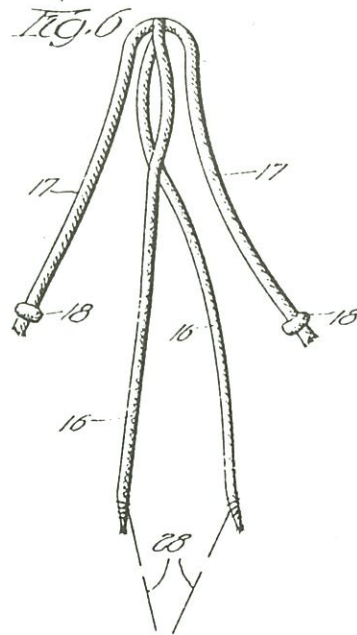
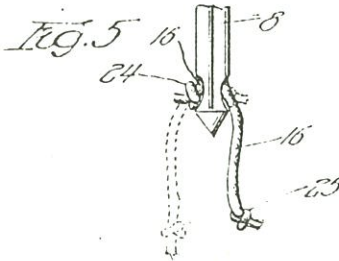
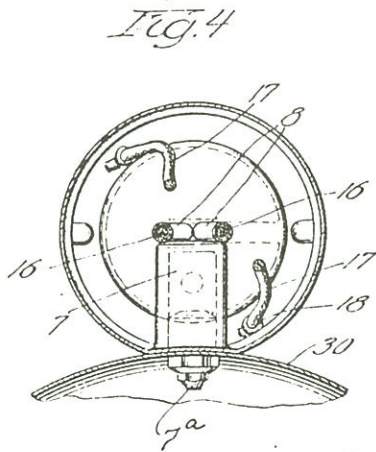
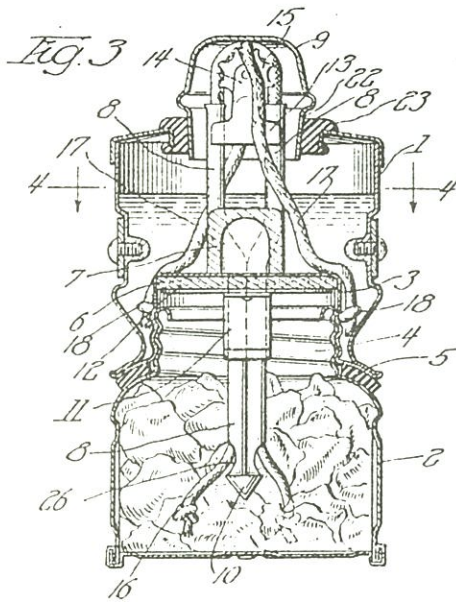
Aug. 19, 1924.

1,505,259

A. L. HANSEN  
ACETYLENE GENERATOR

Filed May 22, 1920

2 Sheets-Sheet 2



*Inventor*  
A. L. Hansen  
Offield, Poole & Hinton  
Attys

Patent illustration for internal mechanism of Drylite.

Ultimately though, the Drylite was a commercial failure. The wicks tended to foul with spent carbide

sludge, and it is doubtful if they truly delivered the quantity of water required for a strong flame.

## SPECIAL NOTICE

When charging this lamp the first time or when a new wick is put in, allow a minute or two for the water to soak through the wick before screwing the lamp together — pulling ends of wick back and forth helps to bring the water through. After the lamp has been burned once, the wick will remain moist and gas will be generated without any delay.

When the flame burns low, open and close the water cap—this increases the pressure and produces the same result as moving the lever on a valve lamp. Do not press water cap very hard — it will seat tight with a slight pressure.

No carbide lamp will burn its best the first time it is used — it has to be broken in and usually requires three or four burnings before it works perfectly. Best results will be obtained by filling the water tank before putting the lamp together.

The "DRYLITE" is different from any lamp you have ever used and will give better satisfaction—a little patience and a fair trial will convince you. If you are pleased with the "DRYLITE," tell us so, if not, tell us why — we welcome your honest opinion.

**A. L. Hansen Mfg. Company**

5037 Ravenswood Avenue.

CHICAGO, ILL.

NOTE—Write for circular of our NEW FOLDING CARBIDE BOTTLE—measures each charge accurately (in the dark.) NO GUESSING. Folds into small package when empty. Handy to use and carry—cannot spill, the nozzle fits over neck of lamp bottom and fills the exact amount of carbide without any waste. Economical and more durable than any carbide bottle you have ever used.

2-21

*Instruction sheet for Drylite lamp (courtesy of Nelson Ressler)*

**THE DRYLITE**  
THE QUALITY LAMP

There is nothing so important to the miner as a dependable mine lamp - a lamp that won't leak water or waste gas - that saves carbide - that requires no regulating or adjusting. A lamp that burns with a steady flame and that will burn in any position - such a lamp is the "DRYLITE"

It will last longer, cost less to maintain and give better satisfaction than other lamps and is well worth the small additional cost. Quality and efficiency are more important than price. Miners should use the best mine lamp money can buy - the "DRYLITE"


**THE DRYLITE**

**DRYLITE FEATURES**

LEAK-PROOF, ECONOMICAL & DURABLE  
EASY TO OPERATE & EFFICIENT  
WATER CAP & DUST-TRAP  
NEW - IT'S BETTER  
RIGHT UP TO DATE  
IMPROVEMENTS  
TRIAL

Manufactured by  
A. L. Hansen Mfg. Co., 5037 Ravenswood Ave.  
CHICAGO, ILL.

TRADE MARK  
**DRYLITE** MINERS  
**CARBIDE**  
LAMP  
**No. 7**  
Price \$1.50  
Will not Leak  
Water or Gas



**WATER LEAKAGE - GAS WASTAGE**

All Miners Carbide Lamps (except the "DRYLITE") LEAK when over-generated because they have an air-vent in the water cap through which water and gas escape - they CANNOT burn without this vent. A leaky lamp causes great annoyance, irregular burning and loss of gas. Gas leakage is a waste of carbide.

**The DRYLITE**


Miners Carbide Lamps LEAK-PROOF because it has no air-vent, it cannot leak a drop of water, no matter in what position it is used. The "DRYLITE" saves carbide as all gas is used for light, none is wasted. It burns steady from start to finish, is easy to operate and will give better satisfaction than any other Carbide Lamp. Buy a "DRYLITE" NOW.

**HANSEN'S IMPROVED LIGHTER**

The HANSEN Lighter is a new idea. It is different from other gas lighters because it has no spring and is operated with the finger instead of the palm of the hand. The sparking wheel works for its own and, as there is no spring tension, there is no chance of cutting or bruising the hand. It is easier to operate and more economical - the flint will last longer than in other lighters. To operate - place the finger over the sparking wheel and push down over the wheel - a slight rub will start the flame. No adjustment is required. Use standard size flint.

Manufactured by  
A. L. Hansen Mfg. Co., 5037 Ravenswood Ave.  
CHICAGO, ILL.  
Made in U. S. A.

**DRYLITE** MINERS  
**CARBIDE**  
LAMP  
**No. 7**  
Price \$1.50  
Will not Leak  
Water or Gas

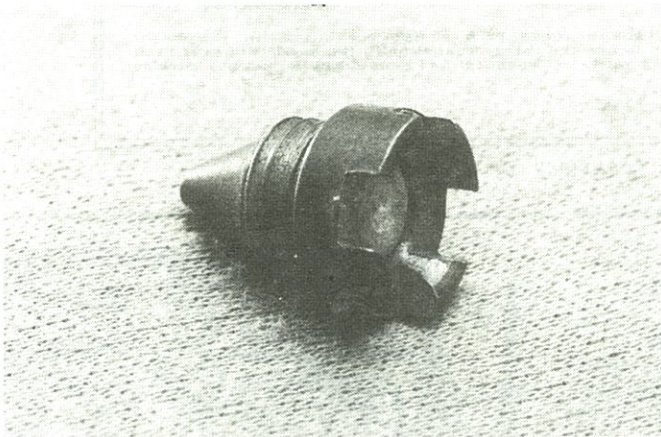


*Drylite box sides. This is interesting because of the instructions for the igniter, and the advantages listed for the lamp, most notably that it would not leak water or waste gas due to bubbling back through the feed.*

## The Reflector-Slot Igniter

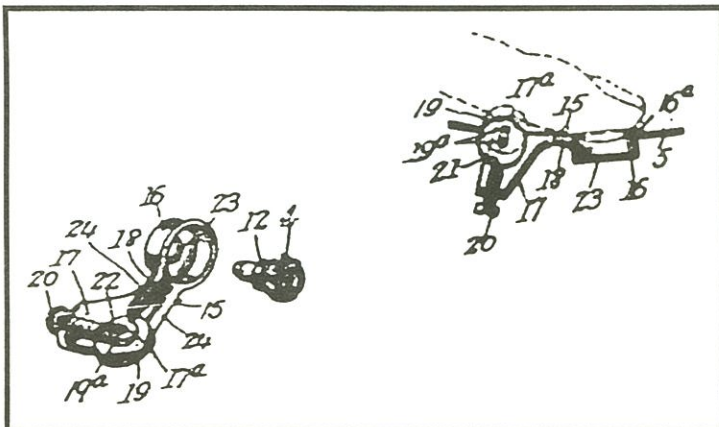
The usual method of igniting a cap lamp is to cup one's hand over the reflector allowing a chamber of gas to build up. This was known as "palming" the reflector.<sup>5</sup> With a sharp movement, the butt of the palm is then dragged over the flint wheel, and with a big "pop", the collection of gas is lit along with the jet of acetylene streaming from the burner.

By the same principle, but on a much smaller scale, the first Hansen lamps were lit, using only the fingertip. This was accomplished with the patented reflector-slot sparking device. To understand how this works, one must first examine the "Peerless" burner tip unique to Hansen lamps. A ceramic inner burner sits within a brass cup with deeply notched sides. This not only let one use a screwdriver to replace the tip, but allowed gas to build up inside the cup and flow out the notches when a finger was placed over the tip.



Close-up photo of "Peerless" Hansen tip

The gas flowed from the notches back behind the reflector into a tiny chamber that enclosed most of the flint wheel. When the finger was dragged back from the burner tip across the portion of the flint wheel protruding through the reflector, a channel of gas was ignited from the flint wheel to the burner.<sup>6</sup> Presto!

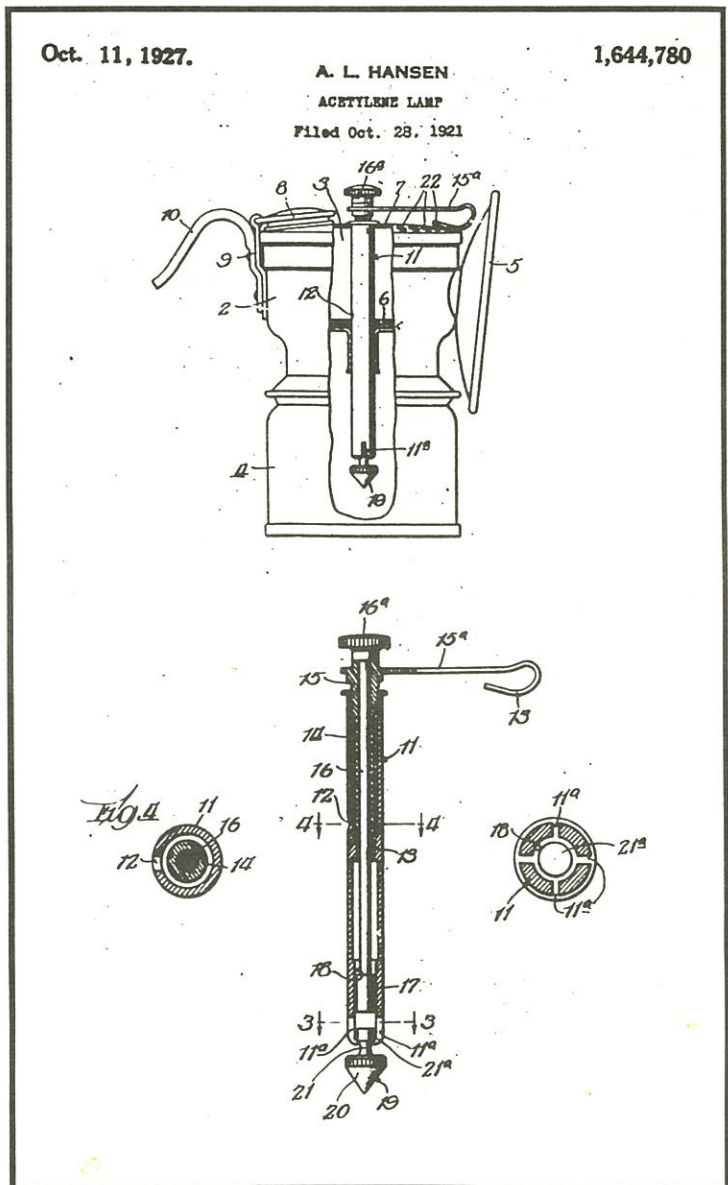


"Reflector-slot" igniter operation (from patent).

Unfortunately, understanding how to use the device was not immediately intuitive. The miner needed instruction or the ability to read the directions on the box, a feat many were not capable of. As a result, the slot-reflector igniter hardly outlived the Drylite itself.<sup>7</sup>

## The Hansen "Force Feed"

Realizing that the greater problem in acetylene generation was not too much water, but too little, Hansen replaced the "Drylite" with the "Force Feed" in 1921.<sup>8</sup> The water mechanism operated exactly like a conventional dropper except, that in addition to controlling the water delivery by a lever screw, a plunger was adapted such that an additional squirt of water could be "forced" into the carbide when necessary. The plunger was neatly located in the shaft of the dropper mechanism and could be operated by means of a knurled knob on top of the water lever.



Force Feed patent



The lamp was produced for at least two years through 1923.<sup>9</sup> Into the bottom of the "Force Feed" lamp was an entirely new incuse stamping.



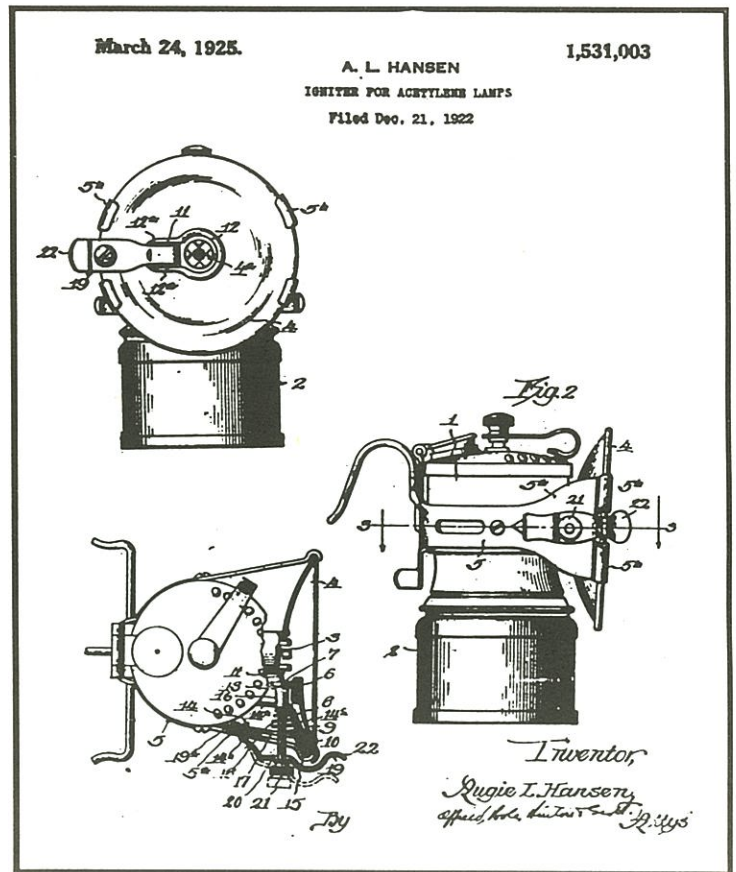
Comparison of Drylite bottom stamp with later Hansen stamp.



Force Feed lamp with reflector-slot igniter (Rick Finch collection).

### The Snap-Lite Igniter

In 1923 the reflector-slot igniter was replaced with another patented device known as the snap-lite.<sup>10</sup> With the new igniter, the miner simply pulled out a spring loaded lever at the edge of the reflector, then let it snap back. "The sparks thus produced are thrown forwardly toward and into the path of gas, thus igniting the burner."<sup>11</sup> Earlier Force Feed lamps were equipped with the reflector-slot igniter, while more recent ones had the snap-lite.



Patent for snap-lite igniter.



Force Feed lamp with snap-lite igniter.

## The Basic Hansen Cap Lamp

Hansen eventually reverted back to a conventional dropper lamp which replaced the Force Feed.<sup>12</sup> This last version, produced through the late twenties, was stamped simply "Hansen" on top. The bottom stamping was unchanged from the Force Feed. Examples are known in which Hansen lamps are stamped Force Feed, but are not equipped with the plunger mechanism,<sup>13</sup> suggesting disposal of obsolete inventory. With the Drylite, Hansen had sought to limit the water flow, while in the Force Feed he augmented it. It seems that a standard dropper was, after all, just... rite (sic)!



