

**THE S.E. SIMMONS CARBIDE CAP LAMP****By Mark Bohannan**

One of the most unique looking and rarest carbide cap lamps is the one manufactured by the S. E. Simmons Manufacturing Company of St. Louis, Missouri.

On October 4, 1909, Samuel E. Simmons of Litchfield, Illinois, applied for a patent for a "certain new and useful Improvements in Carbide Lamps". On November 22, 1910, Simmons was granted a patent for his new lamp. The object of Simmons' new lamp was to provide a lamp "which will be compact and simple in form, containing both the water tank and generator in one receptacle, and wherein the admission

of the water may be nicely regulated".

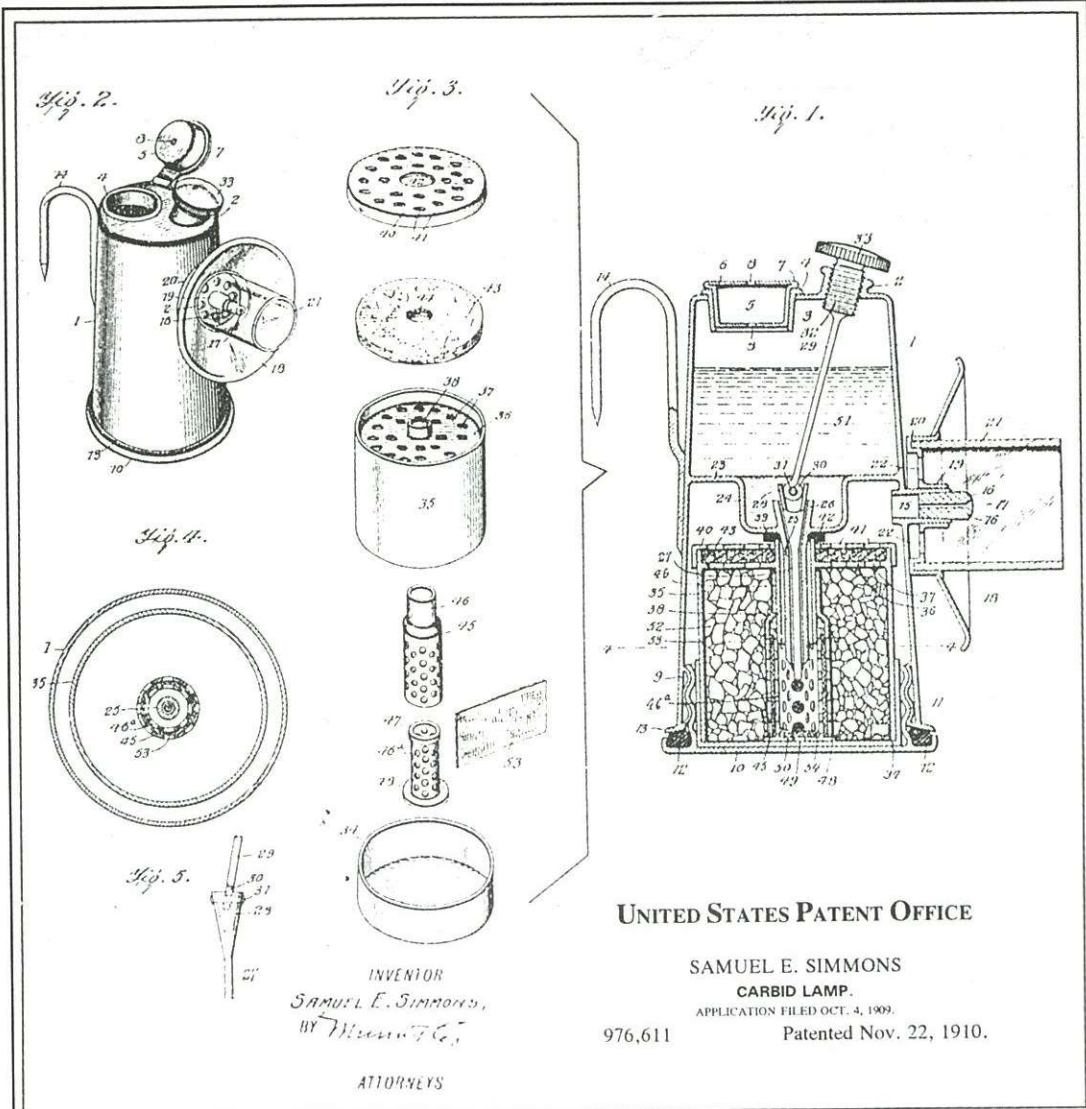
"A further object is to prevent the entrance of sediment to the carbide and to strain the incoming water and the outgoing gas".

