



Justrite's first production cap lamp (Len Gaska collection)

The Rise and Fall of The Horizontal Justrite Cap Lamp

by Dave Thorpe

Though the Justrite Mfg. Co. made many different carbide cap lamps, the design they are most famous for is known as the "Horizontal Style" Justrite. ¹ Described by its inventor:

"The carbid receptacle is adapted to a water chamber which consists of a horizontally disposed cylinder having one end wall forming a reflector" - Augie L. Hansen May 20, 1911 ²

The "horizontal" cap lamp was the mainstay of Justrite's production from 1911 through the late thirties. Over this time, various changes and refinements of design occurred on an almost yearly basis. Tank shape, reflector, stamping, water-feed, water-door, base, attachment device...all evolved independently. It is not unusual for an avid collector to have dozens of horizontal Justrites on the shelf...each one subtly different from the other.

The following article will review the basic models as they developed over time. Although much data was obtained from various Justrite catalogs, advertisements, and patents, the hard core facts are a result of pooled information from the lamps in several large collections. ³

Additionally, I will try to answer the most often asked question: "What year was this lamp made in?" Although my answers will be unashamedly discrete, I acknowledge that this can be a very controversial subject. At the end of the article, a simple table is presented, such that any individual lamp may be charted according to its features. Once identified, the year in which it was made can be found at a glance.

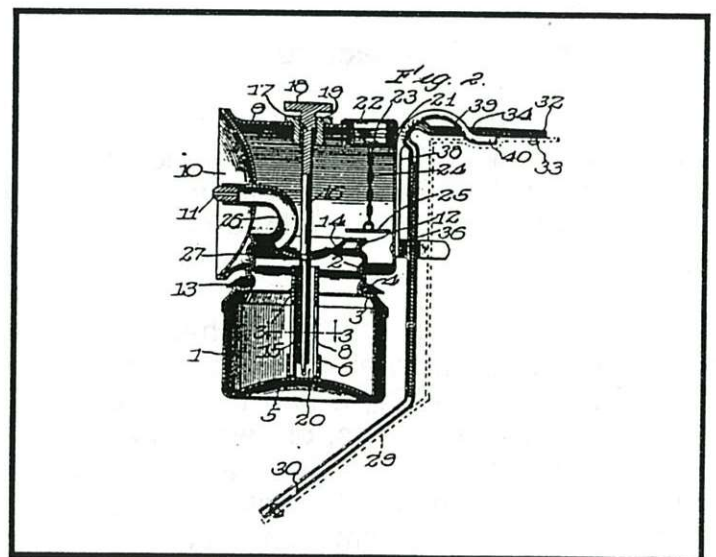
1911-1914: Undeveloped and Fragile

The Original

Justrite Mfg. Co. was organized in 1906, but they did not begin to make miner's cap lamps until 1911. ⁴ Shown in the photo (opposite page), is the first model produced. It is stamped simply:

THE
JUSTRITE
PAT. APLD. FOR

The hinged oval water door was characteristic of all early Justrites, however, the door on this model is unique in that it fits flush to the tank and is of single thickness. While the earliest patent application shows a round screw-in door, ⁵ its actual production is doubtful.



Hansen's first filed patent for Justrite. (#1,161,209 filed 5-20-11, granted 11-23-15). The round screw-in water-door was probably never produced.

Lamps with Dates

As soon as the 1912 patent was granted, Justrite began to display dates on the left side of their lamps. Tank stamping forms the broadest means of categorizing the various designs as they evolved. The first and second stampings are:

THE
JUSTRITE
PAT. DEC, 17, 1901
PAT. MAY 7, 1912
OTHERS PENDING



Early "Superintendent Lamp" is shown here with the "Adjustable Hood" reflector. The lamp still retains the stamping "THE JUSTRITE", but now has two patent dates. (Len Gaska collection)

JUSTRITE
PAT. DEC, 17, 1901
PAT. MAY 7, 1912
OTHERS PENDING



The "Miners' Pit Lamp". The primitive raking wire is still present, but the knurled wheel water cut off is now deeply notched. The stamped name has been shortened to simply "JUSTRITE". (Dave Thorpe collection)

The Need for Larger Reflectors

The tiny 2" reflectors provided minimal shielding and would not accommodate the flint wheel lighter which was popular by 1913. Thus, several accessory reflectors were offered. ⁶

The "Matchless" reflector was attached by a three-armed clamp and was equipped with a lighter. Patented in 1901, it had been used previously on Baldwin lamps, but was ideally suited for attachment to the horizontal Justrite. After purchasing the patent, Justrite stamped the date, along with their name, on the back of the reflectors, *as well as on the early lamps themselves*. This has led some to mistakenly believe that the lamp was developed at that time.

JUSTRITE REFLECTORS

The Matchless Reflector



Lights the gas with a rub of the hand.

Size 2½ inches, has lighter attached, is made of polished brass, weighs one ounce, is adjustable to fit any lamp, and held firmly around tip holder by means of tightening screw in collar.

NO MATCHES NEEDED.

No. 26. Brass. Price25c

No. 27. Nickel Plated. Price .30c

The "Matchless" detachable reflector as seen in Justrite Catalog #1 (1913).

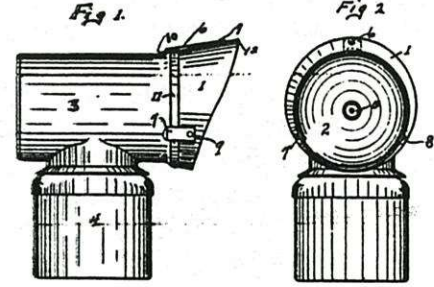
Adjustable Hood

The Reflector Hood is made of 24-gauge German silver, slips over the tip and held firm by a spring clasp. Concentrates the light directly in front of the lamp and protects the flame. Prevents the light from flashing in the Miners' Buddies' eyes. Can be used on any Justrite lamp.

