

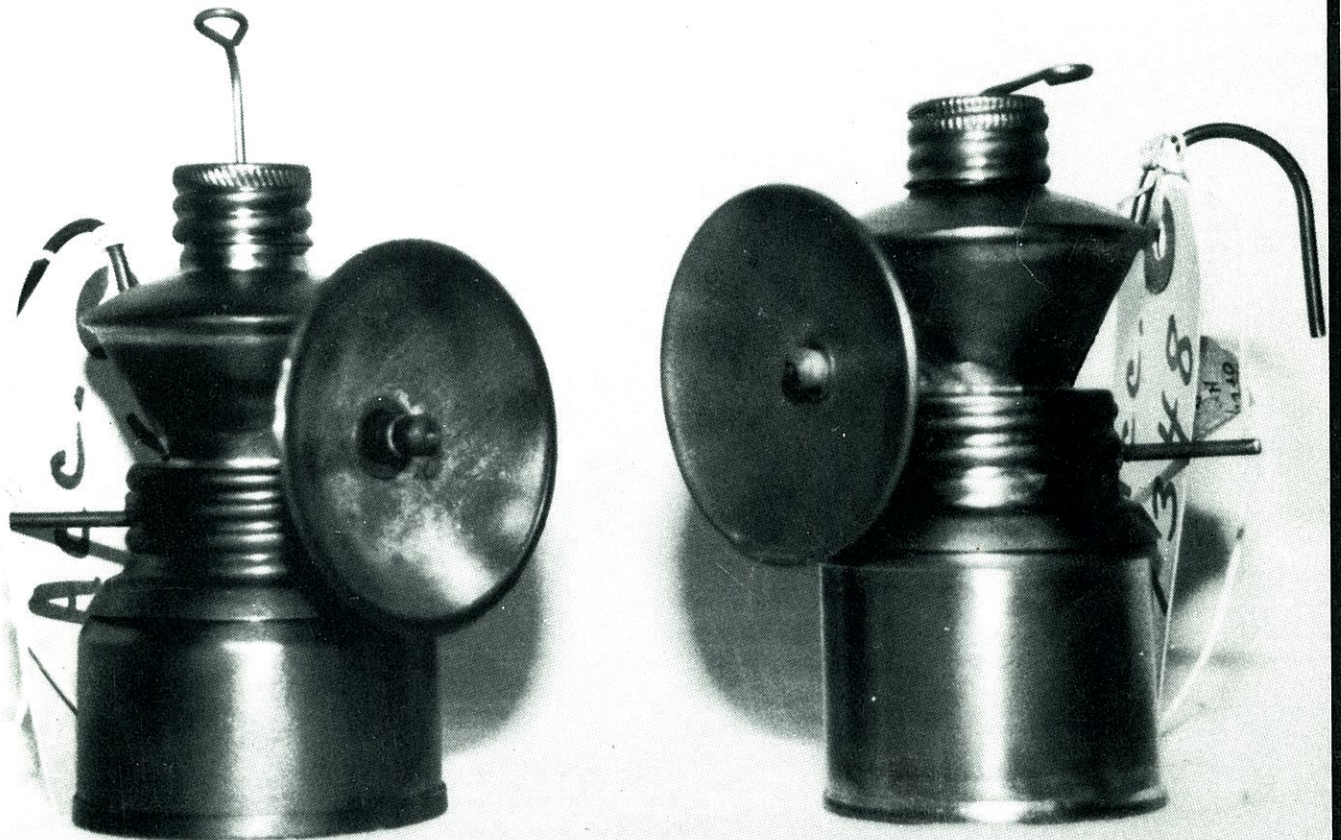
EUREKA!

THE JOURNAL OF MINING COLLECTIBLES

ISSUE 4



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YEAR END ISSUE

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EUREKA!

The Journal of Mining Collectibles

EUREKA!



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

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Front cover: Early Baldwin cap lamps at the Smithsonian Institution.
(photo by Lindy Van Fleet)

Back cover: Stock from the Eureka Coal Company, incorporated in the state of Illinois in 1857. Mark Ballard checked Gordon Dodrill's book *20,000 Coal Company Stores*, and found that it lists 27 Eureka mines from Arkansas to Pennsylvania. Three West Virginia companies issued scrip under the name Eureka.



EDITORIAL



WHO PUT THE ART IN ARTIFACT?

An item in our July issue has caused some debate among the editors. We believed that the “oil shooters lamp” featured on page 12 of *Eureka!* No. 3 was a genuine mining artifact, and that only a few were made by a tinsmith in West Frankfort, Illinois. In fact, the tin can depicted was mass produced, and manufactured for a completely different purpose. The original paint and labeling are described in the Year in Review article in this issue.

Our initial reaction on finding this item at the local flea market, far from Illinois, was “we goofed!” But the truth is that the object in Mark Ballard’s collection was identified as a miner’s lamp by a retired coal miner, who claims he used it while performing the hazardous job of blasting down coal. The article on the shooters lamp offered a glimpse of the history of coal mining in Illinois, when blasting became a specialized occupation carried out alone, risking the lives of the shooters but possibly saving the lives of hundreds of miners.

Is the oil shooters lamp a mining collectible? No, we would say not, since the example owned by Mark Ballard may be the only one ever actually used in mining. We apologize to the readers of *Eureka!* who feel we should limit our publication to tools and paraphernalia manufactured specifically for mining in quantities that make them collectible.

Is the shooters lamp a mining artifact? Yes it is, if we believe the miner who owned and used it. We would like to point out that many of our readers have in their possession objects that they consider to be mining collectibles, which were never used in a mine, or never intended for use in mining by the manufacturer. The metal miner’s lunch bucket and the wooden canary cage are two examples of mass produced items that were common eighty years ago. Every industrial worker in America left home in the morning with one of those metal lunch buckets. Every small bird sold from a pet store left in one of those little wooden cages.

Now, we have numerous photographs and the word of many a mining man to prove that these items were used underground every day. But if you want a genuine guaranteed mining artifact, better get yours from a retired miner, or the descendants of a miner.

Any serious carbide lamp collector will admit that many of the recent models on their shelves were not

miner’s lamps. From about 1940 on, a carbide lamp was more likely to be purchased by a hunter or fisherman, or by a serious cave explorer. Many state laws forbade the use of open lights in mining from the 1930’s, and the blade-mount, Streamlined Justrite that was actually used in mining is probably a pretty rare collectible. In fact, Justrite and Baldwin carbide lamps were first marketed in 1910 as “camp lamps,” for use by campers, hunters, boy scouts and marching bands. These earliest lamps are still in great demand by collectors of mining memorabilia for their beauty and their historic value. The collector who specializes in only mint condition, unfired lamps is focusing on one part of the history of these mining tools, on their manufacture and not their use. Are they mining artifacts? Technically, no, but they sure are collectible!

Certainly part of the history that *Eureka!* presents is the history of the manufacture of these mining tools. We learn from researching the individuals who dreamed them up and patented their inventions, and the companies that sprang up to fill the market and folded when the market died out. We hope we can keep in sight the history of the use of mining collectibles, and present that story too. The deadly hazard of methane gas explosions in coal mining was made a little less dangerous by the flame safety lamp. Lamps like the Ashworth-Hepplewhite-Gray were also sophisticated instruments for measuring gas. The carbide cap lamp had an uphill fight replacing the old familiar oil wick lamps and the miners’ candlestick to bring better, safer light underground. The art of blasting with black powder and squibs became the science of detonating modern high explosives with electric shot-firing machines. Most of these tools in turn have become history, but they don’t just sit on the shelf and look pretty; they *mean* something.

We are proud to have on our editorial staff a working hardrock miner, and a former coal miner and member of the United Mine Workers of America. They help us to balance out our view of collecting, and remind us of the history behind the artifacts. We would like to keep in mind the men who used these tools, who worked and sometimes died with a carbide lamp on their helmet and a cap crimper in their pocket. With this in mind, we hope we can continue to run all items of interest submitted to *Eureka!* concerning genuine mining artifacts, without further apology.

Jim Van Fleet, Editor-in-Chief

Demmler Brothers

by Dave Johnson

ESTABLISHED 1860.

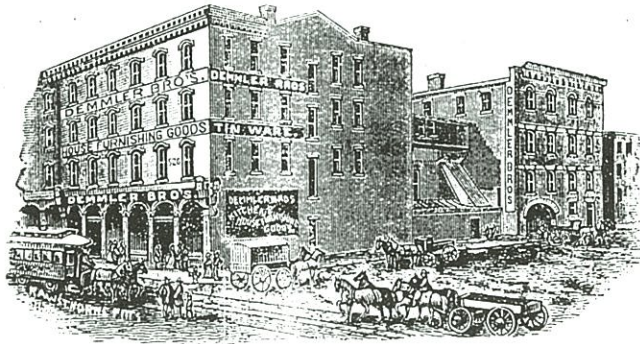
DEMMLER BROTHERS, Stamped and Japanned Ware,

TINNERS' SUPPLIES,

Bird Cages, Miners' Lamps, Sheet Iron, House-Furnishing Goods, &c.

526 and 528 Smithfield Street,
PITTSBURGH, PA.

OIL STOVES.

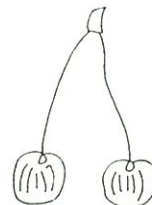


GAS STOVES.

Headquarters of all the Latest Novelties in Kitchen and House Furnishing Goods.

- BRASS GOODS,
- WASHING MACHINES,
- CURTAIN STRETCHERS,
- INDURATED WOOD FIBRE WARE,
- COPPER KETTLES, BRASS KETTLES,
- AGATE AND GRANITE WARE,
- REFRIGERATORS, FILTERS,
- ICE CREAM FREEZERS,
- PERFECTION HOLLOW WARE,
- Air Moisteners for Natural Gas Fires.

The history of Demmler Brothers begins in 1860 when brothers Louis F. and Hugh H. opened their business in Pittsburgh as jobbers of stamped and Japanned ware.¹ Throughout the next decade they were advertised under copper manufacturing² and tin-ware.³ An 1888 advertisement for Demmler Bros. shows them pursuing the mining market as dealers of bird cages and miner's lamps. Additionally, they list tinner's supplies, gas and oil stoves, sheet iron, kitchen and house furnishing goods, ice cream freezers, brass goods, and other items.



In 1889 they formally entered the oil wick lamp business, advertising themselves successors to C. Cherry. Prior to this date, C. Cherry had produced an excellent quality oil wick lamp with a trademark consisting of two cherries on a stem. While Demmler acquired the lamp design, they were unable to acquire the Cherry name or trademark. The stamping was now changed to *Chirry* which was printed twice on the lamp roughly mimicking the Cherry trademark.

CHIRRY
CHIRRY



Three sizes of Chirry oil-wick lamps.

Demmler Bros. was located at 526-528 Smithfield St. since 1867. Louis Demmler sat as President of the firm from 1897-1902.⁴ In 1897, his four brothers, E. H., Frank C., H. B., and Otto Demmler were associated with the firm. Their last listing appears in the 1902 Pittsburgh City Directory.

An undated ad from Somers, Fidler, and Todd Co., of Pittsburgh, shows Chirry oil wick lamps (face type) selling at \$2 per dozen, No. 5 Driver's lamps at \$2.30 per dozen and No. 6 extra large Driver's lamps at \$2.80 per dozen. The same ad

shows Monongahela Valley oil wicks for sale: face lamps were \$1.40 per dozen and Driver's lamps \$1.70 per dozen. The Monongahela Valley lamps in this ad do not have the Demmler name within the crest (see logo below) as those shown in this article (next page). Known examples of the Monongahela Valley lamp have John Dunlap Co. in the crest while the Demmler name appears on others.



Pre-Demmler Bros. C. Cherry tin face lamp with two-cherry trademark.



An article in the 1888 Allegheny County Centennial Souvenir Booklet⁵ states that Demmler Bros. "make a special effort to carry all the best kinds of miner's lamp". There is no mention of their producing the lamps. It is my belief, until I see evidence to the contrary, that Demmler Bros. had the Chirry and Monongahela Valley lamps made for them rather than manufacture them. I welcome any information on this subject from our readers.



Tin Demmler Bros. Driver's Lamp, with stamping below.



References:

1. *Pennsylvania Historical Review*, Historical Pub. Co. N.Y. 1886
2. *Pittsburgh City Directory*, 1867.
3. *Pittsburgh City Directories*, 1870-1883,
4. *Pittsburgh City Directories*, 1897-1902.
5. *Allegheny County Centennial Souvenir Booklet*, Snowden & Peterson Pub. 1888



Copper Demmler Bros. Monongahela Valley face lamp w/ brass hook. This model is more commonly found in tin.



Nickel-plated Demmler Bros. face lamp (otherwise identical to copper lamp above).

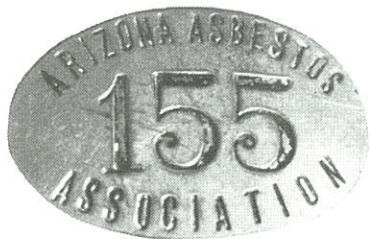
Arizona Asbestos Association

by Tod Town ‡

In 1913 fourteen mining claims were located 42 miles north of Globe, Arizona, by West Brothers and Mr. Fred Patee, and the Arizona Asbestos Association was formed. Their first year's mining resulted in about 1,000 feet of workings that yielded ninety pounds of Crude No. 1 fiber per foot. In 1915, production amounted to about one ton of Crude No. 1 per day. In 1916, the Arizona Asbestos Association became a subsidiary of the H.W. John-Mansville Co., which developed the claims into the largest asbestos mine in the United States. By 1928, the mine was worked by 159 men underground and 12 more on the surface. Eventually the Mansville Co. disposed of the property, ending the existence of the Arizona Asbestos Association, but mining operations continued until the early 1970's.

The badge pictured below was made by Irvine and Jachens, Market St., San Francisco. It was mining company policy that each employee be issued a number and badge, and wear the badge when on shift. Badge No. 155 was found when the asbestos mill in Globe was being disassembled.

Globe is noted by collectors for its great early copper mining artifacts. My family has mined asbestos in the Globe area for many years. I started working when I was old enough to "go get." I thought it would be interesting to show another mining industry that was important to Arizona and Globe.

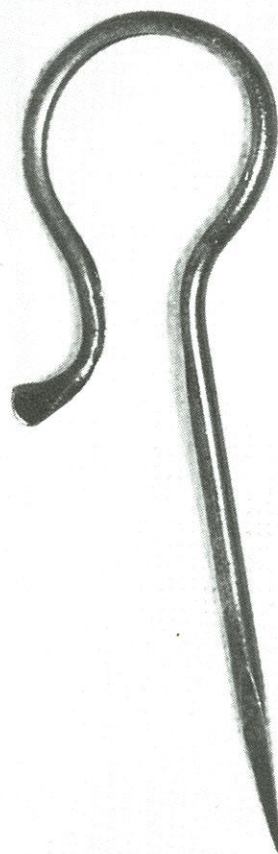


‡ Tod Town lives in Globe Arizona. His family owned one of the several Asbestos mines in Arizona. Started by his grandfather in 1952, it operated continuously for twenty years. The asbestos they mined was Chrysotile, which is lower in iron than other forms. Tod recalls that carbide lights, in preference to electric, were used in their mine until it shut down in 1972. The ubiquitous Streamlined Justrite was the model used.

