THE SNELL AND EVER-READY CARBIDE CAP LAMPS

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Determining the genealogy of a group of lamps from a particular company, or for lamps of similar appearance but from different companys, is often times a very vague and confusing task. The question of which lamp design or feature preceded another is often difficult--if not impossible--to ascertain. The only information known at a particular time concerning a group of lamps may often be interpreted differently by collectors. Such is the case with the Snell and Ever-Ready carbide cap lamps. Although the Snell lamp patent preceded that of the Ever-Ready, there is a question as to who originally manufactured the spherical water tank.

There is very little information known at this time about the Snell carbide lamp. The patent for the Snell lamp was filed for on October 27, 1910, by Frank Bradoc and William Frost of Athens, Illinois. The patent was granted on March 28, 1911, and was assigned to Arphad Snell of Tice, Illinois. The main features of the patent consisted of "a combined feed water and gas discharging pipe . . . projecting a short distance into said generating chamber, a branch gas conducting pipe connected to said combined water and gas pipe, and projecting through the side of said tank, a deflecting plate arranged in said combined pipe over the inner end of said branch pipe, a valve casing on the upper end of said combined water and gas pipe, a water controlling valve in said casing and a stem connected to said valve and projecting through the side of the tank whereby the valve is operated."

The main unanswered question is did Arphad Snell, when he began to manufacture his Snell lamp, construct the spherical water tank and later, after he went out of business, sell his water tank dies to Charles Hoppe? The Snell patent does indicate a sort of spherical water tank and most notably a side water control valve. Or, more probably, did Arphad Snell contract with the Charles Hoppe Company to manufacture the parts for his Snell lamp and after Snell went out of business, Charles Hoppe used these same dies to begin the manufacture of his own lamps--the Ever-Ready?

