May 26, 1970 O. SLATER 3,513,581

FLASHLIGHT ATTACHMENT FOR GUNS

Filed June 4, 1968

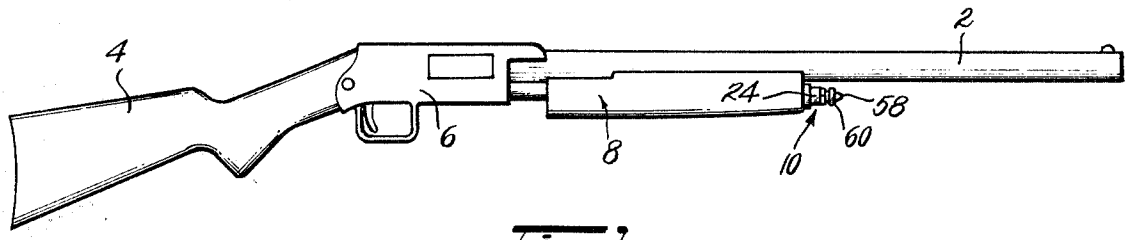


Fig. 1.

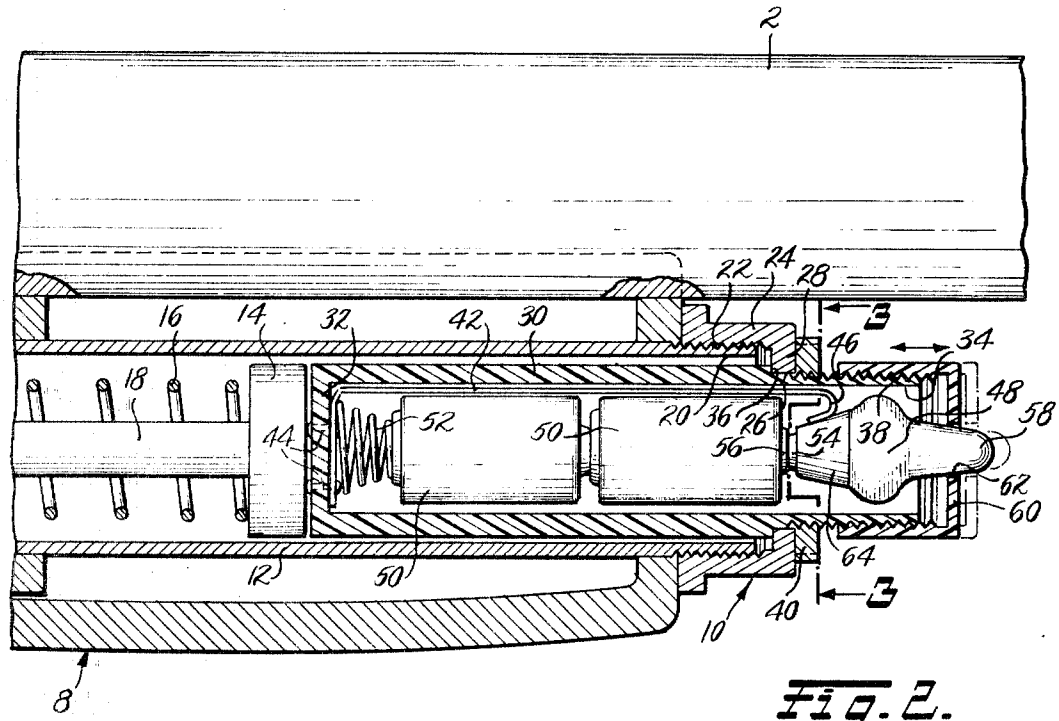


Fig. 2.

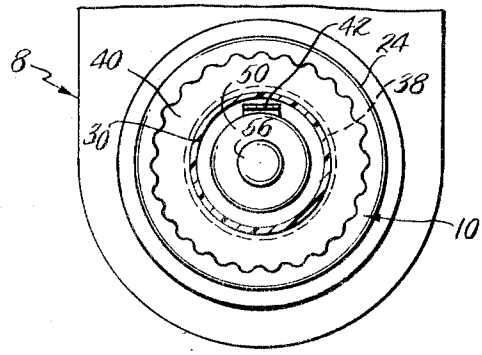


Fig. 3.

INVENTOR.
OLIN SLATER

BY
Bacon & Thomas
ATTORNEYS

United States Patent Office 3,513,581 Patented May 26, 1970

3,513,581

FLASHLIGHT ATTACHMENT FOR GUNS

Olin Slater, 2412 Eagle Drive, Augusta, Ga. 30906

Filed June 4, 1968, Ser. No. 734,425
Int. Cl. F41c 27/00
U.S. Cl. 42—1 4 Claims

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 still subject 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; and

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 interiorally 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**. Then 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 **34** of housing **30** and the open center **62** 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 hulb, 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.

References Cited

UNITED STATES PATENTS

1,029,951	6/1912	Seely	42—1
1,201,052	10/1916	Jakubyansky	42—1
3,222,511	12/1965	Breeding	42—1

BENJAMIN A. BORCHETT, Primary Examiner

C. T. JORDAN, Assistant Examiner