Jan. 5, 1926. 1,568,093

J. L. SHANNON

FLASH LIGHT

Filed March 14, 1925

Fig. 1.

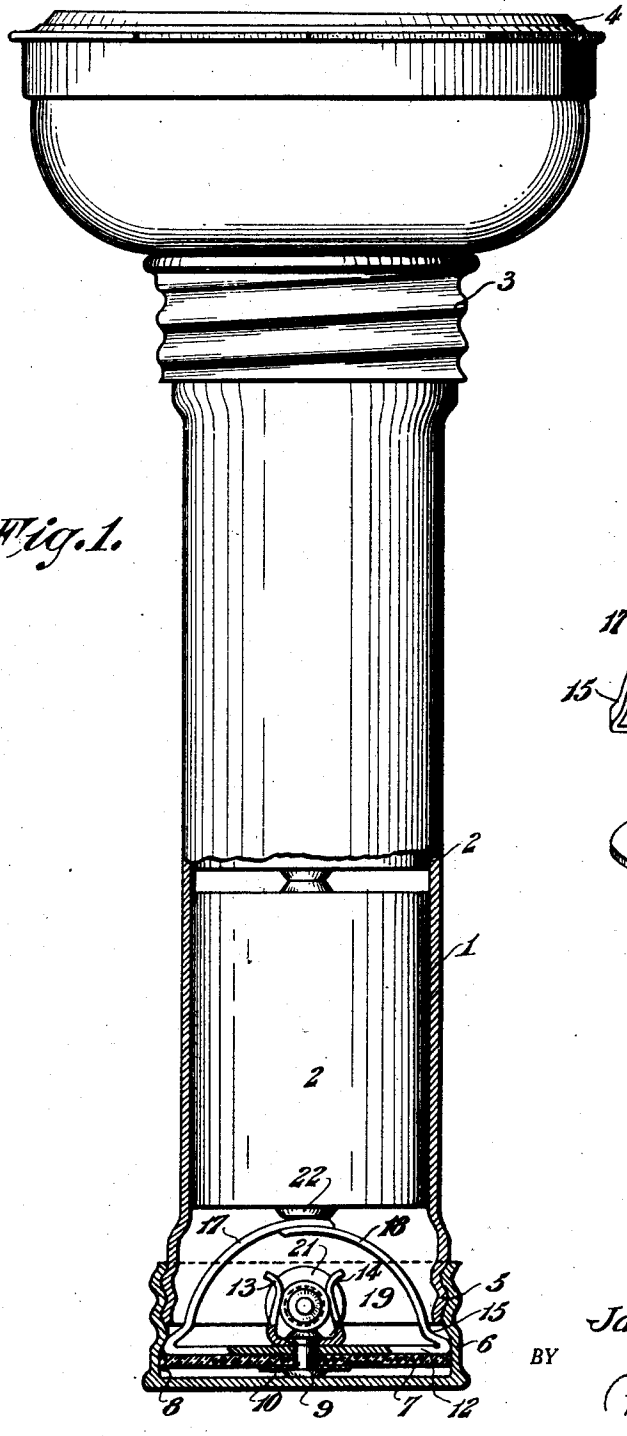
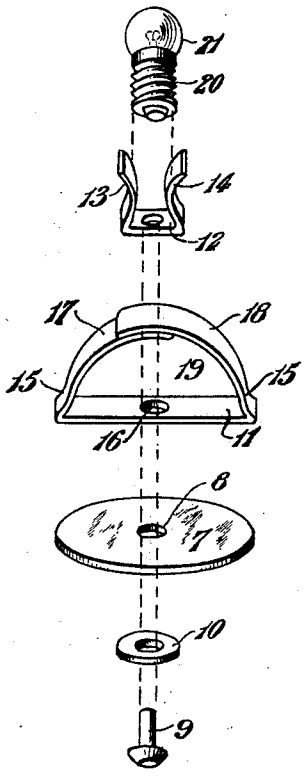


Fig. 2.



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UNITED STATES PATENT OFFICE.

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FLASH LIGHT.

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To all whom it may concern:

Be it known that I, JAMES L. SHANNON, a citizen of the United States, residing at Springfield, county of Hampden, and State of Massachusetts, have invented new and useful Improvements in Flash Lights, of which the following is a specification.

This invention relates to improvements in electric flash lights in which the batteries or dry cells are inclosed in a metallic casing. The usual bulb and lens being located at one end of the casing and a removable cap threaded onto the opposite end of the casing for permitting the battery elements to be inserted and removed.

An object of the invention is to provide means in the casing for carrying an extra bulb, or lamp, which may be readily removed or assembled. It is often necessary to replace a broken or burnt out bulb and therefore convenient to have a new one which is readily accessible.

