Oct. 6, 1942. A. J. DESIMONE 2,298,042

FLASHLIGHT

Original Filed Jan. 11, 1939

Fig. 1.

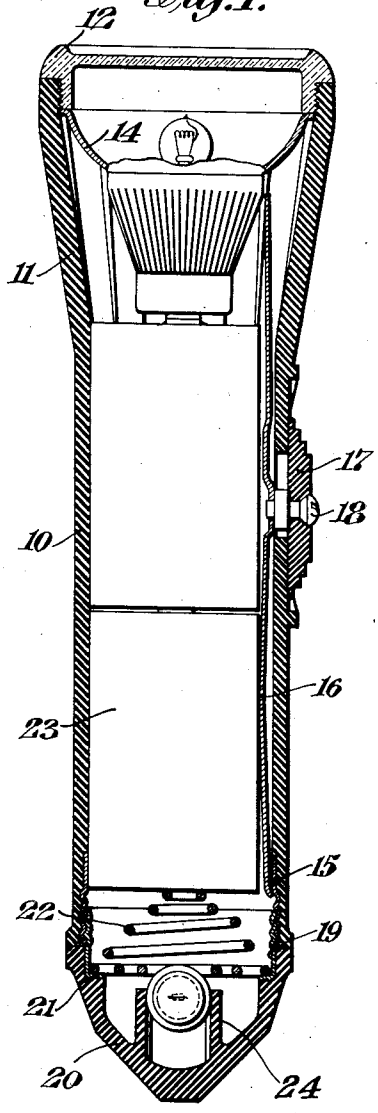


Fig. 2.

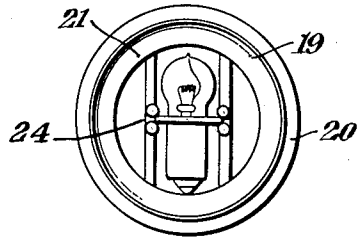


Fig. 4.

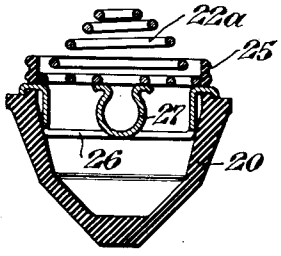


Fig. 5.

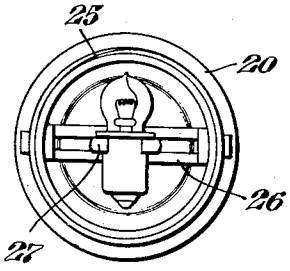


Fig. 6

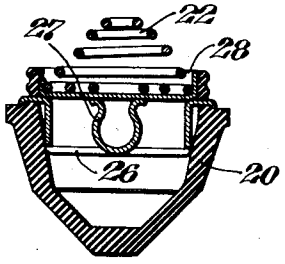
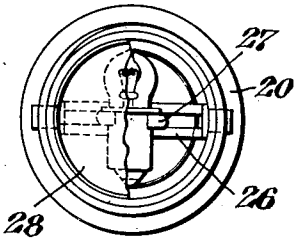


Fig. 7.



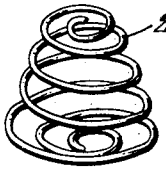


Fig. 3.

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UNITED STATES PATENT OFFICE

2,298,042

FLASHLIGHT

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Original application January 11, 1939, Serial No. 250,255. Divided and this application March 14, 1940, Serial No. 323,861

1 Claim. (Cl. 240—10.66)

This invention relates to flashlights and more especially to flashlights having a tubular casing composed of insulating material, such for example, as the material commercially known as Lumarith.

An object of this invention is an improved base cap, contact spring and spare bulb holder assembly for such type flashlight.

