T. STRETTON.

MINER'S ELECTRIC SAFETY LAMP.

APPLICATION FILED MAY 10, 1920.

1,373,842.

Patented Apr. 5, 1921.

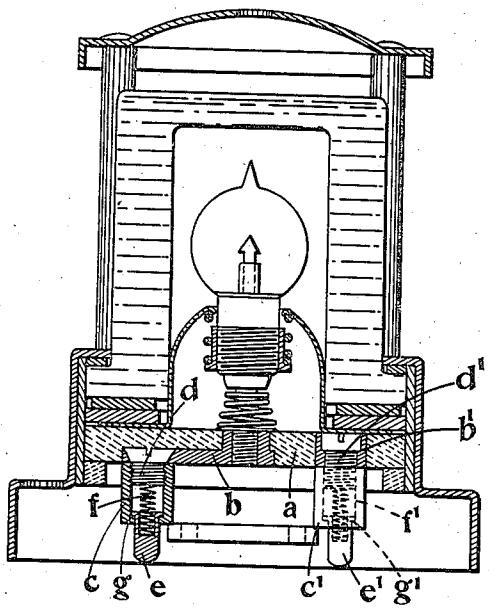


Fig. 1.

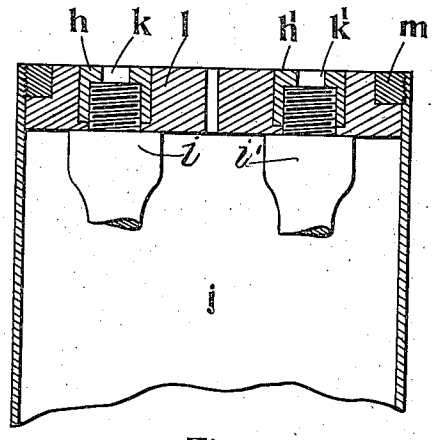


Fig. 3.

Fig. 4.

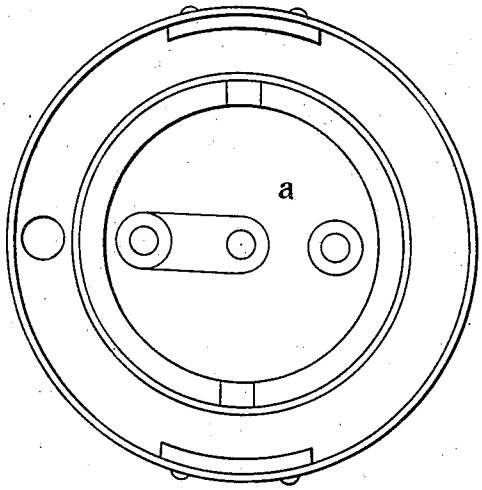
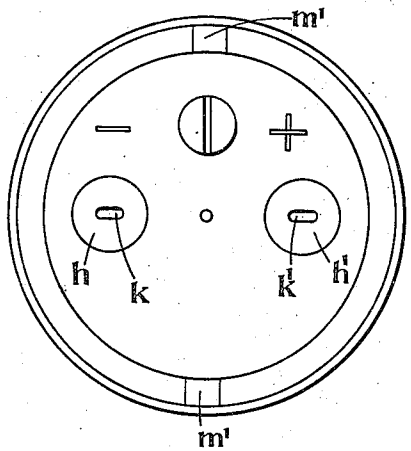


Fig. 2.



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MINER'S ELECTRIC SAFETY-LAMP.

1,373,842. Specification of Letters Patent. Patented Apr. 5, 1921.

Application filed May 10, 1920. Serial No. 380,254.

To all whom it may concern:

Be it known that I, THEODORE STRETTON, a subject of the King of Great Britain and Ireland, residing at 11 Windsor Place, Cardiff, Wales, have invented certain new and useful Improvements Relating to Miners' Electric Safety-Lamps, of which the following is a specification.

This invention relates to miners' electric safety lamps in which spring contact plugs are mounted on the contact plate carried on the upper part of the lamp, and in which screws are used for securing to the contacts the hollow cylindrical members by which the spring pressed plugs are carried.

The invention consists of a construction comprising the following elements: a contact plate of insulating material, two contacts mounted in said plate and having their respective upper and lower faces flush with the respective upper and lower faces of the contact plate, hollow cylindrical members internally screw threaded at their upper ends for connection with the respective contacts on the under face thereof by means of countersunk screws whose top faces are flush with the respective faces of the contacts, and spring pressed plugs at the lower ends of the said cylindrical members as hereinafter described.

The invention comprises the construction hereinafter described with reference to the accompanying drawing in which—

Figure 1 is a sectional elevation of the upper part of the lamp.

Fig. 2 is an under plan corresponding thereto.

Fig. 3 is a sectional elevation showing the upper part of the cell adapted for use when the top of the lamp is constructed according to Fig. 1.

Fig. 4 is a plan corresponding to Fig. 3.

In carrying the invention into effect according to one construction such as that described in the specification of a co-pending application, Serial Number 316,793, dated 11th August, 1919, which is now Patent 1,352,636, dated Sept. 14, 1920, I provide beneath the two contacts b b^1 on the under side of the contact plate a two hollow cylindrical members c c^1, the bore of each of which at the upper end is screw-threaded for the reception of the screw threaded stem of a counter-sunk screw d d^1 which is inserted into the contact b b^1 from the top and before the respective contacts are mounted within the contact plate a. The lower end of the cylindrical members c and c^1 is provided with a hole of a diameter slightly less than that of the main part of its bore for the retention of a plug e e^1 respectively. This plug at its upper end is provided with a central hole for the reception of the end of a spiral spring f f^1 respectively, the opposite end of which contacts with the lower end of the counter-sunk screw d or d^1 and the plugs e e^1 are provided at their upper ends with an outwardly extending shoulder g or g^1 by which the plug is retained within the cylindrical member.

It will be understood that flush contacts h h^1 are mounted on the electrode terminals i i^1 of the cell j. For this purpose the electrode terminals are screw threaded and the contacts h h^1 are formed with a cylindrical cavity at their lower ends, the bore of which is screw threaded for the reception of the electrode terminals i i^1 respectively. An elongated hole k k^1 is advantageously provided at the upper end of the contacts h h^1 by means of which they may be rotated for being screwed upon the electrode terminals. The electrodes are carried upon the cover plate l of the cell and at the top near the edge an annular groove is provided for the reception of a screw threaded ring m by means of which the plate is secured in position upon the cell. Recesses m^1 in diametrically opposite positions on the ring m serve the purpose of rotating it into or out of position.

By such a construction it will be understood that the spring contacts carried upon the contact plate b are not liable to corrosion due to the acid from the cell and that the cell may be re-charged in exactly the same way as other cells except that the contacts of the charging board would be in contact with the flush contacts instead of in contact with the usual spring contacts.

I claim:

In a miner's lamp, in combination, the following elements, a contact plate of insulat-

ing material, two contacts mounted in said plate and having their respective upper and lower faces flush with the respective upper and lower faces of the contact plate, hollow cylindrical members internally screw threaded at their upper ends for connection with the respective contacts on the under face thereof by means of countersunk screws whose top faces are flush with the respective faces of the contacts, and spring pressed plugs at the lower ends of the said cylindrical members, substantially as described.

THEODORE STRETTON.