

EUREKA!

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ISSUE 11



July 1994

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Farnspreecher Nr. 5, Amt Sundern
SUNDERN / WESTF., den 25. Juni 1909.
Station der Kleinbahn Heheim-Hüsten-Sundern.

Weghänge-Laternen
Berlin S., Prandauer Str. 13, 1897-Rund, Steiner 3
Brüssel, rue de la Vierge 11, Warschau, Leszyna 75

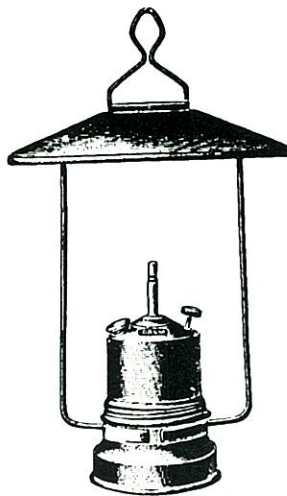
Giro-Conto:
Westfälischer Dankverein Münster 74



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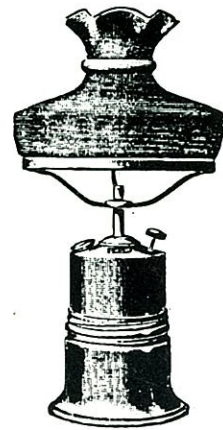
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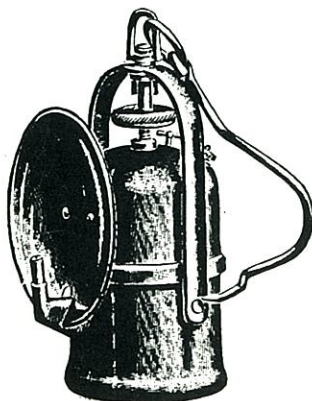
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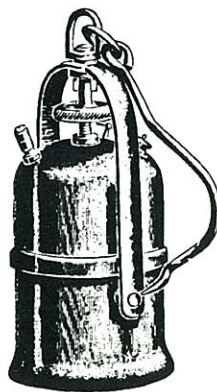
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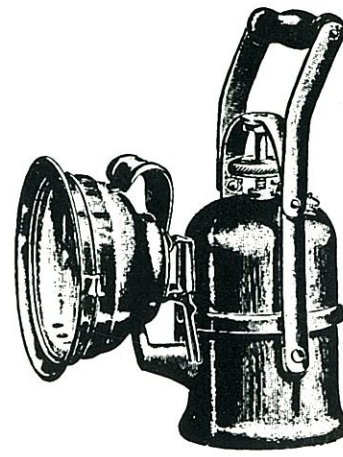
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1950



1951



1952

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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

Table of Contents

The Lead Show	2-4
Lead City Miners Union	5
Dunlap Oil Wicks	6-9
Fancy Oil Wicks	10
Friemann & Wolf History 1861-1900	11-17
Hydraulic Mine Lamp	18
Snyder Oil Wick	19
Another Bertels Oil Wick	19
The Mining Collector's Bookshelf	20-24
Blasters' Rheostats	25-27
Squib Tins	28-30
Loretto Mine Club	31-32
Record Cards	33-34
Bits	35-37
Advertisements	38-41

Front and Rear Cover are excerpts from the following book:

Dr. Walter Tanke, of Holzwickede, Germany has published a catalog of "Offenes Grubengeleucht des Sauerlandes," mining lights of the Sauerland region of Germany. This catalog is a beautiful production, 8 1/2" by 11 1/2", 115 pages, providing a history of this famous mining region and the lamp manufacturers who served it (in German). It provides lots, and lots, and lots of illustrations, advertisements, and photographs of the frog lamps, blende lamps, shell lamps and carbide hand lamps that were used there. Copies of the catalog are available from:

Dr. Walter Tanke
Auf dem Blick 4
D 59439 Holzwickede
Germany

Write for details on pricing and shipping.



NEWS



I got a look at a piece of Henry Pohs' soon to be released book on flame miners' lamps at the Louisville show on June 25th. Henry is known to every collector of mine lights as the "mini-editor" of the Underground Lamp Post. This bi-annual newsletter was, for two decades, the only printed material available for collectors, and was without a doubt, the single entity that united all of us into this crazy club. It fed our obsessions in a day where dollar-value and investment potential had no meaning within the hobby. You were no more likely to be able to buy a lamp from a collector, at any price, than you could buy his wife...maybe less likely. It was a day of innocence. The Underground Lamp Post cost nothing. It survived on donations and Henry's toil. Every six months I, like many others, would pore over each new issue like a kid wearing out the Sears Roebuck catalog at Christmas time. It was magical.

Some of that feeling finds its way into his new book. Rather than coming across as a sterile "manuscript" of historic documentations and footnotes, it touches on points of interest like a tour bus visiting places most likely to be held pleasing to those aboard. Here's a spot on Stein Droppers, and there's a flow chart on Baldwin Lamps. If you're looking for dates, details, and research, go to Clemmer, Kouts, or EUREKA!...and accept them with scientific disinterest. But if you want to be captivated and charmed, take a look at Henry's new book. It's broad, it's big, and it's fun.

Speaking of lamps and details, we've read the flak that Eric Twitty gave us about the nausea he feels when he reads EUREKA! Too much on lamps, too much on rare cap tins, too much detail. Well guess what? We, and 300 other subscribers like it that way. Eric, by the way, is not a subscriber to EUREKA!

There were three big shows this Spring: one in Lead, South Dakota (sponsored by Al Winters of the Homestake Mine, see article this issue), one in Ontario, California (sponsored by Ted Bobrink and the MAC), and one in Louisville, Kentucky (sponsored by Dave Johnson). The Ontario show saw the smallest turnout ever. Little was available for collectors to trade for or purchase. Ted did bring a Stein Dropper and a couple of nice candlesticks, but the rest of his three tables were made up of common items more suitable for sporting use (I bought a nice AutoLite for caving). Ted vowed that this would be the last Ontario show. Meanwhile the traditional get-togethers at Errol Christman's residence in Grass Valley will continue to be the main attraction in California.

The Louisville show took place on the following weekend (May 25th). Though people traveled far from many states, the turnout was considerably less than that seen in Morgantown, WV last year. There were no big collections to dispense of. Dave Johnson's collection was viewed by many. His entire basement is filled with glass cases of mining collectibles, and his cap lamps-for-oils policy is still in effect. His oil wick collection is the finest I have seen. One

big disappointment in the show centered about the rumor that a major collector was to auction some forty cap lamps and sixty oil wicks, all of supposed moderate rarity. In reality he auctioned off a couple dozen common to somewhat uncommon oil wicks. Al Quamen brought, not one, but two nice Stein Droppers. A beautiful EverReady cap lamp was sold at auction, and an unfired Scranton was sold privately, as was a brass Britelite. In contrast to the Ontario show, a fair number of medium rarity lamps were available for purchase. Several Buddy's, a presentation nickel Justrite, a Wolf flat-top, Griers, Springfields, and Shanklin Metal Products were traded or sold at reasonable prices. Several interesting large lamps changed hands including a Milburn lantern and a Toledo acetylene lantern. Most people I knew were able to bring back something for their collection.

So what's up for the rest of '94? Two major collectors are selling off several of their rare carbides. Their names can be found in the classified section of our last issue. Lamps coming out of Pennsylvania seem to have reached a (temporary?) lull. Apparently dealers have become a little more price wary. Still, the diamond in the sand turns up. The unfired Scranton lamp which sold at the Louisville show was purchased originally for five dollars. I guess you can comb the antique shops and flea markets faithfully and earn it the hard way (or maybe just the slow way), or you can hit the big shows with almost a guarantee of bringing home a big one.

Dave Thorpe

Black Hills Mining Collectors' Meet

(Deadwood, South Dakota)

by Brad Ross

I might be a little prejudiced, but from all reports the first annual Black Hills Mining Collectors Meet was a great success! This get together was a little...no... a lot different than most of the events that have taken place in the past.

The focus of the Black Hills Meet was to have a chance for many collectors to gather to buy, sell, and trade and an opportunity for them to experience what mining is all about with tours of the Black Hills Mining Museum, surface and underground tours at one of the most famous gold mines in North America, and even a traditional miners lunch.

As with most get togethers this one started out on Friday night with many of the collectors that came in early getting together to discuss latest finds and maybe a little trading and buying.

People came from all over, even two other countries were represented (Seigbert Zecha and Karin Seelbach from Germany as well as Udo Matern from Canada). Al Winters had a reception at his house for many of the collectors. Later that night a few of the collectors found their way to Deadwood (a mere three miles away) for dinner. I'm sure none of them had time to participate in the legal gaming after their meal.

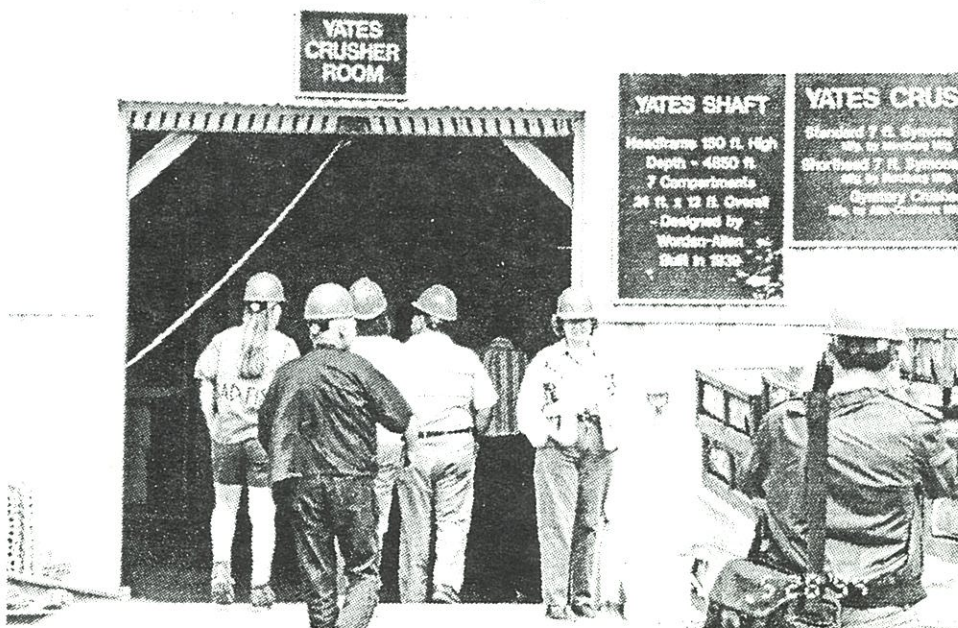


Host Al Winters delivers opening remarks.

Saturday morning started out with a tour of the Black Hills Mining Museum. For those that have not been to this museum you need to make sure to put it on your must do list. Not only does it have a number of exhibits that include a blacksmith shop and assay office but it also has a guided underground mine exhibit that is very realistic.

After the Black Hills Mining Museum tour it was time for the surface tour of Homestake Gold Mine. During this tour we were able to see the headframe of the Yates Shaft as well as the mill. The tour guides were very knowledgeable and the only scary part may have been the ride up the hill on the bus.

Lunch was served at the Golden Hills Resort before or in some cases while everyone was setting up their tables for the trade and sale. There were forty tables filled with all sorts of mining artifacts. There were far too many tables to describe them all, but a couple highlights include Paul Johnson's, after all how often do you have a chance to buy an Ever-Ready and a Duplex at the same time. Al Quamen had several good carbides including a couple of nice Elkhorns. Besides the items he brought for sale



Entering the Yates house for underground training.

or trade Tony Moon brought some great candle sticks for everyone to be envious about. Roger Peterson also brought some neat candle sticks to trade. Of course Dave Gresko and Keith Williams brought their usual assortment of goodies.

After the trade and sale over seventy collectors and friends met for dinner and an auction. The food was very good and the auction was even better. The highlight of the auction was a large amalgam scale from Homestake Gold Mine. Chuck Tesch, long time Homestake employee was high bidder for the scale. Another highly contested item was a collection of 10 different cap tins put in the auction by Keith Williams. Bob Schroth was the winner of that bidding.



Chris Vels on the loose.

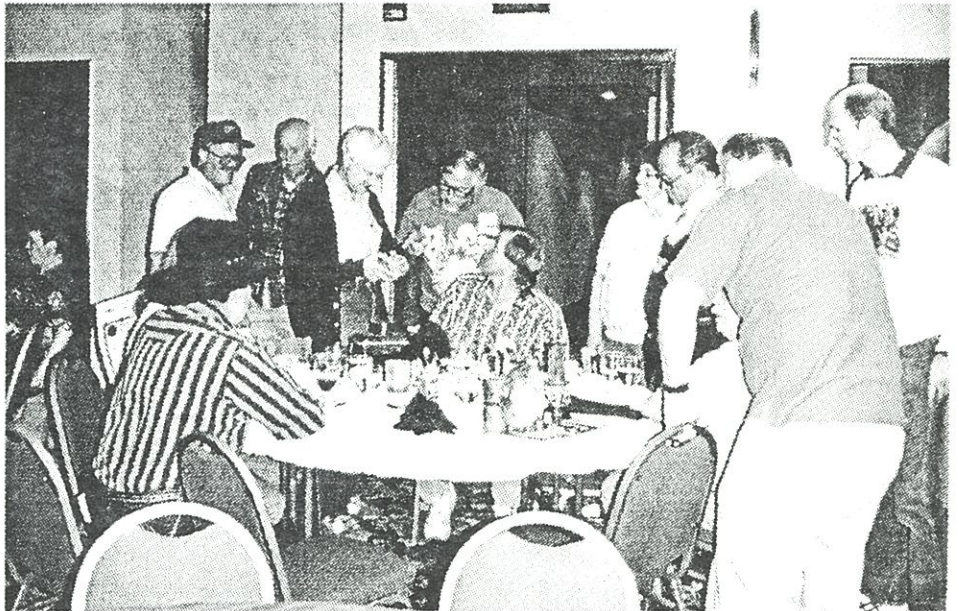
The most exciting part of the Lead show as an underground tour of Homestake Gold Mine - the largest underground gold mine in North America. The morning started early with 50 artifact collectors meeting at the Golden Hills Resort at 5:45 A.M. to head for the Yates Shaft area for



Dave DesMarais rides the bus on the above ground tour.

some safety training. Then it was off to the Ross Shaft for the trip underground. One of the many interesting parts of the tour was the "cage" trip down. I wonder if the guys that work at Homestake are used to that many wisecrack remarks at one time? Af-

ter a very quick trip, 3,500 ft straight down in less than three minutes, we found ourselves in the underground world of a gold mine. It had been over fourteen years since I was last underground at Homestake and I was amazed at how much it had changed. Both the mining methods and equipment had been modernized. Instead of old fashioned slushers, Homestake used mobile load-haul-dump machines to move the ore underground. During the tour everyone that wanted to had a chance to try a little mining themselves with a jackleg drill. It was fun to watch the different people try their hand at the jackleg. Most were pretty good (including both men and women) but nobody on the tour showed how it can be done like Dave Gresko. Some of his past employment in the copper mines of Arizona definitely showed through. Everyone had a chance to look for high-grade ore while underground. Although it is fairly uncommon to find high-grade gold at Homestake our tour guides must have known where the good spots are - just ask Jane



Cap-tin Bob Schroth negotiating the big one.

Becksted, Nick Theis or some of the other participants. Kind of made you feel like we should of brought along a Highgraders candlestick or two!

After we returned to the surface we were treated to a real Cornish Miners meal - pasties. These pastries filled with meat and potatoes really hit the spot after exploring underground for a couple hours and working on the jackleg. During lunch there was a drawing for some door prizes. The luckiest people in the group must have been Harold and Ann Bailey since both of them won a prize. After lunch everyone started heading their own way. Hopefully many took the time to visit some of the Black Hills and other sites in the area. It's a great place to take a vacation.

Many thanks to the tour guides Al Winters, Chuck Tesch, and Keith Schillinger. The three of them represent a vast amount of experience and knowledge about Homestake and could answer any question that came up about the mine. Also thanks to Homestake Gold Mine for allowing us to go underground and providing the surface tour free of charge (usually there is a charge for this tour). And special thanks to Kristi Schillinger for putting so much time into the organization of this event. With so much to do and see, even the spouses had a great time!

We are already thinking about next year. I don't know if we can top this year but it might be fun trying. If you have any ideas that would help us please let me know.



Indoor instruction for underground tour.