The Simmons carbide lamp is divided into upper and lower compartments by a diaphragm. The upper compartment containing the water, while the lower contained the carbide. To operate the lamp according to the patent the carbide is introduced into the receptacle by unscrewing the bottom (10), and taking out the cup (34) and casing (35). The casing is then inverted and the cup removed. After filling the casing the parts are replaced and the water is poured into the upper compartments through the sleeve (3), after removing cup (5). During this operation the plug (27) is pushed into the tube (25) by means of the link, which is operated by turning the milled head (33). After the water is introduced, the plug is withdrawn sufficiently to permit the entrance of enough water to start generation of gas. The water passes through the tube (25), into the inner perforated tube (46<sup>a</sup>), through the cotton strip (53) and the outer perforated tube (45-46), to the carbide. The gas generated passes up through the carbide, out through the perforated top (36) of the casing, through the disc (43), and the perforated cap (40) into the space above the cup and below the diaphragm, and out at the burner plug (16) where it is ignited".

An unusual feature shown in Simmons' carbide lamp patent is in the make-up of the reflector. According to the patent, "...



A photograph of the S.E. Simmons carbide lamp. Note the lamp has a reflector similar to a Baldwin deep-dished reflector. (Errol Christman collection)



The original patent drawings for Samuel E. Simmons' carbide lamp patented on November 22, 1910.

a reflector (18), encircles the nipple, the reflector having a hub (19) which fits on the nipple, and an annular groove (20) for receiving a flue (21). Openings (22) are also provided in the wall of the reflector between the flaring portion and the hub, for admitting air to the burner. Sufficient air is supplied through the openings (22) to form a

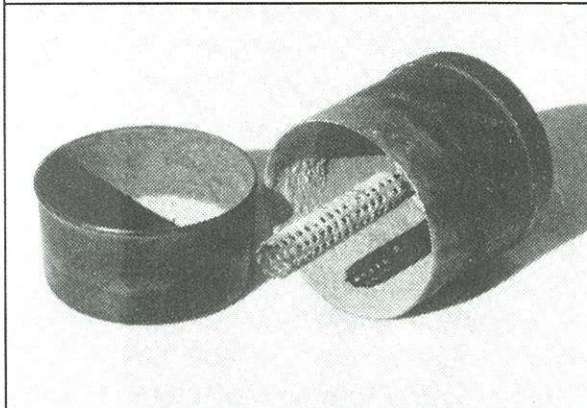
good mixture, and the flue (21) protects the flame from air currents”.

It appears that this flue was either short-lived or eliminated, as neither of the two known examples of S.E. Simmons carbide cap lamps have this flue. Even on the lamp shown on the company envelope, the reflector with a flue is not shown, but in-

## S.E. Simmons Carbide Cap Lamp



Photographs of the inside of the S.E. Simmons carbide lamp. (Errol Christman collection)



stead a reflector that is very similar to a flat dish Baldwin reflector. The S.E. Simmons lamp in Errol Christman's collection shown pictured in this article, has a reflector similar to a Baldwin deep-dished reflector. Since so few lamps are known to exist at this time, it is hard to tell if this is the wrong reflector for this lamp or if the S.E. Simmons Manufacturing Company decided that it would be less expensive to buy reflectors from the John Simmons Company (makers of the Baldwin carbide lamps) to use on their lamps.