Detachable Oil Wick Stick

by Dave Johnson

Sticks for oil wick lamps are a real rarity. The Knippenberg Manufacturing Co., of Oshkosh, Wisconsin produced a detachable stick for its many models of Husson oil wick lamps, as well as for one of its candleholders. The Vacuum Oil Co. had a stick permanently attached to its oil wick lamp (watch for future article). Both of these sticks were produced with a lamp.



Peter Home of Bessemer, Michigan patented a detachable stick attachment for oil wick lamps on April 18, 1889. The steel stick pictured here is 6 5/8" in length with a thumb tab. The inside of the loop has a machined groove that allows the edge of the lamp base to be held in place. While the pictured stick is not identical to the patent drawing, it is close enough that I am certain that it is a Peter Home product. This is even more likely since this stick was found in the Upper Peninsula of Michigan.

T. B. Bickerton Safety Lamps

by J. Roger Mitchell

Thomas Benjamin Bickerton was born December 15, 1838, the son of the real estate magnate Benjamin Bickerton and Anne Errickson. In 1871, Thomas Bickerton started a business with his cousin Joseph Andrews Errickson at 12 South Fourth Street in

Philadelphia, Pennsylvania selling railroad supplies. T.B. Bickerton & Co. operated at this address until 1889 selling railroad, machinists' and miners' supplies, as shown on their letterhead and stamped on their Davy safety lamp.

Order No. _____

CLAIMS FOR ERRORS MUST BE MADE UPON RECEIPT OF GOODS.

Werner Machine Works

Philadelphia, July 6 1876



Bought of **T. B. BICKERTON & CO.,**

DEALERS IN

RAILROAD, MACHINISTS' AND MINERS' SUPPLIES,

Terms CASH.

NO. 12 SOUTH FOURTH STREET

*1 Davy's Skin
oxide acid*

65

75

Duplicate to

OFFICE OF

T. B. BICKERTON & CO.,

RAIL ROAD, MACHINISTS' AND MINERS' SUPPLIES

No. 12 South Fourth Street.

Philadelphia, August 1876

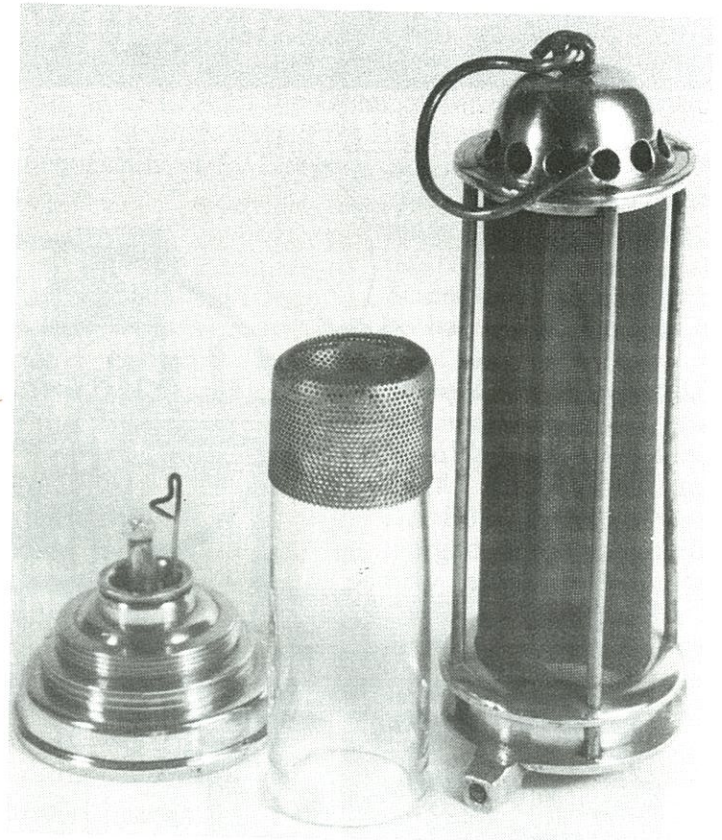
T.B. Bickerton & Co. letterheads from the Bill Lorah collection.

After several minor address changes, the company settled in 1900 at 23 North Sixth Street, Philadelphia, still listed in the City Directory as selling railroad supplies, with no mention of miners' lamps. In 1910, Joseph A. Errickson left to become a conductor with the railroad, and died on December 12, 1912. The Philadelphia City Directory does not list T.B. Bickerton & Co. after 1915, although Thomas himself lived until December 8, 1928.

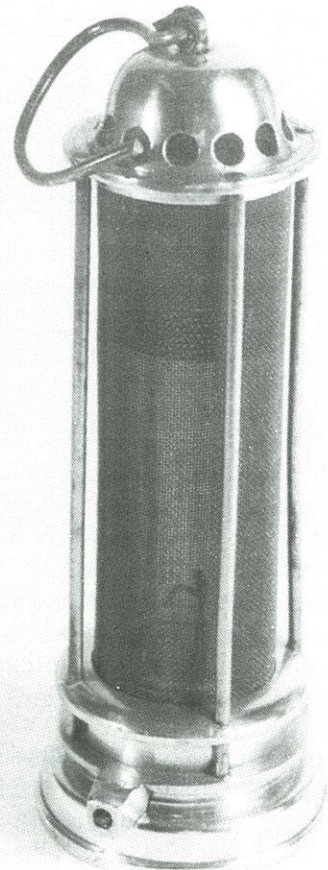
My research uncovers no other information on the Bickerton Company or the safety lamps sold with their stamp. The Davy and Clanny lamps shown here were probably manufactured for Bickerton by an established foundry and lamp manufacturer and custom stamped.



T.B. Bickerton Clanny lamp is 10 inches high, and stamped on the top. From the J. Roger Mitchell collection, photo by R. Pearl.

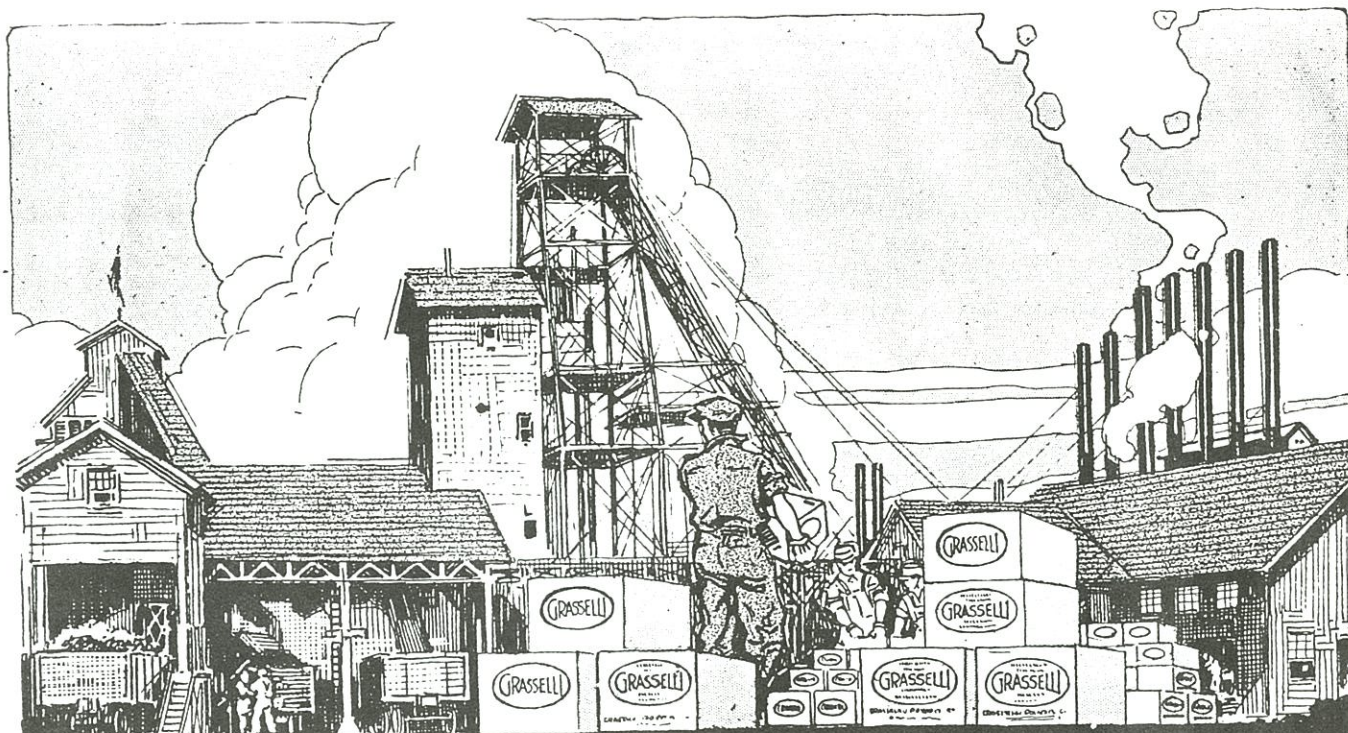


T.B. Bickerton Davy safety lamp (manufactured by Everhart). Photos courtesy of Bill Lorah.



T.B. BICKERTON & CO.
NO. 12 S. 4TH ST.
MINERS SUPPLIES
PHILADELPHIA

BLASTING CAP TINS



GRASSELLI EXPLOSIVES

by Bob Schroth

In 1839, Eugene Ramiro Grasselli established a chemical plant located by the Erie Canal and within a few hundred feet of the Cincinnati city limits. Eugene Grasselli came of an Italian family, which since medieval time, had been druggists and chemists. The ancestral records go back to 1440 when at Torno, on Lake Como, the Grassellis were established as makers of medicine, chemicals and gun powder.¹

Caesar Augustin Grasselli, the fifth child, began working for his father at the age of fifteen. Many years later, when this same boy became the Chairman of the Board of the great Grasselli Chemical Co., he

wrote: "I cannot remember the time when I was not interested in chemistry and did not expect to follow my father in this business."

In the spring of 1867, the young Grasselli moved his family to Cleveland where he opened a chemical plant. An extraordinary executive and chemist, he built a huge organization based on the model supplied to him by an old friend: John D. Rockefeller. His primary achievements were increased production and diversification. During his lifetime the assets of the companies under his control grew from \$600,000 to over \$30,000,000.²

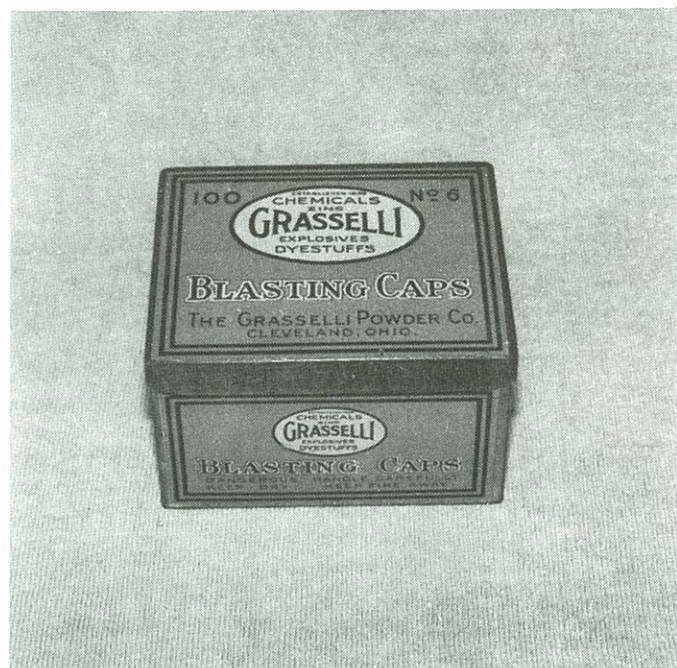
In 1917, Grasselli acquired the Burton Powder Co., the American High Explosives Co., and the Cameron Powder Co. These companies were then merged into the Grasselli Powder Co. incorporated July 12, 1917. From 1917 to 1928, the Grasselli Powder Co. was a major producer of explosives, supplying many different types and strengths of dynamite, black blasting powder, and permissible powders. Many other blasting supplies were manufactured: blasting caps, electric blasting caps, safety fuse, rheostats, blasting machines, and galvanometers. Grasselli Powder Co. grew and soon had branch offices all over the eastern United States.



C. A. Grasselli died July 28, 1927. Outside the realm of the chemical business, he had won several important distinctions. King Victor Emanuel III had knighted him in 1910 with the Order of the Golden Crown of Italy. In 1923, Pope Pius XI bestowed upon him the decoration of St. Gregory the Great. Two American universities had conferred upon him the honorary degree of Doctor of Science. For many years he had been president of two savings banks. I doubt if Mr. Grasselli had much spare time. A year after his death, on October 1928, the Grasselli and Du Pont interests were merged, and one hundred fifty thousand shares of Du Pont stock, with a market value of over \$64,000,000, were ex-



Round Grasselli 100-cap No. 6 marked "spelter."

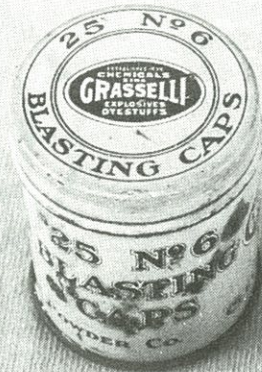


Square Grasselli 100-cap No. 6 marked "zinc." Also reported in 25-cap size.

The company targeted most of their advertising at the coal and farming market east of the Mississippi. I do not think they ever advertised in any of the western mining trade magazines. The company bragged in their advertisements: "For every blasting job there is a Grasselli explosive exactly fitted for that job."³

changed. Now let's get down to facts. With buddies like Rockefeller, Du Pont, the King of Italy, and the Pope, C. A. Grasselli and his company turned out to be much bigger and more interesting than I ever thought it would be.

Collecting the Grasselli line of blasting cap tins can be a very challenging experience. There are many styles, shapes, and sizes of their tins. Their colorful blue and white paint adds to any collection. So far, #5, #7, and #8 strength cap tins are unknown to me, though they were advertised. An interesting note: some #6 cap tins are marked "Chemicals Zinc Explosive" while others are marked "Chemical Spelter Colors Explosives." Webster's Dictionary defines *spelter* as: "Zinc cast into ingots of commerce," and *zinc* as "A bluish-white, metallic element, usually found in a combination." It is unusual for a cap tin to advertise other company products in this way.



Small 25 cap No. 6 tin.

References

1. William Haynes, *Chemical Pioneers*, 1939.
2. Andy Martin, *Blasting Cap Tin Catalog*, 1991.
3. Keystone Consolidated Publishing Co., *Mining Catalog*, 1925 edition.



Cardboard ink blotter, (red, white, and black), actual size (Dave Thorpe collection).

Mine Fire Signal Sign

by Dave Johnson

As in all mines where wood timbering is heavily utilized, the danger of fire was always a concern. The pictured sign was used at the Ashland Iron Company's Yale Mine in Bessemer, Michigan, on the Gogebic Iron Range. The content of the sign speaks for itself. It measures 15 X 15.5 inches and is red on white porcelain. The manufacturer was Standard Signs, Inc. of Cleveland, Ohio.

MINE FIRE SIGNALS

ALL MEN MUST ATTEMPT TO LEAVE THE MINE WHEN —

- 1-THE ODOR OF STENCH FROM THE AIRLINE OR AIR COURSE IS PRESENT IN THE AIR.
- 2-THE LIGHTS ARE FLASHED 9 OR MORE TIMES AT ABOUT 5 SECOND INTERVALS.