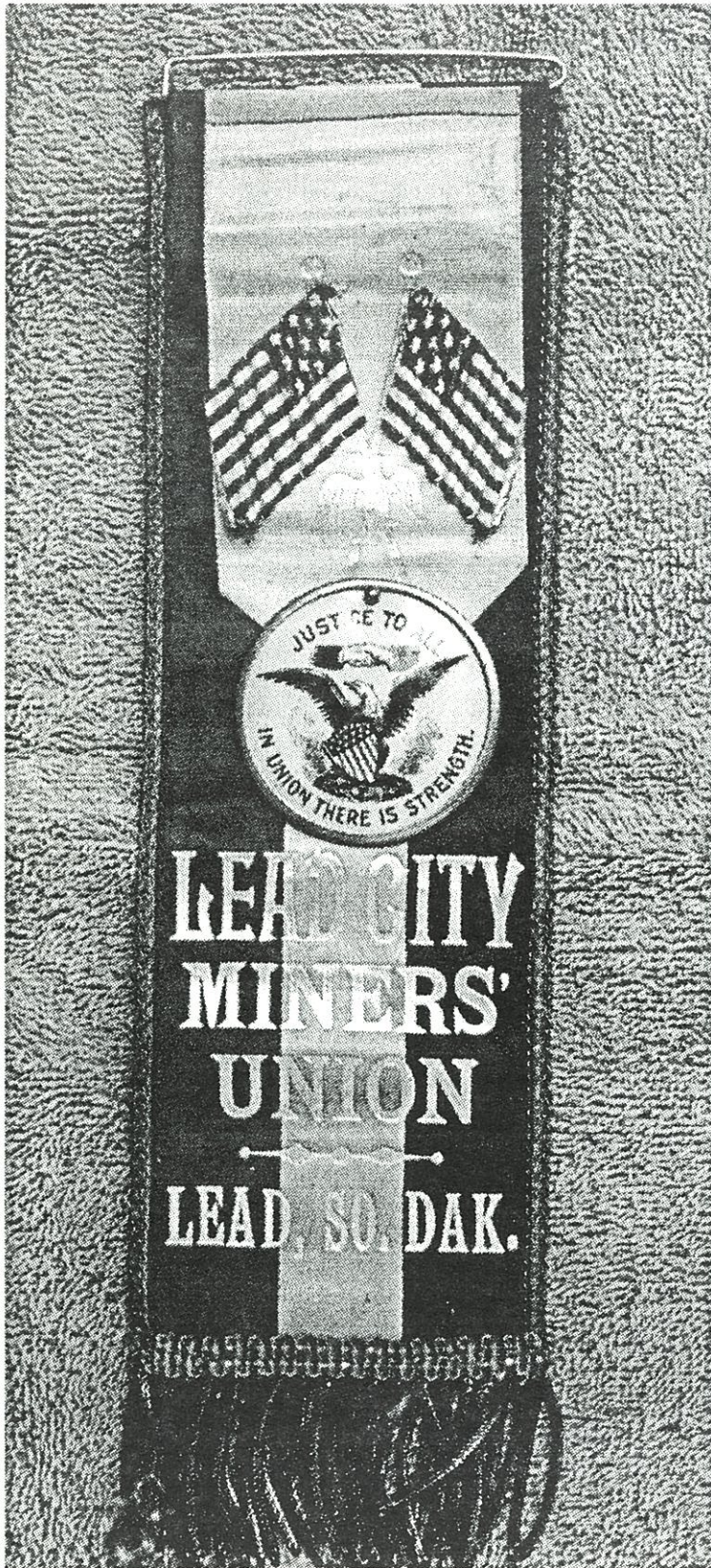
Young lad opens Christmas presents early.



Brad and Linda Ross (right) with friends.

Lead City Miners' Union

Len Gaska



The Lead City Miners' Union was formed in 1877 shortly after the discovery of gold in Gold Run Creek in the Black Hills of South Dakota. In February, 1876, Thomas E. Carey had been placer mining in Deadwood Gulch and crossed the divide which separated that gulch from Gold Run Creek where he found richer placer deposits. A short while later, "Smokey Jones" and twenty other miners entered the area. On July 10, 1876, they laid out the town of Washington. In the spring of 1877, the town began to expand with the first attempts to reduce the gold quartz and outgrew its first survey. A new and larger town was laid out and named Lead (pronounced Leed) after the many leads or outcroppings in the area.

In April of 1876, Moses and Fred Manuel discovered the ledge which subsequently became the greatest gold mine in history: the Homestake Mine. The claim was named the Homestake because one miner reportedly said that "Sure, there's enough here for all of us to make a homestake in." Because the area was so rich, it experienced rapid growth and attracted the attention of speculators and capitalists from around the country. The rapid growth was probably responsible for the formation of a miners union so quickly after the initial gold discovery. Although my knowledge of early mining labor history is very limited, I suspect that the Lead City Miners' Union was one of the very early unions in the mining field. Its formation predated the Western Federation of Miners by about 16 years. In 1880, the union was chartered by the Dakota Territory as a "charitable and benevolent organization". The union lasted until 1909-1910 when it was virtually destroyed by a lockout by the Homestake Mining Company. Thanks to the Black Hills Mining Museum for providing the essential details on the union. A fairly good history of the region and the Homestake Mine can be found in "The Bonanza Trail", by Muriel Sibell Wolle, Indiana University Press, 1958.

Dunlap Oil Wicks

Dave Johnson

One of the most commonly seen oilwick brands is Dunlap, manufactured by the firm of John Dunlap of Pittsburg, PA. John Dunlap was born in the North of Ireland in 1818, of Scottish ancestry. In 1826 he was brought to the United States by his widowed mother. They settled in Paterson, New Jersey, where John received his schooling before being apprenticed to the tinning trade. While an apprentice he kept the books for the firm for which he worked.

Upon completion of his apprenticeship John Dunlap moved to Pittsburg where he found employment in the tinning works of a Mr. Scaife. A few years later he began his own tinning firm on a small scale at the corner of Market Street and Second Avenue, a

site occupied by his firm until sometime after the turn of the century.

His business was burned out in the great fire of 1845, after which he purchased the land where his business had stood and began again. His business grew until he was one of the largest importers of block tin and tin plate in the Pittsburg area and the leading firm in the tinning trade.

At the time of his death, on June 6, 1893, John Dunlap was a director of the Tradesmen's National Bank and a director off the Artisan's Insurance Company. He had been the partner of William P. Townsend in the wire works at New Brighton. He was known as a generous supporter of several philanthropic institutions, as well as the Presbyterian Church. In

1850, John Dunlap had married Mary Duncan. They had five children, Ella, Emma, Anna, William and John. At the time of his death in 1893, William and John continued the business begun by their father.

* * *

Dunlap produced two distinctive varieties of oilwick. The most common variety is the tin spelter coated lamp stamped "Dunlap's Pittsburg" that was manufactured as a small face lamp and a large driver's lamp. These lamps were very well made of heavier gauge metal than most other lamps and are seldom found dented or rusted to the extent of other brand name lamps.

Spelter-coated "Dunlap's Pittsburg" Lamps



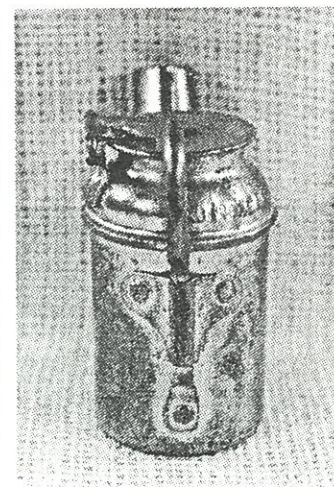
Small and large spelter-coated lamps.



The spelter coated lamp appears in an early version with a hook mounted with two rivets and a clearly stamped name in raised letters. The later version has a hook mounted with three rivets and a name less clearly stamped. The later the lamp was produced the less clear the stamping due to the wear on the die stamp. Both the face and driver's lamp were sold in fitted individual boxes.



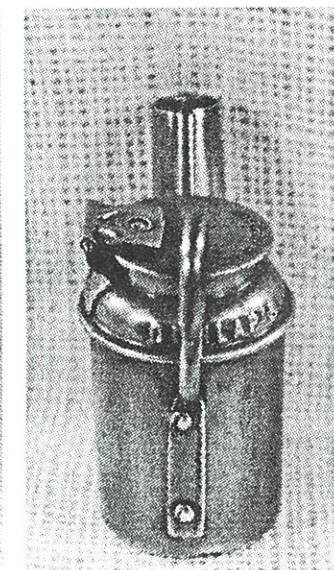
Early spelter-coated lamps with two-rivet hook and more distinct stamping.



The three-rivet hook seen on later spelter-coated Dunlaps.

While the spelter coated lamps are very common at least one copper face lamp is known to exist (see photo). This lamp is the earliest known Dunlap lamp. The cap is stamped "PAT. APL'D FOR," the hook is the early variety attached with 2 rivets and the Dunlap's stamping is clear and crisp.

Right: Very early copper Dunlap's Pittsburg with two-rivet hook. It most closely follows the patent drawing (next page).



The spelter coated driver's lamp was also manufactured with a large shield (see photo left). This shield is heavier and better braced than those found on most shielded lamps. The shield braces have been found produced in steel as well as a few in copper.

Left: Shielded spelter-coated lamp.

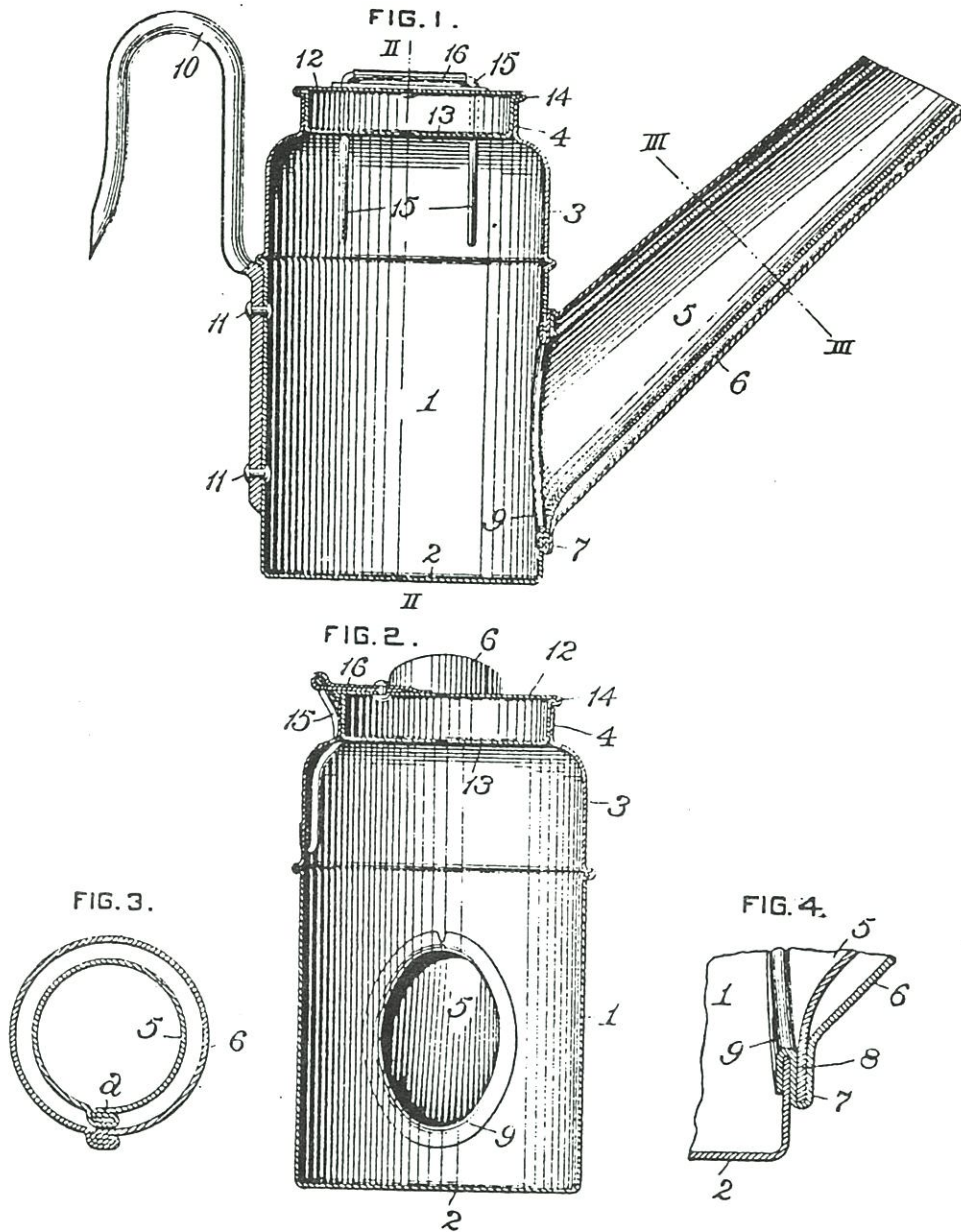
No. 628,653.

Patented July 11, 1899.

W. A. DUNLAP.
MINER'S LAMP.

(Application filed June 26, 1897. Renewed June 8, 1899.)

(No Model.)



WITNESSES:

Chas. F. Miller
J. E. Gaithers

INVENTOR.

William A. Dunlap
by *Danm. B. Wolcott*
Att'y.

A less common variety is the John Dunlap Monongahela Valley lamp which has been found in at least four varieties and closely resembles other brand name lamps.

The Monongahela Valley lamp has been found with three different stampings on the four varieties known to me. The Monongahela Valley brand name was sold through several mine supply firm catalogs throughout the Eastern coal region.

SOURCES:

Biographical Review Publishing Co. 1897.

Biographical Review of Pittsburg.

U.S. Patent Office.

Author's collection.

Dunlap "Monongahela Valley" Lamps



Four varieties of the Dunlap Monongahela Valley lamps are known to the author. They have been found with the three stampings below. The lamp shown directly right is the only one stamped "John Dunlap."



Fancy Oil Wicks

Dave Johnson

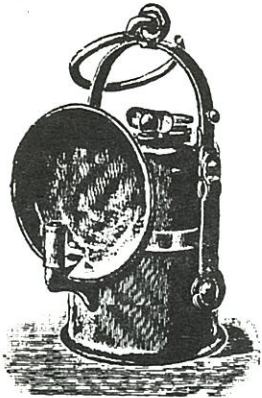
The two fancy brass oilwicks pictured here were found in Pennsylvania and spent many years in the collection of John Coons before I acquired them recently. Both lamps are constructed totally of brass and are highly decorated in relief.

The first lamp features a twist pattern on the front and a screw cap with a serrated edge grip and machined threads. The lamp is 2" tall to the top of the cap and the base of the front is 1 3/8" in diameter. The single spout is 2 7/16" long and is uniquely attached to the front halfway between the top and bottom. Most spouts are attached with their base near the base of the lamp, while a few are attached just below the collar and are known as high-spouts.

The second lamp features a very unusual relief pattern on the front. The lamp is 1 5/8" tall to the top of the cap. The cap is depressed in the center and has machined threads. The spout is 2 1/8" in length with a rolled end. The base of the front is 1 3/16" in diameter.

Both lamps are fine examples of the craft of tinsmithing. Lamps decorated to this extent are unusual and would have taken a fair amount of time and effort.



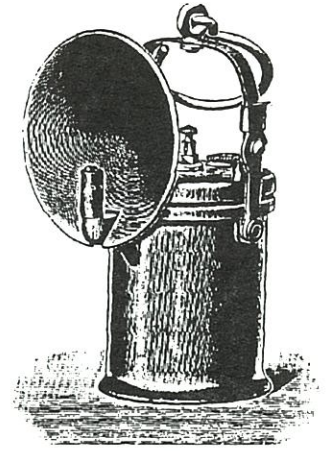


Nr. 850, 852 u. 854
 Wolf's offene Acetylen-Grubenlampe
 mit gewöhnlichem Bügelverschluss
 und Reflektor.

History of the German Lamp Maker Friemann & Wolf

Part II: 1900- 1990

Manfred Stutzer



Nr. 856, 857 u. 858
 Wolf's offene Acetylen-Grubenlampe
 mit vereinfachtem Bügelverschluss
 und Reflektor.

The French market was tapped more vigorously through the founding of a French subsidiary named Fabrique Liegeoise de Lampes de Surete to produce lamps in Jeumont, in 1901. That same year saw the introduction of the first Wolf carbide lamp on the market.

A 1903 Wolf catalog distributed in the U.S. listed 17 Pennsylvania and one Tennessee mining company that were using Wolf safety lamps, including the large Philadelphia & Reading Coal & Iron Co. and Lehigh Valley Coal Co. This same catalog mentioned six U.S. patents on the Wolf safety lamp Nos. 302878, 322514, 453456, 497699, 509418, and 530217.

The United States subsidiary of Wolf changed to The Wolf Safety Lamp Co. headquartered in the Crystal Building in New York City. That same year Wolf sold 890,000 "benzine" safety lamps worldwide, making them the lead-

Illustrations from a 1908 Friemann & Wolf catalog: above are two carbide hand lamps, below is first page.

ing producer of flame safety lamps in the world.

Eight years after the development of the alkaline accumulator battery (rechargeable) by Edison and Jungner, Friemann and Wolf began production of an electric mine lamp in 1907.

In 1913 the Wolf Safety Lamp Company of England moved from Leeds to Sheffield and enlarged their production facilities. The death of Carl Wolf in 1915 saw his son Paul assume the role of Managing Director of Friemann & Wolf. At that time the firm employed more than 2,000 employees, with a worldwide production and sale of more than 1 million "benzine" safety lamps.

The end of World War I saw the breakup of Friemann & Wolf. The English facilities came under the control of William Maurice. The U.S. facilities became the Wolf

FRIEMANN & WOLF

Gesellschaft mit beschränkter Haftung

□ ——— □ ZWICKAU i. SA. □ ——— □

Zweigniederlassungen in Duisburg, Dortmund, Waldenburg i. Schl.,
 Loncin (Belgien), Jeumont (Frankreich).

□ ——— □ □ □ ——— □ □ □ ——— □ □ □ ——— □

Über 60000 Wolf'sche offene Acetylen-Grubenlampen

haben sich in kurzer Zeit durch ihre
großen Vorzüge in vielen schlagwetterfreien Gruben des
 In- und Auslandes eingeführt und in der Praxis bestens
 bewährt, worüber zahlreiche freiwillige Urteile vorliegen.

