

EUREKA!

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General Information

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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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Cover: "Ore on Dump No. 3 Tunnel". An early 1900's photo taken in the Wickenburg, Arizona area. One of a numbered set submitted by Charlie Moore.



Summer Shows

This issue of Eureka! breaks the record for the number of inserts found inside the front cover. Readers should find three:

- 1) a folded flyer with details and registration information for the "Black Hills Mining Collectors' Convention" in Lead, South Dakota on May 31 -- June 2, 1996.
- 2) a shameless takeoff of this well-designed flyer, with equally interesting information on the next "Eastern Mining Collectors' Reunion" to be held in Scranton, Pennsylvania on the June 29th weekend.
- 3) a "prospectus" for a new periodical publication, the Mining Collectors Review.

Concerning the first two items, we encourage any collectors within a thousand miles to make the trip. From all accounts, the "Lead Show" as it has come to be called, is well organized and a lot of fun, and brings together many western and eastern collectors who have never met before. The underground tour of the Homestake Gold Mine is a unique opportunity!

Not to be outdone, the Eastern Reunion, a popular one-day event for the past six or seven years, has expanded its activities

to include a dinner, and tours of a coal mine and museum. The organizers hope that timing this show to coincide with the largest outdoor antique shows in the country will help people plan their trip!

A New Magazine

Collectors Lane Griffin, Deric English, and Eric Twitty are working hard to create a brand new magazine for collectors of mining artifacts and memorabilia. As described in the enclosed flyer, their focus will include historical research and exploration, with an emphasis on western mining. There is certainly a need for more published information on these topics.

The editors of Eureka! have always advocated the publication of accurate and interesting information for the benefit of the collecting community, and support all such efforts. We encourage collectors to contact the editors of this new publication and learn more about it. We hope the Mining Collectors Review will be a magazine that every collector will want to have on their bookshelf, right next to Eureka!

Correction

Please note that Roger Mitchell's telephone area code has changed. Instead of 215, the new area code for the Philadelphia, PA area is 610.

Language lesson for the day . . .

CLEAN COAL
A MINER LOADING DIRTY COAL IS DISLOYAL-DO YOUR DUTY AND LOAD
CLEAN COAL
AZ A BANYASZ AKI PISZKOS SZENET RAKODIK.AZ HAZAFIATLAN
TEGYE MEG A KOTELESSEGET ES RAKJON
TISZTA SZENET.
IL MINATORE CHE CARICA CARBONE SPORCO E' SLEALE
FATE IL PROPRIO DOVERE E CARICATE
CARBONE PULITO.
BANIK NAKLADA NIE CISTE UHLIE JE NEVEDNÝ ROBTE
TVOJU POVINOST A NAKLADAJ
CISTE UHLIE
GORNİK ŁADUJACY NIECZYSTY WEGIEL NIE JEST ŁOJALNY
PEŁNIJCIE SWOJ OBOWIAZEK IDŁADUJCIE
CZYSTY WEGIEL

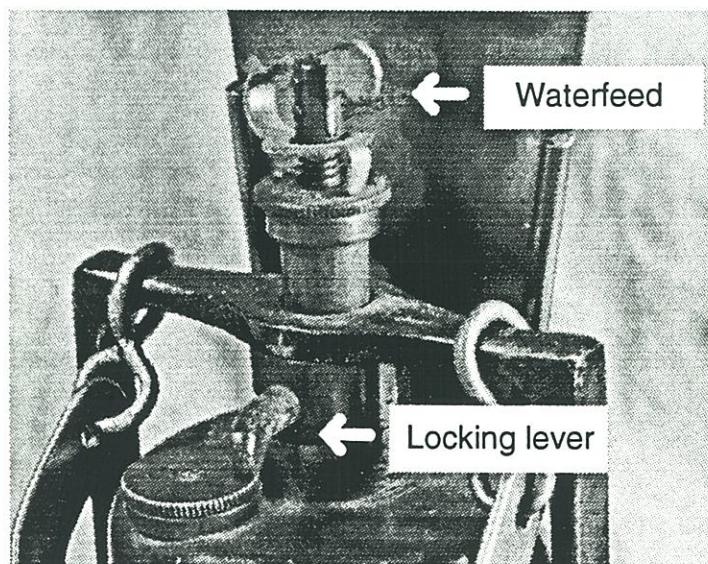
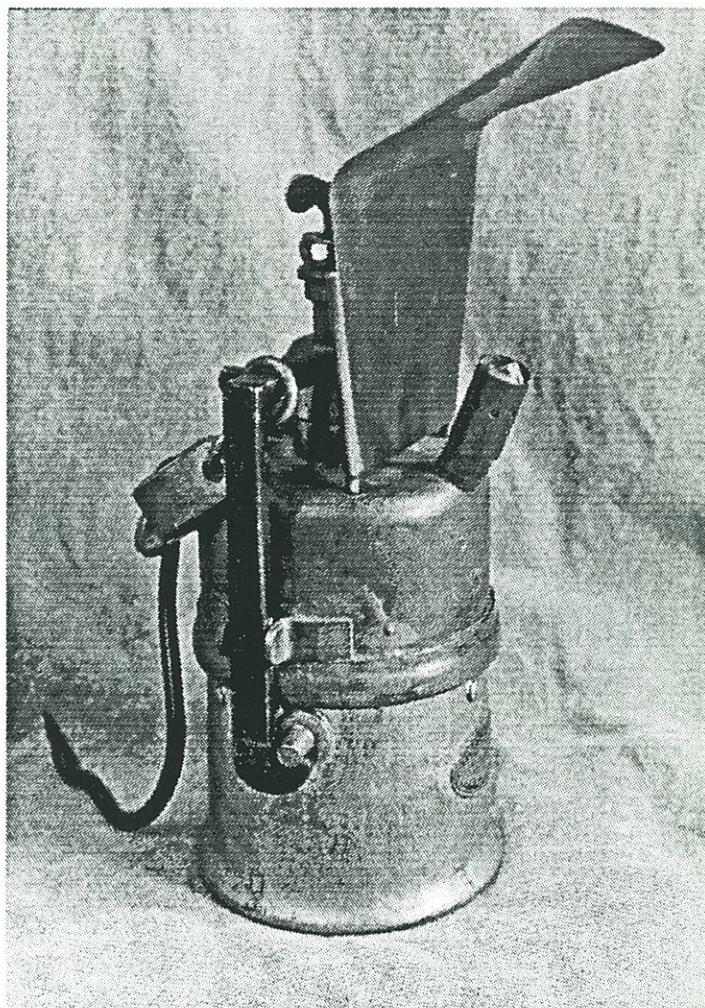
the Engineering and Mining Journal

Carbide Hand Lamps with the “Bloch”-Lock

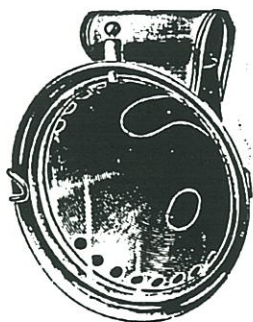
Manfred Stutzer and David Thorpe

Friemann & Wolf of Zwickau, Saxony, was the only maker of hand lamps with Bloch-Locking System (Bloch'scher Drehkeilverschluss). The inventor Bloch was a locksmith from Holzappel, Germany. The lamps were introduced to the market around 1900. It is believed, that due to their rather complicated construction and higher price, not many lamps were sold. They were used in specific ore mining areas of Germany, particularly in the Hesse iron ore mines. A few found their way into the American market, and were badged with the “Wolf Safety Lamp of America, New York, U.S.A.” brass label. Today the Bloch-Locking lamp is very rare and is one of the most sought after hand lamps. The model shown in the photograph on this page originally belonged to Domingo Anglada who operated the U.S. division of Wolf. His collection of fine Wolf examples and prototypes was eventually obtained by George Bayles. The next owner was Errol Christman. It is now in the collection of Dave Thorpe.

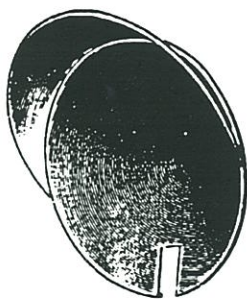
The locking mechanism is a nicely engineered brass piece that sits atop the lamp. A short lever actuates a cam that draws two iron sidearms up to clamp the lamp tightly together. The waterfeed with its delicate lever runs through the center of the lock itself, making a compact and very practical unit.



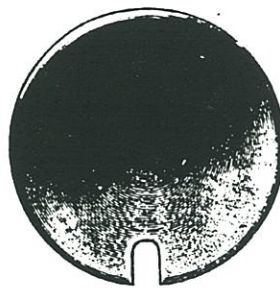
The lamp could be fitted with different reflectors, the buyer had to specify which one he wanted.



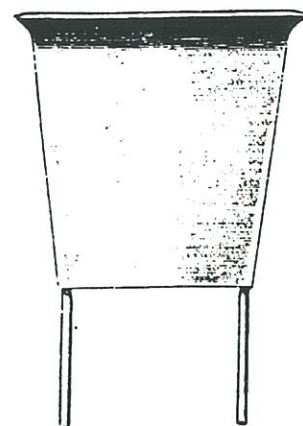
Luna
Reflector with
glass door



Lubito
Reflector with
hood for wet
mine conditions.

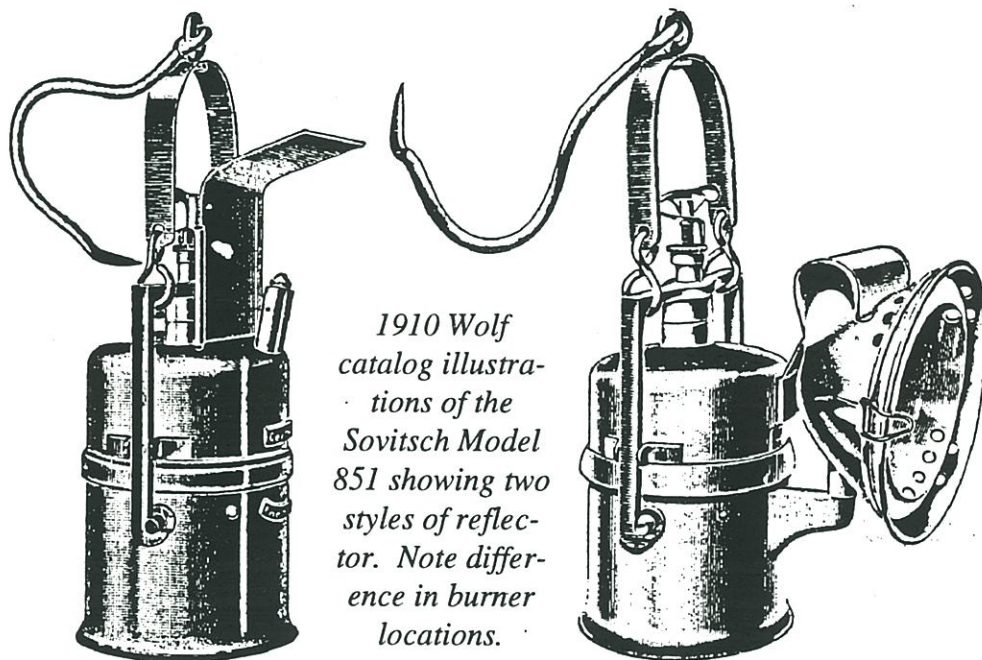


Lubari
Conventional reflec-
tor.



Lubes
Overhanging reflector
for wet mine condi-
tions.

Early mining photographs suggest that the overhanging reflector (the Lubes model) was very popular with miners. It is reminiscent of Baldwin's cap lamp with the wet mine reflector. The first Bloch-Lamps were produced in 3 different sizes and were offered in both brass and steel. In the 1908 Friemann & Wolf sales catalog, three model numbers are mentioned:



*1910 Wolf
catalog illustra-
tions of the
Sovitsch Model
851 showing two
styles of reflec-
tor. Note differ-
ence in burner
locations.*

Model 851 Soritsch Height: 280mm
(Size 1) Weight: 1.29 kg
Burning time: 10-12 hours

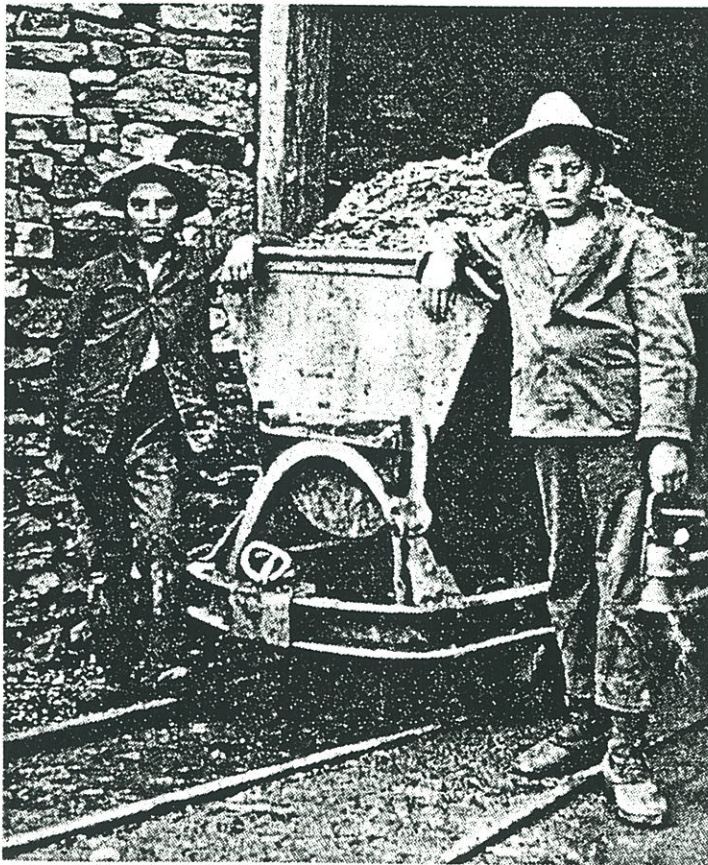
Model 853 Sowitz Height: 240 mm
(Size 2) Weight: 1.09 kg
Burning time: 7-8 hours

Model 855 Sorsum Height: 215 mm
(Size 3) Weight: .94 kg
Burning time: 5-6 hours

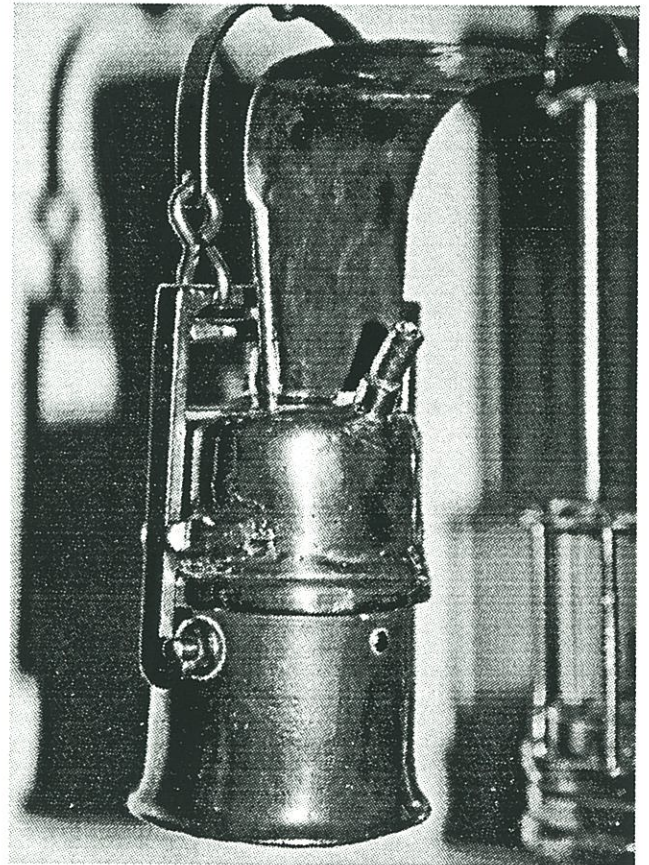
Two years later, only one model number was offered in the 1910 catalog: **Model 851 Sovitisch**. It was available in the previous three sizes plus a jumbo 310mm version that would burn 12-14 hours.



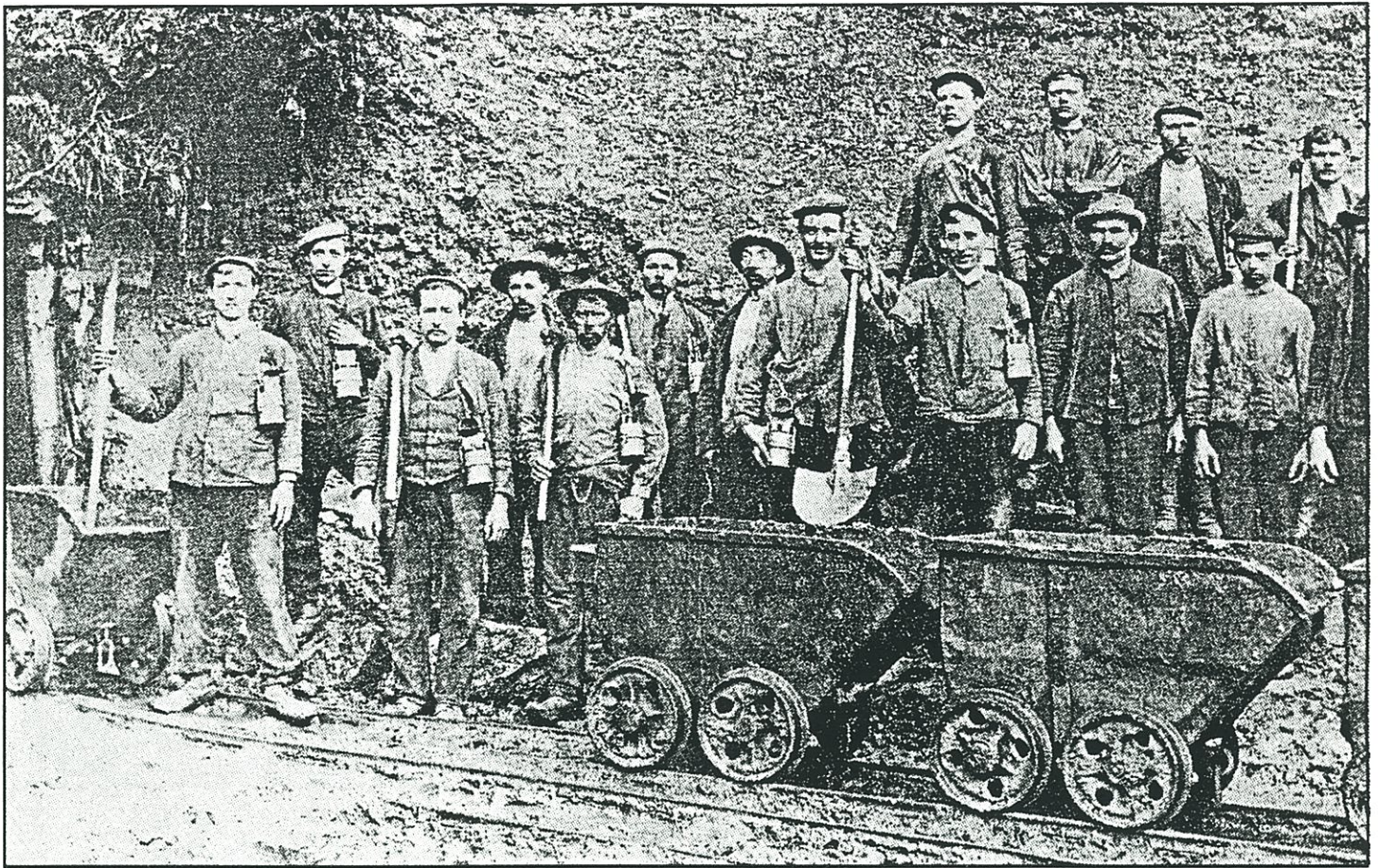
Amanda Mine, Germany, 1906.



Young miner carrying Bloch lamp.



Bloch lamp in brass from Manfred Stutzer collection.