BE PREPARED IN ADVANCE

FIND OUT HOW THE AIR ENTERS AND LEAVES YOUR WORKING PLACE.
ASK YOUR FOREMAN ABOUT THE MEANS OF ESCAPE FROM YOUR WORKING PLACE, AND ABOUT MINE OUTLETS.
AFTER A FIRE SIGNAL IS GIVEN, AND YOU FIND SMOKE IN YOUR AIR COURSE, FOLLOW THE SMOKE AND LOOK FOR OTHER FRESH AIR ESCAPEWAYS. IF THERE ARE NONE, THE UPCAST SHAFT WILL GENERALLY BE THE BEST MEANS OF ESCAPE. TRY TO TRAVEL ONLY IN FRESH AIR TO AN ESCAPEWAY.
IF SMOKE IS NOT PRESENT IN YOUR AIR COURSE, YOU ARE ON THE FRESH AIR SIDE OF THE FIRE. ONCE IN FRESH AIR DO NOT ENTER A SMOKY SECTION, EITHER REMAIN THERE IF THERE IS NO MEANS OF ESCAPE, OR FOLLOW THE FRESH AIR BACK TO THE ESCAPEWAY FROM THE MINE.
IF YOU ARE IN A DEAD END DRIFT OR SLICE AND CANNOT GET INTO THE AIR COURSE BECAUSE OF HEAVY SMOKE, SHUT DOWN YOUR SMALL FAN AND TURN ON THE COMPRESSED AIR FOR VENTILATION. WALL UP THE ENTRANCE WITH A BARRICADE MADE AS AIRTIGHT AS POSSIBLE, AND REMAIN IN THE PLACE UNTIL HELP ARRIVES. TIE OR BLOCK THE VENT TUBE IF YOU CANNOT REACH THE FAN, TO KEEP SMOKE OUT OF YOUR PLACE.

WARNING

IT IS IMPORTANT THAT THE VENTILATION CIRCUITS REMAIN UNCHANGED WHILE MEN ARE IN THE MINE.
DO NOT TAMPER WITH MAIN FAN.
DO NOT ALTER THE POSITION OF VENTILATION OR FIRE DOORS WHEN LEAVING MINE.

New Name in Oil Wick Lamps:

B Frostberg

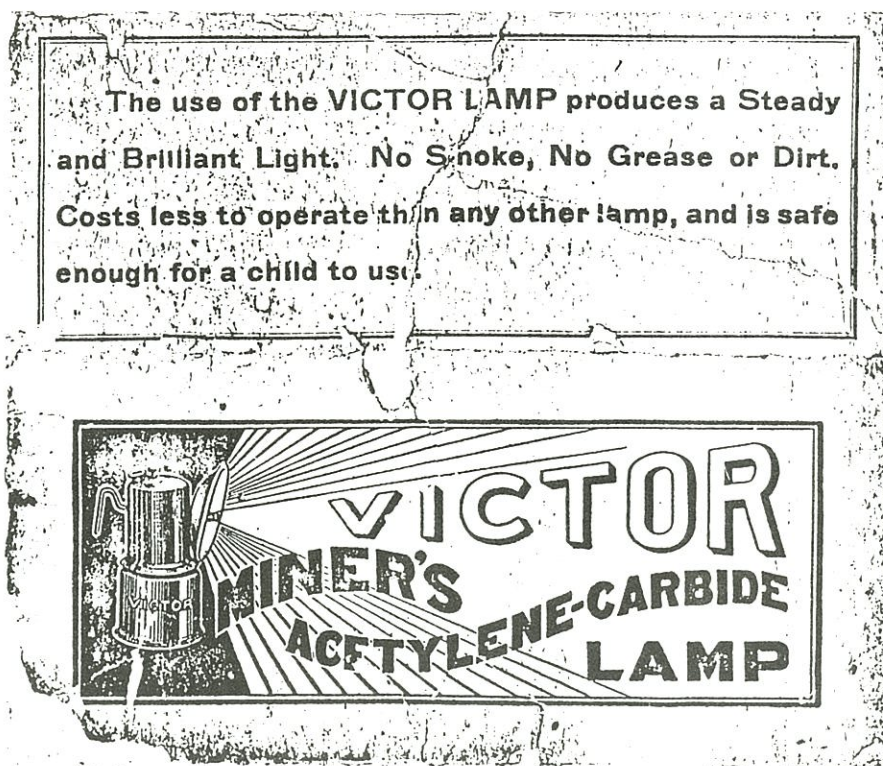
by Dave Johnson

The list of oil wick brand names continues to grow. The latest addition to this ever growing list is the pictured B FROSTBERG face lamp. Measuring 1-15/16" to the top of the cap, with a 2-1/4" double spout, this lamp is identical to the B ELECTRIC lamp owned by Nelson Ressler.

I would appreciate hearing from anyone with information on either of these two lamps.



The story of The Scranton Acetylene Lamp Co. becomes interesting when it is discovered that the same company operated under a different name for its first two years. Llew Evans, a state mine inspector from Scranton, started the company in 1907 under the name of... *The Baldwin Lamp Company!* ¹ The famous lamp designer Fred Baldwin was not one of the five stockholders, and his association with them is unclear. A year later, in 1908, the John Simmons Co., long-time associates of Baldwin, opened a branch office in Scranton.²



Box for Victor lamp, note ridges in lamp surface.



Early Victor lamp.

Then, in 1909 Llew Evans discarded the Baldwin name and changed his company to The Scranton Acetylene Lamp Co.³ Just a coincidence, or did Baldwin leave the Scranton team for Simmons?

Now then, what actual lamp was made during the 1907 - 1909 period? The lamp would probably appear more primitive than the Scranton, and might have some characteristics in common with early Baldwin lamps. Enter the early Victor cap lamp. This lamp, very similar to the Scranton, is stamped with no name, but has been found in an original box with the name Victor boldly displayed. The die stamping is crude, with heavy ridge marks all around the surface. Included with these unfired lamps were small thumb-tab tip cleaners...these are the same ones found with the early "tin-can" Baldwin lamps. It is possible that this early lamp, known as the pre-Justrite Victor, was made by Llew Evans' Scranton-based company while still under the Baldwin name.

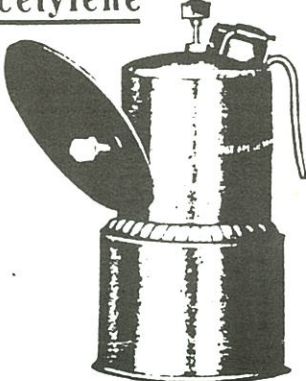
Finally, there is the Black Diamond, another Scranton look-alike. We know this lamp by name from the advertisements which show the characteristic waterfeed wheel that sits above a small sleeve. These lamps have not yet been found with stamping on the side as seen in advertisements. The name "Black Diamond" is a metaphorical term for hard coal, or anthracite, and was clearly aimed at the Scranton area miners. Some 1911 journals show ads for Black Diamond right next to Scranton ads (see below) suggesting some competition. Although this lamp was marketed in eastern Pennsylvania,⁴ the ads list the company as New York based. During this time, Fred Baldwin had become heavily involved with the John Simmons Co. of New York. One is struck by the similarity of the water-feed and raking wire apparatus on the Black Diamond with the Simmons-Baldwin feeds of the same era.

Although it is possible to positively identify each of these unstamped lamps by name, the whole story of their manufacture is yet untold. If only Fred Baldwin or Llew Evans were still around!



*Black Diamond lamp
(Errol Christman collection).*

The "Scranton" Acetylene Mine Lamp




is very simple. All you have to do is half-fill the retainer with carbide, fill the reservoir with water and regulate the patent valve to feed from ten to twenty drops of water per minute. The result is a brighter flame, one that can be positively regulated, raised or lowered at will and that burns longer without recharging.

Write for particulars and prices.

Francis H. Coffin & Co.
Board of Trade Scranton, Pa.

The Black Diamond Acetylene Pit Lamp



Carbide soon cuts and corrodes all brass valves, making them useless.

The valve seat in the

BLACK DIAMOND

can neither cut nor corrode. The water regulation is perfect.

The Black Diamond Mfg. Co.
401 Broome Street, New York

Our prices will interest you

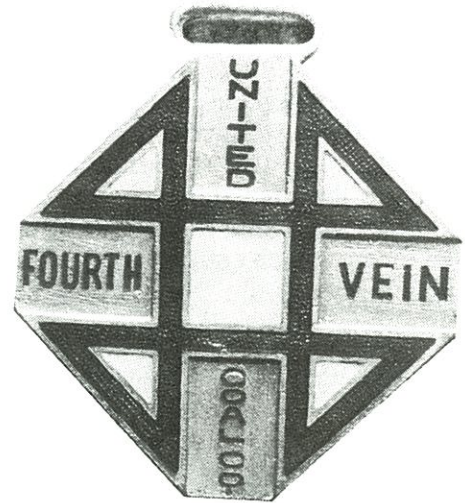
References and Notes

1. *Commonwealth of Pennsylvania, Executive Department.* August 28, 1907. Courtesy, Bill Spence. Llewellyn M. Evans was the principle stock holder of the company along with four others.
2. *American Miners' Carbide Lamps,* Gregg Clemmer, 1987. L. M. Evans also held the patent for Scranton lamp, and the company address, located at 144 Belmont Terrace, also appears to have been his residence.
3. *Baldwin Lamp Company Change of Name to The Scranton Acetylene Lamp Company.* Commonwealth of Pennsylvania, Office of the Secretary of the Commonwealth. A Certificate July 6, 1909. Courtesy, Bill Spence.
4. *E.C. Simmons Catalog M,* 1915, Philadelphia, PA is the last known Black Diamond ad, while the earliest journal ads are from 1911 (see left). Interestingly, the "anthracite" cap lamp is also advertised in this catalog, but is given the name of "Britelite".

From Mines and Minerals, Jan 1911.

United Fourth Vein Coal Co.

by Dave Johnson



The area around Linton, Indiana, in Greene County, has been commercially producing coal since 1865. All of the coals produced in this area have been of high volatile B and C bituminous rank, making them unsuitable for coking.



Top right: Brass and enamel watch fob is a superb bit of memorabilia from this Indiana coal mining company. It has blue letters on a brass background with red and yellow trim.

Above: Letter opener is a promotional piece from the company's Indianapolis headquarters.

The United Fourth Vein Coal Company of Linton, Indiana took its name from the particular coal reserve known as Coal IV or Fourth Vein. Reserves in the Linton area are classified as Lower Block, Upper Block, Minshal, Coals II, IV, V, and VI. Coal IV is consistently more than four feet thick in the Linton area.

The president of the United Fourth Vein Coal Co. was Job Freeman, of Linton. Mr. Freeman also served as president and general manager of the Glen Ayre Coal Co., chief executive of Linton Rolling Mills, as well as being president of a local bank and a mercantile firm.

The United Fourth Vein Coal Co. owned and operated the Sponsler, Dickason, North Linton, Black Creek, Antioch, Island Valley, and Black Hawk coal mines. These seven mines were all shaft mines and had a total daily production capacity of 8000 tons. The firm also operated five company owned stores in the Linton area between 1908 and 1928.

Metal Miners' Half-Shift Lamp

by Bob Schroth

By 1911, the carbide generated light had become the miners' choice in the eastern coal fields. This resulted in overnight success for manufacturers such as Justrite. Much to their frustration however, western metal miners faithfully clung to their trusty candles and spike candleholders which could be conveniently stuck into a support timber while they labored slowly in a

lamp made of heavier and more durable 22 gauge brass...another play for the metal miners who did not care about the extra weight.

Although I had owned a Justrite half-shift lamp for several years, it was only this summer when I first saw and acquired an original box for this lamp. Made of plain gray cardboard, the white paper label indicated it was a No. 108 package: 26 ga. brass with candle-stick and pocket carbide can.



On closer inspection, I found that the label was pasted over another label. When I carefully steamed off the top one, I saw a label for yet a new catalog number: No. 107. This package number is not advertised in any of the Justrite catalogs I have seen.

By the label's description, the No. 107 package contained the heavy weight 22 ga. lamp, the candle-stick attachment...and an extra *bottom* (not the pocket can!)

End label for No. 108 half-shift lamp.

hard rock vein. In an attempt to convert these stubborn men, and increase their market, most cap lamp manufacturers sold stick attachments for their cap lamps in the hope that a natural transition might occur.

As early as 1915, Justrite manufactured a lamp specially designed for use with a stick attachment. Its major differences from a standard cap lamp were the lack of cap braces, a sharp spiked hook for hanging on timbers, and a larger capacity carbide chamber. The larger and heavier base would be of no disadvantage since the lamp was not intended for wearing on the head. The lamp was known as the "Metal Miners' Half-Shift Lamp", since the candlestick designated it for use in metal mines and the larger bottom carried a four-hour, or half-shift charge of carbide



End label for No. 107 half-shift lamp.

The No. 101 lamp was advertised in several Justrite catalogs. It was available only with the 2 5/8" reflector. It was made from the standard 26 gauge brass. This lamp was also sold in a special No. 108 package which included a pocket carbide can (see label above). Additionally advertised was a No. 103

Did the No. 108 package replace the No. 107? If anyone has some advertising for the No. 107 package, I would appreciate hearing from them.

JUSTRITE CARBIDE LAMPS

METAL MINERS' LAMPS WITH LIGHTER ATTACHMENT

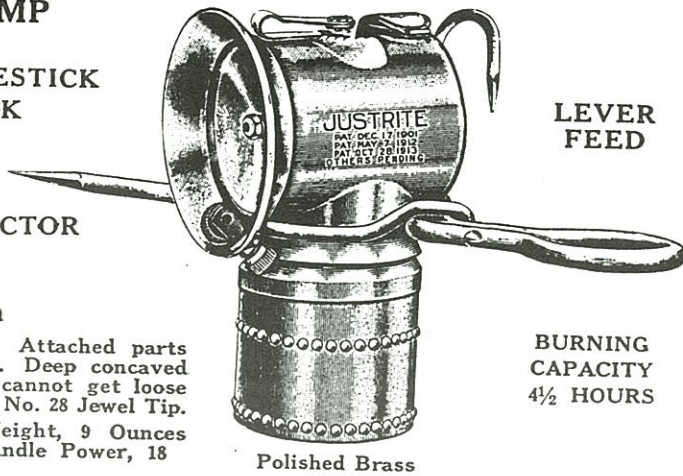
HALF-SHIFT LAMP WITH ADJUSTABLE CANDLESTICK AND STEEL HOOK

CONCAVED PERMANENT REFLECTOR 2 5/8-in. Diameter

Description

Drawn from seamless brass. Attached parts are riveted and soldered inside. Deep concaved Reflector is part of the lamp; cannot get loose or be broken off. Equipped with No. 28 Jewel Tip. Height of Lamp, 4 1/2 Inches Weight, 9 Ounces Diameter Bottom, 2 Inches Candle Power, 18

No.					
101.	Lamp Only	26 Gauge Brass.....		Price	
108.	With Carbide Can	26 Gauge Brass.....			\$1.75
103.	Lamp Only (Heavier)	22 Gauge Brass.....			1.90
					2.00



LEVER
FEED

BURNING
CAPACITY
4 1/2 HOURS

Polished Brass

Candlestick Attachment

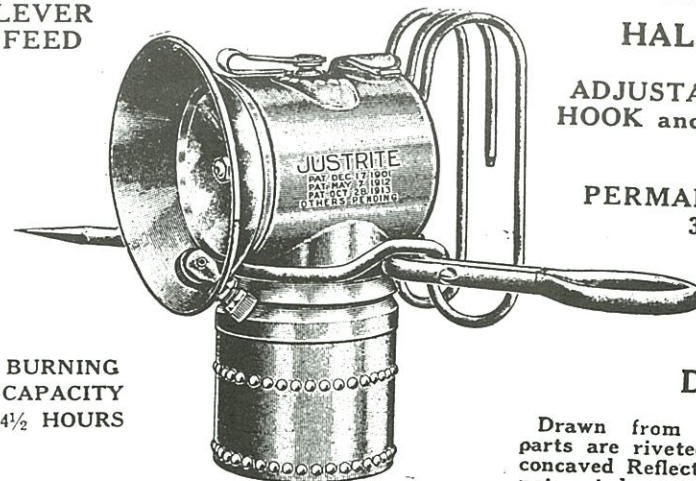


No.					
35.	1/4-in. Hard Steel, 9 3/4 inches long, each.....			Price	
					\$0.25

LEVER
FEED

HALF-SHIFT LAMP WITH ADJUSTABLE CANDLESTICK, HOOK and FOLDING HANDLES

CONCAVED PERMANENT REFLECTOR 3-in. Diameter



BURNING
CAPACITY
4 1/2 HOURS

Description

Drawn from seamless brass. Attached parts are riveted and soldered inside. Deep concaved Reflector is part of the lamp; cannot get loose or be broken off. Equipped with No. 28 Jewel Tip.

