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H. G. GRAUBNER

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FLASH LIGHT

Filed Oct. 27, 1927

Fig. 1.

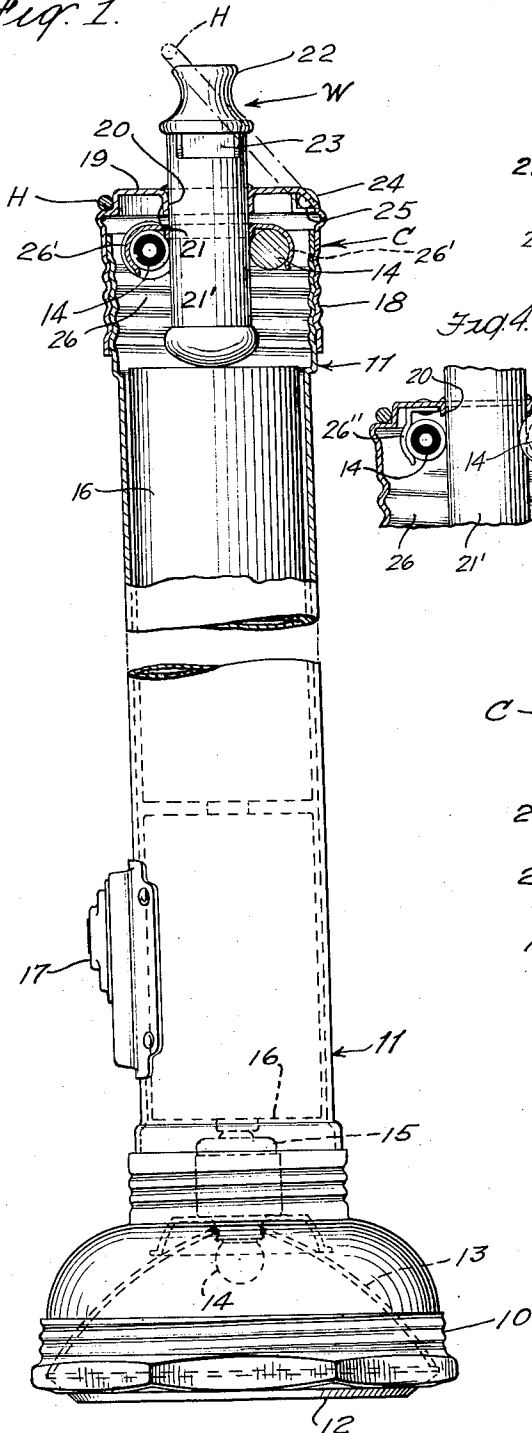


Fig. 3.

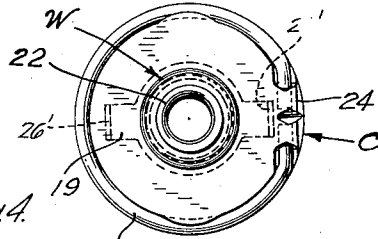


Fig. 4.

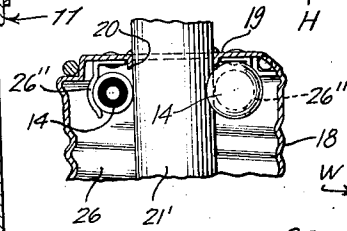
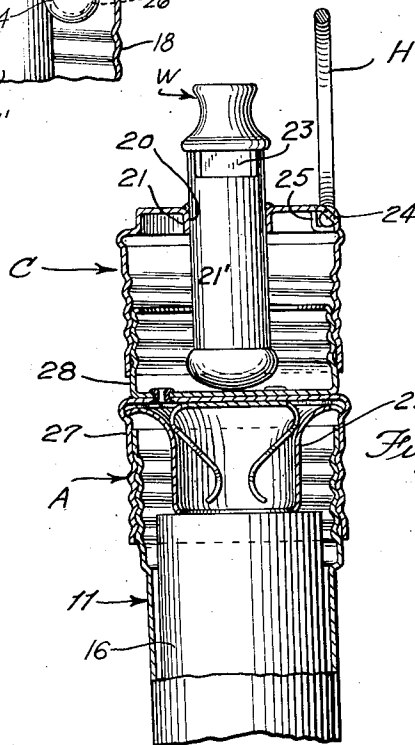


Fig. 2.



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FLASH LIGHT

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This invention relates to flashlights or battery hand lamps, and more particularly to an improved bottom cap therefor carrying a whistle or similar device.

Some users of flashlights, e. g. the police, boy scouts and girl scouts, find it advantageous to have a whistle at hand, hence the object of this invention is to combine a whistle with a tubular flashlight in a simple and practical manner.

