J. O'D. DAILEY.

FLASH LIGHT.

APPLICATION FILED JAN. 31, 1918.

1,287,250. Patented Dec. 10, 1918.

Fig. 1.



Fig. 2.

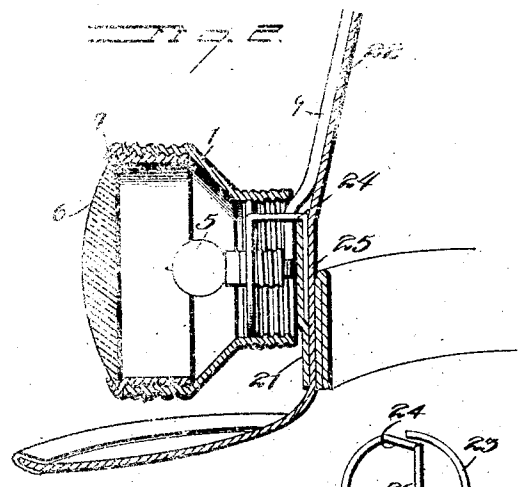


Fig. 5.

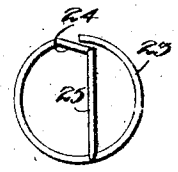


Fig. 3.

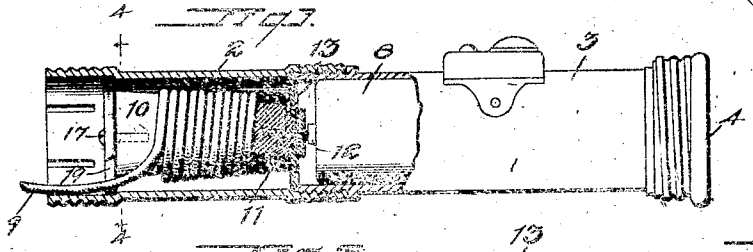
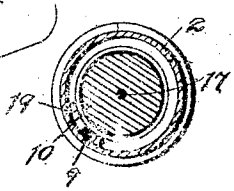


Fig. 4.



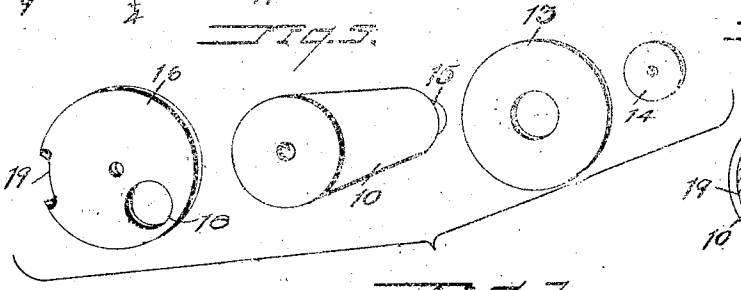


Fig. 7.

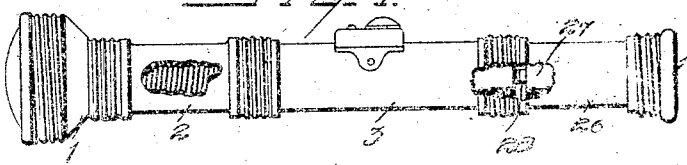
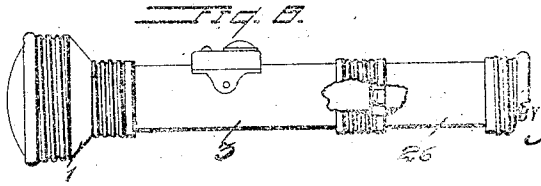


Fig. 6.



WITNESSES

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FLASH-LIGHT.

1,287,250. Specification of Letters Patent. Patented Dec. 10, 1918.

Application filed January 31, 1918. Serial No. 214,333.

To all whom it may concern:

Be it known that I, JAMES O'DONNELL DAILEY, a citizen of the United States, and a resident of Tillamook, in the county of Tillamook and State of Oregon, have invented certain new and useful Improvements in Flash-Lights, of which the following is a specification.

My invention is an improvement in flash lights, and has for its object to provide mechanism in connection with the usual hand flash light for permitting the light to be removed from the casing without breaking the connection with the battery, and to be placed at a point removed from the battery, as, for instance, in the band of the hat, and wherein means is provided in connection with the light for engaging the hat to support the same.

A further object of the invention is to provide an extension for use with the ordinary hand flash light for permitting the use of an extra battery.

In the drawings:

Figure 1 is a perspective view showing the light removed from the battery;

Fig. 2 is a section on the line 2—2 of Fig. 1, looking in the direction of the arrows adjacent the line;

Fig. 3 is a side view of the improved light, with parts in section;

Fig. 4 is a section on the line 4—4 of Fig. 3, looking in the direction of the arrows adjacent the line;

Fig. 5 is a perspective view of the extension cord supporting mechanism removed;

Fig. 6 is a front view of the holding mechanism for the light;

Fig. 7 is a side view of the flash light shown in Fig. 3, with an extension battery in place;

Fig. 8 is a similar view, with the extension battery in place and with the extension cord removed, both Figs. 7 and 8 having parts broken away.

In the embodiment of the invention shown in Figs. 1 to 6, the casing of the flash light consists of three sections, namely, a light supporting section 1, an extension cord supporting section 2 and a battery supporting section 3, the section 3 having a cap 4 threaded thereon at the end remote from the section 2. The sections 1, 2 and 3 have threaded engagement with each other, and the usual incandescent globe 5 is supported in the section 1, a lens 6 being held in front of the same by a supporting ring 7 which has threaded engagement with the section 1.