Vorteile:

- Absolute Gefahrslosigkeit
- Vollständig geruchloses Brennen
- Bedeutend billiger als Rübölbrand
- Unbedingt gleichmäßiges Brennen
- Sicherster Verschluss

□ □ □



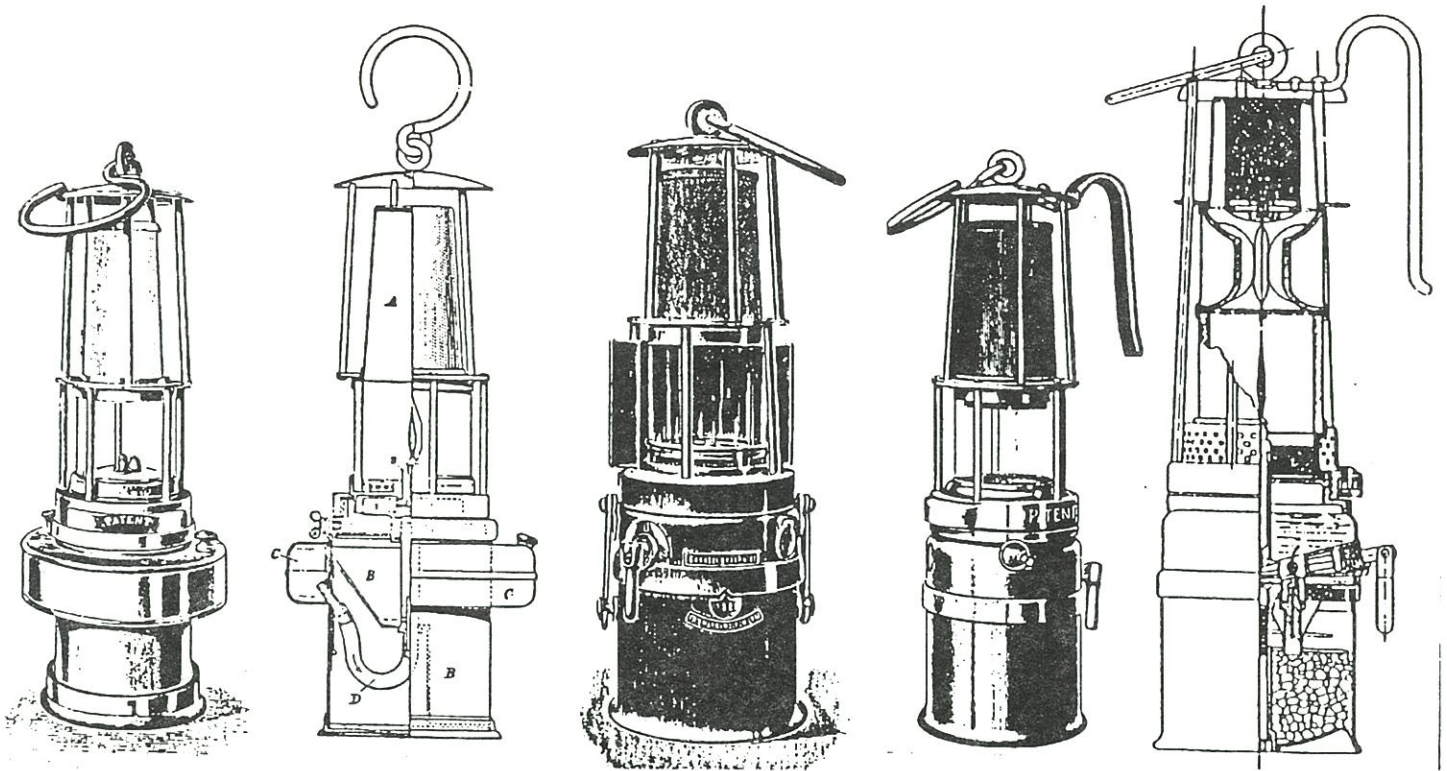
Wolf's offene Acetylen-Grubenlampe
 mit Reflektorhaube.

5000, 10. (W. F & B)

Vorteile:

- Denkbar einfachste und leichteste Bedienung
- Größte Stabilität
- Bedeutend heller als Ölbrand
- Gar keine Regulierung nötig
- Größte Reinlichkeit.

□ □ □



Five different Wolf carbide safety lamps: (left to right) Wolf-Stuchlik lamp, 1. version, Wolf-Stuchlik lamp, 2. version, Wolf-Pokorny lamp, 1. version, Wolf-Pokorny lamp, 2. version, Wolf-Wiede lamp.

Safety Lamp Co. of America, Inc., headquartered in Brooklyn, New York, under the direction of D. Anglada. The Belgian facilities came under the control of the former Belgian Agent, Hubert Joris, in 1919 with the firm name of "Usines H. Joris, Eclairages Minier".

The firm survived as Friemann & Wolf in Germany and continued production of lamps. The company received Patent No. 446183 for a rechargeable electric cap lamp on June 9, 1927. By 1929 Friemann & Wolf had become one of the leading manufacturers of lead and nickel cadmium storage batteries.

In 1931 Paul Wolf died and control of the firm was assumed by long-time employees Paul Stoppel and Wilhelm Blumberg.

With the advent of World War II all international business associations outside of the Axis Powers were severed. As a result of the war all production facilities were destroyed.

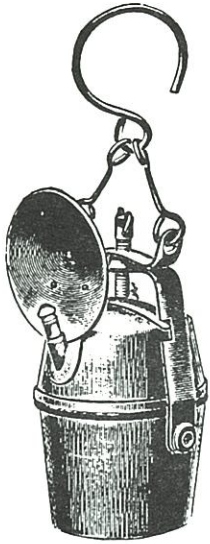
Right: First page of lamp catalogue 1910 for carbide lamps.

Wolf's Acetylenlampen

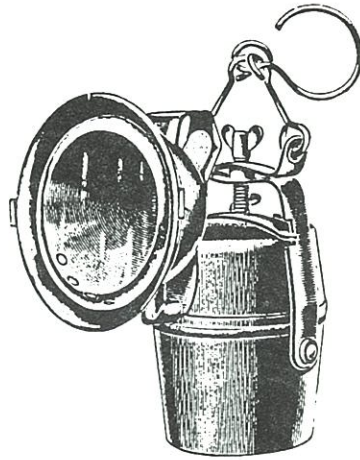


Alleinige Fabrikanten:
Friemann & Wolf
G. m. b. H.
Maschinen- und Grubenlampen-
Fabrik
Zwickau i. S.

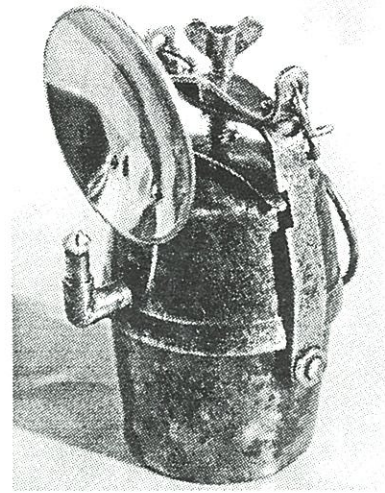
Zweigniederlassungen in Duisburg, Dortmund,
Waldenburg in Schlesien, Kattowig in Oberschlesien,
Karlsbad in Böhmen, Lüttich in Belgien,
Jeumont in Frankreich, Leeds in England



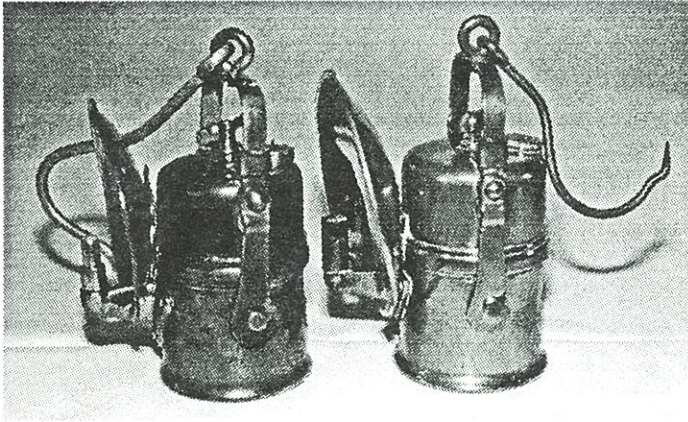
Lampe mit gewöhnlichem Reflektor.



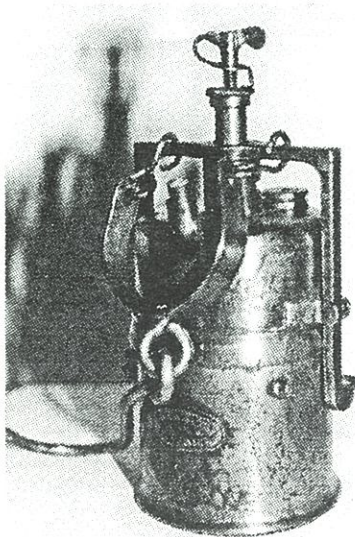
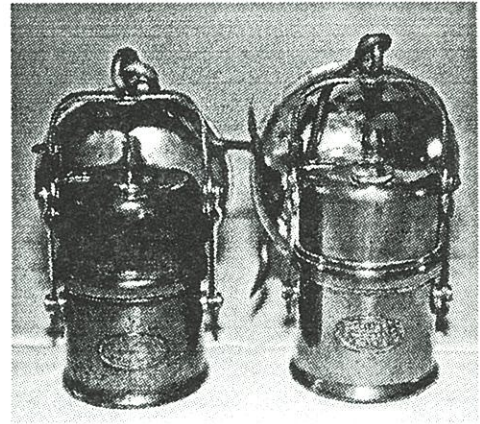
Lampe mit Reflektorhaube.



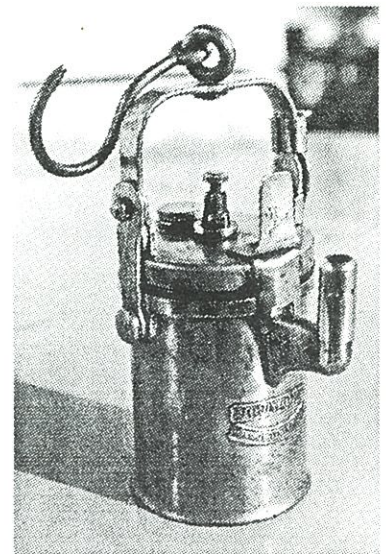
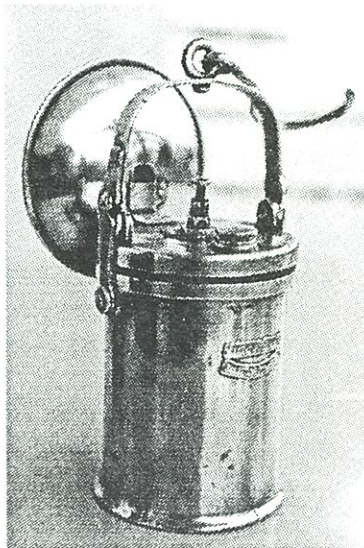
The famous Wolf carbide lamp No. 911, Illustrations left are in brass from 1911 catalog. Photo right shows steel lamp from author's collection.



Two early brass carbide hand lamps, No. 850.



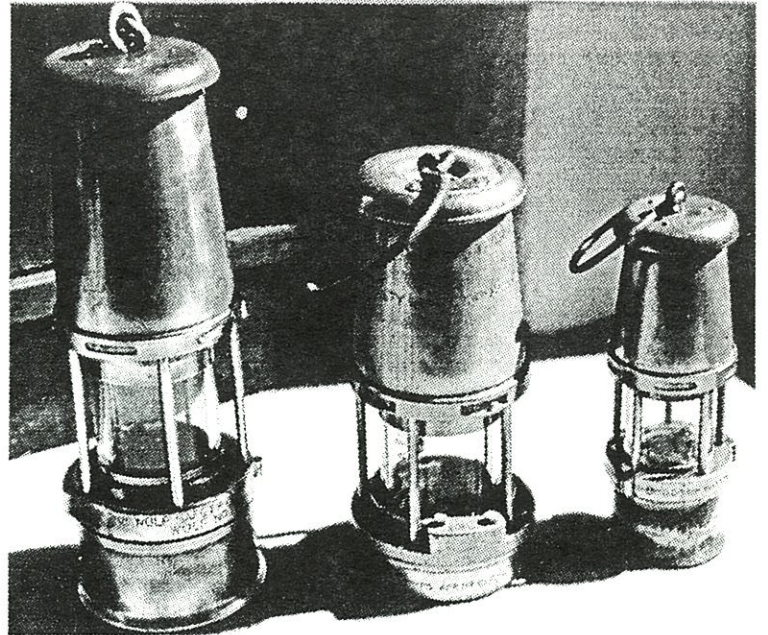
Rare carbide hand lamp with Bloch locks design, No. 851.



Two different canister-style lamps with the old company's label.



Two Baby-Wolf lamps, made in aluminum.

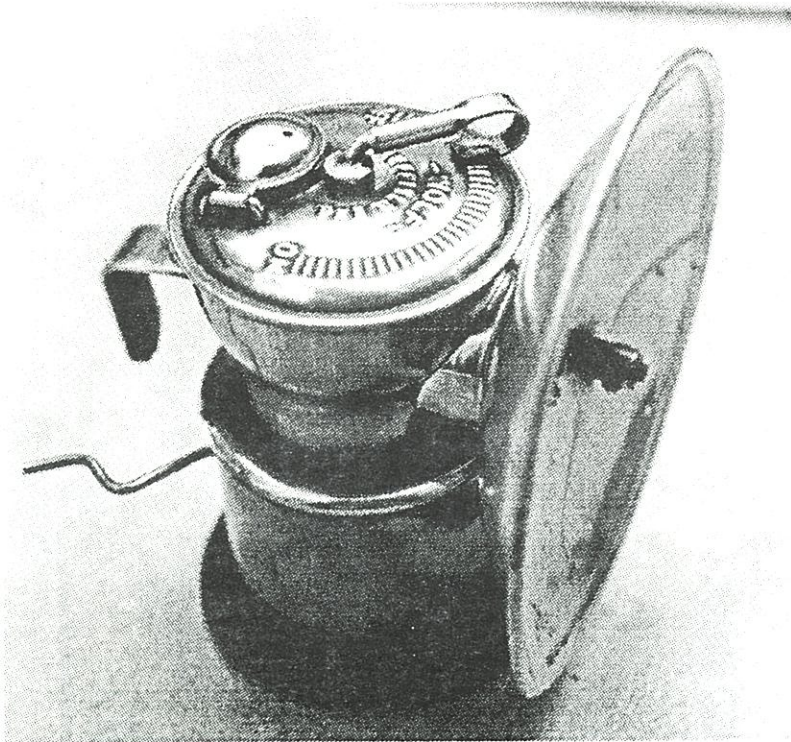


Three sizes of Wolf/Sheffield safety lamps/England.



Two Wolf/USA carbide hand lamps in brass and iron.

Carbide hand lamp made by Wolf/Sheffield.



Wolf/Sheffield carbide cap lamp.

FABRIQUE LIÉGEOISE
DE
LAMPES DE SURETÉ
pour les Mines et autres usages

DIRECTION
HUBERT JORIS
LIÈGE (Belgique)

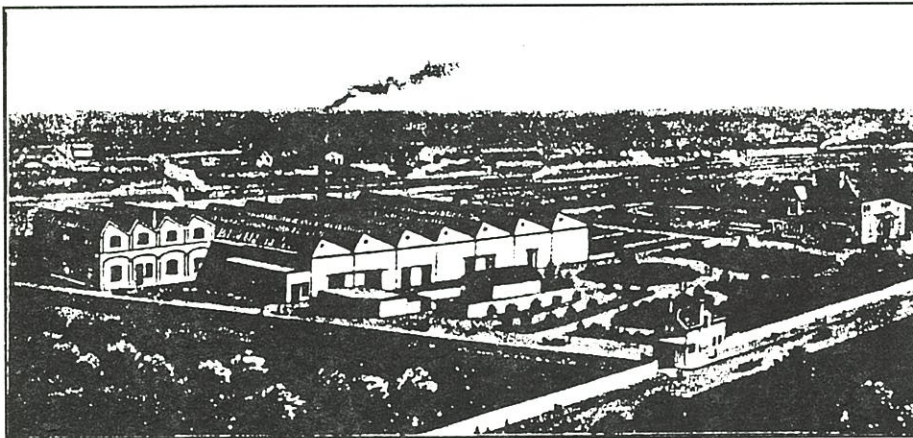
BUREAUX : 12, Rue du Midi, 12

Adresse Postale et Télégraphique : TÉLÉPHONE 1511
HUBERT JORIS, LIÈGE. ★ Télégrammes : JORIS LIÈGE

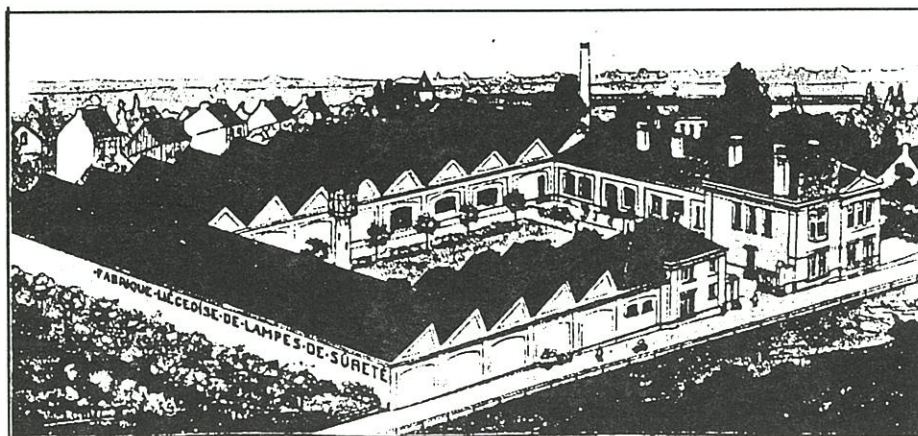
Lampes de sûreté pour les Mines, Système
Wolf, Mueseler, Marsaut et autres. —
Eclairage à l'Huile ou à l'Essence de Pétrole.
— Lampes à rallumeur intérieur, fermeture
magnétique, par rivet de plomb ou à vis. —
Réservoirs en Acier, Laiton ou Aluminium,
d'une seule pièce et sans soudure. * * *

600.000 Lampes en usage

First page of 1908 catalog for Wolf carbide lamps.