Height of Lamp, 4 1/2 In. Weight, 12 Ounces
Diameter Bottom, 2 In. Candle Power, 18

No.					
202.	Lamp Only	26 Gauge Brass.....	\$2.00	Price	
204.	Lamp Only	22 Gauge Brass.....	2.25		

Polished Brass

Repair Parts

- No. 35. Candlestick (See Above)
- No. 69. Extra Bottom for 101-102 Lamps
- No. 29. Extra Bottom for 103 and 204 Lamps.
- No. 60. Rubber Gasket
- No. 62. Felt Packing

- No. 64. Felt Holder
- No. 79. Valve Stem
- No. 17. Wire for Valve Stem
- No. 172. Extra Flints for Lighter

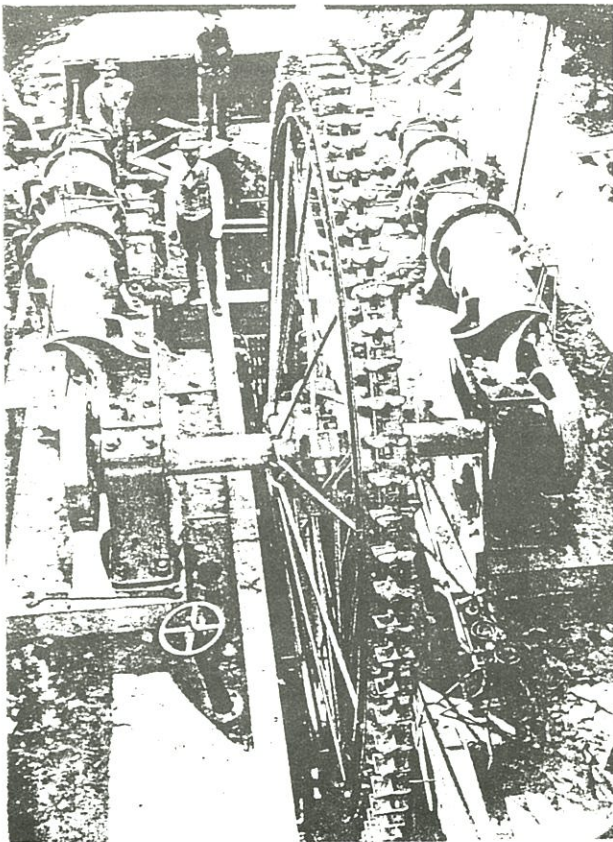
Prices on Pages 16-17.

The Pelton Water Wheel

by Bob Kraft and Errol Christman

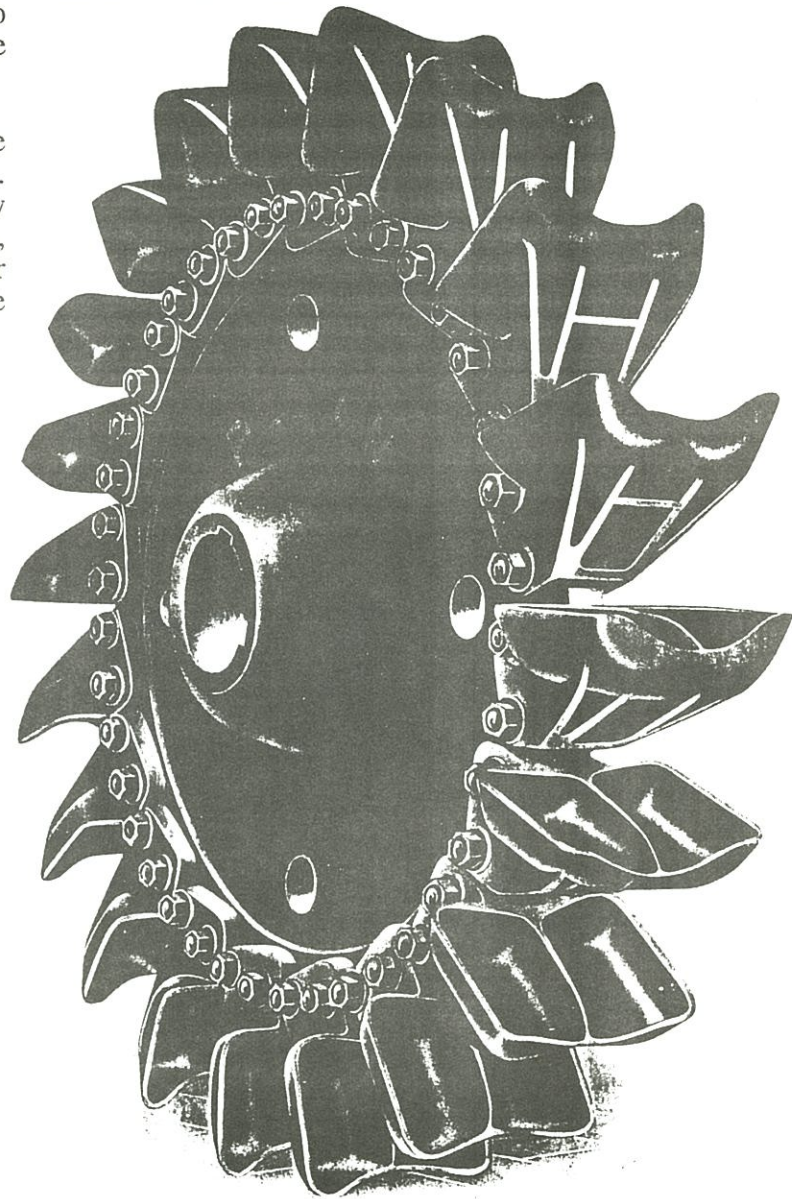
The Pelton water wheel was an impulse type hydraulic turbine, arising directly from California mining history. It became a primary low cost energy source for mining machinery and electric power generation from the latter 1880's into the twentieth century. Invented in 1878 by Lester Allen Pelton, a 49 year old hydraulic miner in Camptonville, California, the wheel took advantage of the water abundance and mountainous terrain of many mining sites. With the relative scarcity of wood fuel in many mining localities, the conversion from steam engines to water power was a welcome change. Conversion again to electricity for mining operations soon replaced the Pelton Wheel.

The Empire Mine in Grass Valley, California, used the Pelton Wheel for primary power from 1886 to 1891. Prior to 1886 twenty cords of wood were burned daily to produce steam at the Empire. The North Star Mine, also at Grass Valley, used its large thirty foot diameter Pelton for 37 years producing compressed air to drive hoists, pumps, and drills.



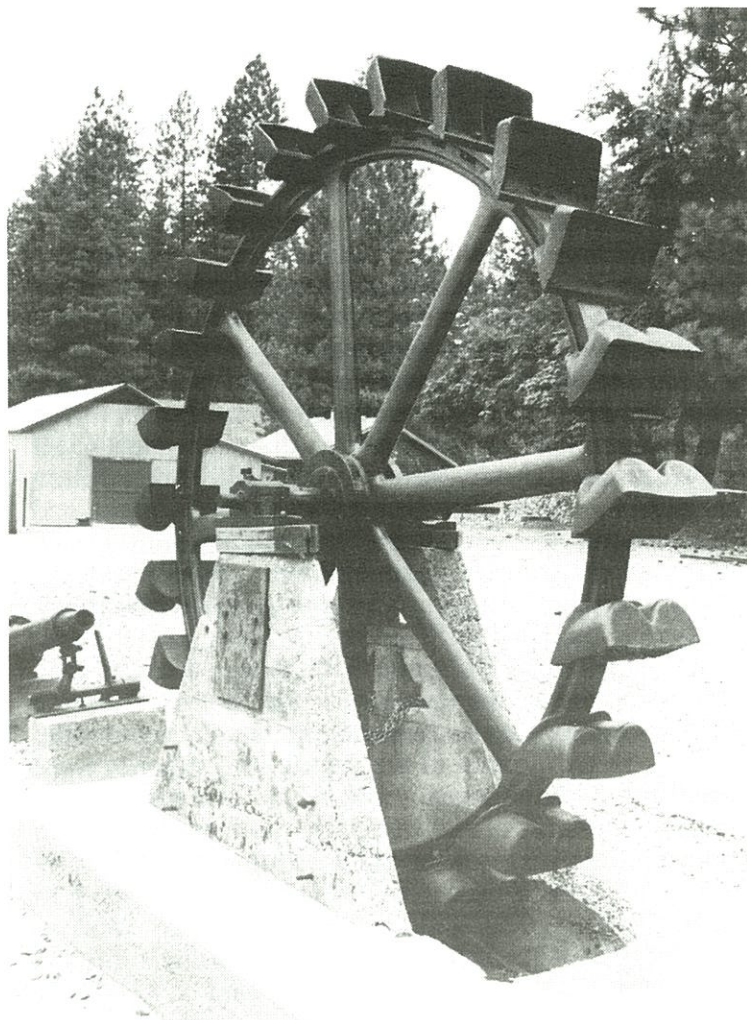
18 foot Pelton, North Star Mine, driving air compressors.

Departing from centuries-old water wheel designs, Pelton drove his wheel by high velocity water delivered to the periphery of the wheel by jet stream under water head pressures varying from 20 to 2100 feet. The genius of the Pelton Wheel was in the shape of the bucket or cup. Pelton discovered by trial and error that a double cup with a center splitter partition would partially reverse the incoming water stream, imparting more kinetic energy to the wheel. The divided water also reduced the splash interference with the incoming stream.

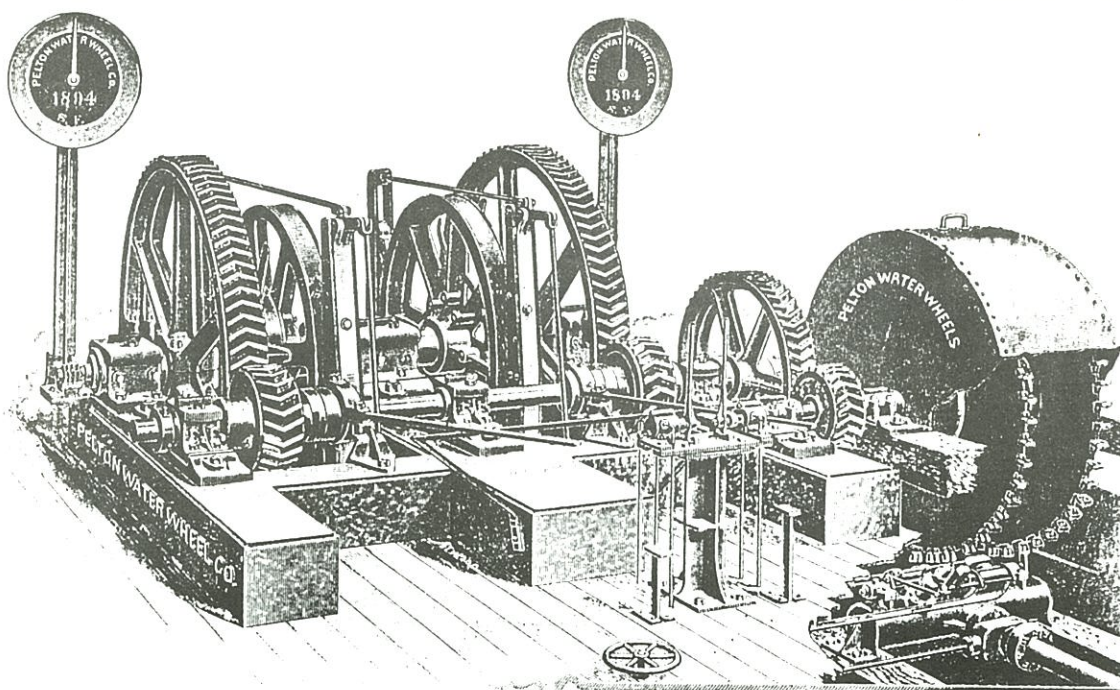


Ten foot Pelton, 5,000 horsepower at 865 feet of head.

Other inventors attempted to produce high velocity impulse wheels, but none achieved the efficiency of the Pelton. Tests of these water wheels were performed at the Idaho Mine, Grass Valley, in 1883 using a water head pressure of 368 feet. The results showed a water power conversion efficiency of: Pelton (Camptonville) 90.2%, Knight (Sutter Creek) 76.5%, Fredenburr (Grass Valley) 69.6%, and Taylor (Grass Valley) 60.5%. The Pelton showed clear superiority and became the predominant manufactured wheel. Pelton received awards of excellence at the 1893 Columbian Exposition and from the Franklin Institute in 1895. He was honored in 1973 by the American Society of Civil Engineers and was inducted into the California Inventors Hall of Fame in 1983. A Pelton Wheel diameter would depend on the horsepower size of the system and the angular velocity desired. A typical Pelton Wheel installation would be a three foot diameter cast iron wheel operating with a water head of 300 feet, using 180 cubic feet of water per minute, turning at 440 rpm and generating 88 horsepower. Such a wheel might generate electricity, pump water, ventilate a mine, power a machine shop or run the hoists of a mine. To actuate the hoists, opposing Pelton Wheels might be constructed on the same shaft, with the hydraulic controls giving water power to the respective wheel powering the upcoming skip or car. The hoist wheels of the Empire Mine were ten feet in diameter. One of the most dramatic installations was made at the Comstock Mines, Virginia City, Nevada, where a 36 inch steel and bronze Pelton Wheel was mounted at the Sutro Tunnel level of the California



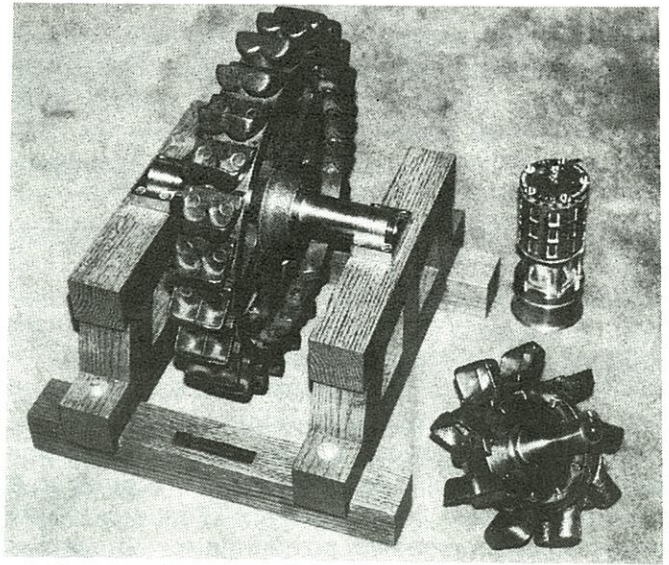
*Ten foot Pelton Wheel, Empire Mine.
Photo by Robert Cross.*



Hoist equipment powered by two Pelton Wheels.