No. 15. Price.....15c



Patented



Advertisement in the 1913 catalog, the "Adjustable Hood" reflector was offered separately and as standard equipment on the supervisor's model. The "Adjustable" (not shown) was sold as accessory only.

Early versions of the hood resemble this original patent model by attaching to the tank rim with three clips. (A.L. Hansen # 1,093,128. Filed 1-10-12. Patented 4-14-14)

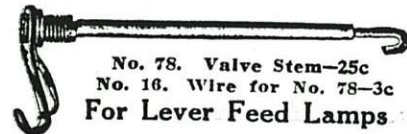
By 1913, Justrite was manufacturing lamps with larger 2 1/4" reflectors that were permanently attached. ⁷ A flint wheel lighter was included. By 1915 the 2 5/8" and the 3" saucer sizes were also offered. ⁸

Early Lever Feeds

The first lamps with water-levers became available in 1913. ⁹ This allowed the water flow to be regulated as the lever could be set between any of the 12 raised bumps. These early style levers were made until around 1917. Shortly after the introduction of the new lever, the words "ON" and "OFF" were stamped on the left and right of the tank. Later, the "ON" stamping was eliminated.



1914 vintage cap lamp, now with 2 1/4" integral reflector and the words "ON" and "OFF" stamped either side of the lever. This lamp also introduces the next change in tank stamping (right).



No. 78. Valve Stem—25c
No. 16. Wire for No. 78—3c
For Lever Feed Lamps

Catalog illustration of early Lever Feed.

JUSTRITE
PAT. DEC. 17, 1901
PAT. MAY. 7 1912
PAT. OCT. 28, 1913
OTHERS PENDING

1915-1919: Elegant Designs

1915 marks a time when the Justrite Mfg. Co. began to diversify and upgrade their product. Several changes were introduced to the line. Briefly, they were¹⁰:

- 1-Lamps available with three different reflector sizes
- 2-The beaded bottom base¹¹
- 3- The "Jiffy" Container
- 4- Two new water feeds:
 - The "Duplex Valve Feed" (sold only with the "Jiffy" base)
 - The "Spiral Feed"¹²

The lamps made from 1915 through 1919 can be immediately identified by the bases which are adorned with two rows of beads for gripping. From a purely aesthetic point of view, lamps from this short era represent Justrite at its peak. They combined the many patents of Augie Hansen...Justrite's eccentric and nearly manic inventor. His designs were both elegant and functional. No lamp better illustrates this than the Spiral Feed Justrite.

The Spiral Feed Justrite

One of the problems with acetylene generators was that of gas backing up through the dropper and bubbling out through the water tank. In an attempt to solve that problem, Augie Hansen developed the Spiral Valve Stem. Resembling a long thick-threaded screw, the system:

"...forces the water to travel around the spiral a distance of 7 inches while in other lamps it travels in a straight course only 1 1/4". This increases the gas resistance about six times, prevents waste of gas and produces an even, steady burning flame."¹³

The earliest Spiral Feed, introduced in 1915, is identified by a feed lever which rides free of any notches.¹⁴ By 1916, the more familiar model was available, in which the lever carries a wire spring over 17 tiny bumps.¹⁵ The model was available in this unchanged form through at least 1922.¹⁶ To keep a single style in the line-up for so long was unusual for Justrite, and may have represented the sale of remaining stock which had been overproduced and poorly accepted.



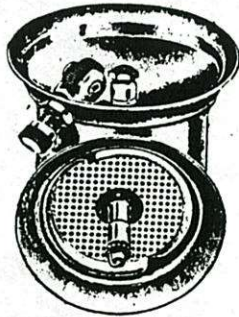
Above: Valve stem for Spiral Feed Lamp from 1916 catalog.

Right: Spiral Feed Lamp from Dave Thorpe collection, showing 2 1/4" reflector.



The "Jiffy" Container with its Duplex Feed

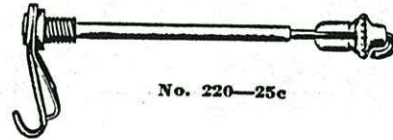
Introduced in 1916, the "Jiffy" Container was an innovation to allow the miner to remove the base from the lamp with only a half twist.¹⁷ Lamps with this base are highly prized by collectors due to the fancy scrolled writing in the bottom of the base (see MAC #8, page 7). Almost all "Jiffy" lamps are found as they are advertised: with the Duplex Feed.



