May 13, 1930. C. T. HIME 1,758,835

FLASH LIGHT

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Fig. 1.

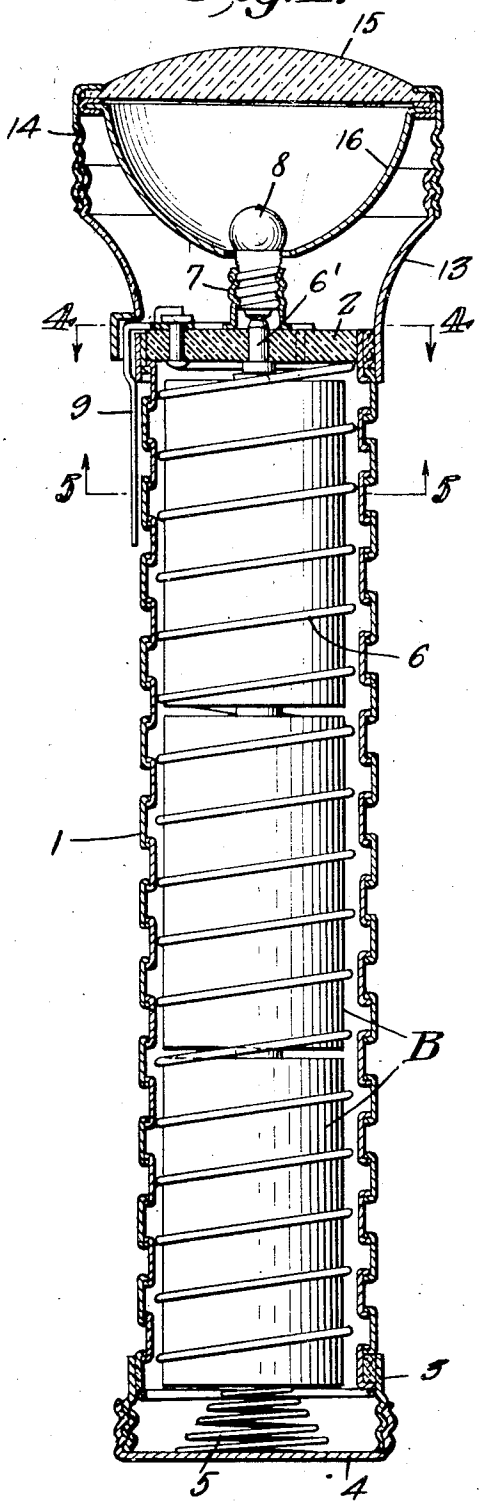
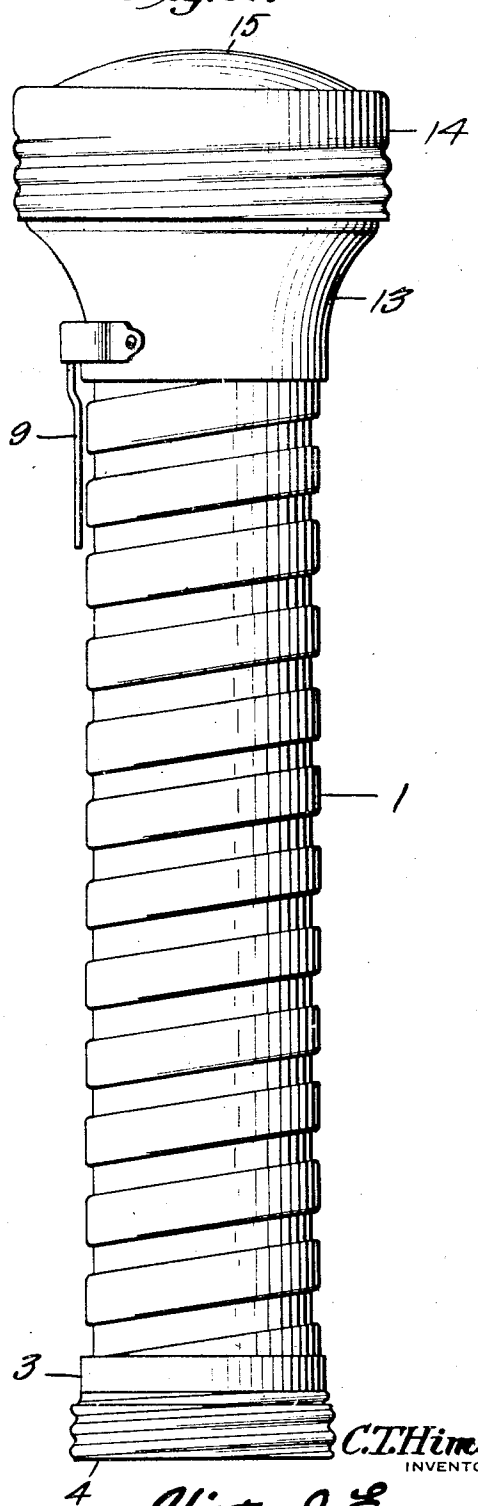


