Bucknell University
Bucknell Digital Commons

Faculty Journal Articles | Faculty Scholarship

4-1992

Wolf Carbide Cap Lamps

James A. Van Fleet
Bucknell University, vanfleet@bucknell.edu

J. Lackey

Follow this and additional works at: https://digitalcommons.bucknell.edu/fac_journ

 Part of the History of Science, Technology, and Medicine Commons

Recommended Citation

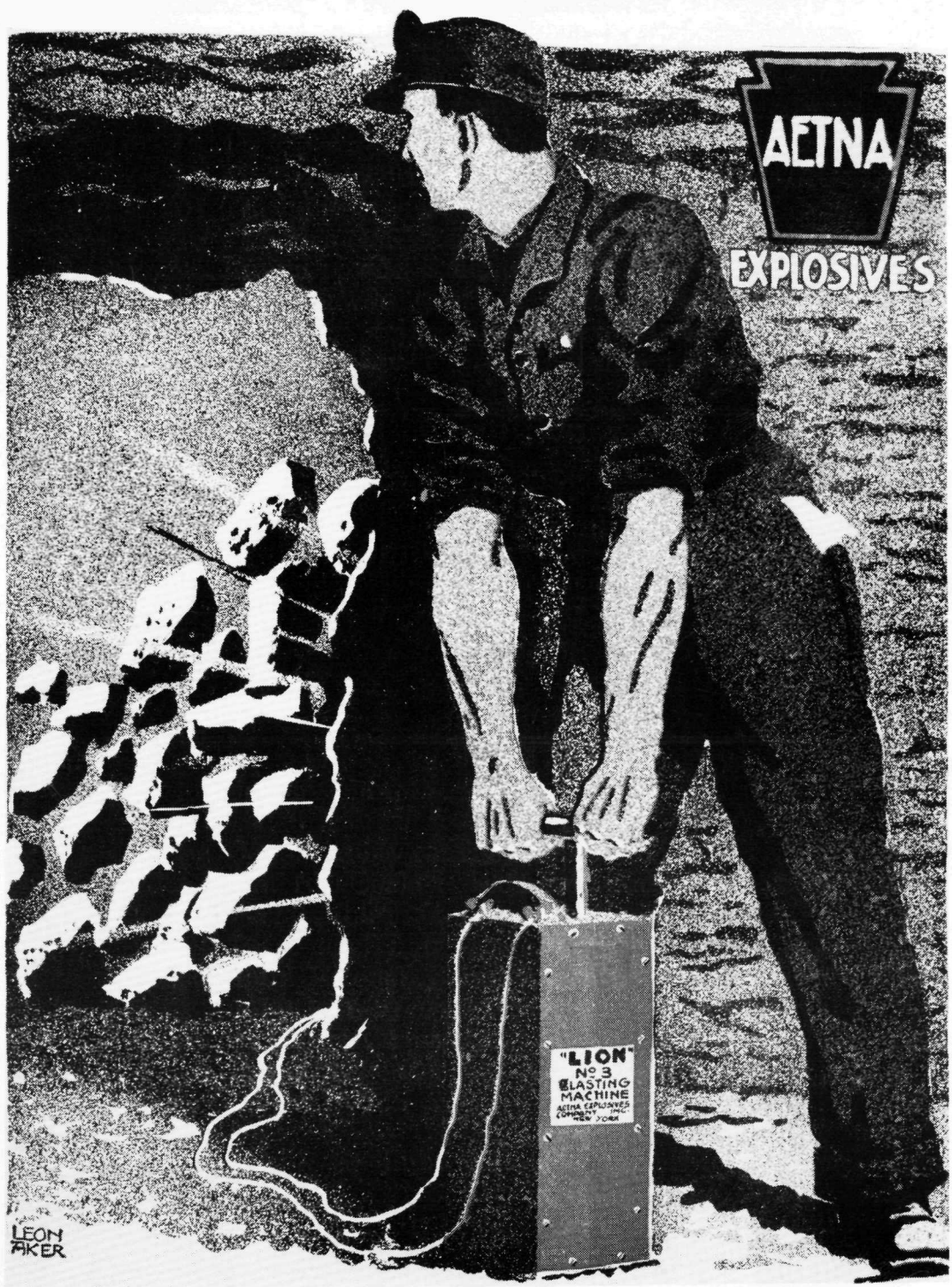
Van Fleet, James A. and Lackey, J.. "Wolf Carbide Cap Lamps." *Eureka! The journal of mining collectibles* (1992) : 1-6.

