

THE JACK DAVY SAFETY LAMP

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The first "Jack" Davy lamps were standard Davy lamps with the addition of an external glass cylinder surrounding the lower two-thirds of the gauze. This type of lamp was used in the North of England from about 1850.¹ The glass was supported from metal pegs above the oil reservoir which provided a gap and allowed air to enter through the gap and thus through the bottom of the gauze next to the flame. This modification allowed the common Davy lamp to be used in stronger air currents. An illustration of a similar lamp manufactured by Hughes Brothers of Scranton has been found,² although an example of this lamp has not been seen by the author.



Figure 1. Jack Davy lamp by Hughes Brothers of Scranton, Pennsylvania. Ted Bobrink collection

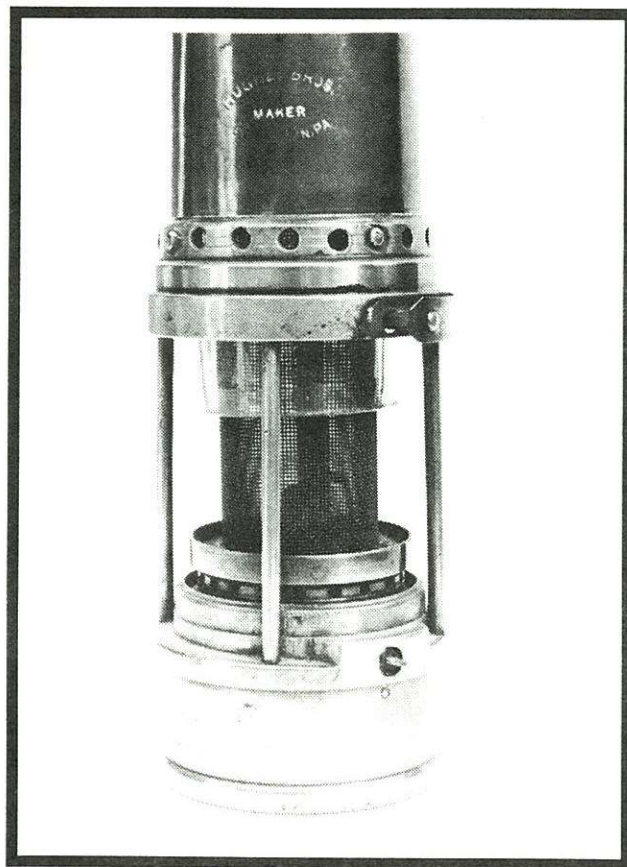


Figure 2. Jack Davy lamp by Hughes Bros. with the glass cylinder partly raised.

Some time later a bonnet was added and this form of Jack Davy must have achieved some degree of popularity in the United States judging from the number that have turned up in the Eastern part of the country. Three examples of this lamp manufactured by Thomas and Williams of Aberdare (South Wales) and one manufactured by Hughes Brothers have been examined by the author. Examples of both are shown in Figures 1 and 3. The Hughes Brothers lamp is also shown in their advertisement shown in Figure 4.

The lamp was intended as a testing lamp for use by fire-bosses. Normally the lamp is carried with the glass in the down position (as in the photographs) thus protecting the flame from strong air currents. Holes in the brass ring supporting the glass allow air to enter the lamp through the gauze next to the flame. When the lamp is used for testing, the glass cylinder is pushed up inside the bonnet where it is held in place by a peg and spring mechanism (Figure 2). The bonnet can be removed from the lamp without unscrewing the oil vessel.

This type of lamp is also referred to in the literature as a "bonneted" Davy (incorrectly, as there are several different types of Davy lamps with bonnets) and a "Cambrian." The origin of the "Cambrian" name is not known, but Thomas and Williams referred to many of their lamps as "Cambrian Model 1, 2, etc."

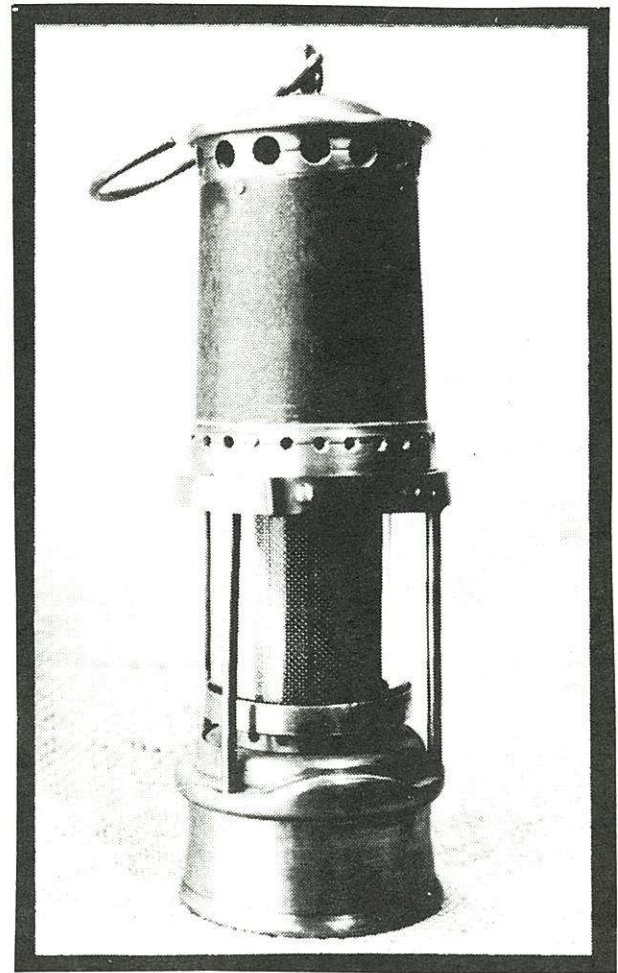


Figure 3. Jack Davy lamp by Thomas and Williams of Aberdare, South Wales. Tony Moon collection

HUGHES BROS.
 Manufacturers of
 Safety and Acetylene
MINE LAMPS
 Supplies of All Kinds
 424 No. Main Ave., Scranton, Pa.

Figure 4. An advertisement for Hughes Brothers safety lamps from a 1915 issue of Coal Age (Vol. 8, No. 19). The Jack Davy is fifth from the right.

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1. Spencer, A. J., *Catalog of the Collections in the Science Museum; Miner's Lighting Appliances*. HMSO, London, 1926.

2. Beard, James T., *Mine Gases and Ventilation*. New York, 1920. Figure 60.