

SECOND EDITION



The Complete Bottom-Guide for Carbide Cap Lamps

Second Edition

by Wendell E. Wilson

First Edition ©1981, Wendell E. Wilson Second Edition ©1982, Wendell E. Wilson

Additional copies of this publication may be obtained from the author, in care of Mineralogical Record Inc. P.O. Box 35565, Tucson, Arizona 85740.

Photo courtesy of Julian Blakely.

INTRODUCTION

Pictured here are 78 lamp bottoms or carbide chambers for American-made carbide cap lamps. Because there has never been a detailed reference on carbide cap lamps, it has often been difficult to identify spare bottoms, to correctly match tops and bottoms, and to recognize mismatches. Perhaps these drawings will help.

This collection of drawings is not exhaustive. . .there are undoubtedly many other varieties out there which I have not seen. Furthermore, some drawings were made from photos of marginal quality, or from the drawings of other collectors, and so a few errors are likely. The reader should also bear in mind that these are sketches, not rigorously drafted engineering-quality drawings.

Every known brand of lamp is represented here by at least one drawing, except the following: belt-generator models (Columbia-C, Lunkenheimer, Justrite, Brilliant Searchlight), models without normal bottoms (S.E. Simmons, Standard), and models I have never actually seen (Pocahontas, Hardsocg, What Cheer). I would appreciate receiving any information on lamp bottoms.

The drawings show a side and a bottom view. A question mark on the bottom indicates that I have been unable to examine one and do not know if there are markings on the bottom face.

A number of people were kind enough to examine a preliminary draft of this booklet and to provide much additional information. I would particularly like to thank John Leahy, Henry Pohs, Chuck Young, Rich Finch and Ralph Blankenbecler.

CLEANING

I would like to take this opportunity to say a few things about the practice of cleaning carbide cap lamps. Some collectors like to leave their lamps uncleaned and heavily tarnished. But I think the majority prefer clean lamps, restored as much to their like-new condition as possible, like antique automobiles. I have yet to see a properly cleaned lamp lose any of its value. It will look better as a display piece (though less like a "relic"), and will be more easily sold or traded. However, improper cleaning can do irreversible harm. If you can't or won't take the time to clean a lamp right, please don't clean it at all. . .its next owner will thank you.

The key to proper cleaning is to remove the tarnish without disturbing the surface underneath. Scraping with a blade or brushing with a stiff wire brush hopelessly ruins the surface underneath. Obviously a chemical rather than a physical approach is best, and also a lot less work. Very mild abrasives can be used in stubborn cases, and a polishing agent can bring up the luster a little when all cleaning is completed. Let's take these one at a time:

ACIDS and BASES

Acids and bases are both corrosive and will remove tarnish. Acids are best for dissolving the lime deposits and heavy black coatings on the insides of lamps, but should not be used on the outside of brass lamps because they tend to leave a pink copper residue. Bases, for some reason, are less likely to leave a copper coating. The copper can be scrubbed off with some difficulty because it is only a very thin layer, but one might as well use a base instead.

The best base compound for cleaning brass lamps is **Brass-O**, which contains anhydrous ammonia. Household ammonia (hydrous) works too, and just about as well. A container big enough to hold the lamps and its parts is filled with **Brass-O**, covered, and left to soak for from 1 to 2 hours to overnight. (The container should be covered or sealed somehow to prevent evaporation of the ammonia.) When the lamp is removed, the tarnish can be gently knocked off with a soft toothbrush.

The disadvantage of **Brass-O** is its cost, in view of its limited life. Any acid or base will become

neutralized and lose its effectiveness after a certain amount of use. However, it does contain an excellent polishing ingredient as well (diatomaceous earth).

About the only other readily available base is lye (sodium hydroxide), which may be purchased as crystals (household lye, Drain-O) or as spray-on oven cleaner (Easy-Off). However, lye is very dangerous to skin and eyes, and I prefer to avoid it.

Among the acids, my favorite is **Lime A-Way** (phosphoric acid) because it is cheapest in large quantity. However, Naval Jelly (phosphoric too), Tarn-X (acidified thiourea), vinegar (acetic acid) and ordinary hydrochloric acid can be used as well. Nickel-plated lamps clean well in acid, though the worn spots may turn pink. Chrome or nickel-plated reflectors, too, are best cleaned in acid.

ABRASIVES

In difficult cases one may resort to abrasive bathroom cleansers such as **Ajax** or **Comet**. The gentlest and safest method of application is to rub the cleanser over the tarnish with your thumb, though this is tough on the thumb after a while. The use of steel wool is drastic and should be reserved for use on the **inside** of lamps only.

POLISHING

For some collectors, the dull luster obtained after soaking in **Brass-O** or rubbing with cleanser will do just fine. However, the lamp was brighter when it was new, and most collectors like a bit more shine. The best agent for this is again **Brass-O**. The depth of polish is optional, depending upon how hard one rubs. The oily **Brass-O** can then be quickly removed from lamp and hands by a quick spray of **Dow Bathroom Cleaner**.

SOLVENTS

Solvents have no effect on tarnish, but some lamps may still retain some of their original lacquer coating which was applied to prevent tarnish. The lacquer is unsightly in patches and can be removed with paint remover, as can paint or other markings applied by the miner. This should be done before cleaning in **Brass-O**. Nail-polish remover (acetone) will work just as well, and is not so painful on the skin.