Generally speaking, according to this invention, a suitable whistle, such as a standard regulation police whistle, is incorporated in the bottom cap of a flashlight in such a manner as to be readily accessible to the user to faithfully produce the required tone. The whistle is preferably permanently secured to the bottom cap so as to protrude the least possible distance, and so as not to interfere with suitable spare-lamp holding means and a flashlight hanger, both of which are desirable parts of a bottom cap.

The above and other objects and the novel features of this invention will be apparent from the following description taken with the accompanying drawings in which Fig. 1 is a longitudinal sectional view of a flashlight embodying this invention; Fig. 2 is a view illustrating a modified form of bottom cap embodying this invention; and Fig. 3 is a view illustrating the rear ends of the caps shown in Figs. 1 and 2; and Fig. 4 is a view illustrating a modification of the cap shown in Fig. 1.

The improved combined cap and whistle is particularly adapted for the usual tubular-type flashlight which, as shown, comprises a head fitting 10 that is secured to the front end of a tubular casing 11 and carries a cover glass or lens 12. A reflector 13, an incandescent lamp 14, and a lamp holder 15 are disposed in the head and casing in front of an electric battery 16, which may be connected in circuit with the lamp by a suitable switch 17. The battery 16, which may be a number of series-connected cylindrical dry cells, is invariably inserted through the rear open end of the casing 11, whereupon the latter is closed by a metal bottom cap C. As shown in Fig. 1, the cap C has a tubular threaded

skirt 18 whereby the cap may be detachably coupled to a similarly threaded portion of the rear end of the casing 11.

The whistle W is mounted on the cap C, preferably axially of the latter and the flashlight. The bottom 19 of the cap is provided with a central aperture 20 and an inwardly projecting flange 21 at the edge of said aperture to support and snugly fit the tubular body 21' of the whistle. The tube 21' is preferably rigidly secured to the bottom 19 and flange 21, as by brazing, and may extend a substantial distance into the cap, terminating approximately in the plane of the open ends of the caps here shown. The outer end of the whistle tube comprises the open-ended mouth piece 22 and one or more sound apertures 23.

The length of the outer end of the whistle tube is preferably such that a hanger H on the bottom cap may be freely swung past the end of the whistle to suspend the flashlight from a suitable support. The hanger H, as shown, may be a ring hinged at the point 24 in a groove or recess 25 formed in the periphery of the bottom wall 19, the hanger being foldable into said groove flush with said bottom wall, when not in use.

By reference to Fig. 1 it will be seen that when the improved bottom cap is coupled to the casing 11, the inner rounded end of the metal whistle tube centrally engages the bare zinc bottom of the battery 16 and serves to support the battery so that its center contact shall properly engage the center contact of the lamp or lamp holder and also serves as a portion of the electric circuit that includes the lamp and battery. Moreover, an annular compartment 26 is formed between the tube 21' and the inside of the tubular skirt 18 for storing articles such as spare lamp bulbs. Suitable resilient metal clips 26' to hold such spare lamps may be formed as parts of a ring soldered to the tube 21', as shown in Figs. 1 and 2, or these clips may be individually secured to the inside of the bottom of the cap C, as shown at 26'' in Fig. 4.

It is sometimes desirable to provide a separate storage compartment for spare bulbs or the like. In such instances, the arrangement shown in Fig. 2 is employed, where a tubular

attachment A is interposed between the casing 11 and the cap C which carries the whistle W. The attachment A may consist of two threaded metal cups 27 and 28, secured back to back by riveting their bottom walls together. The cup 27 is coupled to the case 11. The form of bottom cap shown in Fig. 1 may be screwed onto the threaded end of the cup 28, thus forming a housing for the inner end of the whistle tube. The attachment A and the cap C may then be removed as a unit from the casing 11 to remove and replace batteries or to permit access to a spare lamp in the shell 29.

15 The improved construction thus provides a flashlight which is so equipped with a whistle that the latter contributes considerably to the utility of the flashlight without detracting from its appearance or service. 20 At the same time, the whistle is in plain view on the flashlight, readily available for use, and less apt to become misplaced. Changes may be made in various parts, as in the details of the hanger and whistle, without departing 25 from the spirit of this invention.

I claim:

An attachment for a tubular flashlight, comprising a cap having a threaded skirt and a centrally apertured bottom wall; a whistle 30 comprising a tubular part secured to said wall and projecting through such aperture into said cap and spaced from said skirt to provide an annular compartment, said whistle having a part projecting outside said cap 35 and comprising a mouthpiece and a sound aperture; and a hanger ring hinged to said cap and swingable past said mouthpiece.

In testimony whereof, I affix my signature.

HERMAN G. GRAUBNER.

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