H. L. EVERETT.

FLASH LAMP.

APPLICATION FILED MAY 4, 1916.

1,211,121. Patented Jan. 2, 1917.

Fig. 1.

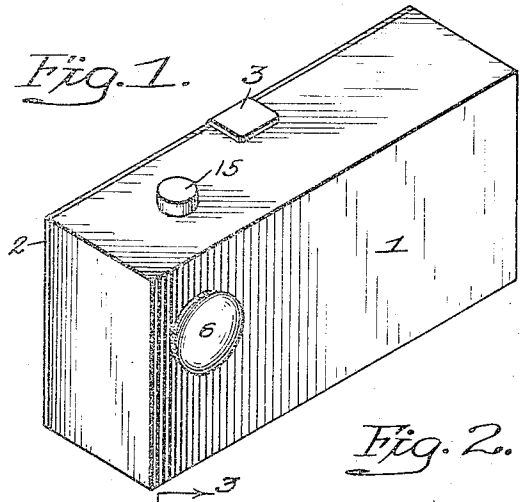



Fig. 4.

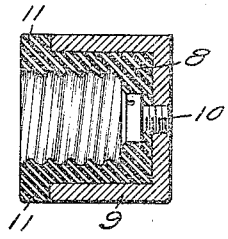



Fig. 2.

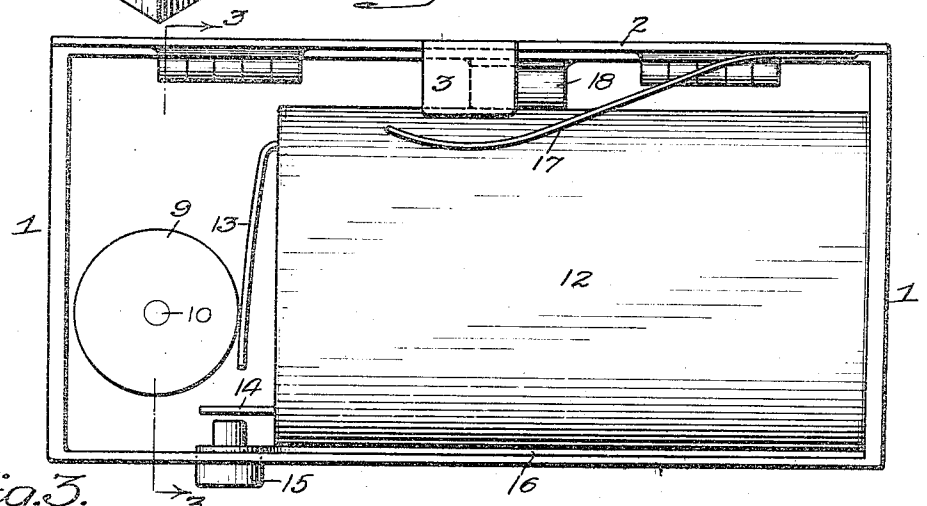



Fig. 3.

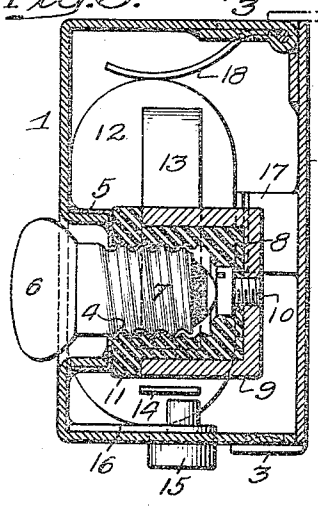
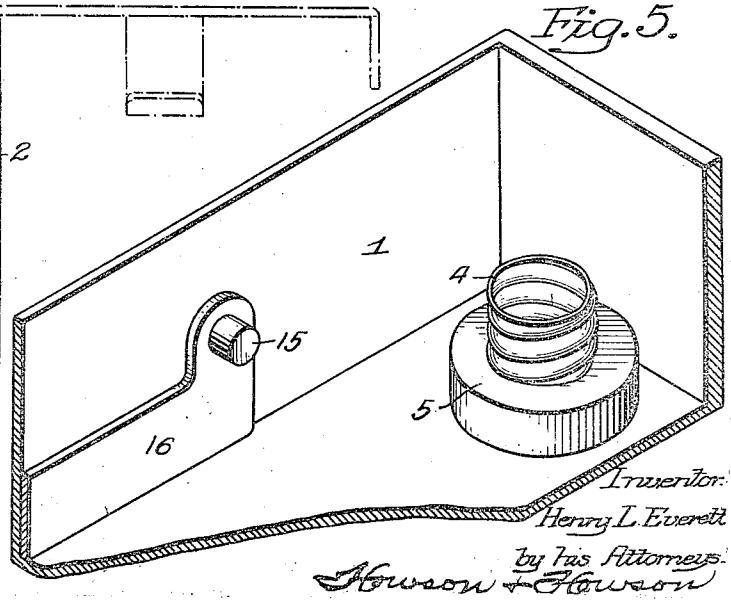