Showing
the
Helix
Locking
Device
—
Pat. applied for



DUPLEX VALVE STEM

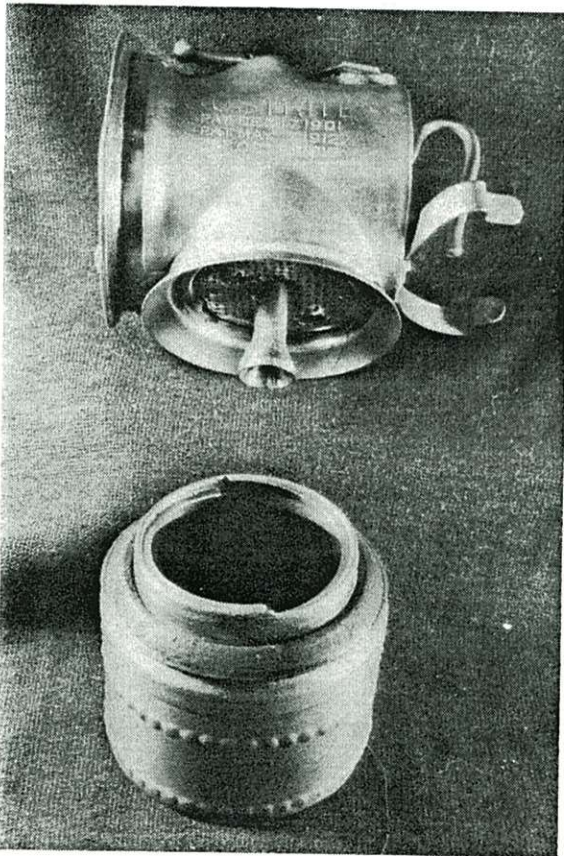


No. 220—25c

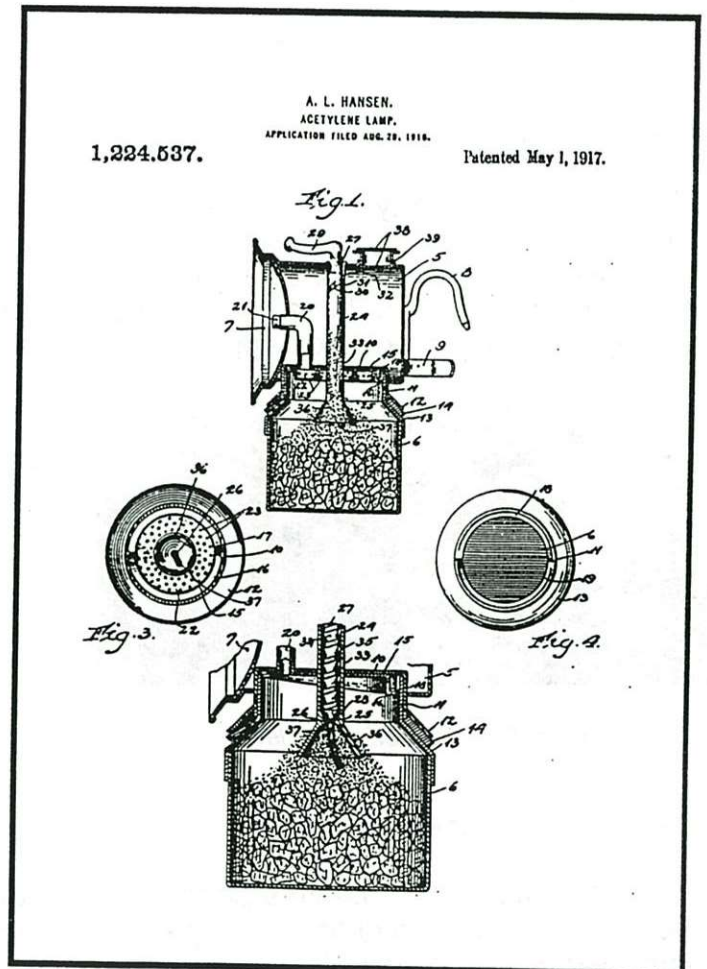
This Lever Duplex Feed has two valves. The upper valve regulates and shuts off the water flow; the lower valve acts as a check and prevents over-generation.

A Platypus

Many of Augie Hansen's patented cap lamp designs were never marketed extensively. From time to time interesting prototype, or limited production lamps turn up. One such lamp combines the "Jiffy" Container *and* the Spiral Feed. Additionally, this piece displays the unusual, but patented,¹⁸ flared end to the water-dropper.



Above: Unusual patent lamp. (Len Gaska collection)
Right: Patent showing lamp in above photo.



More Changes During Good Times

The next design change occurred around 1917, when the Lever Feed was made much sturdier. Unlike its flimsy upturned predecessor, this bulky lever turned under itself to press over the bump settings. A short time later, the lever became stamped with the words "Justrite Lever Feed".



Close-up of "Lever Feed" water-lever.

After altering the lever, Justrite then changed the tank stamping. The new lettering read:

JUSTRITE
PAT. MAY 7, 1912
PAT. OCT. 28, 1913
PAT. NOV. 23, 1915
OTHERS PENDING



Ca. 1917 "Lever Feed" cap lamp, showing the larger lever and a revised trio of dates. (D. Thorpe collection)

The Liberty Feed

Early in 1919, the Liberty Feed system was officially added to the line-up,¹⁹ although it had been used for one year previously with unstamped water-levers.²⁰ The more recent Libertys were identified by a water-lever stamped: "Liberty Trademark". This dropper exposed a large area of the central shaft for a more "liberal flow". Although Liberty Feed lamps are not particularly rare, their production appears to have been phased out by 1921.²¹



Close-up of Liberty Feed water-lever.

"LIBERTY" VALVE STEM

For Liberty Feed Lamps



Illustration of Liberty Feed dropper mechanism from 1919 catalog.

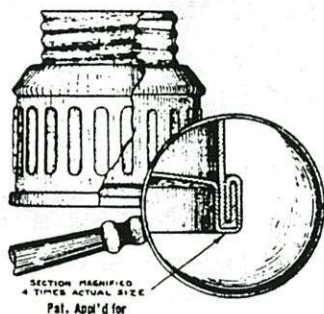
The Gasketed Water-door

Produced over the same brief time period as the Liberty Feed, the unusual rubber-gasketed oval water-door was never advertised. Appearing somewhat gaudy, the door was bulkier than the standard, and decorated with fancy scrollwork.