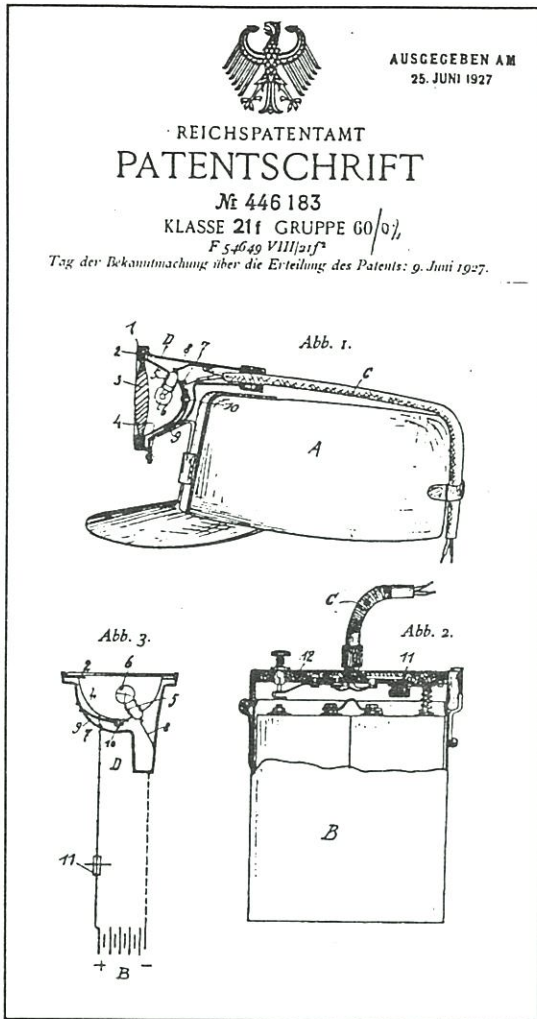
Belgian plant ca. 1911.



French plant ca. 1911.

In 1946 the rebuilt plant in Zwickau (East Germany) assumed production under the name Grubenlampenwerke Zwickau with 1,450 employees. By 1947 a new production facility was opened in the previously destroyed plant in Duisburg (West Germany). This plant produced safety lamps, air pressure lamps and electric cap lamps.

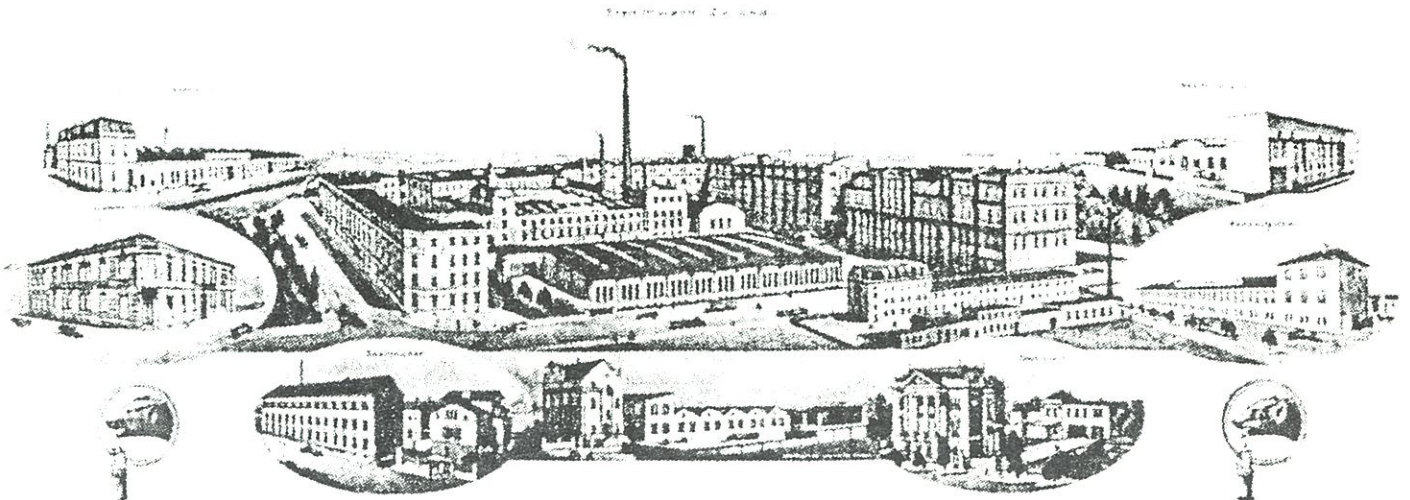
Friemann & Wolf, in Duisburg, got the production license for Silver/Zinc batteries from Yardney International Corporation of N.Y. In 1951 a new production subsidiary (Silberkraft leichtakkumulatoren BmbH/Rudesheim) was founded to produce Silver/Zinc batteries, known as .



Patent for first Friemann & Wolf electric cap lamp.

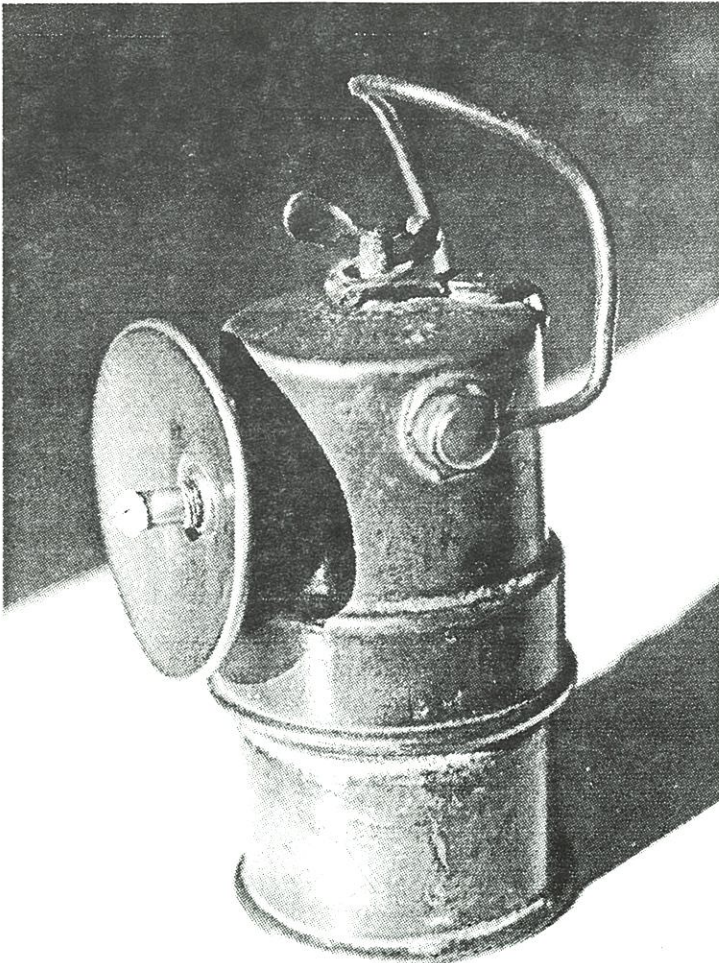


Front cover of a lamp catalog, 1927.



FRIEMANN & WOLF G.M.B.H. ZWICKAU I. SA.
GRÖSSTE SPEZIALFABRIK FÜR GRUBENBELEUCHTUNG

Vignette depicting Zwickau plant as of 1927.



Carbide cap lamp, No. 918e, made in the fifties by GLZ.

By 1952 the Soviets had returned the Zwickau plant to the East German Government. The firm, owned by the German Democratic Republic, was then called VEB Grubenlampenwerke Zwickau.

The production of "benzine" safety lamps continued at the Zwickau plant until 1960, when production ceased.

In West Germany Friemann & Wolf continued to produce Ni-Cd batteries, a variety of mine lamps and air pressure lamps, as well as Ag-Zn batteries for space, at its Duisburg plant.

By 1984 the firm had changed its name to: GAZ - Grubenlampen und Akkumulatorenwerke. The CEAG Industries firm controlled 68% of Friemann & Wolf by 1985, with a work force of 600 employees.

With the reunification of East and West Germany in 1990, production came to a halt at the Zwickau plant.

This long history of producing mine lamps certainly has earned for Friemann & Wolf the record for longest producing major lamp manufacturer. How many other firms can boast a record of more than 100 years of producing safety, carbide and electric mine lamps?



Letterhead by Friemann & Wolf/Duisburg, 1958.

Hydraulic Mine Lamp

Dave Johnson

Recently, while searching for oilwick patents at the U.S. Patent Office in Washington, D.C., I came across this patent for a mining lantern. How many collectors, seeing this item in an antique shop, would recognize it as a patented mine lamp?

On September 8, 1874, Coolidge B. Brown, of Placerville, California, received patent number 154,831 for his lamp. Brown states in his patent "My invention relates to a lamp which is especially adapted for furnishing light in hydraulic mines, where it is necessary during the night-time to light up the face of a bank in order that the miners may see their work; and it [assists] in the construction and arrangement of an oil reservoir, as more fully described hereinafter".

Brown goes on to call his invention the hydraulic mining-lamp. Brown states in the patent that "heretofore hydraulic claims have been lighted up during the night by making a bonfire of cord-wood, at heavy expense, and without furnishing a controllable light".

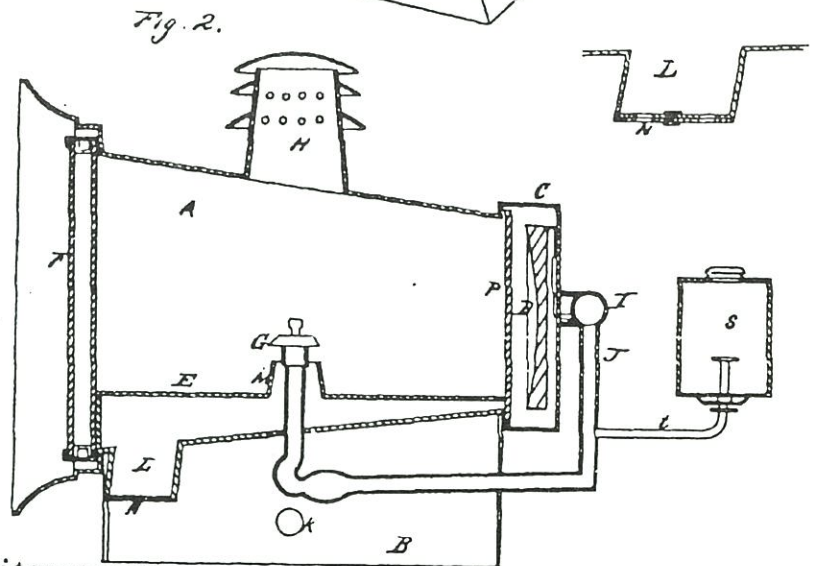
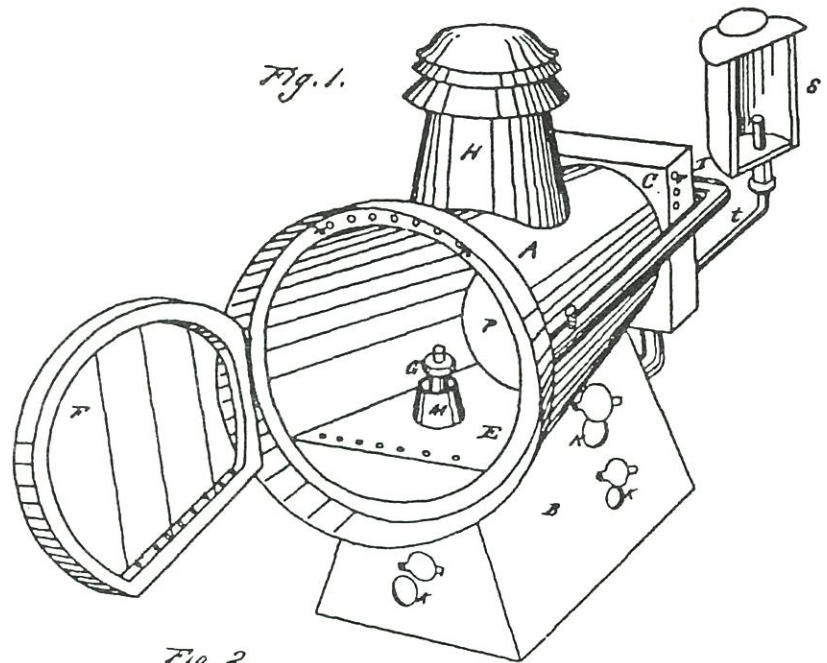
In addition to the main lighting mechanism, Brown added a smaller rear lamp that pivots to provide light to small areas for miners working behind the main lamp. Both lamps draw off the same fuel reservoir.

Whether or not these lamps were ever produced I don't know, but a patent model was provided. Here is another item for lamp collectors to be looking for.

C. B. BROWN
Mining Lanterns.

No. 154,831.

Patented Sept. 8, 1874.



Witnesses

John L. Boone
C. Milton Richardson

Coolidge B. Brown
By Sewey & Co
Attys

Snyder Oil Wick

Dave Johnson

The list of oilwick brand names continues to grow. I have just added a previously undocumented oil wick to my collection. The tin cap on this lamp is marked SNYDER.

There is a one-piece brass collar shoulder combination and a tin font and spout. The lamp is very similar in style to the Hunt & Connell and Alex E. Hunt lamps. While they all look very similar, the Hunt & Connell and the Alex E. Hunt were manufactured with the spout and font made from a single piece of tin while the Snyder lamp has the font and spout made from two separate pieces of metal.

The lamp is 2 3/4" tall to the top of the cap, the spout is 3 11/16" long and the font diameter is 1 9/16".

How many more brand names are still out there for collectors to find? Watch the next issues for other new oilwick names.



Another Bertels Oil Wick

J. Roger Mitchell

Here is yet another variation of a Bertels oil wick lamp, (see Eureka! #10), this one is tin with a one-piece brass shoulder and collar.

How many guys get to one-up Dave Johnson in oil wicks!



THE MINING COLLECTOR'S BOOKSHELF

Jim Van Fleet

Despite our untiring efforts to publish every known fact concerning mining collectibles, we have had several inquiries lately about other sources of information which might be available.

The following is a list of useful publications for the personal library of every collector of mining lamps, artifacts, and memorabilia. Many of these were privately published, some in limited editions. The acquisition of a good library of reference materials such as these has become a collecting challenge itself! Items which are still available from the publisher or distributors have been noted with an asterisk*. Sources for these publications are noted at the end of the bibliography. Particular types of information can become quickly outdated, and we have indicated within these reviews information that has been substantially updated or revised since original publication in these sources.

BOOKS

***American Miners' Carbide Lamps: a collector's guide to American carbide mine lighting.** Gregg S. Clemmer, illustrations by Wendell E. Wilson. Tucson, AZ: Westernlore Press, 1987. (hardcover, 126 pages)

This book is a *must buy* for the serious carbide lamp collector. It includes Gregg's extensive research on company histories and "family trees" of the important American manufacturers, copies of advertisements, and wonderful illustrations by Wendell Wilson. There are appendices listing lamp patents, sources of published historical information, and a "rarity scale" of lamp brand names (*outdated*). The book is still widely available from distributors of mining-related publications who advertise in Eureka!, and from the occasional well-stocked bookstore. If you come to one of the annual Eastern collectors reunions you can probably get a copy autographed by Gregg!

***Blasting Cap Tin Catalog.** Andy Martin. Tucson, AZ: Old Adit Press, 1991. (softcover, 80 pages)

This catalog, listing and illustrating over 200 known blasting cap tins, has been privately printed by Andy Martin, who is still actively seeking information on additional tins. It is the best single source of information published on cap tins. Copies are available through distributors, or by contacting the author.

***Catalogue of the Star, Globe and Eagle . . . Miners' and Drivers' Lamps.** William Spence, privately printed, [no date] (paper, 22 pages).

Bill Spence has reprinted a circa 1906 catalog from the oil wick lamp manufacturers George Anton & Bros., Monongahela, PA. Bill added a well researched company history, and beautifully reproduced 20 illustrations of Anton oil wick miners' lamps. The small paper catalog is still available in limited quantities from various distributors.