This Article is brought to you for free and open access by the Faculty Scholarship at Bucknell Digital Commons. It has been accepted for inclusion in Faculty Journal Articles by an authorized administrator of Bucknell Digital Commons. For more information, please contact dcadmin@bucknell.edu.

EUREKA!

THE JOURNAL OF MINING COLLECTIBLES

ISSUE 2 APRIL 1992



Board of Directors

Editor in Chief:

Jim Van Fleet
222 Market St., Mifflinburg, PA 17844
(717) 966-3308

Editors:

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

Len Gaska
1688 E. Corson St., Pasadena, CA 91106
(818) 405-0647

Errol Christman
P.O. Box 313, Cedar Ridge, CA 95924
(916) 273-3268

D. Mark Ballard
1204 Anderson Drive, Marion, IL 62959
(618) 993-8482

Bob Schroth
P.O. Box 687, Twin Peaks, CA 92391
(714) 337-7102

Publisher:

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

General Information

SUBSCRIPTION POLICY: *EUREKA!* is published four times annually during the months of January, April, July, and October. Subscriptions will be accepted for one year at a time only. Price is $25 per annum for 1st class delivery in the US. Overseas subscription is $35. Back issues are available for $6.50 US, and $9 overseas delivery. A subscription form is included in each January issue. Requests for subscription should be mailed to: Jim Van Fleet, 222 Market St., Mifflinburg, PA 17844.

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

Copyright © 1992

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

Wolf Cap Lamps....1-6
Nevada Candlesticks....7-8
Patent Model Oil Wick Lamps....9-13
Montreal Mine Sign....13
J.O.N. Candlestick....14
American Mining Tool Co....15-16
Cap Lamp Repair Kits....17-21
Pickands Mather Safety Awards....22
Felix Oil Wick Lamps....23-24
The Pioneer Name....25-26
Exploder Tokens....27
Cozzens Lard Oil....28
E. F. Long Oil Wick Lamps....29-30
Safety Surveying Lamps....31-32
Bits....33-37

- Scranton Lamp Travels Abroad
- Commemorative Oil Wick Lamp
- Burrell Gas Detector
- Bolivian Mining Stamp
- Horizontal Grier Superintendent's Lamp
- Deep Enough: Book Review
- The Resurrection of Sterling Hill
- Full Moon Photographed
- Mike Puhl on Force Feeds
- Early Horizontal Justrite with Box
- John Mitchell Poster
- Eureka Spoon
- Eye Brand Hand Lamp
- Errol Christman Gatherings

Advertisements....38-40

Wolf Carbide Cap Lamps

James A. Van Fleet

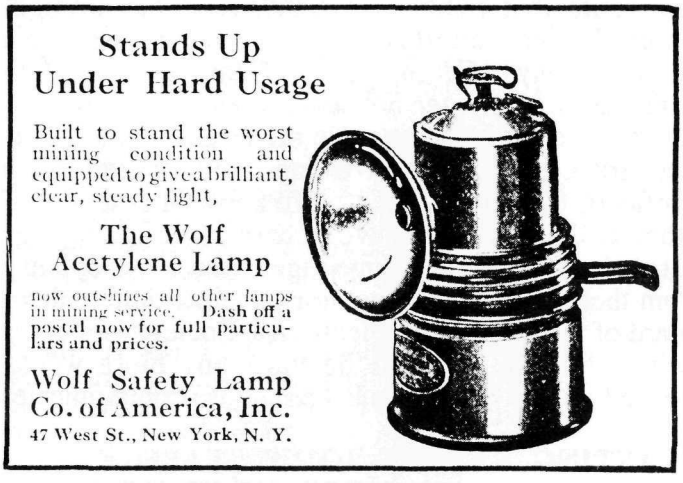
A brass, gilt painted, dome-topped Wolf cap lamp was the very first collector's carbide lamp I owned. My interest in the hobby was sparked when my brother rescued this lamp from a box of trash and gave it to me! Being an avid cave explorer at the time, I took that unfired lamp and fired 'er up, to see it if worked better than my own Streamlined Justrite.