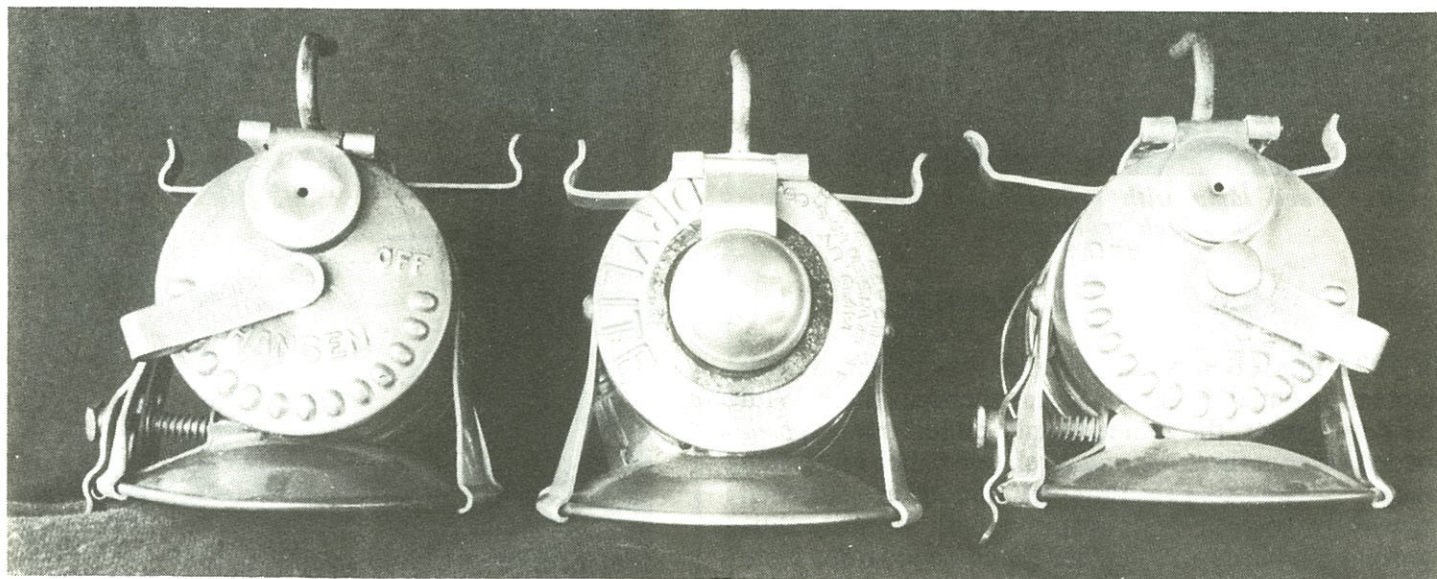
*Basic Hansen cap lamp.*

## Hansen Folding Carbide Bottle

Carbides flasks were usually made entirely of metal. Once again, Hansen bucked tradition and, in 1921, began to produce a canvas container. It was advertised as the "New Folding Carbide Bottle".<sup>14</sup> The brass collar spout could be pinched off at the base to deliver a premeasured load of carbide, with the advantage that an exact charge could be measured in the dark. It could then be folded up into a small package when empty. Surviving examples are found in both brown and black canvas. Though all models have a brass collar, some have brass doors and others steel. The steel doored variety was prone to corrosion. Stamping on the door indicates that a patent was applied for, but I am not aware that one was ever granted.



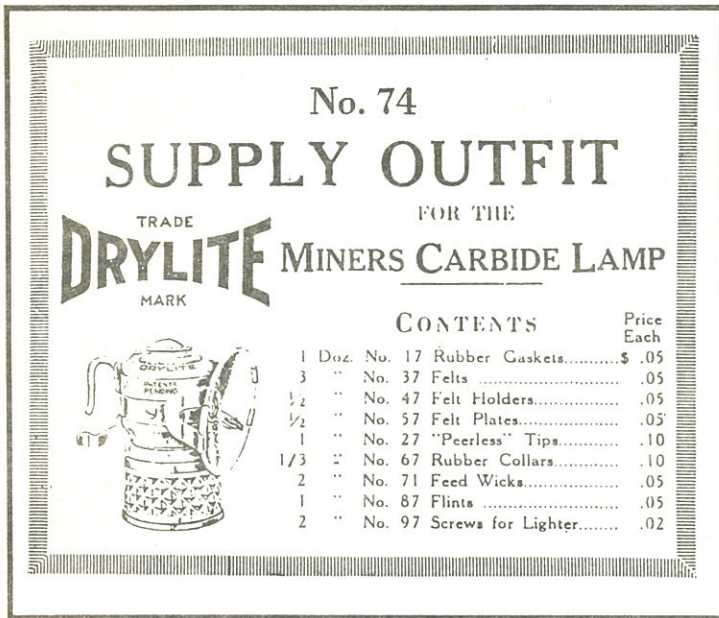
*Folding Carbide Bottle (Steve Loftin collection).*



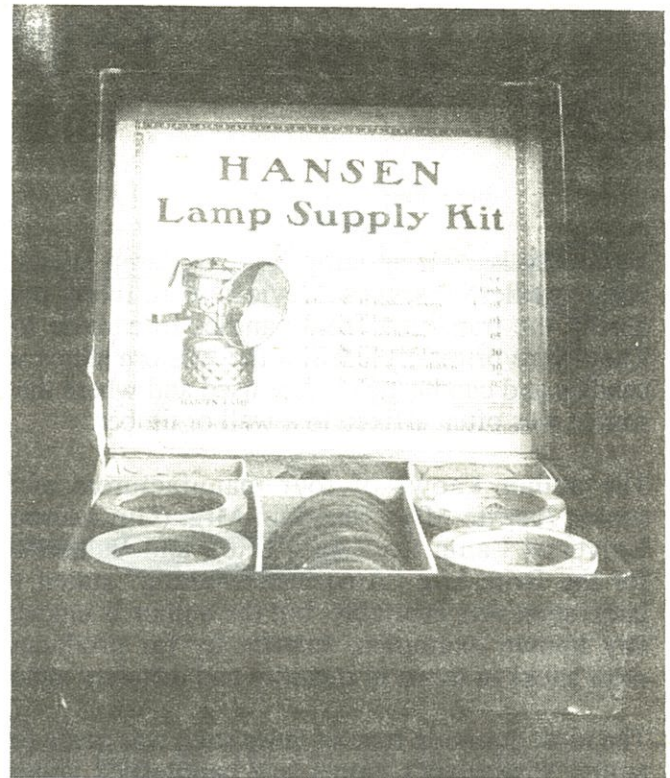
*Top stamps of the Drylite, Force Feed, and Hansen compared. Note the lettering "OFF" is on opposite sides in Hansen and Force Feed lamps.*

## Hansen Lamp Supply Kits

Both Drylite and Hansen spare parts kits exist. I do not know of a specific Force Feed kit.



Drylite kit label (courtesy John Podgurski)



Hansen repair kit (Rick Finch collection)

## References and Notes

1. Clemmer, American Miners' Carbide Lamps, 1987.
2. U.S. patent #1,505,259, 8/19/24 (appl. 5/22/20, pat. 8/19/24)).
3. The Force Feed lamp which replaced the Drylite is represented by a patent applied for in 1921. This, combined with the fact the Drylite is much rarer than any of the other Hansen lamps suggests a very limited production period.
4. Description of mechanism digested from Drylite patent and instructions in box.
5. The term "palming" is referred to in patent # 1,531,003 to refer to the usual method of igniting a conventional lamp.
6. Description of mechanism for igniting reflector-slot igniter in patent # 1,490,562.
7. U.S. Patent # 1,531,003 (appl. 12/21/22, pat. 3/24/25) for the improved snap-side igniter. This replaced the slot igniter. The major improvement touted in the text to this patent was that the miner needed no instruction in its use.
8. See ref. # 3.
9. Force Feed lamps are found with both the early slot igniter and the later snap igniter whose patent was applied for 12/21/22.
10. "Snap-lite" term used in The Mine and Smelter Supply Co. catalog to describe the Hansen lighter.
11. U.S. patent # 1,531,003, granted, (appl. 12/21/22, pat. 3/24/25. Description of mechanism from patent text.
12. Though it is possible that the Force Feed was sold for a short time concurrently with the basic Hansen it was in effect phased out with the introduction of the basic Hansen model. The "basic" is found only with the more recent snap igniter, while the Force Feed exists with both the earlier slot igniter and snap igniters. This demonstrates that the "basic" Hansen was a later product than the Force Feed. The fact that stock Force Feed tops

- were used for basic Hansen lamps suggests the lamp was discontinued in favor of the basic model.
13. Jim Steinberg, Mike Puhl, and Errol Christman collections. According to Mr. Christman, stock Drylite tanks (more rounded at the neck) were used on many of these.
  14. An advertisement for the "New Folding Carbide Bottle" is found on the instruction sheet for the Drylite lamp in a box dated 1921. (Nelson Ressler collection)

### Post-Justrite A.L. Hansen Patents

Applied	Patented	Patent #	Description
5/22/20	8/19/24	1,505,259	Drylite
7/22/20	4/15/24	1,490,562	Slot igniter
10/28/21	10/11/27	1,644,780	Force Feed
12/21/22	3/24/25	1,531,003	Snap igniter
4/30/23	6/17/24	1,498,371	Tip-cleaner pack



A.L. Hansen Trademark  
U.S. Trademark No. 199,490

# Carbide Lamp Sticks

by Len Gaska

Variouly known as lamp holders, lamp sticks, and lamp candlesticks, these devices were likely popular during the transition from candles to carbide lamps. They were primarily used in the western states where candles and candlesticks were used and where the light source was often affixed to a wall or timber.

The author knows of four manufacturers of lamp sticks: Justrite Mfg., Shanklin Mfg. (Guy's Dropper), Universal Lamp Co. (Auto-Lite), and Baldwin. Ads for the Brite-Lite "American Bulldog" stated that a lamp stick was available, but the author is unaware of any known examples. Justrite by far produced the most sticks in terms of quantity and different styles.

The most common type of lamp stick was made for cap lamps, supervisor's lamps, and candlestick lamps. An example of a candlestick lamp is shown in fig. 2. This style of lamp was made primarily for use with a stick as it does not have hat braces or handles. With the stick attached and the steel hook on the lamp which is pointed rather than blunt, the lamp could be attached to a wall or timber in the same manner as a candlestick. This type of lamp stick usually attached to the bottom of the water tank just above the bottom flange.

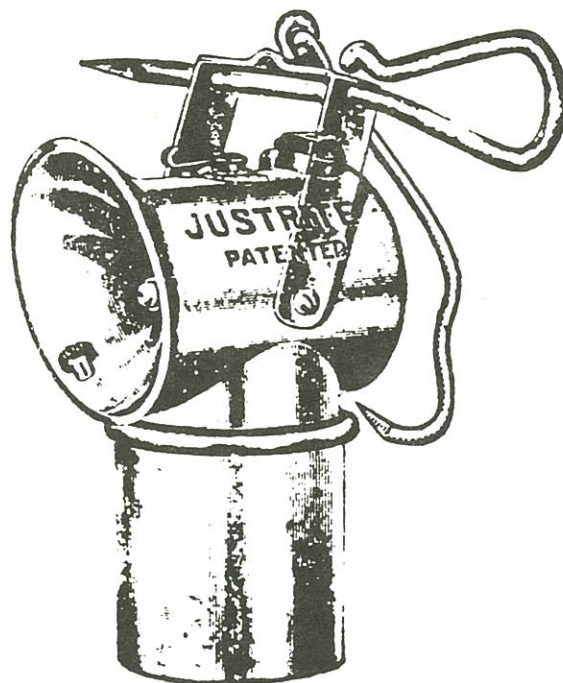
The rarest style of lamp stick is the type made for hand lamps. The Justrite stick shown in fig. 1. is the only hand lamp stick the author has seen although a Baldwin hand lamp stick was advertised in an early Mine and Smelter Supply Catalog.

The early style of Justrite sticks were often copper plated and the clamping wire was relatively thin. Later styles were not plated, made from heavier stock and had two sets of "nubbins" so that the clamping wire could not be removed and possibly lost.

Because lamp sticks are simple in design and material, hand-made examples are relatively common. It is likely that some blacksmiths made multiple copies of lamps sticks of their own design. This theory is supported by the existence of multiple copies of uniquely designed sticks.

Although Justrite advertised a lamp stick within its catalogs until the late 1930's, their popularity probably faded in the early 1920's.

## THE "JUMBO"



## CANDLE-STICK ATTACHMENT.

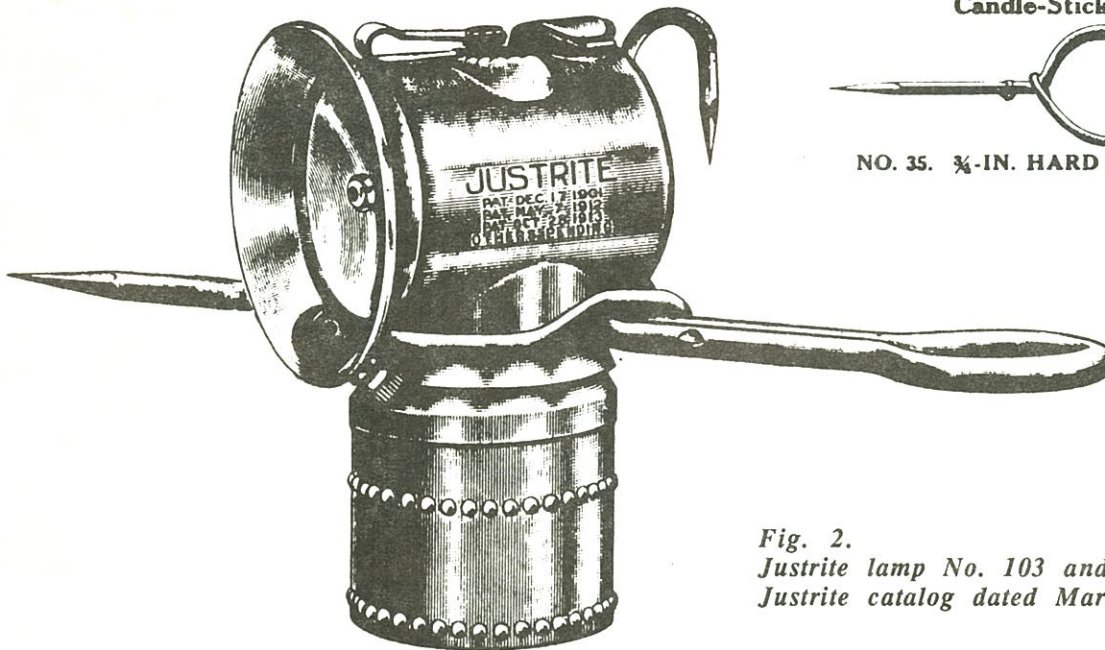


1/4-inch Steel, 10 1/2 inches Long; Square, Sharp Point.

Fig. 1.  
Handlamp stick.  
Justrite catalog dated Dec. 10, 1913.

# METAL MINERS' CARBIDE LAMP

With  
Lighter Attachment  
HALF-SHIFT LAMP



ADJUSTABLE CANDLE-STICK  
AND STEEL HOOK

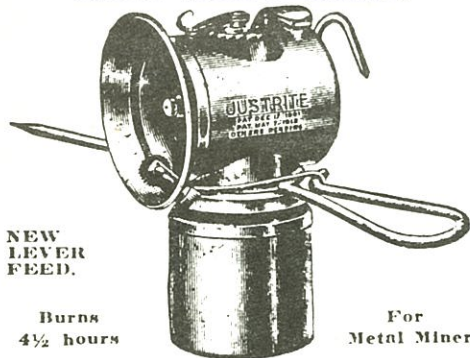
Candle-Stick Attachment



NO. 35.  $\frac{3}{8}$ -IN. HARD STEEL,  $9\frac{3}{4}$  IN. LONG

Fig. 2.  
Justrite lamp No. 103 and No. 35 candle-stick.  
Justrite catalog dated March, 1919.

HALF-SHIFT LAMP.



NEW  
LEVER  
FEED.

Burns  
 $4\frac{1}{2}$  hours

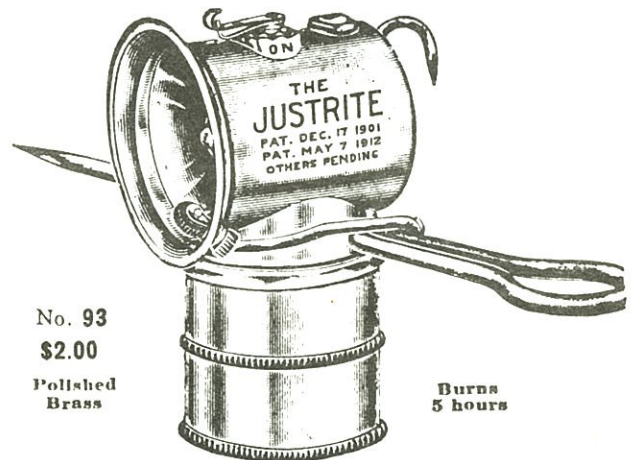
For  
Metal Miners.



The Candle-Stick Attachment is adjustable and easily put on and taken off. It is made of  $\frac{3}{8}$ -inch steel wire, copper plated, sharpened and hardened;  $9\frac{3}{4}$  inches long. The lamp can be turned in the holder and light thrown directly on the work.

Fig. 3.  
Justrite lamp No. 91 and No. 30 candle-stick.  
Justrite catalog dated Dec. 10, 1913.

"ANACONDA SPECIAL."



No. 93  
\$2.00

Polished  
Brass

Burns  
5 hours



The Candle-Stick Attachment is adjustable and easily put on and taken off. It is made of  $\frac{3}{8}$ -inch steel, 11 inches long, sharpened and hardened. The lamp can be turned in the holder and light thrown directly on the work.