FULTON

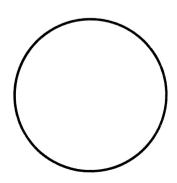
IMPERIAL

X-RAY

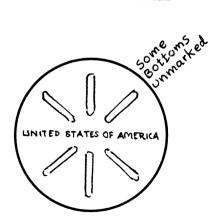




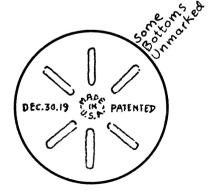




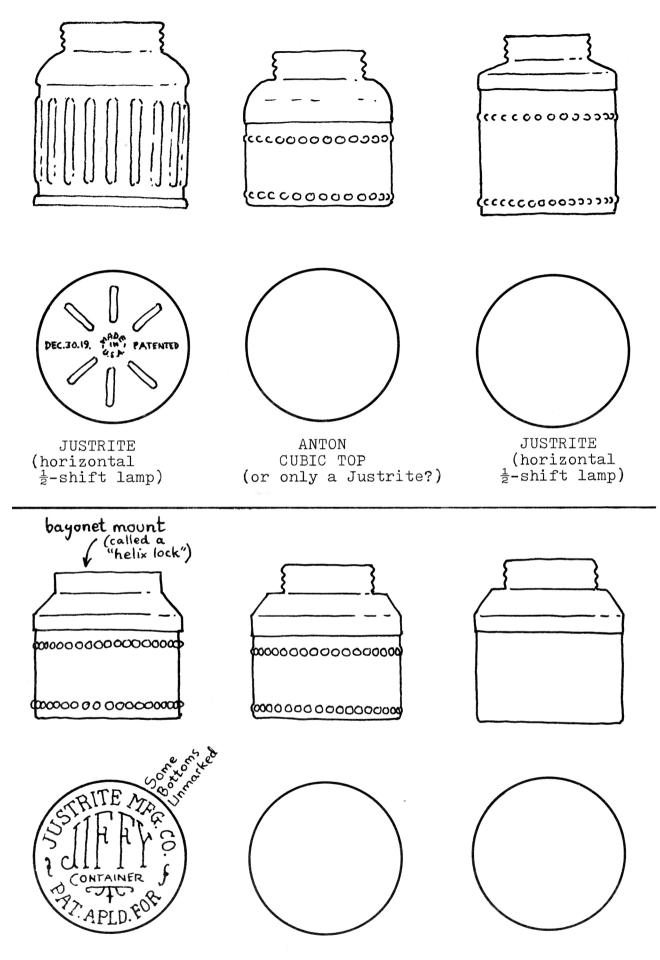
X-RAY



JUSTRITE ← /ater
(and) earlier →



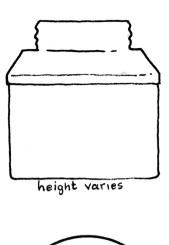
JUSTRITE (and)
VICTOR



JUSTRITE (norizontal)

JUSTRITE (horizontal) (early)

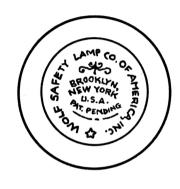
JUSTRITE (horizontal) (very early)

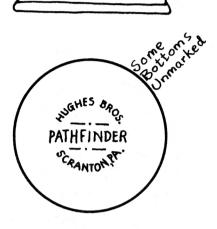












EVER-READY

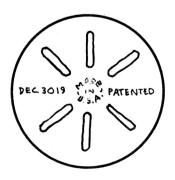
WOLF

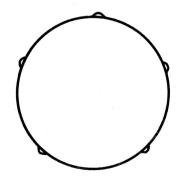
PATHFINDER

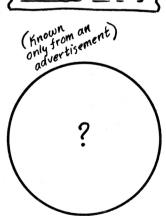








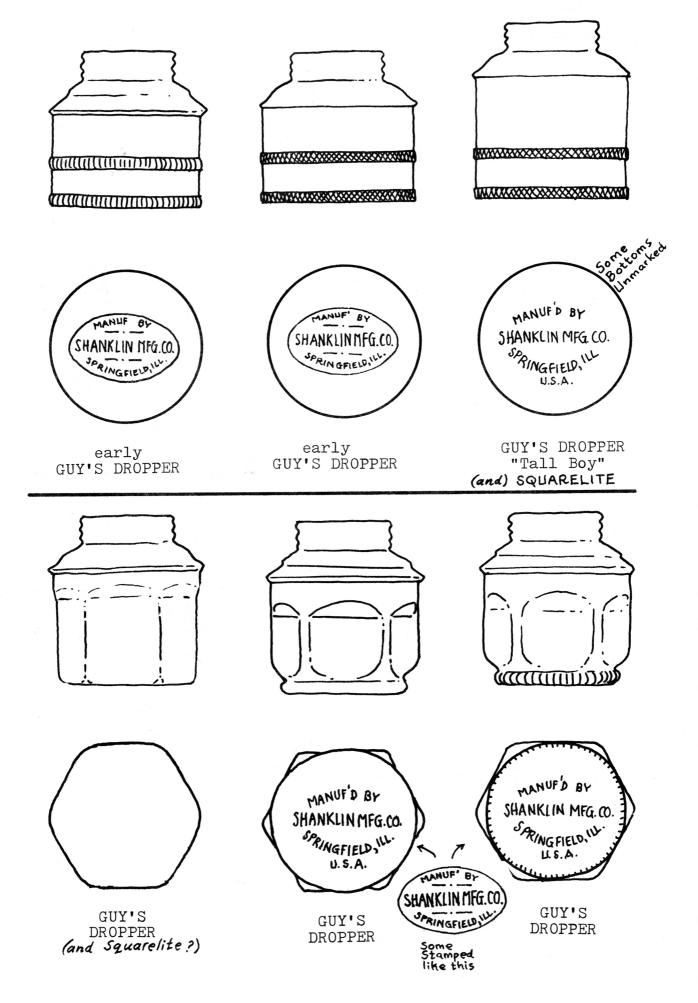


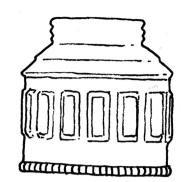


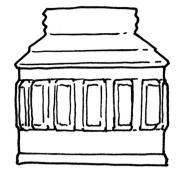
DEFENDER (and)
Defender-style
X-RAY

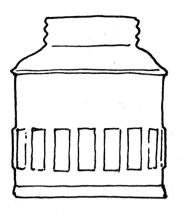
earliest GUYS DROPPER

UNION CARBIDE LAMP















GUY'S DROPPER

GUY'S DROPPER

GUY'S DROPPER "Tall Boy"