Fig. 5.




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by his Attorneys
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# UNITED STATES PATENT OFFICE.

HENRY L. EVERETT, OF PHILADELPHIA, PENNSYLVANIA.

## FLASH-LAMP.

1,211,121. Specification of Letters Patent. Patented Jan. 2, 1917.

Application filed May 4, 1916. Serial No. 95,455.

*To all whom it may concern:*

Be it known that I, HENRY L. EVERETT, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented Flash-Lamps, of which the following is a specification.

One object of this invention is to provide a compact, convenient and inexpensive form of flash lamp which shall be capable of receiving a standard battery cell and which shall have its parts arranged in a novel manner with a view to facilitating the removal of the cell and of the lamp, especially after the bulb of the lamp has been broken.

I further desire to provide a flash lamp with novel means for receiving and supporting the lamp bulb in the casing and for connecting said lamp in circuit with a battery cell.

Another object of the invention is to provide a form of flash lamp in which the lamp and switch operating button shall be so placed relatively to each other as to make easy the manipulation of the lamp under certain conditions, the form of the lamp casing being such as to adapt the device for use in illuminating the needle of a talking machine when it is lowered to the record, as well as for other purposes requiring the lamp to remain in any position in which it is placed, while permitting of the convenient operation of its controlling switch.

I also desire to provide a small rectangular flash light, flat on the four sides and two ends, of such narrow width that it will stand in a narrow space when required; the lamp bulb being so placed that the light will be thrown at right angles to the side of the case, while this is standing on one of its narrow sides.

These objects and other advantageous ends I secure as hereinafter set forth, reference being had to the accompanying drawings, in which,

Figure 1 is a perspective view of a flash lamp constructed according to my invention; Fig. 2 is a plan of the device shown in Fig. 1 but with the cover raised; Fig. 3 is a transverse section on the line 3—3, Fig. 2; Fig. 4 is an enlarged longitudinal section of the socket cap forming part of my invention; and Fig. 5 is a fragmentary perspective illustrating a detail of the lamp receiving socket.

In the above drawings 1 represents a metal box of elongated rectangular section formed with flat sides and ends, one of said sides constituting a hinged cover 2 provided with a latch 3 whereby it is normally held in a closed position. One of the flat faces of this box is provided with an opening adjacent one of its corners and inside of the box there is fixed a threaded damp receiving sleeve or socket shell 4 concentric with said opening, for the reception of the threaded base 7 of an incandescent lamp bulb 6.

Removably mounted on the outside of the shell 4 is a metal cap 9 having an insulating lining 8 held to it by a screw 10 and provided with internal threads designed to screw on the outside of said shell, said lining being provided with flanges 11 extending between the inner edge of the cap 9 and the adjacent flat face of the shell 5 for the purpose of properly insulating said cap. The lamp receiving socket and hence the threaded insulating lining 8 and cap 9 are so placed within the box 1 that a standard battery cell 12 will easily fit therein with its longer transversely extending spring terminal 13 in electrical engagement with the cylindrical surface of said cap 9.

The shorter battery terminal 14 is immediately adjacent what is ordinarily the top of the box and is designed to be engaged by a push button 15 slidable through an opening in said top and mounted upon one end of a flat spring 16 whose opposite end is soldered or otherwise fixed to the adjacent inner surface of the box. The inner end of the push button normally extends to within a short distance of the terminal 14 and may be brought into electrical engagement therewith by being pressed inwardly. The battery cell is kept from movement and is normally pressed toward the top of the cell by a flat spring 18 fixed to the under side of said top as shown in Fig. 3 and there is also a second spring 17 carried on the lid 2 in position to engage the side or face of the battery.