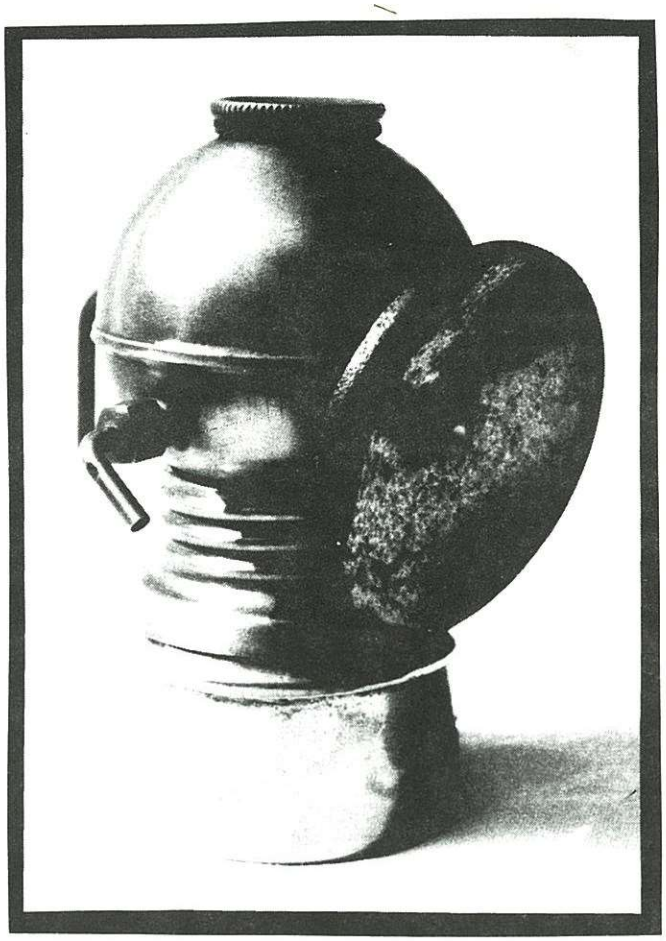


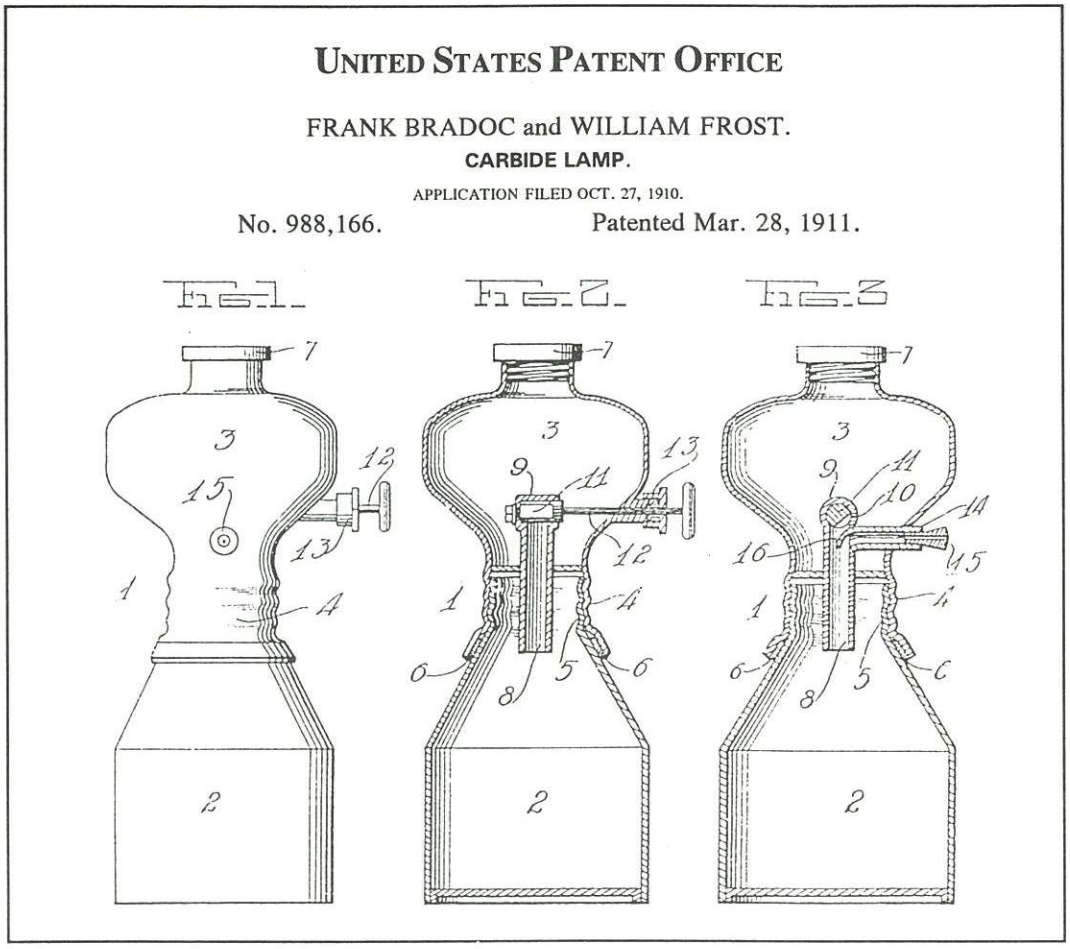
Figure 1. A photograph of the early style Ever-Ready carbide lamp. The water tank of the Snell lamp is identical, the only difference between the two lamps are their carbide containers. (Mark Bohannan collection)

What makes this question so interesting is that all of the Snell lamps known at this time (and there are only 4 complete lamps) have the spherical water tank style shown in Figure 1. The base of the lamp appears very similar to that shown in the patent and is marked:

THE SNELL LAMP
MAR 28, 1911

Although some features of the water valve are not the same as specified in the original patent (such as the gas tube connecting directly with the water tube), these features may have been changed to facilitate the manufacturing of the lamp. Since the marking on the bottom of the lamp contains the patent date, it is safe to assume that these lamps were all manufactured after the granting of Bradoc and Frost's patent in 1911.