Fig. 4.  
Justrite lamp No. 93 and No. 94 candle-stick.  
Justrite catalog dated Dec. 10, 1913.

*Justrite* METAL MINERS' LAMPS  
TRADE MARK

With Lighter Attachment

Half-Shift Lamp

With Adjustable Candiestick  
and Steel Hook

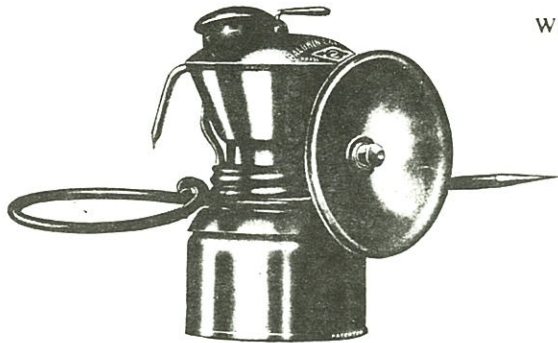
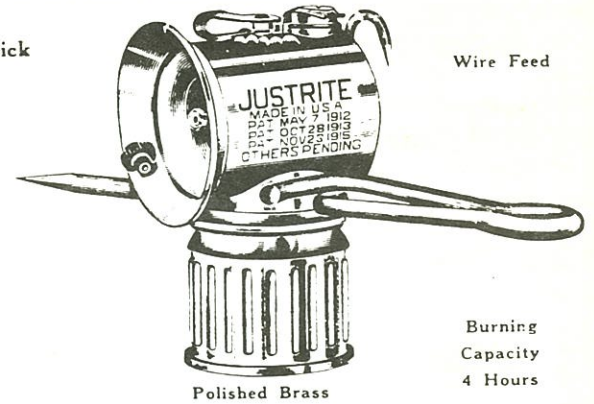


Fig. 5.  
Baldwin Lamp and unidentified candle-stick. "The Engineering and Mining Journal," July 11, 1914.



Wire Feed

Burning  
Capacity  
4 Hours

Polished Brass



Fig. 6.  
Justrite lamp No. 103 and No. 35 candle-stick.  
Justrite catalog No. 5, circa 1922-1923.

No. 4 Candlestick

Slips on over bottom of lamp. Much stronger and better than a stick that clamps around the screw cap. Does away with the screw cap spreading and making a gas leak around the rubber gasket. Fits our cap lamps and four-hour lamps.  
Retail price 30 cents each.



Candlestick

Fig. 7.  
Shanklin Mfg. Co. candle-stick. The Keystone Catalog, 1924.

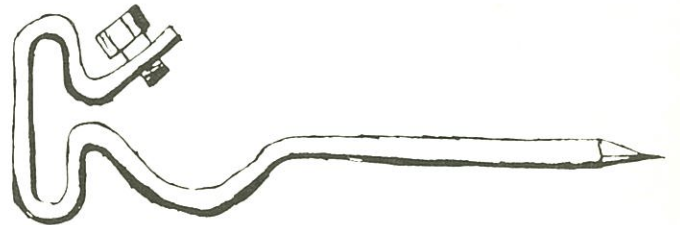


Fig 8.  
Auto-Lite candlestick. From Pohns, "Underground Lamp Post," Vol. II, No. 10, Spring 1978.

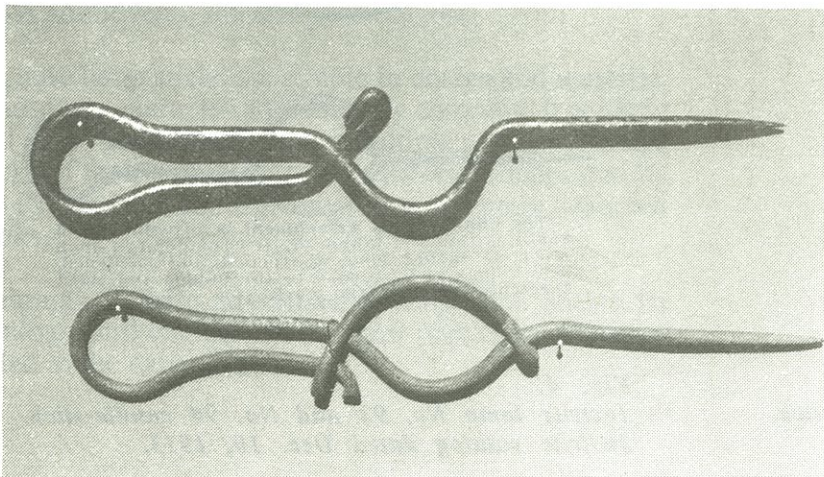


Fig. 9.  
Top: Baldwin candle-stick. 10 1/4 inches long. Bottom: A hand-made candle-stick of the Justrite design. 10 1/2 inches long

W. J. FRISBIE.  
LAMP HOLDER.  
APPLICATION FILED MAY 3, 1920.

1,349,566.

Patented Aug. 17, 1920.

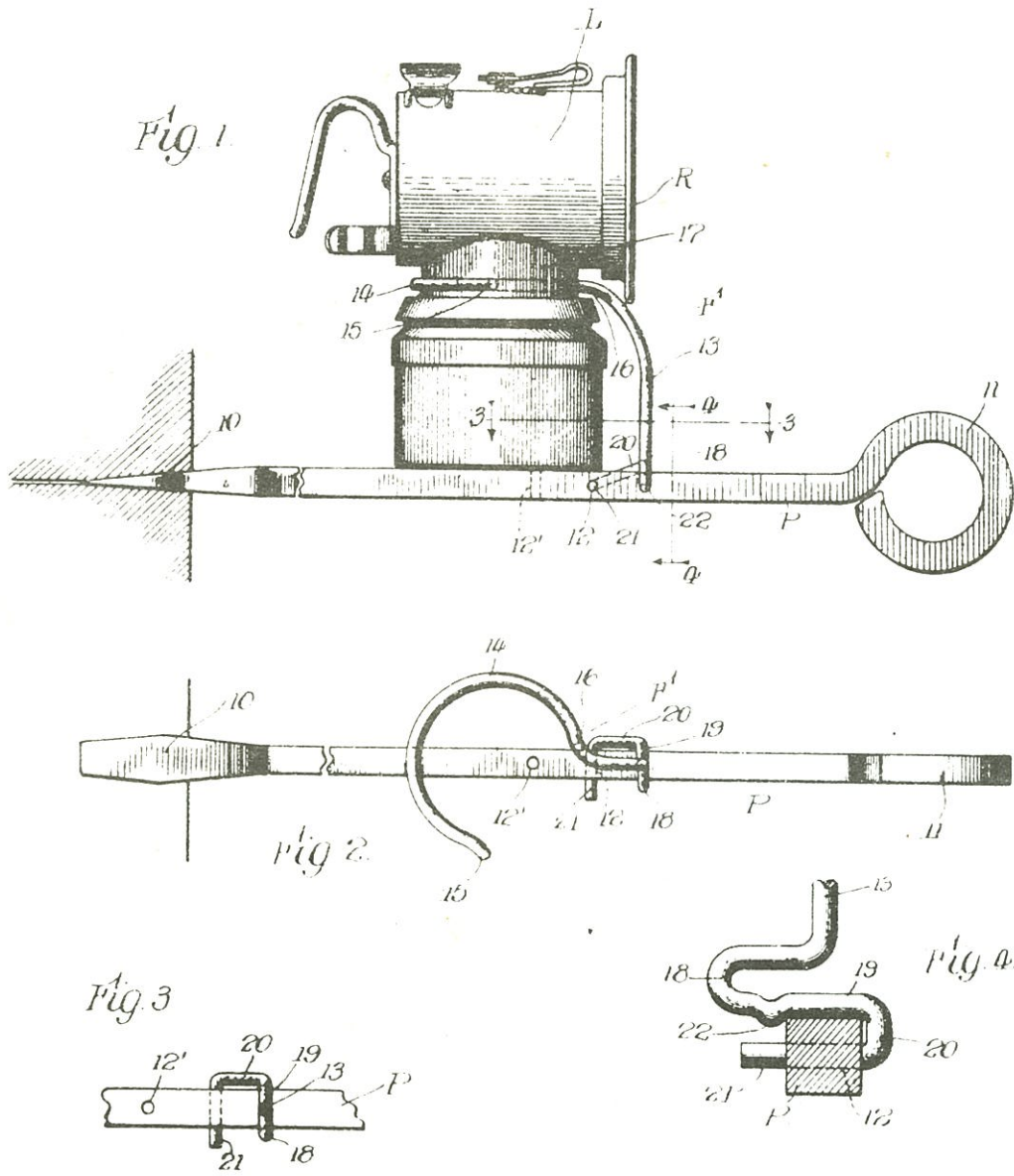


Fig. 10.  
An unusual lamp candle-stick patented by William Frisbie of the Justrite Mfg. Co. The author has examined what he believes to be an example of this stick. The example was missing the wire lamp clip, was pointed unlike the patent drawing, and was marked.

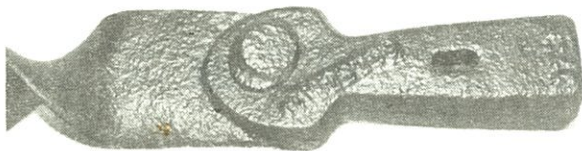
# Hardsocg Manufacturing Co.

by Dave Johnson

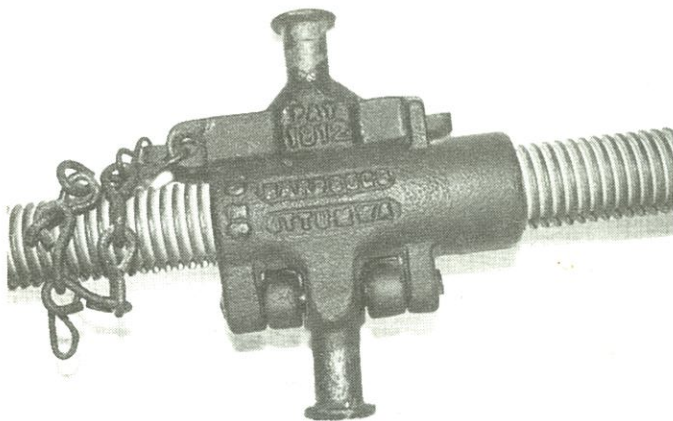
The Hardsocg Manufacturing Co. of Ottumwa Iowa and Pittsburgh, Pennsylvania was at one time the largest single manufacturer of mining tools and supplies in the world. It is almost impossible to collect mining artifacts and not have something in your collection manufactured by Hardsocg. The Hardsocg Manufacturing Co. made carbide lamps, oil-wick lamps, oil-cadgers, carbide flasks, canteens, powder bottles, picks, wedges, shovels, pry bars, hammers sledges, tampers, copper needles, scrapers, drills, drill machines, breast drills, ore and coal cars, timber cars, car wheels, caps, denim pants and overalls, pneumatic riveting machines (not related to mining), and other items.



*Hardsocg patent replaceable point pickhead*



*Hardsocg patent coal drill.*



*Hardsocg patent (1912) coal drill.*

The founder of the Hardsocg Manufacturing Co. was Martin Hardsocg. Martin was born in Schonfeld, Germany in 1852, to Christopher and Caroline Hardsocg. In 1858 the family emigrated to the United States by way of New York City. The family settled in Agency City, Wapello County, Iowa later that year when Martin was six years old.

At age fifteen Martin Hardsocg was apprenticed to a blacksmith for three years. Following this, he struck out on his own working first in Happy Hollow, near Ottumwa, sharpening tools and shoeing mules. While there, he worked for blacksmith George Thornton. After moving to Smokey Hollow the following year, he married Thornton's widowed daughter, Malinda Edwards, at the age of nineteen. For the next several years Martin worked at various locations throughout Wapello County, including several coal mines, a rock quarry, and the Grimes Wagon Works in Ottumwa.

While working at the quarry and coal mines, Martin studied and experimented with improvements to existing mining tools. He developed a removable pick head so that the awkward handles could be left underground while the head was sharpened. He also experimented with the idea of boring holes in coal for blasting just as he had seen holes bored in wood. He forged a six foot long auger device and tested it successfully.

By 1878, Hardsocg was convinced that he could successfully manufacture and market mining tools. He opened a small shop in Avery, Iowa and soon had four men working for him. He trekked to all the mines within twenty miles of Avery trying to persuade them to try his new drill and was moderately successful in marketing the drill and other products.

In 1885, some investors in Ottumwa loaned Martin \$3000 without security and persuaded him to move his enterprise to Ottumwa. In June of 1885, he relocated to Ottumwa at the foot of Vine Street along the railroad tracks on the banks of the Des Moines River.

This first manufacturing plant was destroyed by fire in 1890. On October 2, 1891, the Hardsocg Manufacturing Company was incorporated. Martin Hardsocg served as President, while B. F. Slutts was Vice-President, and J. S. Surbaugh was Secretary/Treasurer. This is the same J. S. Surbaugh who was Secretary/Treasurer of the short-lived U. S. Tool Co. of Vincennes, Indiana (see MAC #10 p. 28). A new plant was constructed on Ottumwa's west side along the CB&Q Railroad, at 726 West Samantha.



Within a few years the demand for Hardsocg's quality products was such that it was deemed advisable to open a branch warehouse and sales office in Charleston, West Virginia to serve the South and East trade. Two salesmen operated from this branch operation.

W. M. Edwards was Vice-President and L. C. Hardsocg was Secretary/Treasurer of the Hardsocg Manufacturing Co. Frank McIntire was Vice-President, M. P. Duffield, Secretary and J. T. Hackworth, Treasurer of the Hardsocg Wonder Drill Co.

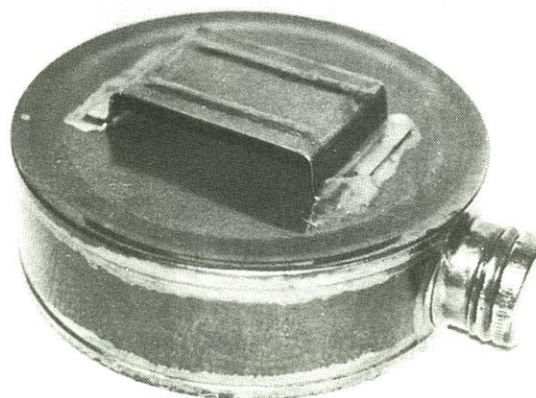


*Tin Hardsocg Face Lamp with shield logo.*

The firm expanded even further when, in 1894, a manufacturing branch was opened in Pittsburgh, Pennsylvania. Martin Hardsocg was again President of this operation and C. R. Anderson served as Secretary/Treasurer. The Pittsburgh operation produced coal drilling machines, rail benders, punchers, machine bits and automatic mine doors.

The firm also owned and operated the Union Shovel Co., West Virginia Handle Co., and was lessee of the Automatic Mine Door Co. of Terre Haute, Indiana. The Pittsburgh branch was located at 916-920 South Avenue in Allegheny.

By 1900, the Hardsocg operation had expanded to the Hardsocg Manufacturing Co., Hardsocg Wonder Drill Co., and Nicholls Manufacturing Co. Martin Hardsocg served as President of the three parent firms.



*Tin Hardsocg Oil-cadger.*

The Imperial Trademark name, used by the firm since 1898, appeared on many, but not all, Hardsocg oil-wick lamps. The firm produced 300 dozen oil-wick lamps daily between 1908 and 1910. Hardsocg also marketed an "Imperial" stamped carbide lamp, made for them by Grier Bros., of Pittsburgh. Judging by the limited number of surviving examples, this lamp did not enjoy great popularity.



*Hardsocg Imperial face Lamp with logo.*



*Hardsocg Black Diamond face lamp.*



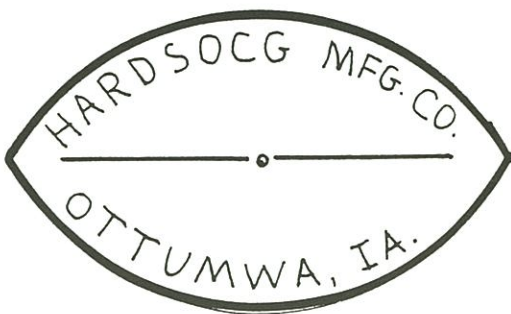
*Black Diamond stamping.*



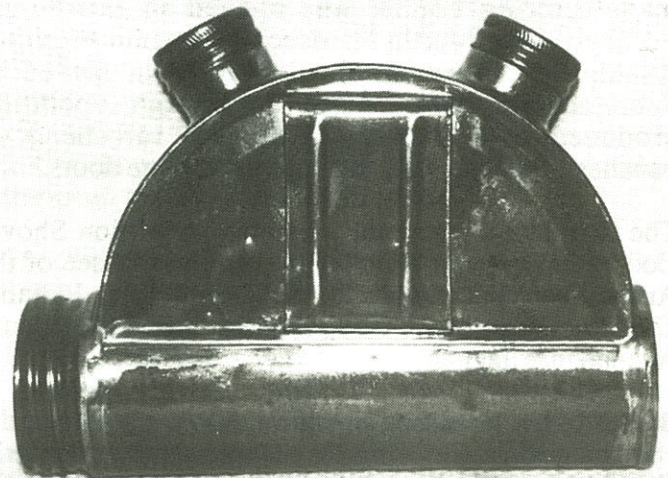
*Tin Hardsocg driver's lamp with shield.*



*Hardsocg driver's lamp.*



*Hardsocg logo on driver's lamps above.*



*Hardsocg 3-compartment carbide belt flask.*



*Hardsocg Pittsburgh brass face lamp.*



*Font stamping on lamp (left).*

Martin Hardsocg wrote an article for a trade journal in 1922 in which he stated, "And here I am at 70, still at the work bench and happy as the day is long. I get up at four in the morning and am first to report to work at the factory. I work till noon, eat my lunch and an apple in the shop, go back to work at one, knock off at five and go to bed by eight at night. That's my life and I'm having a bully time."

