July 1, 1930. J. FREITAG 1,768,554

FLASHLIGHT

Filed Dec. 6, 1928

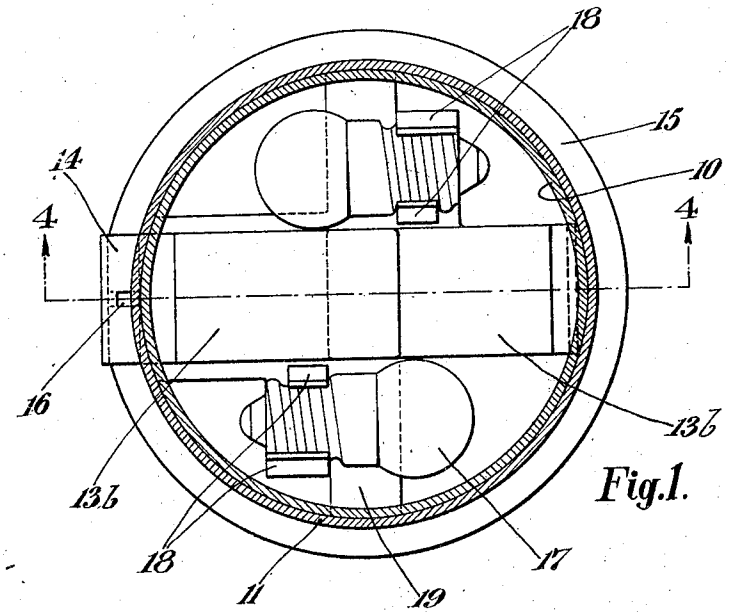


Fig.1.

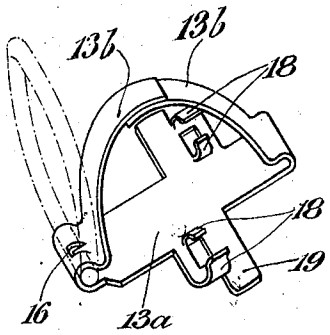


Fig.2.

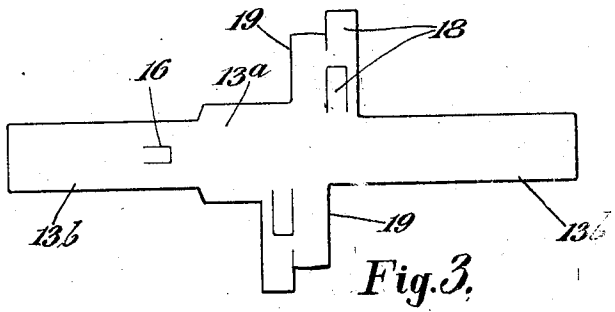


Fig.3.

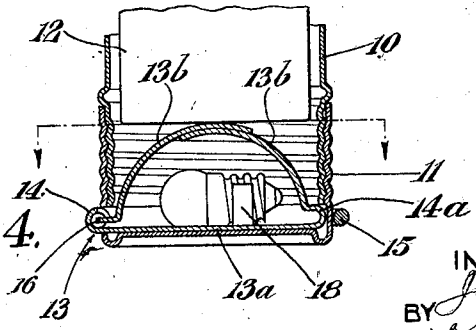


Fig.4.

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UNITED STATES PATENT OFFICE

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FLASH LIGHT

Application filed December 6, 1928. Serial No. 324,124.

This invention relates to flashlights of the type having a tubular casing provided at one end with a removable base cap and at the other end with a lens and reflector. In such flashlights, it is customary to provide in the base cap a spring to contact with a battery arranged in the casing. Also, in some instances, means are provided in the cap to carry extra bulbs and a supporting bail is pivotally connected to the cap.

An object of this invention is the base cap assembly in which a single member serves as the battery spring, the holder for extra bulbs and the means for connecting the bail to the cap.