Many collections include an example of these late model Wolf cap lamps. Most collectors may not realize that there are actually five distinct varieties of the Wolf carbide cap lamp. The following is a review of their history, compiled with the help of many collectors, most notably Errol Christman, Gregg Clemmer, Len Gaska, Fred Gaunce, Bob Henninger, Jim Lackey, Bill Lorah, Mike Puhl and Dave Thorpe.

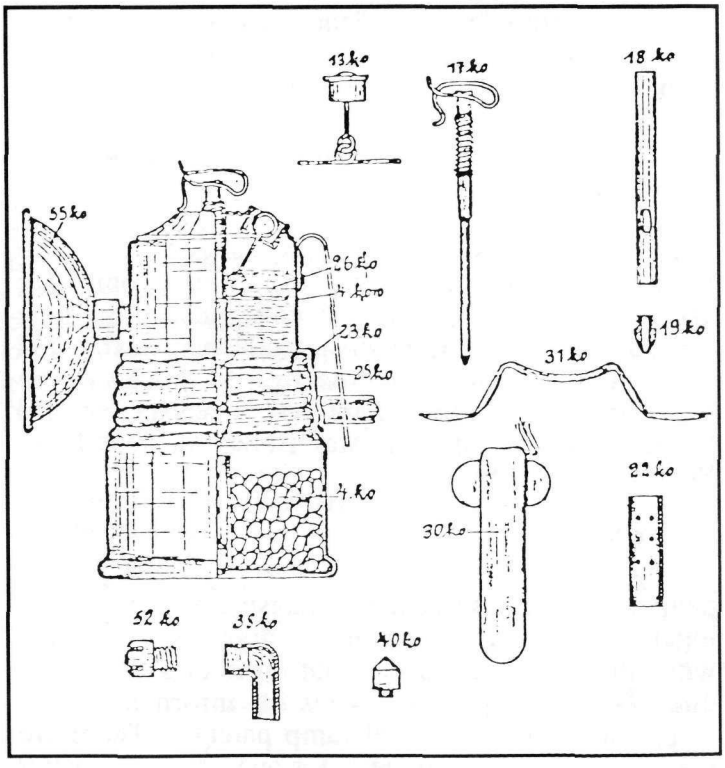
The Wolf Safety Lamp Co. of America began business as a subsidiary of the Friemann and Wolf Co., Zwickau, Germany, distributing their safety lamps, carbide hand lamps and cap lamps from an office in Manhattan, New York. The Wolf carbide cap lamp model 911a was advertised extensively in the *Engineering and Mining Journal* in early 1914.



Model 911a from the collection of Errol Christman



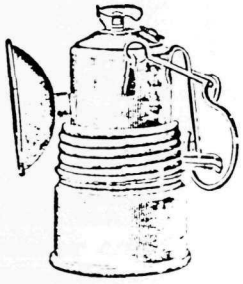
Wolf cap lamp model 911a



Model 911a schematic and parts

It is believed that these lamps were manufactured in Germany for sale in the U.S.[1] A brass plate bearing the company name and address is soldered to the lamp. Advertisements show the name plate on the lamp bottom, but the lamp pictured here has the plate soldered to the side of the water tank. Design details of this early cap lamp are shown in a Wolf Co. catalog from 1914. Note the threaded metal burner tip, which has crossed slots on the front, and a lava tip insert.

