

Theophilus Bowen's Davy Lamp

Wendell Wilson

The Davy lamp—an oil lamp with the flame enclosed by a tall iron screen or “gauze”—was an early “safety lamp” design invented by Humphry Davy in 1816 as a light source (albeit a rather dim one) for use in methane-plagued coal mines where gas explosions were a constant danger. The design was particularly useful because the flame would become higher and brighter in the presence of methane (“firedamp” or “minedamp”), providing a warning, but would not ignite the atmosphere. It would also extinguish in the presence of low oxygen levels or dangerous levels of carbon dioxide (“black damp” or “chokedamp”). Consequently, the Davy lamp was used for over a century in British and American coal mines. In many cases a brass or copper reflector was wrapped around the lower part of the screen, making the flame project its light forward. Because they were so widely used for so long, Davy lamps are not particularly rare or expensive on the collector market, but their elegant shape and brass construction make them attractive additions to any collection of mining artifacts. (Amazingly, Davy lamps are still being made by several companies.)

One of the most prolific manufacturers of the Davy lamp (and the Clanny lamp, featuring a glass cylinder providing more light) was the Hughes Brothers company in Scranton, Pennsylvania, suppliers of mining equipment to the Pennsylvania coal mines. Their Davy lamps were typically 8.5 to 11.5 inches tall, plus a vest pocket edition measuring 4.75 inches, with a graceful concave cylinder base (oil chamber) and three bars (“standards”) connecting the cap assembly to the base. Stamped on the cap or around the top rim of the base was the maker’s name, “HUGHES BROS. SCRANTON, PA. U.S.A.”)

William S. Hughes, a skilled maker of safety lamps in South Wales, immigrated to the U.S. in 1882 and settled in Scranton. He had three sons, William H. (born in 1871), Ralph W. (born in 1875) and Sidney R. (born in 1877). The father was listed as working as a metal engraver after moving to Scranton until 1893 when he listed his occupation as a safety lamp maker at a new business located at 420 N. Main Ave. In 1898 the brothers William and Ralph formed the Hughes Bros. company at their father’s shop. Sidney joined the company as a partner in 1914. Hughes Bros. also introduced three new “Pathfinder” brand carbide mine lamps in the early 1910s. In 1918 the business moved to 410-412 North Ninth Avenue. After the end World War I, the demand for coal declined and along with it the demand for safety lamps. By 1929, William and Ralph Hughes had left the company, leaving Sidney in charge of the renamed Hughes Brass Works. The family business finally closed in 1937. (See Dave Thorpe’s, *Beneath the Surface – Inventors and Marketeers of the Miners’ Carbide Light*, pp 143-153.)

What makes any miner’s lamp more historically interesting, of course, is if it is marked with the name of the miner who owned it. In rare cases, Davy lamps have been known to carry the owner’s name engraved around the base or on the reflector. The example shown here is stamped “HUGHES BROS. SCRANTON, PA, USA.” around the rim. The most distinctive feature, however, is the oddly spelled name of “Theophelos Bowen” fancily engraved on the back face of the reflector.



THEOPHILUS BOWEN

Hughes Bros. Davy lamp signed "HUGHES BROS. SCRANTON, PA, USA." around the rim, and "Theophelos Bowen" (see below) fancily engraved on the back face of the reflector.



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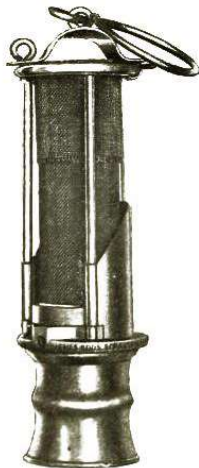
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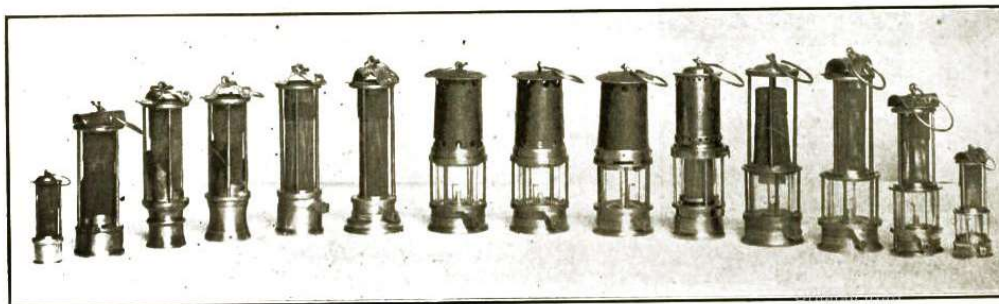
Safety first. You have every assurance that safety is first when using these lamps which have stood the test of Quality, Strength and Durability for over fifty years.

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Pathfinder Acetylene Lamps.

The Lamp shown is our Cap or Head Lamp. It is constructed from 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. One extra chamber furnished with each lamp.



Just for the record: **Theophilus Bowen** was a resident of Scranton, Pennsylvania, and served as a fireboss and section foreman for the Glen Alden coal mine. He was born in Aberdare, Glamorgan, Wales on January 13, 1869, the son of Sally Mellen and Benjamin Bowen, a coal miner at the Aberdare colliery. He appears on the Aberdare census for 1881 (already, at the age

of 13, with only an elementary school education, working in a coal mine) and immigrated to the U.S. in 1884, settling in Scranton and becoming a naturalized citizen.

Bowen lived in the Hyde Park neighborhood from 1894 until his death. He married Mary H. Evans in 1894 and together they had two daughters, Anna and Sarah. He was a member of the First Welsh Congregational Church, served as secretary of the Druid Glee Society in 1894 and received his Foreman's Certificate in 1898. In 1901 he was appointed Fireboss at the Hampton mine, where he had worked for several years. Very active in fraternal societies, he was a member of the Knights of Pythias (Deputy Grand Chancellor in 1911) and the Independent Order of Odd Fellows, serving as secretary in 1905. Also the Union Lodge No. 291, the Free and Accepted Masons, and the Keystone Consistory. In addition, he served as the Scranton correspondent for *The Druid*, the newspaper for Welsh people. He loved to sing on special occasions, and was known to give interesting coal-mining-related lectures. Example:

At the meeting of the Hyde Park Lodge, No. 306, Knights of Pythias, held in Masonic Hall last evening, Theophilus Bowen read a paper on "Chemistry and Coal Mining," which was enjoyed by all present. He described the various gases met with in coal mining and gave some very interesting information on the subject." (*The Scranton Truth*, May 8, 1909)

Theophilus Bowen died of heart failure in Scranton, Pennsylvania on August 31, 1945, at the age of 76, following a protracted illness.