

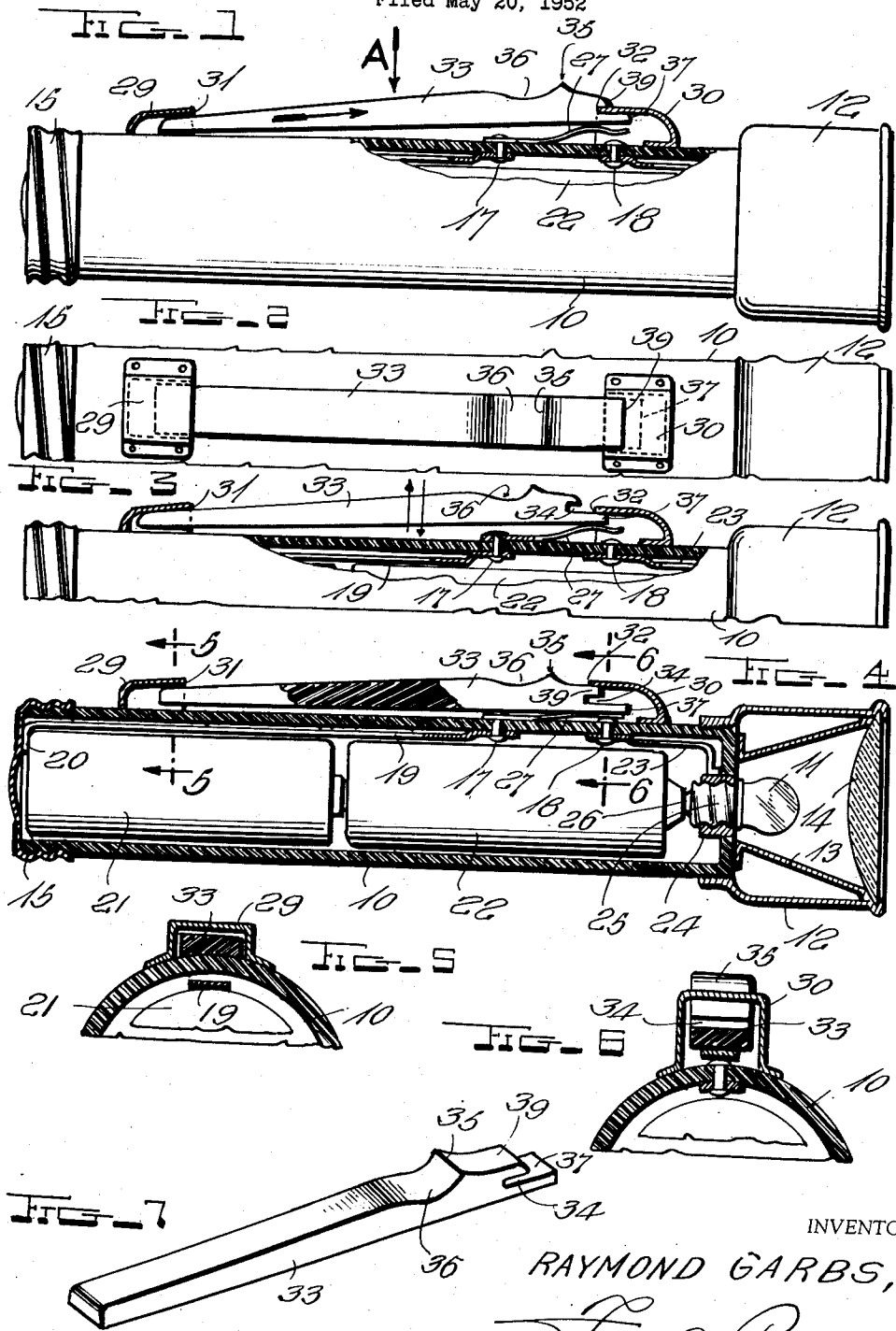
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FLASHLIGHT SWITCH

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FLASHLIGHT SWITCH

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3 Claims. (Cl. 200-60)

1

The present invention relates to a flashlight switch and it consists in the combinations, constructions and arrangements of parts herein described and claimed.

Generally there is provided a novel switch for a conventional flashlight which consists of an elongated switch arm preferably formed of plastic material and provided with novel means whereby the same may be pressure operated or whereby the same may be locked in either "on" or "off" positions. The device is such that it may be operated by anyone who can grasp a flashlight in his hand, that is to say by a person who may be lacking one or several of his fingers and hence is particularly useful in cold weather when the fingers are often numb and it is hard to operate the conventional flashlight switch. The device contains several novel features which will be brought out hereinafter in the annexed specification.

It is accordingly an object of the invention to provide a novel flashlight switch which is attractive in appearance and possesses novel means for locking the same in "on" and "off" positions.

Another object of the invention is to provide a device of the character set forth which is simple in construction, inexpensive to manufacture and yet effective and efficient in use.

Another object of the invention is to provide, in a device of the character set forth, novel means whereby a flashlight may be operated by squeezing or relaxing the hand of the operator thereon.

A further object of the invention is to provide, in a device of the character set forth, a novel operating handle forming a part of the invention.

Other and further objects of the invention will become apparent from a reading of the following specification taken in conjunction with the drawing, in which:

Figure 1 is a side elevational view, partly broken away, of an embodiment of the invention,

Figure 2 is a fragmentary plan of Figure 1 taken in the direction of the arrow A,

Figure 3 is a view similar to Figure 1 but fragmentary in nature and illustrating the switch in position for "on" and "off" action,

Figure 4 is a vertical sectional view, partly in elevation, illustrating the switch of the present invention in locked "on" position,

Figure 5 is a fragmentary enlarged sectional view taken along line 5-5 of Figure 4,

Figure 6 is an enlarged fragmentary sectional view taken along line 6-6 of Figure 4, and

Figure 7 is a perspective view of a switch handle forming a part of the invention.

