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W. R. MOREY

2,386,255

FLASHLIGHT

Filed June 7, 1943

Fig. 1.

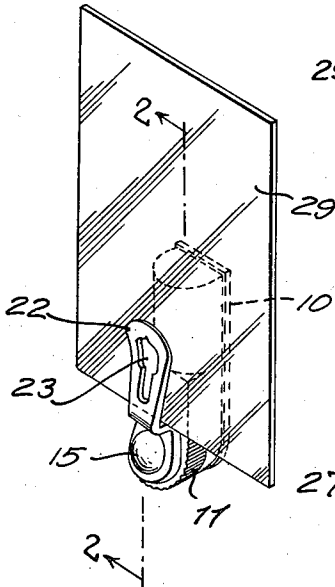


Fig. 3.

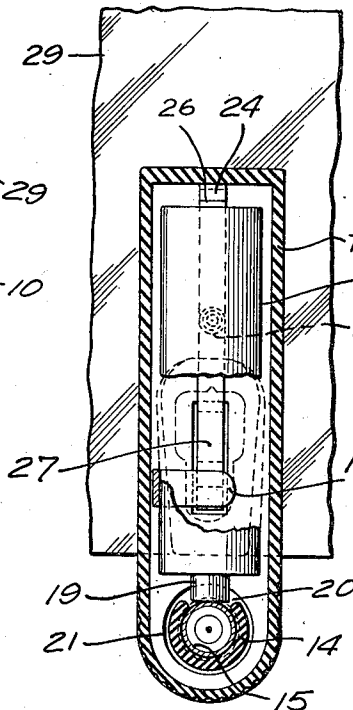


Fig. 2.

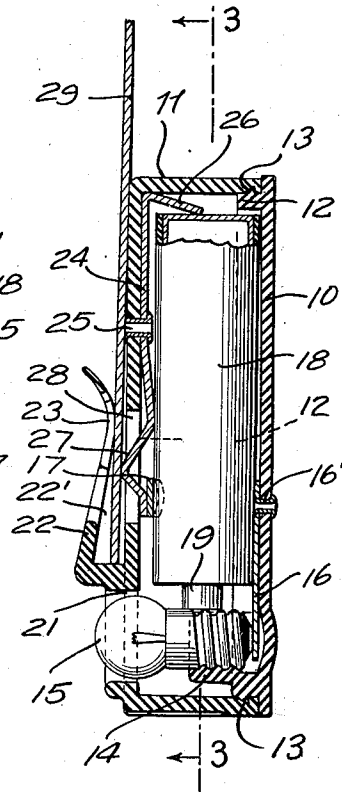


Fig. 4.

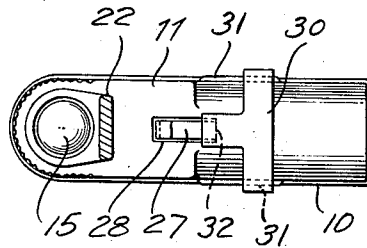
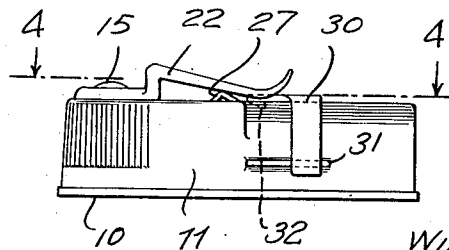


Fig. 5.



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FLASHLIGHT

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Application June 7, 1943, Serial No. 489,974

6 Claims. (Cl. 240—6.45)

This invention relates to flashlights, and more particularly pertains to flashlights of the type disclosed in my Patent No. 2,235,109, granted March 18, 1941, which have resilient gripping means arranged to receive a mirror, or the material forming a pocket or other portion of the wearing apparel of the user so that the flashlight may be supported in position for use without being held in the hand.

The invention provides novel switching means for flashlights of the type indicated, which is moved automatically to "on" position when a mirror is inserted in the gripping means or the flashlight is hung on the pocket or other portion of the wearing apparel of the user, and is moved to "off" position when the mirror is removed or the flashlight is removed from its position on the wearing apparel. In another form of the invention, means are provided to hold the switching means in "on" position without the use of a mirror or material, or other means being inserted in the gripping means.