A Collector's Guide to Antique Miners' Candlesticks. Wendell E. Wilson and Ted Bobrink. Tucson, AZ: Mineralogical Record, 1984. (hardcover and softcover, 146 pages)

This book is the best one published showing the beauty and variety of western miners' candlesticks or candleholders. It includes numerous illustrations by Wendell Wilson, based on photographs of actual candlesticks in collections.

There are also many historical photographs and copies of advertisements. Appendices list known candlestick brand names (*outdated*) and sources of additional information. Paperback copies are becoming hard to find, and the deluxe hardcover limited edition is a real collector's item!

***Early Underground Mine Lamps: mine lighting from antiquity to Arizona. Henry A. Pohs. Museum Monograph No.6. Tucson, AZ: Arizona Historical Society, 1984.(softcover, 108 pages)**

Henry Pohs is one of the deans of the collecting community, a real original "lamp tramp," and the first to try to publish a useful history of mine lighting. For collectors, over 1/3 of the book is appendices, including the development of the safety lamp and a registry of known brand names of Miners' Candleholders, Oil Wick Cap Lamps, Mine Safety Lamps, and Carbide Lamps (*all outdated*). There are nicely illustrated surveys of carbide containers, and carbide and oil wick lamp trademarks. This book is available from distributors of mining-related publications, and occasionally from the Arizona Historical Society itself.

***Edkins Catalogue of United States Coal Company Scrip. 2nd edition. Donald O. Edkins, Fayetteville, WV: National Scrip Collectors Association, 1984. (hardcover 2 volumes, or loose leaf for 3-ring binders)**

Volume Two of this set is commonly referred to as the "blue book," and covers the scrip and company store tokens for the state of West Virginia. Volume One, the "red book," deals with other states in which scrip was used.

Frog Lamps: a survey of examples from 1529 to 1979. Wendell E. Wilson. Talcottville, CT: Rushlight Club, 1981. (softcover, 110 pages)

This handsomely produced book details the long history of European (primarily German) frog lamps. There are illustrations by Wendell Wilson on almost every page, showing the many interesting varieties of frog lamps known in collections worldwide. The text and illustrations have been reproduced in five installments in the Mining Artifact Collector, issues 13 through 17, 1992/93.

***Husson Miners' Lamps Manufactured in Oshkosh. Robert L. Fox, Jr. privately printed, first printing 1985, second revised printing 1987. (paper, 36 pages)**

This booklet gives a history, description, and line drawings of the miners' oil wicks, candleholders, and carbide lamps manufactured in Oshkosh, Wisconsin. Most are hard to come by, and some, such as the Husson detachable candleholder, Husson No.22 oil wick peg lamp, and the Oshkosh carbide cap lamp, are rare enough that many collectors have only seen them in these pages.

The Illustrated Glossary of Miner's Oil Wick Lamps. Dorothy Haynes. privately printed, in a limited edition of 150 numbered copies, 1990. (cards in plastic sleeves, 100 pages)

The Illustrated Glossary of Miner's Oil Wick Lamps. Volume Two. Dorothy Haynes. privately printed, in a limited edition of 150 numbered copies, 1991. (cards in plastic sleeves, 100 pages)

Dotty Haynes' books are a compilation of handdrawn, handcolored sketches of known oil wick lamp brands and design variations. Her beautiful artwork includes logos, closeups of special design features, and lamp dimensions. The cards can be removed from their binder, and rearranged as desired.

***The Lamp Cleaning Cookbook. Len Gaska. privately published, 1986. (paper, 7 pages)**

Here is one collector's approach to cleaning and preserving the interior, exterior, and parts of a carbide lamp. Reprinted in the Mining Artifact Collector, issue 2, 1989. However, as a courtesy to the author, copies can be gotten by sending three 29 cent stamps to Len.

***Mine Lighting in Nevada. Jack D. Ramsdell and Ron Bommarito. privately published, in a limited edition of 100 numbered copies, May 1992. (paper, spiral bound, 33 pages)**

This book is primarily a review of the Comstock lantern or "General Grant" lantern, a type of mine lighting unique to the Comstock mining region of Nevada. It includes photographs and line drawings of the various styles of lanterns known. There is also a section on miners' candlesticks either patented, made, or found in Nevada.

Miner's Carbide Lamp Reference. Paul Kouts. privately published, 1981 - 1983. (paper, 9 volumes, various pagination)

This series of publications introduced a new level of thorough research and cataloging of carbide lamp variations to the hobby. Each Reference includes copies of relevant patents, lists of patents, a company history, and Paul's own drawings of variations in lamp tops, lamp bottoms, stampings or markings, and hook or spade attachments (*largely outdated*). Paul Kouts developed a cataloging system to describe these variations with letter and number codes.

References which are known to have been published are:

Volume II: Auto-Lite

Volume III: Guy's Dropper

Volume IV: Springfield

Volume V: Zar

Volume VI: Duplex Lamps

Volume VII: Hansen

Volume VIII: Baldwin

Volume IX: Simmons

Volume XI: A Research of Records of the U.S. Patent and Trademark Office

The Nearly Complete Bottom-Guide for Carbide Cap Lamps. Wendell E. Wilson, privately published, first edition 1981, second edition 1982. (paper, 25 pages)

This pictorial identification guide for carbide cap lamp bottoms is out of print, but has been reproduced in part in the Mining Artifact Collector, issues 4 and 5, 1989.

Patents: Miner's Candlesticks. Jack D. Ramsdell and Norman S. Wagner. privately published, first printing 1982, second printing 1993. (paper, spiral binding, 273 pages!)

Here is a real labor of love, and a fascinating look at ALL of the known patents for miners' candlesticks. The patents are listed in chronological order, by state and city of origin, and then according to those known to have been manufactured. Copies of each patent, with drawings and text, are reproduced.

***20,000 Coal Company Stores in the United States, Mexico, and Canada. Gordon Dodrill. Pittsburgh, PA: the author, 1971. (softcover, 287 pages).**

This is the sort of reference book which does not deal directly with collectibles, but is invaluable for the scrip collector, and useful for anyone researching any coal mining company in North America.

Des Bergmanns Geleucht. Offenes Geleucht: ungeschlittlampen, ollampen, kerzenlampen. Karsten Porezag. Essen: Verlag Gluckauf, 1980. (hardcover, 102 pages)

Although few collectors will be able to read Karsten Porezag's books in the original German, he has put out a very impressive set of volumes on various types of miners' lamps, both European and American. These are worth having for the photographs alone! The photographs of lamps from collections are stunning, and there are also historical photos of miners, and copies of lamp advertisements. This volume covers open oil lamps, frog lamps, blende lamps, tunnel lamps, and some American candlesticks and oil wicks.

*** Des Bergmanns Geleucht. Zweiter Band. Offenes Geleucht: karbidlampen. Karsten Porezag. Essen: Verlag Gluckauf, 1988. (hardcover, 212 pages)**

Volume Two of the series focuses on European carbide miners' lamps, mostly 6 or 8 hour hanging lamps. There is a general introduction to carbide lighting, lamps and lamp parts. The rest of the book lists known lamps by country, with many photographs of lamps, historic photos of miners, and copies of lamp advertisements. Again, a tough read, even for someone who reads conversational German, because of all the technical language!

***Des Bergmanns Geleucht. Vierter Band. Bilderatlas vom Kienspanhalter bis zur elektrischen Grubenlampe. Werner Borkel and Horst Woeckner. Essen: Verlag Gluckauf, 1987. (hardcover, 480 pages)**

Volume Four of the German series is an "encyclopedia" of mine lighting, featuring candleholders, open oil lamps, frog lamps, tunnel lamps, blende lamps, oil wick lamps, carbides, 185 pages on safety lamps, and a section on electric mine lamps.

***160 Jahre Wetterlampen: lampen für die Sicherheit im Kohlenbergbau. Peter Hubig. Essen: Verlag Gluckauf, 1983. (hardcover, 184 pages)**

A heavily illustrated history of the development of safety lamps in Europe. Lots of rare safety lamps pictured here!

MAGAZINES

***Eureka! the journal of mining collectibles. (quarterly magazine) 1992 - present.**

Each issue of Eureka! includes approximately 40 pages of articles of interest to the mining memorabilia collector, a section of short "bits" of information and recent finds, and advertisements. Numerous illustrations including photographs, drawings, and historical advertisements.

Topics include mine lighting devices and accessories; blasting tools and equipment; mining machinery; mining related paper, memorabilia, and collectibles of all sorts; history of mine tool manufacturers, mines and mining towns;

biography of individual mining men; museum reviews; and news of current events of interest to mining collectors. Coverage is worldwide.

***Mining Artifact Collector. (irregular magazine) 1988 - present.**

Each issue of the MAC includes approximately 40 pages of articles, "collector's talk," and advertisements. Numerous illustrations including photographs, drawings, and historical advertisements.

***The Newsletter of Australian Mining Collectables. (quarterly magazine) 1993 - present.**

Each issue of this quarterly includes 8 - 12 pages of information on lamps, blasting tools, and other artifacts of Australian mining. Illustrations include drawings and historic advertisements. As with all such collectors' magazines, the Newsletter is a labor of love published by private collectors. Write to Stephen McCabe for information.

***The Underground Lamp Post. (biannual newsletter) 1967 - present.**

The Underground Lamp Post has been published twice a year for over 25 years by Henry Pohs of Denver, Colorado, with a masthead clearly labeled "-Not a Hippie Newspaper-". It was, for most of those years, the only publication in the world devoted to mining artifacts and collectibles. Each issue is typically 4 to 6 pages, including lots of short bits of information, announcements, advertisements, and drawings. A complete run of photocopies of the ULP; (begged, borrowed, or bought), is essential for the mining collectors' bookshelf. But don't pester Henry for back issues; he's busy finishing up his big new book, The Miner's Flame Light Book. Look for a review and information on this book in Eureka! before the end of the year!

SOURCES

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The Blasters' Rheostat

Craig S. Stolburg

Once electric blasting caps became generally accepted by the mining and quarrying industries, there arose a need to ensure that these electric caps would detonate when electric current was applied. In the early days of electric blasting there were few reliable methods for detonating these caps. After their development in the late 1800's, rack bar (push down or pull up) or twist blasting machines became the industry standard for activating electric blasting caps.

It was the need for a safe and economical way of testing the various blasting machines that precipitated the development of the blasters' rheostat. The early blasting machines were of the magneto type which relied on a permanent magnet to help develop the charge, and were susceptible to loss of magnetism, so that over time their efficiency decreased. As the efficiency of these blasting machines began to decrease, there

were more and more misfires. These unexploded explosive charges were deadly to the miners and quarrymen who had to load the broken rock into cars for haulage to the processing plants.

How then could one safely and economically test a blasting machine? Say one had a planned blast of 50 caps and wanted to make sure the blasting machine (rated for 50 caps) could fire all 50 charges. The sure way would be to wire up 50 caps with

the appropriate lengths of wire and fire them. If all detonated, then one could assume that the blasting machine was working up to capacity. This method was time consuming and costly in the number of electric caps expended.

Thanks to the efforts of scientists in Europe and the United States there emerged a practical application of Ohm's Law to the art of electric blasting. The result was the blasters' rheostat, a simple but highly accurate measuring device.

What is a rheostat? To fully understand what the rheostat does, one needs an introduction to Ohm's Law. Simply stated Ohm says that the current supplied (in amperes) to any electrical circuit will be equal to the potential (in volts) of the power supply divided by the resistance (in ohms) of the circuit. What this means is that the type (copper, iron, etc.), diameter and length of the wire used in making

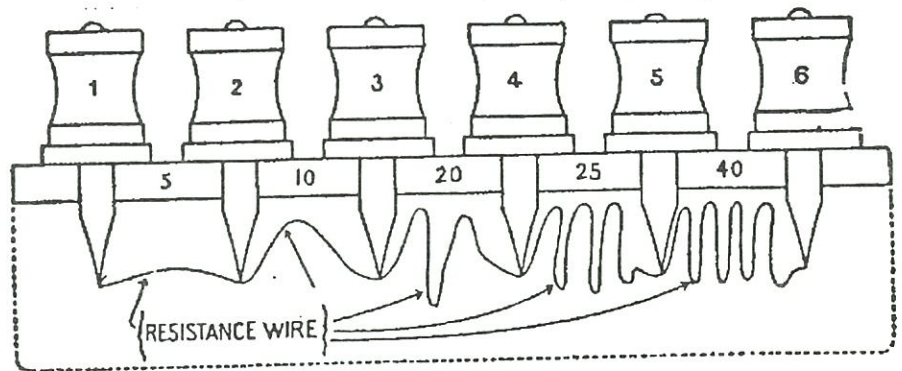


Fig. 1

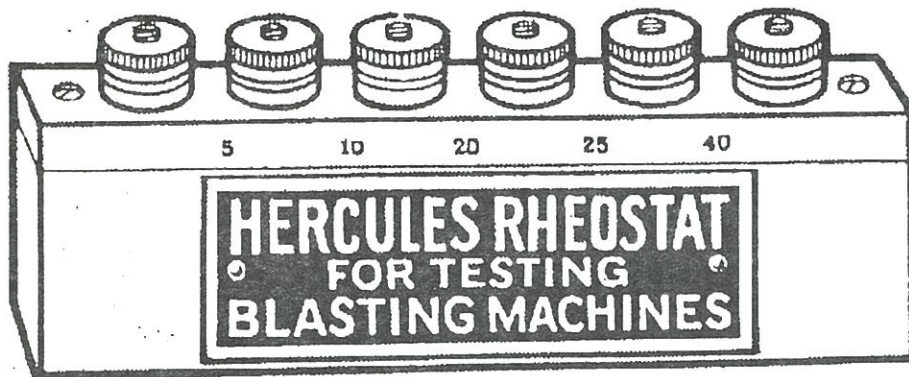


Fig 2

the blasting circuit will determine how much power is needed to fire all the charges.

Blasters' rheostats are small devices usually made of either wood or plastic, having an internal configuration similar to figure #1. This diagram shows a very simple device having wires of known length, diameter, and composition arranged so that various resistance combinations can be achieved depending on how the unit is wired. It appears that all early blasters' rheostats were either manufactured by the same company, or were made to a certain specification that was adopted by the major powder companies. Refer to figures #2 through #5 for examples of these devices.

How then does one use the rheostat to test a blasting machine? Suppose that a blast is to be fired requiring 30 electric blasting (EB) caps. The problem is how to test the 30 EB-capped blasting machine to ensure that all 30 bore holes will be initiated. The test would be conducted as follows:

[Editors Note: don't try this at home. Blasting caps, like all other explosives, should be handled only by professionals].

1. Connect one wire from the EB cap to the post on the rheostat marked with a 10 (second post).
2. Connect one of the blasting machine lead wires to the post marked 20 (third post).
3. Connect the remaining EB cap wire to the other leading wire from the blasting machine, thereby completing the circuit. Ensure that there is enough wire for the EB cap to be

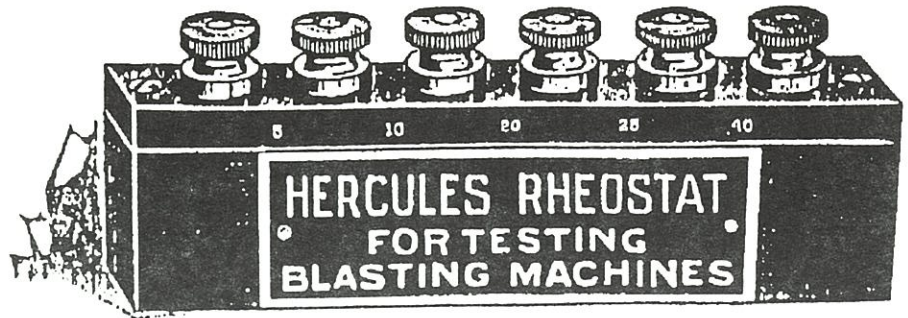


Fig. 3

buried far enough from the test operator and at least 8 inches below ground or in sand before detonating. 4. Raise the rack bar handle and push down with a sharp thrust. This should have initiated the EB cap, demonstrating that there was resistance equal

Rheostat (figure 6). This device had two extra posts which would allow one to hook up the EB cap to the last two posts and then select the resistance desired from the remaining posts, and hook up the blasting machine to these. This simplified the

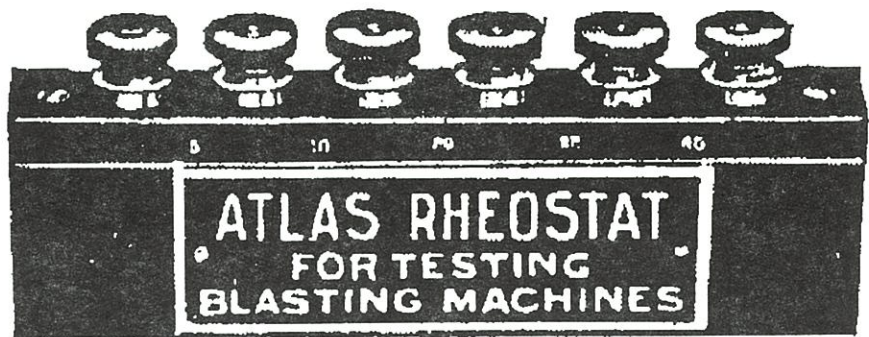


Fig. 4

to 30 electric blasting caps, which proved that the machine was working up to its rating of 30 EB caps.

Most of the rheostats made were based on EB caps having 30 foot copper wires, and in addition had a safety factor built in to take care of the added length of leading and connecting wires.