The carbide chamber has a "water distribution tube" soldered to a short post through the bottom of the lamp base. The base has wide rolled threads and almost no shoulder. The gasket sealing the top and bottom is found inside the lamp top, and the seal is made by the top edge of the threads of the lamp bottom. Also of interest is the illustration from their catalog, depicting a cap lamp with hook and bail attachment.[2]



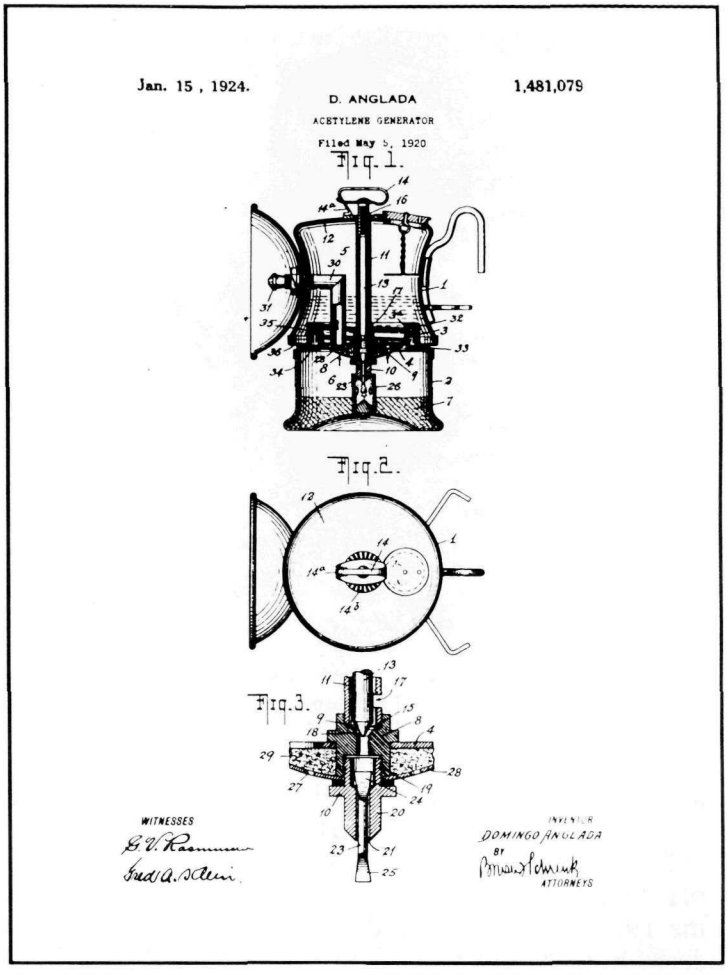
Wolf Acetylene Cap Lamp. Can also Be Used as Hand Lamp.
Order No. 911a.
Made in Brass, Nickel-plated, and in one size only.

From a Wolf Co. catalog, 1914.

Gregg Clemmer reports in his book *American Miner's Carbide Lamps* that "in the aftermath of World War One, Domingo Anglada, the former treasurer . . . bought the company from the Alien Property Custodian."[3] The company advertised in the July 1918 *Mining Congress Journal* from a New York City address of 76-80 Washington St. By early 1920, Anglada had moved his company to 227 Grand Ave., Brooklyn, New York, and on May 5, 1920 he filed a patent application for a carbide cap lamp with several interesting features.

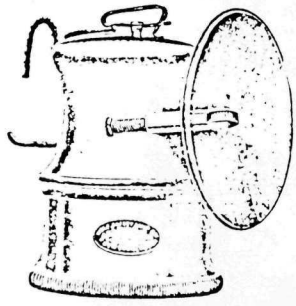
Note the primitive water door held on by a wire hanger arrangement, similar to the 1914 model. Another similarity to the original Wolf cap lamp is the "perforated cup" water spreader which fixes to the bottom of the carbide chamber, fitting snugly over a small post soldered into the bottom.

Although the patent was not actually granted until 1924, this lamp was advertised in the 1921 *Keystone Catalog*, and in the *Mining and Scientific Press* issue of January 22, 1921 as the "New Wolf Lamp" model 911c.



Wolf cap lamp patent

The lamp is furnished with an automatic non-adjustable water-feed, which, if desired, can be made adjustable by simply removing the wire pin from the water dropper. The lamp is double-locked, rendering it impossible for gas to escape at the joints between the carbide and water container. We have designed the lamp large enough to burn about four hours, thus only requiring one refilling during the shift—yet the lamp is light enough to be carried on the cap without discomfort. Every part on the lamp can be replaced. The lamp is well built, durable and economical.