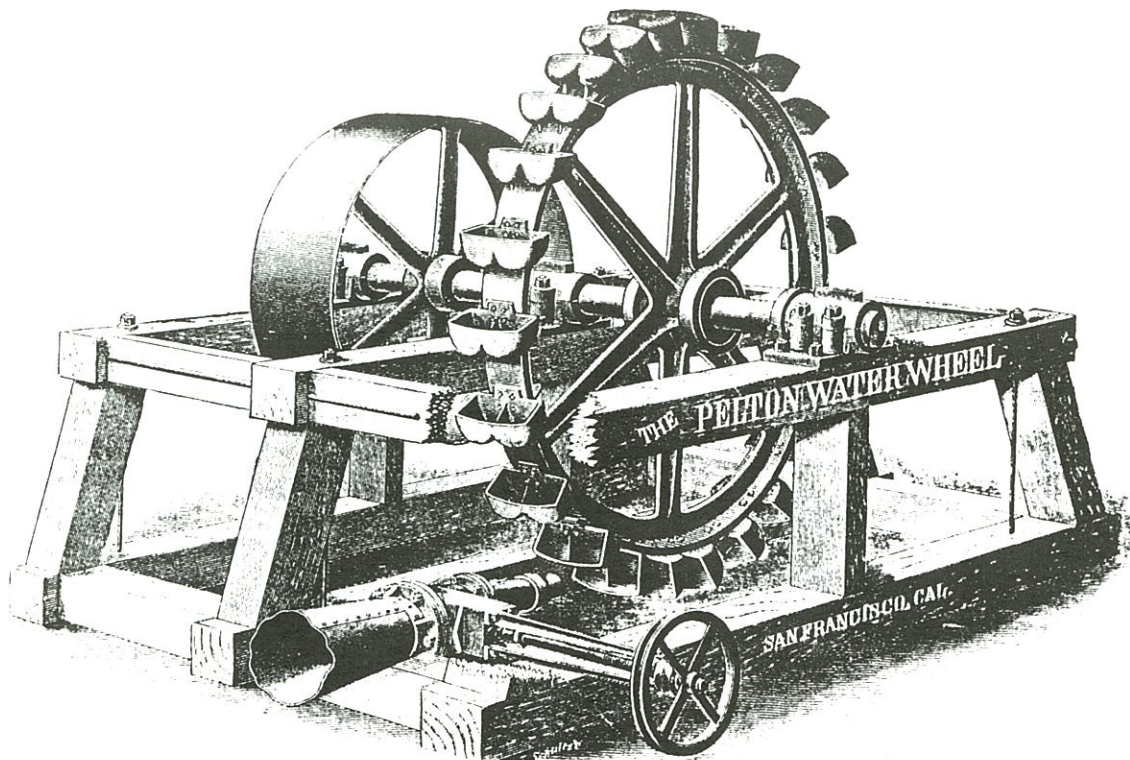
Consolidated Virginia shaft 1640 feet below the surface. The vertical water head was 2100 feet, equivalent to 911 pounds per square inch pressure. The wheel turned at 1150 rpm which gave it a peripheral velocity of 10,800 feet per minute (120 miles per hour). The exhaust water passed four miles through the Sutro Tunnel.

By 1888 the demand for Pelton Wheels exceeded the production capacity of the Miners' Foundry in Nevada City and all production was moved to a newly formed Pelton Water Wheel Company of San Francisco. By 1895 over 850 wheels were being used throughout the world. These were manufactured in sizes varying from four inches to thirty feet in diameter (North Star powerhouse, Grass Valley). By 1909, the Pelton Water Wheel Co. of San Francisco and New York had manufactured over 12,000 wheels, producing an aggregate 1.3 million horsepower. Over 8,000 of these were in California, Oregon, and Nevada. Over 700 were installed in Washington, Idaho, and Alaska, and 241 in Utah, Colorado, and Montana. Less than 200 operated in the eastern United States. Close to 2,000 were located in foreign countries throughout the world. After the turn of the century the majority were used to develop electric power, and this became the major emphasis of the company, both in design and sales. Most major mines had become electrified by 1900. The source of this electricity continued to depend on the Pelton Water Wheel in many western mountain locations through the first half of the twentieth century. Lester Pelton died in Oakland, California in 1908.



Two small restored Pelton Wheels, from the collections of the authors.

- Calhoon, F.D. *California Gold and the Highgraders*. 1988.
Encyclopedia of Science and Technology. 1992
 Johnson, O.A. *Fluid Power for Industrial Use*. 1983.
 Kilroy, Elza J. "The Pelton Water Wheel." *Nevada County Historical Society*. Vol. 15, No. 2, 1961.
 Leshcoheir, Roger P. *Lester Pelton and the Pelton Water Wheel*. 1992.
 McQuiston, F.W., Jr. *Gold: the Saga of the Empire Mine*. 1986.
National Cyclopedia of American Biography. 1906.
 Peele, Robert. *Mining Engineers' Handbook*. Third Edition, 1941.
Pelton Water Wheels, Bulletin No. 6.
Pelton Water Wheel Company Catalog. Seventh Edition, 1898.
Pelton Water Wheel Company Catalog. Eleventh Edition, 1909.



Jennison Hardware Co.

by Dave Johnson

In 1853, Charles E. Jennison founded Jennison & Co., later to become the Jennison Hardware Co., in Bay City, Michigan. Originally dealing in mill and lumbering supplies, stoves, household goods, builders' hardware, cutlery, tools, paint and supplies, farm wagons, agricultural implements and iron and tin goods, the firm was later expanded to include a wholesale steel operation for local industries. The Jennison Hardware Co. continues in operation today as a wholesaler of hose belting and packing, hand tools, wire, power tools and hardware.

Both face and driver's lamps were produced with the Jennison Hardware Co. label. The face lamp in my collection appears to be a Grier Bros. product. The hook, hook brace, and cap hinge, as well as the spout and font, are all identical to both a tin and a copper Grier Bros. lamp in my collection. The Jennison Hardware Co. had to have the lamps made by another firm as they had no manufacturing facilities of their own. The Jennison Hardware Co. label is one that is rarely seen today. The only idea I have as to when the Jennison Hardware Co. lamps were being manufactured and sold is based upon a crude inscription on the base of my lamp which reads: W. Knapp Central Mine Aug. 25/99. I would be interested on knowing what other varieties of Jennison Hardware Co. lamps exist.



The Bay City-Saginaw area of Michigan was the home of numerous coal mines in the 1890-1930 period. In 1910, there were 25 coal mines operating in the area. By 1950 only one small mine remained in operation.

Sources:

The Bay County Story, L.E. Arndt, 1982

The Industries of the Bay Cities, 1889



The Guy's Dropper Squalelite

by Len Gaska

Collectors typically have a prevalent theme within their collections. Common themes among lamp collectors are brand names, varieties of a given brand, or simply the unusual. But common to virtually all collectors is the desire to acquire "key" lamps. Although there is some variation in the definition of what constitutes a "key" lamp, there is usually a common ground within the various definitions. Most collectors would consider the Guy's Dropper Squalelite to be a key lamp in any collection.

Although it is a Guy's Dropper made by the Shanklin Mfg. Co. of Springfield, IL, the Squalelite is generally considered to be a name unto itself. Beyond the name, the Squalelite shares prestigious company with other lamps of unusual and/or odd shapes. The water tank of the Squalelite is a cube as opposed to a cylinder which is the common shape of most carbide lamp water tanks. Only one other American made carbide miners' lamp is of the same basic shape: the square Anton which is sometimes mistakenly called a squalelite.

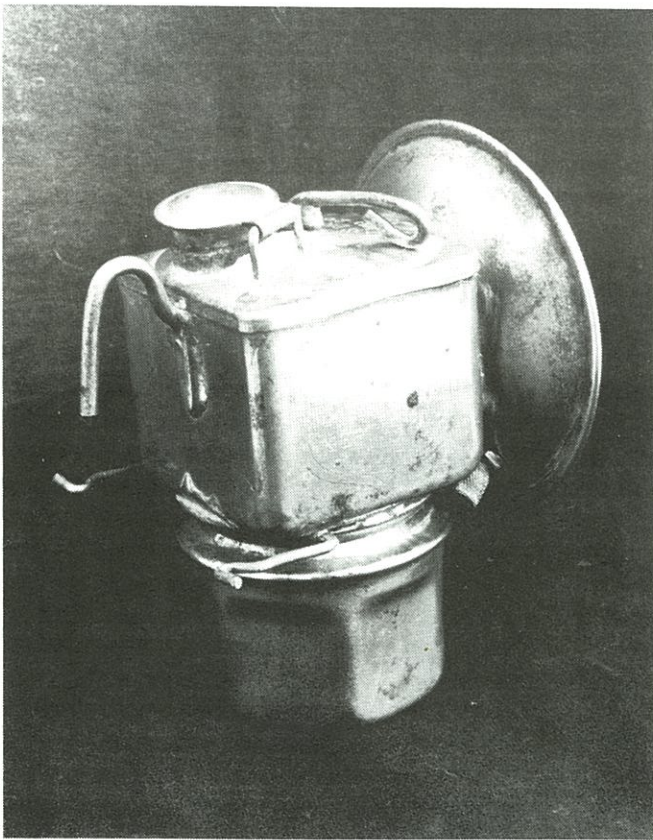


Fig.1 This Squalelite cap lamp belonging to Rick Finch closely follows the original 1916 patent.

The Squalelite is also unusual (in the author's opinion) as no other lamps of comparable rarity have been manufactured in so many varieties. The Squalelite appeared as a hanging or hand lamp (with hook and bale), a supervisor's lamp with hook and handles, and a cap lamp.

The Cap Lamp Model

The Squalelite was patented in 1916 by George Shanklin and evidently did not enjoy a long production period. Squalelites have three patent dates stamped on them: May 26, 1914 on top, and September 19, 1916, and October 17, 1916 on the side. The October 17, 1916 patent is design patent number 49,892. Design patents cover a purely ornamental feature or "look" of a product and does not represent any technical innovation. The May 26, 1914 patent was issued to Frank Guy for an "acetylene lamp" which was one of the basic Guy's Dropper patents found on the more traditional one, two, and six date models. The September 19, 1916 patent was also issued to Frank Guy for an "acetylene lamp" the most important feature of which is the water dropper. This patent date is also found on the two and six date Guy's Dropper lamps.

Although the Squalelite patent drawing depicts an hexagonal base, *round* bases are more commonly seen. Some of the round-base models have two knurled bands stamped around the bottom. This is the same base that appeared on the Guy's Dropper "Tall Boy" and the base is taller (64 mm.) than a normal Guy's Dropper cap lamp base (51 mm.).

The hexagonal base has tall straight sides, and is not stamped with any logo on the bottom. It is distinctly different from the *standard* hex base, found on ordinary Guy's Dropper cap lamps, which is a bit shorter and tapers in around the bottom edge. A Squalelite with such a small base would be visually and functionally top-heavy.

One major variation in Squalelite cap lamps is the presence of strengthening braces soldered to the sides of the water tank. Earlier models do not have the side braces and the entire side logo (a shield with the name and two patent dates) is visible. Later models appeared with the side braces which obscured a good portion of the logo (fig. 2). As a mechanical engineer can attest, a round cylinder is inherently stronger than a square box. A square shape is weaker due to the bends at the corner and because a force on the side is entirely

DESIGN.

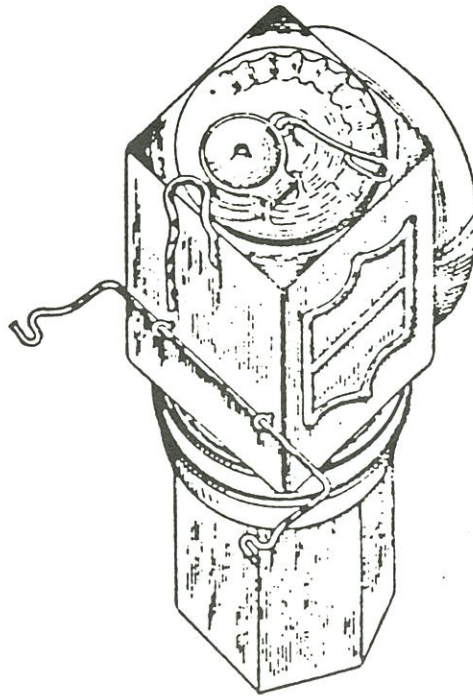
G. R. SHANKLIN.

LAMP.

APPLICATION FILED SEPT. 9, 1916.

49,782.

Patented Oct. 17, 1916.



Witnesses.
Roy S. Traxell.
W. D. Du Bois.

Inventor.
 GEORGE R. SHANKLIN.
By Ally N. Du Bois.

UNITED STATES PATENT OFFICE.

GEORGE R. SHANKLIN, OF SPRINGFIELD, ILLINOIS.

DESIGN FOR A LAMP.

49,782.

Specification for Design.

Patented Oct. 17, 1916.

Application filed September 9, 1916. Serial No. 119,209. Term of patent 7 years.

To all whom it may concern:

Be it known that I, GEORGE R. SHANKLIN, a citizen of the United States, residing at Springfield, in the county of Sangamon and State of Illinois, have invented a new, original, and ornamental Design for Lamps, of which the following is a specification, reference being had to the accompanying drawing, forming part thereof.

The drawing is a perspective view of a lamp embodying my invention.

I claim as my invention:

The ornamental design for a lamp, as shown.

GEORGE R. SHANKLIN.

Witnesses:

Roy G. TRAXELL,
 R. W. TRAXELL.

directed inward. A round cylinder does not suffer from the weaker metal found at right angle bends and side forces are dissipated somewhat in other directions. Thus the author believes the side braces were a correction of an inherent design flaw of the Squarelite.

The cap lamp model has four basic variations:

1. Presence or absence of side bracing.
2. Round or hexagonal base.
3. Nickel-plated or brass (most brass).
4. Presence or absence of wire cap brace.

Supervisor's Lamps



Fig. 2 Nickel-plated supervisor's lamp, (smaller variety).

