3,513,581
FLASHLIGHT ATTACHMENT FOR GUNS
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ABSTRACT OF THE DISCLOSURE

An insulated housing is mounted in and its major portion enclosed by the front end of the cartridge magazine of a shotgun. The magazine cap is drilled to receive and retain the housing in place. Batteries and a light bulb in the housing are spring-urged forwardly to break an electrical circuit and a perforated front housing cap, forwardly of the magazine, embraces the tip of the bulb and can be threaded rearwardly on the housing to close the electrical circuit through the batteries and bulb.

BACKGROUND OF THE INVENTION

This invention relates to a flashlight attachment for a firearm and particularly for a shotgun having a cartridge magazine.

Proposals have previously been made for attaching flashlights to firearms in a manner to integrate the gun and light. However, in most instances these proposals have involved substantial modification of the gun structure, such as the provision of a recess or cavity in the gun stock for housing the flashlight batteries and/or an external projecting bracket for supporting the light bulb, reflector and control switch or a complete flashlight. Such proposals have proven impractical in view of the substantial modification of the gun thus made necessary and were subjected to the disadvantage of the projecting brackets for supporting the light bulb or flashlight with the attendant danger of damage thereto during normal handling of the gun.

SUMMARY OF THE INVENTION

The present invention comprises an attachment in the form of a small cylindrical insulated housing adapted to be positioned in the forward open end of the cartridge magazine of a shotgun and to be removably held in fixed position therein and protected thereby. The housing contains the usual flashlight components and the forward end thereof, projecting from the magazine, is provided with a rotatable cap functioning to hold the flashlight components in the housing and further serving as means for turning the flashlight on and off.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a diagrammatical side view of a shotgun embodying the present invention;

FIG. 2 is an enlarged longitudinal sectional view of that portion of the shotgun of FIG. 1 embodying the present invention with the barrel shown in elevation;

FIG. 3 is a transverse sectional view taken along the line 3—3 of FIG. 2.

DESCRIPTION OF A PREFERRED EMBODIMENT

In FIG. 1 of the drawings there is shown a representative type of shotgun embodying a barrel 2, a stock 4, a housing portion 6 enclosing the operating mechanism and a cartridge magazine 8 below the barrel 2. The subject matter of the present invention is identified generally in FIG. 1 by numeral 10. Referring now to FIG. 2, the magazine 8 includes a cylindrical chamber 12 having a conventional magazine plug 14 and spring 16 therein. The plug 14 and spring 16 are of conventional construction and need not be further described except to point out that the rod 18 upon which plug 14 is mounted must be shortened slightly to accommodate the present invention. The chamber 12 is fixedly mounted on the gun below the barrel 2 and includes an open forward end 20 having external threads 22 thereon. Conventionally the open forward end of the chamber 12 is closed by a closure cap 24 that is internally threaded to engage the threads 22 but which must be modified to accommodate the present invention by providing a central opening 26 therein. The opening 26 may be provided by drilling a hole through the face of the cap 24 and thus the cap is modified to become an annular cap with an inwardly directed annular flange 28.

The flashlight attachment comprises a generally cylindrical housing 30 of molded plastic or any other suitable electrically insulating material and has a closed end 32 and an open end 34. The outer surface of the open end 34 is of reduced diameter whereby to define a forwardly facing annular shoulder 36 and the forward end is further externally threaded at 38. The attachment is fixedly held in position by slipping the modified cap 24 over the threaded open end and into abutment with the shoulder 36. Thereafter a clamping ring or jamb nut 40 is threaded on the threads 38 to clamp the flange 28 between the ring 40 and the shoulder 36 and the modified cap 24 is threaded onto the open forward end of the chamber 12 and thus securely positions the attachment in that open forward end.

Within the housing 30 is a conductor member 42 extending from the closed end 32, to which it is attached by means of rivets 44 or the like, forwardly along the inner surface of the housing and terminates in a fixed contact 46 adjacent a flashlight bulb 48. As shown, the housing 30 also encloses a pair of dry cells 50 arranged in the usual series contacting relation and urged forwardly by a spring 52 which electrically contacts both the base of the rear dry cell and the conductor 42. The base contact 54 of the flashlight bulb 48 electrically engages the center electrode 56 of the front dry cell 50 and is provided with a projecting lens portion 58, of known and conventional form. A second annular cap 60 is threaded onto the threads 54 of housing 30 and the open end 52 of this annular cap embraces the lens portion 58 of bulb 48 and thus retains all of the flashlight components within the housing 30. As will be apparent, the cap 60 may be threaded inwardly to force the bulb and dry cells rearwardly against the action of spring 52 until the side contact 64 thereof engages the fixed contact 46 whereupon a circuit is completed through the dry cells and bulb and the flashlight is energized or turned on.

To deenergize the flashlight or turn it off, it is only necessary to unscrew the cap 60 a short distance to permit the spring 52 to push the dry cells and bulb forwardly out of contact with the fixed contact 46.

Thus, applicant has provided a compact flashlight attachment that requires only a minimum of modification of a shotgun and wherein the major portion of the flashlight is concealed within and protected by the cartridge magazine and yet has the essential operable portions exposed for ready access. Clearly, the flashlight may be of the type providing a high intensity beam to illuminate a target at night or it may be of only conventional intensity to provide the user of the gun with illumination without the necessity of carrying lighting means separate from his gun.

While a single specific embodiment of the invention has been shown and described, other embodiments may obviously be restored to.

I claim:

1. In combination; a shotgun having a barrel and a cartridge magazine therebelow open at its forward end; an insulating housing removably positioned in said open
forward end; said housing enclosing at least one battery cell, a flashlight bulb, and circuit means defining a circuit through said cell and bulb, said bulb being at least partially exposed at the front end of said housing; selectively operable means at the front end of said housing for selectively opening and closing said circuit means; and holding means holding said housing in fixed position in said open forward end with said front end of said housing projecting forwardly from said magazine.

2. The combination defined in claim 1 wherein said open forward end of said magazine is provided with external threads, said holding means comprising an annular cap threaded thereon and having an inwardly directed annular flange engaging shoulder means on said housing.

3. The combination defined in claim 2 wherein said shoulder means comprise a fixed forwardly facing shoulder on said housing engaging the rear face of said flange and a clamping nut threaded on said front end of said housing and engaging the front face of said flange.

4. The combination defined in claim 1 wherein said circuit means includes a spring electrically engaging said cell and urging said cell and bulb forwardly and a fixed contact in said housing adjacent and engageable with said bulb, said selectively operable means comprising a cap threaded on the said front end of said housing and having an opening therethrough embracing a portion of said bulb whereby to selectively cause said cell and bulb to move forwardly to disengage said bulb from said fixed contact and to move rearwardly to engage said bulb with said fixed contact.

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