Martin Hardsocg continued to have a "bully time" until 1942 when he died at the age of 90. His son, Lester, who was active in the firm for many years, died in 1981 at the advanced age of 101.

In 1947 the Hardsocg Manufacturing Co. and all its holdings were sold to the Cardox Co. of Chicago. The firm continued to operate under Cardox control until 1969 when all operations were terminated.

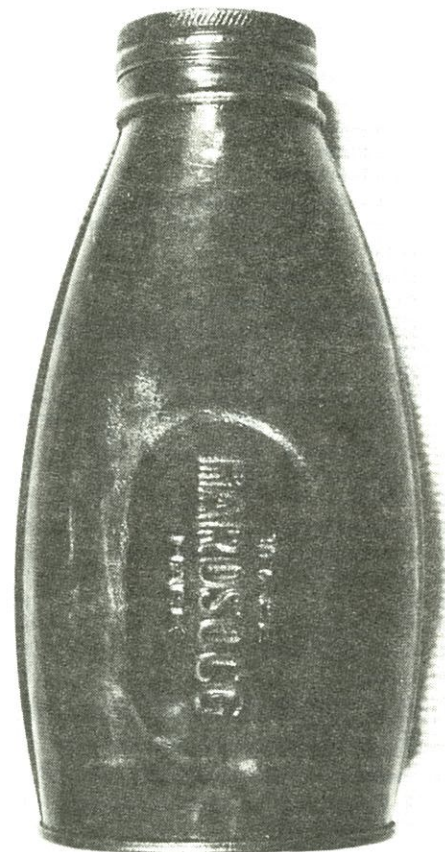
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Sterling, Ruth, editor. Wapello County History. Published by the Wapello History Committee. Montezuma, Iowa: Sutherland Printing Co., 1986.



*Hardsocg tin pocket carbide flask.*

## NAMED OIL-WICK MINER'S LAMPS

1	ABK	68	Globe - Geo. Anton	135	Monongahela Valley
2	American Mining Tool Co.	69	R. Grant	136	Wm. Morgan
3	American Safety Lamp & Mine Supply Co.	70	Greer & Laing	137	J.J. Murray
4	J. Anderson	71	Grier Bros.	138	Nail City - Greer & Laing
5	Anson	72	Hall	139	W. Nicol
6	Geo. Anton	73	G. Hamilton	140	Nomelt
7	J. Anton & Son - U.S.A. Eagle	74	Hardsocg Mfg. Co.	141	Nova Scotia
8	J. A. Anton & Son - U.S.A. Eagle	75	M. Hardsocg	142	Ohio Valley - B. & Co.
9	J. A. Anton & Son - Monongahela	76	Hazleton Machine & Supply Co.	143	O'Keefe Patent - Trethaway Bros.
10	A.S.M.W.I.A. No. 1 Union Label	77	Hendrick	144	J.W. Patton - Smythe
11	Baldwin	78	H.F. & Co.	145	Penn Mfg. Co. - Quaker Head TM
12	Barnet & Morton	79	H.F. & C. Co.	146	Perfect Sunshine Lamp
13	Beall Bros.	80	H.F. & J. Co.	147	Perfection
14	F. Belter	81	D.P. Highberger	148	L.B. Potter & Co.
15	B. Electric	82	The Highberger	149	D.B. Pritchard
16	W. B. Bertels	83	Highland	150	Progressive M. & M. Co.
17	W. B. Bertels, Son & Co.	84	A. Hodge	151	Puxsutawney Hardware Co. (not Crown)
18	J. Bicket	85	Hoover Bros.	152	Quinn Bros.
19	Bishop Bros.	86	Hoover & Bro.	153	Quinn & Murray
20	W. F. Bishop	87	Hughes Bros.	154	R. A.
21	Black Diamond	88	Hunt Brothers & Co.	155	H.O. Richards
22	Black Diamond - Hardsocg Mfg. Co.	89	Hunt Bro.	156	Robertson
23	Black Diamond Mine Lamp - W. B. Bertels	90	Alex E. Hunt	157	Thomas Robertson
24	Bluefield Hardware Co.	91	Hunt & Connell	158	Roth Lamp - A. Roth
25	Boss	92	Hunt & Connors	159	Roth Lamp - A. Roth & Son
26	M.M. Buck & Co.	93	Husson - Knippenberg Mfg. Co. #2	160	Salzburg & Keller
27	Buffalo	94	Husson - Knippenberg Mfg. Co. #3	161	Sanner Hardware Co. - Trethaway Bros.
28	Cherries on Stem TM	95	Husson - Knippenberg Mfg. Co. #4	162	F. Seybold
29	Chirry	96	Husson - Knippenberg Mfg. Co. #5	164	Sheet Metal & Stamping Machine Co. - Face TM
30	Consolidation Coal Co.	97	Husson - Knippenberg Mfg. Co. #6	163	Smoke and Chew Shining Light Tobacco
31	Cooperative	98	Husson #22 (Peg Lamp)	165	F.E. Spry
32	Crown - F. Belter	99	A - Knippenberg Mfg. Co.	166	Standard Cap Co.
33	Crown - Cambria - Central Supply Co.	100	AA - Knippenberg Mfg. Co.	167	Star - Geo. Anton
34	Crown - Cruso - H.S.B. & Co. - Chicken TM	101	B - Knippenberg Mfg. Co.	168	Star - Beall Bros.
35	Crown - Demmler Bros.	102	BB - Knippenberg Mfg. Co.	169	Star - Demmler Bros.
36	Crown - C. George	103	Imperial - Hardsocg	170	Star - Grier Bros.
37	Crown - General Supply Co.	104	Indestructible - A.H. Funke	171	Star - M. Hardsocg
38	Crown - M&O	105	J.M.	172	Star - The Jennison Hardware Co.
39	Crown - Puxsutawney Hardware Co.	106	T.R. Jones	173	Star - T.R. Jones
40	Crown - Sterling - Logan-Gregg Hrdwr Co.	107	Kanawha Mining & Supply Co.	174	Star - U.S. Tool Co.
41	Crown - Tracy Wells Co.	108	J. Kerr	175	Star - What Cheer Tool Co.
42	Crown	109	Keystone Mining & Supply Co.	176	F. Sturges & Co.
43	C&T Supply Co. - Clasped Hands TM	110	K.M.S.	177	I. E. Swift
44	Davis - McGee	111	Lamb & Dunn Ironmongers	178	Thompson & Walker
45	DCI Ltd.	112	L.C. & N. Co.	179	Trethaway Bros.
46	Demmler Bros.	113	Lee Bros.	180	Troy
47	Demmler Bros. Monongahela Valley	114	Lee Patent	181	Tunneson Mfg. Co.
48	James Dick	115	Lehigh Valley	182	UMWA - Trethaway Bros.
49	DL	119	P.F. Lennon	183	U.S. Tool Co.
50	I.G. Doud Co.	116	Leonard Bros.	184	V.L. Lamp
51	C.H. & W.G. Doud	117	B.E. Leonard	185	J. Vogel
52	Dunlap	118	T.F. Leonard	186	R.B. Wardin
53	John Dunlap Monongahela Valley	120	Liberty - C.L. Anton - Statue of Liberty TM	187	F.W. Watson
54	J. E. Engleby	121	Logan Gregg (not Crown)	188	F. W. Watson & Son- The Scranton Lamp
55	Eskew, Smith, & Cannon	122	Lunkenheimer	189	Weaver & Hough
56	Eureka	123	Magic City	191	What Cheer - Thompson & Walker
57	G. Ewing	124	Marchetti	190	What Cheer - What Cheer Tool Co.
58	W. Falconer & Son	125	McD	192	W. Wiegand
59	Felix Lamp	126	McMasters Improved Lamp	193	D.D. Williams
60	Gardner & Richards	127	John Mears	194	J. A. Williams
61	N. Gary	128	Medallion - Grier Bros.	195	Winfield
62	C. George	129	Melville	196	Wolf
63	The Gill Lamp	130	M.F.B. Co.	197	Wrigley
64	John D. Gill	131	Miner's Choice	198	W.S. Co.
65	John D. Gill & Son	132	Miner's Supply Co.	199	Young
66	A. Glass & A. Keith	133	M.K.S.	200	Zais
67	R. Glass	134	M & O (not Crown)	201	Fred B. Zais

## Oil-wick Lamp Brand Name Survey

by Dave Johnson

In an effort to identify as many marked oil-wick lamps as possible and their variations, I have compiled a comprehensive survey. Responses were obtained from 43 collectors, identifying all marked lamps in their collections. Only 14 collectors completed the questionnaire to the point of identifying all of their lamps by type (Fac, Driver, Surveyor), material (tin, brass, copper, aluminum) and accessories (shield, drip ring, spout brace). This lack of information makes a rarity survey unfeasible.

Fortunately, the 43 responses have allowed me to compile the most complete list of marked oil-wick lamps to date. Each of the 201 different markings listed on the facing page actually appear on lamps in the collections of the respondents. Several manufacturers, such as Hardsocg, Highberger, and Grier Bros. are known to have more than one place of origin (Grier Bros. marked Pittsburg and DuBois). These differences are not shown in this listing. The list indicates only distinctly different brand names and trademarks, not cities of origin.

Many of the lamps shown on the list are marked with a wholesale or retail firm's name, though they were actually manufactured by a large lamp producer such as Grier Bros. or Trethaway Bros. Watch for future articles detailing which manufacturers produced which brand names other than their own.



*A rare brand name oil-wick lamp.*

## Reproduction Justrite Spare Bottom Carriers

by Len Gaska

Several examples of a reproduction Justrite spare bottom carrier have recently appeared in the collecting community. The reproductions are well made and marked with the maker's name, so there is no intent to pass them off as genuine. However, the maker's name is in a place that is not obvious. An uninformed collector might believe a reproduction is actually genuine. The maker's name appears on the underside of the belt clip and is probably best viewed with a small mirror. Furthermore, the reproductions are not marked with the Justrite logo which appears on the top (unlike the illustration) of genuine examples. As Justrite marked virtually every product they produced, it is believed that all of the genuine carriers have the logo. Finally, this carrier was only advertised in one catalog that appeared circa 1915 and was only produced with the beaded bottoms. At least one of the reproduction carriers has the later style ribbed bottoms which did not appear until the carrier evidently ceased production.



FOR CARBIDE AND WATER.

The person who made the reproduction Justrite carriers also produced several examples of Grier three bottom carriers. The Grier reproductions have the maker's name on the underside of one of the bottom lids.

Reproductions have been a reality in many collecting fields for some time and are becoming more of a problem in mining artifact collecting. If you have any doubts about an item, consult an experienced collector, preferably one who is familiar with the item in question.

## M. M. Buck & Co.

by Dave Johnson

A little known manufacturer of miner's oil-wick lamps was M. M. Buck & Co. of St. Louis, Missouri. The St. Louis City Directory of 1866 lists Myron M. Buck as a lamp manufacturer (type not specified). The 1869 and 1870 City Directories list M. M. Buck as a wholesaler of railroad supplies and a manufacturer of headlights and lanterns, located at 522 N. 3rd St. The last listing for M. M. Buck appears in the 1902 City Directory, where the firm is listed only as a wholesaler of railroad supplies, no longer a manufacturer of lamps. After 1902 I was unable to find any reference to M. M. Buck. Whether the firm went out of business or was absorbed by another firm is unknown.

If M. M. Buck began making oil-wick lamps in 1866 it would be among the earliest of manufacturers in the U.S. No information is currently available about when the firm actually began manufacturing oil-wick lamps and for how long they were manufactured. Judging by the number of surviving examples, there were not large numbers of these lamps produced.

The lamp pictured here from my collection is made of tin, measures 2 1/8" to the top of the cap and has a spout which measures 2 7/8" to the top of the spout and has a single thickness spout measuring 2 7/8" in length. The base is 1 3/4" in diameter. Workmanship on this lamp is quite good and the construction is very substantial.

Does anyone else have a different variation of this lamp or any advertising from the firm?

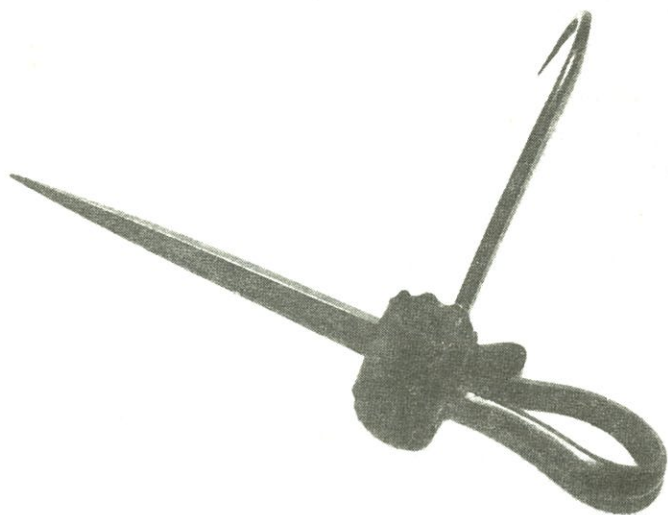


*M. M. Buck face lamp.*

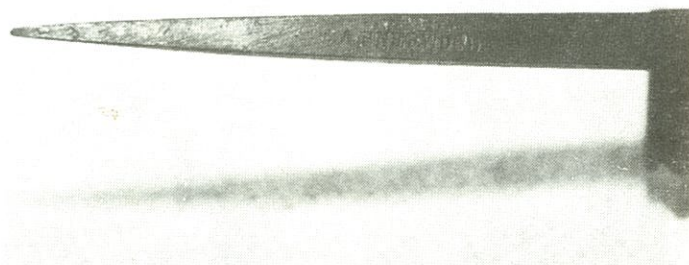
## E. A. Sherwood Candlestick

by Dave Johnson

Would the owner of a candlestick have a gangstamp made just to affix his name to a single stick? This is highly unlikely. More likely is that a blacksmith had a gangstamp made in order to label his product.



The stick pictured here is 7 1/16" in length, with a hook that measures 3 7/8" in height and 5 1/4" overall length. The spike is square back to the hook base. The handle is flat on top and bottom, flat on the inside and half-round on the outside. The thimble is round-corner castellated with a short rounded thumb lever. The hook is square at the base, goes to round and returns to square at it's curve. The stick is very well made, of excellent quality and utility.

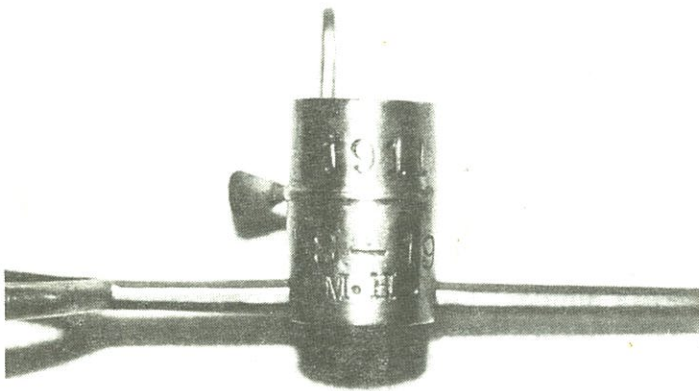


The most unique feature of this small stick is the gangstamped name E. A. Sherwood which appears clearly on both the front and back of the spike. This stick was found in the Butte, Montana area. Does anyone know anything about E. A. Sherwood? Does another stick with his name exist in another collection?

# A Michigan Presentation Candlestick

by Dave Johnson

On August 19, 1911, Martin Hoemmelmeyer celebrated his 30th birthday. His family presented him with the candlestick pictured here. Born in the Ruhr River Valley of Germany, to a father who was a miner, Martin became the fourth generation of miners in his family after emigrating to America in 1895. Martin and his family located near Iron Mountain, Michigan, where both he and his father found work in one of the many iron mines in the area.

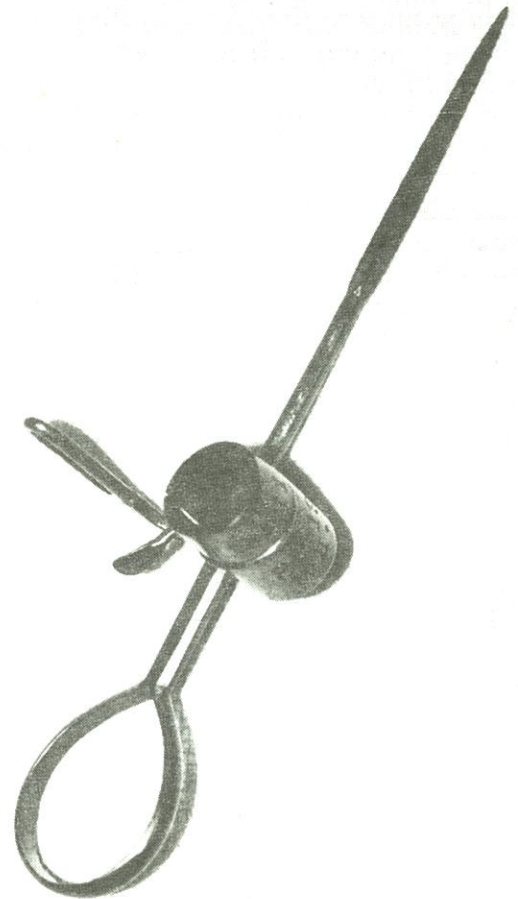


*Candlestick stamping: 8-19 1911 M.H.*

At the time that he received his lamp, he was a miner at one of U. S. Steel's Oliver Iron Mining Co. mines where my own Great-Grandfather worked during his more than 30 years with the Oliver Iron Mining Co.