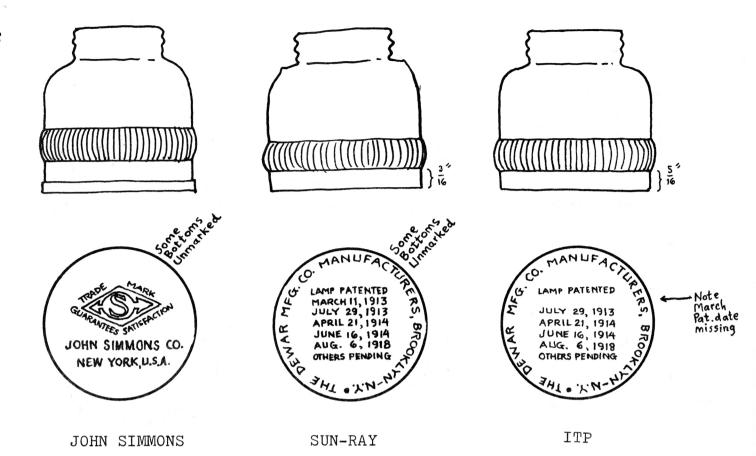
GUY'S DROPPER

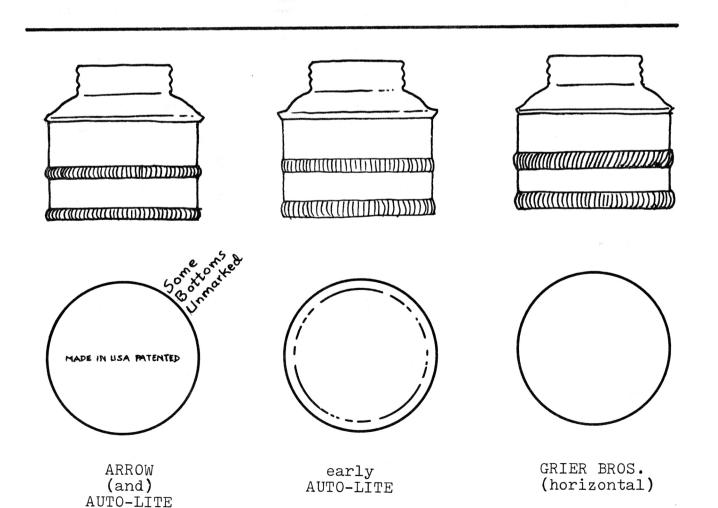
and

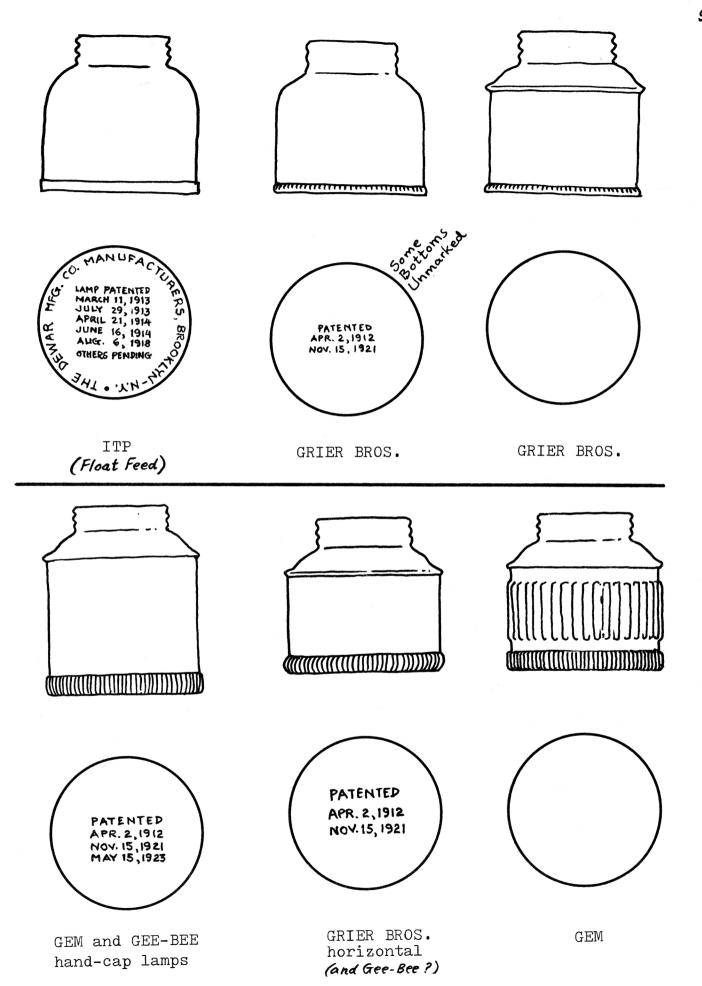
SCHNEIDER'S
LAMP (wrong
bottom?)