According to this invention there is provided in the base cap a metal element, consisting essentially of a central flat portion and end portions bent toward each other to form bows at the ends of the central portion and an arch above such central portion. The base cap is provided with an aperture in its cylindrical wall through which one of the bows extend and a split circular bail is provided having straight end portions which extend into the aforementioned bow. The central flat portion of this member rests against the inner face of the end of the base cap and the arch formed by the end portions assumes a position to be engaged by the battery of the flashlight. The element is sprung into position and is frictionally retained within the cap. Clips are struck up from the central portion for the purpose of receiving and holding spare bulbs.

Other objects, novel features and advantages of this invention will be apparent from the following specification and accompanying drawings, wherein

Fig. 1 is an enlarged section on the line 1—1 of Fig. 4.

Fig. 2 is a perspective view of the holding element with the bail shown in phantom.

Fig. 3 is a view of the blank from which the holding member is made, and

Fig. 4 is a vertical section through the bottom end of a flashlight equipped with a base cap embodying the invention.

The tubular casing of the flashlight is designated by the reference character 10 and the base cap with which it is equipped is designated by the reference character 11, while 12 designates the usual battery of a flashlight,

Within the cap 11 there is provided a member 13, which has a central flat portion 13^a lying in contact with the inner face of the end of the base cap 11. The end portions 13^b of the member 13 are bent toward each other to form loops or bows 14 and 14^a at either end of the central portion 13^a and an arch overlying such central portion. The bow 14^a contacts with the inner face of the cylindrical wall of the base cap 11 and the bow 14 projects through an aperture in the cylindrical wall of the base cap. The member 13 is provided with shoulders between the central portion 13^a and the bow 14 which engage the edges of the aperture through which the bow 14 extends and cooperate with the bow 14^a in frictionally holding the central portion 13^a in contact with the end of the base cap 11. The base cap 11 is provided with a bail 15 hingedly connected thereto. This bail constitutes a substantially circular split ring having straight end portions which project into the bow or loop 14. A projection 16 struck out from the central portion of the bow 14 projects between the ends of the bail 15 to prevent axial movement of the bail. This bail is of proper size snugly to enclose the base cap 11 when it is folded into the position shown in Fig. 4. This bail may be easily swung into position to be used as a means of suspending the flashlight simply by exerting pressure on the bail.

Spare bulbs 17 are supported within the base cap 11 by means of clips 18 struck up from wing portions 19 projecting from the central portion 13^a. These clips are properly arranged to receive and snugly hold the base of a flashlight bulb.

The holding member 13 is first formed from the blank shown in Fig. 3 into the form shown in Fig. 2. The holding member is then introduced into the base cap 11 with the bow 14 projecting through the aperture provided therefor and the bow 14^a in contact with the inner cylindrical wall of the base cap, there being sufficient frictional engagement to hold the elements in their assembled relation.

The ends of the bail 15 are then inserted into the ends of the loop 14. When the cap is assembled with the battery casing with a battery in place, the arch, formed by the end portions 13b, contacts with the battery and supports the same as well as making electrical connection between the battery and the casing. The spare bulbs 17 are securely held by the clips 18 but are readily and easily accessible when needed. The single member 13 thus serves not only as the battery spring but also as a holder for extra bulbs and the hinge between the bail and the base cap.

It is of course to be understood that various modifications may be made in the structure above described without in any way departing from the spirit of the invention as defined in the appended claims.

I claim:

1. In a flashlight, a base cap having an aperture in its cylindrical wall, a member having a central flat portion and end portions bent toward each other to form bows at the ends of the central portion and an arch above such central portion, said central portion being in contact with the end of the cap and one bow extending through said aperture, a substantially circular split bail having its ends extending into said bow, and clips extending from said central portion for holding the spare bulb.

2. In a flashlight, a base cap having an aperture in its cylindrical wall, an integral punched member formed to provide a flat central portion with end portions bent toward each other to form bows at the ends of the central portion and an arch over said portion, said central portion being frictionally supported within said cap and having one bow extending through said aperture, the arch serving as the spring support for the battery of the flashlight, a split bail having its ends extending into said bow and clips struck up from wings formed on said central portion for receiving spare bulbs.

In testimony whereof, I have signed my name to this specification.

JOSEPH FREITAG.