Jan. 21, 1941. A. J. DESIMONE 2,229,494

FLASHLIGHT

Filed April 30, 1938

Fig. 1.

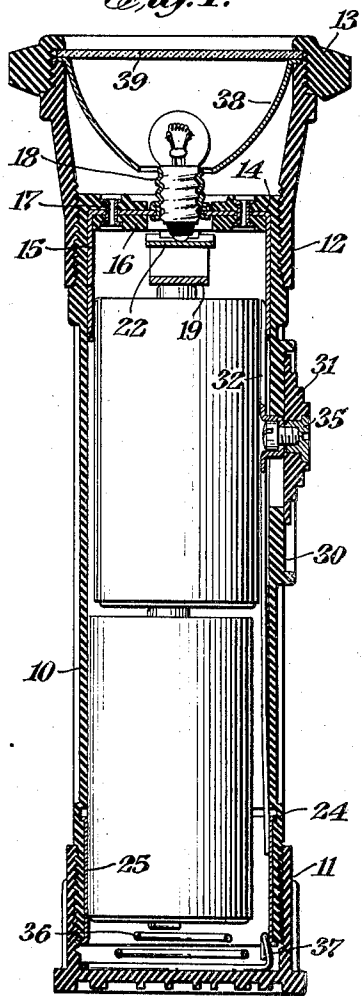


Fig. 3.

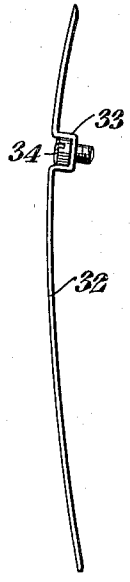
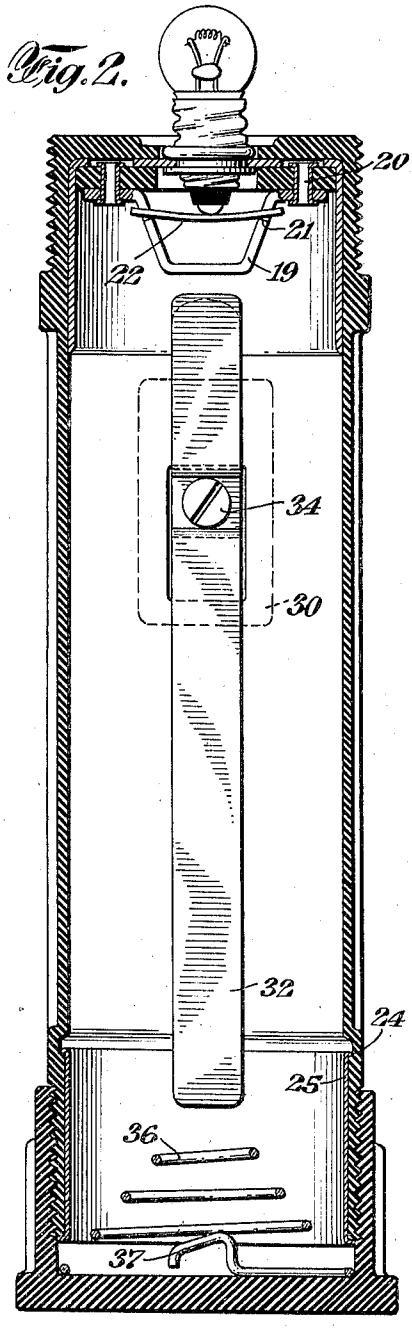


Fig. 2.



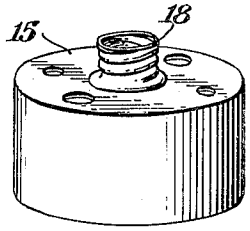


Fig. 4.

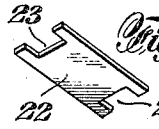


Fig. 6.

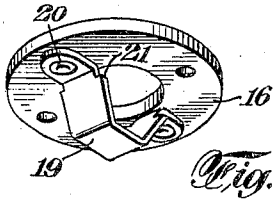


Fig. 5.

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Patented Jan. 21, 1941

2,229,494

UNITED STATES PATENT OFFICE

2,229,494

FLASHLIGHT

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Application April 30, 1938, Serial No. 205,147

2 Claims. (Cl. 240—10.6)

This invention relates to flashlights.