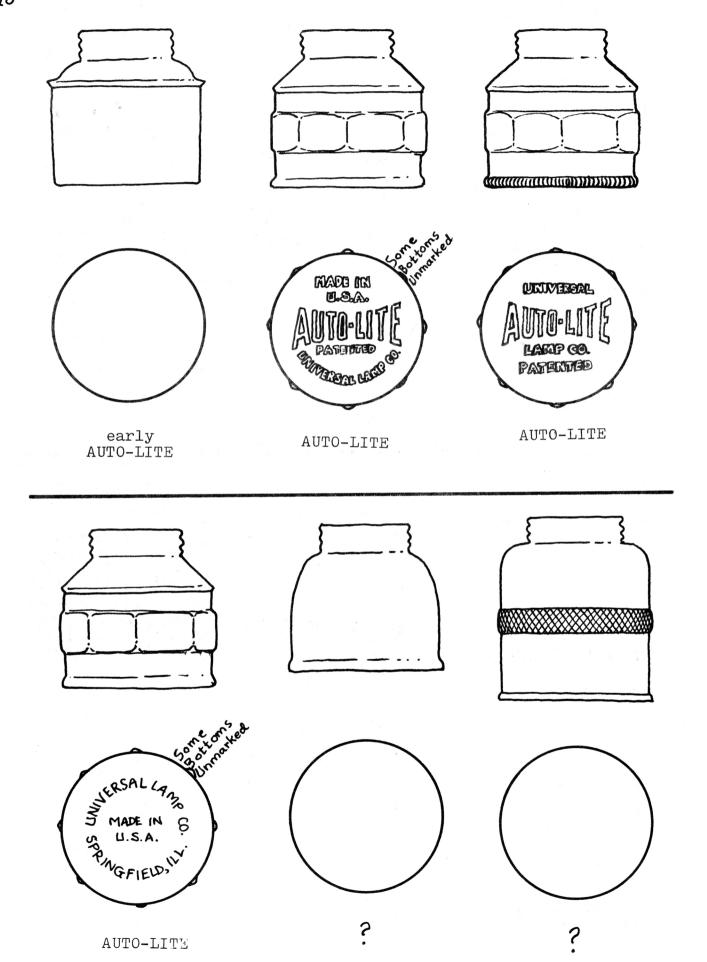
GUY'S DROP**P**ER

GUY'S DROPPER

















DRYLITE



HANSEN
(and)
FORCE FEED

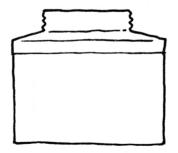


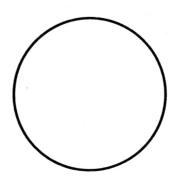
SHANKLIN METAL PRODUCTS CO.





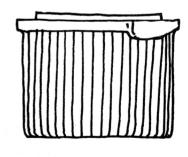
BRITE-LITE (Harker Mfg.Co.)





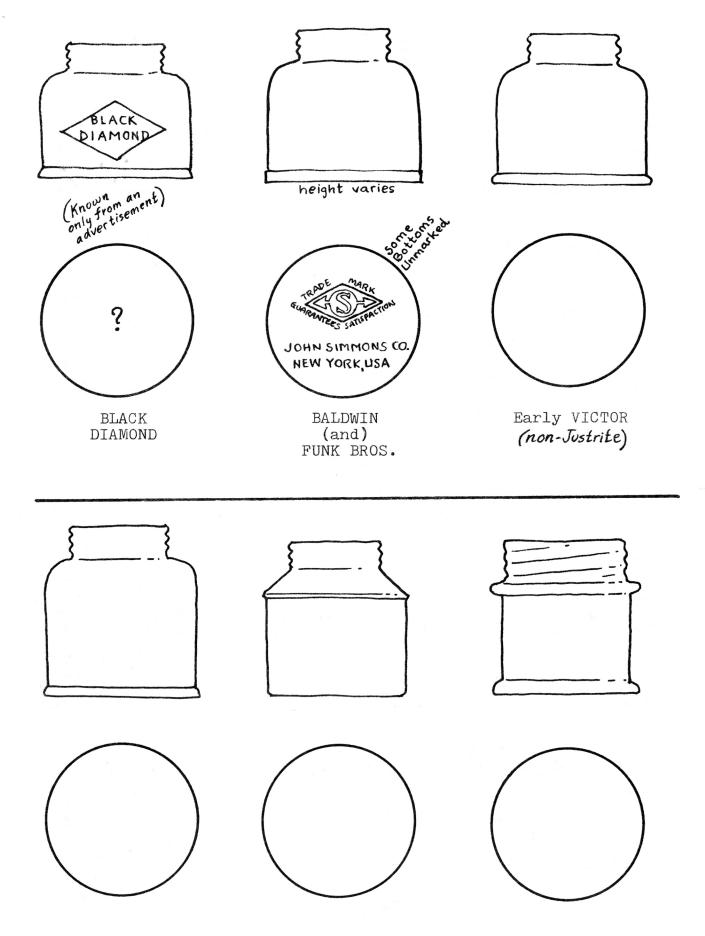
BRITE-LITE (Hoppe Mfg. Co.)