Figure 2. The carbide container and bottom markings for the Snell lamp (left) and Ever-Ready lamps (right). As far as is known at this time, all of the Ever-Ready lamps have the bottom markings as shown above. Both bases are stamped with incused letters. (From *The Nearly Complete Bottom-Guide for Carbide Cap Lamps* by Wendell Wilson)



UNITED STATES PATENT OFFICE

FRANK BRADOC and WILLIAM FROST.

CARBIDE LAMP.

APPLICATION FILED OCT. 27, 1910.

No. 988,166. Patented Mar. 28, 1911.

Figure 3. The patent of Frank Bradoc and William Frost for what would become the Snell carbide lamp. Although many features in the known examples are different from those shown in the patent, many features, such as the side water control lever, the short water discharge tube and the shape of the carbide container, remained the same.

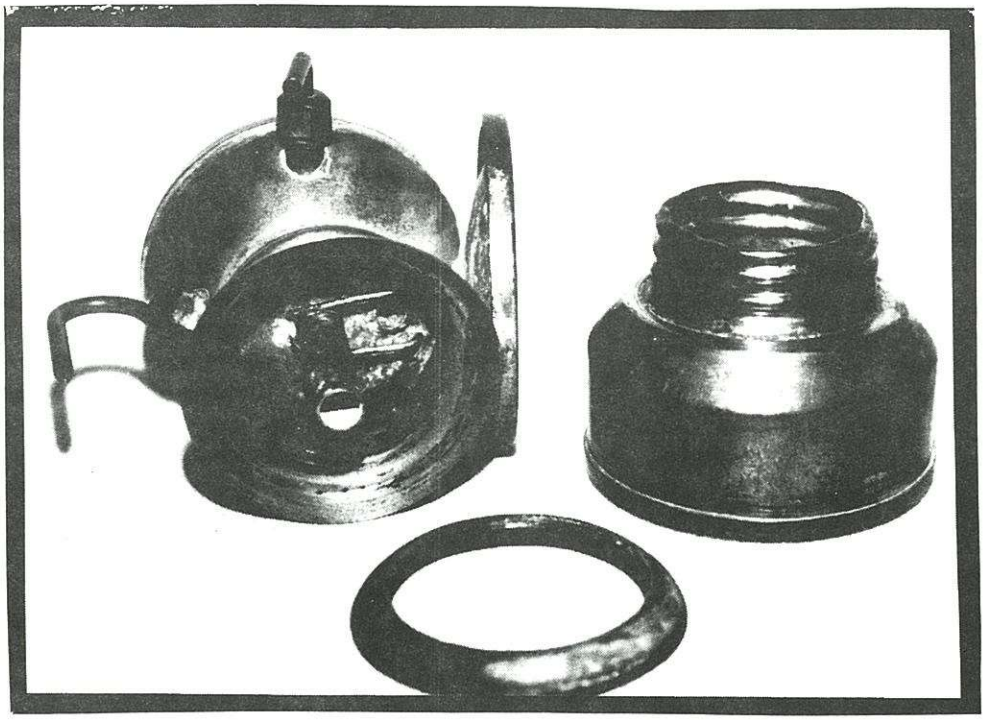


Figure 4. To the left is a photograph of a Snell carbide lamp with the carbide container removed to show the hollow water discharge tube. (Dave DesMarais photo)

Figure 5. Shown below is a 1914 advertisement from an issue of the *Engineering and Mining Journal* for the Ever-Ready carbide lamp.