This rather simple presentation stick measures 9 1/16 inches in length. It has the classic closed Lake Superior style hook favored by miners throughout the copper and iron mines of Michigan, Wisconsin, and Minnesota. This style hook allows the candlestick to be worn on the cap or helmet of the miner. The spike begins square before becoming octagonal half-way between the point and thimble. The handle is flat on the inside and half-round on the outside. The thimble has a separately applied thumb lever that is finely crafted. Overall workmanship is excellent with a great deal of attention given to detail and finishing.

This stick was obtained from the great-grandson of the original owner.



*Presentation Candlestick (D. Johnson collection)*



*Classic Lake Superior Hook*

# A Brief History of the Development of the Miner's Safety Lamp

by Len Gaska

There is no other form of mine lighting that has such a rich history as safety lamps. First used in England around 1815, they have seen continual use until the present. It is not surprising that the safety lamp was invented in England where coal was a primary heating source and fueled the industrial revolution. Coal mines have the nasty habit of releasing "firedamp" (methane), an explosive gas that is often imprisoned in coal during its formation. Firedamp is produced by rotting organic matter, the same source for the natural formation of coal. Before the advent of the electric mine lamp, flame was the only source of light within mines. And of course the same flame that produced illumination for the miner could also ignite the firedamp, resulting in an explosion with probable loss of life.

The earliest references to the nature of firedamp appear in the latter part of the 17th century. Even at that early period, the risks of ignition and explosion were known. Until about 1812, many different approaches to the problem of mine illumination were suggested, including enclosed candles with air reservoirs, mirrors to direct sunlight into the mine, and the use of organic phosphorescent materials such as certain fungi and rotting fish.

The years 1812 and 1813 were important in the history of the safety lamp. On May 25, 1812, an explosion occurred at the Felling Colliery (coal mine) in England. This accident eventually led to the formation on October 1, 1813, of the "Society in Sunderland for Preventing Accidents in Coal-Mines." The society had as its patron, the Duke of Northumberland, was headed by Sir Ralph Milbanke as president, had 16 vice-presidents, and 28 permanent committee members. Two of the members, William Reid Clanny, and George Stephenson, were already actively engaged in research to discover some safe means of illuminating coal mines. The society was first heavily influenced by a committee member, John Buddle, who expressed the opinion that "nothing further could be done to prevent explosion by the application of mechanical agencies, that the only remedy lay in the discovery of some chemical methods for rendering the firedamp harmless." Thus influenced, the committee turned to Sir Humphry Davy, the famous English chemist, for assistance.

Sir Humphry Davy was born in 1778 and a rather illustrious career eventually earned him a knighthood, a fellowship in the Royal Society, and a professorship at the Royal Institute. Davy was considered to be an expert in the properties of gases, so it is logical that he was chosen to investigate the firedamp problem. He met with the Committee in August, 1815 and subsequently visited several coal mines. He then returned to London and began to investigate the nature of firedamp. In November, 1815, he read a paper before the Royal Society in which he stated.

"It is evident that to prevent explosions in mines it is only necessary to use air-tight lanterns, supplied with air from tubes or canals of small diameter, or from apertures covered with wire gauze placed below the flame through which explosions cannot be communicated and having a chimney at the upper part on a similar system to carry off the foul air, and common lanterns may be easily adapted to the purpose by being made air-tight in the door and sides, by being furnished with the chimney, and the system of safety apertures below and above."

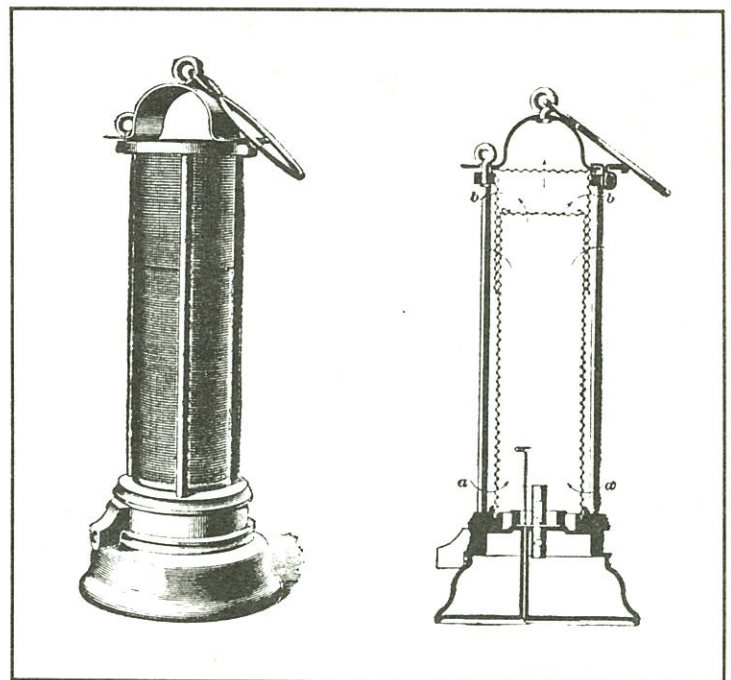


Fig. 1. Davy Lamp



The three lamps described in the paper appear to have been lanterns of thin plate with four glass plates on the sides. In all three lamps, both the air inlets and outlets were protected by small apertures of various sizes and design. In the space of several months, Davy had discovered the basic principles upon which all practical safety lamps were constructed. A remarkable feat indeed.

Just about a month after the Royal Society presentation, on January 1, 1816, Davy announced his important discovery of the use of a gauze cylinder. In a paper to the Royal Society presented on January 11, 1816, he described his invention as follows.

"This invention consists in covering or surrounding the flame of a lamp or candle by a wire sieve; the coarsest that I have tried with perfect safety contained 625 apertures in a square inch, and the wire was 1/70 of an inch in thickness, the finest 6,400 apertures in a square inch, and the wire was 1/250 of an inch in thickness."

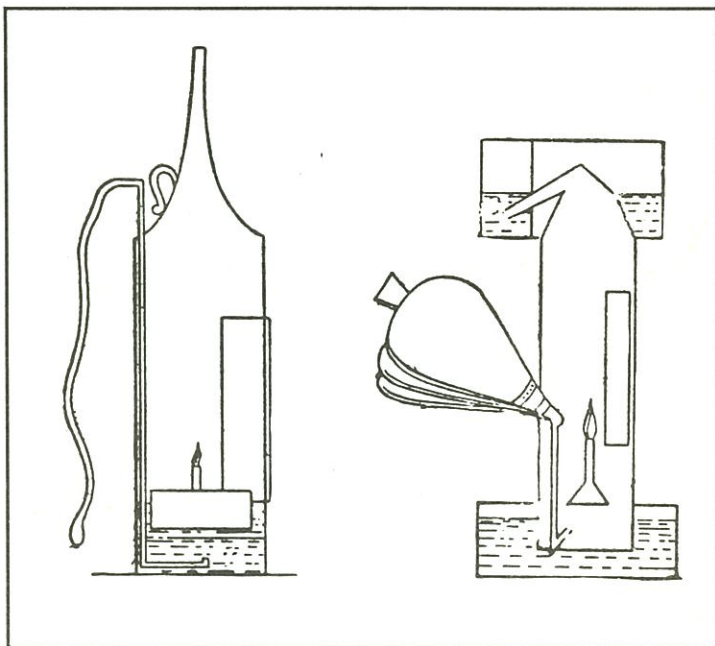
The first Davy lamps appear to have been used at Heburn Colliery on January 9 and 17, 1816. Davy recommended the use of iron wire gauze composed of wire from 1/40 to 1/60 of an inch in diameter. Davy also recommended smaller and multiple gauzes and a shield for continuous explosive mixtures. Davy also recommended the use of a short gauze cap over the main gauze and finally, his suggestions for the size of the lamp were 8 to 10 inches in height and 2 to 2 1/2 inches in diameter. On September 6, 1816, he visited Wallsend Colliery and performed experiments with his lamps, and in pointing out the lessons to be learned, stated:

"Now, gentleman, you see the nature of the danger to which you are exposed in using the lamp, and I caution you to guard against it in the manner I have shown you. This is to show the only use in which the lamp will explode, and I caution you and warn you not to use it in any such case when you can avoid it without using the shield."

Just as remarkable as the discovery of the basic principles of the safety lamp, Davy also understood its limitations and the necessity of using a shield in certain situations.

Dr. William Reid Clanny was born in 1776 and was also instrumental in developing the safety lamp. His investigations of firedamp began in 1810 and led to the invention of a number of lamps, the best known being the Clanny lamp. On May 23, 1813, he contributed a paper on his first lamp to the Royal Society. Clanny's

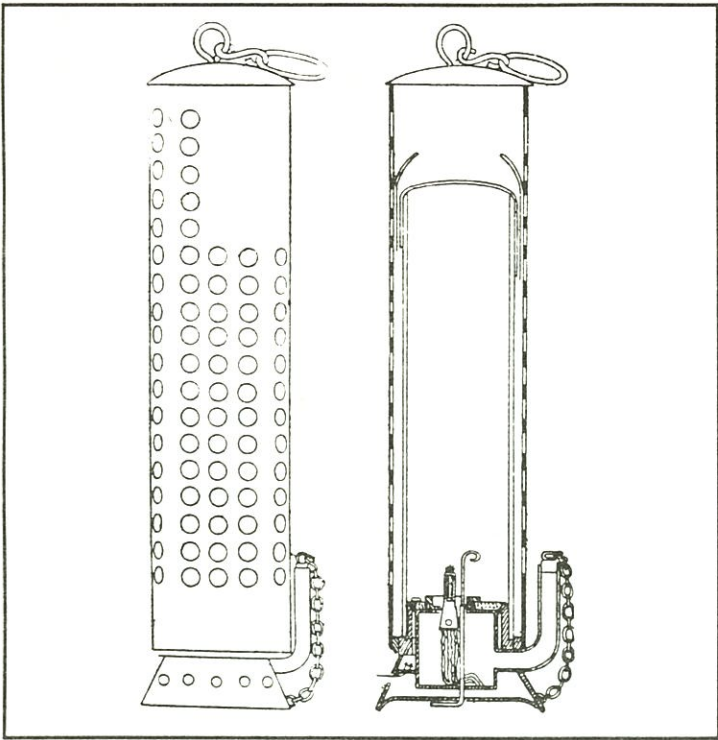
first lamp (the "Blast" lamp) consisted of a lantern with reservoirs of water above and below the flame. Air was forced into the lamp by a bellows and the combustion products escaped through a chimney at the top, the open end of which was submerged in the upper water chamber.



*Fig. 2. Original Clanny Lamp*

Other early lamps by Clanny were also elaborate affairs including the "Steam" lamp which actually used steam produced by the flame to prevent explosions. Although the early Clanny lamps were ingenious, they do not appear to have been practical. Nonetheless, there is no doubt as to Clanny's contribution to the development of the safety lamp.

George Stephenson, born in 1781, was also an important figure in the history of the safety lamp. Unlike Davy and Clanny, Stephenson was not acquainted with the principles of chemistry. He did, however, work as a fireman and enginewright at several collieries. The Stephenson lamp was invented in November 1815 and incorporated several important features. The flame was surrounded by a long glass cylinder, the top of which was covered by a copper cap pierced with many small holes, and protected on the outside by a sheet metal cylinder with large holes to let the light escape. One portion of the outer cylinder was blank to act as a shield for the cap of the glass cylinder. The air supply entered through small tubes in the base of the oil vessel, and then passed through plates perforated with very small holes. Stephenson very clearly recognized the danger of exposing the air inlet and outlet to strong air currents.



*Fig. 3. Stephenson Lamp*

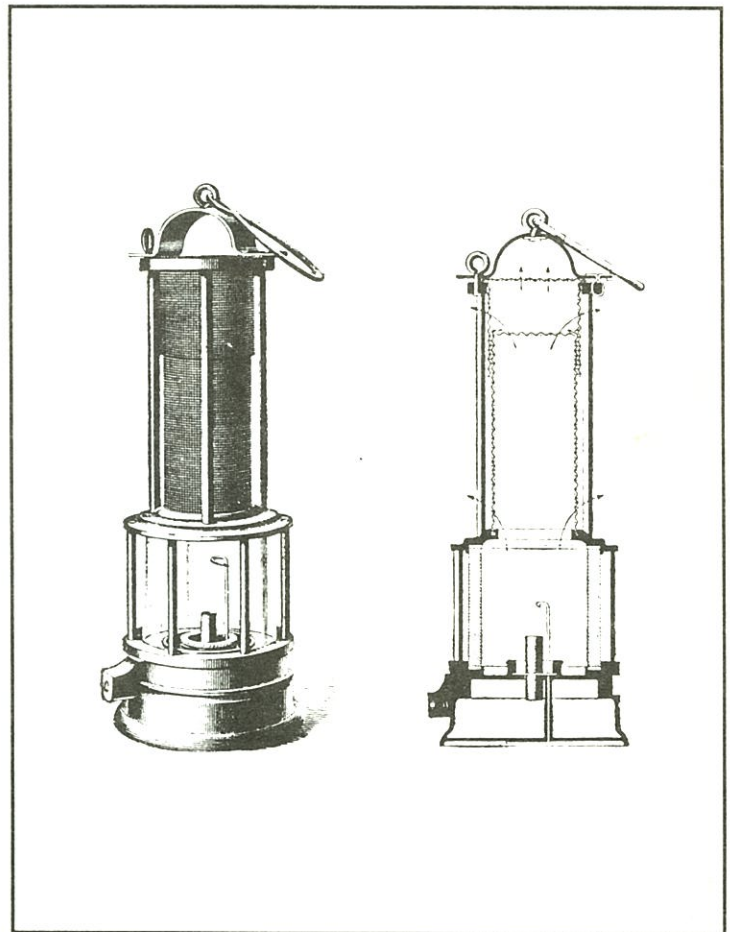
During the 1816 to 1818 time period, the fundamental principles of the safety lamp had been established and their use in mines had begun. During the next 18 years until 1835, although the use of the safety lamp had increased, misuse or abuse increased the distrust of the Davy style lamp. In 1835, a Select Committee on Accidents in Mines was appointed to investigate the problem. Their report was published in September of that same year. It stated "ignorance and a false reliance" on the merits of the Davy safety lamp "in cases attended with unwarranted risks have led to disastrous consequences." The committee concluded that an increased use of safety lamps was warranted. They also recommended the Upton-Roberts lamp, a type of modified and improved Davy. The Upton-Roberts lamp consisted of a Davy type gauze chimney enclosed in a glass cylinder. Above the glass was a metal chimney with a perforated top. The air entered the lamp through horizontal holes just above the oil vessel and passed through a double layer of gauze. All joints were sealed by gaskets. Also introduced during this period was the Muessler lamp which was similar to the Upton-Roberts. Clanny introduced his fourth style of lamp during this period. Unfortunately, it was rather complex and faded into obscurity.

The 1836 to 1843 period was important as two extensive safety lamp investigations were carried out. The South Shields Committee finally reported that:

"No mere safety lamp, however ingenious in its construction is able to secure fiery mines from explosions, and that a reliance on lamps alone is a fatal error conducive to those dreadful calamities which they are intended to prevent ... The naked Davy is without a complete shield a most dangerous instrument."

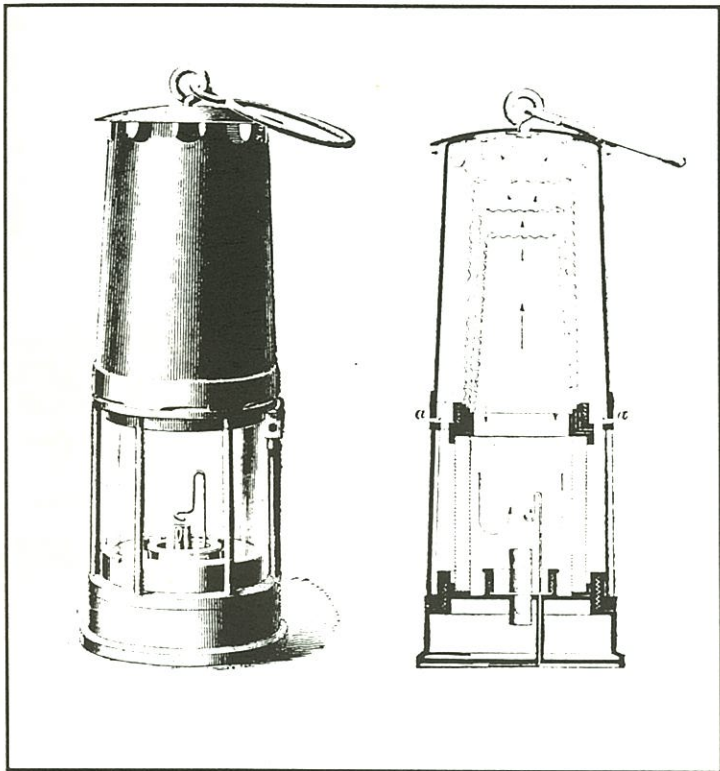
Numerous investigations over the previous 25 years had proved that an open gauze without a shield was dangerous in certain situations.