In the late 1920's Atlas Powder Company began to experiment with an improved rheostat. By 1928 they were successful in designing a new rheostat known as the Atlas Duplex

wiring for the test process.

DuPont Corporation, through its Explosives Division, improved their rheostats in the mid-sixties by employing the same type of locking posts and plastic case as the Atlas Duplex unit, but did not add the two extra posts.

It appears that the blasters' rheostat has fallen out of favor with most blasting operations today. One major reason is that the new capacitor discharge system blasting machines used today produce electric currents sufficiently high to burn out the wires

in a rheostat.

This is by no means a complete listing of rheostats, but is intended to provide general knowledge of what a blasters' rheostat was and how it was used. If anyone has information on rheostats bearing the names of other powder companies, I would appreciate hearing from them.

REFERENCES:

Barab, J. Modern Blasting in Quarries and Open Pits. Wilmington, DE: Hercules Powder Co, 1927.

DuPont Blasters' Handbooks. 1920, 1925, 1932, 1942, 1949, 1952, 1954. Wilmington, DE: E.I. DuPont De Nemours & Co.

Handbook of Electric Blasting. Dallas, TX: Atlas Powder Co., 1985.

Hercules Blasting Supplies Catalog. Wilmington, DE: Hercules Powder Co., 1918.

Eissler, Manuel. The Modern High Explosive. NY: John Wiley & Sons, 1905.

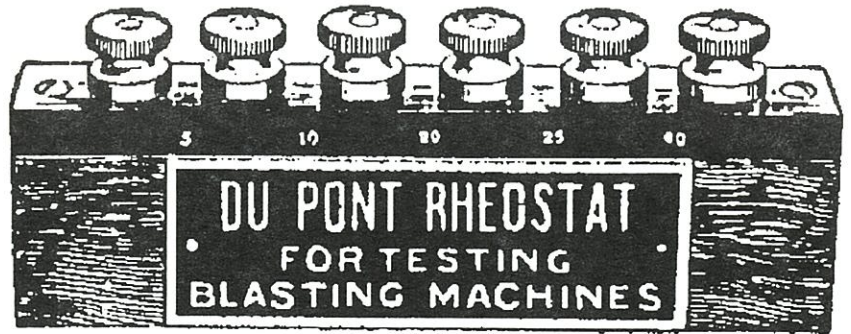


Fig. 5

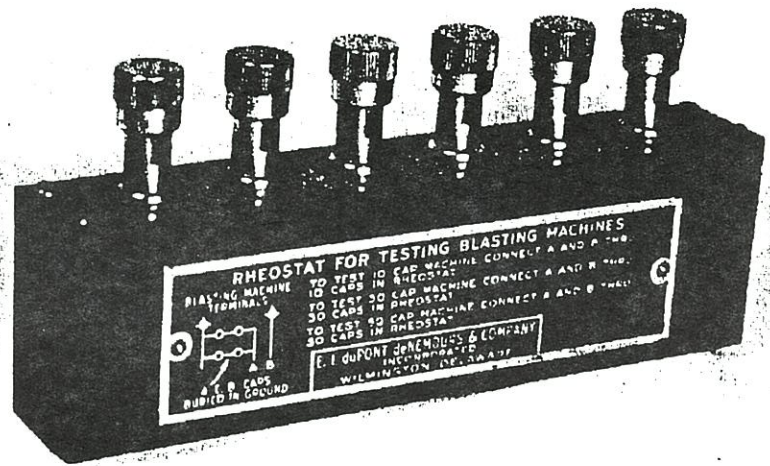


Fig. 6

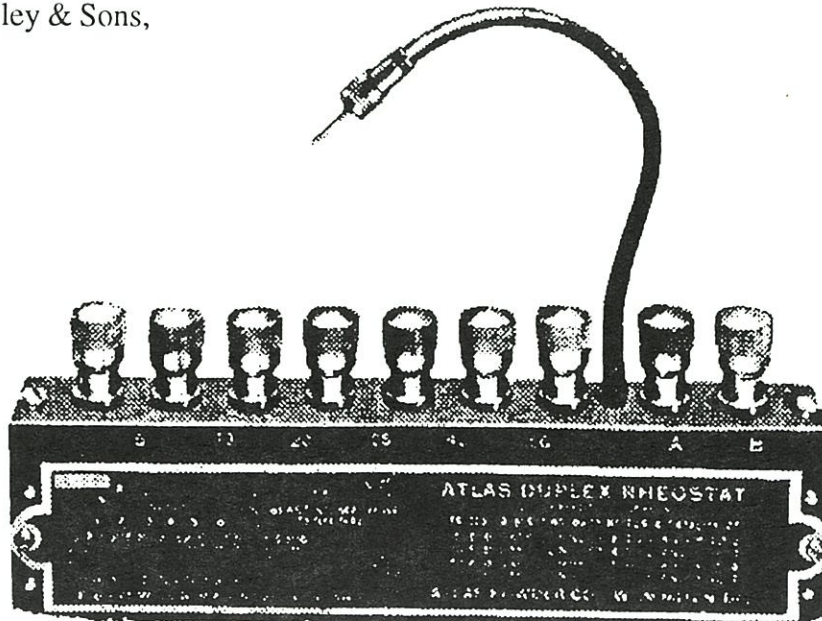


Fig. 7

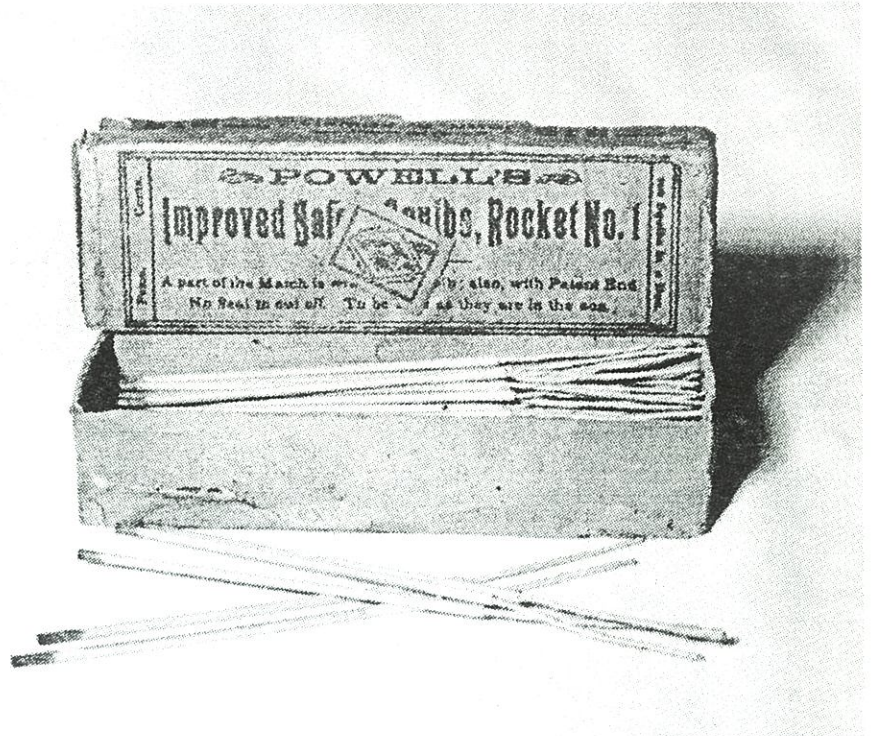
Squib Tins

Jim Van Fleet

Lester Bernstein was kind enough to send me recently a photograph of his collection of miners' squib tins. It was surprising to see the variety of shapes and sizes available, and a little bit of research dug up a few interesting variations.



Miners' Latest Improved Squib Box.



Cardboard box of squibs. Bill Lorah collection.

Squib tins or “boxes” as they were often called, were metal containers used to transport miners’ squibs underground safely. The squib was a peculiar design of fuse used for lighting charges of black powder. The mechanics of blasting with squibs and powder have been explained in previous articles in [Eureka!](#) Suffice it to say that these little paper devices are self-propelled rockets, and needed careful handling and storage!

Squibs came packaged in paper cartons, and the miner was obliged to transfer them to some type of container to transport them to the working face. Most such tins were designed with an oval profile, long enough to accommodate the squibs without bending them, and often with an internal divider to create two chambers within the tin. The most common design has a sliding removable lid which fits tightly over one end of the tin, and often the lid has a match striking surface embossed on it.

(left) Anton squib tin.

Most of these tin examples were unmarked, and this short article can't deal with all of the known variations or markings which have been found. The most famous squib box which has been found in some numbers is the brass, multiple-compartment 'GAIL & AX'S "NAVY" SQUIB, MATCH, AND TOUCH PAPER SAFETY BOX PATENTED JANUARY 27, 1885.' This was doubtless produced as an accessory by the tobacco company of the same name. The Gail & Ax's is unusual in that it could be opened at both ends, with spring-loaded lids which would snap safely shut, and compartments for squibs and matches.

The most famous squib box is of course the rarest, and the author had never seen an actual example until Lester shared his photograph. This is the "Miner's Latest Improved Squib



Assortment of squib boxes from Lester Bernstein's collection.

Miners' Squib Cases, I.C.
 No. 23R5071 Round. 1 1/4 x 7 inches.
 Weight, each, 2 ounces.
 Price, per dozen, 4.40; each, .36

Miners' Lamp.
 No. 23R5073 One Hook. Weight, each, 2 ounces.
 Price, each, .80
 Per dozen, 8.30

Miners' Canteens, I.C.
 No. 23R5079

Quarts.....	1	2
Holds quarts.....	1	1 1/4
Inches.....	2 1/2	7 1/2
Weight each, ounces.	8	10
Price, each.....	.80	\$0.19
Per dozen.....	9.60	1.38

No. 23R5080 Miners' Candlesticks.
 Forged steel. The most popular pattern.
 Price, each.....30c

Water Dippers.
 No. 23R5090

Tin Bottoms, I.C.

Quarts.....	1	2
Holds quarts.....	1	1 1/4
Inches.....	5 1/4 x 3	8 1/4 x 3 1/4
Weight each, Oz.	4	5
Price, each.....	.8c	7c

No. 23R5092 Copper Bottoms, I.C. Two quarts; holds 1 1/2 quarts; weight, 8 ounces; size, 6 1/2 x 3 1/2 inches.
 Price, each.....1.30

Climax Fruit Jar Filler.
 No. 23R5098 Made with standard thread to fit any ordinary screw top jar. Mason's included. Out represents filler in position, attached to a fruit jar. By using this the cook can take the jar right to the kettle, filling the fruit in HOT, so that it will KEEP perfectly. The thread of jar is covered; this prevents juice getting on same and cementing the cap so it can't be unscrewed. If jar is too full, it is easy to empty some back into kettle. Price, each.....5c

Box" manufactured by J. Anton and Son, Monongahela, PA. The advertisement for this tin shows the hinged lid similar in design to the Anton oil wick lamps. From the photograph, it appears to be tin with a black enamel finish, and slightly shorter than a standard squib box.

Other marked squib boxes include oval, tin examples marked "Nesco" on one end, and similar tins marked simply "squibs."

"Miners' Squib Cases" were advertised in the Sears, Roebuck Catalog of 1902, and an oval squib box appears in a hardware supply company catalog from Pittsburgh as late as 1924.

It hardly seems possible with such a simple device, but there is actually a patent for a squib-box, issued to Charles H. Rice of Hazleton, PA in 1907. The patent describes the typical item as well as the function of the two-compartment design (next page).

(left) 1902 catalog excerpt from Sears, Roebuck & Co., Catalogue No. III.

PHOTO CREDITS:

A selection of squib tins from the collection of Lester Bernstein.

Advertisement from the Catalogue of the Star, Globe, and Eagle . . . Miners' and Drivers' Lamps, reproduced by Bill Spence.

Sears, Roebuck & Co., Cheapest Supply House on Earth, Chicago. Catalogue No.III, 1902.

Frick and Lindsay Co. Pittsburgh, PA 1924.

U.S. Patent 863,447. August 13, 1907. Squib-Box. Charles H. Rice, Hazleton, PA.

OVAL SQUIB BOXES

Oval.....per dozen \$0.45




Fig. 8075

OIL FLASKS

Bottle-Shape or Pocket

1 pint.
Tin Top and Brass Top.
Prices on application.


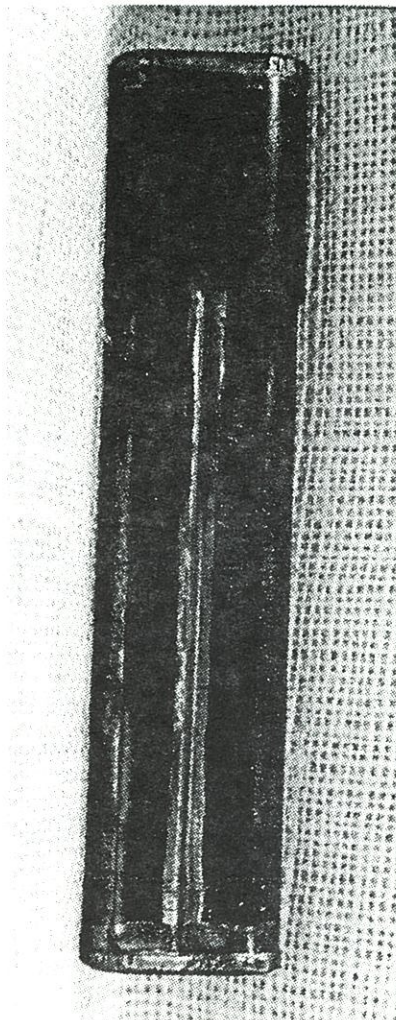


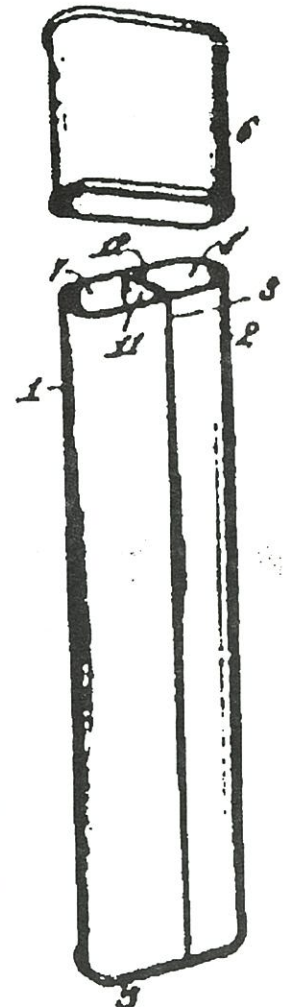
Fig. 8076

1924 catalog excerpt. From the Frick and Lindsay Co., Pittsburgh, PA.



863,447. SQUIB-BOX. Charles H. Rice, Hazleton, Pa.
Filed Feb. 2, 1907. Serial No. 355, 506.

A squib box consisting of a body portion formed from a pair of separate sections, each of said sections having the ends thereof bent to overlap, the overlapping portions of one section inter-engaging with the overlapping portions of the other section thereby forming a longitudinally extending and centrally-disposed reinforced partition, means for securing the inter-engaging portions of the sections together, a bottom secured to one end of the body portion, and a cover for the box.



1907 Rice patent for squib box. (Patent description above, patent illustration right, and an example from Dave Johnson's collection left). What distinguished this box from previous boxes was the manner of construction whereby the body was formed from two separate pieces joined in the center. This folded center joint provided reinforcement to prevent crushing of the box body from external forces. The example shown left is stamped with the patent date August 13, 1907 on the side of the container.

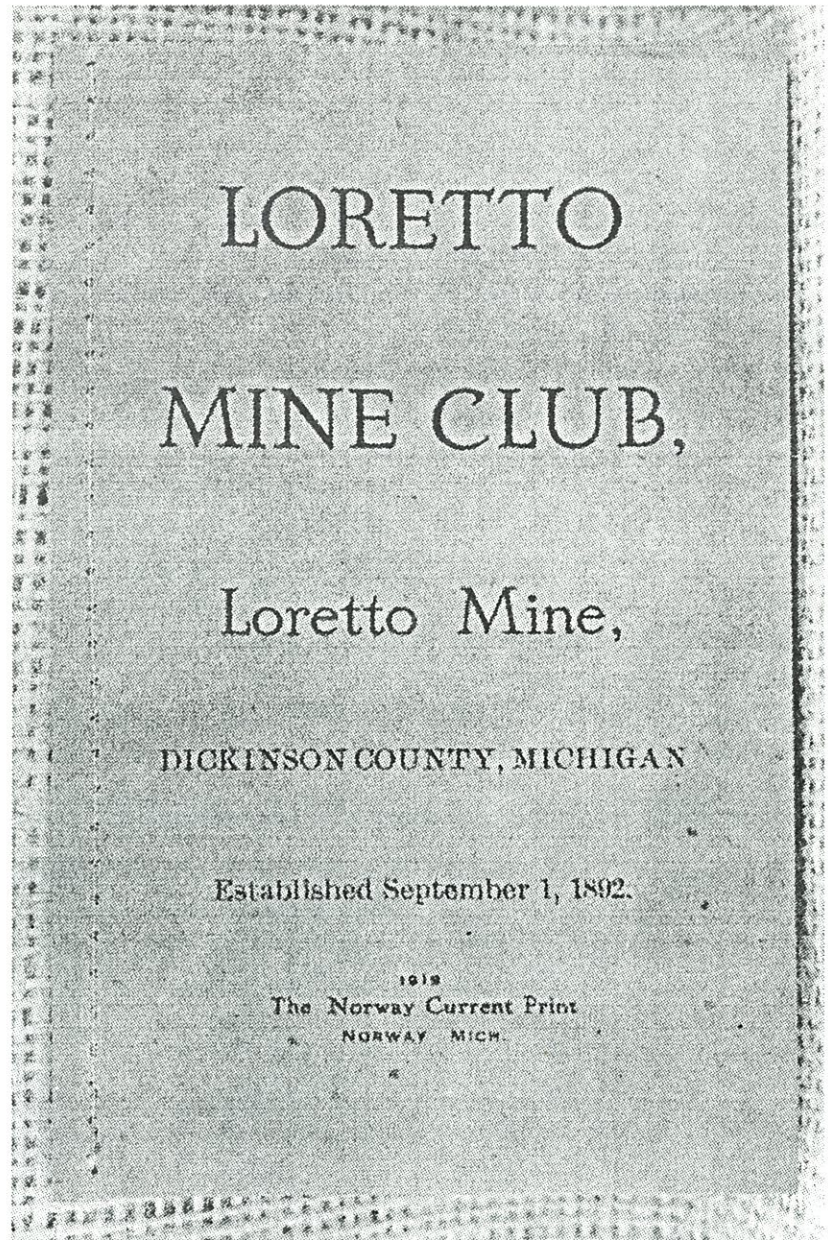
Prior to workmen's compensation laws, miners were left to their own devices when injured or permanently disabled while working. Since there were no laws to protect them and mining companies seldom helped injured workers, many miners banded together to form mine clubs or miner's associations. These organizations collected dues from their members and made payments to members in cases of injury, disability or death.