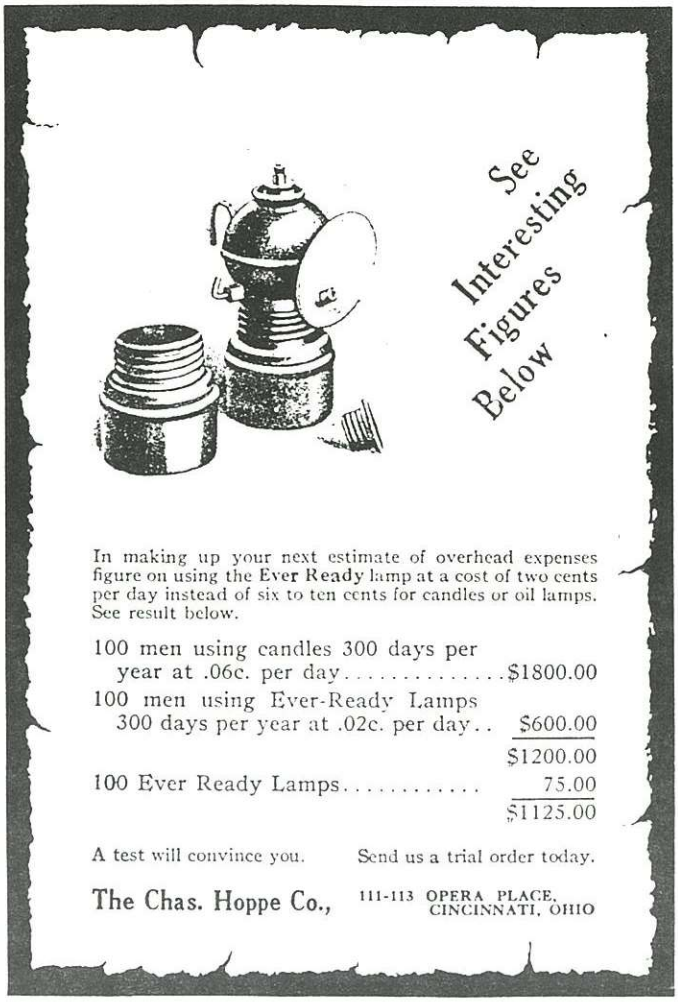
The Chas. Hoppe Co.,
ARTISTIC METAL WORK

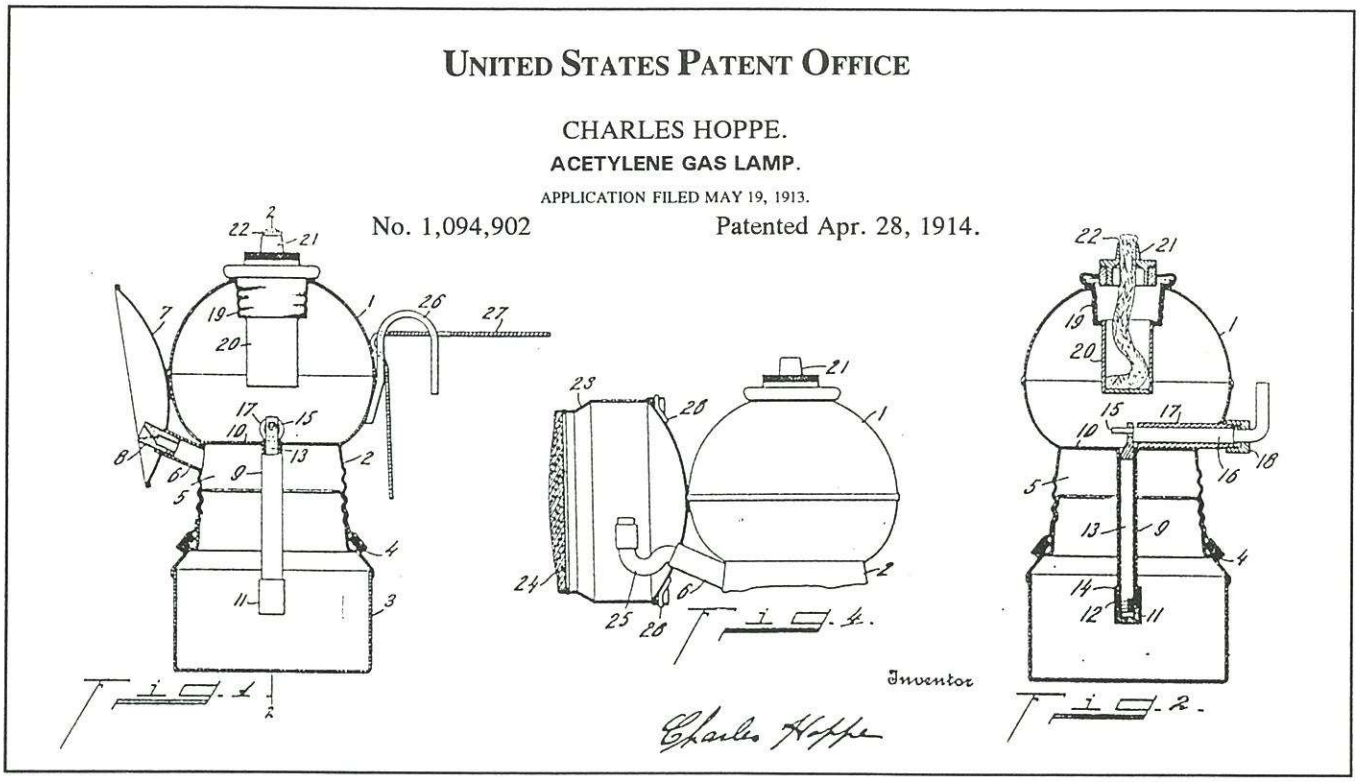
Brass, Aluminum and Bronze Castings. Metal Specialties and Platers.

