

# The Oldham Cap Lamp

by Stephen J. McCabe

As a caver and an electrician from the Commonwealth of Australia the English mining lamp company Oldham & Son Ltd is well known to the author. Their electric cap lamps were the main stay for both mining and caving for many years only to be replaced in caving by the lighter and perhaps brighter LED lights. The average caver has no idea that Oldham produced an amazing number of different mining and engineering lamps. The lamp, which is the subject of this article the author believes, is their first attempt at a production model electric cap lamp.

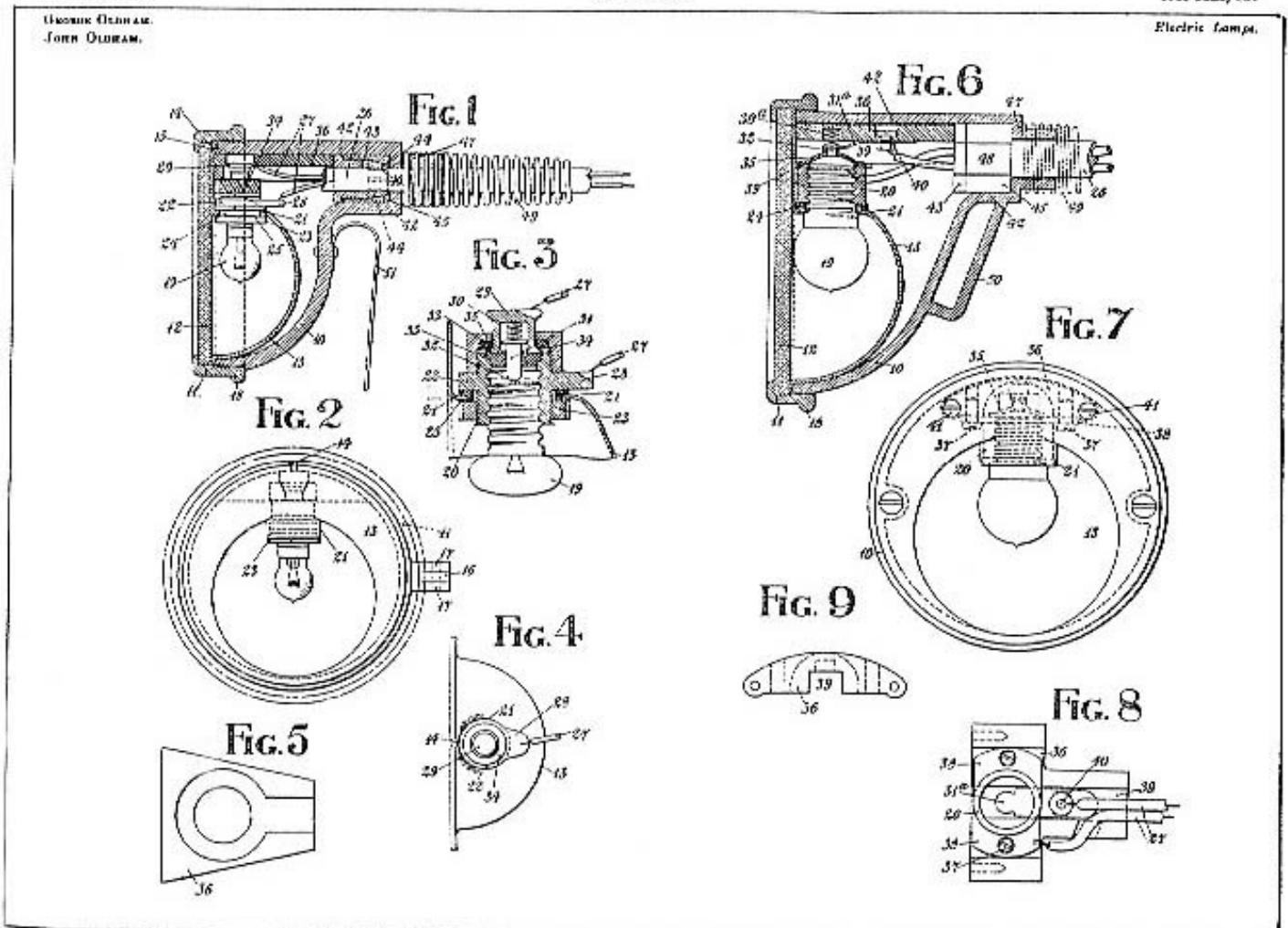
16 Apr., 1922.

AUSTRALIA

No. 6626/22.

GEORGE OLDHAM,  
JOHN OLDHAM,

Electric Lamp.



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Each drawing has 100% with drawing descriptions as follows.

One 11th. sheet.

Figure 1 is a sectional side elevation of a suitable construction of the lamp.

Figure 2 is a front elevation of the lamp with the lens ring removed.

Figure 3 is an enlarged sectional elevation of the bulb holder and the contact members.

Figure 4 is a plan of the reflector and contact member removed from the lamp body.

Figure 5 is an enlarged inverted plan of the insulating block.

Figure 6 is a view similar to fig 1 and illustrating a modified construction of the lamp (Lapel).

Figure 7 is a view similar to fig 2.

Figure 8 is an enlarged underneath plan of the insulating block, bulb holder and contact spring plate.

Figure 9 is a front-end view of the insulating block.

On 26th April 1922 (Anon 1922) George and John Oldham of 36 Hyde Road Denton, near Manchester, England lodged a patent application for "Improvements in or connected with electric lamps particularly adapted to be carried or supported on the person" at the Australian Patent Office. This application was granted on 22nd March 1923 and related to the headpiece of this lamp.