Among these organizations was the Loretto Mine Club of Loretto, Dickinson County, Michigan. Members were all workers at the Loretto Mine, on the Menominee Iron Range. The first iron mine on the Menominee Range was discovered in 1878 and was known as the Millie Mine. The first operating mine was the Chapin which opened in 1880 and operated until 1932 when it was the last working mine in Dickinson County to close. Dickinson County at one time had 38 working iron mines.

One of these mines was the Loretto Mine. The workers at the Loretto Mine formed the Loretto Mine Club on September 1, 1892. The Mine Club provided each member with a copy of the club rules, a 1919 version of which is pictured here. Some of the most interesting rules state:

Loretto Mine Club

Dave Johnson



Handbook for Loretto Mine Club

This Club shall be known as the Loretto Mine Club.

For the purpose of providing a fund to aid in the case of sickness, accident or death, the following rules shall be established and observed:

RULE I.

The officers of this Club shall consist of one president, one vice-president, one secretary and one assistant secretary, one treasurer and inner guard, who shall be elected every September.

RULE II.

If a vacancy may occur in any of the above named officers, such vacancy shall be filled by appointment, until the next annual election, by the remaining officers of the Club.

RULE III.

Every man entering the employ of the said company shall be charged, through the mine office, the sum of one dollar (\$1.00) entrance fee and fifty cents (.50) a month as a regular assessment afterwards.

RULE IV.

When a member of said Club is disabled from labor by accident, he shall receive aid from the Club at the rate of twenty dollars (\$20) per month for each and every month or fractional part thereof, that he is so disabled, restricted however, by Rule V last clause.

RULE V.

When a member is disabled for labor by sickness he shall receive from the Club \$20 per month. Said benefit may continue for a consecutive period of twelve months.

RULE VI.

The mine physician will keep a record of all cases of accident or sickness, and in no case will money be paid from the Club unless authorized by said mine physician's certificate.

RULE VII.

Any member who becomes disabled while intoxicated or during brawls or riots or from venereal disease, shall be disqualified and will not be entitled to benefits.

RULE VIII.

Any member being taken sick shall immediately notify the secretary and

during said sickness is restricted from playing any game, shall not use any intoxicating beverages or perform any manual labor for profit.

RULE IX.

Every man working at the Loretto Mine shall have his dues charged to his account the first day he works and shall be entitled to his benefits on and after that day, provided, in case any member shall leave the mine, he has no further claim on the Club.

RULE X.

If at any time the funds of this Club are not sufficient to pay the sick or disabled members in full, the money shall be divided pro rata.

RULE XI.

On the death of a member of this Club, each and every member shall be assessed fifty cents, which shall be collected through the mine office, the same to be placed to the credit of the deceased member and be paid over from the Club to the nearest relatives.

RULE XII.

Every member who is sick must present a doctor's certificate every month, said certificate to be signed by the timekeeper. Failure to present said doctor's certificate as specified, shall deprive him of benefits.

RULE XIV.

If a member at time of death has left no means for burial expenses, the Club shall be obliged to take charge

of the remains and defray all expenses of burial.

RULE XV.

When a member shall, from accidental injuries received become totally blind, or shall be so crippled in limbs as to be wholly and permanently disabled for all labor whatever thereafter, he shall receive the sum of one dollar (\$1.00) per member of this Club, the same to be collected as in the dues.

RULE XVII.

Every member of this Club is requested to attend the Club meetings at least once in three months; failure to comply with this rule, without sufficient excuse, shall be a surrender of all claims on said Club.

RULE XXII.

As per articles XI and XV, the same shall be dropped or not followed if the Club treasury contains a sum exceeding one thousand dollars (\$1,000), in which case the benefits shall be deducted therefore.

These rules would appear to have been quite strict, to the point of dictating aspects of the members' personal lives. In my collection I have rule books from miners clubs and associations that are very similar in content. These organizations were a far cry from today's comprehensive workmen's compensation programs.

Record Cards: North Butte Mining Co.

Harold L. Bailey, Jr.

The early 1900's saw the advent of what was referred to in the the industrial work environment as scientific management. The overall objective was to reduce production costs through improved productivity. These efforts were the basis for the establishment of the industrial engineering discipline.

Mining as an industry was not, with one exception, in the forefront of this new management thrust. The exception was a Butte, Montana concern named North Butte Mining Company. North Butte is probably better known for the mining disasters that occurred in 1915 and 1917 at the Granite Mountain Mine than for its progressive management practices. Perhaps as a result of these accidents management was compelled to seek a better understanding of its mining activities. Shortly after the 1917 disaster "record cards" which standardized various underground procedures came into use. In 1920 at the time of card use, North Butte Mining Company was hoisting 2,000 tons of ore daily through the Speculator, Granite Mountain and Gem shafts a maximum distance of 3400 vertical feet. Normal production was obtained from 75 stopes, 20 raises and 30 sill development faces. The company employed about 1,600 people and by any standard was a substantial operation.

N.B. Braly, General Manager, is credited with development of the cards and he was granted Patent Number 1327855 on January 13, 1920, which is shown in Figure 1. Data acquisition for efficiency calculations was the primary thrust. However, the cards were also a means for miner training, standardization of mining practices, inventory control and miner safety orientation. The cards dealt with a multitude of topics including potty car cleaning, drilling and blast-

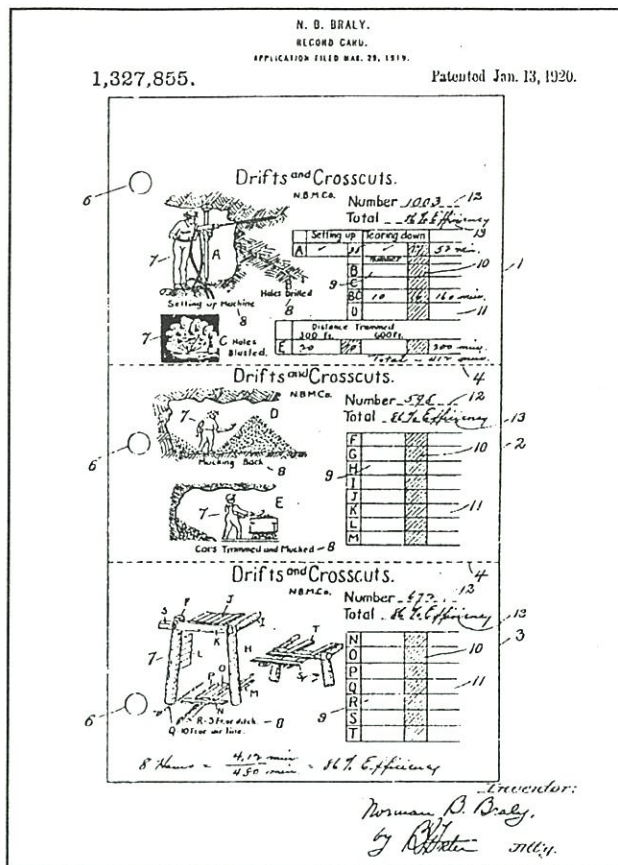


Fig. 1. Patent Office documents for the North Butte Mining Company record cards.



Fig. 2. Shaft concreting in Speculator No. 2 Shaft of the North Butte Mining Company in January, 1920 showing the men filling in between compartments while one of them is tamping down the concrete.

ing, mucking, tramming, timbering, ventilation, shaft work, and numerous surface activities to mention but a few. They were for the most part very detailed.

Figure 2 shows a photograph of a shaft concreting operation in the Speculator shaft in the early 1920's. Figure 3 shows the card relating to the work depicted in the photograph. The miners' clothing, drop tube, forming and staging are accurately depicted. The cards are truly a unique expression of site-specific mining practice.

It is evident that there were in excess of 110 different cards of varying complexity designed between 1917 and mid-1923. They will be found printed on buff, white, light green, yellow, aqua, and pink paper with the purpose of the color coding being unknown at this time. Printing volumes varied from 200 to 10,000 cards, with several batches made for some cards. The earliest printing date observed is March 5, 1919, while the latest is May 31, 1923. Patent Pending appears on cards dated May 1919 while the patent date appears after issuance. In 1923 North Butte became a part of the Anaconda Copper Mining Company. It is not known if record cards were used by this company.

Bibliography:

Linton, Robert. "Standardizing by North Butte Mining Company." *Trans. Am Inst. Min. Eng.*, Vol. 66, 1922, pp.182-219.

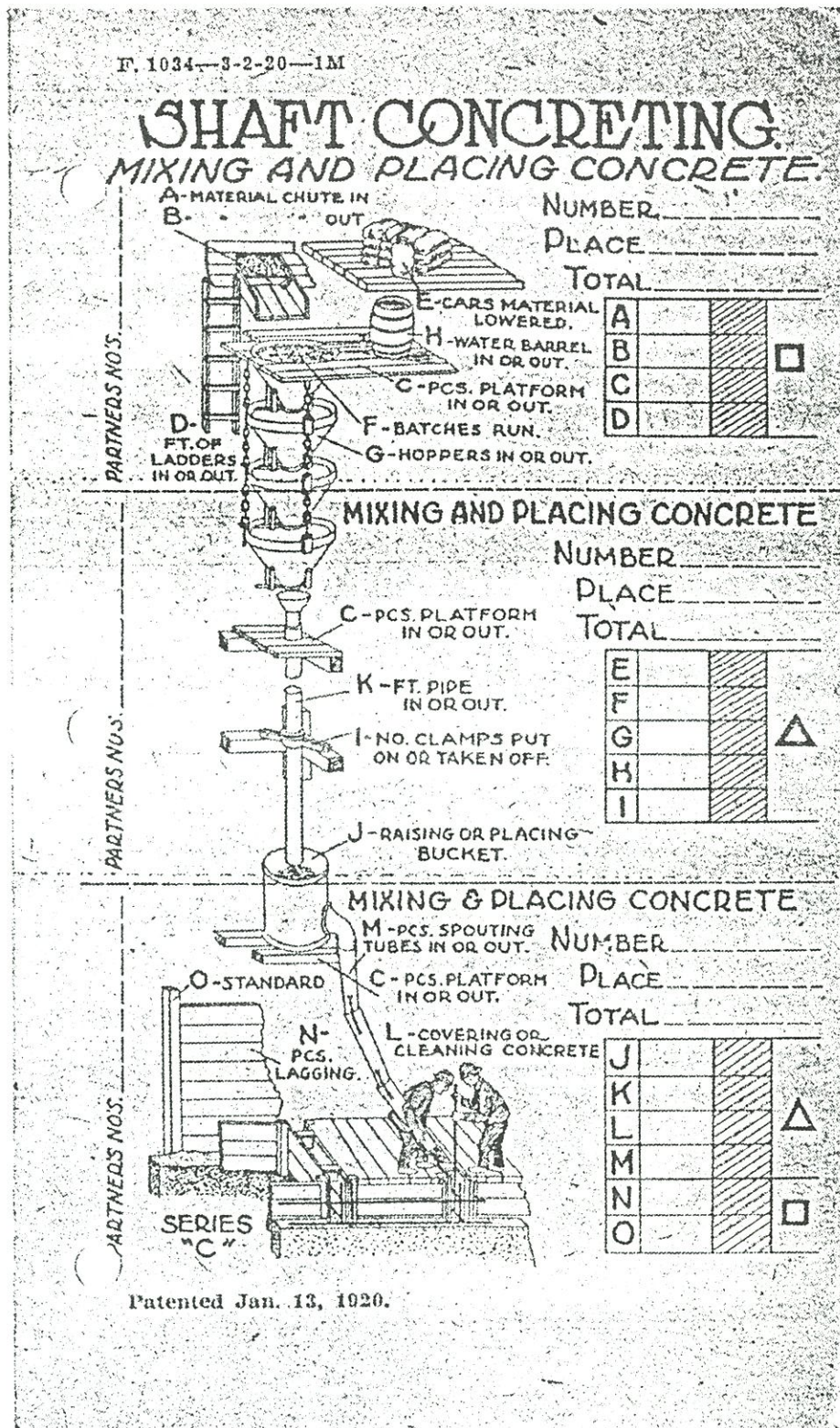
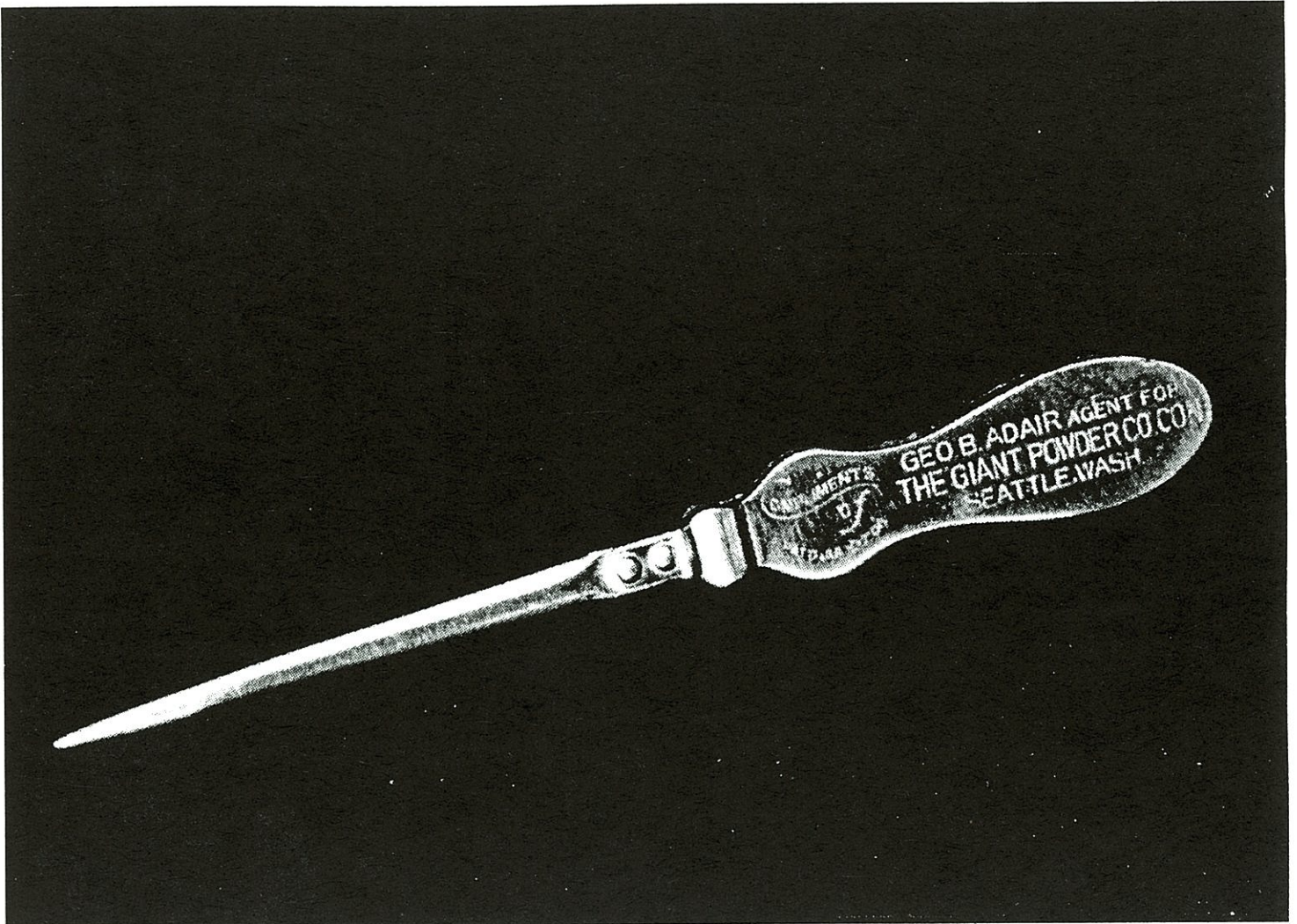


Fig. 3. Shaft concreting mixing and placing card showing the miners' activities pictured in Fig. 2.