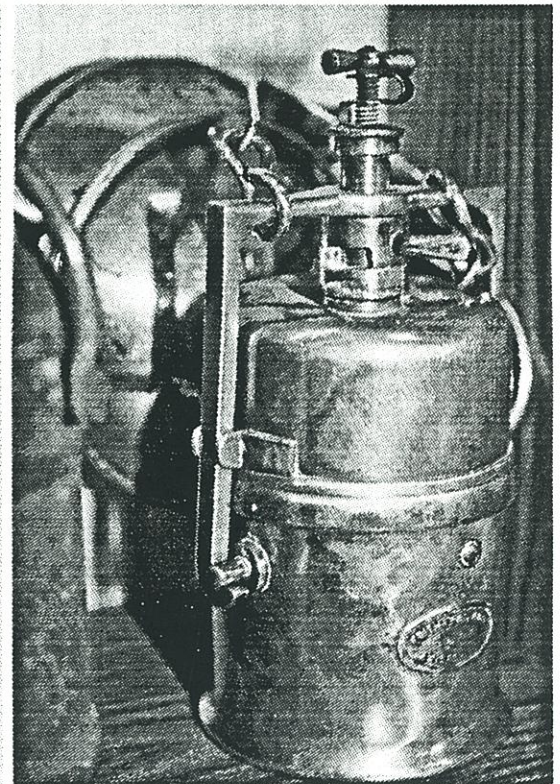
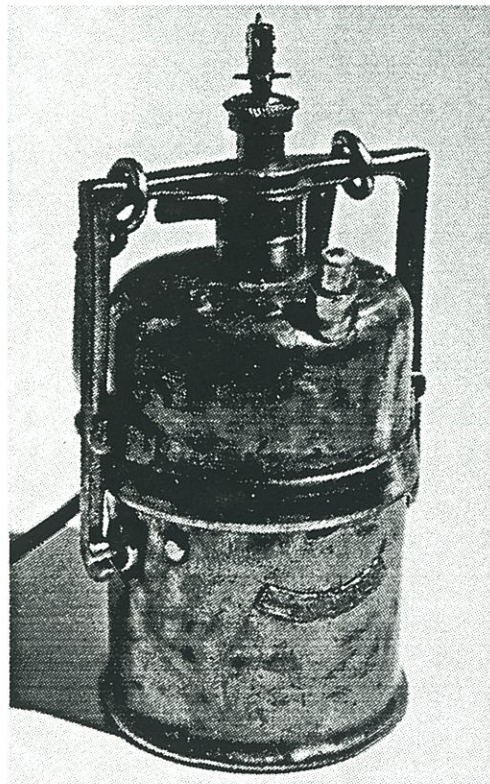
Aussicht Mine, 1910.

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& Schardt, 1994.

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1991, Arbeitskreis
Grubenlampen.



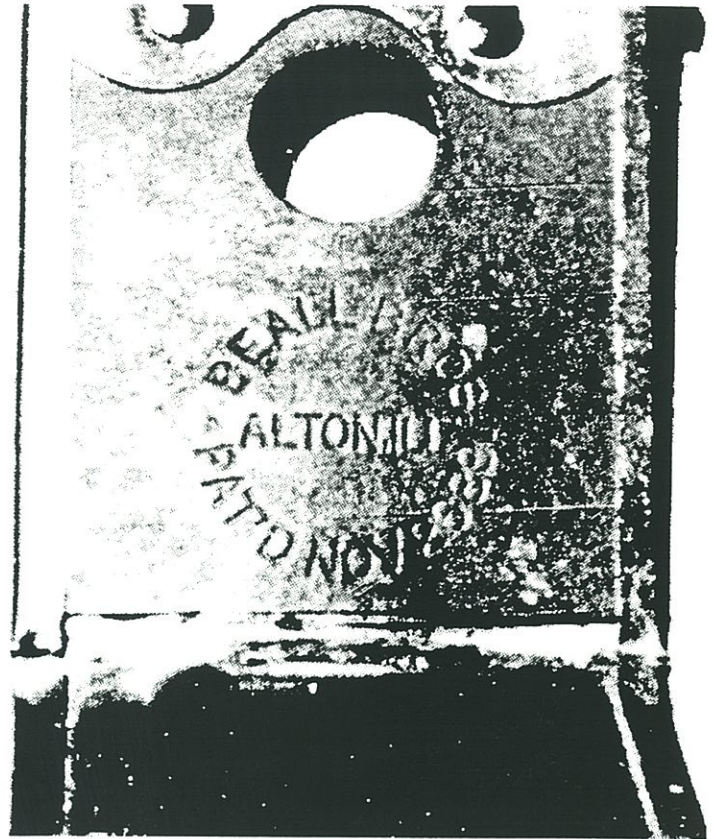
Two German Bloch lamps showing different brass labels.

A Christmas Cap at the Tucson Rock Show

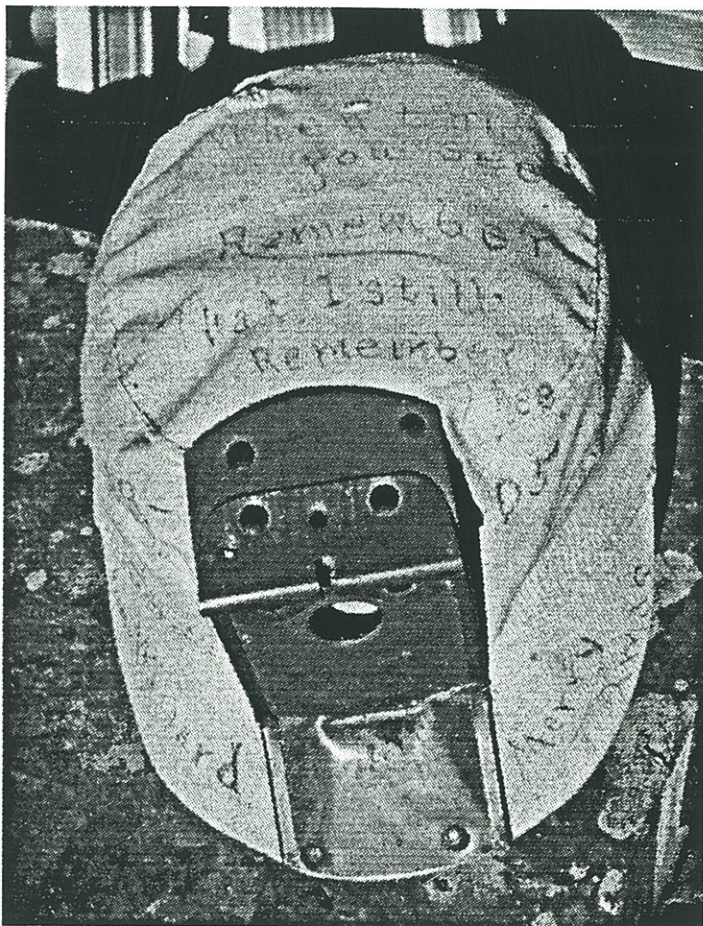
Todd Town

If you go to the rock show in Tucson, you hit the ground running. Every hotel, nook, and cranny is filled with rocks and rocks and rocks. You search diligently for the dealer that has included a few mining artifacts in his horde of minerals. And if you're early, you can get lucky and find an occasional treasure. Such was the case of John and Karen Mediz, mineral and mine artifact dealers in Globe, who set up at the show each year.

When visiting their room at the Days Inn, I asked John if he had turned up anything new. He produced an unused



Embossed lettering on the lamp holder.



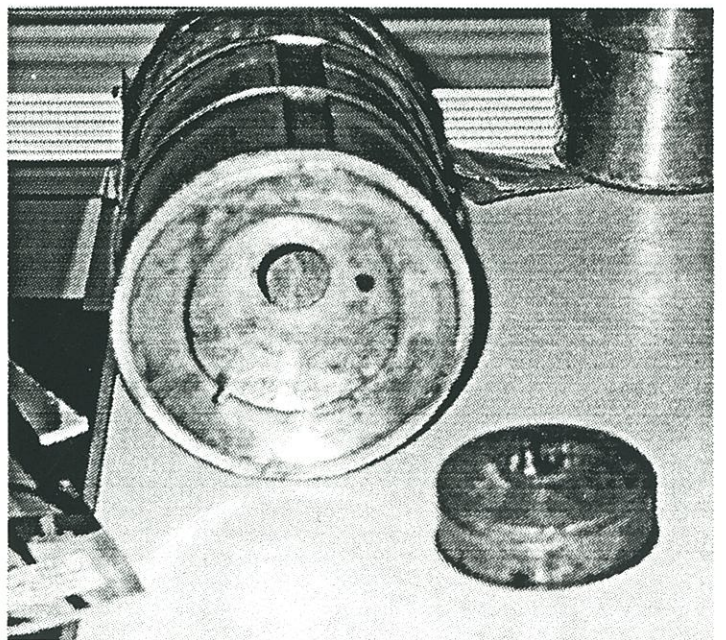
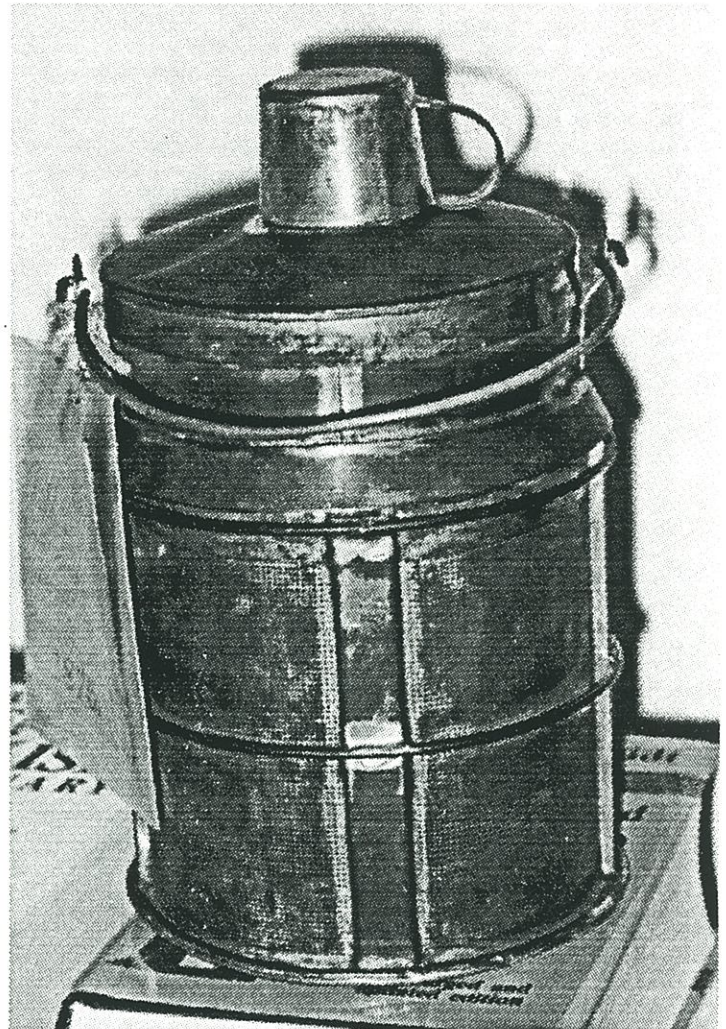
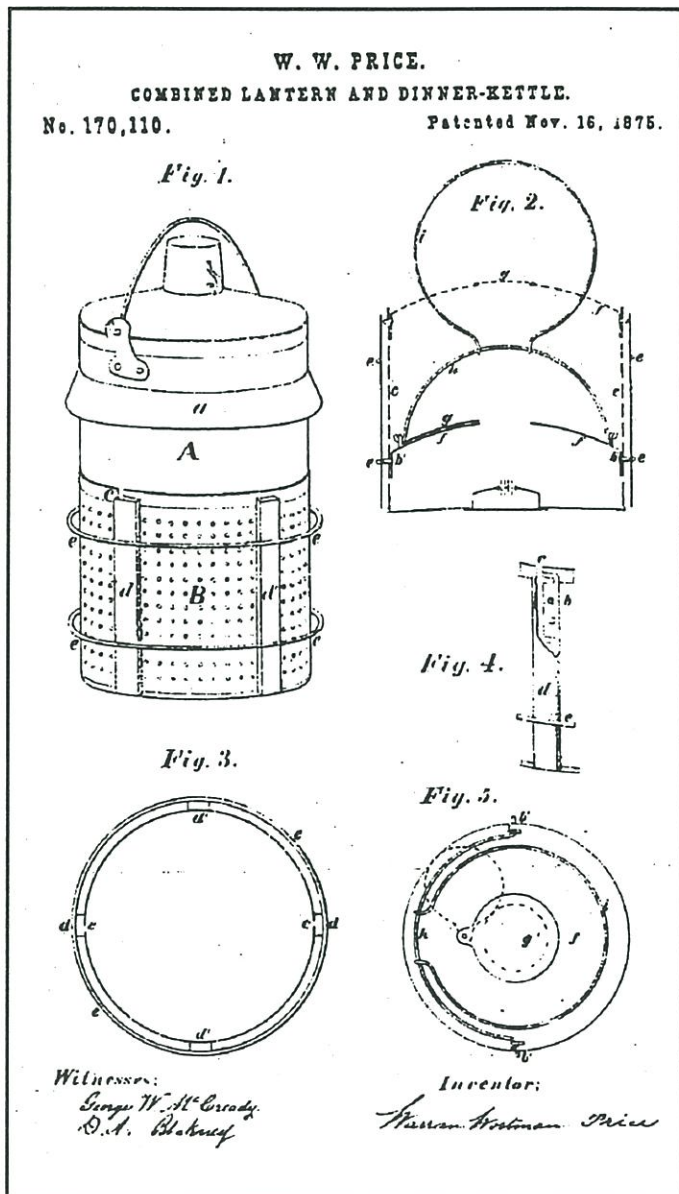
well preserved soft miner's cap. The cap was manufactured by the Beall Bros., Alton, Ill. and patented November 26, 1889. Most interesting was the hand written inscription atop the cap. The penciled lettering on the brim indicates that the hat was presented as a Christmas gift to Grace and Flora from Willard in 1905. On the top surface the penciling reads: "When you see this, remember that I still remember thee."

John and Karen were still "selling" their find from last year's show: The What Cheer cap lamp that graced the cover of an earlier *EUREKA!* They had traded the What Cheer lamp for 100 common lamps after the show. They have been selling those lamps right along. John describes the What Cheer as "The gift that just keeps on giving."

Patented Lantern Dinner Pail

Dave Gresko also sends word and photos of a patented "Combined Lantern and Dinner-Kettle" we have not seen before.

The tag attached to the handle and shown in some of the photos leads me to believe that this may be the original patent model. The patent, granted in Canada in 1875, describes the advantages for "those who have occasion to labor or travel in the cold..." Collectors of miners' lunch buckets, especially with lighting features, would not pass this item up, and it is available for sale or in trade for a rare safety lamp.



ITP Hooded-Reflector Hand Lamp

Todd Town

If Arizona has a surplus of one mining artifact, it would have to be ITP hand lamps. I've seen many headframe crew photos with hundreds of miners in them. Most of them have a well used Dewar hand lamp.

Arizona has its fair share of wet mines with miles and miles of piss ditches. Millions of dollars were spent to remove water from the work areas. I've never seen a single hooded reflector lamp in a photo or talked with any retired miners who spoke of using or seeing one.

The lamp pictured is the first complete wet-mine carbide hand lamp I've found. I question if it was used in a mine. I see it more in use as a hunter's camp light. I do not see the reflector holding up for any length of time and at a cost of \$4.00 each, the lamp was probably not popular with Arizona miners.

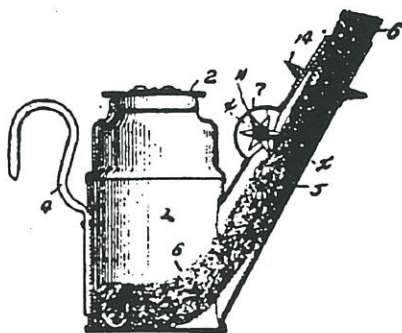


Zicha Mechanical Oil Wick Lamp

Dave Johnson

Many unique mine lamps have been patented, but few of the truly unique ones have actually been manufactured. There are dozens and dozens of patents for safety lamps, carbide lamps, oil wick lamps and candlesticks that were never produced. One truly unique patent that was produced was number 829,824 granted to Rudolf Zicha of Cleveland, Ohio on August 28, 1906.

829,824. MINER'S LAMP. RUDOLF ZICHA, Cleveland Ohio. Filed Apr. 2, 1906. Serial No. 309,573.



This lamp's most unique feature is a mechanical wick raiser that consists of a brass knurled knob connected by a shaft to two brass five pointed "wick engaging wheels" housed in a semi-circular housing mounted on the top of the wick tube. This housing allows the pointed wheels to sit approximately half way into the diameter of the wick tube to engage the wick. Guess what? It really works!

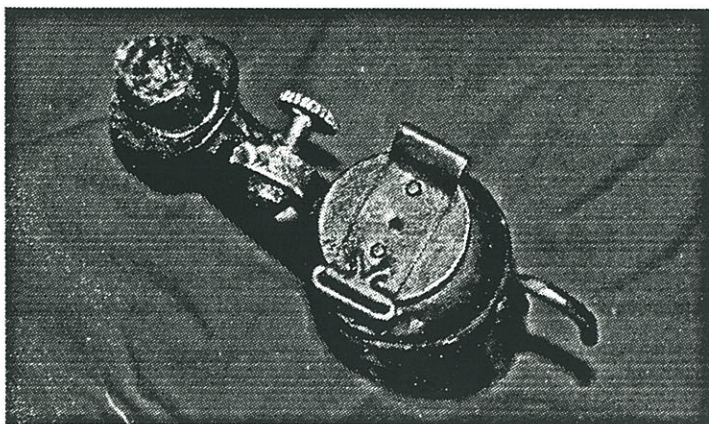
There are four other unusual features on this lamp, all of which appear in the patent drawing. First, the top portion of the hinge that is usually just a short tab soldered to the top of the cap extends all the way across the cap where it is rolled under and forms an extended cap lip to facilitate the opening of the cap. This piece is riveted in two places as well as being soldered in place. The hinge tab that attaches to the font is also riveted and soldered.

Second, the cap hook is soldered and held in place by two rivets, just like the early model Dunlap oil wick (the later model Dunlap has 3 rivets). Third and fourth, the end of the wick tube is flared out just above a drip ring that is $\frac{3}{8}$ " from the end of the wick tube.

The lamp measures $2\frac{1}{16}$ " high to the top of the cap. The spout is $3\frac{5}{8}$ " long. The diameter of the font base is $1\frac{9}{16}$ ". Overall the lamp is well constructed and is quite functional.

Another oddity of the lamp is the stamping that appears on the bottom of the spout. According to the patent document the lamp was patented by Rudolf Zicha. However, the name stamped on the lamp is clearly R. Jicha. A search of the Cleveland City Directory found no Rudolf Zicha or Rudolf Jicha; but the surnames Zicha and Jicha both appear in the 1905, 1906 and 1907 Directories with other first names. So who was Rudolf Zicha or Jicha, which name is correct, the one on the patent or the one on the lamp?

PAT. AUG 28, 06
R. JICHA
CLEVELAND, O.



Uncommon Grier Bros. Oil Wicks

Dave Johnson

Grier Bros. of Pittsburgh, PA, is a name well known to collection of oil wick and carbide lamps. They produced more than 20 varieties of miner's oil wick lamps under their own label as well as producing some of the same lamps under several distributor's labels. As a major oil wick and carbide lamp manufacturer many examples of Grier Bros. lamps have survived due to the number produced. Apparently several varieties of Grier Bros. lamps saw very limited production. Lamps in this category include Dave Thorpe's unique octagonal pinch waist carbide cap lamp, the very rare Baldwin-style pinch waist carbide cap lamp, and Tony Moon's brass oil wick with threaded caps on the font and wick tube.

Six other uncommon or rare oil wicks manufactured by Grier Bros. are pictured and described here. The first of these is the smallest size commonly seen Grier Bros. STAR in shield logo tin face lamp. This lamp measures 1 7/8" tall to the top



Small tin face lamp with shield.



Tri-metal driver's lamp.

of the font cap. What makes this lamp both rare and unique is the spout shield attached to the end of the spout. This lamp is pictured on page 237 of Henry Pohn's recently published book. Henry erroneously identifies this lamp as an "unmarked" lamp belong to Clyde Mayes, while it clearly bears the Grier Bros. name. This lamp went from Clyde Mayes to Manfred Stutzer in a trade. I recently acquired the lamp in trade with Manfred. The shield is very small yet functional and protects the flame to a greater degree than most larger clumsier shields.