The *supervisor's* Squarelite appeared most commonly in a nickel-plated finish, though brass models are seen. There were two basic models: one based on the cap lamp and another based on the larger hanging lamp. The supervisor's model shown above is based on the cap lamp. Note that the screw threads are not visible, but are tucked up inside the square water chamber.

The *larger* supervisor's models are shown in Figs. 3 and 4. Note that the screw threads are plainly visible *below* the tank where they accommodate a larger sized base. Although the square tank is the same size in all supervisor's models, the larger lamp is almost an inch taller due to the larger base and the way it screws into the tank.



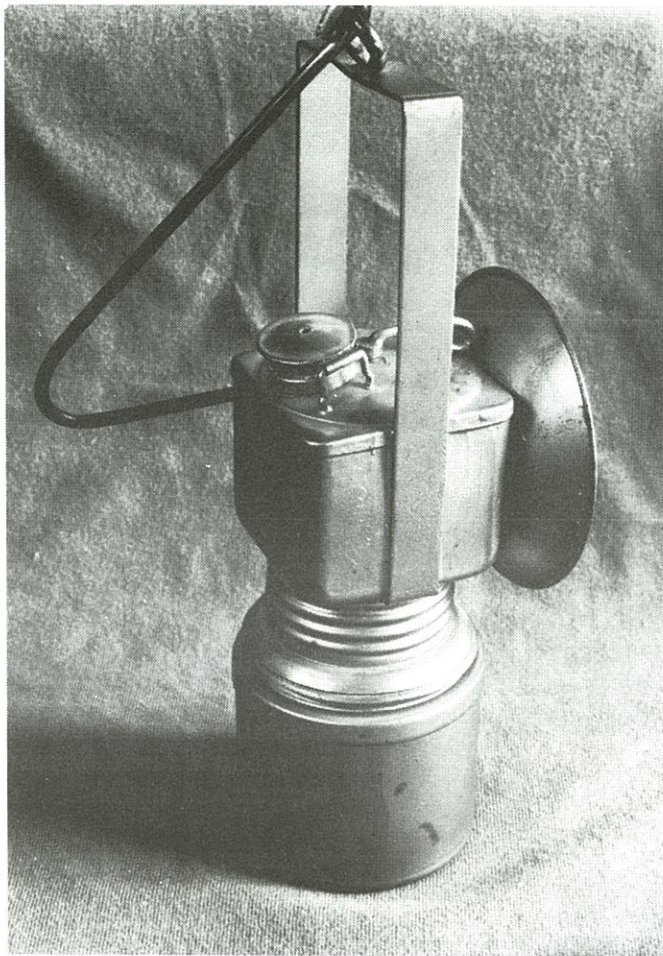
Fig. 3 Nickel plated supervisor's model (large variety), note deep reflector.



Fig. 4 Brass supervisor's model (large variety). Errol Christman collection.

Hanging Lamps

Finally, the hanging lamp is known to the author in two varieties. Both models display a large pivoting hook attached to a rigid bale that also functions as the side bracing to strengthen the lamp. The two hanging models shown on this page are gilt painted brass. I have not seen a nickel-plated hanging model.

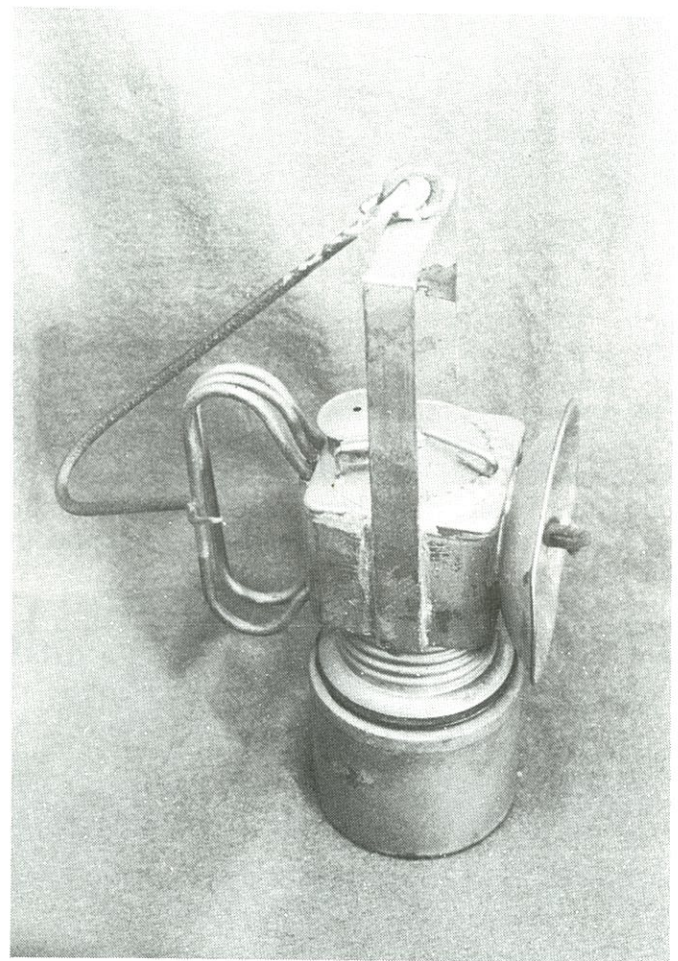


Hanging lamp without handles. Errol Christman collection.

*** Lamps pictured in this article are from the author's collection, unless otherwise noted.**

All Squarelites known to the author have the traditional "dropper" found on all Guy's Dropper of that vintage. Although the Squarelite reflectors come in different shapes and sizes, they are all permanently soldered to the water tank.

The Squarelite did not undergo nearly the radical changes in design that the standard Guy's Dropper cap lamp did, for it was probably made for only a few years after 1916, compared to over two decades of production for the standard Dropper. Nonetheless, minor new variations of the Squarelite will undoubtedly become known. We invite collectors with varieties other than the ones illustrated in this article to submit photos and information to *EUREKA!*

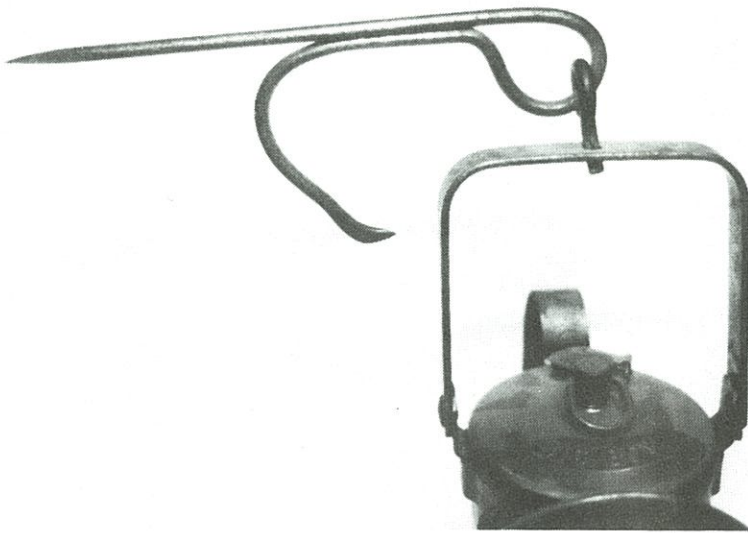


Hanging lamp with handles.

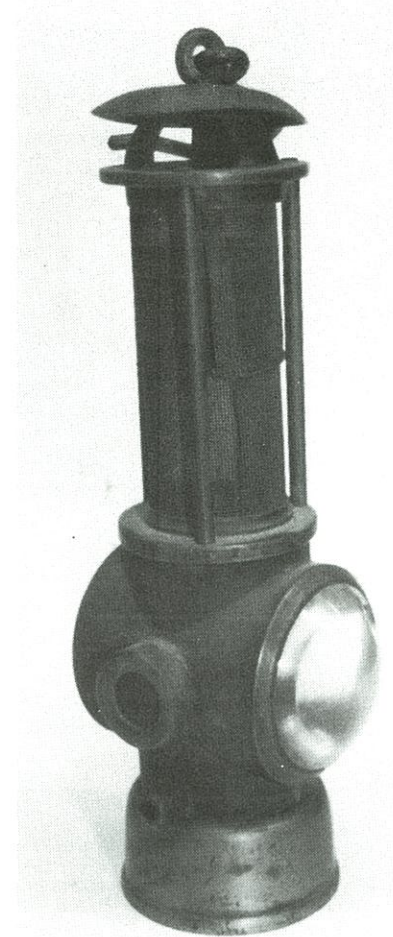
The Year In Review

James Van Fleet

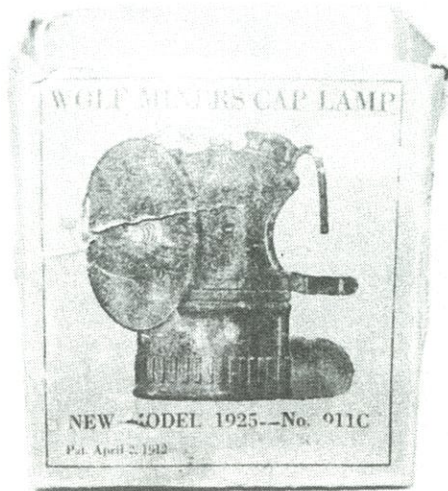
This year saw its share of amazing new finds in mining collectibles. And as the editors get a chance to visit with collectors, we always manage to see something new and learn more about the hobby. Pictured here are a few items I had not seen before this year, which relate to articles or short items that we have published in *Eureka!*. The carbide lamp stick attached to the Big Boy 8 hour lamp is a design that we had not seen before, but obviously factory made. Paul Johnson provided this addition to our files on lamp sticks.



The Everhart surveyor's safety lamp pictured here is smaller than the example in Mark Ballard's collection, and is stamped on the side of the base, rather than the top. We will note that immediately after printing our article on this style of safety lamp, another Quirin surveyor's safety lamp was found at an auction in Pennsylvania.



The Eastern Reunion in Morgantown, WV this summer finally gave me a chance to visit with Kelley Deem, and take some photos of his stunning collection. Wish I could have included a photo of this cap lamp box in my Wolf article, but here it is after the fact.



I promised in my editorial to describe the "oil shooter's lamp," as it was originally marked. The tin can was painted red, with black lettering on one side reading:

PRIMER

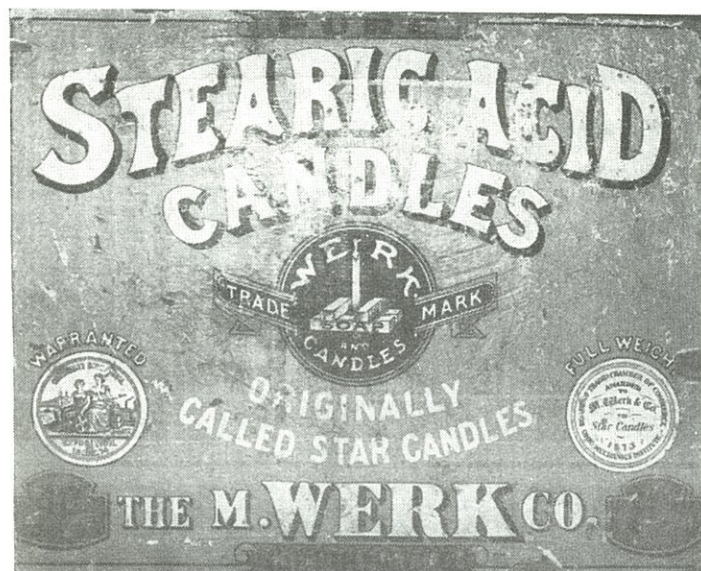
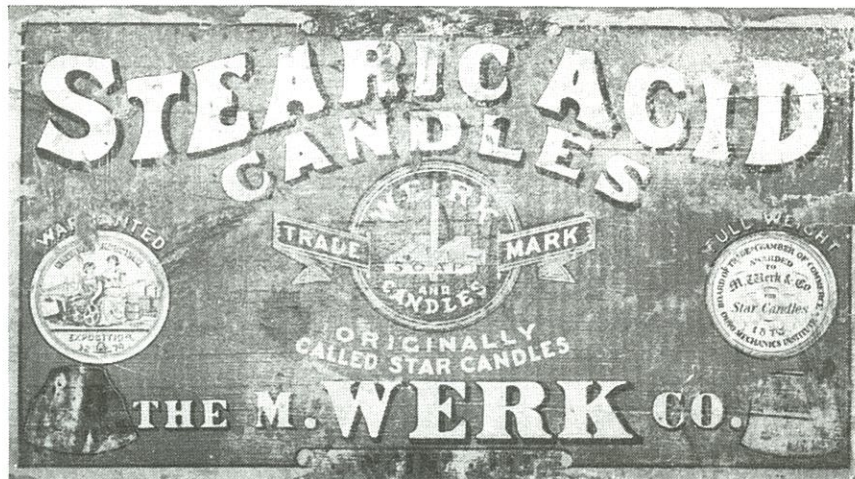
**FILL WITH
GASOLINE**

**NEVER PRIME
A HOT BURNER**

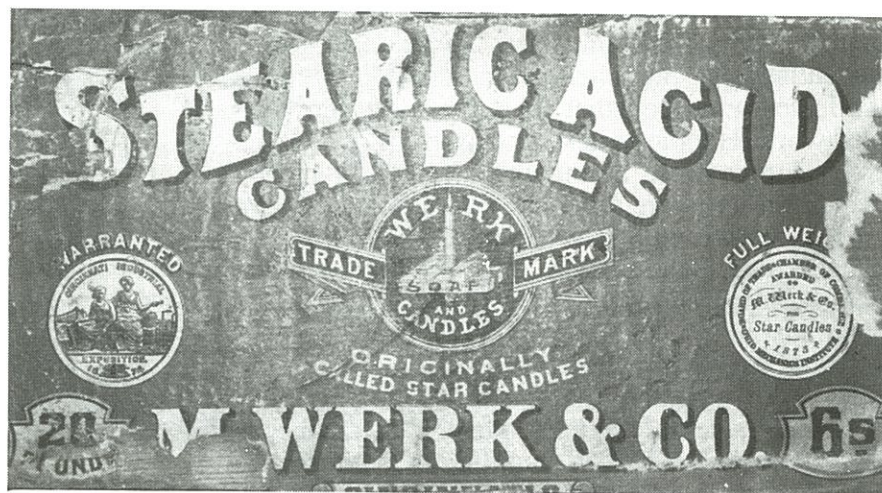
PAT. MAY 8, 1910

Werk Candleboxes

by Larry Kuester



I have found four varieties of Werk candleboxes in California. Each label has a different stamping and a different color. Clockwise, from the top, they are: blue, red, orange, and green. Has anyone seen a yellow label?



Eastern Collectors Meet

James Van Fleet

On the weekend of July 24th, mining memorabilia collectors of every sort converged on Morgantown, West Virginia for the Third Annual Eastern Mining Artifact Collectors Swap Meet and Reunion. Over 30 collectors checked into the hotel on Friday, and first meetings, visiting, room sales and trades, etc. continued well into the night. Our hostess Gay Bindocci and the West Virginia University had prepared well for Saturday. Over twenty tables were set up for a swap meet in the lobby of the COMER building, the College of Mineral and Energy Resources. Right next to the lobby was the COMER Museum, which houses a very impressive collection of mining artifacts, most notably some rare and one-of-a-kind flame safety lamps.