OFFICE, 121 OPERA PLACE. 'PHONE CANAL 329.

When the first Ever-Ready was manufactured is unknown at this time. The Charles Hoppe Company was established prior to the turn of the century at 632 Main Street in Cincinnati, Ohio. The company was listed in an 1899 Cincinnati City Directory as "manufacturers of metal goods." The location of the company was moved to 121 Opera Place in 1912.[1]

On May 19, 1913, Charles Hoppe filed for a patent for "an improvement in portable acetylene gas lamps and principally to that type of lamp known as miner's lamp." Hoppe's patent dealt mainly with an improved water feed mechanism. This improved water feed was designed to discharge the water "upwardly in a direction with the expanding or swelling carbid [sic], preventing it from being forced into the channel or passage of the tube." The valve (#13 on the patent drawing) was "adapted to be reciprocated, to cleanse the channel and remove such deposit which may interfere with the feed of the water to the carbid [sic], with the valve regulation limited as to the consumption capacity of the lamp." The valve stem (#13) had an eccentric connection with the water control lever





UNITED STATES PATENT OFFICE

CHARLES HOPPE.

ACETYLENE GAS LAMP.

APPLICATION FILED MAY 19, 1913.

No. 1,094,902 Patented Apr. 28, 1914.

Inventor

Charles Hoppe

Figure 6. Charles Hoppe's patent for the Ever-Ready carbide lamp.

(#16). When rotated repeatedly, the valve was moved up and down, thus cleaning the lower discharge end of the valve. Any regulation of water was accomplished by only partially moving the water control lever.

The patent also furnished a description of a small oil lamp designed to be screwed into the top of the water tank. This small oil lamp was to be used in case of an emergency in the mine to furnish a light when the carbide in the lamp had been exhausted. Although advertised, there are no examples of an Ever-Ready carbide lamp with this attachment known to exist at this time.

Another provision in the patent was for a lens that was designed to be attached to the lamp's reflector. As far as known at this time, there is only one example of an Ever-Ready lamp with this lens attachment (see Figure 7).

Figure 7. A photograph of the only known example of an Ever-Ready lamp with the attachable lens. (Bill Spence photo)

Most of the information and advertisements for the Ever-Ready lamp are for the patented style lamp. Yet, there are a few examples of an earlier style Ever-Ready. This earlier style consists of a water tank that is identical to that of the Snell lamp. The only difference between the two lamps are the bases.

These two styles of Ever-Ready lamps are distinctly different in their size and water control mechanisms. In the Snell/early Ever-Ready lamps, the water tube is short and extends just into the carbide base--just as described in Bradoc and Frost's patent. The tube is hollow and is $^1/_4$" in diameter. The water control valve is basically a needle valve, the more the lever is turned, the more water that is discharged into the tube. The spherical water tank is 57 mm in diameter and sits right on top of the screw threads. The gas tube extends horizontally from the side of the water tank. The lamps came with a 2 $^1/_8$" diameter, plain tin reflector soldered to the middle horizontal seam of the water tank and at the lower flange of the threads (see Figure 8).