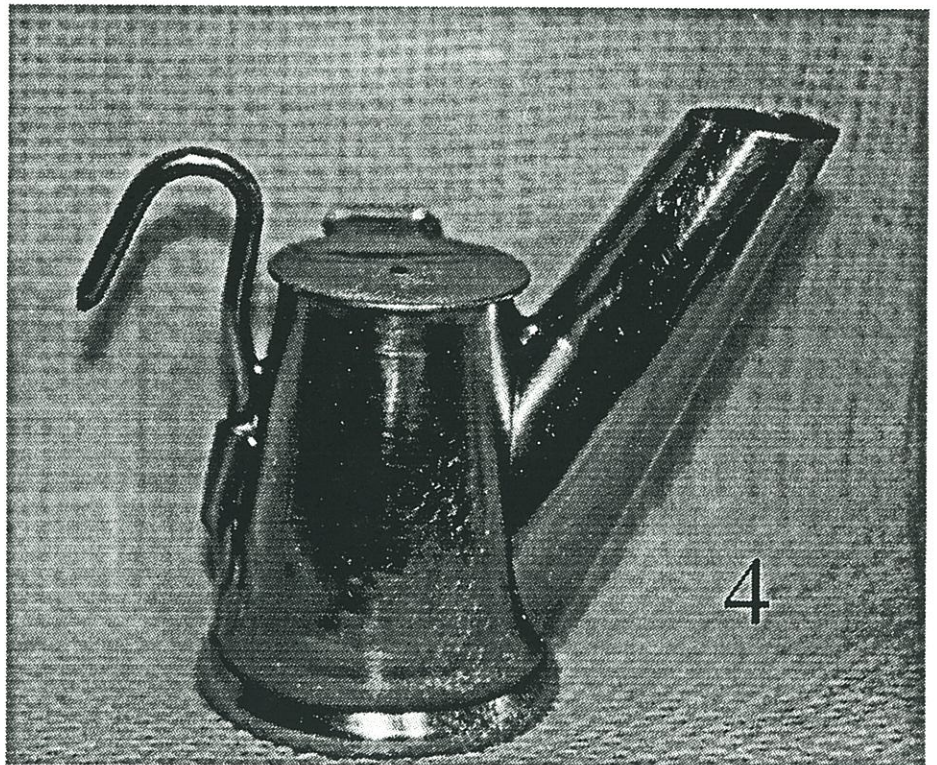
The second lamp in a tri-metal driver's lamp that measures 2 1/2" tall

to the top of the font cap. Two features set this lamp apart from other Grier Bros. products. First, tri-metal Grier Bros. oil wicks are very rare. This example has a copper font and inner spout, a brass bottom and a tin outer spout and font cap, and a steel hook. The second unusual feature is the wire spout guard on the underside of the spout, identical to the one patented by William Tunnessen on April 20, 1909 (see Eureka 17, p. 2) and found on most CROWN brand oil wicks. Grier Bros., like Trethaway Bros., is known to have infringed on other manufacturers' patents, as in the case of their pinch waist Baldwin-style carbide cap lamp. This oil wick appears to be another example of such infringement. Like the carbide lamp, production appears to have been quite limited, judging from the number of surviving examples. I have seen only one other Grier Bros. oil wick with this spout guard, on a tin mid-size face lamp.



Copper face lamp. Stamping: GRIER BROS., PITTSBURG, PA.

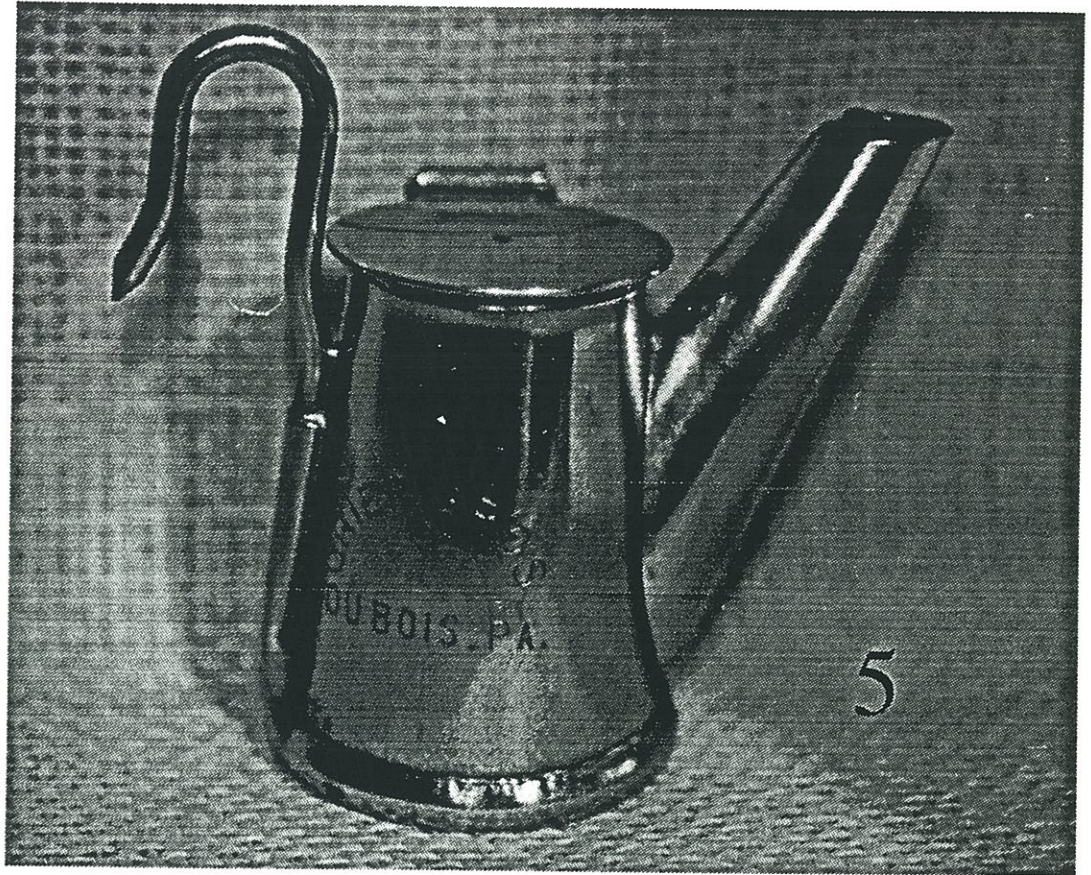
The third lamp is an all copper, with brass hook, mid-size face lamp measuring 2" tall to the top of the font cap. The double spout is 2 1/4" long. This lamp carries the simple GRIER BROS. PITTSBURG, PA stamping rather than the more common GRIER BROS. STAR in a shield stamping. As with all manufacturers, copper lamps were produced in much smaller numbers due to the higher selling cost associated with the higher material cost. Copper and brass lamps are more coveted by collectors due to both their rarity and their aesthetic appeal.



Copper face lamp with STAR stamping.

The fifth lamp is a brass face lamp with a copper inner spout. It measures 2 1/8" tall to the top of the font cap. The spout is 2 1/2" long. This lamp has the seldom seen GRIER BROS. DUBOIS, PA stamping.

The sixth lamp shown below is tin with a brass collar and brass wick tube reinforcement. It is stamped with both the U.S. TOOL CO. and GRIER BROS. logos. Stamped into the brass portion of the wick tube is a large star inside a circle.



Brass face lamp. Stamping: GRIER BROS., DUBOIS, PA.



Collecting Grier oil wicks is like collecting Justrites: while most models are common, there are exceptions like Justrite's "THE BUDDY" and the rare smooth-base "THE JUSTRITE" marked PAT. APLD. FOR. Like the rare Justrites, Grier oil wicks as those shown here are rare gems in a sea of costume jewelry.

Driver's lamp. Stamped U.S. TOOL CO. and GRIER BROS.

Yellow Jacket Mine in a Blaze

Submitted by Dave Johnson

(Excerpted from the book: The Big Bonanza, The History of the Great Comstock Lode, by Dan DeQuille. Dan DeQuille was the pen name of William Wright, a reporter for the Virginia City, Nevada Territorial Enterprise newspaper from the late 1850's to the 1870's. In 1876 DeQuille published a history and recollection of his years on the Comstock Lode. This is just one of many interesting short articles that appear in his book.)

No premature explosion of blasts, crushing of timbers, caving of earth and rock - no accident of any kind is so much feared or is more terrible than a great fire in a large mine. It is a hell, and often a hell that contains living, moving, breathing, and suffering human beings - not the ethereal and intangible souls of men. It is a region of fire and flame from which the modes of egress are few and perilous. A great fire on the surface of the earth is a grand and fearful spectacle, but a great fire hundreds of feet beneath the surface of the earth is terrible - terrible beyond measure of the power of words to express, when we know that far down underneath the ground, which lies so calmly on all sides, giving forth no sound, and scores of human beings pursued by flames and gases, scorched and panting, fleeing into all manner of nooks and corners, there to meet their death.

A large mine in which are employed from five hundred to one thousand men is of itself a considerable village, though it be a village far below the light of day. In it are more timbers, lumber and other combustible matter than is found in all the houses of a town of two thousand inhabitants. It contains millions on millions of square feet of timber, in it whole

forests have found a tomb.

Besides being built up to a height of from one thousand to one thousand five hundred or two thousand feet, with cribs composed of massive timbers, each crib filling a space five by six feet in size, there are floors of heavy planks, six feet apart, one above another, all the distance from bottom to top. In many places, too, the main timbers are doubled again and so filled with blocks and wedges and braces that all is a solid mass of wood. In numberless places there are stairs leading from floor to floor, and then there are scores of chutes, built of timber and lined with planks, with vertical winces, constructed in the same way, all of which, with the chutes, lead up through the floors from level to level; also numerous drifts and crosscuts supported by timbers and walled in with lagging (split pine-stuff, like staves, but longer), all of which serve as flues to conduct and spread the heat and flames throughout the mine.

The mines of the Comstock have not escaped fires. They have not been many, but they have been fearful as experiences and have cost many lives. The first and most terrible of these fires was that which broke out in the

Yellow-Jacket mine, Gold Hill, about seven o'clock on the morning of Wednesday, April, 1869, in which forty-five men lost their lives.

The fire started at the eight-hundred-foot level (that is, eight hundred feet below the surface) at a point two hundred feet south of the main shaft, near the line of the Kentuck mine. It was first discovered at seven o'clock in the morning, though it had no doubt been burning longer, as some of the miners asserted that they detected the smell of smoke as early as three o'clock a.m. The night shift (relay) left at four a.m. and the morning shift began work at seven a.m., and it was supposed that the fire originated from a candle left sticking against a timber by men on the night shift. From four o'clock till seven o'clock the only men in the mine were the carmen, but before the danger had been discovered many of the day shift had been lowered into the mines - Yellow Jacket, Crown Point, and Kentuck.

The first thing done on discovering the fire was to try to get the men up out of the mines. The alarm of fire was sounded, and the fire companies of Gold Hill and Virginia City at once turned out. Pending the arrival

of the firemen with their apparatus, those about the several mines were doing all in their power to rescue the men who were left underground. At first the smoke was so dense that no one dared venture into either of the shafts, but about nine o'clock in the morning it seemed to draw away from the Kentuck shaft, and men descended on the cage and recovered two bodies.

At the Crown Point mine, when the cage was being hoisted for the last time, some of the men on it were so far suffocated as to fall back and were crushed to death between the sides of the cage and the timbers of the shaft.

Toward noon some of the firemen working at the Yellow-Jacket mine ventured down the shaft to the eight-hundred foot level and recovered three or four bodies of asphyxiated miners.

About the same time at the Crown Point mine a cage was sent down with a lighted lantern upon it. It was lowered to the thousand-foot level, and with the lantern was sent the following dispatch, written on a large piece of pasteboard.

"We are fast subduing the fire. It is death to attempt to come up from where you are. We shall get you out soon. The gas in the shaft is terrible, and produces sure and speedy death. Write a word to us and send it up on the cage, and let us know where you are." No answer came back - all below were dead.

As soon as it was known that the mines were on fire and that a large number of miners were imprisoned below by the dense volumes of smoke and suffocating gases that poured up through the several shafts, the most intense excitement prevailed, both in Gold Hill and Virginia City. The wives, children, and relatives of the lost flocked to the several hoisting-works, approached as near to the mouths of the shafts as they were allowed to come, and stood there on all sides, their grief and lamentations causing tears to course down the cheeks of the most stout-hearted. "Lost! Lost! Lost!" was the despairing cry constantly uttered by many of the women whose husbands were below.

The Reverend Father Manogue, a pioneer of the country, and several other Catholic clergymen of Virginia City and Gold Hill, moved about among the people and did all that could be done to comfort and quiet the weeping women and children, but even the reverend fathers could find little to say in mitigation of the woes of such an occasion. Many of the poor women, with weeping children clinging about them, stood round the shafts, convulsively clasping and wringing their hands and rocking their bodies to and fro in excess of misery, yet uttering scarcely a word or a sob; they at first seemed utterly stupefied and overwhelmed by the suddenness and awfulness of the calamity. Turn where they might, there was no comfort for them.

At the Yellow-Jacket mine the smoke and gases drew away to the southward, men descended the shaft, and all but one man known to be below at that point were brought up dead.

As the cage containing the dead bodies rose up at the mouth of the shaft, there was heard a general wail from the women, who could with difficulty be restrained from climbing over the ropes stretched to keep back the crowd. "Oh God! Who is it this time?" some one among them would be heard to say. The dead bodies would then be lifted from the cage and then borne in the arms of stout miners and firemen outside of the circle of ropes.

As the men passed out with the dead, the women would crowd forward in an agony of fear and suspense to see the faces "Oh, Patrick!" one could be heard to shriek, when the bystanders would be obliged to seize her and lead her away.

At the Kentuck and Crown Point shafts there steadily arose thick, stifling columns of smoke and pungent gases, generated by the burning pinewood and heated ores below. No person who stood at the mouth of either of these shafts could entertain the slightest hope that any one of those in the mines could be alive; yet wives and relatives would still hope against everything. In every direction almost superhuman exertions were made to extinguish the fire. By closing up the shafts and pouring down water, it was thought that the fire might have been extinguished,

but to have done so would have been equivalent to saying that all below were dead - and would, indeed, have been death to any that might have been living. Besides, the order to close the shafts would have drawn from all present at all interested in the fate of those below such a wail as no one would have cared to hear.

No one could enter the Crown Point or Kentuck shafts, but that of the Yellow-Jacket being cooler, the firemen began to work their way down it, carrying with them their hose and bravely battling with the fire. A long string of hose was attached to a hydrant and carried down to the eight-hundred-foot level, where the fire began. It was such work as few firemen in the United States have ever undertaken, and such as now but firemen in a mining country could have done. The miners and firemen battled side by side. The firemen would advance as far as possible, extinguishing the burning timbers, and when a cave of earth and rock occurred, or the blackened and weakened timbers seemed about to give way, the miners would go to the front and make all secure.

The walls of the drifts were so heated that it was very frequently found necessary to fall back, even after the burning timbers has been extinguished, and play a stream on the rock in order to cool it down. In places boiling hot water stood to the depth of two or three inches on the floors of the drifts. Steam, fumes and sulphur, and gases from the heated ore and minerals rendered the air so

bad that it became necessary to lead in an air pipe from the main blower above to enable the men to continue work. When caves occurred, flames and poisonous gases were driven forward upon the men, singeing and partially suffocating them. Their position was one of great peril. Their only means of reaching the surface was through the shaft, and at any moment an accident might happen that would cut off from this; or the draught might change and overwhelm them with stifling gases before they could ascent to the surface.

The situation below, when the fire broke out, was fearful. The smoke and gases came upon the men so suddenly that although they ran at once for the shaft, many were suffocated and sank down by the way. At the Crown Point the men so crowded upon the cage at first (a cage holds from twelve to sixteen men) that it was detained nearly five minutes, the station - tender being afraid to give the signal to hoist while so many men were in danger of being torn to pieces. A young man who came up on that cage told me that as they were finally about to start, a man crawled upon the cage and, thrusting his body in between the young man's legs, begged to be allowed to remain there and go up. He was permitted to keep the place, and his life was saved.

As this cage started up, hope left the hearts of those remaining behind. They were heard to throw themselves into the shaft and to fall back on the floors of the mine. Another young man told me that in rushing toward

the shaft, it occurred to him that he might fall into it, all being dark below when he got down on his hands and knees and crawled, feeling his way until he knew that he was at the shaft. While lying there, three or four men came running along from behind and pitched headlong into it, to their instant death. At one lowering of the cage a man who went down from the surface, finding that there were more persons below than could be brought up that trip, generously got off into a drift and put on board a young man who was so far suffocated that he was unable to stand. The man who did this was afterwards brought up unharmed.

Not only did the firemen go into the burning underground cheerfully, but there was strife among them to be allowed to go. To see them in their big hats ascending and descending the shafts as they relieved one another was a novel sight. It was a new way of going to a fire. Although a stream was kept playing at the eight-hundred-foot level of the Yellow-Jacket all day, at nine o'clock at night it was found that the fire was rising, and a second stream was put on at the seven hundred.

At two o'clock the morning of the 8th, thirteen bodies had been recovered. Some of these were found in the sump (place in which to collect water at the bottom of a shaft), at the eleven hundred-foot level, where they had fallen from stations above; others were found at the thousand foot level, lying in all kinds of despairing positions, just as they had sunk down and

died when overtaken by the poisonous gases.

At one o'clock on the afternoon of the 8th, twenty-three bodies had been recovered. When the fire first broke out, an explosion of gases occurred near the Crown Point shaft, which is supposed to have killed several men in that direction. Wherever the stifling gas swept in upon the men, it left them dead. One miner was found clasping a ladder with death grip, his head hanging backwards. It was necessary to lower the body with a rope a distance of fifty feet to the bottom of the level. On the nine-hundred-foot level of the Crown Point mine, about thirty feet from the shaft, nine men were found in one heap. They had unjointed an air-pipe in the hope of being able to get enough fresh air to keep them alive.

On the morning of the 10th it was evident that the fire had increased to such an extent that no more bodies could be recovered - that none in that pit of fire could be alive - and at eleven a.m., the mouths of all the shafts were covered with planks, wet blankets, and earth. At noon steam from the boilers was turned into the Yellow-Jacket shaft through the air-pipe leading from the blower (a fan revolving in a drum, used in forcing air into the mines) down to the eight-hundred foot and nine-hundred foot levels whence it would go wherever it could find egress.

On the 12th a few more bodies were found, and there was so much fire that the mines were again closed and

steam was forced into them. Some of the bodies last taken out of the mines were so decomposed, owing to the great heat below, that in order to handle them it was necessary to roll them up in canvas coated with tar. Several bodies were in such a condition that the wives and the relatives of the deceased were not allowed to see their faces. They were told to remember them as they had last seen them in life. One woman begged hard to see the face of her husband, then to see his hair. Being shown his hair, she laid her hand on it and said "good-bye, my husband." As she turned away, a little girl she was leading said: "Can't I see my papa?" when the mother fainted.

On the 14th, at 3 o'clock p.m., steam was shut off from the shafts and all the work stopped. Five bodies still remained in the mines. Three days later, the shafts were opened and some explorations made. Spots of fires were extinguished where they could be reached. Almost daily they were able to get into some of the mines and direct streams of water upon some parts of the fire. At this work men were frequently asphyxiated, and then it was necessary to hasten with them to the surface. On the 28th another body was recovered, and on the 29th efforts were made to reach the bodies (four) still remaining on the upper levels of the Kentuck; but some of the men fell down insensible from asphyxia, and the attempt was abandoned.

Thus, the miners struggled with the fire until May 2, when it grew worse.

The drifts between the Yellow-Jacket and the Kentuck and the Crown Point mines were then closed, and the shafts of the latter mines were again sealed. The fresh air thrown into the mines by the blowers was supposed to have given the fire new life.

On May 18th, the Kentuck and the Crown Point mines were opened, and miners descended to the lower levels of both. On May 20 another body was recovered in the south compartment of the Crown Point shaft when it was found lying on a scaffold at the thousand-foot level, leaving three bodies not yet found. After this the fire again increased and drove the men away from places where they had been able to work. On May 24, it was discovered that the fire was on the eight hundred-foot levels of the Crown Point and Kentuck mines, and the miners finally succeeded in walling it up and confining it to this space.

As late as June 23, men were occasionally brought to the surface in an insensible condition and the fire continued to burn in that portion of the mine to which it was confined for over a year. Nearly three years from the time of the breaking out of the fire the rocks in the eight-hundred-foot levels of the Crown Point and Kentuck mines were found to be red-hot. Only fragments of the skeletons of the three missing men were ever found. Their bodies were in those parts of the mines that were walled in and given up to the flames.

Safety Fuse

Bob Schroth



While exploring in old underground workings, the most common mining related artifacts found are bits and pieces of old fuse and sometime old blasting caps. I find on occasion fuse wrappers and blasting cap tins. The fuse wrappers are of interest because they show what kinds of safety fuse they are working with and the fuse itself show the conditions the miners were working under. Many companies made fuse and the most popular were Ensign-Bickford Co., National



Fuse and Powder Co., Coast Manufacturing and Supply Co., and a few others that were probably private labeling from one of these companies.

Safety fuse is usually made with a standard burning speed of either 30

or 40 seconds per foot, depending on the brand. The same brand and make of the fuse may vary as much as 10%, this fact should be kept in mind.