1920: The Beginning of the End

The life cycle of a carbide lamp company follows a typical course. In the beginning, the lamps are very delicate and simple. Later, as the company flourishes, the lamps become ornate and innovative in design. If not entirely useful, they are at least visually exciting. In the final phase, the lamps become simpler again, but are made stronger and more practical. Just as adulthood is the best predictor of death, the utilitarian or "mature" phase marks the decline of a company. For Justrite, that time began around 1920, with the departure of Augie Hansen.

The Ribbed Base: an Omen of Bad Times Ahead



Description

NEW JUSTRITE RE-INFORCED BOTTOM

The seam at base of bottom has five layers of metal rolled together. Solder is then forced into the crevices from the inside forming a solid rim $\frac{1}{8}$ inch thick. The upper part, including the screw threads with rolled edge, is one piece drawn from seamless brass. The strongest and most durable carbide lamp bottom made. Adds strength just where it is most needed.

From Justrite Catalog #3 (May, 1919)

In May 1919 the "new" ribbed base was first offered. It was more durable with its seamed bottom, and offered a better grip. This would be Augie Hansen's last contribution to the Justrite Mfg. Co.²² Perhaps there was no room for an eccentric designer in a company, whose direction would now be toward simple, more generic lamps.

His replacement, William Frisbie, may be credited with making the Justrite cap lamp simpler, stronger, cheaper to produce...and aesthetically dull. So enamored was Mr. Frisbie with Augie's ribbed base, that he even stamped the ribs into the water chamber of his new Victor cap lamp...a design not entirely uninspired by the Guy's Dropper. His work with the horizontal Justrite was characterized, not so much for original contribution, but for the systematic eradication of every patented design feature related to Augie Hansen.

Superficial Changes

1920: Fresh at the helm, Mr. Frisbie's first design change was to increase the number of bumps for the water-lever from 12 to 16. The benefit of adding such fine control is questionable since water flow is largely dependent on gaseous back pressure. Around 1921, while waiting for his design patents to be granted, "MADE IN U.S.A." was added to the tank stamping in the following layout.

JUSTRITE
MADE IN U.S.A.
PAT. MAY 7, 1912
PAT. OCT. 28, 1913
PAT. NOV. 23, 1915
OTHERS PENDING



One of the first cap lamps of the Frisbie era (ca. 1920) shows ribbed base, "MADE IN U.S.A." stamping, and increase in number of lever bumps from 12 to 16.

The Polygon Feed: A Tool for Dating Lamps

At the same time that the "U.S.A" tank stamping was added, the Liberty Feed was dropped from the Justrite lineup. Offered in its place was William Frisbie's, soon to be patented, Polygon Feed. It was not radically different from other generic style water feeds, except that the dropper button was a square nut. Its corners supposedly broke up the encrustation that built up around the tip. Once again, a relatively uninspired change that was simple, practical, and durable.

Frisbie's patent for the Polygon Feed was filed **May 3, 1920** and granted **Feb. 21, 1922**. Accordingly, water-levers are found with three different stampings:

Polygon Feed (ca. 1920)

Polygon Feed Pat. App. For (ca. 1921)

Polygon Feed Patented 2-21-22 (ca. 1922 ...)



Close-up of Polygon Feed water lever with most recent stamping.

These three water lever marks allow us to date several other design changes. The first of these was the replacement of the oval water-door by the much easier to produce round version. Only lamps with the lever stamping "Polygon Feed Pat. App. For" are found with *both* oval and round doors, so this change would have occurred during 1921.

The "Polygon Feed Pat. App. For" lamps also span a time when the rear cross brace was narrowed from 1/4" to 3/16". While this change dates to 1921 as well, it occurred *after* the change in water-doors.

A third design change, that can be indirectly dated via the Polygon Feed lamps, is the use of "Duplex" stamped water levers:



Close-up of Duplex Feed water lever (ca. 1922).



The "Polygon Pat. App. For" lamp (ca. 1922) showing change to round water door and thinner rear brace.

These lamps are somewhat of an anomaly, since they are not actual "Duplex Feed", but merely standard "Lever Feed" systems. They are all found with the round water door, making them more recent than 1921. And, since they are known only with the "3-date, Made in U.S.A" stamping (discontinued around 1923), we may conclude that they were produced in 1922.

Tank Stamping is Raised...Two Dates are Buried

Around 1923, the incuse tank stamping was changed to the raised type.²³ In fancier lettering, it read:

Justrite
MADE IN U.S.A.
PAT. MAY 7, 1912
OTHERS PENDING

The only Hansen date left was the original 1912 patent for the horizontal design. On the right hand side of the tank, the word "OFF" also appeared in raised letters.

This tank style is found with two types of water lever stamping: "Polygon Feed", and the resurrected name "Wire Feed".²⁴



Close-up of Wire Feed water-lever (ca. 1923).



Above: lamp made in late 1920's showing changes to raised lettering with only one patent date. Also note round ringed water-door with thumb tab, and shorter water-lever.

The "1912" stamped lamps continued to be manufactured throughout the 1920's. During that time, the round water-door was first given a small thumb tab, and later, reinforced with stamped concentric rings. Near the end of the decade, the water-lever was bowed up and made shorter, though the same two stampings were retained.

The Final Tank Design: No Dates at All

The final horizontal tank style belonged to the 1930's. Bowing to convention, the horizontal Justrites now had removable reflectors held in place by a nut over a threaded gas tube.