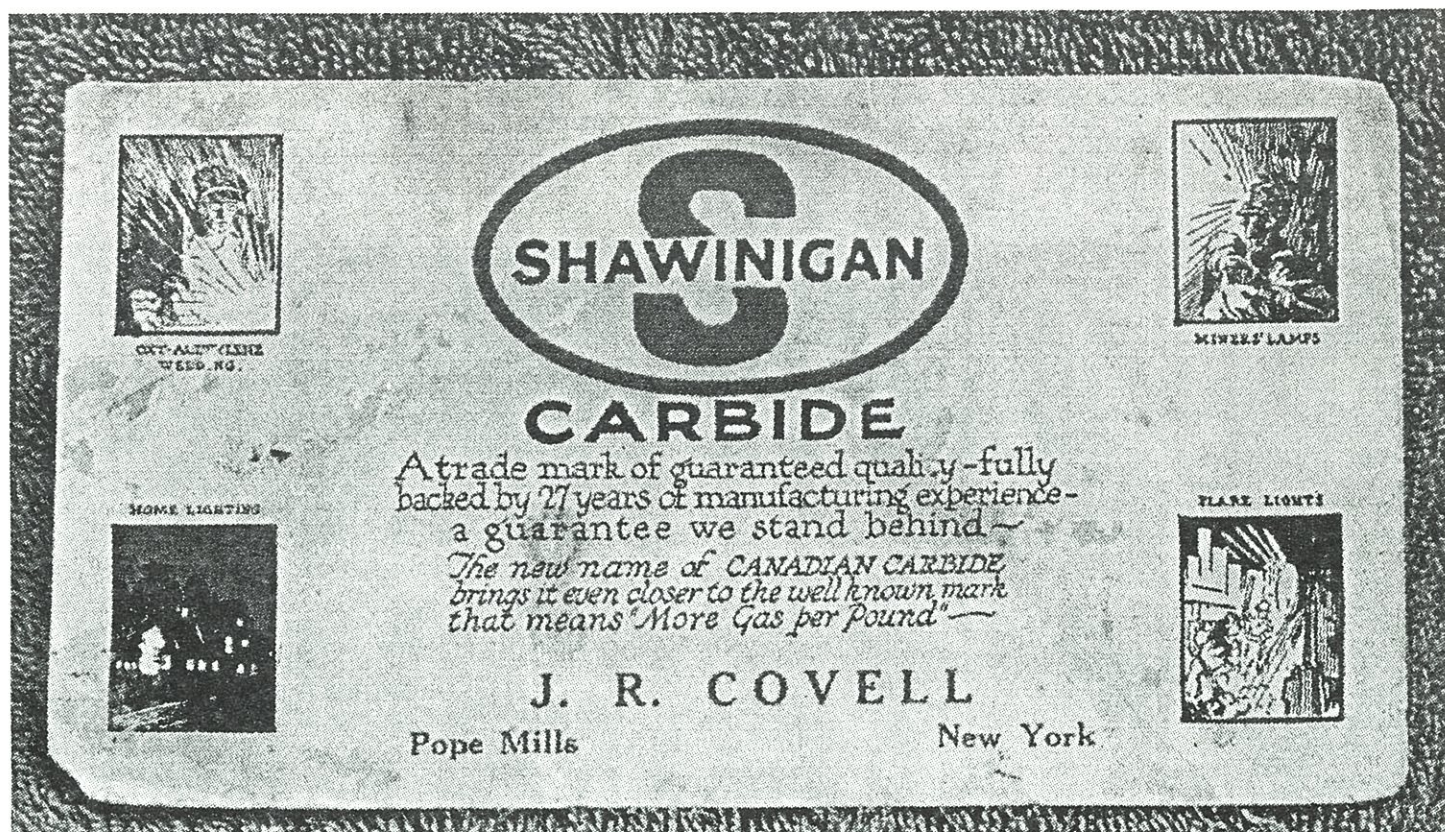
BITS



Unusual Letter Opener

Ed Chris, of Springville, Utah, recently submitted this photo of a letter opener he came across in a small antique shop outside of Tacoma, Washington. The interesting feature, besides being a Giant Powder piece, is the split handle. Between the two metal plates forming the handle are sharply corrugated surfaces. A piece of paper slipped between the plates can be embossed with a pattern by squeezing the two sides together. This may have functioned as a tool for marking canceled checks. Bob Schroth coincidentally has acquired the same artifact at the Lead, South Dakota show. The patent date is July 17, 1906.

A Mining Related Blotter



The Shawinigan blotter pictured is only the second blotter I have seen that is in any way related to mining. Several explosives companies and distributors produced blotters, but unlike the Shawinigan blotter, they made no direct reference to mining. When offered, the blotter was billed as a trade card and I purchased it as such. Only later did I determine that it was actually a blotter. At that point, my curiosity was piqued! Does anyone know of an actual trade card that is related to mining? (Len Gaska)

Early Justrite Letterhead

Paul and Nancy Hyatt acquired (opposite page) a beauty - a letter from the Justrite Mfg. Co. to one of their customers, the Soo Hardware Co., Sault Ste. Marie, Michigan. The letter is dated 1913, and shows the earliest models of Justrite miners cap lamp, half-shift lamp, superintendent's, and the #100 camp lamp. To quote: The JUSTRITE is the leading lamp in all mining camps, and trust you are having a good sale of same."

Notice at top center of the letterhead that the superintendent is listed as Augie L Hansen. The same person was responsible for nearly all of the pre-1920 patents for the Justrite Mfg. Co. After that time he is known for his own company which produced the much sought after Hansen, Drylite, and Force Feed lamps.

Also of interest is the third lamp down. Often referred to as a "supervisor's" or "superintendents" lamp by collectors, this clearly shows, that as early as 1913, this model was designed for campers. The previous terms should, therefore apply only to the fourth model shown with a taller base.

ALL ORDERS AND CONTRACTS SOLICITED BY ANY REPRESENTATIVE OF THIS COMPANY ARE SUBJECT TO APPROVAL BY HOME OFFICE AND CONTINGENT ON LABOR DIFFICULTIES, FIRES OR OTHER UNAVOIDABLE DELAYS.

FRED. J. BECKER, Pres't.
WALTHER RASTER, Vice Pres.

AUGIE L. HANSEN, SUPERINTENDENT

ESTABLISHED 1906

LOUIS A. BECKER, Secy.
CHAS. SCHUBER, TREAS.



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WABASH 3569
AUTOMATIC 82-564

CHICAGO, U.S.A. Dec. 16, 1913

MINERS CAP LAMP



No. 99 Polished Brass \$1.00
No. 88 Nickle Plated . 1.25

MINERS HALF-SHIFT LAMP



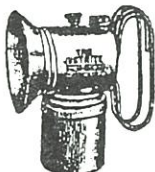
No. 90 Polished Brass \$1.25
With Stick Attachment

CAMPERS LAMP



No. 100 Nickle Plated . \$1.50

SUPERINTENDENTS LAMP



No. 95 Nickle Plated . \$2.00

The Soo Hdwe. Co.,
Sault Ste Marie, Mich.
Gentlemen:

Referring to your letter of the 6th.
and two lanterns returned, beg to advise we
have repaired same, and sent forward via
parcel post.

We sincerely regret this defect, and
trust it will now give good service.

The JUSTRITE is the leading lamp
in all mining camps, and trust you are having
a good sale of same.

Trusting the lanterns will reach
you promptly, we remain,

Yours very truly,

JUSTRITE MFG' CO.

H



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All classified ads up to 75 words are free to subscribers. 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.

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Correction! The correct address for display cases pictured in January Eureka! is Howard Scotland, P.O. Box 468, Timonium, MD 21093. Phone (410) 321-0754.

Gaskets: For rare cap lamps. Reasonably priced. Specify lamp: Pathfinder, Scranton, Scranto, Maumee Duplex, Scoby, Baldwin, Grier, Britelite, Maple City, Anthracite. Dave Thorpe, P.O. Box 477, Peoria, AZ 85380. (602) 548-1959.

Wanted: Any information of safety lamps possibly marked Merchant & Co. Phila, Pa. or Heller & Brightly Phila, Pa. (Ads for these have appeared in the City Directories). Please contact Roger Mitchell, 547 Fairview Ave., Media, PA 19063-4901.

For Trade or Sale: X-Ray, Vertical style Justrite, Chirry wick, T.F. Leonard wick, Zais wick, Senior Conflow 1984 Calendar, No. 3 w/ carbide lamps, many other misc. mining related items available, send SASE for list or contact: Jeff Shanks, 2003 Yardley Rd., Yardley, PA 19067, tel: (215) 736-9107.

Catalog: Send for catalog of mining history books and photos. (Postage appreciated). If you have any books for sale relating to Michigan iron and copper mining please write: Robert Fox, 1235 N. Westfield St., Oshkosh, WI 54901.

Wanted: Brass base for Big Boy carbide lamp. Lids for 100 ct. Western No. 6 (or Illinois or Illinois Western) and Western No. 8 (or Illinois Western) captins. Also want bottom for 100 ct. Atlas No. 6, square, globe "A", cap tin. Will Moats, 8409 Fairmont Dr., NW, Albuquerque, NM 87120, (505) 899-1163.

For Sale: Lamp Collection of the late Tom Sevier, featured in the Amax Publication several years ago. It includes safety lamps, carbide lamps, oil wick lamps, bird cages, methane testers. Some lamps are rare, many other coal artifacts. Will send complete list on request. Contact: Bill Sevier, P.O. Box 302, Summerville, IN 47683. (812) 795-2532.

Wanted: Michigan mining stock certificates. Chuck Voelker, 614 Harding, Plymouth, MI 48170.

Coal Mine Stickers: Valued at \$1 ea. Will trade towards carbide cap lamps. Larry Click, 1021 N. Jefferson St., Arlington, Virginia 22205 (703) 241-3748.

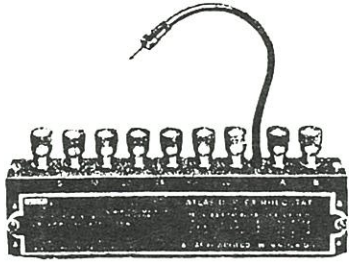
NEW LIST: I'm mailing my Summer 1994 Mining Artifacts list in August. Carbide related only. It's guaranteed to contain something you don't have. Please SEND or CALL me with your address to receive a copy. THE MINER'S PICK, c/o Mike McLaughlin, P.O. Box 607, Spotsylvania, VA. 22553. Call before 9:00 PM (EST) 703-582-2146.

Free Advertising!

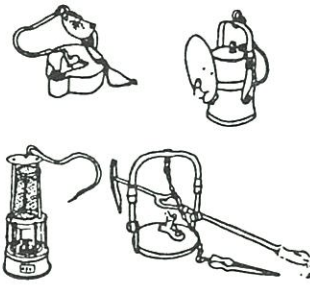
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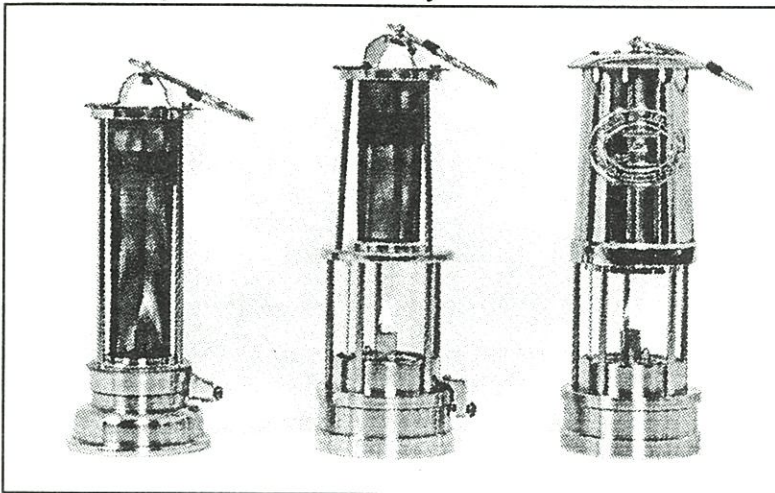
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* These modern production lamps are not "Permissible" nor intended for use in a mine.

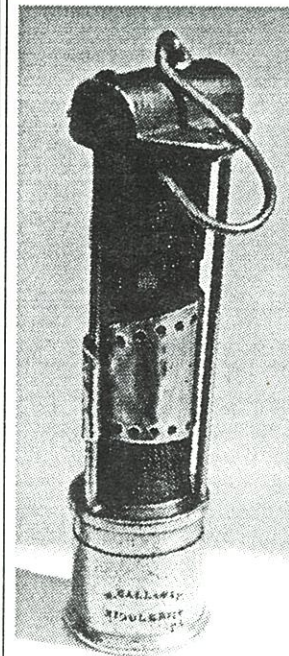


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- (7) Atlas - 100 No. 6

Books:

- (7) Baldwin-Chandlee Supply Company; Elkins, Wva.; circa 1900
- (9) I.C.S. Coal Miner's Handbook; Scranton, PA; copyright 1913

Coins:

- (10) Yocum Creek Coal Co., Inc., Evarts, KY; "Payable in merchandise only"; 5 ORCA
- (10) Devon Mines 1811, Tavistock Penny Token
- (10) Anglesey Mines Halfpenny 1791

Hand Lanterns:

- (6) Acme hand lamp; steel body
- (8) Brilliant generator; Pat. Oct. 21, 1902
- (8) Justrite; small steel handlamp with hook in handle; 6 inches tall; 4 inch reflector
- (8) National Carbide, 342 Madison Avenue, New York, NY., Pat. Feb 15, 1927; brass body; steel bottom
- (8) All aluminum "Model A Union Carbide Lamp"; "Oxweld - Railroad Lamp - The Oxweld Railroad Service, Co."; 6 inch reflector; crack in lense

Safety Lamps:

- (9) J. Davis & Son, Ltd., Baltimore, MD; aluminum
- (10) Mine Safety Appliance Co., Pittsburgh - "West Virginia State, First Aid Contest, 1923"; unfired; with key; aluminum
- (9) Miniature 2" brass lamp; "Holland" stamped on bottom

Miscellaneous:

- (9) Eveready Permissible Flashlight (two)
- (10) UMWA license tag sign; New Kensington, PA; painted tin
- (8) Mine Tag; Davis Coal & Coke Co., No. 22 Mine, "Henry" "71"

Oil Wicks:

- (7) "B.E. Leonard, Scranton, PA"; tin; double spout
- (7) "B. Pritchard, Frostburg, 1907"; tin; double spout
- (5) "C. George, PA"; tin; single spout
- (10) "Chirry, Chirry"; double spout
- (10) "Crown, registered, Pat May 26, 1903 & April 20, 1909"; tin with brass neck; double spout; copper lined
- (9) "Crown Trademark"; surveyor's lamp; tin with brass fittings
- (9) "Dunlap's Pittsburgh"; double spout
- (8) "Frostburg"; tin; double spout
- (10) "Grier Bros., Pnts ___"; tin; driver's lamp with shield; single spout
- (10) "Hardscog Mfg. Co., Ottumwag, IA"; tin; double spout; 10 vent holes in spout
- (8) "I.F. Leonard, Scranton, PA"; tin with brass neck; single spout; milk can
- (8) "Monongahela Valley"; double spout
- (8) "Star, Beall Bros., Alton, Ills" imprinted in shield; double spout; 3 inches tall
- (10) "Star, Beall Bros., Alton, Ills" imprinted in shield; double spout; 2.5 inches tall
- (8) "Star, Geo. Anton, Monongahela City, PA"; tin; double spout
- (7) "Trademark Globe, George Anton, Monongahela City, PA"; Globe insignia; tin; double spout
- (5) "Trethaway Bros., Arsons, PA"; tin with brass neck; driver's lamp with shield; double spout

Paper:

- (7) "Certificate of Examination as Qualified Miner, No. 1326, County of Schykill, Joseph Vassay, from Mt. Carmel this 8th day of January, 1966; stamped "Duplicate"
- (10) "The Commonwealth of Pennsylvania Department of Mines Second Grade Certificate, 9th of March, 1906, David Workman, Mine Foreman"; 20" x 30 "

Terms: A bid may consist of cash, trade (carbide cap lamps), or combination. Because I am willing to accept cash and trade combinations, I cannot put a dollar reserve on this collection. Bids must be received by August 29, 1994. All bids to be opened on September 1, 1994. Owner of best bid received will receive phone call confirming bid. I reserve the right to reject unreasonable bids, or to reject a bid for any reason. When check or money order is received, item will be shipped via UPS Ground. Recipient will have 10 days from date item is mailed to return if it does not meet their expectations.

Lamps for Sale or Trade

Arnold Carbide Candle

Nickel Britelite

Black Painted Britelite (unfired)

Baldwin Wet-mine lamp

Surelite (unfired)

Pathfinder (brass refl., unfired)

Pathfinder (steel reflector)

Lindahl candlestick

Pinchwaist Grier (unfired)

Nickel Defender

Nickel Gem

Cut-away Lu-mi-num

Aluminum oil wick

"The Buddy" (Justrite)

Dropper "Pat. Pend."

Hansen

Force Feed

ZAR (unfired)

Pathfinder base

Maple City

Brass Sunray

Dave Johnson (502) 327-7559