(bayonet mount)





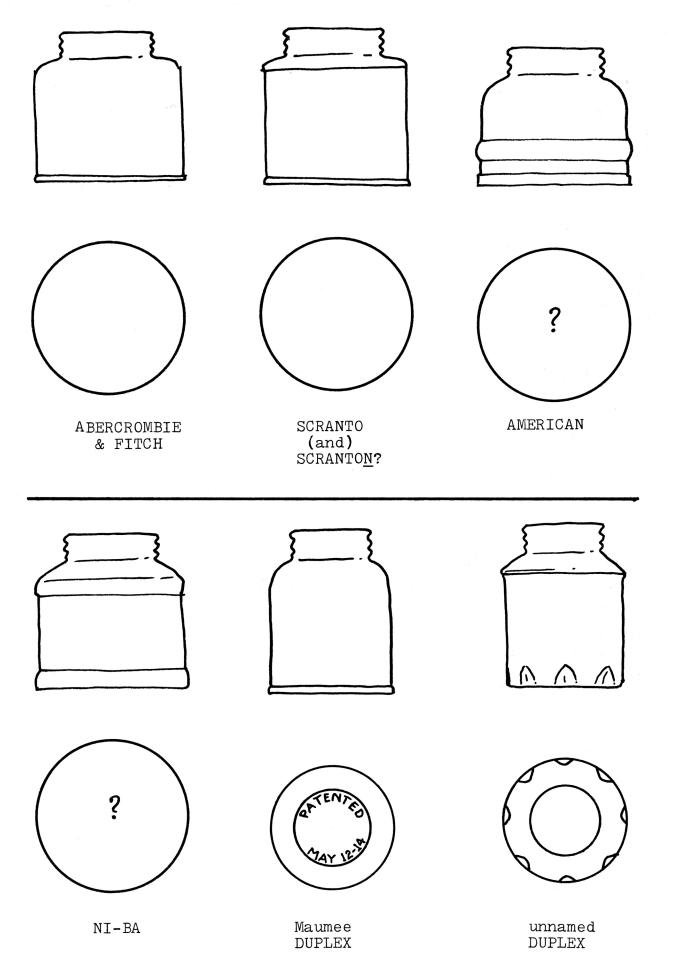
LU-MI-NUM (threaded model also known)

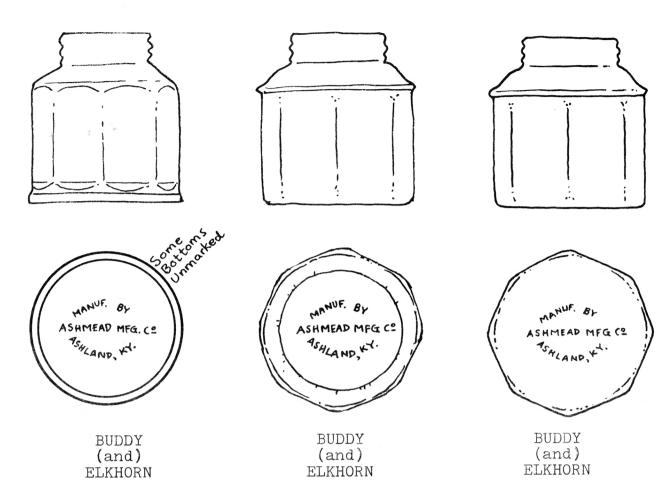


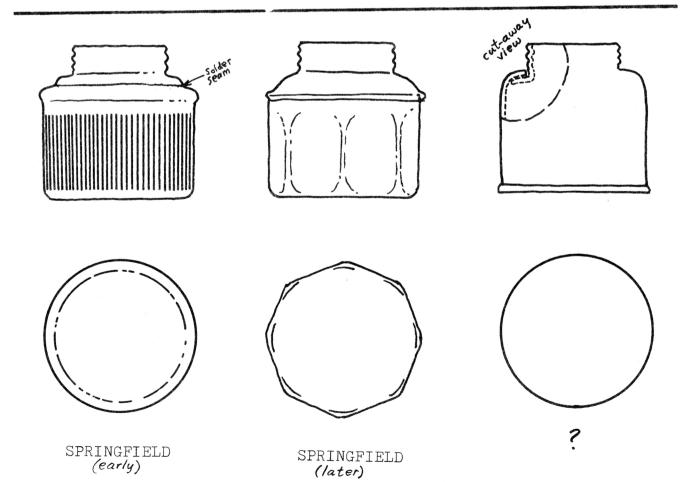
"Anthracite'