A further object of the invention is in the construction and arrangement so that there is no danger of the extra bulb being broken or displaced. Attached to the threaded cap member is a part having spring clamps or jaws for receiving the threaded part of an extra bulb. Also attached to the threaded cap is a pair of oppositely disposed spring members which are substantially semi-circular in formation and so arranged that they may slide on each other when the cap is threaded onto the casing. These members are arranged to engage one terminal of the lowermost dry cell. This construction permits the extra bulb to be readily inserted and removed without any difficulty by the user, as will be fully described.

Referring to the drawings:

Fig. 1 is a side elevational view of the usual casing showing the lens portion of the flashlight and the casing partially in section and illustrating the improvement on the removable cap and one of the dry cells.

Fig. 2 is a view showing the parts that are attached to the cap portion and illustrating the same in spaced relation to each other.

Referring to the drawings in detail:

1 designates the usual tubular casing member in which are placed the dry cells or batteries 2, and the usual threaded member 3 to which is attached the lens end of the light; the lens being indicated at 4. 5 is the threaded lower end portion of the casing and 6 is the removable cap for permitting the insertion and removal of the dry battery cells. Located within the cap 6 is a disk of insulating material 7 that is retained within the cap 6 by being sprung, or pushed into the enlarged or lower portion 8 of the cap 6. The disk of insulating material 7 is formed with an opening 8 for receiving the rivet 9, the washer 10 and the bar piece 11. Located above the bar piece 11 is the clip member 12 having the spring portions 13 and 14. The bar member 11 is crimped or bent inward as shown at 15. The bar member 11 is formed with an opening 16 as shown to receive the rivet 9. Its ends 17 and 18 are bent inward toward each other and form substantially a half circle, as shown. These inner ends 17 and 18 have sliding contact one over the other whereby the interior space 19 is provided in which is located the spring clip members 13 and 14 in which is placed the threaded part 20 of the extra bulb. It will be noticed that one of the inner ends 17 or 18 is engaged by the terminal 22 of the lowermost battery 2, so that when the cap 6 is threaded onto the end 5, the member 17 as shown will pivot about the terminal 22 and the battery and the ends 17 and 18 will slide on each other thus making a good electrical contact with the cap 6 and the casing 5 which is one of the poles of the battery of the flashlight.

In order to remove the extra lamp 21 it is only necessary to remove the cap 6 of the flashlight when the operator can easily disengage the lamp 21 from the spring portions 13 and 14 by reaching into the space 19. The crimped part 15 of the members 17 and 18 are located in the threaded part of the cap 6 and are inserted therein by slightly bending the bar portions 11 when it will regain its straight position. In other words the bent ends 15 are snapped into the position shown, thus locking them in place.

What I claim is:

1. A flashlight construction comprising a casing member which is formed with a threaded end, a threaded cap member therefor, a bar having spring members attached to the cap and arranged in overlapping and slidable contact with each other for engagement with one terminal of the battery,

spring clips attached to the cap and located between the end of the cap and the said spring members for receiving the extra bulb, the construction and arrangement being such that when the said inner ends are depressed they will always be out of engagement with the bulb.

2. A device for the purpose described, comprising a bar member having its opposite ends bent toward each other to form substantially a semi-circle and in slidable contact with each other, clips attached to the bar member for removably receiving an extra electric bulb and located in the space between the said inner ends of the bar member and the inner end surface of the cap.

3. A closure cap for a flashlight comprising a disk of insulating material located therein, a bar member formed with an opening to receive a rivet construction, a part having spring clips attached to the bar member by said rivet for removably receiving an extra lamp bulb, the bar member having its end crimped or bent for removably locking the same into the cap, the ends of the bar being bent towards each other and above the spring clips for forming the electrical contact with one terminal of the battery and in sliding contact with each other when the cap is threaded onto the casing.

4. An article of manufacture consisting of a bar member having its opposite ends bent or crimped inward toward each other and in slidable contact with each other, means for attaching a lamp receiving member to the bar member comprising a part having spring fingers or clips to receive the threaded portion of the bulb, the construction and arrangement being such that the said opposite ends are always out of engagement with the bulb, and substantially an enlarged space is provided between the inner bent ends of the bar member and the said part having the spring fingers.

5. A removable cap for a flash light comprising a piece attached to the cap and extending diametrically across the cap, the ends of the piece being bent into a semi-circular formation and in slidable contact with each other, the cap having a part with spring fingers attached thereto and located between the semi-circular shaped ends and the inner end of the cap for receiving an extra bulb.

JAMES L. SHANNON.