During the 1836 to 1843 period, Clanny introduced two more lamps (his fifth and sixth). Although differing in style, they were similar to the Clanny lamps that were produced in the United States. Namely, a glass cylinder surrounding the wick area and the gauze placed above the glass. Muessler introduced a new lamp with the chimney inside the gauze. The basic design was still in use in Muessler lamps in 1915.

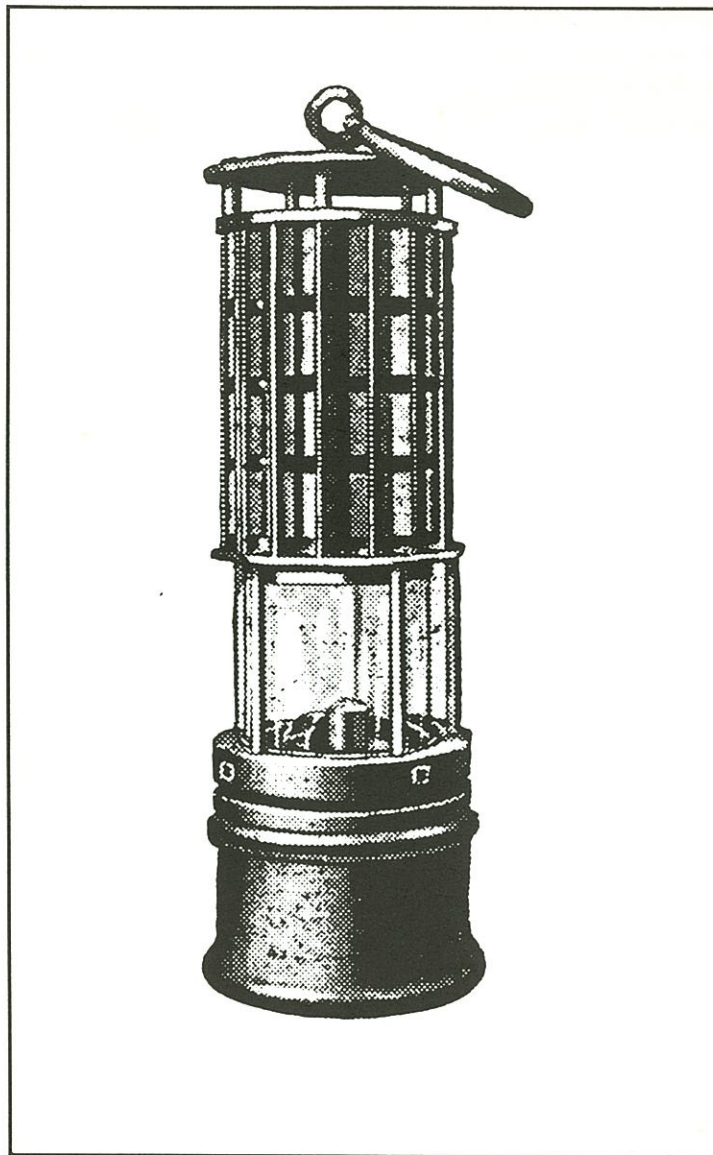


*Fig. 4. Clanny Lamp*

After 1844, safety lamp experimentation and invention continued unabated. Several notable designs were introduced including the Marsaut lamp. J. B. Marsaut was a prominent French engineer who experimented with safety lamps from 1871 to 1883. His most significant contribution may have been the introduction of multiple gauzes, although he also stressed the need for a "bonnet" or shield around the gauze. Marsaut's extensive experiments led to a much greater understanding of the causes and prevention of mine gas ignition by safety lamps.



*Fig. 5. Marsaut Lamp*



*Fig. 6. Wolf Lamp*

Perhaps the final chapter in the development of the safety lamp occurred in 1883 with the introduction of the German Wolf safety lamp. The Wolf incorporated the best features of all previous styles and designs and enjoyed a long and prolific production period.

Safety lamps have been used for about 175 years, first for illumination and eventually for testing for the presence of gas. Although the safety lamp is quite simple in appearance, the amount of research that contributed to its evolution is remarkable. There were only a half-dozen or so safety lamp brands made in the United States, and even fewer actual manufacturers. Therefore, any serious safety lamp collector avidly seeks foreign lamps. Some of the most intricate and interesting safety lamps are English in origin and certainly the very early types were made nowhere else.

#### References:

1. The History of the Safety Lamp, F. W. Hardwick and L. T. O'Shea, Scientific American Supplement, September 16, 1916.
2. Practical Coal Mining, W. S. Boulton, editor, Gresham Publishing Company, circa 1910-1915.
3. Mine Gases and Mine Ventilation, I.C.S. Reference Library, International Textbook Company, 1907.

# Miner's Check Tags

by Manfred Stutzer & Dave Johnson

Known in the United States and Europe as miner's checks, pit checks, car checks, lamp checks, and tool checks, these metal tags have become highly collectable mining items. The vast majority are made of brass, with some made of aluminum, steel, copper, and alloy metals. Most valued by collectors are tags stamped with the initials or entire name of the mine or mining company that issued them.



*German and French checks (M. Stutzer collection).*

In Europe, miner's checks were generally utilized as a means of controlling the issue of safety lamps to miners and as a means of cross-checking the number of men underground at a given time. At the start of a shift, a miner would exchange his check for a safety lamp. The check number corresponded to the number on the safety lamp. The checks were hung on a board in the mine's lamp room until the miner turned in his

lamp at the end of a shift. European checks are found with the names of mines and mining companies as well as the more common number only checks.

English checks produced after the nationalization of the coal industry in 1947 can be identified by the initials N.C.B., for the National Coal Board.



*South Wales checks (M. Stutzer collection).*

While the majority of these tags were round, they can also be found in square, triangular, oblong, shield, and other shapes. The stampings range from individually stamped numbers to more elaborate machine stampings with multi-sized letters and numbers.



*Left: Florence Colliery, Stoke-on-Trent, West Midlands Division, Longton Staffordshire, England. Right: Bilsthorpe Colliery, East Midlands Division, near Newark Nottinghamshire, England. (M. Stutzer collection).*

In U.S. coal mines, where miners were paid by the number of tons of coal they produced in a shift, these tags were used to identify the filled cars of individual miners when they were sent to the surface weigh station. Each miner was assigned a number and given a handful of tags with his number. They were often carried on a large brass safety pin that they could attach to their clothes to keep from losing the tags. At the end of each shift the weights of all cars with the same number were tallied.

In hard rock mines, where the miners worked for daily wages, the tags were used to identify the miners. When miners went underground their assigned number tag was hung on a board on the surface to indicate that they were underground.

The tags shown in the multi-tag photos below are from

Michigan iron and copper mines, a Montana copper mine, Kentucky and West Virginia coal mines, and an English coal mine.

Whether used in Europe or the United States, these miner's checks are an excellent addition to any collection of mining memorabilia.



*Variety of checks (D. Johnson collection).*



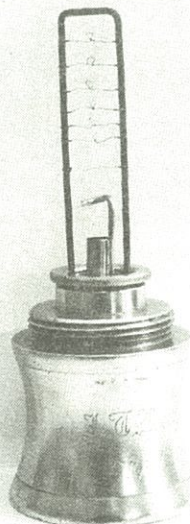
*Variety of checks (D. Johnson collection)*

# A Beard-Mackie Presentation Lamp

by Dave Johnson

The presence of explosive gases in coal mines is one of the greatest dangers in mining coal below ground. Over time, numerous methods for detecting explosive gases have been developed. These range from the simple method of observing the cap on the flame of early safety lamps to modern electronic detectors.

A simple and practical device developed by James T. Beard was the Beard-Mackie Sight Indicator. This device was designed to be attached to the burner of a safety lamp burning sperm, cottonseed or lard oil but not volatile fuels, such as naphtha or benzine. The device consists of a simple inverted U-shaped brass framework mounted on a brass disc which fits over the burner and is held in place by the screw ring which holds the burner assembly in place. On the framework seven fine platinum wires are attached at fixed heights above the lamp flame.



The lowest "Standard Wire" is straight and is used to standardize the lamp by adjusting the flame to a height which permits the wire's incandescence in fresh air.

The six "Percentage Wires" arranged above the Standard Wire are each looped in the center to allow for a more easily perceptible incandescence. The number of wires glowing rises progressively higher as the percentage of explosive gases increases. The first percentage wire indicates gas levels as low as 1/2 % and the sixth wire indicates 3% explosive gas. The Beard-Mackie Sight Indicator eliminated the necessity of the fireboss guessing the percentage of gas from the height of the flame cap in his lamp.

The delicate nature of the device makes it very susceptible to damage through careless handling when

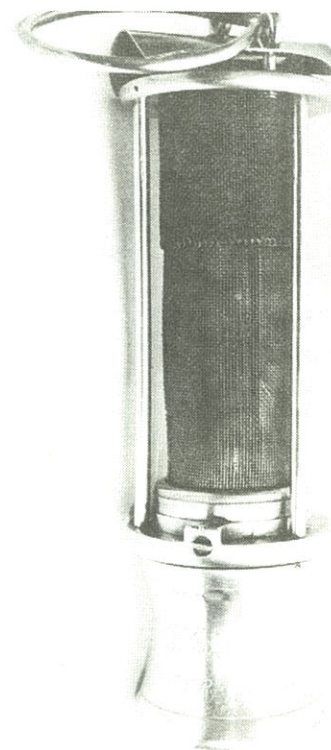
opening and closing the lamp. The accuracy of the wires' incandescence can be altered through the use of poor quality fuel which causes the wires to carbonize.

The greatest advantage gained from the use of this device is the fact that it can standardize all tests for gases, making the tests comparable. Several tests can be made of the same area and the same results reliably obtained. The guesswork is removed since the fireboss has a reliable indicator. The use of this device also means that the chances of extinguishing the lamp during a test are greatly diminished since the flame is kept at a steady height rather than being lowered as is required to read a flame cap.

The Davy lamp shown here is a Hughes Bros. of Scranton, Pennsylvania. The engraving "J. T. Beard" on the base is of particular interest. Was this a presentation piece to James T. Beard himself?

SOURCE:

MINE GASES & VENTILATION by James T. Beard, published by McGraw-Hill, N.Y., N.Y., 1920.



*J.T. Beard presentation lamp.*

# Blasting Cap Tins Discovered by Collectors in the Fall of 1991

by Andy Martin

One attraction of collecting mining relics is the element of the unknown. Items occasionally turn up that have never been seen by the collecting community. The four tins illustrated below were all unknown to American collectors until this year.

The Sellier & Bellot tin was found underground at an old mine in the Western U.S. It was probably used in the 1870's, a period when there were no domestic manufacturers of common blasting caps. After the California Cap Company was started in 1877 by William Letts Oliver and Freeborn J. Fletcher, it rapidly

captured the Western mining market, and drove out foreign competitors like Sellier & Bellot.

The two attractive South African tins were never imported here. However, Cape Explosives Works made "Letts Oliver" brand caps, so they may have been financed by the California Cap Co. Readers with information on the South African companies are encouraged to contact me. I would also greatly appreciate xerox copies of the "oddball" tins that are still being turned up by lucky collectors. Contact: Andy Martin, 420 E. 18th St., Tucson, AZ 85701, 602-298-0191.



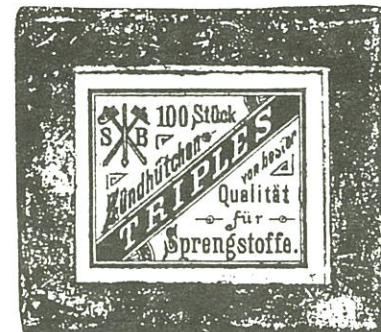
**CAPE EXPLOSIVES**  
 Embossed lid  
 Made in South Africa  
 Reported by Stephen McCabe



**AFRICAN EXPLOSIVES, 6D**  
 Approximate Representation  
 Made in South Africa  
 Dated about 1930-1950  
 Reported by Bryan Earl



**DU PONT, No. 8, style "D"**  
 Painted green with white letters (?)  
 Dated about 1934-1958  
 Reported by John Kynor



**SELLIER & BELLOT, TRIPLES**  
 Orange and black  
 Paper label, dated 1870-90  
 Reported by Deric English

# A Coal Mining Song

by Jim Van Fleet

## *Minstrels of the Mine Patch*

SONGS AND STORIES  
OF THE ANTHRACITE INDUSTRY

By  
George Korson



Philadelphia  
UNIVERSITY OF PENNSYLVANIA PRESS  
1938

## *Coal Dust on the Fiddle*

SONGS AND STORIES  
OF THE BITUMINOUS INDUSTRY

By  
George Korson



Philadelphia  
UNIVERSITY OF PENNSYLVANIA PRESS  
1943

Every aspect of a miner's work life and social life too, produced memorabilia of interest. And for each type of tool or "cultural artifact" there seems to be a collector. Miner's songs are no exception! The anthracite miners of Pennsylvania had a rich and varied body of shared folk songs, and they were collected by a newspaper reporter turned folklorist named George Korson.

Korson collected coal mining songs and folklore from the 1920's through the 1960's in and around Wilkes-Barre, PA, and published several books of song. His most notable collection is **Minstrels of the Mine Patch: Songs and Stories of the Anthracite Industry**, published in 1938. The book's black cover was pressed to resemble anthracite!

One of Korson's informants was Bill Keating, who had been a breaker boy, then mule driver from the age of eleven. Keating made up his ballad "*Down, Down, Down*," as he said "between gangway roof falls, put together on a mine car bumper, penciled with car sprags, punctuated with mule kicks, tuned to the thunder and vibration of underground blasts and muted

to the solitude of the mines, while this mule driver rhymester worked between drunks traveling in and out of the Buck Mountain counter gangway on the third level of Oak Hill shaft at Buckley's Gap, Duncott."<sup>1</sup>

Keating would hold forth in the local bar room, singing the forty or more verses of the song for free drinks. On the following page are a few verses of the song, which give a wicked description of the miner's electric cap lamp.

### Notes:

1. Korson, George, *Minstrels of the Mine Patch: Songs and Stories of the Anthracite Industry*. Philadelphia, PA: University of Pennsylvania Press, 1938. Reprinted with permission of the University of Pennsylvania Press.

Musical arrangement by Christopher Para. For an excellent recording of the song, as sung by Bill Keating himself and recorded by Korson, find the L.P.: *Songs and Ballads of the Anthracite Miners*. Washington, D.C.: Library of Congress, Archive of Folksong, AFS LI6 1976.



## *Down, Down, Down*



With your kind a - tention a song I will



trill, All ye who must toil with the pick and the



drill, And sweat for your bread in that hole in Oak



Hill, That goes down, down, down.

The lamp man he squints through the window at me,  
"What's your name? What's your age? What's your number?"  
Says he.

"Bill Keatin', I'm thirty, number twenty three,  
Mark that down, down, down.

With a frown of disfavor, my joke it was met,  
For an argument plainly, the lamp man was set.  
He told me that devil a lamp would I get  
To go down, down, down.

Says I, "Mr. Lamp Man, now don't l'ave us fight;  
Can't ye see by me eyes I was boozin' all night?  
Sure the mines will be dark and I'll have to have light  
While I'm down, down, down."

With an old greasy apron, Jim polished his specks,  
Declarin' the lamp house rules would be wrecked,  
If he'd give out his lanterns without a brass check  
To go down, down, down.

I found the supply clerk, of him I inquired  
If he had any checks of the sort Jim desired.  
He said: "here's a check, if you lose it, you're fired,  
Mark that down, down, down."

Now I had the lamp check to pacify Jim,  
flip, into his window, I flung it to him  
Sayin', "Now quit your grumbling, an' give me a glim  
To go down, down, down."

A contraption Jim gave me, a hose on a box,  
Twas so heavy I thought it was loaded with rocks,  
If a car jumped the track, you could use it for blocks  
While you're down, down, down.

With a note from the boss to the shaft I made haste,  
Saluted the top-man, in time took me place.  
Sayin' "Give me a cage for I've no time to waste,  
Let me Down, Down, Down."

"All aboard for the bottom." the top-man did yell,  
We stepped on the cage, he ding-donged a bell;  
Then from under our feet like a bat out o' Hell  
She went Down, Down, Down.

The box breaks the bones in the small of your back,  
Wears the hide off your hips where it hangs by a strap;  
Oh! the gawk that transported such lamps to the Gap  
May go down, down, down.

# The Second Annual Eastern Mining Artifact Collectors Swap Meet and Reunion

by Jim Van Fleet

On July 20 weekend, 1991, collectors gathered in Denver, Pennsylvania for the second Eastern Mining Artifact Collectors Swap Meet and Reunion. The hotel was a beehive of activity Friday night, with collectors swapping, selling, and just showing off treasures in their rooms. One attendee found his room so crowded with fellow collectors that they were standing on the bed! It was a chance to meet many folks we had only talked to over the phone: Chuck Young arrived from Virginia, and Tony Moon from Utah. In all, over 75 collectors attended from 16 different states, from as far away as California, Wyoming, Arizona, and Georgia.

On Saturday, the 20 tables in the convention room were loaded with oil wick lamps, candlesticks, carbides, safety lamps, lamp accessories, blasting cap tins, signs, boxes, books, you name it. Every variety of mining collectable was represented, and most were available for sale or trade. Gregg Clemmer, Mike McLaughlin, and several other collectors prepared excellent exhibits for display.