The invention will be understood from the following description when considered in connection with the accompanying drawing forming a part thereof and in which:

Fig. 1 is a perspective view of a flashlight embodying the invention, with a mirror in the resilient gripping means;

Fig. 2 is a longitudinal sectional view on line 2—2 of Fig. 1;

Fig. 3 is a longitudinal sectional view on line 3—3 of Fig. 2;

Fig. 4 is a plan view of the flashlight showing another form of the invention taken substantially on line 4—4 of Fig. 5; and

Fig. 5 is an elevational view of the flashlight shown in Fig. 4.

Like characters of reference refer to the same or to similar parts throughout the several views.

Referring to Figs. 1, 2 and 3 of the drawing, the form of flashlight selected for illustration has an elongated case comprising a base 10 and an upper portion 11, the open end of which receives an upstanding flange 12 on the base having lugs 13 on the ends thereof which enter recesses in the wall of the upper portion to retain the two parts of the case together. A socket 14 for an electric light bulb 15 is integral with the base at one end thereof, and a metallic strip 16 constituting an electrical connection, extends from the bottom of the socket 14 along the inner wall of the base 10 to a point near the middle of the base where it is secured to the base by a rivet 16'. An extension 17 of the strip 16 projects in an arc

from the inner end of the strip 16 and provides a clip to retain a dry battery 18 in position on the base with its positive pole 19 extending through a slot 20 in the socket 14 and in contact with the metallic part of the bulb 15.

The upper portion 11 of the case has a circular opening 21 which registers with the bulb 15 and gripping means comprising a resilient clip 22 having a circular end which is secured to the outer wall of the upper portion 11 about the opening 21. The unsecured portion of the clip extends toward the central part of the case and has an aperture 23 of suitable configuration therein. The clip provides with the case a pocket 22' which is adapted to receive a portion of an object as will appear hereinafter. A resilient metallic strip 24 is secured by a rivet 25 to the inner wall of the upper portion 11 and extends longitudinally of the case. One end of the strip 24 has a lateral extension 26 which engages the metallic bottom of the dry cell 18, and the other end of the strip has an inverted V-shaped portion 27 which projects through an aperture 28 in the case part 11 into the object receiving pocket 22' and in alignment with the aperture 23 in the clip 22. The outer end of the V-shaped portion 27 of the metallic strip 24 normally is disposed adjacent to but in spaced relationship with the clip 17, and constitutes a switch which is adapted to be moved into contact with the clip to close the battery-bulb circuit and light the bulb 15.

The arrangement is such that when a pocket mirror 29, for example, is inserted between the clip and the case of the flashlight into the pocket 22', the mirror will engage the switch and move it to closed position and cause the bulb 15 to light. The switch will remain in closed position until the mirror is removed from the pocket 22', whereupon the switch will move automatically to open position. It will be understood that the switch will be engaged and will be moved to closed position when any suitable article, other than a mirror, is inserted between the clip and the case of the flashlight. Such other articles will include, but will not be limited to, wearing apparel as previously mentioned. The switch also may be closed by pressing the switch with a finger which may be inserted through the aperture 23 in the clip, or any suitable object may be employed in the same manner to move the switch to closed position.

The form of flashlight shown in Figs. 4 and 5 is the same as the form shown in Figs. 1, 2 and 3, excepting that a switch operating member 30 is employed to move the switch 27 to closed po-

sition. The member 30 is U-shaped and conforms to the configuration of the end of the case opposite the bulb end, and is slidable thereon.

The legs of the operating member terminate short of the base 10, and each has a recess near its outer end which receives a rib 31 on the side of the upper portion 11 of the case to retain the operating member on the case. The operating member has an extension 32 which projects toward the switch 27, and engages the switch and moves it to closed position when the operating member is moved forward or toward the bulb end of the case. The under side of the extension has a lip which projects into the case opening 28 and limits the movement of the operating member 30 when it is moved to open the switch 27. Friction between the operating member 30 and the case will hold the member 30 in position to maintain the switch in closed position until the member is moved by the user of the flashlight to open position. It will be understood that the operating member 30 does not interfere with, or prevent, the insertion of a mirror or other article between the clip and the case of the flashlight to operate the switch in the manner previously described.