In so doing, the company also felt that they had deviated far enough from the Hansen design to remove even the last 1912 patent date. The raised letter stamping now read simply:

TRADEMARK
Justrite
MADE IN U.S.A.
PAT. APPLIED FOR



Early 1930's vintage lamp showing change to complete absence of patent dates, removable reflector, and the "Protecto-grip" base.



Late 1930's lamp showing change to wire cross brace, "Air-cooled" grip, and addition of a tiny spring tab riding over 19 bumps.

After the tank change, the number of bumps for the water-lever was increased, this time to 19. A tiny spring tab was added to ride over the new bumps. The small lever was marked either Polygon or Wire Feed. Eventually even these two stampings were discontinued and all levers simply read:

Justrite

The next change saw the rear cross brace strip changed to a removable wire. Lastly, the raised stamping "OFF", located on the right side of the tank, was changed to "ON" so that the water-feed could utilize a standard screw thread.

Also introduced around 1935 was the rubber jacketed base, known as the "Protecto-Grip".²⁵ As this tended to overheat, it was replaced with the less insulating "Air Cooled Grip".

In 1939, with nothing else left to remove, the horizontal lamp itself was discontinued, and the last vestige of Augie Hansen was gone. In its place, the Justrite Streamline series continued to be marketed to sportsmen and hunters.

References and Footnotes

1. The term "Horizontal Style" is first used in Justrite catalog #7 (ca. 1930) to differentiate it from the "Vertical Style" which was introduced in this issue.

2. Patent 1,161,209 (Augie L. Hansen). Applied for May 20, 1911. Granted Nov. 23, 1915.

3. Collections studied include those of Len Gaska, Dave Thorpe, Mike Puhl, and Charles Frase.

4. Justrite Catalog #3 (1919) gives a brief history: "This company was organized in 1906, and until 1911, our business consisted of the manufacture of a Patented Oily Waste Can, Sanitary Pails, and the making of Dies, Special Machinery, Tools, etc."

5. Patent 1,161,209 (Augie L. Hansen). Applied for May 20, 1911. Granted Nov. 23, 1915.

6. Justrite Catalog, unnumbered, Dec. 10, 1913, page 9.
7. IBID, page 4
8. Justrite Catalog, unnumbered, (ca. 1916). Note: actual reflector sizes were 2 5/16", 2 1/2", and 3".
9. Justrite catalog, unnumbered, Dec. 10, 1913.
10. Justrite catalog, unnumbered, (ca. 1916).
11. Colliery Engineer, Aug 1914. First advertisement of lamps with beaded bottoms:
12. Coal Age; Dec. 4, 1915. Spiral Feed lamp first advertised.
13. Justrite Catalog, unnumbered.
14. Coal Age; Dec. 4, 1915. Spiral Feed lamp first advertised. Illustration shows no spring clip.
15. Coal Age; 1916 Spiral Feed lamp advertised *with* spring clip.
16. Justrite Catalog, unnumbered, (ca. 1916).
17. Mining and Scientific Press, ads: 7/5/19; 12/25/20; 1/7/22.
18. Patent # 1,224,537. A.L. Hansen. Applied for Aug. 28, 1916. Granted May 1, 1917.
19. Justrite Catalog Unnumbered. March 1919. "New Liberty Valve" introduced.
20. Patent # 1,303,658. A.L. Hansen. This patent for the Liberty Feed was applied for Aug. 31, 1918, but was not granted until May 13, 1919. This corresponds to the known existence of unstamped Liberty levers.
21. In the #5 catalog (ca. 1922), the Liberty Feed has disappeared. All Liberty lamps that have been identified, predate the earliest Polygon Feed lamps of 1921.
22. Design Patent 54,349. Dec. 30, 1919. Augie Hansen's first two patents for the Dry Lite, both filed in 1920 (# 1,490,562 and # 1,505,259), show the ribbed base. His later patents, filed in 1921 and 1922, do not, as the ribbed design had now become well associated with Justrite.
23. Many of the changes taking place from 1923 on involve some interpolation (or guesswork), as the company's journal advertising had become scant. Further, the catalogs were no longer dated, and had become notoriously inaccurate in depicting the actual lamp sold.
24. The term "Wire Feed" had originally been applied to the crude raking wire models of 1911-1912. The name "Lever Feed" was phased out shortly after Augie Hansen's departure, and the same waterfeeds were redesignated: "Wire Feed" by 1922 (Justrite #5). Not until the new raised-letter tank stamping (around 1923), were the levers actually stamped "Wire Feed". The interim use of both "Duplex" and "Lever Feed" levers for what was advertised as Wire Feed, would indicate that they were simply using up older parts in stock.
25. Protecto-grip base advertised in Mining Journal March 15, 1935.