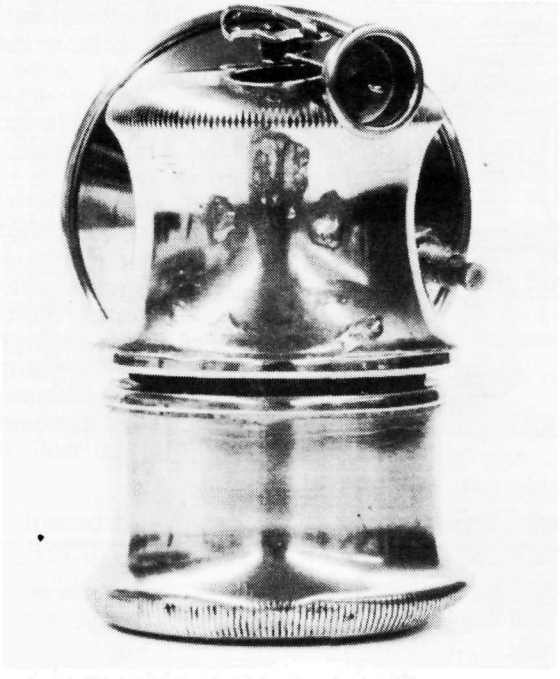
No. 911-c. Carbide Cap Lamp.

1921 Keystone Catalog advertisement



1921 Wolf Cap Lamp, from the collection of Jim Lackey

As can be seen, the advertising illustrations match the actual product closely in details.[4] This continues to be true for most Wolf Co. advertisements throughout the 1920's, making them useful in dating lamps and comparing details with actual lamps. Note that in the ad, the 1921 Wolf is pictured with a wire hook and wire cross-braces. The lamp in the photos shown here survived a house fire, but lost its soldered braces. The solder traces on the back of the water tank testify to a missing wire brace, and a small flat brace which supported the hook.

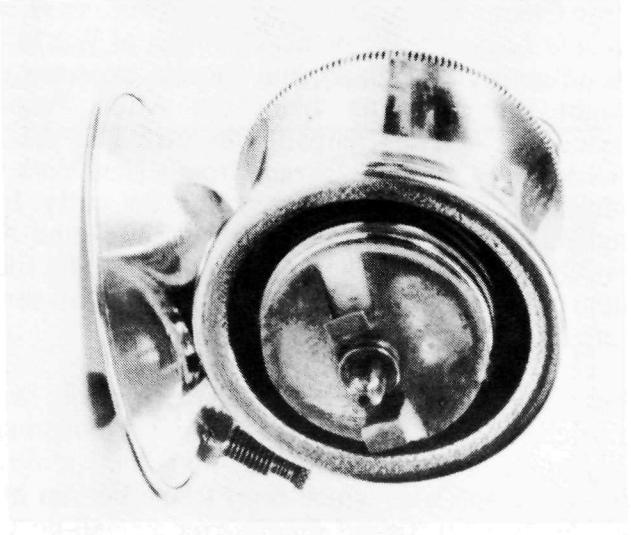


1921 Wolf, back view showing solder traces and water door arrangement



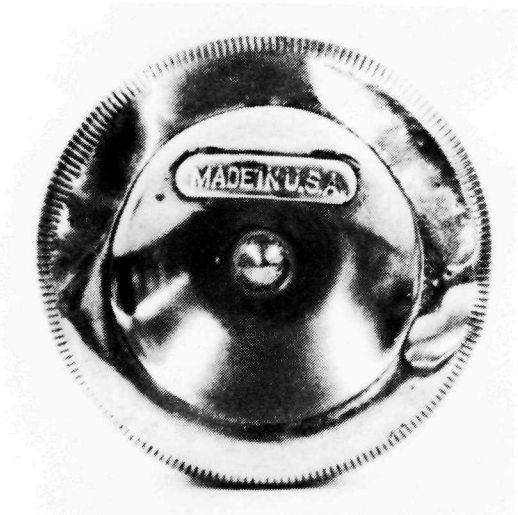
1921 cap lamp bottom showing company name tag, water spreader, and unique threads

This lamp's unique patented feature is a "double non-leaking joint between the water reservoir and the carbide chamber."[5] This is achieved by having the *male* threads on the lamp *top*, formed around the central water feed. The upstanding threads of the lamp bottom are flared out at the top. When the top and bottom are screwed together, this edge of the upstanding threads fits against a gasket *inside* the receptacle of the lamp top, while the outer edge of the lamp top fits against a traditional gasket on the shoulder of the lamp bottom.