The **Ensign-Bickford Co.** sold under the following brand names:

- Double Tape
- Clover
- Crescent
- Charter Oak
- Beaver

The **National Fuse and Powder Co.** sold:

- Sylvanite
- Bear
- Aztec
- Monarch.

The **Coast Mfg. & Supply Co.** sold:

- Dreadnaught
- Bear
- Sequoia
- Triple Tape.

I have found several bits and pieces of fuse wrappers over the years and now I regret leaving a lot of the scraps where I found them. Many of the wrappers may never be found in complete condition. Some of the paper items found underground were used for toilette paper, this makes them a little unsightly and hard to handle. I have found many carbide cans used for porta-potties, most were the 25lb size and larger.

Some early fuse found were Little Evas, Gutta Percha coated, And Triple Taped Water Fuse. These wrappers were found in early under ground working dating before the turn of the century.

Fuse should be stored in a cool dry place, so that the powder it contains will not be affected by dampness. If

not kept cool, the varnish, or coating will become soft and sticky.

For dry blasting work, cotton or hemp fuse may be used, For damp work, Single Tape, Beaver, White Oak, Sylanite, And Blue Label, For wet work, or wet mines, Double Tape, Gray Charter Oak, White Monarch, Dreadnaught, Bear, Comet Special, and Victor may be used. And for very wet work or even underwater shots, Triple Tape, Crescent, Clover, White Aztec, White Sequoia, and Black Sequoia. I have never seen many of these brands and one might speculate



that some were used mostly on the east coast mines and others in the middle States and the rest on the west coast.

Safety fuse has been defined legally as "a fuse for blasting that burns and does not explode. Which does not contain it's own source of ignition, and which is of such strength and construction that will contain the powder while burning."

Safety fuse is the medium through which the flame is conveyed for the ignition of the blasting cap. Many of you may have in your collections fuse wrappers or full rolls of fuse, I would appreciate you sending in any information on safety fuse not mentioned in this article.

The Szombathy Flame Safety Lamp

Hank Edenborn

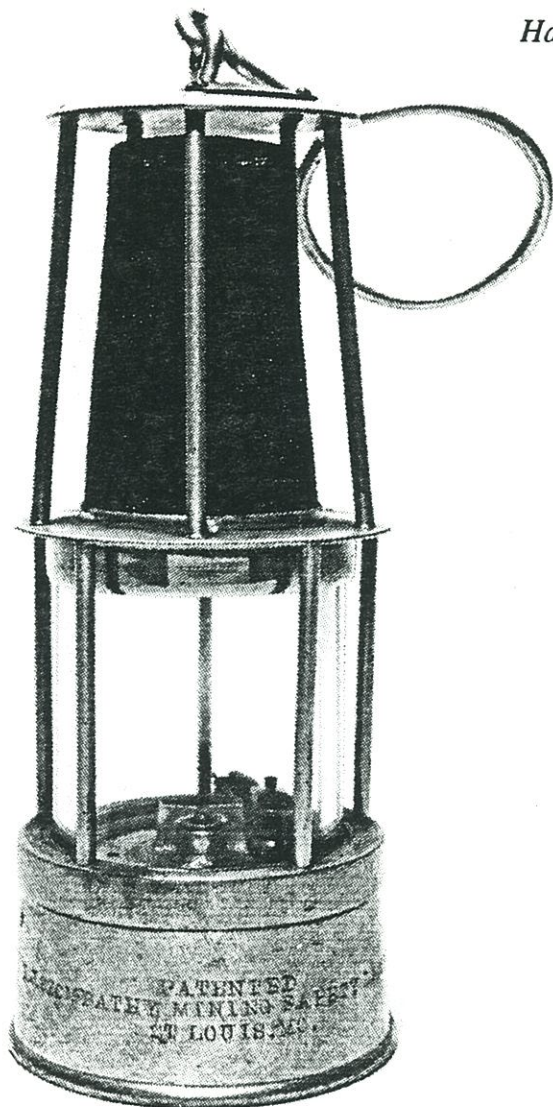


Fig. 1 Unbonnetted lamp has the following inscription:

PATENTED
I.J. SZOMBATHY MINING SAFETY LAMPS
ST. LOUIS, MO.

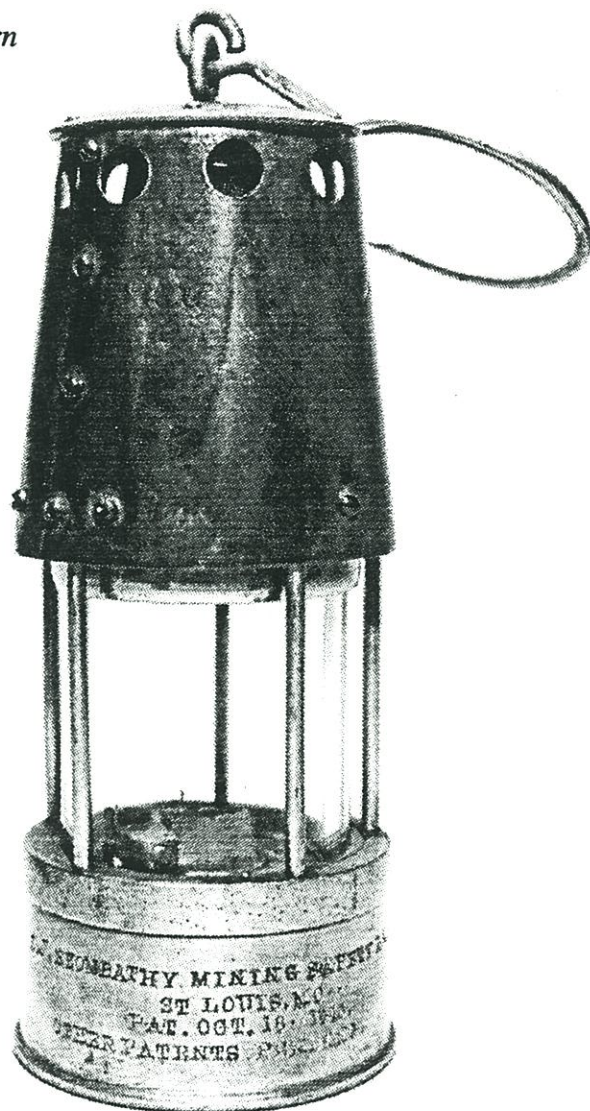


Fig. 2 Bonnetted lamp has the following information hand-stamped on the oil pot (with a "G" instead of a "C" in "OCT.")

I.J. SZOMBATHY MINING SAFETY LAMPS.
ST. LOUIS, MO..
PAT. OGT. 18..1910.
OTHER PATENTS PENDING.

Included among the U.S. Bureau of Mines' flame safety lamp collection at the Pittsburgh Research Center are two examples of the rarely seen Szombathy lamp. Tony Moon reports that to his knowledge only one example exists in the hands of a private collector. Both unbonnetted

(Figure 1) and bonnetted (Figure 2) examples exist in the Bureau's collection.

A schematic of the lamp, as described in U.S. patent 973, 234 (October 18, 1910) is shown in Figure 3. The basis for the patent apparently lies in the

"latch dog" mechanism for the magnetic lock. The action of this magnetic lock can be seen on the patent diagram, where X identifies the horse-shoe magnet used to draw the arms of the latch dogs outward and hold them out of the recesses in the neck of the oil pot while the lamp is opened.

973,234.

A disadvantage of this design (as with Wolf lamps) is that the magnet would have to be applied while the lamp was being closed as well. I was unable to open the unbonnetted lamp or detect any response inside the lamp when I used a strong horseshoe magnet. No evidence of the magnetic lock mechanism is visible on the outside of the lamp. Interestingly, the bonnetted version has no lock at all. The patent also includes mention of the use of a third gauze cap as an extra safety measure. Although the lamp would be safer in theory, it may well have suffered from a poor air supply to the flame and reduced candlepower as a result (Paul, et.al., 1924).

The lamp body is constructed of aluminum, and the bonnet is made of steel. A brass key and knob on the bottom of the lamp are used to operate a Wolf friction pin-and-wheel flint igniter and adjust the height of the wick, respectively. The lamp has 3 filling caps inside the lamp on the top of the oil pot, with the numbers 1, 2 and 3 stamped both on the caps and on the top of the oil pot adjacent to each cap. On the unbonnetted lamp there is also a small screw clamp at the base of the glass (not shown) designed to press tightly against the glass, presumably to avoid rattling. The inclusion of this feature does not instill much confidence in the ability of the lamp to remain gas-tight in the mine environment!

I have been unable to find much information about Josef Szombathy himself. A search of St. Louis City Directories in 1910 and 1915 listed him as a machinist by trade, living at 3515 Lindell Ave. and 1327A Page Boulevard, respectively. My thanks to the St. Louis Public Library for researching this information. It would be interesting to hear of any additional information about this man and his apparently short-lived safety lamp.

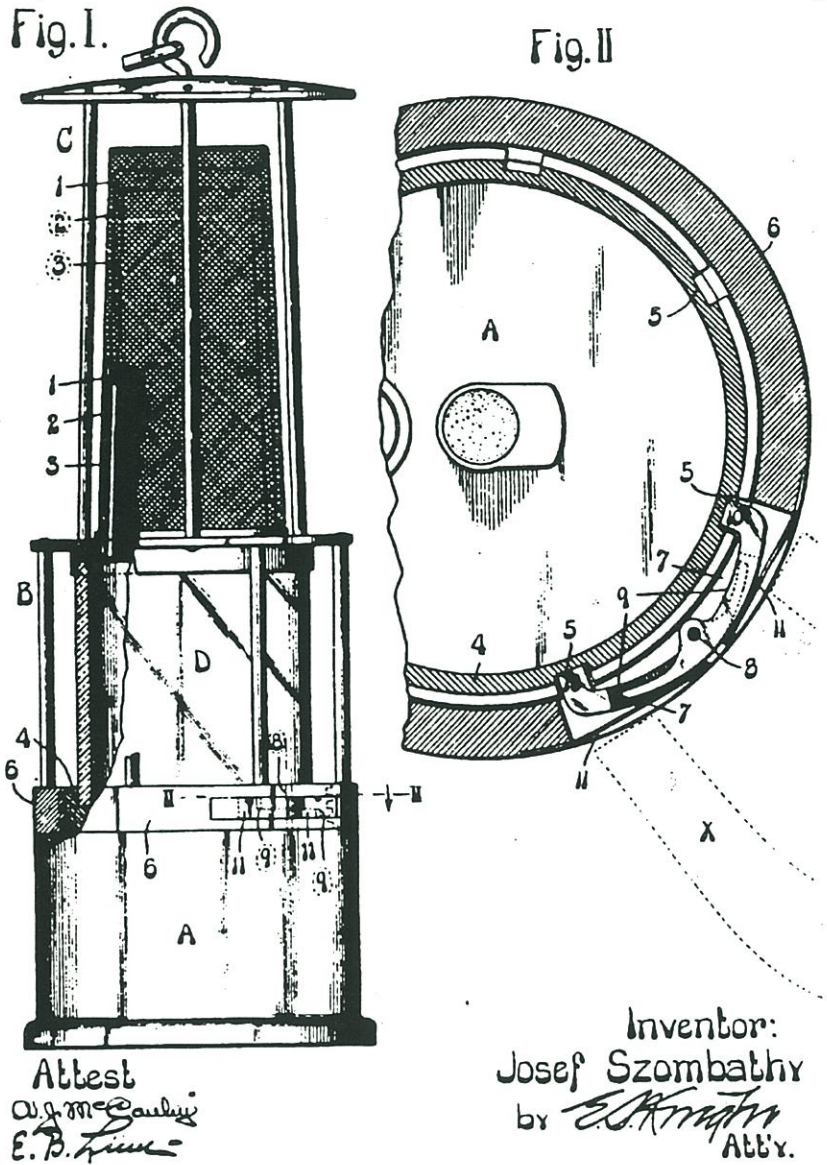


Figure 3. Patent diagrams for the Szombathy safety lamp. "Fig I" is a view partly in elevation and partly in vertical section. "Fig. II" is an enlarged section taken on line II - II in Fig I, illustrating the "latch dog" locking mechanism. Note the triple gauzes illustrated in Fig I.

References:

Paul, J.W., L.C. Ilesley, and E.J. Gleim. 1924. Flame Safety Lamps. U.S. Bureau of Mines Bulletin 227, Washington, DC.

Dimensions:

Height of lamp (base to cap): 24 cm (9.5 in)
 Diameter at base: 10.5 cm (4.1 in)
 Diameter at top: 8 cm (3.15 in)
 Height of glass: 8.5 cm (3.4 in)
 Height of outer gauze: 8 cm (3.15 in)
 Length of carrying hook: 14 cm (5.5 in)

The "Spiralarm Automatic Firedamp Detector Lamps"

*Manfred Stutzer, Ludwigshafen, Germany
and Peter Appleton, Wigston, England*

In 1860, James Henry Naylor established the J.H. Naylor Ltd., Brass Founders and Manufacturers, Central Brass Works, Wigan, Lancashire. This article describes the development of his "Spiralarm" safety lamps. It is the intention of the authors to write a separate article about all other Naylor safety lamps.

I. Principles of Gas Testing:

There are several ways in which firedamp may be detected and its proportion in mine air determined, but the treatment here is confined to those with which the mine deputy is likely to have contact.

a) The size and intensity of the firedamp cap on a testing flame depends on the proportion of firedamp present within the testing limits (for a flame safety lamp).

b) When methane is completely burnt in air, the contraction in volume of the mixture after cooling is twice the volume of the firedamp present in the original sample. This is due to the condensation of steam which is a product of the combustion, and can be measured by a McLuckie Methanometer.

c) The burning of firedamp around a heated platinum wire increases the temperature of the wire according to

THE SPIRALARM

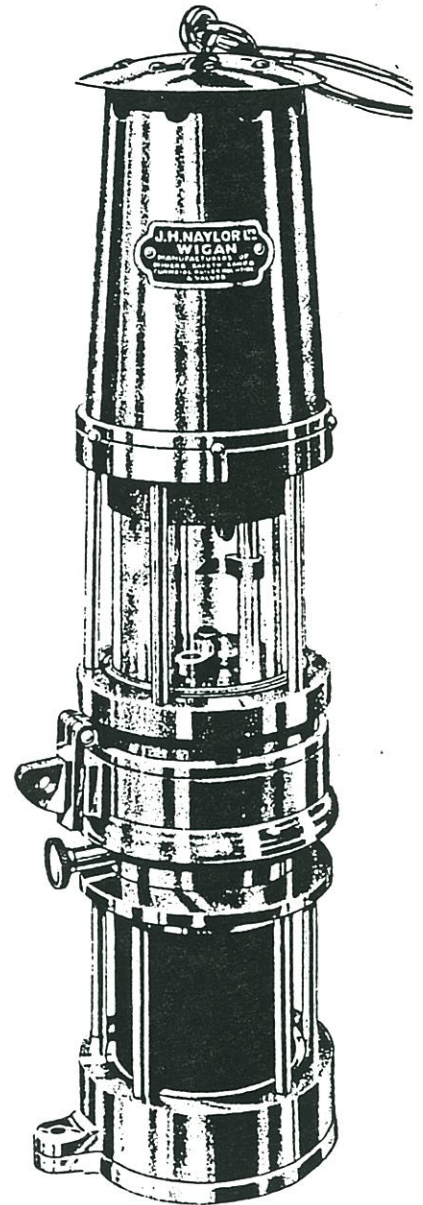
*An Automatic Detector
of Combustible Gases in
any atmosphere*

ROBUST, SIMPLE AND
ECONOMICAL

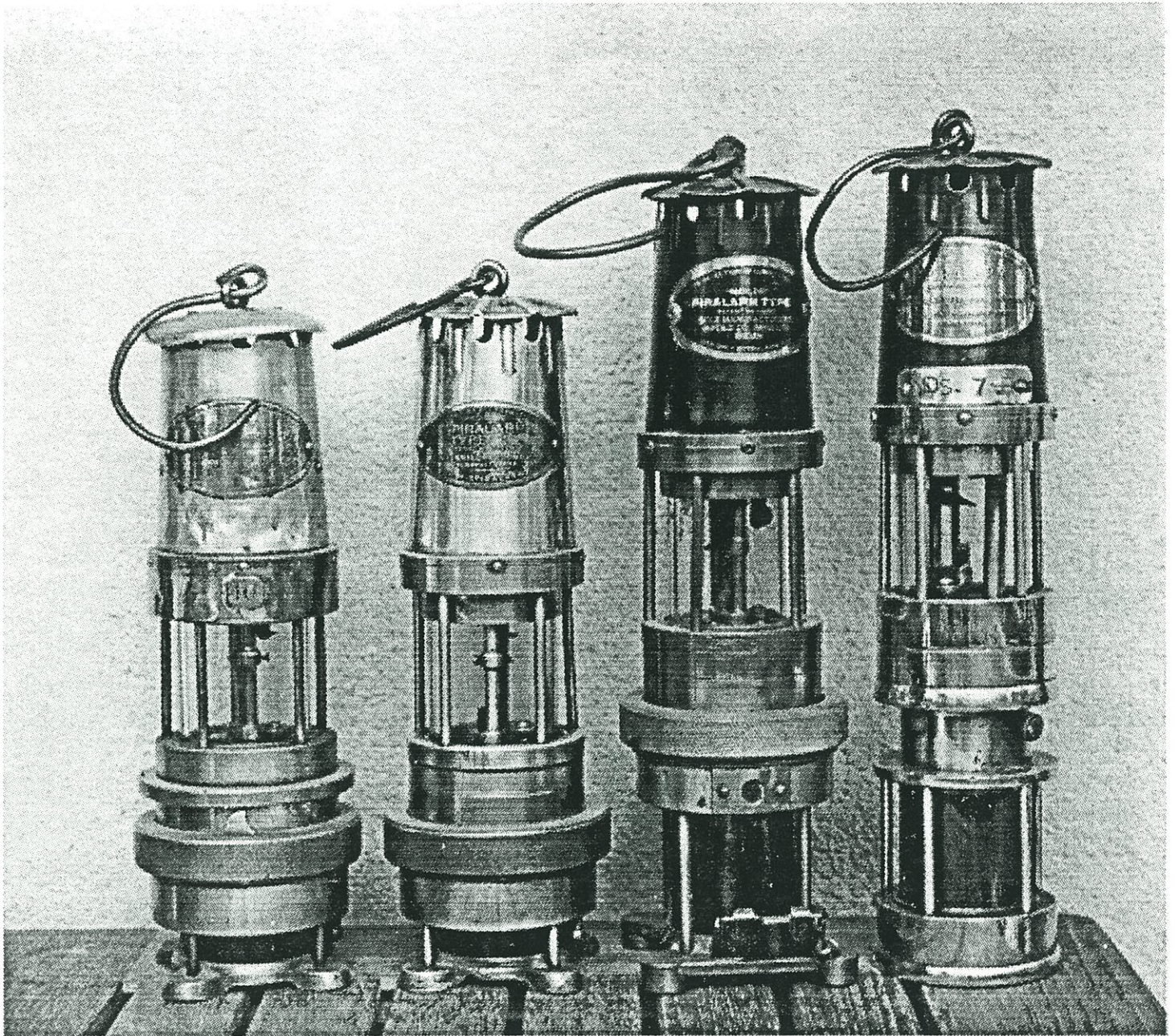
For the protection of life wherever inflammable gases are present the Spiralarm fills a long-felt need. It is composed of a Miner's Flame Safety Lamp of approved design. The steel gauzes and gas-tight joints ensure that no ignition of explosive gases can be caused by the presence of the testing flame. The Spiralarm is designed to meet the requirements of Local Authorities, Petrol Companies, Collieries, works where inflammable gases are present, and for any undertakings where life is endangered by the presence of inflammable gases.

Full particulars obtainable from
J. H. NAYLOR LTD.
CENTRAL BRASS WORKS
WIGAN

Telephone - - - Wigan 3676
Telegrams - "Naylor Wicnd Wigan"



Advertisement 1935 for one of the first "Spiralarm" designs.