In a flashlight embodying the invention, the base cap, as well as the tubular casing is composed of molded insulating material and in one form a metal sleeve threaded at one end is molded into said cap with the threaded portion exposed, the sleeve or ferrule having an inwardly projecting flange at its inner end. The threaded portion of the sleeve engages a similarly threaded portion of a sleeve or ferrule molded in one end of the tubular casing. A spiral spring member is seated in the cap sleeve on the flange and serves to make electrical contact between the sleeve and the battery. The cap beyond the flange is hollow except for integral guide members forming a spare bulb socket and the spring has an extension overlying said socket to hold a spare bulb therein. In another form of base cap, the sleeve is dispensed with and a metal strip extends across the base cap and through apertures in its walls. The cap is provided with an integral threaded portion which engages with the threaded portion of the casing ferrule and the ends of said metal strip are arranged to engage the casing ferrule for the purpose of completing the energizing circuit. The battery engaging spiral spring is supported by the metal strip which is suitably formed to support a spare bulb within the hollow of the base cap.

Other objects, novel features and advantages of this invention will become apparent from the following specification and accompanying drawing, wherein:

Fig. 1 is a longitudinal section through a flashlight embodying the invention;

Fig. 2 is an end view of the base cap of Fig. 1 with the battery supporting spring removed;

Fig. 3 is a view of the battery spring;

Fig. 4 is a section through a modified form of base cap;

Fig. 5 is an end view thereof;

Fig. 6 is a section through still another modification of base cap, and

Fig. 7 is an end view thereof.

The flashlight comprises a tube of molded insulating material such, for example, as cellulose acetate in the form commercially known as Lumarith, said tube having a flaring head 11 closed by a lens 12 and containing a reflector and bulb assembly 14.

In the end of the tube 10 opposite the flared end 11 is molded a threaded ferrule 15. A contact strip 16 engages the ferrule 15 and extends toward the reflector assembly 14. The strip 16 has an offset portion extending into a slot in the tube 10 and is connected to a button 17 of insulating material through the medium of a screw 18. The strip 16 is moved into and out of engagement with the reflector assembly 14 for the purpose of opening and closing the bulb circuit, the strip 16 being always in contact with the ferrule 15.

In the modification illustrated in Fig. 1, a metal sleeve or ferrule 19 threaded at one end is molded into a hollow base cap 20 of molded insulating material with the threaded portion extending beyond the cap, said threaded portion being screwed into the threaded portion of the ferrule 15. The sleeve 19 has an inwardly directed flange 21 on which is seated the longest diameter coil of a double flashlight spring 22. The end of one spiral portion of the spring 22 engages the battery 23 to press it into contact with the reflector assembly and the other spiral portion of the spring overlies the spare bulb socket, later to be described, to hold the spare bulb therein. Beyond the flange 21, the cap 20 is hollow except for integral guide members 24 which are so shaped as to receive the flange of a spare bulb and hold it in the interior of the cap.

In the modification shown in Figs. 4 and 5, the base cap 29 is hollow and is provided with an integral exteriorly threaded portion 25 which may be screwed into the threaded portion of the ferrule 15. A metal strip 26 extends across the cap and has its ends projecting through apertures in the portion 25. A single battery-engaging spring 22*a* rests upon the strip 26 and is supported thereby both mechanically and in electrical contact. The strip 26 is provided with struck-out arms 27 for receiving and supporting a spare bulb.

The arrangement illustrated in Figs. 6 and 7 is generally similar to that illustrated in Figs. 4 and 5, except that a cap 28 receives the bottom end of the single spiral spring 22*a* and in turn rests upon the cross-strip 26.

The advantage of the base cap structure illustrated in Fig. 1 resides in the fact that electrical contact is established between the ferrule 15 and the spring 22 immediately upon engagement between the threads of the cap and of the tube. It is not necessary completely to thread the cap on

to the tube before such contact is established as is the case in the other two forms.

This application is a division of the patent to Anthony J. Desimone, No. 2,229,495.

I claim:

In a flashlight, a base cap of molded insulating material, a metal sleeve threaded at one end molded into said cap with the threaded portion exposed and having an inwardly projecting flange, and a spiral spring member seated in said sleeve on said flange, said cap beyond said flange being hollow except for integral guide members forming a spare bulb socket and said spring having an extension overlying said socket to hold the spare bulb therein.

ANTHONY J. DESIMONE.