Fig. 2.



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Fig. 3.

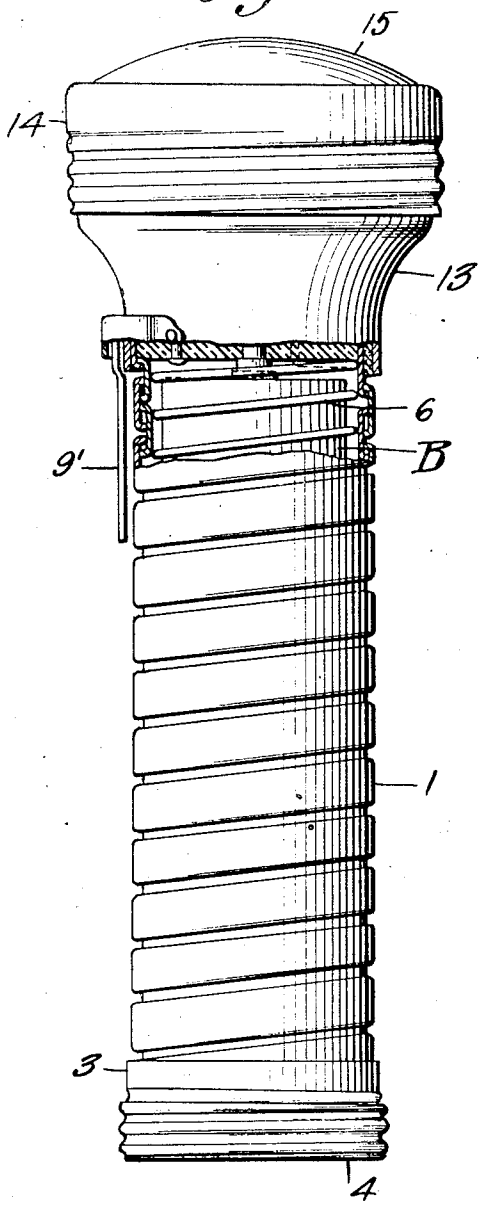


Fig. 4.

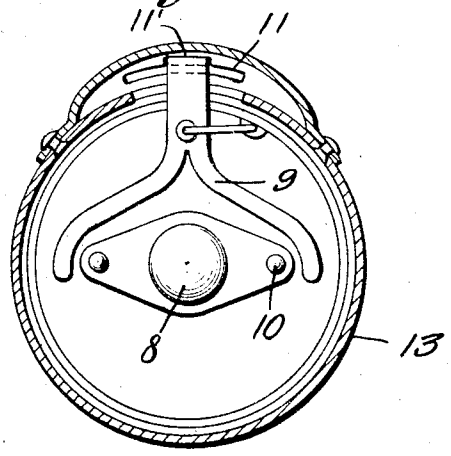
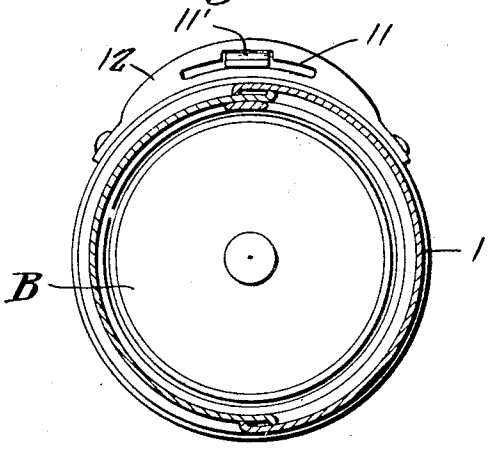


Fig. 5.