SIMPLE GUIDE TO VARIATIONS AND YEAR OF MANUFACTURE

VINTAGE	Tank Stamp	Reflector	Door	Water Lever	Bumps On/Off	Base	Brace
1911	"The" PAF	INTEGRAL	Oval	PLAIN WHEEL	0	None	1/4" Strap
1912	"The" 01-12	Tiny 2"		NOTCHED WHEEL	12	On(L) Off(R)	
1913	1901-1912	both styles found	UPTURNED LEVER	16			Off(R)
1913-14	1901-12-13		SPIRAL without spring clip SPIRAL with spring clip		LARGE DOWNTURNED LEVER		
1914	1912-13-15	INTEGRAL	Round	Includes: Unstamped Liberty Feed Unstamped Lever Feed "Liberty Trade Mark" "Justrite Leverfeed" "Polygon Feed" "Polygon Feed Pat. App. For" "Polygon Feed Pat. 2-21-22" "Justrite Duplex Feed" "Justrite Wire Feed"		19	Ribbed
1915	1912-13-15	2 5/16"					
1916	1912-13-15	2 1/2"	Round ringed	SMALL LEVER	19	Off(R) raised	Wire
1917	1912-13-15	3" saucer					
1918	USA	Removable	Round ringed	SMALL LEVER	19	Off(R) raised	Wire
1919	1912-13-15						
1920	USA	Removable	Round ringed	SMALL LEVER	19	Off(R) raised	Wire
1921	1912-13-15						
1921-22	1912-13-15	Removable	Round ringed	SMALL LEVER	19	Off(R) raised	Wire
1923	1912-13-15						
1923-4	1912	Removable	Round ringed	SMALL LEVER	19	Off(R) raised	Wire
1925-6	1912						
1927-28	TRADEMARK	Removable	Round ringed	SMALL LEVER	19	Off(R) raised	Wire
1929-30	TRADEMARK						
1931-32	TRADEMARK	Removable	Round ringed	SMALL LEVER	19	Off(R) raised	Wire
1933-34	TRADEMARK						
1935-36	TRADEMARK	Removable	Round ringed	SMALL LEVER	19	Off(R) raised	Wire
1937-38	TRADEMARK						

Catalogs of the Justrite Manufacturing Company

by Len Gaska

There are three ways in which the history of a company can be reconstructed: patents, product designs, and ads and catalogs. In this article, Justrite catalogs known to the author are presented to give a quick overview of the products of the Justrite Manufacturing Company from 1913 to about 1938.

Beyond the information contained within, original lamp catalogs are prized in their own right. Lamp catalogs are rare due to the specialized nature of the product and the limited market. Only a few companies produced lamp catalogs: Baldwin, DeWar, Justrite, and Wolf, and perhaps a few others unknown to the author. Strangely enough, the other two major carbide lamp manufacturers, Universal Lamp Co. (Auto-Lite), and Shanklin Mfg. Co. (Guy's Dropper) apparently did not issue catalogs.

The large number of Justrite catalogs and the huge variety of carbide lamps and related products advertised reflect Justrite's role as the number one carbide lamp manufacturer in America. The large product line and the frequent issuance of catalogs also helped Justrite attain the number one position. The author knows of 11 different Justrite catalogs and one brochure, and the collecting community may know of others.

Because of poor copy quality, catalog number 6 is not illustrated. Most of the catalogs are undated and dates given as "circa year" are educated guesses.

MINERS' PIT LAMP LEVER FEED

13½
Candle
Power



Weight
5
Ounces

No. 80. Polished Brass..... \$1.00
No. 81. Nickel Plated..... 1.25
Extra container with each lamp.

MINERS' PIT LAMP WIRE FEED

13½
Candle
Power



Weight
5
Ounces

No. 99. Polished Brass..... \$1.00
No. 88. Nickel Plated..... 1.25
Extra container with each lamp.

Round brass, sharpened hook-spring brass clasp, riveted and soldered on inside. Holds lamp firmly on cap. Fits any cap shield.
Wholesale price on page 12.

Unnumbered, Dec. 10, 1913, 3 1/2" x 6 1/2", 16 pages. Page 3 shown.

Generally considered to be Justrite's first catalog. Introduces the "Lever Feed" which was Justrite's first true water control valve. Earlier Justrites have the "raking wire" feed (bottom illustration) which offered little or no control of water flow. The catalog illustrates several models of "The Justrite," an early style candlestick attachment, "The Matchless Reflector," and the No. 10 lantern. All cap lamp bases illustrated have the smooth sides.

Everything
inside is

Justrite
COMPLETE CATALOG

Acetylene
Lamps and Lanterns

Safety Oil and
Oily Waste Cans

Sanitary Receptacles
and Garbage Pails

Manufactured by
Justrite Manufacturing Co.
Van Buren and Clinton Streets
CHICAGO, ILL.

FORM 204

Unnumbered, undated, 3 3/8" x 6 3/8", 16 pages. Cover shown.

The copy I have has a library stamp date of Feb. 20, 1915. Generally considered to be catalog number 2. Only early style "Lever Feeds" are shown in this catalog. Introduces 4 large lamps: The Jumbo, Anaconda Special, Arizona Special, and the Western Special. Also shown is a rare 3 spare bottom carrier. Only smooth side cap lamp bottoms are shown. Three lamps with candlestick attachments are illustrated.

INTERCHANGEABLE CONTAINERS



FOR CARBIDE ONLY.

No. 20. Polished Brass\$0.75
No. 21. Nickel Plated 1.00

The 3 bottoms on container and bottom on lamp are carried into the mine half full of carbide, sufficient for a full day's work. When the bottom on lamp is exhausted, unscrew and put on a fresh bottom, screwing the used bottom into the container. This enables the miner to carry all his used carbide to the surface. Can be fastened on the belts or pants by the spring clasp or carried in the pocket—strong and convenient.



FOR CARBIDE AND WATER.

No. 19. Polished Brass..... \$1.00

"Jiffy" Containers



FOR CARBIDE ONLY.

No. 219. Polished Brass\$0.75

Unnumbered, circa 1916, 3 1/2" x 6 1/2", 17 pages. Page 14 shown.


Introduces the Spiral Feed, the ""Jiffy" lamp, the Duplex Feed, two new styles of 3 spare bottom carriers (illustrated), and the cap lamp beaded bottoms with two rows of raised "dots." No smooth sided cap lamp bottoms are shown.