*Four different Spiralarms.
 Left to right: Type M, ca. 1955, Type S, ca. 1970, Type S, ca. 1960, Type M, ca. 1940.*

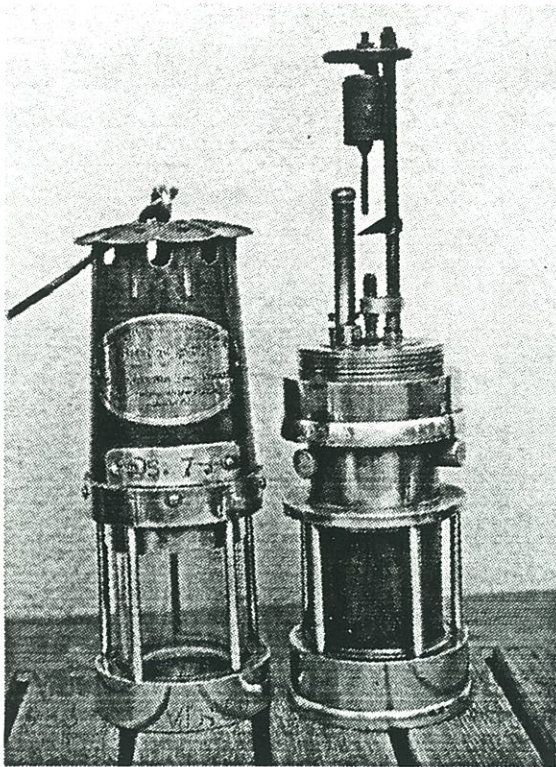
the proportion of firedamp. The metal increases its electrical resistance as its temperature rises, and this increment is measured by the "Wheatstone bridge" and recorded as percentage firedamp (CEAG Methanometer).

d) Firedamp diffuses into a porous pot more quickly than air and, inside,

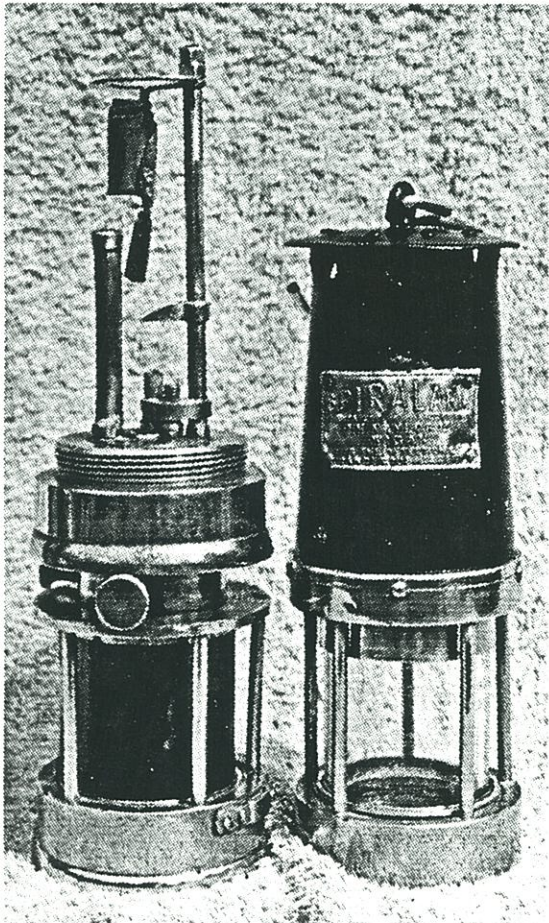
its combustion causes contraction. This sets up a pressure difference which operates a diaphragm controlling a pen or circuit maker or breaker (as in the Ringrose firedamp detector lamp).

e) The ordinary flame of a safety lamp gives an invisible cap in proportion to the firedamp percentage

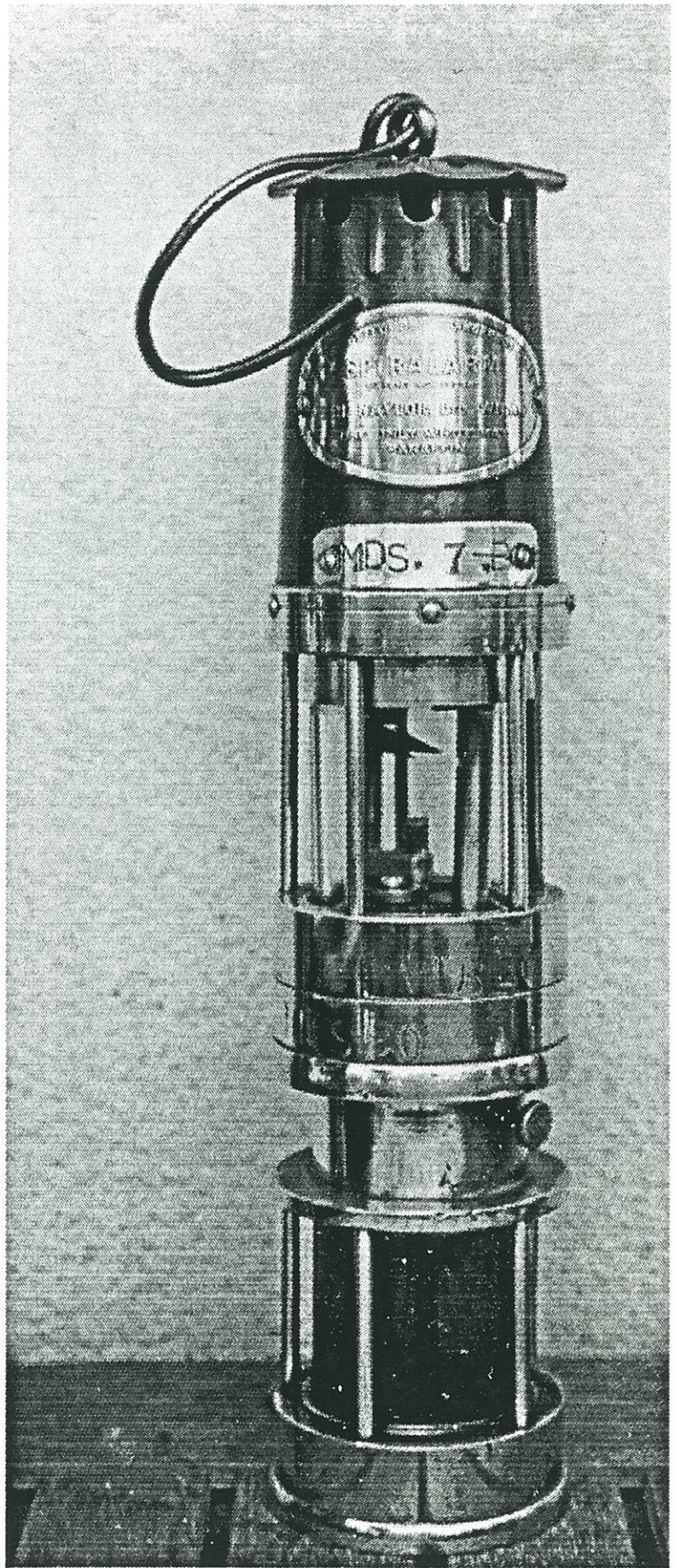
and this is made to heat a bimetallic strip which moves in relation to its temperature. This movement operates an electric switch which brings an alarm into circuit (the Spiralarm-Lamp).



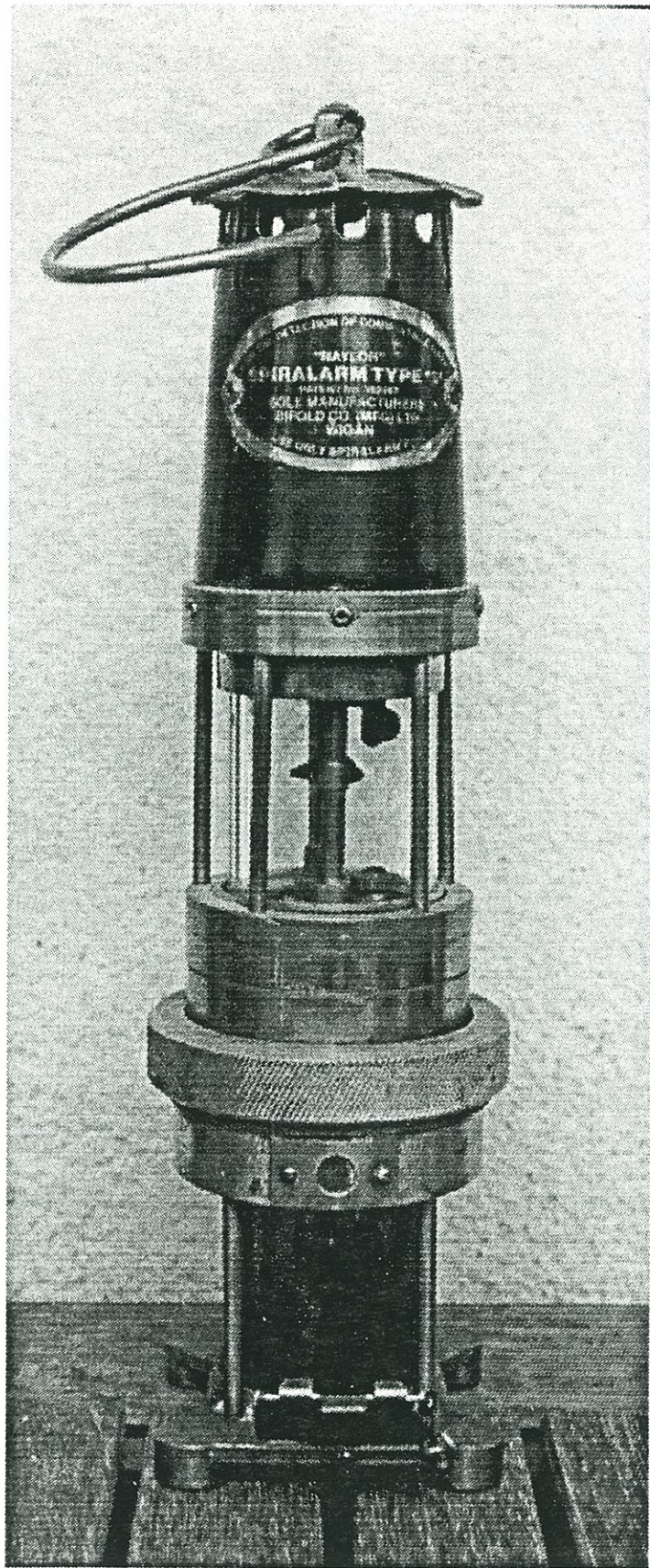
Breakdown of Type M, ca. 1940.



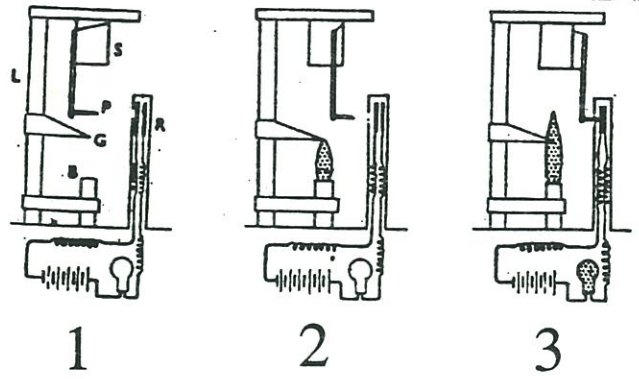
Breakdown of Type M, ca. 1935.



Spiralarm Type M, ca. 1940.



Spiralarm -Lamp Type S, ca. 1960.



1

Shows the relative position of the spiral, contact pin and contact strips when the lamp is unlit.

2

When the lamp has been lit, the resulting heat causes the spiral S to unwind a certain amount so that the contact pin P moves closer to the contact strips R. Under normal air conditions the lamp flame burns constantly at the height of the pointer gauge G, irrespective of the temperature of the surrounding air.

3

If inflammable gas is present in sufficient quantity, 1 1/4 % or 2 1/2 % according to the setting of the device, the flame increases in size and the greater heat produced causes the spiral to unwind still further, so that the contact pin P enters the small aperture in the contact tube and presses together the two contact strips, so completing the electric circuit of the device. This lights up the small Edison electric lamp and the red glass at the base of the lamp.



SPIRALARM?
... bet your life!

Many industries—and foreign countries—have been quick to follow Britain's lead, where over a dozen collieries have depended upon SPIRALARM'S accuracy and visible danger signal for seven years.

SPIRALARM Automatic Gas Alarm
(Ministry of Fuel & Power Approval No. 6)


The certain detector of Firedamp and other gases

J. H. NAYLOR LIMITED, Central Brass Works, Wigan
Telephone: Wigan 3676 Telegrams: Safety, Wigan

Advertisement 1954 for Spiralarm-Lamp Type M.

**WORKING
AND MAINTENANCE
INSTRUCTIONS**

**THE NAYLOR
"SPIRALARM"**



**MINISTRY OF FUEL AND
POWER FIRBDAMP DETECTOR
APPROVAL No. 6 - 26/11/49**

J. H. NAYLOR LIMITED . WIGAN

Cover for instruction manual.

II. Regulations:

In safety lamp mines, at least one detector must be provided by the owners;

- a) for every eight men or fraction of eight on a long wall face
- b) for each working place in other workings
- c) in every stone drift
- d) for every place where a set of men is working in the return on repairs
- e) with each electric motor running at or within 100 yards of the face.

The persons carrying these lamps are to be appointed by the manager for the purpose and may carry no other lamp except with the written permission of the manager. The workman carrying a detector must have been trained in its use and certified by an approved person as competent to determine firedamp percentages by means of gas caps on the lowered flame. The manager is to give directions as to the times and number of occasions for such tests to be made, and workmen in charge of detectors must use them in accordance with the instructions of the manager, undermanager, or other official of the mine. If a workman detects firedamp where an electric motor is working, he must inform the motorman who must cut off the power from the motor.

Safety with Service

NAYLOR TYPE 'M'

SPIRALARM



The CERTAIN DETECTOR OF
Firedamp and other gases.

Highly sensitive and fully automatic in operation the SPIRALARM provides a sure detection of inflammable gases. In the United Kingdom and throughout the world, thousands of Spiralarms are in use daily—and, they give trouble-free service. You can "depend" on Spiralarm.

Spiralarm is now made in brass with stainless steel bonnet to comply with N.C.B. regulations concerning magnesium and aluminium alloy.

MINISTRY OF FUEL & POWER APPROVAL NO.



SEND FOR
LEAFLET TODAY!

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CENTRAL BRASS WORKS, WIGAN.

Telephone: Wigan 3676

Telegrams: Safety, Wigan.



Spiralarm Type M.

Advertisement 1955 of Spiralarm Type M.

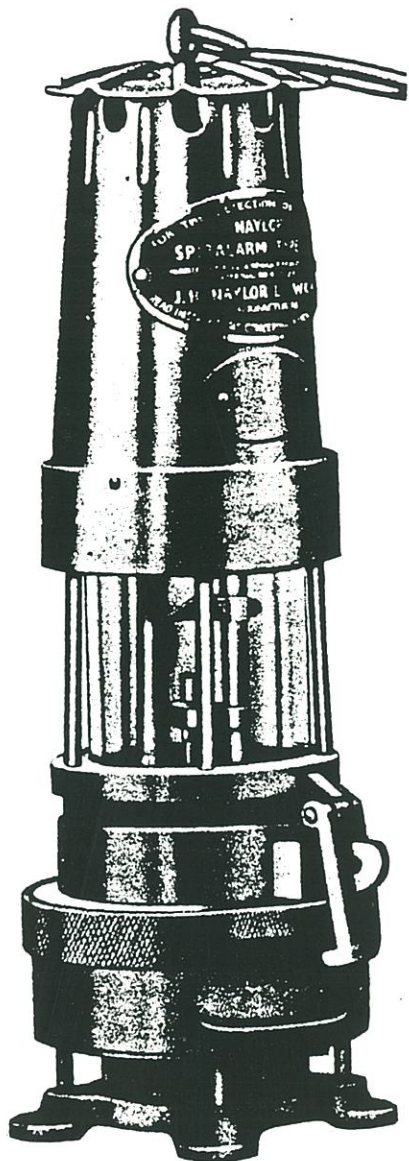
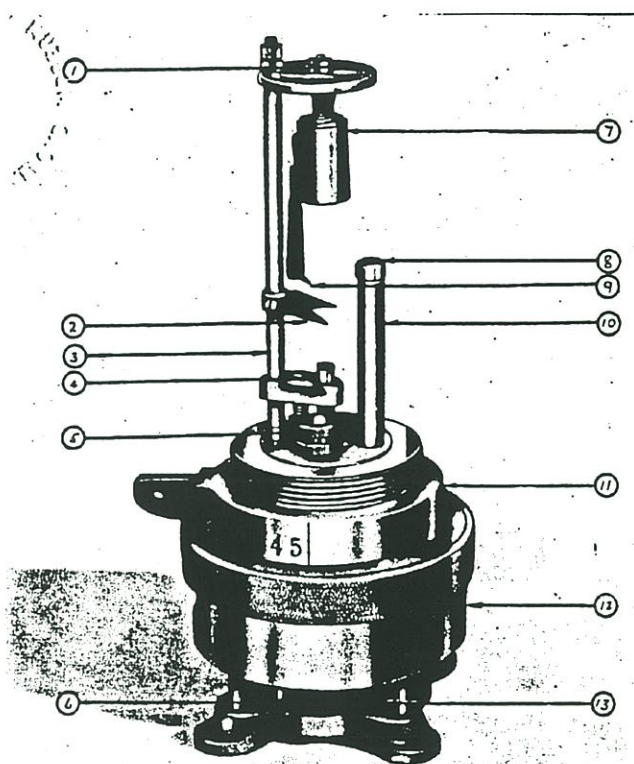


Fig. 2. Internal construction of Spiralarm

- | | | |
|-----------------------|-----------------|--------------------------|
| 1. Holding Nut. | 6. Switch. | 10. Contact Tube. |
| 2. Pointer. | 7. Spiral. | 11. Fuel Container. |
| 3. Supporting Pillar. | 8. Brass Cap. | 12. Battery Compartment. |
| 4. Burner. | 9. Contact Pin. | 13. Red Glass. |
| 5. Filling Screw. | | |



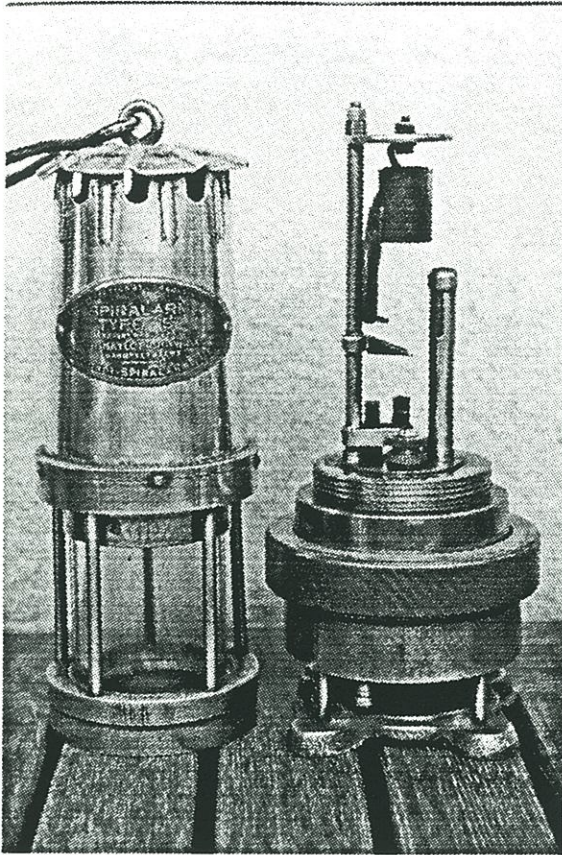
Spiralarm Type M, with locking mechanism.

Principle of the Spiralarm Firedamp Detector:

The approved Spiralarm detector consists of a permitted flame safety lamp with a bimetallic strip coiled above the flame, an electric contact operated by the coil, and a small battery with a 2.5 volt red bulb housed in the base. The flame is set to a gauge and causes the strip to uncoil, but not enough to close the contact. If firedamp is present the extra heat tends to complete the action and the red light comes on. It can be set to operate at either 1 1/4 % or 2 1/2% methane.