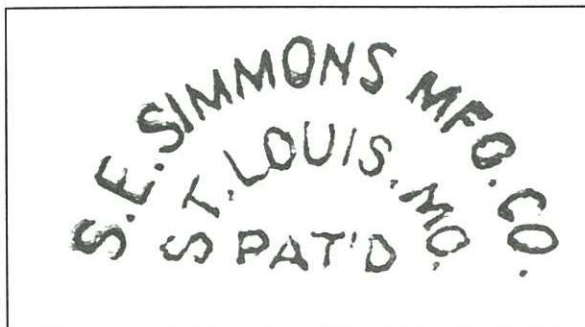
Samuel E. Simmons was born on December 3, 1867 in Litchfield, Illinois. Simmons was a coal miner who exhibited a

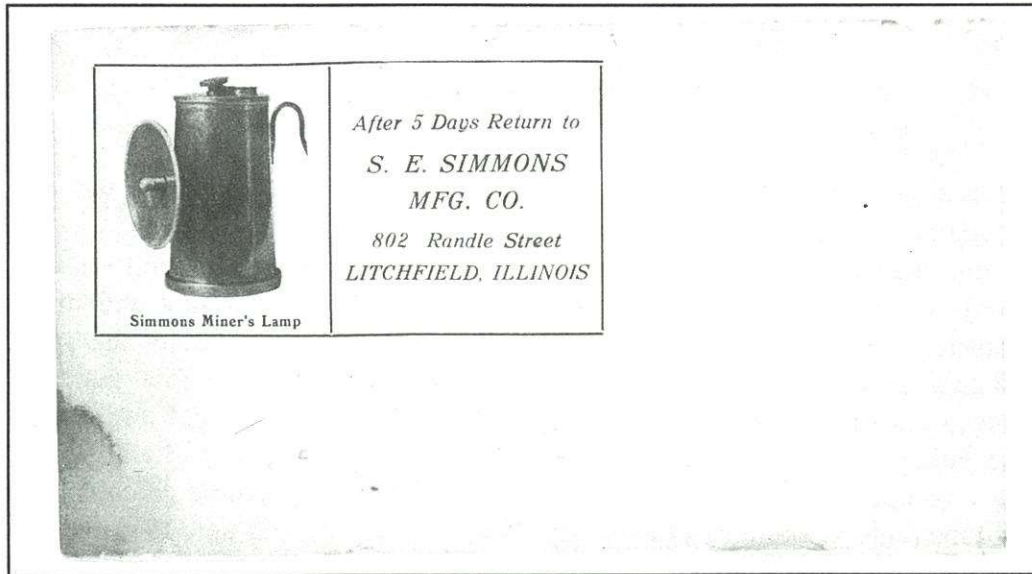
strong mechanical ability with a talent for inventing and innovating.

Simmons made his first lamps in his own workshop at home. His lamps were made of brass, but some of Simmons' family members remember that some of the lamps were made out of copper. Simmons' lamps were first used in the coal mines of the area and were reportedly accepted by some of the miners. Simmons also manufactured a screw-top carbide can to go along with his lamp, although none of the carbide cans are known to exist at this time.

It appears that the S.E. Simmons Manufacturing Company was started sometime around 1912. At this time, Simmons contracted with a St. Louis firm—possibly the Handlan Buck Manufacturing Company of St. Louis, who was listed in the 1921 Thomas Register of Manufactures as a “miners’ lamp manufacturer” to manufacture his lamps on a larger scale. By 1916 it appears that Simmons and the manufacturing company had a disagreement which ended their association.

After this, Simmons seems to have lost interest in manufacturing his lamps on a large scale, but continued to make lamps occasionally for his mining friends and acquaintances. In the early 1930's Simmons quit working in the mines and died on February 13, 1943, at the age of 75.





**References:**

Clemmer, Gregg S., **American Miners' Carbide Lamps: A Collector's Guide to American Carbide Lamp Lighting.** Westernlore Press, Tucson, Arizona, 1987. Pp 88-89.

Return address on envelope from the S.E. Simmons Mfg. Co, Litchfield, Illinois. (author's collection)



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