March 25, 1941. A. SAMUELS 2,236,384

FLASHLIGHT

Filed Jan. 18, 1939

Fig. 5.

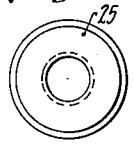


Fig. 6

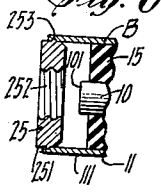


Fig. 1

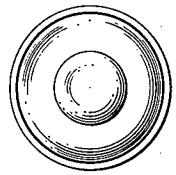


Fig. 8

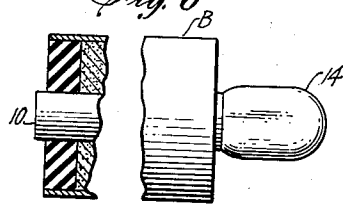


Fig. 7

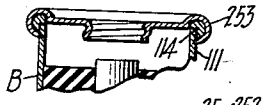


Fig. 2

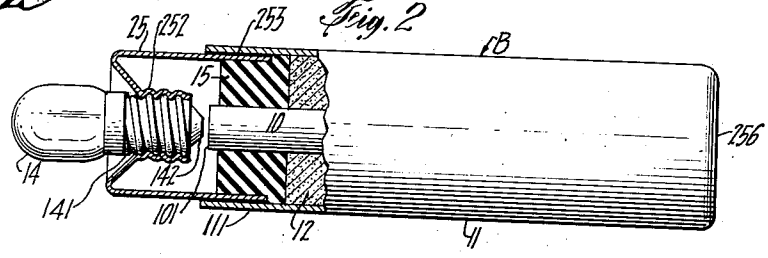


Fig. 3

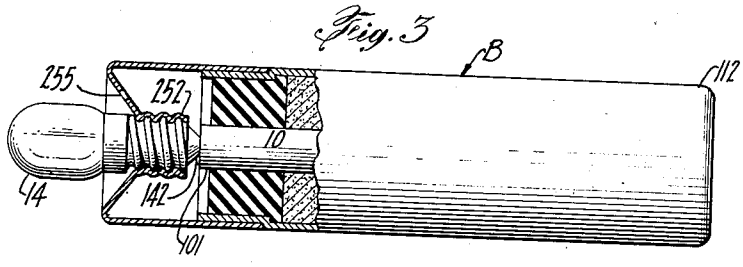
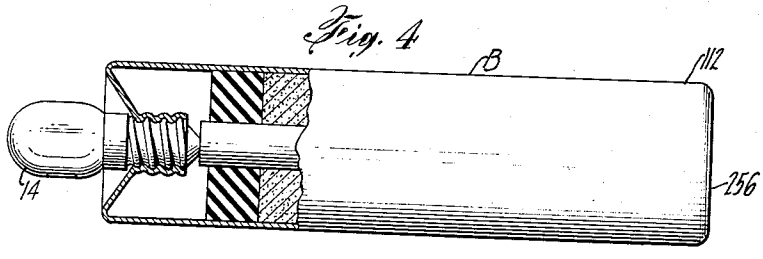


Fig. 4



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FLASHLIGHT

Arthur Samuels, New York, N. Y.

Application January 18, 1939, Serial No. 251,462

1 Claim. (Cl. 240—10.61)

This invention relates to improvements in flashlights and more particularly to an improved light supporting means such as a cap or plug or the like adapted to be formed integral with the shell cup of the usual dry cell battery or to be irremovably placed on the battery so as to mount the lamp extending accessibly outside the carrier.

An object of this invention is to provide an improved economical lamp supporting means permanently directly engaged with an end or other portion of a dry cell battery shell and adapted, cooperatively with the shell, to protect the inner parts of the battery as a cover therefor.

A further object is to provide an improved flashlight attachment for mounting a lamp which is inexpensive to manufacture, attractive in appearance, readily applied to a battery and which saves the cost of the usual separate outer case for such a battery.