It is a bit strange that this catalog does not include any large style lamps. This catalog may well have been aimed at the eastern U.S. mining market where larger lamps were seldom used

JUSTRITE CARBIDE LAMPS

X-RAY CAP LAMPS
Detachable Reflector and Brace
LIGHTER ATTACHMENT

Round Hook



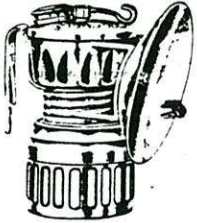
2 1/2-INCH REFLECTOR

No. 187. Brass Lamp Only	Price \$1.00	No. 197. Brass Lamp Only	Price \$1.00
No. 181. Brass With Extra Bottom	Price 1.00		

3-INCH REFLECTOR

No. 267. Brass Lamp Only	Price \$1.00	No. 277. Brass Lamp Only	Price \$1.00
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Flat Hook



2 1/2-INCH REFLECTOR

No. 197. Brass Lamp Only	Price \$1.00
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3-INCH REFLECTOR

No. 277. Brass Lamp Only	Price \$1.00
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Number 3, May 1919, 6" x 9 1/4", 32 pages. Top half of page 15 shown.

A very attractive catalog illustrating the X-Ray, Uncle Sam, Little Giant, the Liberty Feed, and a wide variety of cap lamps. The spiral feed is still being advertised and most of the cap lamps shown use the later style of lever feed with the "turned under" control lever. The vertical ribbed bottom is introduced in this catalog although the beaded bottom is still shown in most of the illustrations. This is the first catalog to show cap lamps with the narrow spade "Michigan" style hook.



CARBIDE CAP LAMP

With
Lighter Attachment

Description

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

Height of Lamp, 3 3/4 Inches	Weight, 5 Ounces
Diameter Bottom, 2 Inches	Candle Power, 16.7

Charge, 2 Ounces 1/4-Inch Carbide
Burning Capacity, 2 1/4 Hours

No. 527	Polished Brass	Lamp Only
No. 124	Polished Brass	With No. 77 Carbide Can
No. 121	Polished Brass	With No. 68 Extra Bottom

FOR PRICES, SEE PAGE 24.

Repair Parts

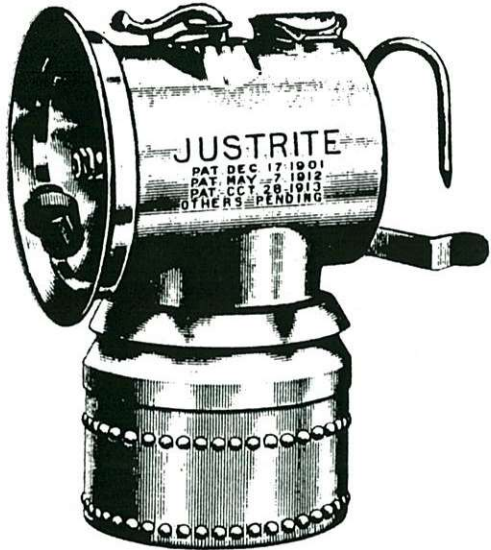
- No. 68. Extra Bottom Polished Brass
- No. 69. Rubber Gasket
- No. 62. Felt Packing
- No. 64. Felt Holder
- No. 113. Valve Stem
- No. 172. Extra Flints for Lighter

Illustrated on page 38
PRICES ON PAGE 38

No. 77 Carbide Can illustrated on page 78.

SPIRAL FEED

Round Hook

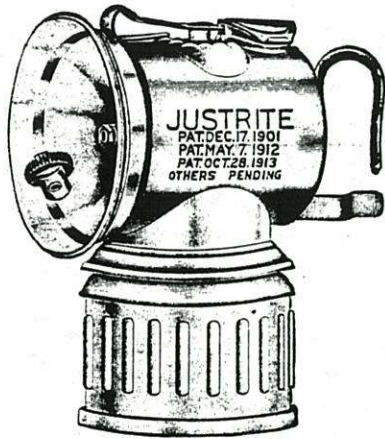


**CONCAVED
PERMANENT REFLECTOR
2 1/4-INCH DIAMETER**

Unnumbered, March 1919, 9" x 6", 86 pages. Page 20 shown.

The largest and most beautifully illustrated of all the Justrite catalogs. This catalog predates catalog No. 3 by 2 months and it is a mystery why Justrite produced two completely different and extensive catalogs within a span of three months. This catalog does not introduce any new major varieties.

Justrite
TRADE MARK



MINERS CARBIDE LAMPS

Catalogue No. 5

Number 5, circa 1922 – 1923, 6 1/8" x 9 1/4", 30 pages. Cover shown.

Introduces the Victor cap lamp, the Polygon Feed, and the Acme hand lamp (the Victor's big brother – well, kind of). Besides the Acme, the only other large style lamp shown is the Uncle Sam. The beaded cap lamp bottoms are not present in this catalog.

Number 6, circa 1928, 4" x 9", 16 pages. Not illustrated

This catalog is the last in which the Victor cap lamp appears. The Acme is no longer present and the modern style hand lamp is introduced. This catalog show a much smaller and more stable product line compared to number 5.

JUSTRITE MANUFACTURING CO., CHICAGO

Justrite
TRADE MARK

Miners' Cap Lamps

Detachable Reflector and Brace
Lighter Attachment
Round Hook

Polygon Feed

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 Nickered Reflectors.



Concaved Reflector

2 1/2-inch Diameter

Price

No. 661—Polished Brass

Saucer Shaped Reflector

3-inch Diameter

Price

No. 666—Polished Brass

SUPPLY PARTS

- No. 28—Burner Tip.
- No. 60—Gasket
- No. 62—Felt.
- No. 64—Felt Holder.
- No. 172—Flint.
- No. 177—Lighter, Complete.
- No. 295—Reflector Brace.
- No. 197—Wing Nut
- No. 300—2 1/2 inch Reflector, nickel
- No. 301—3 inch Reflector, nickel
- No. 600—Valve Stem.
- No. 965—Bottom Polished Brass.