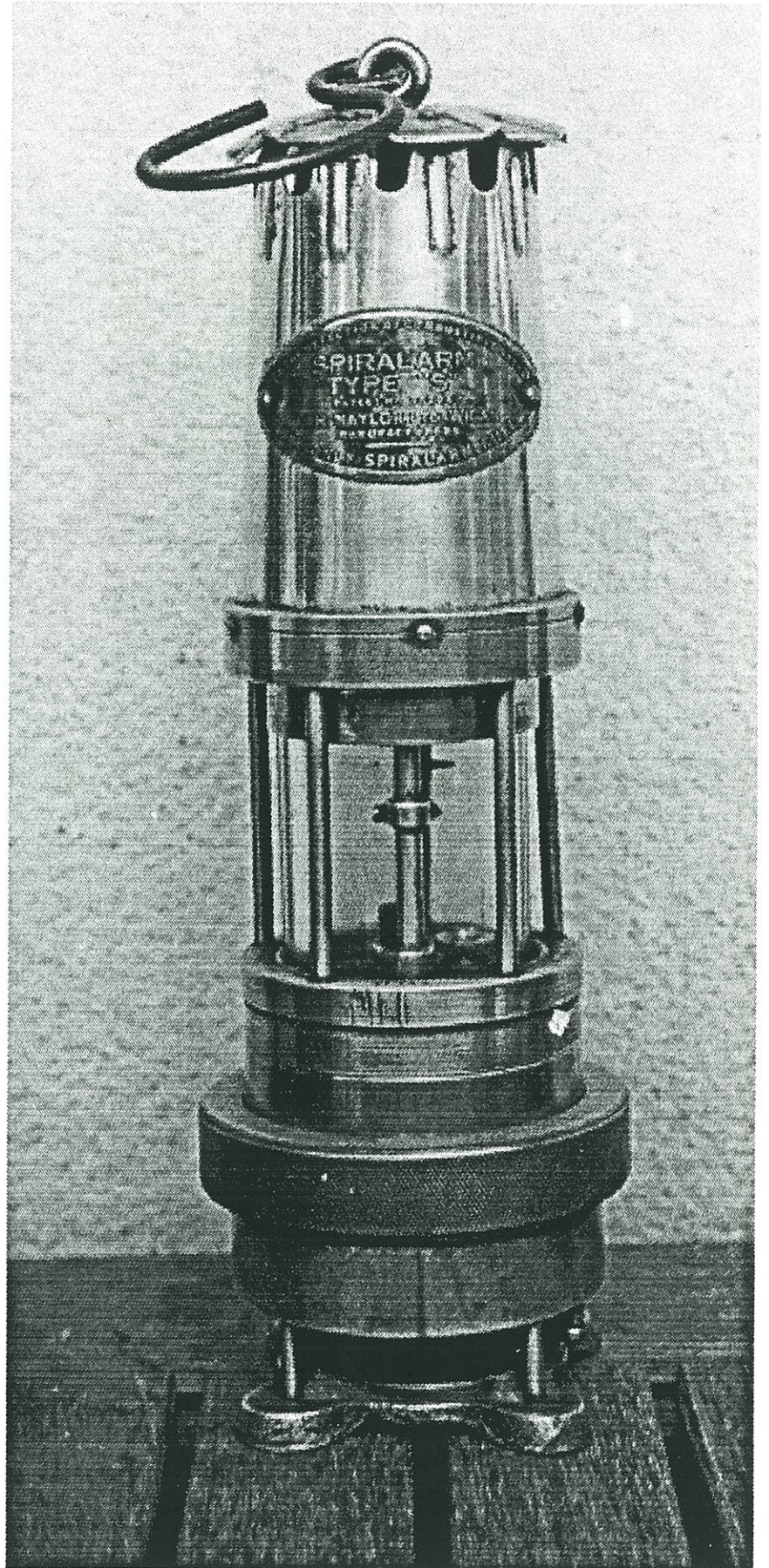
The first "Spiralarm Automatic Firedamp Detector Lamps" were introduced about 1935 by J. H. Naylor. In 1950 the "Spiralarm-Lamp" Type M was approved by the Ministry of Fuel and Power. Type M of the "Spiralarm-Lamp" was produced until around 1970.

The existing Type S was not approved to be used in mines. Type S has been designed to meet the requirements of public authorities, public works contractors, petrol producers, oil tank operators and other undertakings where inflammable gases endanger life.



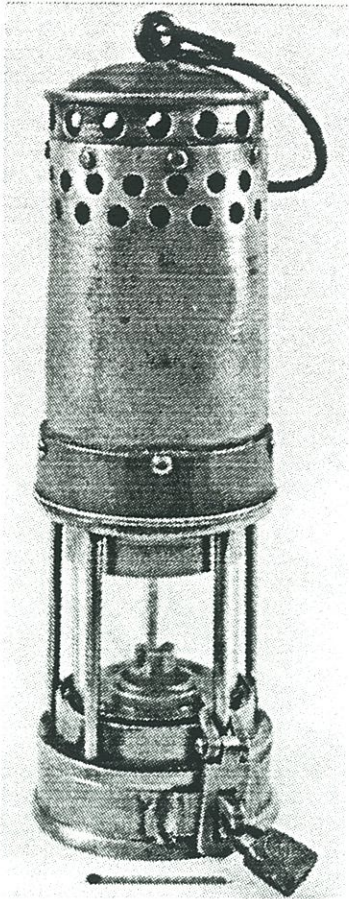
Spiralarm-Lamp Type S, ca. 1970. Assembled lamp is right, breakdown above.

Peter Appleton contacted Mr. Fishwick, a former technical director of Bifold Co. (Manufacturing) Ltd., in Lancashire, a sister company of Naylor. According to Mr. Fishwick, the production of the Type S lamp was ceased around 1987. Service for Type S lamps was provided by Mr. Orris Jones up to 1995.



European Oil Burning Safety Lamps

Werner Horning



★

Class of Lamp: Safety Lamp for oil burning

Place and Country of Origin: Derby, Great Britain

Manufacturer: Davis

Material: Bonnet of Aluminium. All other parts of brass.

Measures:

Height: 265 mm

Diameter: 89 mm

Length of Hook: 75 mm

Year of Production: ~ 1900

Feature of Construction: Font of brass. Flat wick. Pricker (is missing). Hinge lock. Glass screwed by ring. Double gauzes.

Class of Lamp: Safety lamp for Oil burning WB No. 2

Place and Country of Origin: Morley, Leeds/Yorkshire, Great Britain

Manufacturer: Hailwood & Ackroyd Ltd.

Material: Inner and outer ring of brass. All other parts of iron.

Measures:

Height: 270 mm

Diameter: 110mm

Length of Hook: 95 mm Year of Production: ~ 1870

Feature of Construction: Cylindrical font. Flat wick. Pricker. Stud lock plus hinge lock. Double bonnet with bolt holes rivetted. Ring for inner and outer glass. Super imposed Mueseler chimney on inner glass. Double gauzes. Electrically igniting.

Inscription:

Hailwood & Ackroyd Ltd MAKERS

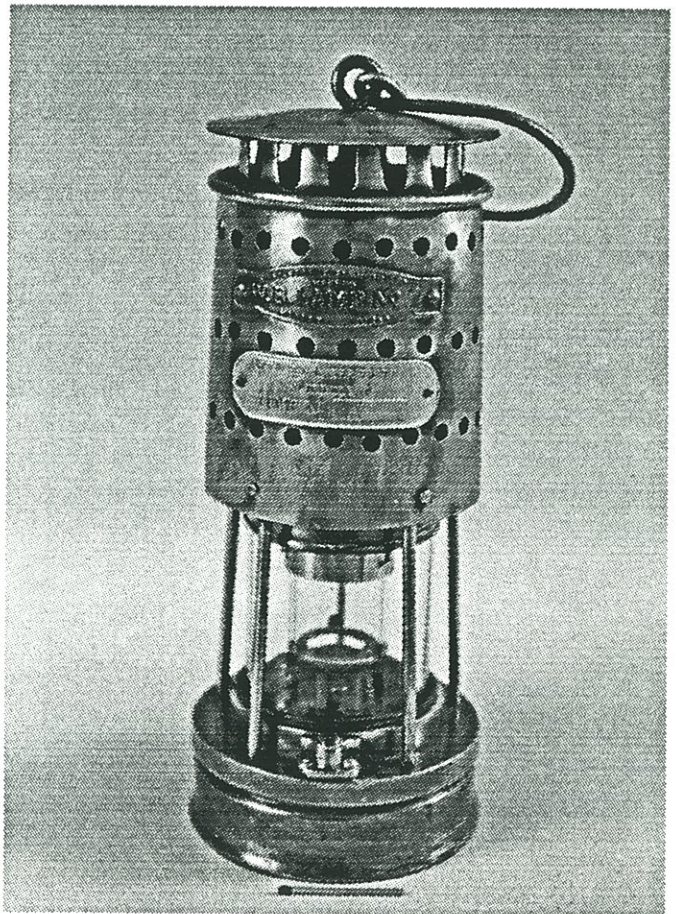
W.B. LAMP No. 2

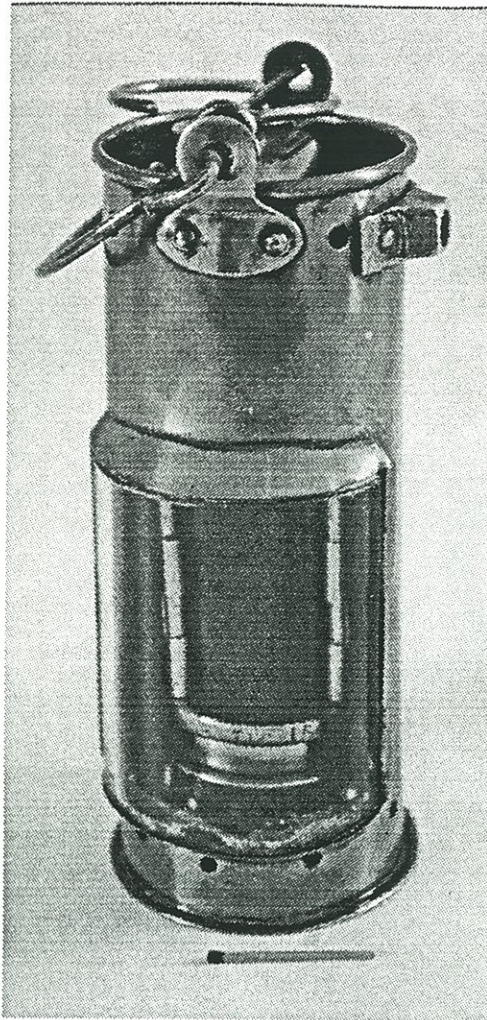
MORLEY YORKS.

APPROVED UNDER LIGHTING

SCHEDULE A

LAMP No.





Class of lamp: Safety Lamp/Davy in a Can for Oil burning

Place and Country of Origin: Great Britain

Manufacturer: Unknown

Material: Tin Can: Sheet Copper, Brass, Sheet Iron
 Davy Lamp: All Brass

Measures of Davy Lamp:

Height: 198 mm

Diameter: 68 mm

Length of Hook: 70 mm

Tin Can: Height: 203 mm, Diameter: 90 mm

Glass Window: 102x98mm

Year of Production: ~ 1870

Feature of Construction: Davy Lamp: Font with round wick. Pricker, Bolted top. Stud lock. 3 Pillars. Name-plate of sheet brass. Wire gauze with wire gauze cap. At covering hood nut for stud lock. Tin Can: Cylindrical can of sheet copper with spherical glass window. Upper and lower bolt hole for air inlet. Stud lock.

Inscription: T C C

Class of Lamp: Safety Lamp for Oil burning, Pit Bottom Lamp

Place and Country of Origin: Manchester and Liverpool, Great Britain

Manufacturer: Richard Johnson
 Clapham & Morris

Material: Bonnet and upper pillars of iron. All other parts of brass.

Measures:

Height: 355 mm

Diameter: 133 mm

Length of Hook: 86 mm

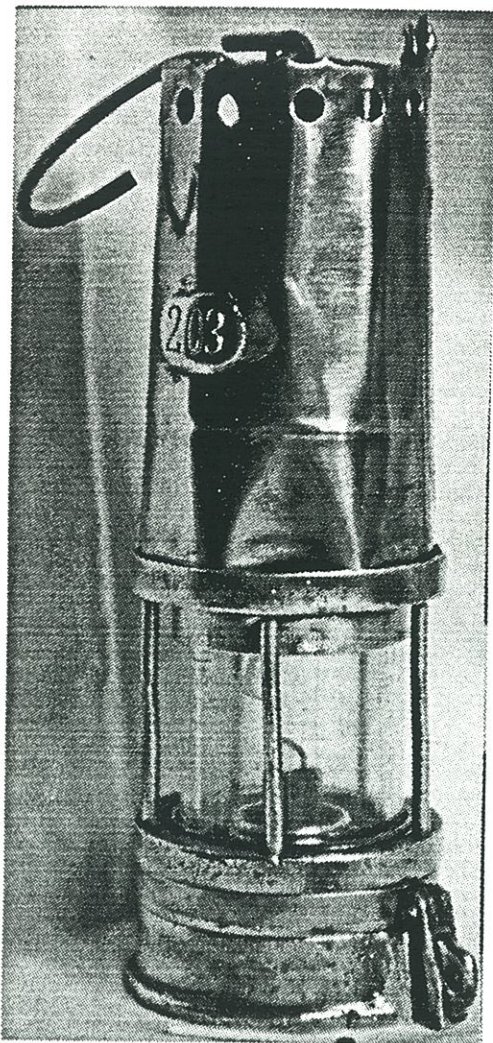
Year of Production: ~ 1900

Feature of Construction: Upper air inlet. Double flat wicks. Hinge lock for padlock or lead seal. One gauze. Bonnet secured by rivet.

Inscription:

RICHARD JOHNSON CLAPHAM & MORRIS
 PATENTEES & MAKERS
 MANCHESTER & LIVERPOOL





Class of Lamp: Safety Lamp for Oil burning

Place and Country of Origin:
Liverpool and Manchester, Great Britain

Manufacturer: Richard Johnson
Clapham & Morris Ltd.

Material: Bonnet, swivel bail and hook of iron, all other parts of brass

Measures:
Height: 240 mm
Diameter: 80 mm
Length of Hook: 80 mm

Year of Production: ~ 1880 **Feature of Construction:** Upper air inlet. One gauze. Flat wick. Hinge lock and lead seal Marsaut bonnet.

Inscription: (on covering)
Richard Johnson, Clapham & Morris
Patentees
Makers
Manchester
Liverpool

Class of Lamp: Safety lamp for Oil burning

Place and Country of Origin: Pontyberem, Great Britain

Manufacturer: John Jones

Material: Pillars, swivel bail, hook and label of brass. All other parts of sheet iron.

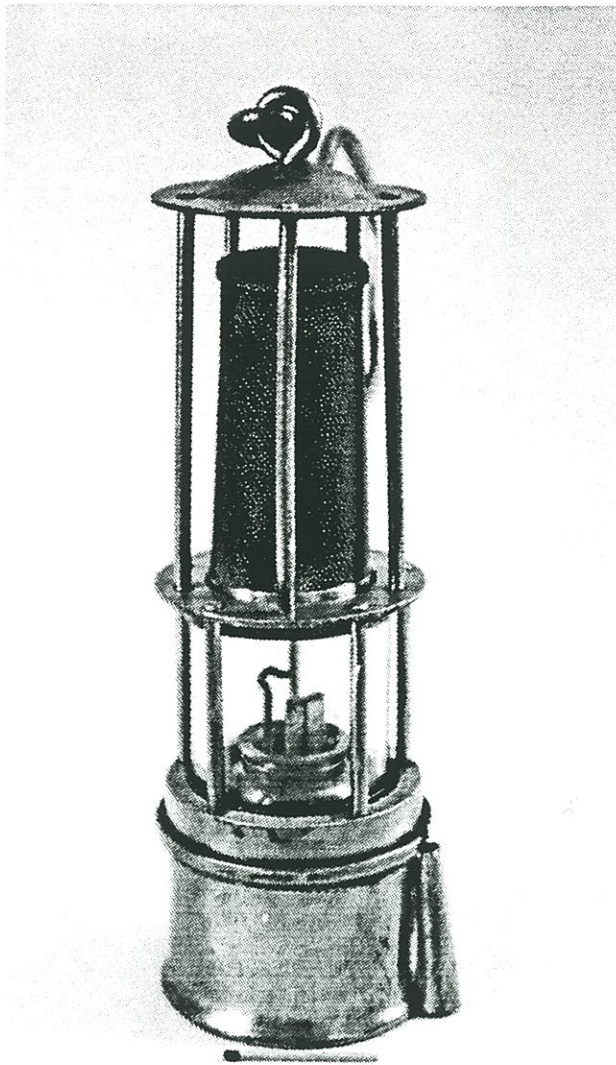
Measures:
Height: 204 mm
Diameter 70 mm
Length of Hook: 72 mm

Year of Production: ~ 1908

Feature of Construction: Flat wick. Pricker. Glass feed with putty. 3 Pillars. Upper air inlet. Without gauze cylinder, only a gauze sieve in upper part of the bonnet. Slide lock.

The lamp belonged to a miner named: George Everett. His number was 1226.





Class of Lamp: Safety Lamp for Oil burning

Place and Country of Origin:
Bochum/Westf., Germany

Manufacturer: Wilhelm Seippel

Material: Middle ring, screwing of oil vessel of brass. All other parts of iron.

Measures:
Height: 250 mm
Diameter: 82 mm
Length of Hook: 134 mm

Year of Production: ~ 1900

Feature of Construction: Upper air inlet. Flat wick. Only one gauze. Stud lock.

Class of Lamp: Safety Lamp for Oil burning
System: Bainbridge

Place and Country of Origin:
Liege, Belgium

Manufacturer: Fabrique Liegoise de lampes de Surete, Hubert Joris

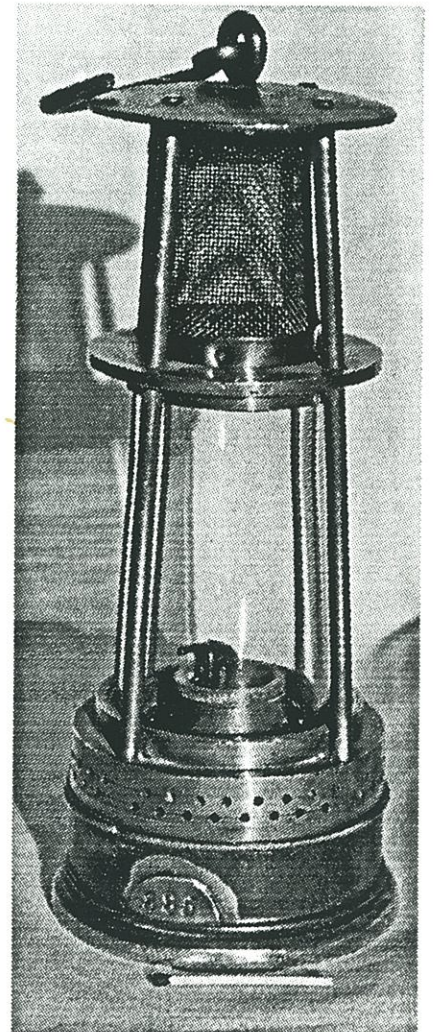
Material: Base, lock ring and middle ring of brass. All other parts of iron.

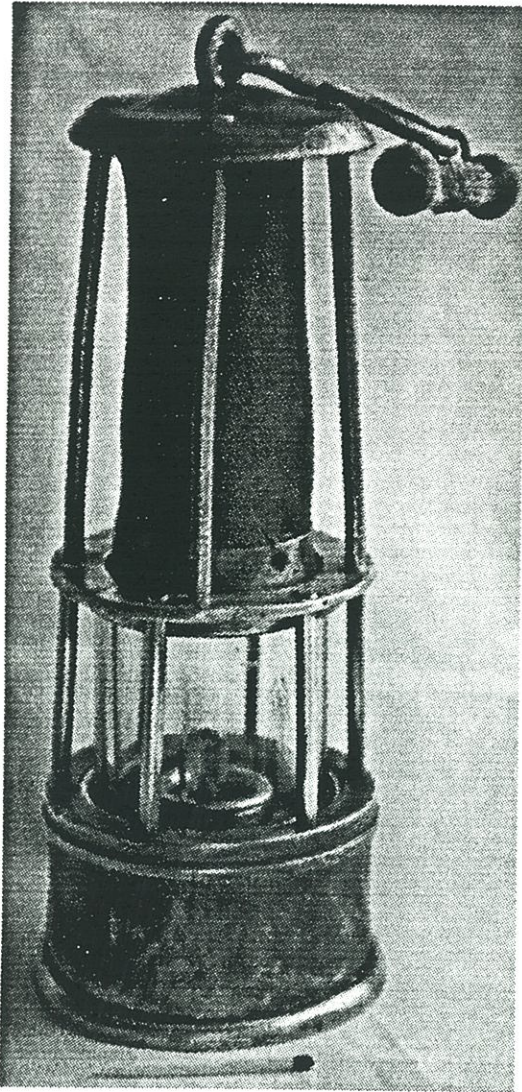
Measures:
Height: 225 mm
Diameter 92 mm
Length of Hook: 55 mm

Year of Production: ~ 1900

Feature of Construction: Lower air inlet by perforated ring. Flat wick. High, conical glass. One short gauze.

Pressed stamp: Achille Andre Brevete
Alabouverie
Belgique





Class of Lamp: Safety Lamp for Oil burning Design: -Boty

Place and Country of Origin: Lothringen, Belgium

Manufacturer: Unknown

Material: Base, upper and lower ring and pillars of brass. All other parts of iron.