A battery 8 is arranged in the section 3, and a connecting cord 9 for connecting the battery to the lamp 5 is held within the section 2. This cord winds upon a tapering or frusto-conical roller 10 held in the section 2, as indicated in Fig. 3, and one of the cable connections is connected with a screw 11 which engages the center terminal 12 of the battery. The other connection of the cord 9 engages a washer 13 which is held between the sections 2 and 3 of the casing by their engagement. The screw 11 is insulated from the washer 13 by the roller 10, which is of insulating material, as, for instance, wood, and it will be noticed that this roller has a reduced portion 15 at its small end, which engages the opening of the washer 13. A washer 14 is held by the screw 11 against the reduced end 15 of the roller 10, to prevent disengagement of the roller. The small end of the roller is arranged adjacent to the battery, and to the large end is journaled a disk 16, by means of a screw 17. This disk has an eccentric opening 18, and a peripheral notch 19, the cord 9 passing through the peripheral notch.

The opening 18 is for engagement by the finger to hold the disk when winding the cord 9 thereon. In order to wind the cord, the disk is held by the finger in the opening 18, and the casing and roller are turned. The cord, in winding on the roller, is guided by the opening 13 of the washer and the tapering form of the roller assists in the laying of the coils of the cord in contact. The section 1 of the casing is detachable from the section 2 in the usual manner, and when detached and drawn away from the section 2 the cord 9 will unwind from the roller 2, permitting the section 1 carrying the lamp to be arranged at a distance from the sections 2 and 3 carrying the battery. For instance, the section 1 may be supported on the hat, with the cord 9 passing through the crease of the hat down the rear of the head and to the battery, which will be held in the pocket. Mechanism is provided for engaging the band 21 of the hat 22. The said mechanism comprises a split ring 23 of resilient wire, which is adapted to engage within the threads at the connecting end of the section 1, and this split ring has at one

of its ends a laterally extending portion 24 provided with a downwardly extending lug 25 which is adapted to pass between the hat band and the hat to support the lamp on the hat.

In use, the device may be arranged as shown in Fig. 1, with the battery and the sections 2 and 3 of the casing in the pocket, and with the section 1 supported by the hat, or in any other desired place, or the section 1 may be connected with the section 2, the excess cord in the latter case being wound upon the roller 10. To wind the cord it is only necessary to engage the finger with the opening 18 and rotate the casing and roller.

In order to provide for an extra battery, an extension casing 26 is provided which is adapted to engage the section 3 in place of the cap 4, and this extension casing has at its outer end a threaded portion for engagement by the cap 4 to make a closed casing. With this arrangement an extra battery, indicated at 27, may be arranged in circuit with the batteries 8 in the casing 3. It will be noticed that one of the terminals 28 of the battery 27 engages the end of the battery 8, the other connection being made through the wall of the casing. In devices of this character, the batteries are arranged tandem, two, three, four or more batteries being used, as may be desired. The terminal 12 or 28 of each battery is engaged with the bottom of the preceding battery, as shown in Fig. 7. If desired, the section 2 may be removed as shown in Fig. 8, and the connection made directly by the lamp 5 with the battery 28 in the section 3.

Referring to Fig. 3, it will be noted that the threaded portion of the section 2 of the casing is notched or slotted from the end of the casing, the said slots or notches being six in number in the present instance, and extending approximately the full depth of the threading. With this arrangement, it is not necessary to unthread the lamp 1 from the section 2 or to thread the said section into place. The lamp may be simply pressed on or pulled off of the section 2, the slots imparting to the casing 2 sufficient resiliency to permit this pressing on or pulling off. The turning off of the lamp has a tendency to wear the insulation from the cable 1 where it connects with the socket that holds the lamp.

I claim:

1. A flash light comprising a casing consisting of a section for the batteries, a section for the light, and a section for a connecting cable between the batteries and the light, said sections being detachable, the last named section having a roller secured therein and extending longitudinally thereof for the cable, and means for guiding the cable, said means comprising a disk journaled to the end of the roller adjacent to the lamp, said disk having an eccentric opening for engagement by the finger to hold the disk from rotation while the casing and roller are rotated.

2. A flash light comprising a casing consisting of a section for the batteries, a section for the light, and a section for a connecting cable between the batteries and the light, said sections being detachable, the last named section having a roller secured therein and extending longitudinally thereof for the cable, and means for guiding the cable.

3. A flash light comprising a casing consisting of a section for the batteries, a section for the light, and a section for a connecting cable between the batteries and the light, said sections being detachably connected to form a rigid casing.

4. In a device of the character specified, a casing having a battery chamber, a roller chamber, and a light detachably connected with the end of the roller chamber remote from the battery chamber, a roller in the roller supporting chamber, a cable connecting the light with the batteries and winding on the roller, the roller being rigid with the casing and turning therewith, and means for laying the cable on the roller, said roller being tapering and arranged with its large end toward the light.

5. A device of the character specified, comprising a casing consisting of a section for the batteries, a second battery section detachably connected with one end of the said section, a roller supporting section detachably connected with the other end of the said first named section, a light supporting section connected with the outer end of the roller section, a roller supported in the roller supporting section, and a cable connecting the light with the batteries and winding on the roller.

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