For Specifications of Lamps, see Page 1

For Illustration of Supply Parts see Pages 9-10

Number 7, circa 1930, 4" x 9", 16 pages. Page 5 shown.

Introduces the vertical style cap lamp (shown). The vertical style was the last new style introduced before the Streamlined which was almost 10 years in the future.



Miners' Cap Lamps

With
New Lighter Attachment

Polygon Feed—Round Hook



The New Justrite Sparker Attachment

This new device prevents teeth of sparker wheel from becoming clogged with grime and dirt from the hands.

Just raise lever to burner tip with finger, release, and sparker automatically lights lamp instantly.

Concaved Reflector

2 3/8-inch Diameter

- No. Price
- 927—Polished Brass—
Lamp Only
- 929—Nickel Plated—
Lamp Only



Saucer Shaped Reflector

3-inch Diameter

- No. Price
- 967—Polished Brass—
Lamp only
- 969—Nickel Plated—
Lamp only



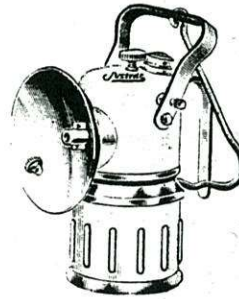
SUPPLY PARTS

- | | |
|--------------------|-------------------------------|
| No. 28—Burner Tip | No. 179—Lighter Complete |
| No. 60—Gasket | No. 197—Wing Nut |
| No. 62—Felt | No. 700—Valve Stem |
| No. 64—Felt Holder | No. 935—Bottom Nickel Plated |
| No. 172—Flint | No. 965—Bottom Polished Brass |

For Specifications of Lamps, see Page 1
For Illustration of Supply Parts see Pages 9-10

Justrite Metal Miners' Lamps With Lighter Attachment

Rust-Proof—Steel
or Brass



No. 50B—Steel
No. 50C—Brass
With Ball and Hook

SPECIFICATIONS

Burning capacity—8 hours
Candle Power—18 C. P.
Weight—20 ozs.
Charge (1/4" carbide)—8 ozs.
Height of Lamp—8"
Height to top of bail—8"
Diameter of bottom—2 3/4"
Diameter of reflector—4"

A strong and sturdy lamp built to give service. Constructed with a removable and automatic water feed. No pliers or wrenches needed to make adjustments—either above or under ground.

Has sturdy 4" reflector giving maximum volume of light. Also flame protector making flame drip-proof when lamp is used in wet mine.



No. 50A—Steel
No. 50C—Brass
With folding handles

Valve Stem can be taken out and Cleaned—
Light will not go out.



SHOULDER
DOUBLE SEAMED
AND SOLDERED

New Bottom
for
Brass Lamps

BRASS BOTTOM
WITH
STEEL CAP

This special reinforced bottom used on Brass Lamps Nos. 50C and 56C only. Will stand abuse and give long service.

SUPPLY PARTS

- | | |
|---|--|
| No. 28 Burner Tip | No. 172 Flint |
| No. 51 Carbide Container for
No. 50B & 50A Lamps
only | No. 177 Lighter Complete |
| No. 51C Carbide Container
for No. 50C and 50C
Lamp only | No. 180 Flame Protector |
| No. 52 Felt | No. 187 Wing Nut |
| No. 53 Felt Holder | No. 254 Reflector Brace for
No. 50B & 50A Lamps
only |
| No. 55 Ball Screws | No. 254C Reflector Brace for
No. 50C & 50C Lamp |
| No. 61 Rubber Gasket | No. 259 Screw Valve Stem |
| | No. 403 4" Reflector, Brass |
| | No. 404 4" Reflector Nickel |

Number 8, circa 1932, 4" x 9", 16 pages.
Page 5 shown

This catalog is almost identical to catalog
number 7.

Number 10, circa 1936, 4" x 9", 16 pages.
Page 13 shown.

Similar to catalog number 8. Introduces
the "Protecto-Grip," a rubber covering
for cap lamp bottoms.

JUSTRITE The Dependable CARBIDE LAMP



1936-1937

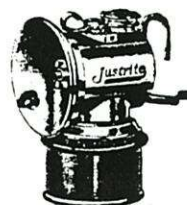
Universally Used

Unnumbered, 1936-1937, 3 3/8" x 6 1/8", 7 pages. Cover shown

No mention of mining is made in this brochure. It states "America's Favorite Carbide Lamp Used by HUNTERS - TRAPPERS - GUIDES - FORESTERS - FISHERMEN - FROGGERS - BOY SCOUTS - AND OTHER WOODSMEN." Was this catalog aimed at a particular market or did it reflect the declining demand for carbide lamps for use in mining? And was the phrase "Universally Used" a sly cut at the Universal Lamp Company?

Justrite
TRADE MARK
REG. U.S. PAT. OFF.

Mine Lamps AND Accessories



The Lamps that Put Daylight Underground

Catalog No. 10 A

JUSTRITE MANUFACTURING COMPANY
2061-87 Southport Avenue
CHICAGO, U. S. A.

Number 10A, circa 1938, 4" x 9", 16 pages. Cover shown.

Similar to catalog number 8 and 10. Horizontal and vertical styles with wire and polygon feeds are the only cap lamps shown. Introduces the round wire clip - in hat brace.