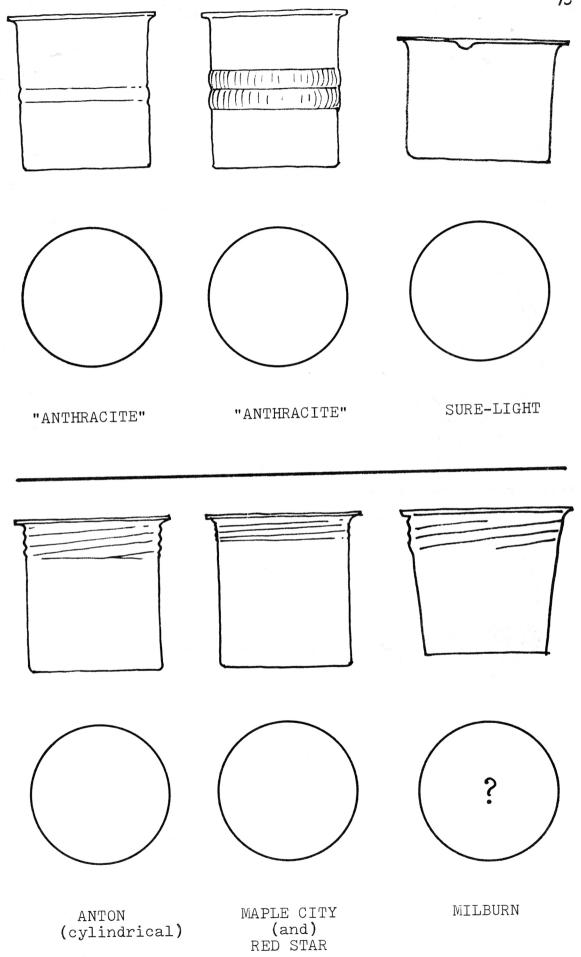
S & S

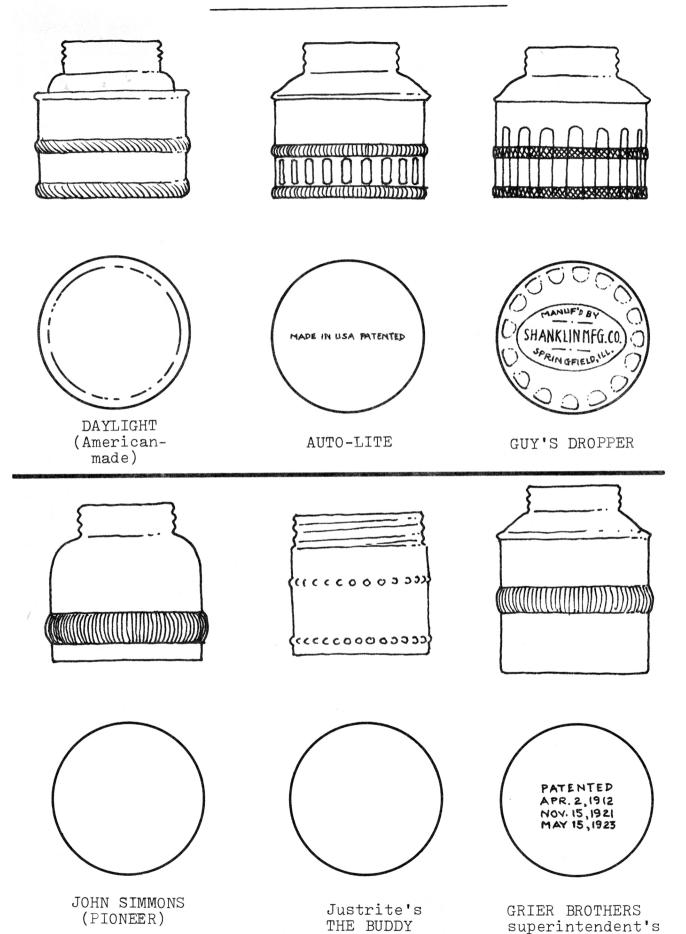
ZAR



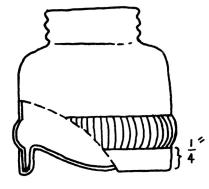


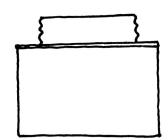




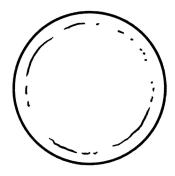


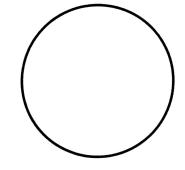
lamp













JOHN SIMMONS (PIONEER)

OSHKOSH

THE SNELL LAMP

Trade "VICTOR" Mark

MINER'S CAP LAMPS

Detachable Reflector and Brace Lighter Attachment.

Justrite Catalog No. 5



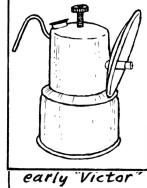
POLYGON FEED

Miners preferring a "VERTICAL STYLE" miner's lamp with detachable reflector will find that the VICTOR LAMP gives them the best results. The VICTOR LAMP is very rigid and strongly constructed, all weak points reinforced and strengthened.

SAUCER SHAPED REFLECTOR 2-inch Diameter

Especially made for working low seam

No. 662--Polished



note difference

All Underground Is Behind The Scranton"

Years of hard-knock experience under-ground—giving knowledge of every-thing a mining lamp should be—are behind

The Scranton Actylene Mine Lamp-"The practical lamp for the practical miner."

Gives a clear steady light under all conditions in any position.

The volume of light is increased marvel-ously by our new German Silver Reflector.

Price of this lamp, complete, \$1.00 Write for illustrated booklet.

Scranton Acetylene Lamp Company 145 Belmont Terrace, Scranton, Pa.





Special Drivers' Lamp

Round Hook Nickel Silver Reflector

2 % -inches in Diameter

Polygon Feed

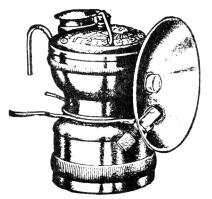
This lamp has extra deep concaved nickel silver reflector—exterior fin-ish polished brass. Equipped with No. 170 Flame Protector, making lamp wind and water proof.

It is especially designed for use in places subject to strong air currents. DRIVERS MOTORMEN, ENGI-NEERS, TIMBERMEN, and SHOT-FIRERS will find this lamp very satisfactory.

No. 787—Lamp only. Price..... Catalog No. 7



No. 15 SUN RAY LAMPS



1919

Fig. 19704C

Has a non-leakable water cap. A diaphragm inside the cap holds any water forced into the cap due to excess pressure until the pressure is relieved, when the water drips back into the tank.

The hook is turned at a sharp right angle inside the water tank and lies in a recess. This makes it possible to very securely fasten the wire inside the water tank.

The reflector brace and spreader wires are made in combination. This reduces weight and strengthens as well.

The knurling on the carbide container is made extra wide, affording a better grip as well as stiffening and strengthening the container.

The numbered notches on the top of the water tank aid the user in determining the position of the regulating lever.

The reflector collar is riveted. It cannot break loose and weighs less than a soldered collar.

The lamp is equipped with the Kra-Ker-Jack burner, which can be replaced without tools in half a minute and in the

The gasket lies flat and will not curl out of place.

To reduce the weight of the lamp the tank has been cut down so that it holds just enough water to run the lamp for an hour and a half.

Price, Complete..... 1.00



No. 100 Superintendents' Brass Nickel-plated Hand Lamps

Usually furnished with the Ns. 230 S. L. reflector.