Although the room got a little overheated, sales and trading activities were brisk. Changing hands were a can of "miner's sunshine" and a Surelite carbide cap lamp. Also sold were Brite-Lite, Anthracite, and Scranto cap lamps, and some rare oil wick lamps. Trades included a Hansen cap lamp for a ZAR. Safety lamps moved slowly at the show, despite its location in the coal regions. One Wolf acetylene safety appeared for "show and tell."

Some of the most exciting items were for "show only," including a Drylite cap lamp with the original box and a steel enamel finished EverReady cap lamp. One collector brought a unique unmarked carbide cap lamp, that several collectors agreed is similar in style and manufacture to the very rare Nathan hand lamp.

The show was quite a success, and we will do it again next summer. The 1992 show will take place sometime in July, in or around Morgantown, West Virginia, where a couple of collectors have volunteered to do the necessary organizational work. Gay Bindocci from the College of Mineral and Energy Resources, West Virginia University, and Kelley Deem will be the hosts. The University is home to a fine collection of mining lamps, and we may be able to use their facilities for our get-together.



*Paul Johnson's table.*



*Craig Hindman, Carol Tiderman, and abundant lamps.*



*Lamp display by Jim Van Fleet, Neal and Nelson Ressler.*



Back Row (heads only): William Wade, Dave DesMarais, Jim Hileman, Mark Zdancewicz, Bernard Haynes, Bob Schroth, Kelley Deem, Dale Ibberson, Bill Lorah, J. Roger Mitchell, Tom Stranko, Andy Martin. Middle Row: Mr. & Mrs. Doug Demaree, Bill Vis, Jim Lackey, Dave Johnson, Duane Gregory, Bob Henninger, Gay Bindocci, Lester Bernstein, Dot Haynes, John Podgurski, Nancy & Paul Hyatt. Front Row (squatters): Chuck Young, Mike Mostardi, Tony Moon, Neal Ressler (in the ore bucket), Hank Lienemann, Bob Hauck.



Gregg Clemmer, Mark Zdancewicz, Mike McLaughlin, Jim Van Fleet, Ken Rupp, Nelson Ressler, Bob Hauck, Mike Mostardi.



## Buddy cap lamp pre-assembled

Steve Loftin of Nashville picked up a Buddy cap lamp several years ago. Only one thing: the lamp had never been assembled! The top photo shows portions of a water tank unassembled and unthreaded. Below, a base is shown with its edges and seams not yet rolled. Steve values this more than a fully assembled lamp, and rightly so!



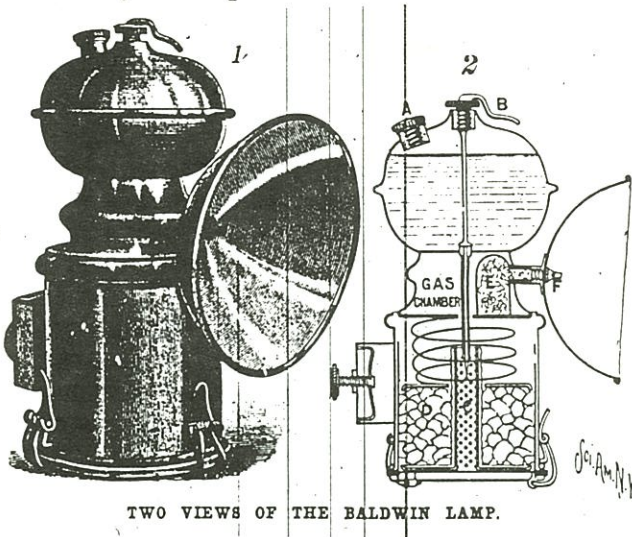
## Snell Lamp Base

The Snell Lamp is extremely rare. Its appearance is somewhat that of an Ever Ready cap lamp. We recently had an opportunity to photograph a Snell base from the Steve Loftin collection. It is clearly different from an Ever Ready, being shorter, wider (2.25" as opposed to 2"), and with an unusual soldered seam which is edge-to-edge rather than overlapping. Very interesting.

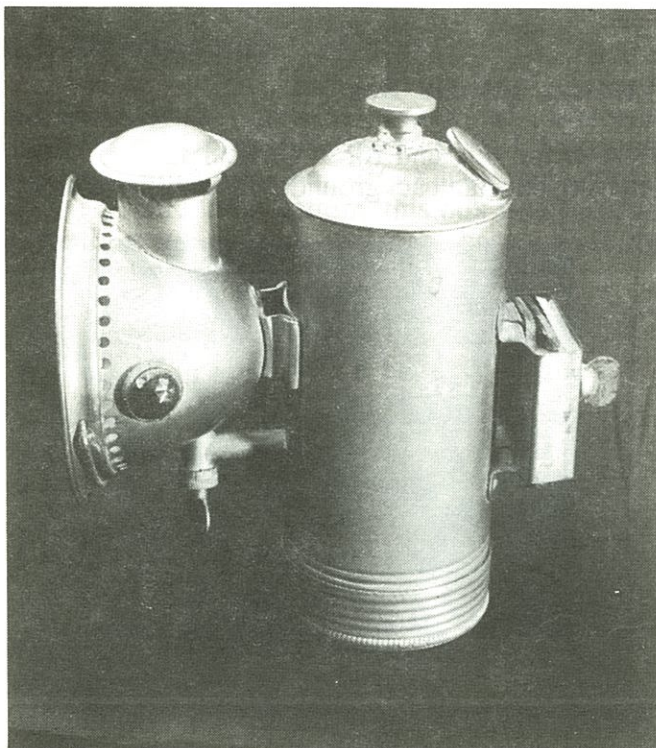


## The "Manhattan": A Full Moon Bicycle Lamp

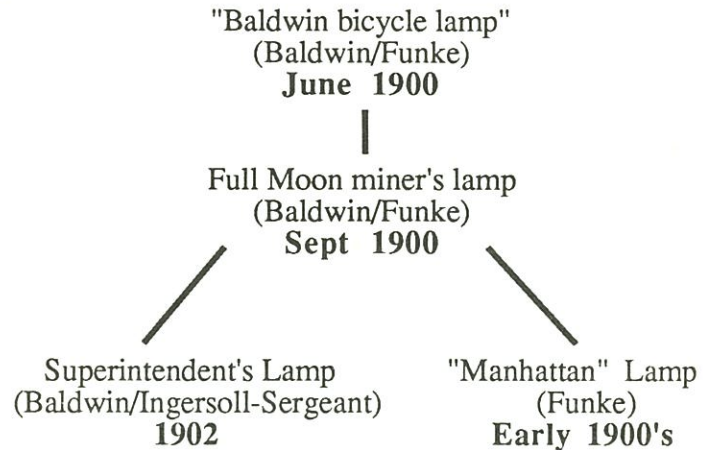
In 1900, A.H. Funke of Manhattan produced his first bicycle lamp. He had teamed up with Fred Baldwin, whose patent was used, and called the lamp the Baldwin bicycle lamp.



A few months later, they also produced a miner's lamp known as the Full Moon. Baldwin had left Funke by 1902 to pursue mine lighting with the Ingersoll-Sergeant Drill Co., producing a lamp nearly identical to the Full Moon, but called simply "Supervisor's Lamp", differing only in that it had handles and a hook. Funke, meanwhile, devoted his efforts to bicycle lighting. His bicycle lights also resembled the Full Moon. Pictured below is one such lamp. Its name, stamped in the top, is Manhattan. It is in Steve Loftin's collection.



A flow chart of these earliest of acetylene lights might appear as follows:



### References:

Clemmer, G.S. American Miners' Carbide Lamps

Mines and Minerals, April, 1902 (See Mining Artifact Collector, #11, Spring 1991)

Scientific American, June 23, 1900

### Lamps on Stamps

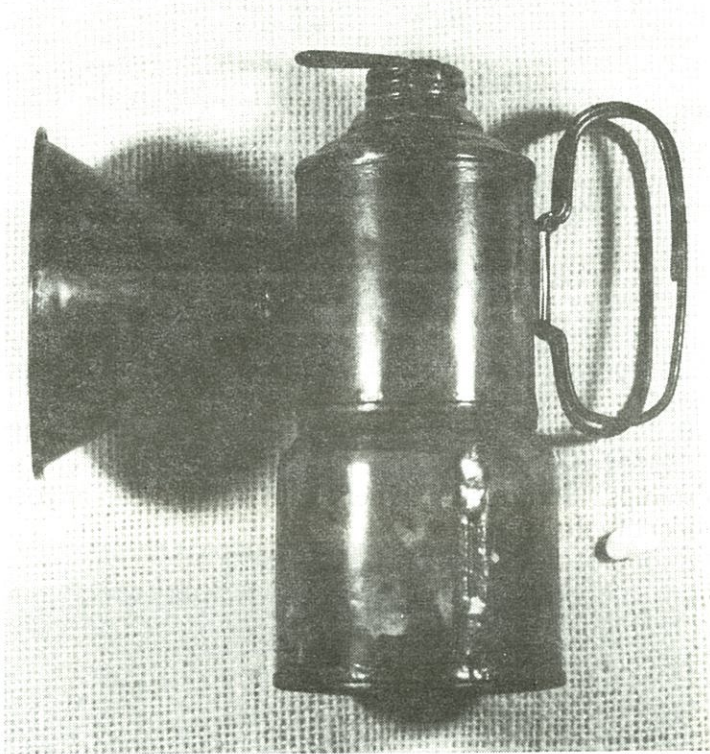
Bill Wade has an impressive collection of mining related postage stamps. Below are four German stamps. Some show miners with lamps. Can anyone identify the lamps?



## Early Baldwin Hand Lamp

This early Baldwin hand lamp is similar to a lamp advertised in the January 1909 issue of the Engineering and Mining Journal. Though similar in style, it differs in the height of the carbide reservoir, which is taller on this lamp. This lamp also has internal threads while the ad shows external threads. This reflector is conical, while the ad shows a round dished reflector. The water feed lever in the ad is higher than the one on this lamp.

The reflector, base, and water reservoir are tin. The threads in the base and top are brass, as are the water cap and top of the water reservoir. The superintendent's handles and wire hook are steel. This lamp was purchased in Hurley, Wisconsin and was probably used in one of the area's many iron mines. When found it was covered with a fine red iron dust.

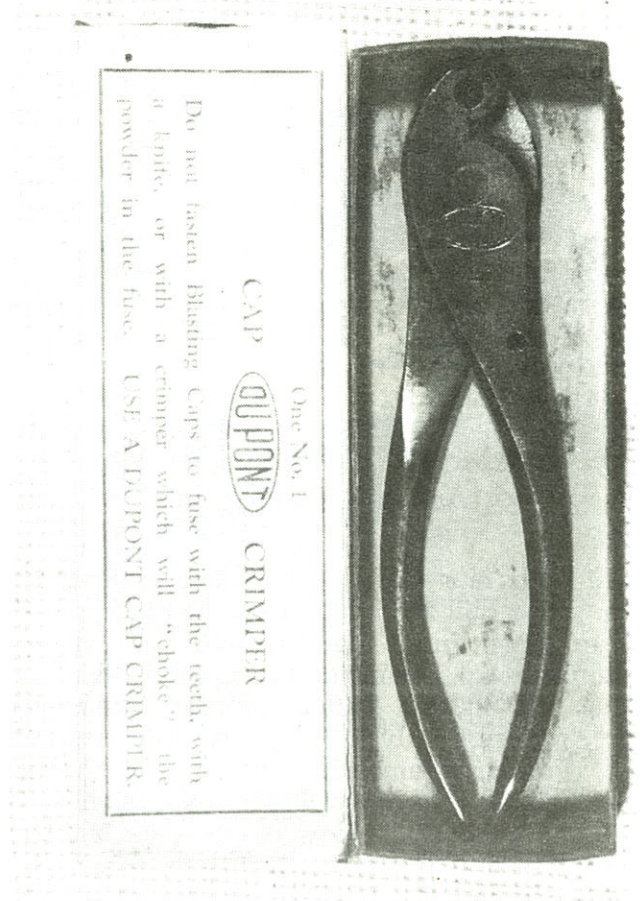


## Mining Resumed at Copper Queen

August 1991: Local papers report that 300 lbs. of bat guano were removed from the attic of the Copper Queen Public Library, Bisbee, Arizona. Commercial value of the deposits was not stated, and prospects for future development are uncertain.

## Boxed DuPont Cap Crimper

Finding any mining collectible in mint condition is always desirable, but the item becomes even more so when it comes in the original box, such as this DuPont No. 1 blasting cap crimper. (D. Johnson collection)



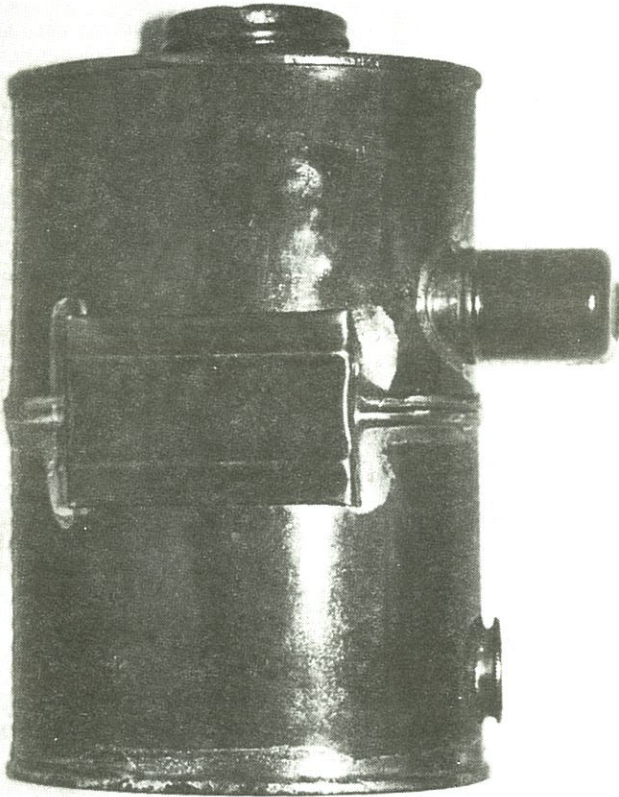
## Vertical Justrite Box

Here is the box end for a Vertical Justrite. It is red lettering on a tan background. (D. Thorpe collection)



## "Pennsylvania Style" Miner's Filling Station

This tin belt container has compartments for carbide, water and matches. It measures 5 3/4" in length with oval ends that are 3 5/8" X 2 1/4". The brass screw water cap matches the cap found on Trethaway Bros. surveyor's lamps. There are no manufacturer's markings on this container.



## Sunshine Fuel Container

Every once in a while a collector finds a sunshine lamp with some fuel still in it. Finding a full container of sunshine fuel is much less common. This one measures 7" in height and is 6 1/2" in diameter. It is made of tin with a yellow background and black lettering.

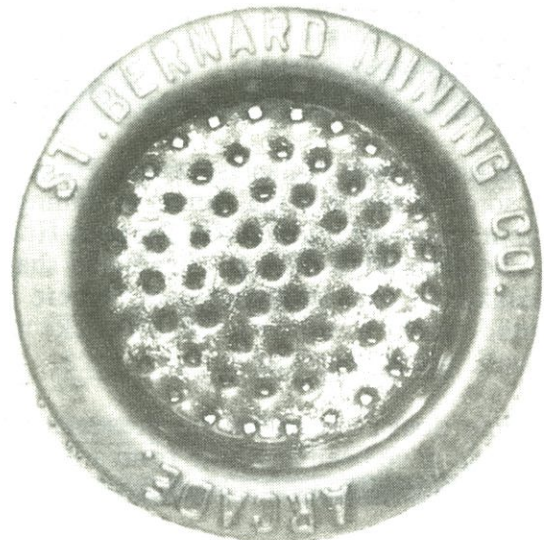
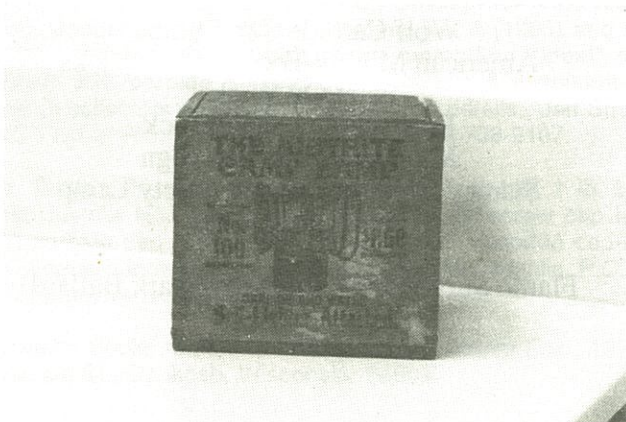


## St. Bernard Mining Co.

This tin food strainer was apparently manufactured as a give-away item for the St. Bernard mining Co. The name Arcade appears to be the location of the St. Bernard Mining Co. A quick search of a U.S. Atlas found no listing for the town of Arcade. The only St. Bernard Mining Co. that I could find any reference to was the St. Bernard Mining Co. located in Earlington, Kentucky. Does anyone have any information on the St. Bernard Mining Co. or Arcade?

## Small Wooden Box

Mike McLaughlin reports on a rare find: a wooden Justrite "Camp Lamp" box, model 100. Unlike other rectangular examples the editors have seen, which included a spare lamp bottom, this box is square, and apparently came without the spare base. Note that Mike is offering this item in his trade ad!!