The patented double gasket arrangement

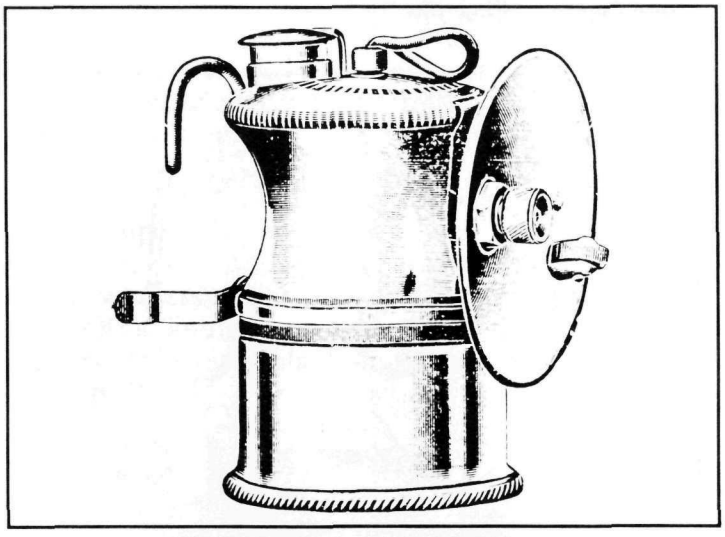
The lamp bears some similarities to the pre-war Wolf lamp of German origin, and has some features common to 1913-1915 era American carbide lamps, such as the cone-shaped lava burner tip and the construction of the striker mechanism. It is interesting to note that the 1921 *Keystone Catalog* advertisement specifies "Products made in the U.S.A.," and that the cap lamp itself bears a brass plate on the lamp bottom, stating "Made in U.S.A."



Note the added customer assurance, and the soldered-in post which holds the water spreader

This may have been an important marketing decision in the aftermath of World War One, to assure buyers that they were getting an American product and not an import from the famous German company.

In 1922 the Wolf Safety Lamp Co. of America moved again, settling at 220-224 Taaffe Place, Brooklyn. In the 1923 *Keystone Catalog* they advertise a radically changed carbide cap lamp.



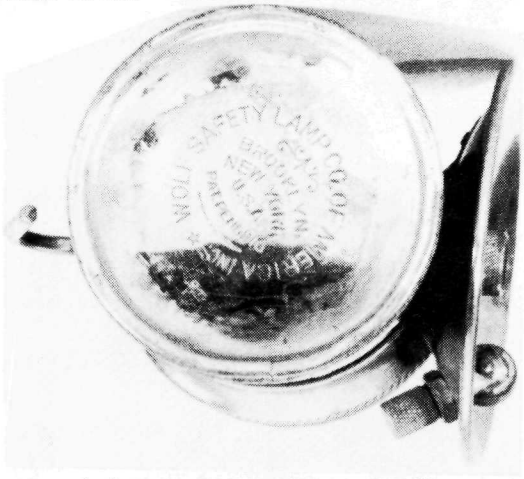
1923 Wolf cap lamp ad

Model 911c has become a more standardized lamp, with a hinged water door, simple thread construction and single gasket. This lamp is the early model of what collectors call the flat-top Wolf. The lamp is of very sturdy construction, with heavy gauge wire water feed lever, flat strap back brace, and the innovative soldered-on reflector brace, to which the reflector is riveted and held by a central hex nut. The cone-shaped lava burner tip has been encased in a metal wind-shield. The sharp shoulder of the lamp bottom and the thick reinforced lower edge of the water tank make an excellent seal at the gasket.