Will burn 3 to 4 hours.

Has large hook and folding handles.

Used by those who prefer a hand lamp.

Also used by hunters, campers. etc.

Packed one in a box.

Price, No. 100 each \$1.75



No. 911c Wolf's Carbide Cap Lamps



Handsomely finished in nickel plate or brass, made of the thickest gauge metal. It has been kept within the limit of less than $5\frac{1}{2}$ ounces.

The bottom is double seamed, giving three thicknesses of metal at the point where it has to stand the hardest wear.

The burner will stay lighted under severe conditions. No

tools or cement necessary to replace a burner. Has sensitive water-feed, controlled by the little ratchet on top of the lamp. Has an excellent instantaneous lighter.

No. 130 PIONEER LAMPS

1919



Fig. 19704B

Has no-trouble valve and embodies all advantages of the old reliable Baldwin straight wire feed, plus a strong water valve and water shut-off.

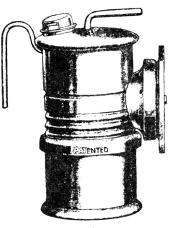
If dirt clogs the water tube, simply pump the water up and down a few times or close the valve, pull out the wire, scrape it clean, and slide it back again.

Also has non-leaking water cap, unbreakable hook, strongly re-enforced on inside and reflector brace soldered to tank.

Price, Lamp onlyeach 1.00 "Windshield" 1.00

LAR

CARBIDE



PRICE \$1.00

Strongest in construction

Burners never clog

Miners' Cap Lamps

Miners preferring a "VERTICAL STYLE" lamp will find this model JUSTRITE LAMP will give them good results. It is very rigid and strongly constructed, all weak points reinforced and strengthened. Lamps are finished in polished brass with Nickeled Reflectors.



 13^{1}_{2} Candle Power

LEVER FEED

MINERS' PIT LAMP

Weight 5

1913

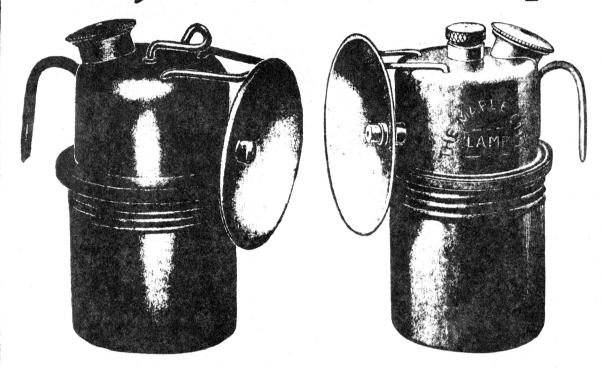
No. 80. Polished Brass.....\$1.00

Catalog No. 7

Ounces

1912

Maple City Acetylene Mine Lamps



Take Your Pick

The Maple City Lamp with automatic control of water supply plus Water Flow Regulator—or the Maple City Lamp with automatic control of water supply alone.

The first is the most efficient lamp made as regards lighting and the most economical as regards consumption of carbide and need of repairs or replacement of parts

The second is scarcely less efficient and gives complete satisfaction for practical working purposes in the mine. It has the special burner and the exceptionally strong "fool proof" construction that is so distinctive of Maple City Lamps.

To demonstrate the quality of our lamps, to any Mine Superintendent upon receipt of his request on company letterhead, we'll gladly send a trial lamp free.

To anyone else we'll gladly send a lamp prepaid upon receipt of \$1.00, the usual price. This includes extra carbide container.

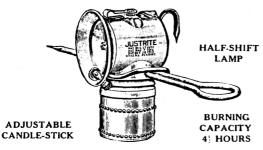
Maple City Bulletins will be sent for the asking to anyone interested. Write.

Maple City Manufacturing Company Monmouth, Illinois



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CARBIDE MINE LAMPS AND ACCESSORIES



No. 101 26 GAUGE BRASS No. 103 22 GAUGE BRASS

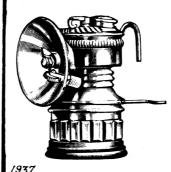
Write for our 1919 catalog—just out—showing the largest and most complete line of Miners' Lamps. A lamp for every mining purpose and many useful accessories. It's yours for the asking—Do it now.

JUSTRITE MANUFACTURING CO.

DEPT. J.

2080 Southport Ave., Chicage, U.S. A.

No. 285 Guy Dropper Carbide Lamps



No. 285.....

This carbide lamp has a patented valve cleaner, a sturdy burner tube assembly, and a double seamed water cup and screw cap. The wire brace is detachable; the 2½-inch diameter nickel-plated reflector is fastened to the lamp with a wing nut. The lamp has lasting imported lava tips; the prong lid drains to prevent spouting.

Length of burning time, 3 to 5 hours.

Height of lamp, 3½ inches.
Approximate weight each.

.....each \$1.00

No. 787 Justrite Special Drivers' Lamps

Polygon Feed



1937

No. 787

Especially designed for drivers, motormen, engineers, timbermen and shotfirers for use in places subject to strong air currents.

Has extra deep concaved nickel silver reflector, 25% inches in diameter. Exterior finish polished brass. Round hook.

Equipped with No. 180 flame protector, making the lamp wind and water proof.

each \$1.25

The Light Is Better—The Cost Less

These are use-proved lamps, and experience with them shows that the cost of lighting compared with candles and oil is from one-half to one-third less. That alone makes the

Baldwin Acetylene Pit Lamp

worth considering. Add to it that even sunlight is not much brighter and you have before you facts that should convince you that this lamp is worth a trial.

Ask us for information.

John Simmons Co., 102 Centre St., New York.