Scheduled events sponsored by the College and organized by Dr. Bindocci included continuous showings of several old mining movies, a dramatic presentation entitled "Mother Jones Chautauqua," and a folk music concert by Nat Reese, "Master of Coal Mining & Railroad Blues." The COMER facilities, including a separate auditorium and amphitheater, allowed everything to happen at once, with the swap meet as focus and center point.

After personally shaking hands with over 60 collectors, I lost count and started to forget names, but a safe guess would be over 75 collectors attended the Reunion. A number of West Virginia coal miners and their families stopped by, after seeing posters around town, or hearing about the event on the radio, or reading about it in the local papers. All of Gay's footwork and advanced publicity paid off in a total attendance of well over 100.

I can't begin to describe all of the deals that were done and the lamps, cap tins, signs, photographs, blasting machines, etc. that changed hands. One safety lamp collector remarked that he had never seen so many Ashworth-Hepplewhite-Gray lamps in one place. Oil wick lamps were abundant. A number of folding candleholders were displayed. Rare carbide cap lamps at the show included a Union Carbide, Snell, What Cheer, two Schneider's lamps, two square Anton lamps, and TWO steel Everyready cap lamps. Some were just for show, but everyone enjoyed a glimpse at a few of the rarest collectibles in the hobby. Collectors who deserve special mention for their displays were Lester Bernstein, Gregg Clemmer, Dave Johnson, Jim McCullough, Mike McLaughlin, and Ken Rupp. Al Quamen was especially generous in letting folks

investigate and poke into the rare lamps he brought along. All of the collectors who brought items to show made the swap meet a success, and deserve thanks.

Activities didn't end when we packed up and left COMER. Back at the hotel, about 20 diehard collectors gathered for an early evening auction of mining memorabilia, with Kelley Deem as the able and entertaining auctioneer. After the last lot was sold, most of the attendees went right back to visiting rooms until the small hours of the night. A number of collectors got up Sunday morning before dawn to attend the Meadows flea market south of Pittsburgh, and were rewarded with the usual assortment of mining collectibles found there. Overall the Reunion was the most successful to date, East, West, or in between.



Dave Johnson's oil wick lamp display.



Some of the attendees.

From the top, on the rail: Rex Whetstone, Craig Hindman, Mike McLaughlin, Dave Johnson, Dotty Haynes, Bernard Haynes, Lester Bernstein, Al Quamen, and Chuck Young.

Middle row: Bob Schroth, Mark Ballard, Keith Williams, Neal Ressler, Jim McCullough, Kelley Deem, John Podgurski, Dave DesMarais, Tony Moon, Gay Bindocci, and Jim Lackey.

Back row: Nelson Ressler, J. Roger Mitchell, Ken Rupp, Bill Lorah, Paul Johnson, Andy Theriac, Jim Van Fleet, Henry Pohns, Gregg Clemmer, and Mike Mostardi.



Some of the items available.

1992 Western Swap Meet

Early birds began to call Errol Christman Thursday morning in advance of Saturday's June 20th Western U.S.A. Mining Swap Meet. Errol who operates his own gold mine in the California Mother Lode area hosted the swap meet on the grounds of his Cedar Ridge home. Collectors were put on alert that Bill Spence of San Jose had sold his collection of mine lamps the week before. Dave DesMarais, the new owner would be selling many of the 115 lamps.

Several eastern collectors would be attending. Dave "The Heavy Hitter" Johnson was bringing a number of rare oil wick lamps for trade including the Vacuum Oil Co. stick lamp and a brass E.F. Long. Nelson Ressler traveled from Pennsylvania with a boxed Gem cap lamp. The King of Cap Tins, Bob Schroth, traveled from southern California with a promise to trade big name lamps for good tins. With Dave Thorpe and Len Gaska coming, five of the seven directors of EUREKA! promoted the new publication.

Although some pre-meet activity took place Friday evening, most swapping occurred on schedule Saturday morning. Tables full of mining relics were laid out end to end on either side of Errol's shaded driveway. Although trades and sales of lamps were brisk, candlesticks moved very slowly, and prices realized were significantly below what had been customary over the last few years. Was it the economy or just a mini-revolution against their artificially inflated value? Knowledge of recently made facsimile sticks created a high index of suspicion. In any event, this was of great benefit to those who did care to acquire sticks at bargain prices.

Errol's famous "flying saucer lamp", a lenticular Wolf oil wick, soon lost its place in his collection when he traded it for Dave Johnson's incredible Vacuum Lamp Co. oil wick. Tim Calloway walked away with an EverReady from the Bill Spence collection. A Schneider's cap lamp from the same collection changed hands three times. Bob Schroth picked up three rare cap tins and Len Gaska acquired an Arnold Carbide Candle and an unfired brass Wolf hand lamp. Griers and Wolfs changed hands regularly. Don Lillie of Silver City, New Mexico was a new face in the crowd. He brought a large volume of rare mining letterhead and paper which sold at very reasonable prices. Several candle and dynamite boxes also sold at very low prices.



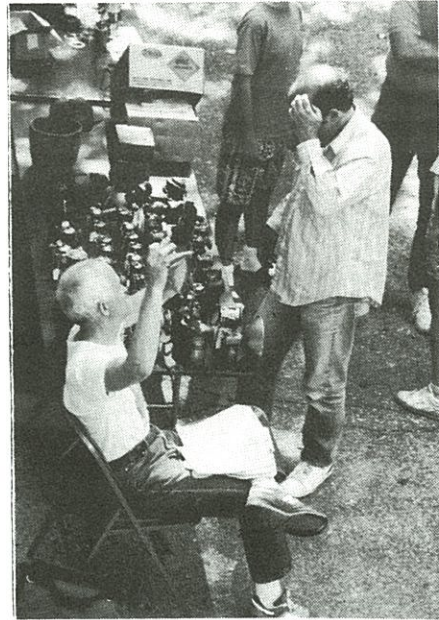
The famous flying saucer lamp.



Woodstock 1992 or Swap Meet?



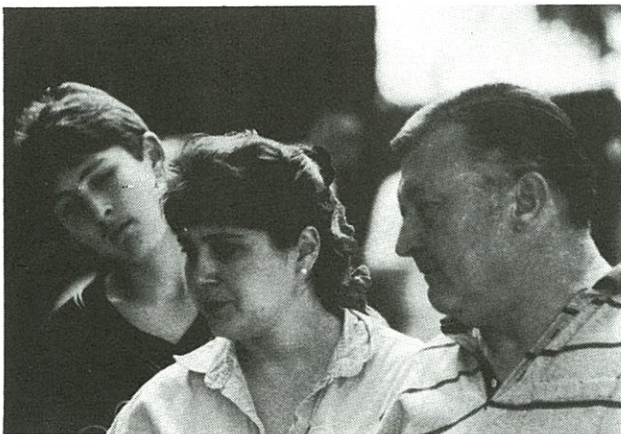
Leo Stambaugh and Bob Guthrie watch it all go.



Despite Dave DesMarais' claim, Chris Vels is boggled at the thought of five cases of EverReadys.



Larry Kuester: "Trust me, I have an honest face."



As tension rises they wait for Errol to make his move



Bob Schroth: "There's plenty more where this came from."



BITS



Maple City Canteen

Another carbide canteen, with a unique twist. This tin is marked PAT. PENDING, with a circular stamp reading: "Maple City Mfg. Co. Monmouth ILL." It features the usual chambers for water, carbide, and matches found on such items. Note the central wick tube with a cap chained to it, and the small screw-cap for a separate oil reservoir. This tin doubled as a light source while the miner changed his carbide! From the Kelley Deem collection.

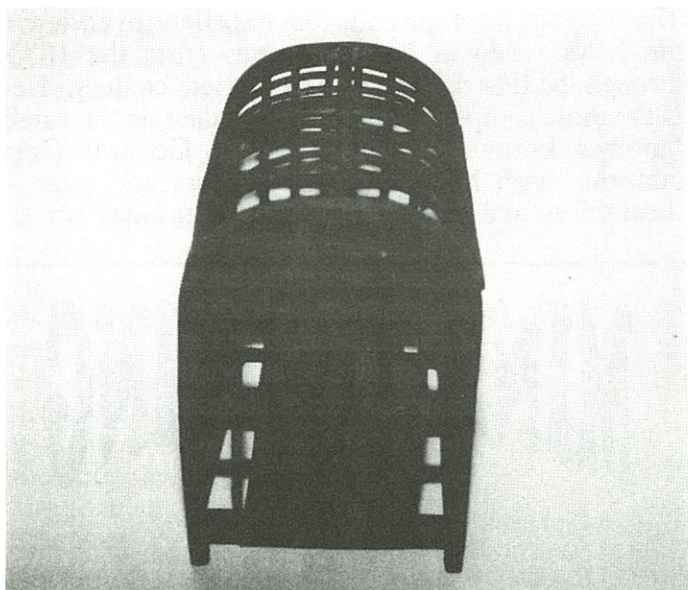


The Buddy Bottoms

Spare bases with screw caps have always been a favorite collectible among the hard core cap lamp collectors. The spare bases shown below, are for Justrite's rare "The Buddy" lamp. They are the prize of my collection in bases. These differ only in the bulging ring collar just below the threads on one. (D. Thorpe)

A Well Housed Bird

The canary cage shown in the photos belongs to John Podgurski. It is certainly old, with a clay water bowl. The bent wood construction makes it very sturdy, and it would have held up well as a miner's canary cage.



Anton Oil Wicking

For the collector who has everything, a special pillow. Actually, it's 5 pounds of oil lamp wicking in the original bag, shown here with an Anton U.S.A. Eagle face lamp for scale. Courtesy of Kelley Deem.

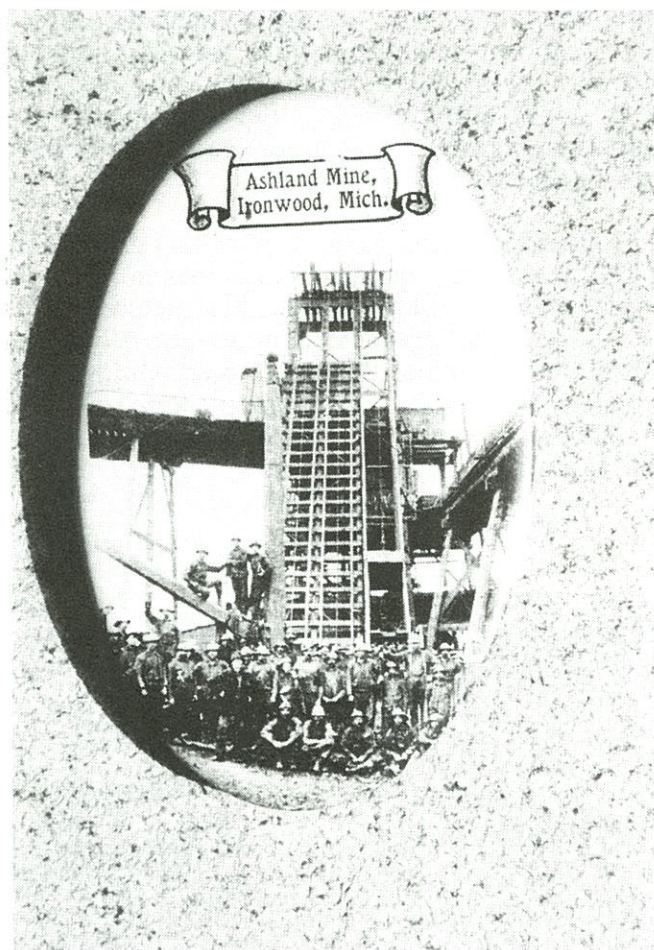


Ashland Mine Pocket Mirror

One category of mining related collectible which has received very little attention is that of pocket mirrors. I believe they were produced primarily as advertising for coal distributors, and in some cases for large coal mining companies. A real oddity is this pocket mirror produced for the Ashland mine. The Ashland Mine was located in Ironwood, Michigan and was owned by the Cleveland Cliffs Iron Mining Co. An early producer on the Gogebic Iron Range, by 1886 the Ashland Mine had seven shafts, making it second only to the Colby Mine at that time.

The mirror measures just 2 3/4" by 1 3/4", the back displays a sepia photo of miners gathered around one of the headframes of the mine. All of the miners are wearing or holding candleholders, which would date the photo no later than the very early 1900's. The same photo appears in a souvenir publication from Ironwood published in 1903.

D. Johnson



Roundup Coal Mining Co. Cufflinks

The Roundup Coal Mining Co. of Roundup, Montana had a number of sets of these brass and enamel cufflinks produced as promotional items. In true western style, they feature a cowboy on a bucking bronco with a large R brand on the bronco. The outer ring is black with gold lettering and a gold horse and rider on a white background.

Roundup is located 50 miles north of Billings, Montana, and was the site of a number of successful coal mines after 1900.

D. Johnson

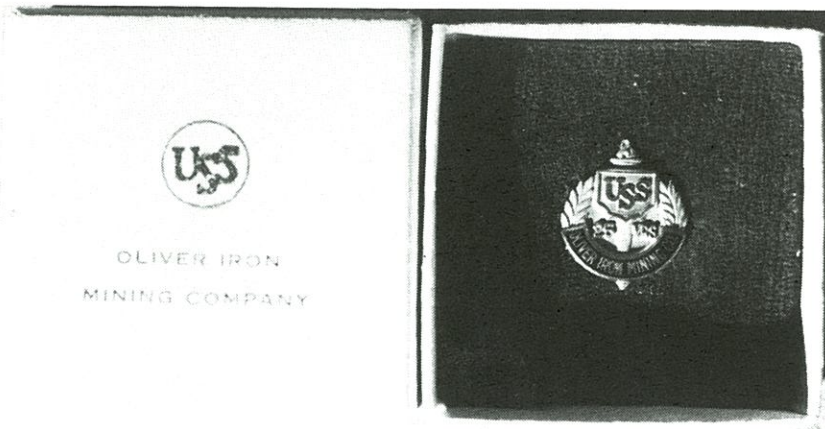


Oliver Iron Mining Co. Service Award

Like other industries, mining companies presented their long term employees with a variety of service awards. Some were watch fobs, watches, rings, medallions, and tie-tacs. Service awards were generally given for ten or more years of work in five year increments.

The Oliver Iron Mining Co., a subsidiary of the United States Steel Corp., operated iron mines in Michigan's Upper Peninsula and Minnesota. The pictured 18 carat gold tie-tac was given to a miner for 25 years of continuous service to the Oliver Iron Mining Co. in Norway, Michigan. The piece came in a nice presentation box with the company name and the U.S. Steel logo on the cover. I also have Oliver Iron Mining Co. brass and silver watch fobs presented for 20 and 25 years of service respectively.

D. Johnson



Review: Mine Lighting in Nevada

Jack Ramsdell, with the assistance of Ron Bommarito, has produced another of his occasional reference works on western miners' lamps. *Mine Lighting in Nevada*, printed in a limited edition of 100, is currently available from Jack (see the display classified ads). The 33 page book provides an excellent overview of the lamps used in Nevada mines from the 1870's through the first decade of the twentieth century. Here is the most complete information to date on the candle lanterns known as Comstock or General Grant lanterns, with history on the makers and over 40 illustrations and photographs of these unusual lamps.