Measures:

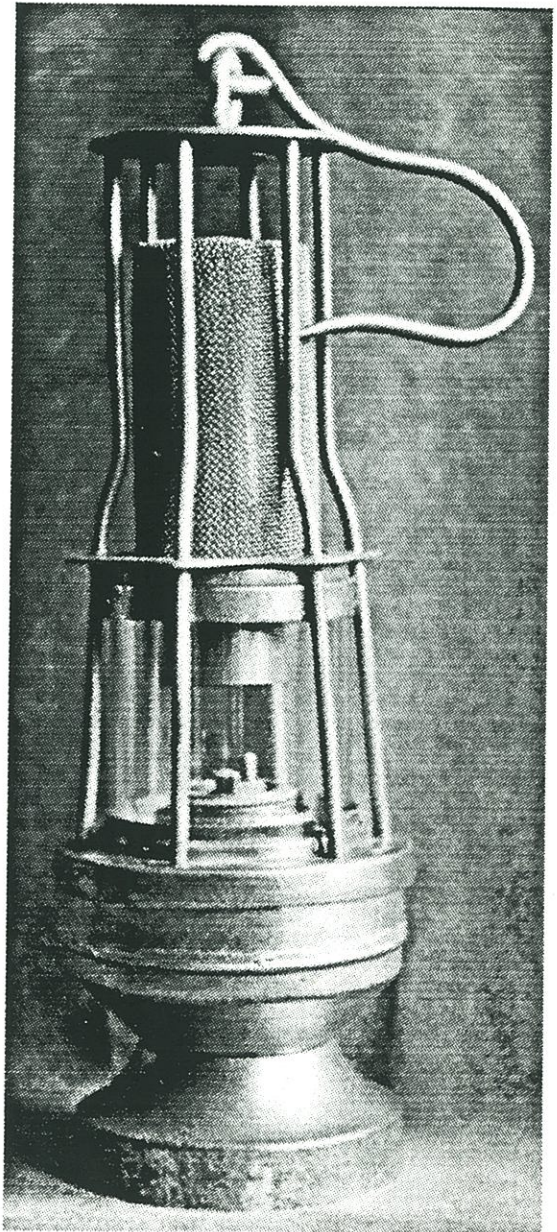
Height: 223 mm

Diameter 90 mm

Length of Hook: 68 mm

Year of Production: ~ 1905

Feature of Construction: Upper air Inlet. Pricker. Round wick. Double Gauze. Stud lock (is missing). Handle with toggle of wood.



Class of Lamp: Safety Lamp for Oil burning

Place and Country of Origin: Ferrara, Italy

Manufacturer: Aquilas, Santini Brothers

Material: Ring brass. All other parts of iron.

Measures:

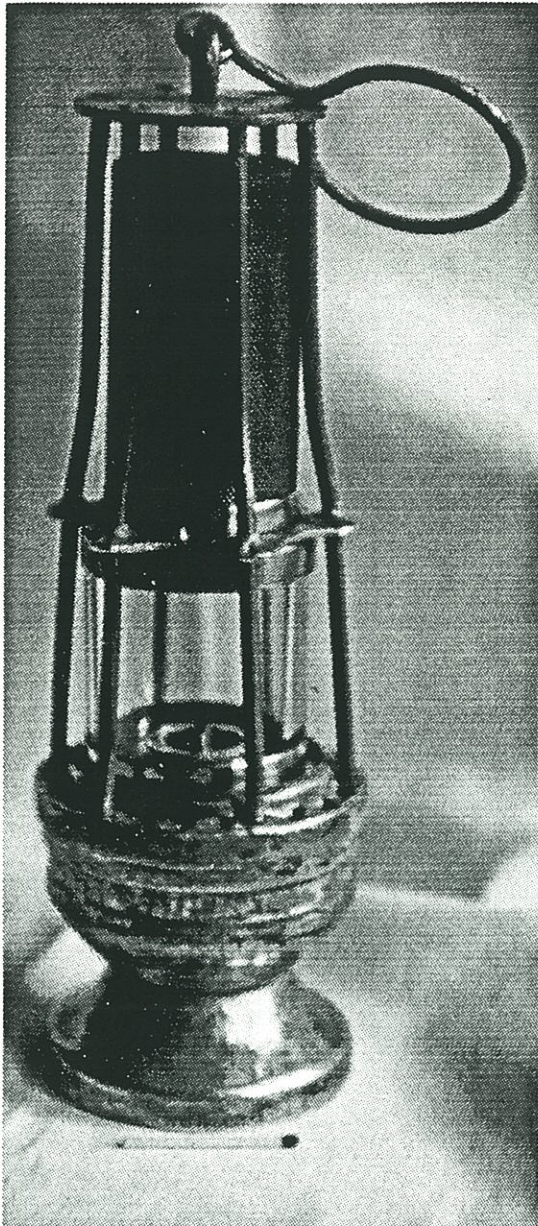
Height: 255 mm

Diameter: 83 mm

Length of Hook: 103 mm

Year of Production: ~ 1910

Feature of Construction: Upper air inlet. Flat wick. Mueseler chimney with sieve. Middle ring elastically. One gauze. Secured by spring catch, which only gives free when the wick is totally twisted down and the flame is extinguished.



Class of Lamp: Safety Lamp for Oil burning

Place and Country of Origin: Lille, France

Manufacturer: Cossel-Dubnulle Brothers

Material: Ring of brass. Gauze ring of copper. All other parts of iron.

Measures:

Height: 260 mm

Diameter: 82 mm

Length of Hook: 92 mm

Year of Production: ~ 1880

Feature of Construction: Upper air inlet. Flat wick. Double gauze. Secured by spring catch, which only gives free when the wick is totally twisted down and the flame is extinguished.

Class of Lamp: Safety Lamp for Oil burning
Davy type

Manufacturer: Aberdare/Wales, Great Britain

Manufacturer: E. Thomas & Williams

Material: Gauze and Pillars of iron. All other parts of brass.

Measures:

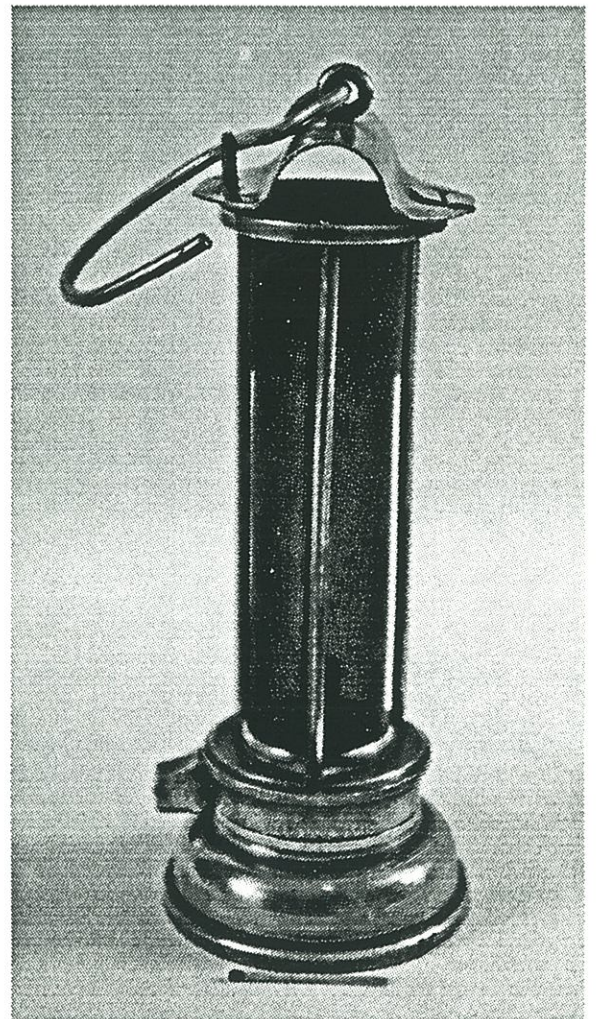
Height: 230 mm

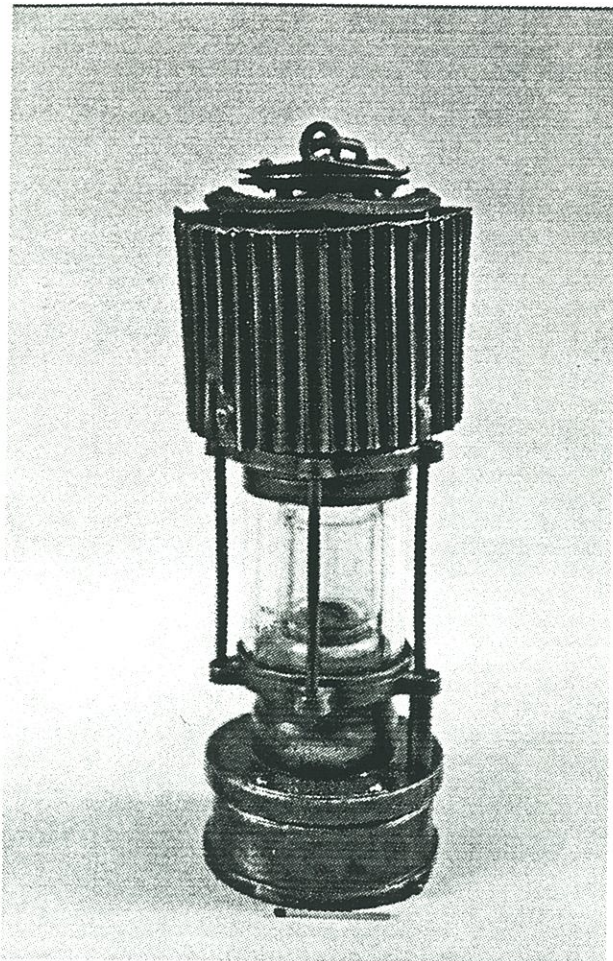
Diameter 70 - 92 mm

Length of Hook: 95 mm

Year of Production: ca. 1880

Feature of Construction: Font with round wick. Pricker. Bolted upper part. 3 Pillars. One gauze with gauze-cap. Stud lock.





Class of lamp: Safety Lamp for Oil burning Type HCP

Place and Country of Origin: Felling on Tyne, Great Britain Manufacturer Patterson Lamps Ltd.

Material: Font, middle ring of brass. All other parts of iron.

Measures:

Height: 275 mm

Diameter 96 mm

Length of Hook: 93 mm

Year of Production:- 1900

Feature of Construction: Cylindrical font. Flat wick. Slotted covering hood. Electrically igniting. Vertical magnetic spring-loaded latches. Upper air inlet. Second, inner glass cylinder on shut-off ring. Double bonnet secured by vertical movable pillar.

Inscription: Type H.C.P.
Patterson Lamp Ltd.
Felling on Tyne
Appd. under LTG. Sched.

Class of Lamp:
Safety Lamp for Oil burning
Type B. 7

Place and Country of Origin:
Gateshead, Newcastle on Tyne
Great Britain

Manufacturer: Patterson Lamps Ltd.

Material: Pillars and upper part of iron. All other parts of brass.

Measures:

Height: 240 mm

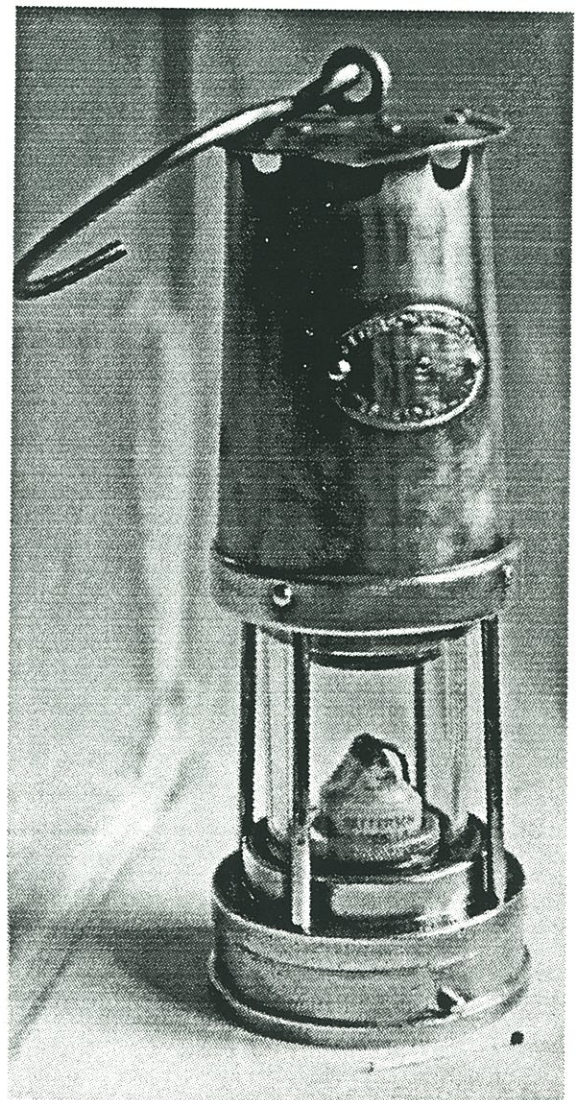
Diameter. 90 mm

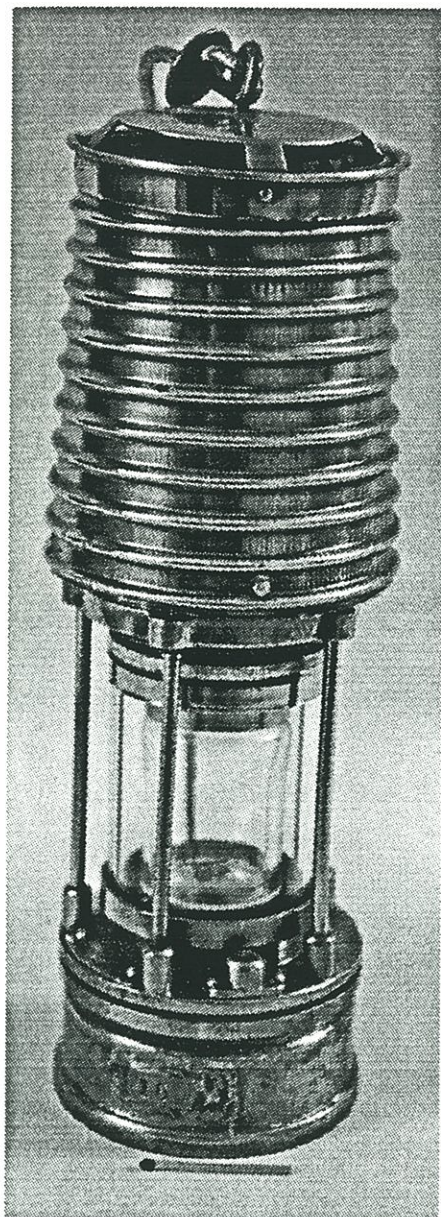
Length of Hook: 105 mm

Year of Production: ~ 1910

Feature of Construction: Upper air inlet. Porcelain burner with fiat wick. Pricker. Electrically igniting. Glass screwed by ring. Mueseler chimney. Double gauze. Stud lock.

Inscription:
Patterson Lamps Ltd.
79 Gateshead-on-Tyne
Type B. 7 Sched. B
Approved





Class of Lamp: Safety lamp for Oil burning
Type HCP 9

Place and Country of Origin: Gateshead, Newcastle upon Tyne, Great Britain

Manufacturer: Patterson Lamps Ltd.

Material: Lock ring, ring locking device and upper ring of brass. All other parts of iron.

Measures:

Height: 300 mm

Diameter: 96 mm

Length of Hook 105 mm

Year of Production: ~ 1905

Feature of Construction: Cylindrical font. Flat wick. Slotted covering hood. Electrically igniting. Vertical magnetic springloaded latches. Upper air inlet. Mueseler chimney. Inner glass cylinder. Two gauzes. Double bonnet with cooling vanes.

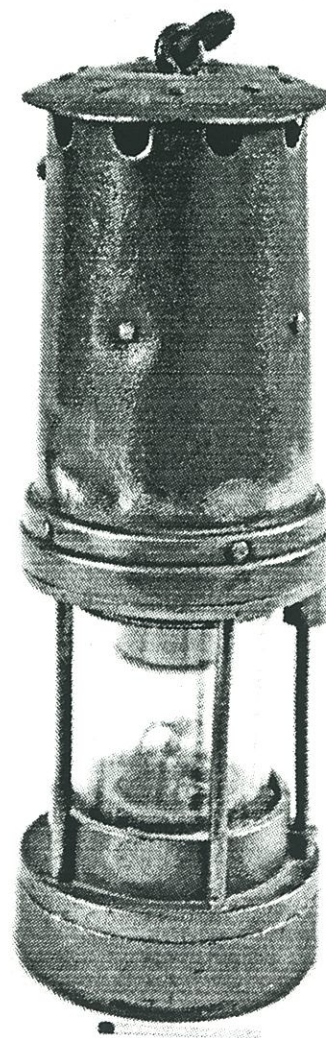
Inscription:

Type HCP9

Patterson Lamps Ltd.

Gateshead 11

Appd. under LTG. SCHED.



Class of Lamp: Safety Lamp / Nr. 9
for Oil burning

Place and Country of Origin:
Aberdare/Wales, Great Britain

Manufacturer: E. Thomas & Williams Ltd.

Material: Pillars, bonnet and hook of iron. All other parts of brass.

Measures:

Height: 255 mm

Diameter 87 mm

Length of Hook: 82 mm

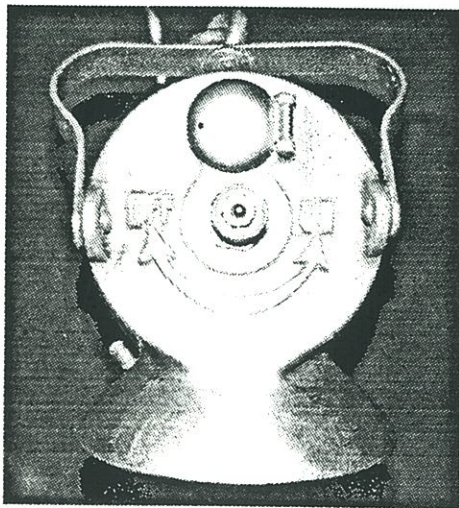
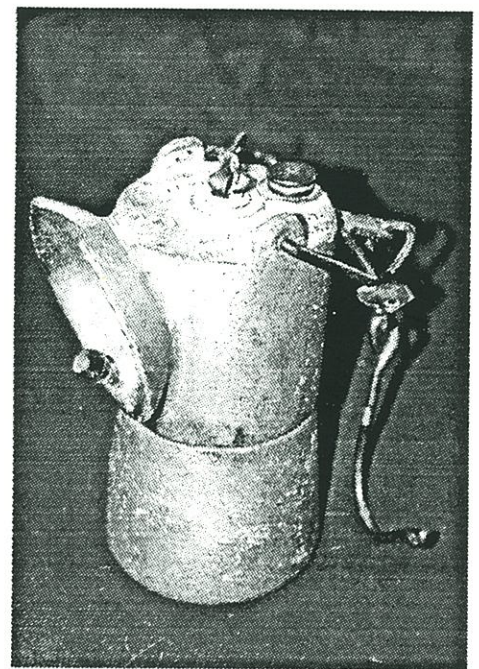
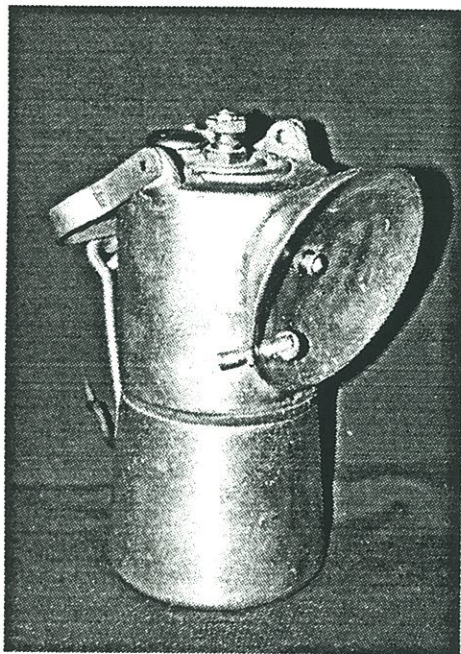
Year of Production: ~ 1880

Feature of Construction: Flat wick. Lead seal. Mueseler chimney. Inner and outer gauze. Screwed Marsaut-bonnet hold safe by movable pillar.