You Can Regulate The Flame

The reason the "Scranton" Acceptene Mine Lamp burns longer and gives a brighter flame is very simple. It has a patent valve control regulating water to carbide chamber, thus permitting flame to be positively regulated and raised or lowered at will. The Scranton Lamp is the most simple and durable you can buy.

Write for prices

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

No. 95 Justrite Superintendent's Lamps



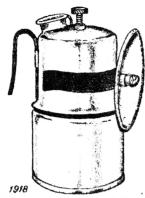
No. 95 Justrite Superintendent's Lamp is of brass, non-magnetic, nickel plated.

Height, 434 inches, burning capacity, 4 hours, 3-inch reflector with lighter attachment and flame protector.

Weight, 7 ounces.

1937

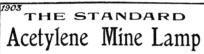
No. 95.....each \$2.00



Pathfinder Acetylene Lamps.

The Lamp shown is our Cap or Head Lamp. It is constructed of extra heavy sheet brass, drawn into solid shells. There are no seams or joints on the outside to cause leaks. The valve seat is also a drawn shell, and the needle valve is made from a solid piece of rod, in such a way that it conducts the water to bottom of carbide chamber.

without any possibility of choking off the water supply. Our claims for these lamps are that they are the strongest upon the market, and will burn more steadily than any other made. One extra chamber furnished with each lamp.

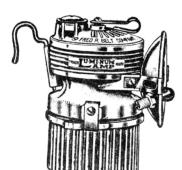




With each lamp there is an extra gas chamber and earbide holder. This allows for changing of charges and you ALWAYS HAVE A LIGHT, Agents wanted, Address changing of cha HAVE A LIGHT.

JOHN S. CUMMINGS & CO., Tunnelton, W. Va.

Lu-mi-num Miners' Carbide Lamps With Locking Device



1937

Made in two styles, with round hook for use on regular miner's cap or with flat hook for use on waterproof hat

Extra heavy plate, can cleaned and kept bright with a few drops of ammonia.

Made of aluminum; seamless, die-cast construction.

Capacity, 2 hours;

Capacity, 2 nours, charge 1½ ounces.
Height, 3½ inches.
Diameter cup, 2 inches; thickness rim, 3½ inch.
Thickness walls, 16 inch, exclusive of ribs.

No. 25 cap clasp included with No. 4 round hook lamps. No. 27 handy cleaning tool included with all lamps. Weight, 61/4 ounces

No. 4, with Round Hook and 21/4-Inch Aluminum Reflector.each \$1.85

No. 43-F, with Flat Hook and 3-Inch Brass N.P. Reflector....each 2.00

Scranto Acetylene Lamps Cheaper Than Candles or Oil

The practical lamp for the miner.

Leaves the air clear and free from soot, sparks, smoke or nox-

ious gases.

Send for circulars and prices.

L. Derry Co.

Gen'l Sales Agents 524 Connell Bldg., Scranton, Pa.



A Constant Flame

all the time is assured it you use

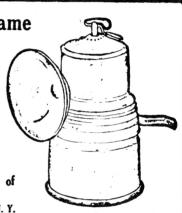
The Wolf Acetylene Lamp

It's safe and explosiveproof. We manufacture all kinds of carbide lamps.

Agents for the Draeger Oxygen Apparatus Co. Write now for full particulars.

Wolf Safety Lamp Co. of America, Inc.

47 West Street, New York, N. Y.





In making up your next estimate of overhead expenses figure on using the Ever Ready lamp at a cost of two cents per day instead of six to ten cents for candles or oil lamps. See result below.

100 men using candles 300 days per year at .06c. per day.....\$1800.00 100 men using Ever-Ready Lamps 300 days per year at .02c. per day... \$600.00 \$1200.00 100 Ever Ready Lamps..... 75.00

A test will convince you.

Send us a trial order today.

\$1125.00

111-113 OPERA PLACE, CINCINNATI, OHIO The Chas. Hoppe Co.,

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(Page numbers in **bold** indicate illustration of entire lamp in an old advertisement)

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Black Diamond (?)
Hardsocg (?)
Standard (?)
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What Cheer (?)
 American
 Anton (cubic top)
 Anton (cylindrical top)
                               Relative Rarity
  Funk Bros.
  Imperial
 Ni-Ba
                                 of carbide cap lamp
  Oshkosh
 Pocahontas
 Red Star
                                           brands
  S & S
  Schneider's Lamp
 Scranton
                                As determined from a survey of 30 collections and
  The Buddy
  X-Ray (Defender style)
                                1500 lamps.
   Fulton
                                *It should be remembered that rarity is only one of
   Milburn
                                the factors determining value. Other considerations
    S.E. Simmons
                                include uniqueness and beauty of design, condition,
     Abercrombie & Fitch
                                and variety or sub-type.
     Anthracite
     Gem
     Maumee Duplex
      Scranto
      Sure-Light
       Defender
        Dry-Lite
        Gee-Bee
        Justrite No.77 stick lamp
          Pathfinder
          Squarelite (by Guy's Dropper)
            Hansen
            Maple City
            Victor (Pathfinder style)
              Elkhorn
                Arrow
                Ever-Ready
                 Springfield
                  Force Feed
                    Brite-Lite
                    Shanklin Metal Products Co.
                                 ITP
                                  Wolf
                                         John Simmons
                                            Buddy
                                                 X-Ray (Fulton-Imperial st.)
                                                       Lu-mi-num
                                                       Victor (Justrite)
                                                                      Sun-Ray
      • Baldwin is twice as common as Grier
                                                                      Grier
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•Justrite, Auto-Lite and Guy's Dropper

are 6, 4, and $4\frac{1}{2}$ times more common than Baldwin