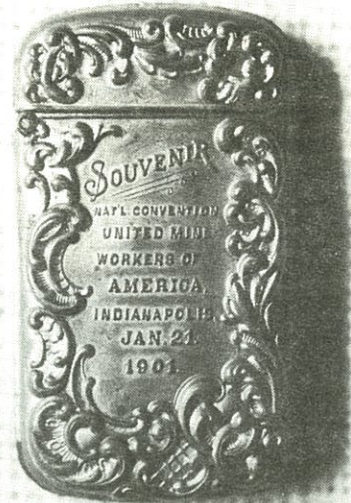


## UMWA Match Holder & Token

On January 21, 1901, Indianapolis, Indiana was host to the 12th Annual National Convention of the United Mine Workers of America. These conventions were the source of a number of interesting souvenirs such as the match holder and token pictured here.

Each National Convention had a watch fob produced as a souvenir for delegates. Of interest to many collectors are the badges, ribbons and tie-tacs produced for each convention on the National, District, Sub-District and Local level.

This match holder was manufactured by Whitehead and Hoag of Newark, New Jersey. Whitehead and Hoag produced a large number of UMWA items, as well as being the nation's largest manufacturer of political buttons.



### Where is it now?

The Engineering and Mining Journal, October 28, 1911 reports:

While in the Black Hills last week, President Taft visited some of the principal points of mining interest and went underground in the famous Homestake Mine....he descended through the Ellison shaft of the Homestake to the 1100-ft. level, where he was presented with a miner's candlestick made of Homestake gold...

The article doesn't describe the presentation piece, which could have been anything from a full size stick (unlikely) to a miniature "stick-pin".

### IN OUR NEXT ISSUE

Wolf Carbide Cap Lamps  
American Mining Tool Co. Oil Wicks  
Felix Oil Wicks  
Presentation Candlestick  
Michigan Mine Bell Sign  
Stanley Colliery Disaster Safety Lamp  
Gem Cap Lamps  
*and*  
Flame Surveyor's Lamps (by Mark Ballard)





# TRADES & SALES



## RATES

Ads up to 75 words labeled "For Trade" or "Wanted" are free to subscribers. Ads with items for sale, up to 50 words, and business cards will be published at the rate of \$6. For subscribers, quarter-page ads are \$25, half-page \$50, and full-page ads \$95. The fee for non-subscribers is \$15 for ads up to 75 words. For larger ads, add \$25 to fee for subscribers. Fee includes custom computer layout. Members of the editorial board are charged for all sales advertisements.

**Eureka! will not publish prices on items for sale. Contact seller for prices.**

**No reproductions of any type will be knowingly advertised unless so stated.**

**No member of the staff will act upon an advertisement in Eureka! prior to its mailing.**

## CONDITIONS

Ads must be submitted for each issue in which they will appear. Send all ads to Jim Van Fleet prior to Dec 10, Mar 10, Jun 10, and Sep 10 for publication in the following issue. Ads are accepted on a space available, first-come first-served basis. We reserve the right to refuse any ad. Eureka! assumes no responsibility or liability for the contents of ads; however, every effort will be made to assure a high standard of honesty in advertising.

If any advertiser is contacted about an item in their ad prior to the publication being mailed, they are asked to report the incident to the Editor in Chief. Remember that it is to the advertiser's benefit to wait until Eureka! is in the hands of all subscribers before disposing of a trade or sale item. Please keep in mind that a trade or sale conducted through the mail is not complete until both parties are satisfied!

**For Sale:** Hansen cap lamp (v gd). Justrite # 95 n.p. horizontal superintendent's lamp, unfn. in box. Sunray, (gd.). XRAY (fair-gd). Buddy cap lamp, (exc.). Arrow, brass, (gd). ITP Float Feed, (gd). Dupont #1 blasting machine. Justrite Streamlined cap lamp in box, (unfn.). Neal Ressler (717)-656-4230.

**Wanted:** Oil-wick Lamps - J. Bicket, Bishop Bros., Boss, D. C. I. Ltd., James Dick, Doud, Davis-McGee, Engleby, Hoover, T.R. Jones, K. M. S., Lamb & Dunn, Lehigh Valley, McMasters, Miner's Choice, Nail City, No melt, Penn Mfg. Co., Spry, Standard Cap Co., Swift, Thompson & Walker, W. Wiegand, Wrigley. Will Trade or Buy. David Johnson, 6807 Homestead Dr., Indpls., IN 46227 (317) 786-8667

**For Sale or Trade:** Exc. cond. Brite-Lite w/ hand handles, near mint straight-sided AMSL Davy safety lamp, Sun-Ray cap lamp, boxed Auto-Lite, Giant blasting galvanometer, and other misc. items. Write or call for list. Len Gaska, 1688 E. Corson St., Pasadena, CA 91106 (818) 405-0647 or (818) 351-4439 (work).

**Trade or Sale:** Carbides: Guys dropper w/ factory double hook, Guys (early) w/ set-screw refl. and sm. hex base, Auto-Lite (early) w/ set-screw refl. and double knurled base, Justrite spiral feed w/ wire spring, Baldwin base w/ lid, Zar base w/ lid and tip. Oil-wick lamps: Frostburg Dunlap Drivers, Felix, Unmarked (several), D.P. Highberger. Safety Lamps: Hughes Bros. bonneted Clanny (repaired top), ASLMS Co. Davy, Koehler (alum.). Misc: Coal breaker souvenir, Anthracite Coal ash tray (marked Shamokin), Mercury Crock, Lg. tin powder flask, UMWA enamel pins (8 hr. working), Brass plumbob, "The Lung Motor" manuf. by Life Savings Devices Co., Chicago for mine rescue, Miami Copper Co., AZ, Senior Conflow No. 4 (1985) and No.3 (1984). Sticks: Blacksmith sticks, unmarked "Ideal" stick, Baldwin #72 carbide spikeholder, Shanklin # 6 spikeholder. Items in collectors condition. Call/write for details. Jeff Shanks, 2003 Yardley Rd., Yardley, PA 19067, (215) 736-9107.

**For Trade:** Hazletin carbide hip flask, Auto-Lite 1 lb. brass flask, Justrite No. 77 hip flask, Auto-Lite set-screw cap lamp, Nat'l carbide can 10 lb. size, "The Justrite" wooden cap-lamp box, Shanklin individual parts boxes. Mike McLaughlin, P.O. Box 607, Spotsylvania, VA 22553.

**Wanted:** Books related to mining lamps. Robert Fox, 1235 N. Westfield St., Oshkosh, Wisconsin 54901.

**Wanted:** Blasting cap tins, crimpers, and blasting machines. Will trade lamps and candlesticks. Don & Dave White, 1500 Olympic Dr., Milpitas CA 95035.

**Available:** Send for interesting list of mining lamp books, mining history books, photos, etc. (postage appreciated). Am interested in exchanging mining postcards. I also have one copy of Senior Conflow 1987 Calendar No. 6 for exchange. Robert Fox, 1235 N. Westfield St., Oshkosh, Wisconsin 54901.

**Wanted:** Cap lamps: Gem, Elkhorn, Arrow, I.T.P., Hansen, Grier w/ J&T. Surveyor's lamps, any better oil-wicks. Sunray base, Guy's Dropper double ringed base, Wolf reflector, reflector piece to Justrite belt generator. Buy or trade. Ken Rupp (814) 944-9307. 5-8 PM EST.

## Michael Dennis Cohan BOOKSELLER

★ Out-of-Print & Rare Books

*Specializing in Geology, Mining & Related Subjects*



502 W. Alder St.  
Missoula, MT 59802

(406) 721-7379

GOLD RUSH & MINING BOOKS

MINING PHOTOGRAPHS

PAPER EPHEMERA

STOCK CERTIFICATES

TRADE CATALOGS

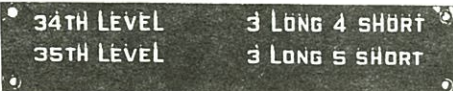
## Sale or Trade

Dave Thorpe, P.O. Box 477, Peoria, Arizona 85380 (602) 866-9608

### Porcelain Signs



White on blue, 7 X 10", Stonehouse



White on blue, 3 X 14".



White on blue, 12 X 15", mint, unused.

### Blasting Cap Tins



White on red, 6 X 13", mint, unused.

### Carbide Cap Lamps

**Hansen** Near mint, no dents, no scratches. Absolutely perfect.

**Sunray** Mint unfired. Small cast aluminum reflector. Hook and wire brace style.

**Vertical Justrite** Excellent. Late model. In red & white box.

**Vertical Justrite** Excellent. Early style.

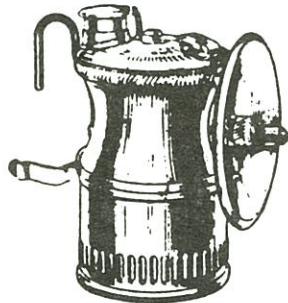
**Horizontal Grier** Excellent. Early style feed, small size reflector.

**Justrite Streamline** Unfired. In corrugated cardboard box. 7" reflector.

### Micellaneous

Maple city oiler, all brass, made from same dies as the hand lamp, logo stamped in door. Maple city oiler, steel, small.

### COLLECTOR OF MINER'S CARBIDE LAMPS



**JAMES VAN FLEET**  
222 Market St.  
Mifflinburg, PA 17844  
(717) 966-3308

### Collection for Sale

(717) 733-7721

Nelson Ressler, 151 N. State St., Ephrata, PA 17522

#### 28 cap lamps including:

Drylite, XRAY, Luminum, Grier, Victor, The Justrite

#### 74 Oil-wick Lamps including:

5 different surveyor's, Hazletin Machine & Supply, Smoke & Chew Shining Light Tobacco, John D. Gill & Sons, Dunlap in box, 2 different U.M.W.A., R. B. Wardin, M & O

Many other items, send for complete list!

### The Tennessee Trader

Gateway to the Nashville flea market.

Chuck Frase  
1015 Noelton Ln., Nashville, TN 37204 (615) 792-4412

**For Sale:** Victor cap lamp, complete, exc.; Early Justrite horizontal, in wooden box without top, hooded reflector; Grier oilwick, tin, med. size, high neck, rear hinge, exc.; Husson #4, unmarked, spade mount, tin, v. gd.; Diamond Pocket Scale, "H. Kohlbusch".

**For Trade:** Britelite Bulldog cap lamp, complete, avg. cond.

### The Miner's Shelf

Mining Artifacts & Minerals

Fred Gaunce  
1331 Sommerset Dr.  
Lawrenceville, GA 30243  
(404) 339-8822

Paper goods, Mineral, Specimens, Mining artifacts  
I have recently acquired 40 Pocahontas Fuel Co.  
stock certificates, West Virginia.

# TRADE / SALE

Dave Johnson (317) 786-8667  
6807 Homestead Dr.  
Indianapolis, IN 46227

## OIL-WICK LAMPS

- 1) J. Vogle - Driver's Lamp w/ dome lid, excellent Face Lamp, very nice
- 2) Miner's Supply Co. - tin & brass, excellent
- 3) Leonard Bros. - tin & brass, excellent
- 4) Trethaway Bros. - brass, excellent
- 5) J. Anton - tin Face Lamp w/ drip ring
- 6) Dunlap - Driver's Lamp, very nice
- 7) Unmarked - large tin lamp w/ brass screw cap and wick pick on chain
- 8) Copper Grier Bros. face lamp, brass hook, minor denting

## SAFETY LAMPS

- 1) Baby Wolf - early all brass unbonneted, excellent
- 2) J.H. Naylor - Bifold Burner Marsaut, external lock, excellent
- 3) Wolf - unbonneted, very nice
- 4) Wolf - steel base, brass bonnet, rest aluminum, screw lock
- 5) Wolf - brass bonnet, rest aluminum

## CARBIDE LAMPS

- 1) Western Special Justrite, nickel-plated
- 2) Acme Justrite
- 3) Big Boy, Universal Lamp Co.
- 4) Arrow cap lamp, brass, most of original gilding on water tank, msg, wire brace, otherwise v. nice

## MISCELLANEOUS

- 1) Quincy Mining Co. - \$20 scrip bill, 1870
- 2) U.S. Mining Laws - 1885, Laws by state & territory, plus local laws, 705 p.
- 3) Reliable Blasting Machine No. 2, 1-10 shot, wood case, excellent
- 4) Pennant carbide pocket tin, excellent cond.
- 5) Hercules 10-shot twist blasting machine, brass
- 6) UMW 1909 District 12 delegate badge, Peoria, Illinois, sledge and pick above coal bucket



## POWDER CACHE ANTIQUES

Buy - Sell - Trade

Western Americana  
Mining And Collectibles

612 6th St. Box 984  
Georgetown, CO 80444

Leo Stambaugh

Home 303-569-2109  
Bus: 303-569-2848

## Cap-Tin Bob

### Bob Schroth

Collector of Blasting Cap Tins, Carbide  
Cap Lamps, and Candlesticks

\* \* \*

P.O. Box 1258, Lake Arrowhead, CA 92353  
(714) 337-7102

*Some call me "Mr. Cap Tin". Okay it's true, I'm absolutely nuts about 'em! If you have rare tins I pay top dollar. I have rare tins for trade or sale.*

#### Available

Peerless  
M.C. Manufacturing  
American Cyanamid  
Noble  
Gold Medal  
ZAR cap lamp, mint unfired  
Maple City cap lamp, good condition

#### Looking for

Round M.C. Manufacturing  
Burton  
Round Atlas  
Round Grasselli  
Round Illinois

# Gaskets

## For Rare Cap Lamps

*It's painful to look at a nice cap lamp if there is even one thing wrong with it. You can make your rare cap lamps perfect with beautiful black rubber gaskets made to original spec's.*

*Type 1: Baldwin, Grier, Simmons, I.T.P., Sunray.*

*Type 2: Maple City, Anthracite, Norleigh Diamond, Round Anton.*

*Type 3: Pathfinder, Scranto, Scranton, non-Justrite Victor, Black Diamond.*

*Type 4: Britelite.*

Dave Thorpe  
P.O. Box 477, Peoria, AZ 85380  
(602) 866-9608  
Inquire for price. Min. order of 6.

# Mining Artifact Sale !

*Dave Gresko*

4134 Forest Lawn, Toledo, OH 43623 (419) 841-7521

1. Justrite Western Special, hand lamp
2. Sunray cap lamp, cast reflector
3. Squarelite, nickel plated, handles
4. I.T.P hand lamp, nickel
5. Luminum cap lamp, standard type
6. Luminum cap lamp, screw-thread
7. Force Feed cap lamp
8. Baldwin cap lamp, brass
9. Pioneer cap lamp, brass
10. I.T.P. cap lamp
11. Unmarked Baldwin carbide flask
12. Trethaway surveyor's oil-wick
13. Dunlap drivers lamp w/ shield
14. Crown, Sterling, Logan-Gregg tri-metal oil-wick lamp
15. D.L. oil-wick, brass
16. Tracy Wells, oil-wick, brass
17. Frostburg oil-wick
18. M & O oil-wick lamp
19. #6 Husson (flat hook) oil-wick lamp
20. #6 Husson (double hook) oil-wick
21. #5 Husson oil-wick lamp
22. Miniature candleholder (4")
23. Star Fuze Works brass detonator
24. Set-screw Auto's & Guy's
25. Unfired ZAR cap lamp
26. Britelite cap lamp, black painted
27. Victor cap lamp, brass
28. Buddy cap lamp
29. Maple City cap lamp, mint
30. Wolf Jr. safety lamp
31. Dunlap oil-wick, mint
32. Fielding-Peterson candlestick, fair
33. Baldwin stick for cap lamp
34. Various unusual blacksmith sticks
35. Arrow cap lamp, nickel
36. Trethaway miniature oil-wick, (1")
37. Shanko tip cleaner
38. Justrite plunger style tip cleaner
39. Lamp boxes for Auto, Guy's, Justrite
40. Mint Baldwin base w/ lid
41. Justrite flask w/ 2 lamps pictured
42. Autolite repair kit box
43. Shanklin box w/ 1 doz. spare bases
44. Luminum hand lamps (two styles)
45. Justrite tips (#66 lava & #28 Jewel)
46. Big Boy hand lamp
47. Baby Wolf
48. MSA self rescuer (ca 1920-30's)
49. Dupont #50 blasting machine
50. Justrite boot tin, short type
51. CEAG electric tail light
52. UMWA buttons (two different)
53. Unusual unmarked Trethaway drivers lamp
54. Justrite small N.P. supervisors cap lamp, 01-12-15, beaded base
55. Baldwin nickel hand lamp base w/ lid
56. Vertical Justrite, unfired
57. Wolf cap lamp spare base, nickle
58. Patented miners lunch pail
59. Various self contained breathing rescue devices
60. Signed brass folding candleholder, "Virgil S. Hillyeb"
61. Alum & brass Davy safety lamp
62. ASLSCo Davy w/ flared base
63. Brilliant Searchlight w/ headpiece
64. U.S.A. Eagle, J. Anton & Sons, oil-wick, brass w/ tin spout
65. Pathfinder base, unmarked
66. Freeman & Wolf hand lamp
67. Wolf saftey lamp oil filler
68. Mint oil cadger
69. #44 Justrite belt generator set
70. Mint miners water bottle, tin
71. Grasselli blasting meter galvanometer
72. Turtle shell hats
73. Shanklin #3-330 boxed reamer cases
74. ACME miners bottle
75. Nat'l Carbide 2 lb. can
76. Pennant Carbide can
77. Atlas 10-cap twist type detonator
78. Justrite # 10 carbide lantern
79. Unmarked Felix type oil-wick
80. Chirry oil-wick lamp
81. Arrow base w/ lid, brass
82. "Double Safety" canvas cap
83. Unmarked parts box w/ 1 doz. tip brushes (prob. Shanklin)