1923 Wolf cap lamp

A curious exception to these features is the lamp's base, with a solder seam under the bottom which must have been very easy to crack, dent, or wear a hole through. This base was the first to bear the attractive Wolf logo seen on all subsequent models of the cap lamp. A trademark application, filed in June of 1924, states that "The trademark has been continuously used in the business of said corporation since at least September 1913."[6]

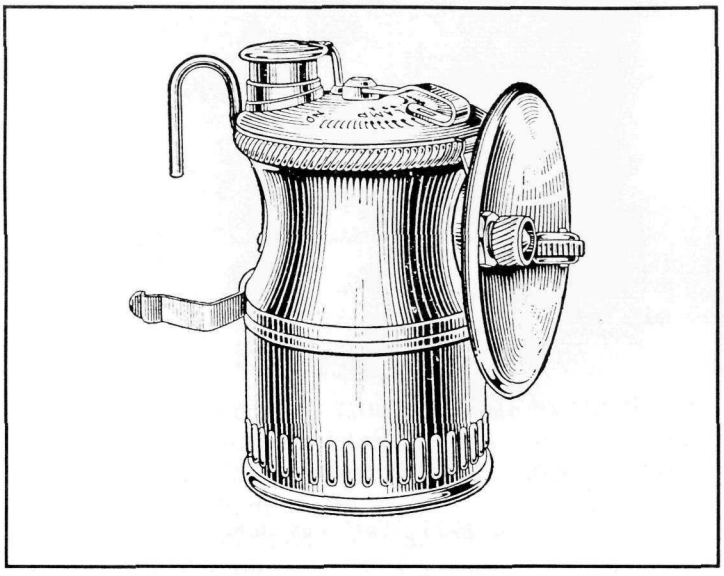


Soldered bottom seam, 1923 Wolf cap lamp

The 1924 *Keystone Catalog* shows yet another version of the flat-top Wolf. The wire water feed lever has been replaced by a single-piece flat lever, and the lamp base has been improved with a rolled bottom edge,

advertised in the *Mine and Smelter Supply Co. Catalogue* as "double seamed, giving three thicknesses of metal at the point where it has to stand the hardest wear."[7]

As the advertisement shows, the wire hook is both soldered and riveted to the water tank on the 1924 Wolf. The reflector is riveted to the reflector brace, and held with a hex nut. This model lamp is found in both brass and nickel-plated finish.



1924 Wolf cap lamp ad



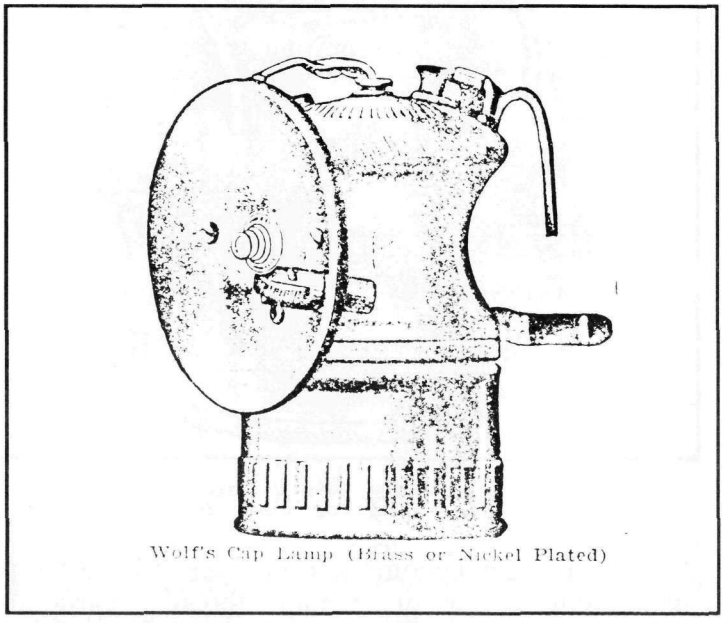
1924 Wolf cap lamp, photo courtesy Mike Puhl



1924 Wolf cap lamp bottom

In 1925 Wolf revamped their sturdy carbide cap lamp yet again, advertising No. 911c as the "New Model 1925." This is the familiar dome-topped lamp, a design which seems to have survived as long as Wolf continued the production of carbide cap lamps. Note that the 1925-1926 *Keystone Catalog* ads are not especially accurate in details.