An object of this invention is a flashlight of novel construction and arrangement of parts in which the casing is composed of insulating material such, for example, as cellulose acetate whereby there is a complete absence of exposed metal in the flashlight.

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 enlarged section substantially on the line 2—2 of Fig. 1 with some of the parts removed, and

Figs. 3, 4, 5 and 6 are details of various parts of the flashlight.

In the flashlight illustrated by the drawing, the tube 10, base cap 11, head 12 and lens ring 13 are all composed of thermoplastic material such for example, as cellulose acetate and are formed by the injection molding process. During the molding of these parts, threads are provided either interiorly or exteriorly whereby they may be assembled as shown in Fig. 1 to form a flashlight casing.

One end of the battery tube 10 is provided with an inwardly directed integral flange 14. A metal cup 15 is arranged in the battery tube 10 with its bottom in contact with the flange 14. In the metal cup is provided an insulating washer 16 and rivets 17 connect the washer and cup to the flange 14. A threaded socket 18 is fastened to the bottom of the cup 15 and passes through the bore in the disk or flange 14. A metal bridge member 19 has its ends connected to the washer 16 by rivets 20 which register with apertures in the bottom of the cup 15, the apertures being of such size that there is no metal to metal contact between the rivets and the cup. The member 19 is reduced in width near its ends to form shoulders 21 and a resilient metal strip 22 is provided with recesses 23 in its ends which receive the narrower portions of the member 19, the strip spanning the lower end of the socket 18.

A metal ferrule 25 is fitted into the bottom end of the battery tube 10 and its inner end is rolled inwardly into a groove as at 24 in the tube for locking the ferrule in place. A platform 30 is formed on the battery tube integral therewith and supports a thumb slide 31, of the same composition as the tube. Within the tube 10 is arranged a resilient metal strip 32 having an offset 33 in which is arranged a bolt 34. In the tube 10 is a slot in which the offset 33 is arranged and the thumb piece 31 is provided with a slotted nut 35 which is threaded on to the bolt 34. The strip 32 is of such length that when the thumb slide 31 is in the position shown in Fig. 1, its ends engage both the cup 15 and the ferrule 25 but when it is retracted from such position, the upper end is moved out of contact with the cup 15. The strip 32, therefore, acts as a switch member for closing and opening the bulb circuit.

In the base cap is provided a convolute spring 36, the upper end of which engages a battery in the tube 10. The lower turn of the spring is provided with an upstanding portion 37 which, when the base cap is fully threaded on to the battery tube engages the ferrule 25.

The positive terminal of the battery engages the bridge 19 and current is transmitted through the bridge 19 and flexible member 22 to the center contact of a bulb arranged in the socket 18. In the event of shock being applied to the flashlight, the bridge 19 protects the bulb against damage resulting from movement of the batteries in the tube 10. In the head 12 are provided the usual reflector 38 and lens 39 which are held in place by the ring 13. If desired, the ring 13 may be made of translucent material so that in the event the flashlight is stood upside down on a table or the like, it can be ascertained by observation of the ring 13 whether or not the bulb is energized.

I claim:

1. A flashlight comprising a tube of insulating material having an inwardly projecting integral annular flange at one end, a bulb socket, means supporting said socket from said flange, a rigid substantially U-shaped member having shoulders formed in its edges adjacent its ends, means supporting said member from said flange, and a resilient member spanning said U-shaped member for engagement by a bulb terminal, said resilient member having a recess at each end in which is received one leg of said U-shaped member with portions of said resilient member engaging said shoulders.

2. A flashlight comprising a tube of insulating material having an inwardly directing flange at one end, a metal cup in said tube with its closed end contacting said flange, a bulb socket carried by said cup and projecting through said flange, a rigid substantially U-shaped member having shoulders formed in its edges adjacent its ends, means insulatingly supporting said U-shaped member from said cup with its bow portion engageable by a battery terminal, and a resilient member spanning said U-shaped member for engagement by a bulb terminal, said resilient member having a recess at each end in which is received one leg of said U-shaped member with portions of said resilient member engaging said shoulders.

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