Referring more particularly to the drawing, 1

2

there is shown therein a flashlight having a cylindrical body 10 in this case formed of dielectric material and having threadably mounted at its forward end a lamp 11 and a lamp housing 12 in which is a conventional reflector 13 and lens 14. The rearward end of the housing 10 is provided with a threaded cap 15 and, extending through one side of the casing 10 there is provided a pair of rivets 17 and 18. Fastened by the rivet 17 is a rearwardly extending conductor strip 19 whose rearward end 20 is adapted to contact the rear-most of a pair of batteries 21 and 22 which are in conventional series contact. The rivet 18 has fastened thereto the rearward end of a conductor strip 23 whose forward end is affixed to a socket 24 for the base 25 of the lamp 11. The base 25 is provided with a central contact 26 of conventional character which is in contact with the forward end of the battery 22.

Affixed to the rivet 17 upon the outer side of the casing 10 is a spring contact arm 27 whose free end is adapted to contact the rivet 18, the arm 27 being biased to a position away from the rivet 18.

Affixed to the outer side of the casing 10 in longitudinal alignment is a rearward retainer member 29 and a forward retainer member 30, the rearward member 29 being open at its forward end, as indicated at 31 and the forward member 30 being open at its rearward end, as indicated at 32.

An elongated handle 33, preferably formed of a colored plastic material is provided with a transversely extending notch 34 in the forward end thereof and, rearwardly of said notch 34 with a transversely extending ridge 35 upon the upper side thereof and a transversely extending groove 36 immediately rearwardly of the ridge 35 and such groove 36 being likewise in the top side of the handle member 33. The rearward end of the handle 33 lies within the retainer member 29 and is slidable through the forward end 31 thereof while the forward end of the handle 33 is provided, beneath the notch 34, with a forwardly extending projection 37 which normally lies beneath the rearward edge 32 of the member 30.

In operation, it will be apparent that the flashlight casing 10 together with the handle 33 may be grasped by the hand of the operator and, when it is desired to merely flash the lamp 11 for short periods of time, it is only necessary to squeeze the hand of the user while the handle 33 is in position shown, for example, in Figure 3, of the drawing. In this position, it will be apparent that the handle 33 may press against the contact member 27 to thereby bring the same into actual contact

with the rivet 18 to thus complete a circuit including both rivets, the members 19 and 23, the socket 24, lamp base 25, the batteries 21 and 22 and the lamp 11. When, however, it is desired to maintain the lamp 11 in a permanently "on" position, it is only necessary to manipulate the handle in such manner that the upper forward edge thereof, indicated at 39, may lie beneath the rearward lip 32 of the member 30. This will cause the contact member 27 to permanently remain in contact with the rivet 18 thus completing a circuit at all times to the lamp 11.

When it is desired to lock the device in permanently "off" position, as, for example, when the same is being carried in the pocket of the user, it is only necessary to manipulate the handle 33 so that the lip 32 of the member 30 is received within the notch 34. Thus in this position it is impossible to press the handle toward the casing 10 and hence the contact member 27 is prevented from coming into accidental contact with the rivet 18 to complete a circuit to the lamp 11.

It will also be understood that the notch 36 and the ridge 35 are useful in moving the handle 33 forwardly and rearwardly as desired to effectuate the various positions above described.

While but one form of the invention has been shown and described herein, it will be readily apparent to those skilled in the art that many minor modifications may be made without departing from the spirit of the invention or the scope of the appended claims.

What is claimed is:

1. In a flashlight including a casing, the provision of a switch for said flashlight, said switch comprising a pair of retainer members mounted on the outer side of the casing in longitudinally spaced relation, a fixed contact member mounted in said casing between said retainer members, a spring arm contact member affixed to said casing between said retainer members and movable into contact with said fixed contact member, a switch arm longitudinally slidable in said retainer members and bearing against the outer side of said contact arm, means for locking said switch arm against inward movement, means for locking said switch arm against said contact arm whereby to hold the latter in closed position, and means allowing free movement of said switch arm against said contact arm.

2. In a flashlight including a casing, the provision of a switch for said flashlight, said switch

comprising a pair of retainer members mounted on the outer side of the casing in longitudinally spaced relation, a fixed contact member mounted in said casing between said retainer members, a spring arm contact member affixed to said casing between said retainer members and movable in contact with said fixed contact member, a switch arm longitudinally slidable in said retainer members and bearing against the outer side of said contact arm, means for locking said switch arm against inward movement, means for locking said switch arm against said contact arm whereby to hold the latter in closed position, and means allowing free movement of said switch arm against said contact arm, said means for locking said switch arm against inward movement comprising a transversely extending notch in the forward end thereof for the reception therein of the lip of the adjacent retainer member.

3. In a flashlight including a casing, the provision of a switch for said flashlight, said switch comprising a pair of retainer members mounted on the outer side of the casing in longitudinally spaced relation, a fixed contact member mounted in said casing between said retainer members, a spring arm contact member affixed to said casing between said retainer members and movable into contact with said fixed contact member, a switch arm longitudinally slidable in said retainer members and bearing against the outer side of said contact arm, means for locking said switch arm against inward movement, means for locking said switch arm against said contact arm whereby to hold the latter in closed position, and means allowing free movement of said switch arm against said contact arm, said means for locking said switch arm against inward movement comprising a transversely extending notch in the forward end thereof for the reception therein of the lip of the adjacent retainer member, and the forward end of said switch arm being of sufficient thickness to force the closing of said switch when said forward end is engaged beneath its adjacent retainer member.

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