Under conditions of use the lamp bulb 6 is screwed into the socket shell or sleeve 4 and the cap 9 is screwed on the outside of said shell. A standard flash lamp battery 12 is then placed in the box with its long terminal in electrical engagement with the cap 9 and its short terminal immediately adjacent the inner end of the push button 15, after which the lid of the box is closed. If now said push button be depressed, electrical connection is made from the short battery

terminal 14 through the push button to the metal box structure 1 and thence to the threaded lamp socket shell 4. From this the circuit is completed to the threaded base of the lamp, through the lamp filament to its center terminal and thence to the screw 10, the cap 9 and to the second battery terminal 13. Obviously the lamp 6 is thereby lighted and it remains in circuit as long as the push button 15 is maintained in engagement with the battery terminal 14.

If the lamp bulb should break, it may be conveniently removed by first unscrewing the cap 9 with its lining 8 from the socket shell 4 and thereafter so turning the base of the lamp from the inside of the box as to remove it from the shell 4, it being noted that when the lamp is in its normal position the inner end of its base projects considerably beyond the inner end of said shell. The lamp may thus be quickly replaced without danger of injury from the broken glass, since regardless of the condition of its outer part, the threaded base may be easily engaged by the fingers so as to be quickly unscrewed from within the box.

A flash lamp constructed as above described is particularly useful for illuminating the needle of a talking machine as it will stand at one side of a record and by pressure on its push button may be caused to deliver its light in a manner best calculated to facilitate the proper placing of said needle on the record.

I claim:—

1. The combination in a flash lamp of a box; a threaded shell therein for the reception of a lamp; a sleeve removably mounted on said shell within the box but insulated from said shell; a battery cell having a spring terminal separably engaging the cylindrical surface of said sleeve; a lamp in said shell; and a switch for controlling the flow of current to the lamp.

2. The combination in a flash lamp of a box having an opening; a threaded shell mounted in the box in line with said opening; a lamp outside said box threaded through said opening into said shell; a body of metal having a substantially cylindrical surface and including a part engaged by the center terminal of the lamp and removably mounted on the shell also within the box; a battery in the box placed to have one of its terminals engage the cylindrical surface of the body of metal on the shell; and a switch for engagement with the other terminal of the cell.

3. The combination in a flash lamp of a metal box having a threaded metal socket shell mounted within and electrically connected to it; a lamp threaded into said shell; a metal sleeve having an insulating lining and removably threaded on the shell in electrical connection with the center terminal of the lamp; a battery mounted in the box with one of its terminals in engagement with said shell; and a switch mounted to electrically connect the other cell terminal with the metal of the box.

4. The combination in a flash lamp of a metal box; a threaded socket shell mounted thereon; a lamp threaded into said shell and projecting beyond the same within the box; a metal sleeve having a threaded lining whereby it is removably mounted on but insulated from said first sleeve and electrically connected to the center lamp terminal; a battery in the box having one terminal removably engaging the metal sleeve; and a switch for controlling the flow of current to the lamp.

5. The combination in a flash lamp of a metal box; a threaded socket shell mounted in said box adjacent one end thereof; a body of metal removably mounted on the outside threaded portion of said socket shell but insulated therefrom; a lamp screwed into the shell with its center terminal in electrical connection with said body of metal; a relatively flat battery mounted in the box in a plane substantially at right angles to the line of the socket shell with one of its terminals in electrical contact with the body of metal on the shell; and a switch mounted to coact with the second battery terminal for controlling the flow of current to the lamp.

6. The combination in a flash lamp of a metal box having four flat sides and formed with an opening in one face; a push button mounted in one side of said box; a threaded socket shell in the box in line with said face opening; a metal cap mounted on but insulated from said shell and electrically connected to the center terminal of the lamp; with a battery mounted in the box with one of its terminals electrically engaging the metal cap and its other terminal in position to be engaged by the push button.

HENRY L. EVERETT.