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Patented May 13, 1930 1,758,835

UNITED STATES PATENT OFFICE

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FLASH LIGHT

Application filed January 4, 1929. Serial No. 330,234.

This invention relates to improvements in flash-lights, the general object of the invention being to make the casing of the device extensible so that it can be used with either two or three or more batteries, with spring means for normally holding the casing in contracted condition.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a longitudinal sectional view through the improved device, showing the same in use with three cells.

Figure 2 is an elevation of Figure 1.

Figure 3 is an elevation, with parts in section, showing the device used with two cells.

Figure 4 is a section on line 4—4 of Figure 1.

Figure 5 is a section on line 5—5 of Figure 1.

As shown in these views, the casing part 1 of the device is formed of flexible metal of the well-known spiral construction so that the casing part may be extended or contracted, as desired. A disk 2 of non-conducting material is suitably connected with one end of the casing part and a threaded sleeve 3 is suitably connected with the other end thereof, the threaded part of this sleeve being adapted to receive the ordinary closing cap 4 for the rear end of the device and which carries the usual spring 5 for contacting the rear end of the rearmost battery B. A coil spring 6 is placed within the casing part 1 and has one end suitably connected with the disk 2 and its other end with the sleeve 3, this spring tending to hold the casing part in contracted position, though permitting it to be extended and the spring is so arranged that it will not interfere with the placing of the batteries or cells in the casing part.

The disk 2 carries the usual contact 6′ and the socket 7 for the lamp bulb 8, and the spring 6 may be utilized as a means for electrically connecting the switch part 9 with the rearmost battery. In this case the spring is connected with the switch arm 9, as shown in Figure 4, this arm being of forked construction and when moved from a central position, where the circuit is broken, in either direction, its arms will strike the contacts 10 which are electrically connected with the central contact 6 which, of course, is in engagement with the first battery or cell so that the circuit between the cells will be completed and thus the bulb 8 will be lighted. The exterior part 9′ of the switch member 9 passes through a slot 11 in a plate 12 attached to a part of the device, this slot having a central offset part 11′ to receive the part 9′ of the switch arm. When the switch arm is in engagement with this part 11′, it is held against movement. The usual shell 13 is connected with the front end of the casing part and is threaded to receive the threaded part 14 which carries the lens 15 and the reflector 16 of the lamp. This threaded connection between the parts 13 and 14 permits the light rays to be focussed.

From the foregoing it will be seen that I have provided simple means whereby a flash-light can be used with two, three or more cells or batteries, it simply being necessary to extend the casing part to apply the extra batteries. The light is turned on and off in the usual manner by the switch arm 9 and its exterior part 9′ and a socket may be provided in the cap 4 for carrying an extra bulb, this bulb being used with two batteries, while the one in use is used with the three batteries. As before stated, the spring 6 tends to automatically return the casing part to contracted position when the extra cell or cells have been removed.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claim.

What I claim is:—

A flashlight of the class described comprising a casing part formed of spiral metal, whereby said casing part can be expanded and contracted lengthwise, a disk in the front end of the casing part, a threaded sleeve at the other end thereof, a closing cap threaded to the sleeve, a spring carried by the cap for engaging the rearmost battery, a switch part on the disk, a coil spring in the casing part having one end connected with the switch part and its other end connected with a part of the sleeve whereby the spring acts as a conductor and as means for normally holding the casing part in contracted position, a shell at the front end of the casing part, a part threaded thereto, a reflector and lens carried by said latter part and a lamp carrying socket carried by the disk and electrically connected with the foremost battery and having contacts for engagement by the switch part.

In testimony whereof I affix my signature.

CLINT T. HIME.