The later style Ever-Ready, on the other hand, looks identical to the patent drawings. The spherical water tank is a little smaller, 54 mm in diameter and on the top of the water tank there is a very small hole next to the water cap towards the back of the lamp. This hole is a vent hole for when the small oil lamp was inserted into the water filling hole. There is an inserted piece between the spherical top and the screw threads from which the gas burner tube extends angularly through the reflector. The reflector is 2 $^1/_2$" in diameter and is nickel plated. It is soldered to the middle horizontal seam of the water tank and to the angled gas burner tube (see Figure 8).

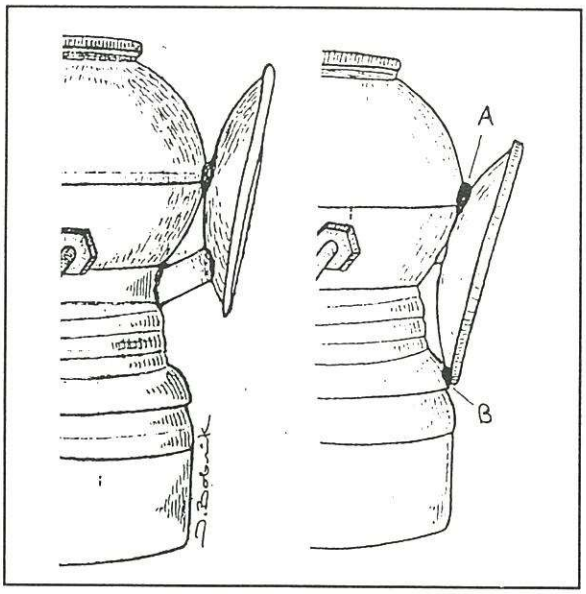


Figure 8. Side drawings of the Snell/early Ever-Ready (left) and the later, patented Ever-Ready (right) showing the position of the gas burner tubes and the spots that the reflectors are soldered to the lamps.

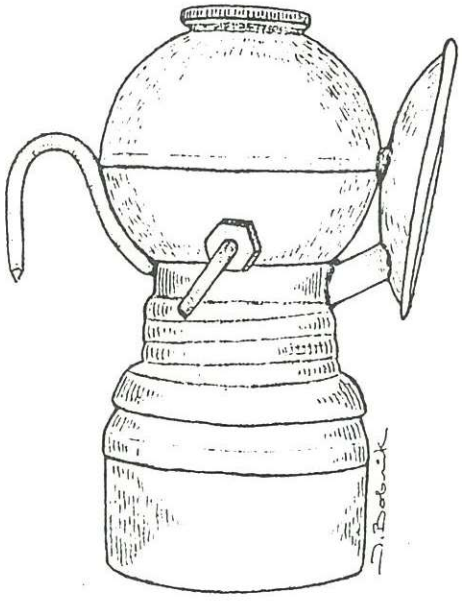


Figure 9. A drawing of the later, patented style Ever-Ready carbide lamp. This lamp is identical to the patent drawings in appearance and construction.

An article in a January 3, 1914 issue of the *Engineering and Mining Journal* states that the Ever-Ready lamps were made of "light spun brass lined with tin, weighs three ounces, is about 4 in. high and 2 $^1/_2$ in. in diameter overall." The article also stated that the lamps sold for $22.50 per dozen with the small oil lamp or $18.00 per dozen without the oil lamp. The lamp was sold with an extra carbide container with lid.

Some of the later, patented Ever-Ready lamps came with a curved, flat brass strap soldered to the back of the lamp which served as a hat brace. There is also an example of a steel Ever-Ready. Although there is now evidence at this time, this lamp was probably originally painted black similar to many of the Hoppe Brite-Lites which were produced later.

In 1915, Charles Hoppe became associated with the Harker Manufacturing Company--also of Cincinnati. While there, he created the Hoppe Brite-Lite (see MAC No. 13, Winter 1992) which utilized the same patent as the Ever-Ready.

1. Gregg S. Clemmer, American Miners' Carbide Lamps, (Tucson, Arizona: Westernlore Press, 1987), p. 75.