These and other objects of the invention will be obvious and will be hereinafter more fully described.

In the drawing:

Fig. 1 is a top plan view of my device.

Fig. 2 is an elevational view partly in cross section, showing the lamp in the lamp carrier, the circuit through the lamp being open.

Fig. 3 is an elevational view partly in cross section, showing the device with the circuit through the lamp closed.

Fig. 4 shows the lamp carrier integral with the cell cover.

Figs. 5 and 6 show respectively plan and fragmentary sectional views of lamp carrying means.

Fig. 7 shows a fragmentary sectional view of an embodiment of my lamp carrier.

Fig. 8 shows the lamp carrier attached at the lower end of the cell.

Referring to the drawing, the battery or dry cell B, has a suitable electrode **10**, which forms one terminal thereof. The other electrode is in the form of a preferably zinc cup **11** which also serves as a container for the usual suitable electrolytic paste **12** and depolarizing material. A pitch seal **15** may be provided.

I employ suitable lamp carrying means **25**, such as a cylindrical sheet metal cover, Figs. 2, 3 and 4, or preferably a tapered plug, Fig. 6, the outer edge **251** of which plug may be suitably and permanently engageable, as at **253**, with extending shell portion **111**. The lamp carrier may be concentrically threaded **252**, to receive the threaded stem **141**, of lamp **14**, having terminal **142**. The lamp is preferably of the focusing tip type, and is thus arranged so that its bulb extends outside the carrier and is outwardly accessible, relative to the end of the device, to be turned in its socket. The end **101**, of electrode **10**, preferably projects as shown. The electrode **10** and closure **15** are usual in such a cell which may also comprise the zinc cup **11**. The electrolyte **12**, surrounds electrode **10** and is confined in cup **11** by pitch seal **15**.

At its inner end **253**, the carrier cover may have means integral therewith cooperating with means on shell portion **111**, such as indents and detents respectively, or solder, to permanently and nonturnably fasten the cover **25** to the cup **11**. Fig. 7 discloses a cover having its outer edge turned over a bead **114** formed on shell portion **111**.

In the embodiment of Fig. 4, in which the cover may be formed integral with cup **11**, perforations **255** may be provided to facilitate filling the cup, or a plug **256**, and hole therefor may be provided at end **112** for this or other purpose. There is thus disclosed an economical bulb receptacle integral with the extension of the usual cup.

Simply turning the lamp inwardly to permit the terminal **142** to contact with the adjacent end of electrode **10** and so close the circuit through the lamp as in Fig. 3, causes the lamp to light. The moment the lamp is thence turned outwardly of its socket, as in Fig. 2, the contact is broken and the lamp extinguished. Said turning movement of the lamp provides suitable switch means and eliminates the usual switch means additionally common to flashlights.

It is noted that in the present device no usual outer separate additional battery case is needed to provide a complete flashlight. It is also seen that the lamp carrier may be formed to align the lamp angularly with the cell. The lamp carrier may be mounted on the side of the cell. A suitable wrapper of paper or the like may surround the cell. A pocket clasp may also be attached to the side of the cell.

The disclosure is intended to be illustrative rather than limitative. Parts may be used without others.

I claim:

A device of the character described, comprising in combination, a battery cell having an outer wall cylindrical cup terminal of one polarity containing therein an inner terminal of opposite polarity and a sealed electrolyte filler; said outer terminal having an upper integral portion extending tubularly above said seal; a lamp carrier socket having integral means for connecting and mounting the socket in fixed position solely with the outer terminal upper extension and in spaced

relation with the seal and filler; said means being a disc and having peripheral means to cooperate with cooperative means on the tubular extension to interlock said members; said peripheral means comprising a bead on the peripheral edge of the disc and cooperative recess therefor on the inner surface of the upper extension; said disc having integral lamp-mounting means therewith; said lamp being movable in said socket so as to make or break the circuit of said cell when moved in or out of contact with said inner terminal; a portion of said lamp extending outside of said disc and cell.

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