The ad does show the new design features: a low profile water door, domed top, and reflector held in place by two tiny bolts in addition to the central hex nut. In the ad, the new metal and lava burner tip has been crudely drawn in.



1925 Wolf cap lamp ad



Model 911c 1925, with the gilt-paint finish

The water feed lever is now made of two parts, a small central wire post, to which the water lever is soldered. This feature was the weak point of late model lamps, and will occasionally be found broken at the solder point. The wire hook is soldered to the tank, and rests in a groove stamped into the water tank itself. This model lamp was also sold with a narrow "Michigan spade" mount, soldered over the groove in the back of the tank. (Incidentally, a Wolf cap lamp with this style mount was the first lamp in Dave Thorpe's collection!) The dome-top model is the most common Wolf cap lamp, found in nickel-plated finish, brass, and brass with gilt-paint finish.

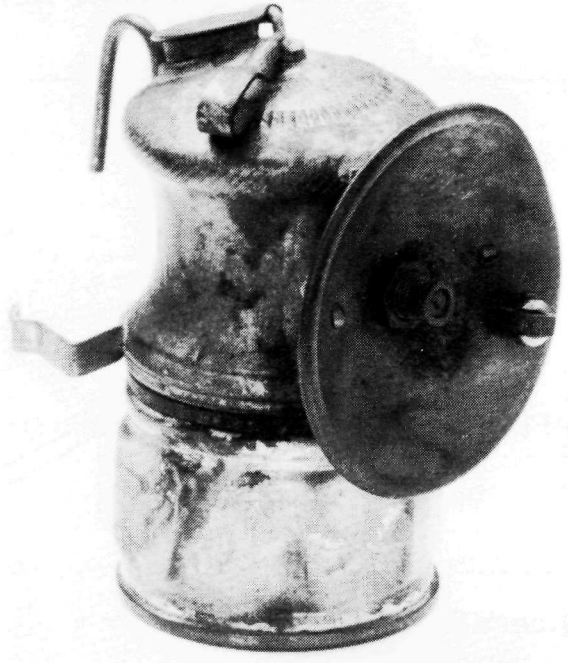
On the 1925 Wolf, the bottom logo design is enclosed in a stamped circle. As has been noted by Gregg Clemmer, this model lamp was used by road and tunnel workers of the Civilian Conservation Corps in the 1930's, and is frequently found with the bottom logo painted over in black, denoting a CCC lamp.[8]



1925 Wolf cap lamp, bottom view

A final variation in Wolf cap lamps, probably introduced some time in the late 1930's, was a new octagonal bottom bearing the same logo as the 1925 model. The lamp shown here has the gilt finish.

It is uncertain how long the Wolf cap lamp continued in production. In 1937 Wolf Safety Lamp Co. of America bought out their local competitor, the Dewar Manufacturing Co., and moved to 68-72 Emerson Place, Brooklyn.[9] In October of 1944 Wolf renewed their trademark registration, insuring continued protection for their brand name safety lamps and carbide lamps.[10] Operations continued until 1965, when Domingo Anglada, still company president, "sold Wolf to Mine Safety Appliances (MSA) of Pittsburgh, PA."[11]



The Wolf eight-sided base

References

1. Clemmer, Gregg. *American Miner's Carbide Lamps*. Tucson, AZ: Westernlore Press, 1987.
2. "Wolf Open Acetylene Lamps." New York: Wolf Safety Lamp Co. of America, 1914.
3. Clemmer, p. 92.
4. *Keystone Catalog--Coal Edition*. Pittsburgh, PA: Keystone Consolidated Publishing Co., 1921--1926.
5. Anglada, Domingo. "Acetylene Generator." U.S. Patent 1,481,079 filed 5/5/20, granted 1/15/24.
6. Kouts, Paul. *Miner's Carbide Lamp Reference Volume I: A Research of Records of the U.S. Patent & Trademark Office*. Franklin, WV: Paul Kouts, 1981.
7. *Mine and Smelter Supply Co. Catalogue No. 72*. Denver, CO: the Company, 1926.
8. Clemmer, p. 91.
9. Clemmer, p. 66.
10. Kouts, p. 18.
11. Clemmer, p. 92.

Photography by Debra Cook.