Three Cast Aluminum Hand Lamps

Dave Thorpe

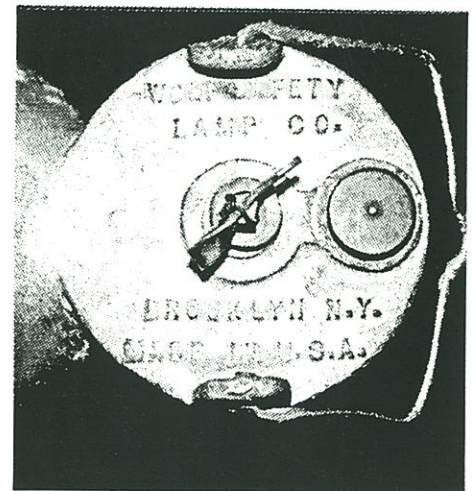
They are all similar in design, but differ in details. The unmarked lamp shown at far left would appear to be a copy of the two Wolf lamps on the right. Perhaps it is a Wolf. It differs by having a hinged water door, a central burner location, a flat steel brace, a notchless reflector, and a wheel water control. All of these lamps are rare in the U.S.A., and they would presumably be rarer in Europe, as they have American letters cast into them. The two Wolf lamps shown differ only in their top stamping.



*Errol Christman collection.
Manufacturer unknown.*



*Errol Christman collection.
Manufacturer Wolf.*

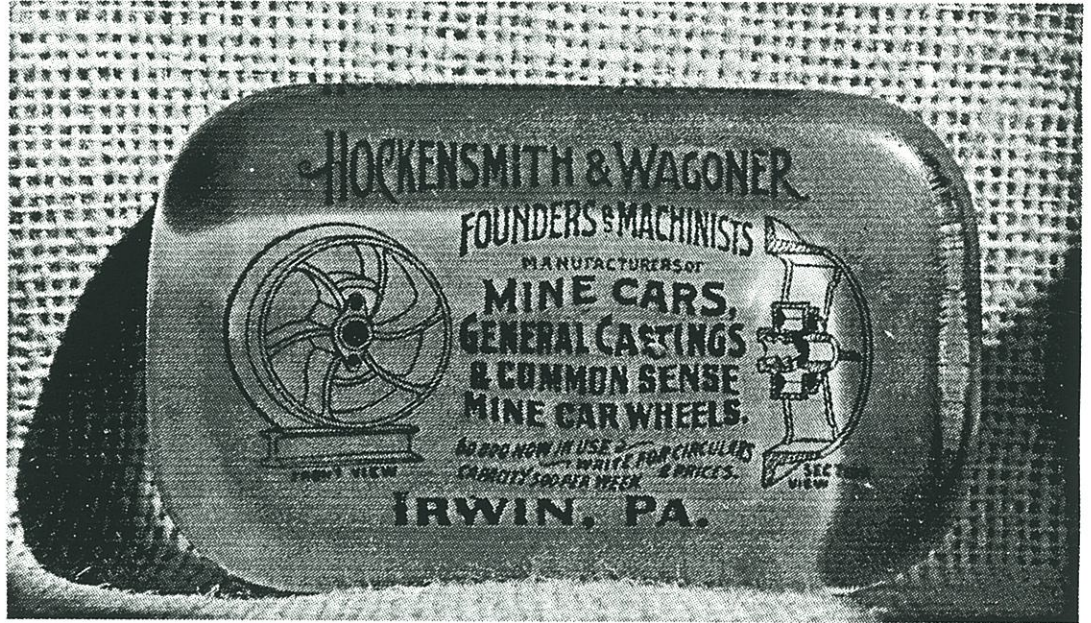


*Dave DesMarais collection.
Manufacturer: Wolf.*



Mine Car Manufacturer

Hockensmith and Wagoner of Irwin, PA., was just one of a large number of foundry and machinist firms that produced mine cars for the coal trade. Advertising items for these firms are very rare, while items such as this glass paperweight, illustrating their products even rarer. (Dave Johnson)

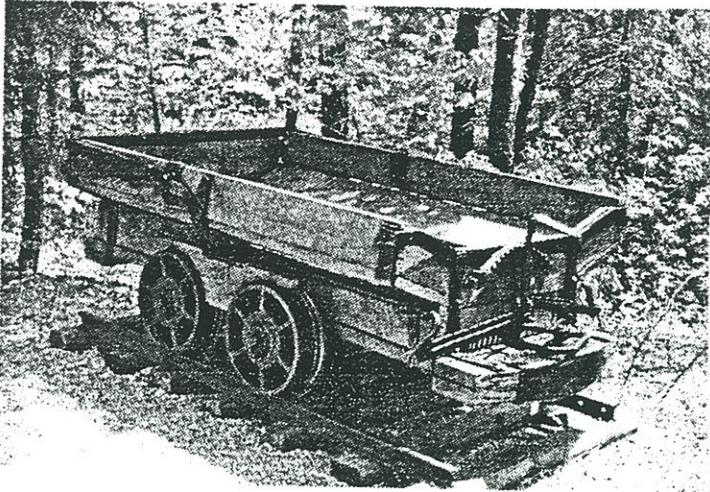


Well-known Coal Company

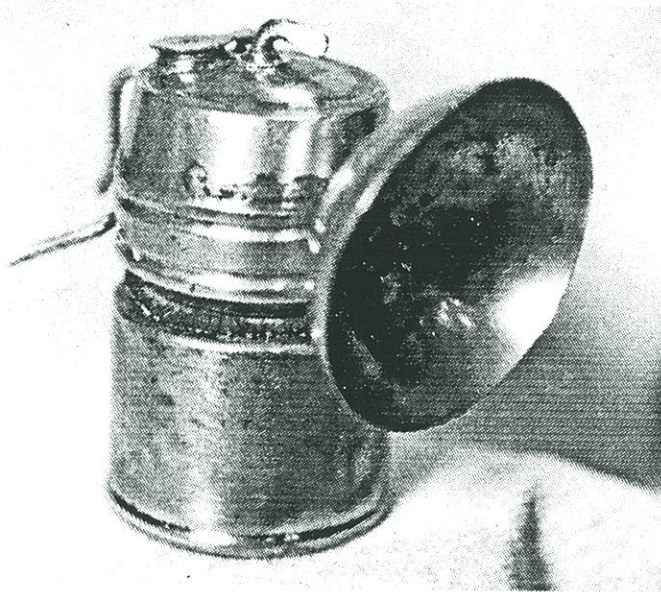
The Pocahontas Fuel Co. was a major Eastern coal producer. Original Pocahontas Coal was their most famous name brand. The symbol for Original Pocahontas Coal was an Indian maiden head. According to this glass ashtray, Pocahontas had offices in seven U.S. cities as well as having a British distributor. (Dave Johnson)



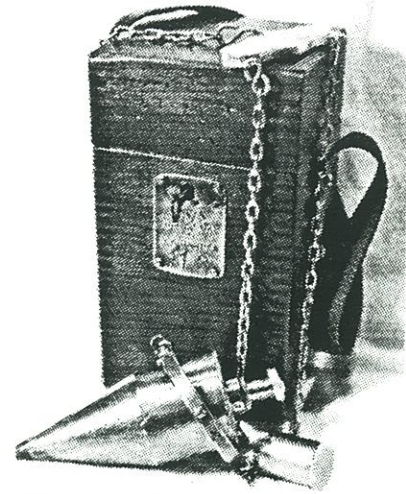
New Finds



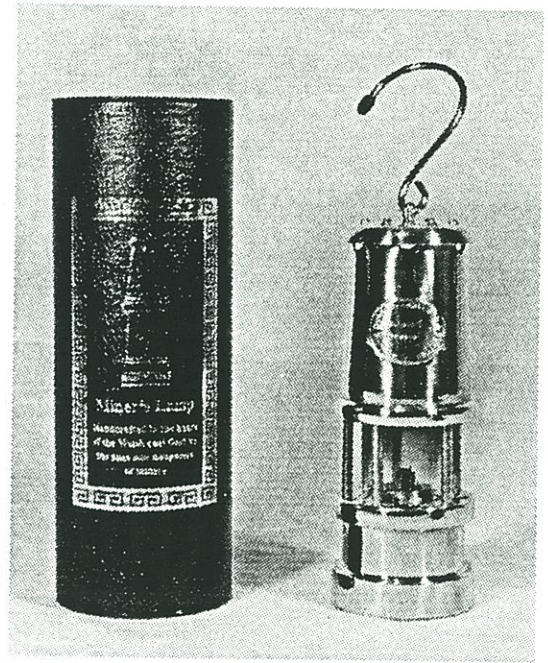
Ken Rupp has beaten the winter blues with a trio of new finds. Pictured here are his new 3/4 ton coal mine car with lift gate (available for trade, complete with the rails and ties!) and two amazing lamps.



Here is a picture and first mention in print of a unique carbide lamp. Ken has discovered a "miniature"? carbide cap lamp marked on the bottom of the base "J.B. WILLIAMS CO. CONN." He is conducting research on this lamp, and we hope to publish more information when it is available.



This K & E Plummet Lamp (right), a true "surveyor's oil wick lamp", came in a wooden case with a plate stamped "DAVIS COAL & COKE CO. ELK GARDEN 113" (It is also available for trade!)



Roger Mitchell sends this photo of a modern production safety lamp, with his endorsement: "Want a nice lamp to actually light up and not feel guilty? Here's a safety that's all brass and copper, well made, and made to light. It's the same size as a "Baby Wolf" and comes in a sturdy cardboard canister along with a pamphlet on the history of the safety lamp development. It's made in England and worth every penny (\$44.00) It's available from Land's End, Inc. Dodgeville, WI , phone 1-800-356-4444, item #3692-3G19" Roger says that's "Gee", a mule command. The editors note that these modern production lamps are NOT mine-tested or "permissible" for underground use.

Canary Cage Mystery Solved

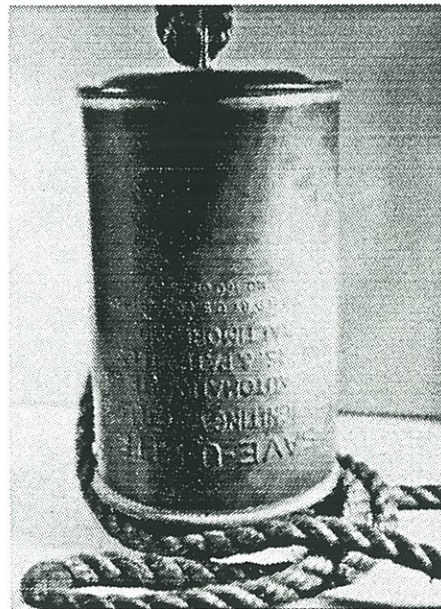
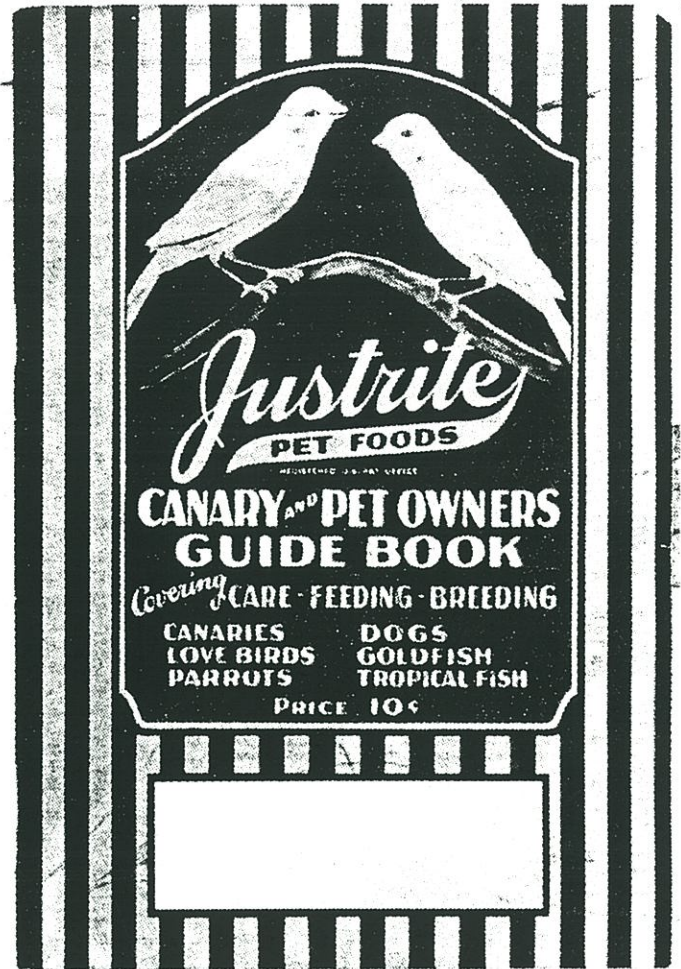
In issue #9 of Eureka (Jan 1994), there is a picture of a canary cage with a partial label on it. The word "Justrite" appears on the label and I have often wondered if this was the same Justrite Manufacturing Co. we all know and love.

It is not. I picked up a catalog labeled "Justrite pet Foods" with the same logo that appears on the canary cage. The catalog is from The Justrite Co. which was based in Milwaukee, Wisconsin. The subtitle of the catalog is "Canary and Pet Owners Guide Book." The catalog is dated 1930. Inside the book is the promotional phrase: "Refuse imitations!" I wonder if they really had never heard of the lamp company? (Len Gaska)

"Fireman's Searchlight" Revisited

Regarding Scott Brady's "Fireman's Searchlight," there are several similar items, two of which I have. One is an emergency light by Handlan, the other is a Lake Superior "man overboard" flare. Both seem to be basically sealed cans containing about two pounds of carbide. The Handlan light is meant to be immersed in a pail of water - it doesn't include an outer can in its construction. The other is meant to be thrown into the water after first tying its tether to the boat and the other end to a life buoy. I enclose Polaroids of uncertain quality.

I suppose Mr. Brady's water light could have been used for area illumination outside of a mine during rescue operations if electricity had failed, but my best guess is that it was stocked for use in case of mine railroad accidents and salvage, remote from electricity. (Dick Sears)



Once More With Click

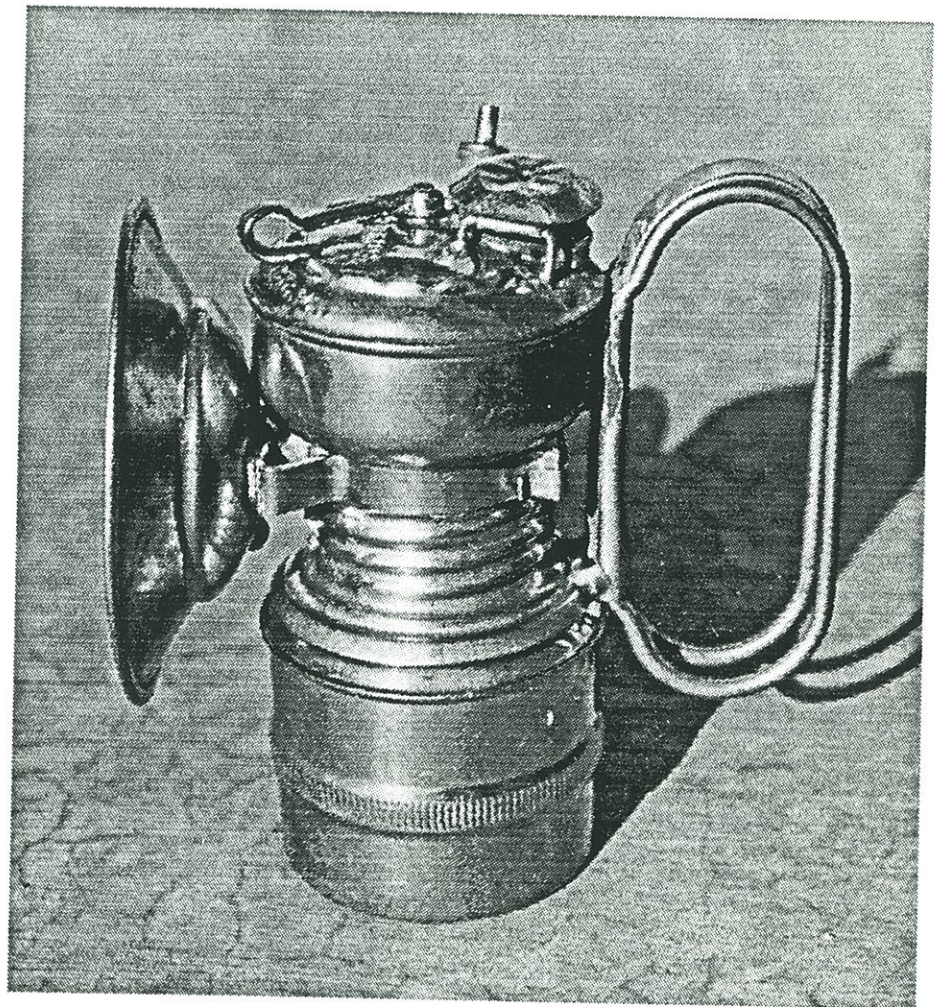
Larry Click sends this example of a "JOY" sticker, and points out that the mine sticker we ran in Eureka! #16, page 38 (Old Ben Mine #25) was not a "JOY" company sticker. "JOY" stickers, including the "JOY" letters-inside-a-globe logo, are one of Larry's specialties, and he always has extras for sale or trade.

It is interesting to note that stickers seem to have a real regional identity. They are almost unknown in the Pennsylvania anthracite region, but if you travel to western PA around Pittsburgh, every lunch bucket or modern helmet you find is practically covered with them!



Arizona Grier

In 1923 the Arizona Mining Journal displayed three Grier lamps on its cover. Grier was attempting to expand its sales westward. The lamp shown here is one of the lamps shown on that cover, and it was found in a Glendale, AZ antique shop. 1923 was Grier's last year of production before selling out to Gem Manufacturing. Grier lamps, especially of this vintage, are occasionally found in Arizona. All of the Griers I have found here have the clip-on reflector and the J&T push-button tip cleaner. This superintendent's lamp is rarely found, if at all, in its native state of Pennsylvania. (Dave Thorpe)





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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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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 Managing Editor. Remember that it is to the advertiser's benefit to wait until Eureka! is in the hands of all subscribers before disposing of a trade or sale item. Please keep in mind that a trade or sale conducted through the mail is not complete until both parties are satisfied!

For Sale: Mining Books, Mineralogy Books, Mining History Books. Send large SASE with 55 cents postage for list. Russell Filer, 13057 California St., Yucaipa CA 92399.

Trade only: K&E Surveyor's Plummet Lamp, complete with case (see BITS). **Sale or trade:** Carbides: X-Ray, NP Victor, Lumi-num, Force Feed, Buddy, ITP, Baldwin, NP "The Justrite" w/hood, set-screw Auto-Lite. Oilwicks: boxed Dunlaps, aluminum oil wicks, Liberty. Also cork and tin powder flasks, Leader and Hazle Tin carbide flasks, cloth hats. 3/4 ton coal mine car (see BITS). **Wanted:** X-Ray reflector, Grier conical push-on reflector, Aluminum reflector, Defender cap lamp, squib & carbide containers, Sun-Ray with knob water control, ITP cap lamp, carbide cap lamp bases for: Hansen, Fulton, early (smooth) Auto-Lite, Grier, "The Buddy", Ken Rupp, call 6-9pm EST (814) 944- 9307

Books For Sale: History of the American Zinc Company by Norris. Hardcover \$11.00 Jeep Trails to Colorado Ghost Towns by Brown \$12.95 One Man's Gold Rush; A Klondike Album by Murray Morgan. (Reprint) \$26.95 Colorado Ghost Towns: Past and Present by Brown \$16.95 Fire In The Hole: The Untold Story of Hardrock Miners by Dolph \$30.00 Postpaid in the U.S. Send \$1.00 for complete book catalog. Robert Fox 1235 N. Westfield Street Oshkosh, Wisconsin 54901

Wanted to buy: Miners' oil wicks with the following markings: American Safety Lamp & Mine, Hazleton Machine & Supply Co., Hughes Bros., Hunt & Connell, Kanawha Mining & Supply Co., F.E. Spry (owner of company is a relative). Contact Jim Chapman. 321 E. Main St., Plymouth, PA 18651, (717) 779-0620

For Sale: Stereopticon cards of Minn. iron mining, Arizona copper mining and Colorado and Yukon gold mining. Candlesticks in use, railroad loading, placer mining etc. also 3 Calif. logging views - \$18.00 each. In addition, group of 25 hard rock mining real photo post cards and small B&W photos. Mine openings, tracks, mules, surveying. "Chama" and "Denver & Rio Grande" identification. Group \$100. Long SASE for list to PA. Coal Miner, 2478 Stephanie La., Binghamton, NY. 13903.

For Sale: (+ I might take part in trade) Unfired "Milburn Miners A" brass cap lamp. Early design Ashworth-Hepplewhite-Gray gas testing lamp. Call for details. Charlie Moore 520-473-2593.

Mining-Collect
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