George and John Oldham both Engineers were interested in improving and simplifying the construction of the lamp so that the contacts and other parts can be easily and quickly repaired and maintained by unskilled workers without special tools making the lamp more economical and convenient.



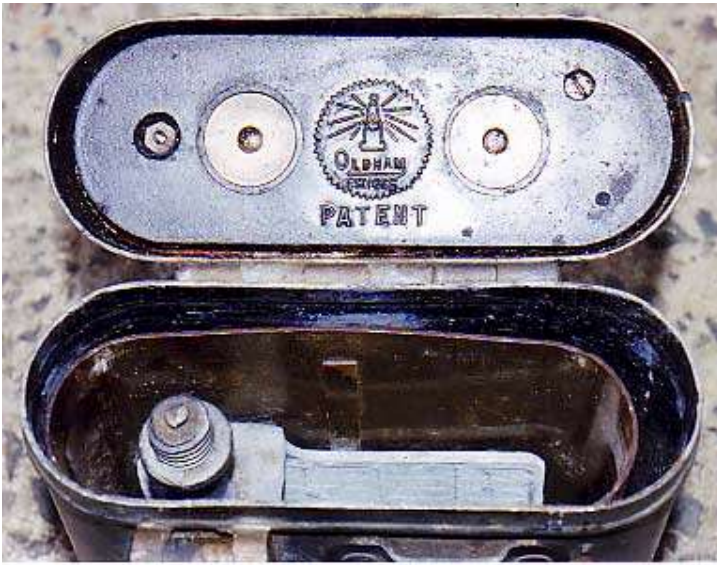
I have found very little documentation on this lamp with the exception of two paragraphs in a catalogue of Miners' Lighting Appliances (Spencer & Mech 1926). This description is very concise therefore it is rewritten below.

"This electric lamp, designed for wear on the head, has been approved for use in this country. The accumulator is of the rectangular type and is carried in a metal case strapped round the waist of the miner. The case, which weighs about 5lb., is most conveniently carried on the back or over the hip. The electrolyte used in the accumulator may be either solid or liquid, but the design of the accumulator obviates risk of spilling acid even when liquid electrolyte is used. The accumulator case is locked magnetically in the example shown, but lead plugs are also fitted. A rotary screw down switch is also mounted on the cell case by means of which the light may be controlled. The light bulb itself is carried in the front of a canvas cap and is connected to the cell by means of a very flexible, highly insulated, rubber-encased cable which is armoured at both ends, where the greatest bending stress is experienced, by steel springs wound round the outside. The lamp is rated to give an illumination of 3 c.p. for 10 hours continuous service with a considerable safety margin for exceptional circumstances. The glass in front of the light bulb is quite plain to give a diffuse illumination, but when a concentrated light is required the plate-glass front of the lamp can be replaced by a suitable lens."

The alloy headpiece appears to have been made in two versions, the standard hat mounted unit and a lapel or coat mounted version.

In 1992 the author attended the Aimex mining trade show where the Australian agent for Oldham had a stand and was manned by Mr. Geoff Purdy the then Product Sales Manager from Oldham who was out from England to help with the show. It was fortunate that the author had a photograph although rather poor of his early Oldham lamp. Geoff was very surprised with this lamp and stated that the only example known to the company was the one donated to a museum collection by the company (in 1925). The above reference must surely be a study of the lamp the Oldham representative was referring to. Unfortunately any further written history from Oldham was not forthcoming as correspondence from Mr. Purdy (Purdy 1992) indicated in a recent office move all old literature was disposed of.





In October 1999 the author visited another lamp collecting caver living in Canberra who to his surprise he had the accumulator section of this lamp which he only paid a few dollars for. This is the only other example although incomplete the author has seen. At the time the author didn't have a good camera therefore it wasn't until June 2003 that photographs and a comparison of the case with the complete lamp could be performed. The two accumulators marked The Oldham "Form C" are almost exactly the same with the only difference being that the complete lamp has a solid cast "T" cable connector, which

is not removable from the case whereas the other case has a socket arrangement enabling the headpiece and cable to be removed. Also of interest is the lock mechanism on the accumulator case is missing, whereas the complete lamp is locked, this allows the lid to be opened providing a view of the internal acid container and one set of lead plates. Another interesting surprise was the pillar less lamp Oldham logo with established 1865 pressed into the fibre insulation board.

The author considers this lamp as one of his favourite collection items and totally agrees with David Johnson (Johnson 1999) that early electric lamps have long been neglected and deserve more attention and respect. It is interesting to note that only two previous articles on electric lighting and both by the same author have appeared in the Eureka Magazine these being issues 31 & 33 (Johnson 1999 & 2000). Thank you to John Brush for allowing access to your collection and for enabling photographs to be taken.

## References

(Spencer & Mech 1926), Miners' Lighting Appliances Catalogue Of The Collections In The Science Museum, South Kensington 1926 compiled by A.J. Spencer & M.I. Mech.E. No.104 page 41.

(Anon 1922) Commonwealth of Australia Patent No. 6626/22, 26th April 1922.

(Purdy 1992) Personal correspondence between the author and Geoff Purdy of Oldham 3/6/1992.

(Johnson 1999), Eureka, Issue 31, Electric Cap & Hand lamps For Miners, pages 26 to 39 by David Johnson.

(Johnson 2000), Eureka, Issue 33, Draeger Electric Mine Lamp, pages 26 & 27 by David Johnson.