MINE LIGHTING IN NEVADA

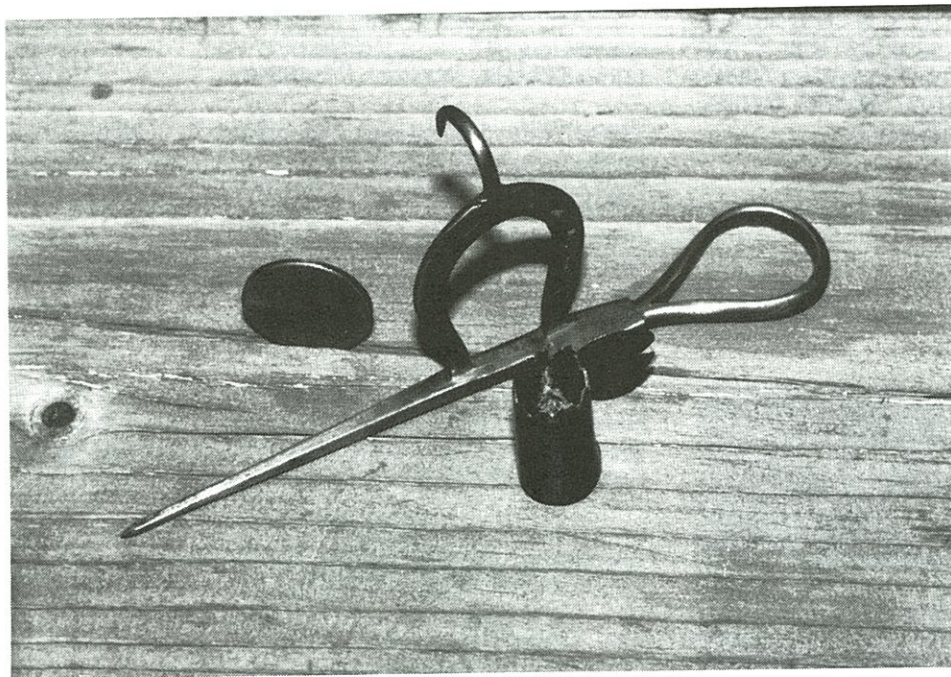


by JACK D. RAMSDELL
&
RON BOMMARITO

Mine Lighting in Nevada also describes the miners' candlesticks which have been found in local mines, and manufactured or patented in Nevada. Jack and Ron have put together an excellent piece of research on mine lighting in their home state. The photographs, line drawings and other illustrations are generally of good quality throughout the book. It's sure to be a collector's item.

Snell and Steel EverReady

One of the more interesting events at the Eastern Reunion in Morgantown was lining up lamps and comparing them. How about the difference between a Snell cap lamp and an all steel EverReady? After you stop drooling, note the differences in water tank size, threads, and lamp bottoms. See also *Eureka!* No. 1 for another variation in Snell bottoms, although the stamping is the same. The similarities in overall design, especially the hook placement, water door, and the side lever water feed suggest a single manufacturer.



Miniature Candlestick

Shown here, is Rick Yarborough's miniature stick. It was photographed at Errol Christman's June Swap Meet. A penny sits beside it for scale.



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!

Trade/Sale: Copper blasting company sign. Reads: "Senior Powder Co., Cincinnati, O." around edge with "25 lbs." in center (all raised lettering), 8.25 X 8.25 inches. Dave Johnson, 6807 Homestead Dr., Indianapolis, IN 46227 (317) 786-8667

Trade/Sale: Justrite metal dealer's sign, shows two lamps (lever feed and spiral feed), very rare. Husson candlestick. #27 as seen in Candlestick Book, very rare, excellent. Oil wick lamps: Husson (br.), Grier, Beall Bros., Anton. Sun Ray, Justrite Acme (unmarked), Pathfinder base w/cap. Michigan mine stocks. Montana candlestick. Dave Johnson (see above)

Trade/Sale: Original linen engineer's "blueprint" for Copper Queen potty car, Aetna Powder Co. dynamite box (excellent). Apache Powder Co. (Curtiss, AZ) dynamite box (mint). Dew-R-Lite (brass, complete, v. gd. - exc.), Hansen cap lamp (excellent), C. George oil-wick (tin, unfired), Whitehead & Hoag medallion (shows vignette of miner holding up nugget), Western cap tin (mint). Complete set of 50 Will's Cigarette cards showing mining scenes. Auto-Lite "sportsman's special" cap lamp on soft cap (in box), Auto-Lite cap lamp (in sm. box), Glass paperweight w/ rotating calendar inside (1927-1931) from Glendora, Sterling-Midland Coal Co., Grier 3-base carrier (unused). Dave Thorpe (602)-866-9608

Trade only: Early Justrite lamps in original wooden boxes. Justrite Camp Lamp in square wooden box (see *Eureka!* issue No. 1), and Justrite Camp Lamp in rectangular box with spare bottom, instructions and advertisement. Mike McLaughlin, PO Box 607, Spotsylvania, Virginia 22553. Please call before 9 PM EST. (703) 582-2146

Rare Pennsylvania carbides wanted: Also need Springfield and Elkhorn. Ken Rupp (814) 944-9307

Wanted: Wolf safety lamps, Salem wood post drill. Will buy or trade for oil-wick lamps or blasting cap tin. Bob Henninger, 201 W. Hazard St., Summit Hill, PA 18250 (717) 645-7422

Information wanted: On American mining lamps marketed in Australia (e.g. ITP - Dewar, Baldwin, Justrite, Guys Dropper, Autolite, Buddy & Elkhorn. Some company catalogues might list an Australian connection. Stephen McCabe, 22 Gowlland Pde, Panania NSW 2213, Sydney, AUSTRALIA

Mine surveying transit wanted: Call or send description with photo and price. John Atwood, 3017 Stevens Ln., San Jose, CA 95148 (408) 274-7672

New Jersey mining artifacts wanted: Stock certificates, carbide lamps used in N.J. mines. Also wanted books/articles on New Jersey mines and mining history and mineral collecting localities. William B. Vis, Madison Gardens Apt. 52 Bldg. 4, Old Bridge, New Jersey 08857 (908) 721-1850

WFM Wanted: Western Federation of Miners ribbons and badges. Will buy or trade. Len Gaska, 1688 E. Corson St., Pasadena, CA 91106 (818) 405-0647

California Cap Tin Sign: Reproduction full color metal sign. \$18 post paid. Len Gaska (see above)

Wanted: Anthracite coal carvings and jewelry. Pre-1960 only. Please include description, condition, and price. Also, anything marked Lehigh Coal and Navigation Co. Robert Gormley, 334 Brownsburg Rd., Newtown, PA 18940 (215) 598-3520

Trade/Sale: Cap lamps: Baldwin (N.P., handles, no refl., no raking wire, v. gd.), Grier (horiz. br., fair), Victor (Justr., br., no hook or brace, no refl. br., gd.), Autolites (common), Oil wick: Chirry Chirry (v. gd.), Grier Bros. Star (tin, average cond.), Misc: Atlas No. 6 cap tin (red and white), Pioneer base, Coal Cutter - 5' bar. Needs: Water door for Lu-Mi-Num cap lamp, Reflector and brace for Simmons cap lamp, Victor refl. & brace, XRAY refl. & brace, Springfield reflector brace. Jeff Carnes, PO Box 214, Delroy, Ohio 44620 (216) 735-2923

Books wanted: Related to mining lamps. Send for list of lamp books, mining history books and photos. Have many books on Michigan copper and iron mining history. Postage appreciated. Robert Fox, 1235 N. Westfield Street, Oshkosh, WI 54901

For Trade: Atlas detonator #3-50, #5 detonator - Columbia Powder Co., Dupont detonator #2 (1 to 10 caps). Charlie Moore Rt. 1 Box 740A, Miami, AZ 85539 (602) 473-2593

For Trade: Tool check I.C.C.CO. for a check that has the name of mine on it from your area. Inspiration consolidated Copper Co. of Miami, AZ. Sue Dalton, 880 E. Osage, Apache Junction, AZ 85219

Mining Stock Certificates

For Trade or Sale

Send for free descriptive lists of old mining stock certificates, issued periodically. Each mining stock certificate researched and described as to type, history, location of the mines, and description of vignette on certificate.

Russell Filer

13057 S. California St.

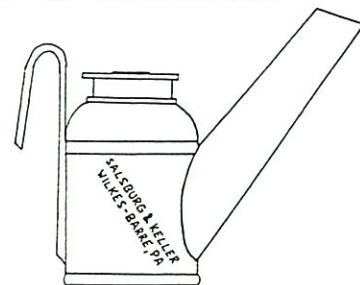
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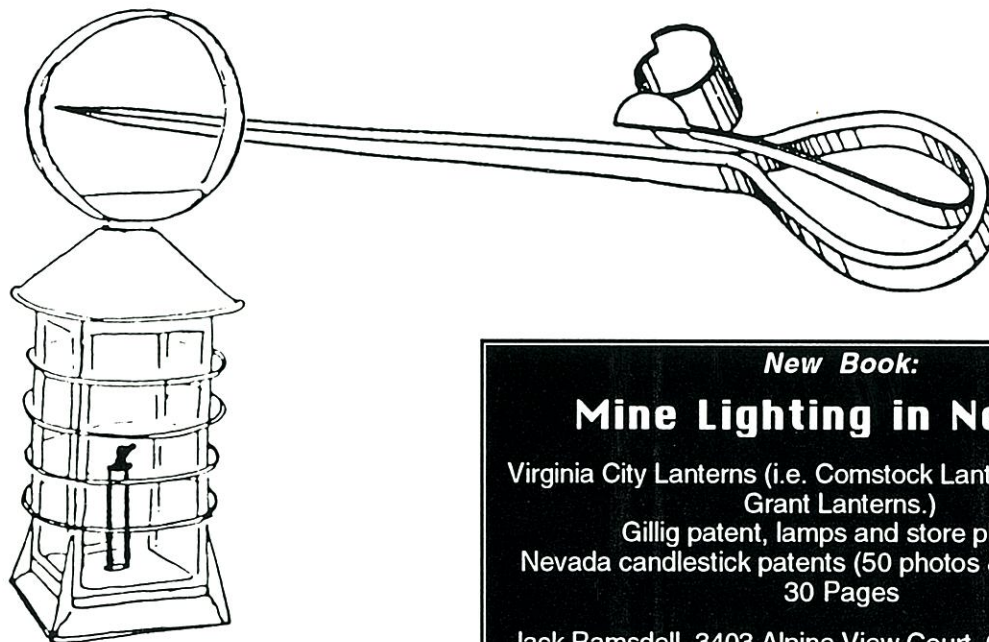
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New Book:

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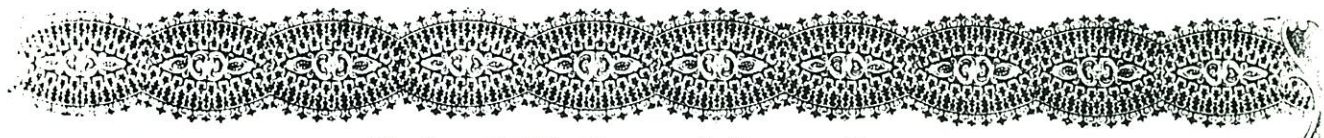
Virginia City Lanterns (i.e. Comstock Lanterns or General Grant Lanterns.)

Gillig patent, lamps and store photos.

Nevada candlestick patents (50 photos & illustrations).

30 Pages

Jack Ramsdell, 3403 Alpine View Court, Carson City, NV
89705 (702) 267-3564



STATE OF

United States of America,

ILLINOIS.

No. []

\$500

COAL



Company

INCORPORATED BY SPECIAL ACT OF LEGISLATURE OF THE STATE OF ILLINOIS, APPROVED FEBRUARY 16TH 1857.

FIRST MORTGAGE CONVERTIBLE BOND

INTEREST AT TEN PER CENT, PAYABLE SEMI-ANNUALLY.

This Bond can, at the option of the holder be converted at its face into Stock at par of the said THE EUREKA COAL COMPANY.

Know all men by these presents, that The Eureka Coal Company is indebted to the bearer hereof in the sum of Five Hundred Dollars which the said Company promises to pay to the bearer hereof on the first day of July, in the year One thousand, Eight hundred and eighty four, with interest thereon from the first day of July in the year One thousand, Eight hundred and seventy five, at the rate of ten per centum per annum at the office of the Farmers Loan and Trust Company in the City of New York, said interest payable on the first days of July and January in each year, on the presentation of the annual coupons as they severally become due. And in case of the Non payment of any half yearly instalment which shall have become due and payable and shall have been demanded if such default shall continue for sixty days after the maturity of said instalment and such demand made for the payment thereof, the principal of this bond shall become due in the manner and with the effect provided in the Mortgage hereinafter mentioned. This bond is one of a series limited to One hundred and fifty thousand dollars, numbered from One to Three hundred, inclusive, all of which are of like tenor and date, and differing only as to the date of their maturity: viz. Thirty of said bonds being made payable on the 1st day of July 1877; Thirty of said bonds being made payable on the 1st day of July 1878; Thirty of said bonds being made payable on the 1st day of July 1879; Thirty of said bonds being made payable on the 1st day of July 1880; Thirty of said bonds being made payable on the 1st day of July 1881; Thirty of said bonds being made payable on the 1st day of July 1882; Thirty of said bonds being made payable on the 1st day of July 1883; Thirty of said bonds being made payable on the 1st day of July 1884; Thirty of said bonds being made payable on the 1st day of July 1885; Thirty of said bonds being made payable on the 1st day of July 1886. The payment of all of said bonds with interest as aforesaid is secured by a Mortgage bearing date July 19th 1875, duly executed and delivered to the said Farmers Loan and Trust Company, and conveying to them all the Estate, Property, Rights, Corporate privileges and Franchises of the said Eureka Coal Company. To become obligatory the bond must be certified to by the President.

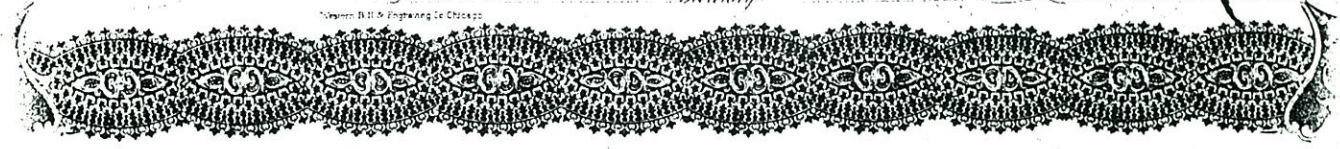
In Witness Whereof the said Company at its Office in Chicago hath caused its Common and Corporate Seal to be attached hereto, and the same to be attested by its President and Secretary, and hath also caused its Secretary to sign the Express hereunto annexed, on the first day of July, in the year One thousand, Eight hundred and seventy five.

The Eureka Coal Company by

Horatio Pratt Secretary

C. M. McKee President

Printed by B. M. W. Englewood Co. Chicago



No. 239 The Eureka Coal Company Will pay the bearer at The Farmers Loan and Trust Company in the City of New York, Twenty Five Dollars on the first day of July A.D. 1884, being six months interest due on this bond, numbered as above. Horatio Pratt

No. 239 The Eureka Coal Company Will pay the bearer at The Farmers Loan and Trust Company in the City of New York, Twenty Five Dollars on the first day of July A.D. 1884, being six months interest due on this bond, numbered as above. Horatio Pratt