Inasmuch as changes may be made in the form, location and relative arrangement of the several parts of the flashlight disclosed without departing from the principles of the invention, it will be understood that the invention is not to be limited excepting by the scope of the appended claims.

What is claimed is:

1. In a flashlight comprising a case having a battery therein, a flashlight bulb in the case in circuit with the battery, and resilient gripping means secured to the outside of the case and having a portion spaced from the case to provide an object receiving pocket therewith, a switch in the battery-bulb circuit having a portion projecting into said pocket, the arrangement being such that upon the insertion of an object in said pocket said portion of the switch will be engaged by the object and the switch will be moved to closed position and will be maintained in closed position until the object is withdrawn from the pocket, and switch operating means having a portion movable into and out of the pocket and into and out of engagement with said portion of the switch to operate the switch.

2. In a flashlight comprising a case having a battery therein, a flashlight bulb in the case in circuit with the battery, and resilient gripping means secured to the outside of the case and having a portion spaced from the case to provide an object receiving pocket therewith, a switch in the battery-bulb circuit having a portion projecting into said pocket, the arrangement being such that upon the insertion of an object in said pocket said portion of the switch will be engaged by the object and the switch will be moved to closed position and will be maintained in closed position until the object is withdrawn from the pocket, and switch operating means comprising a member slidably mounted on the case and having a portion movable into and out of the pocket and into and out of engagement with said portion of the switch to operate the switch.

3. In a flashlight comprising a case having a battery therein, a flashlight bulb in the case in circuit with the battery, and resilient gripping means secured to the outside of the case and

having a portion spaced from the case to provide an object receiving pocket therewith, a switch in the battery-bulb circuit having a portion projecting into said pocket, the arrangement being such that upon the insertion of an object in said pocket said portion of the switch will be engaged by the object and the switch will be moved to closed position and will be maintained in closed position until the object is withdrawn from the pocket, switch operating means comprising a member slidably mounted on the case and having a portion movable into and out of the pocket and into and out of engagement with said portion of the switch to operate the switch, and means for limiting the movement of said member in one direction.

4. In a flashlight comprising a case having a battery therein, a flashlight bulb in the case in circuit with the battery, and resilient gripping means secured to the outside of the case and having a portion spaced from the case to provide an object receiving pocket therewith, a switch in the battery-bulb circuit having a portion projecting into said pocket, the arrangement being such that upon the insertion of an object in said pocket said portion of the switch will be engaged by the object and the switch will be moved to closed position and will be maintained in closed position until the object is withdrawn from the pocket, switch operating means comprising a member slidably mounted on the case and having a portion movable into and out of the pocket and into and out of engagement with said portion of the switch to operate the switch, and means for limiting the movement of said member when it is moved out of engagement with said portion of the switch.

5. In a flashlight having a case provided with a battery therein and an opening in one side of the case near one end thereof, a flashlight bulb mounted in the case adjacent the opening so as to project its rays through the opening, and a resilient grip attached to the case between the opening and the opposite end of the case to provide an object receiving pocket therewith, the grip being disposed adjacent to the flashlight case and the bulb and extending parallel with the case and opening toward the opposite end of the case from the bulb, the case having an aperture opening into the pocket, a switch in the battery-bulb circuit and in the case and having a portion extending through the aperture into the pocket and adapted to be moved in a direction into and out of the case, the switch being so constructed and arranged that upon the insertion of an object into said pocket, said portion of the switch will be engaged by the object and the switch will be moved inwardly of the case to closed position and will be maintained in closed position until the object is withdrawn from the pocket when it will be moved outwardly of the case to open position, and switch operating means comprising a member slidably mounted on the case and having a portion movable into and out of the pocket and into and out of engagement with said portion of the switch to operate the switch.

6. A device of the character defined by claim 5, in which the switch operating means has means for limiting its movement in one direction.

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