May 22, 1934. G. G. GUNDERSON 1,959,979

EXTENSION LAMP FLASH LIGHT

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Fig. 1.

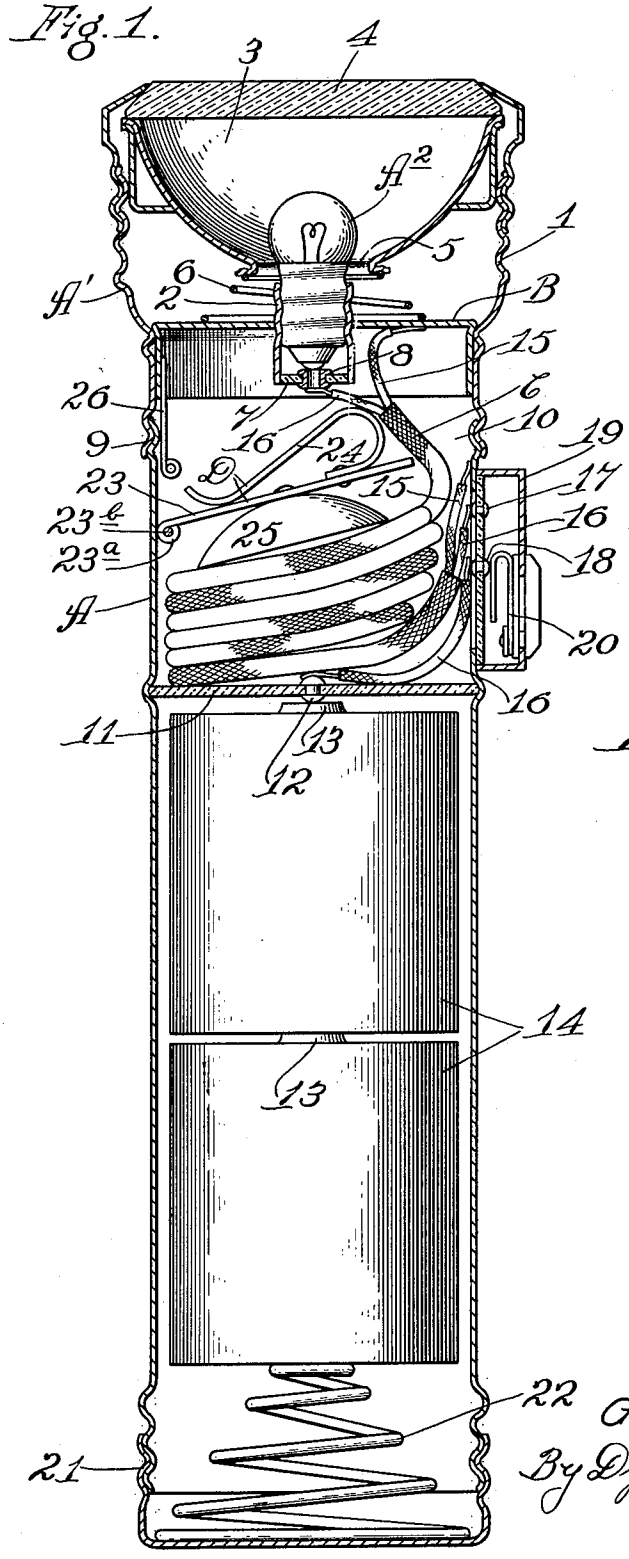

Fig. 2.

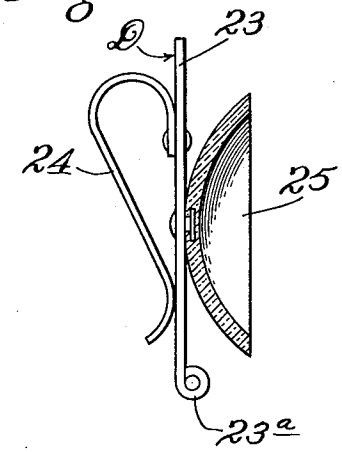

Fig. 3.

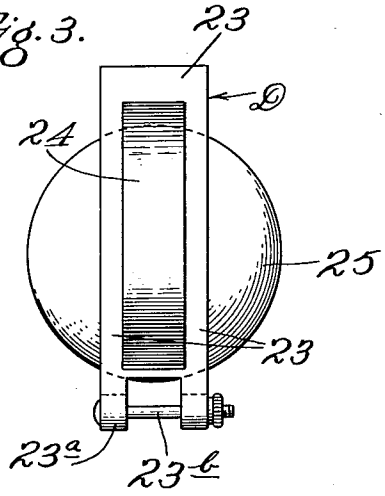

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Fig. 4.

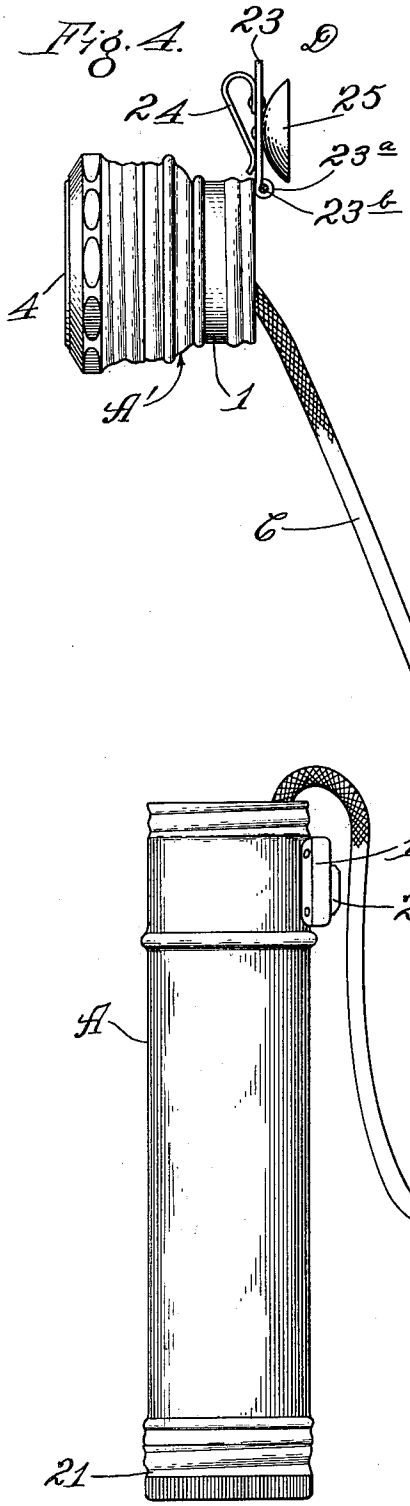


Fig. 6.

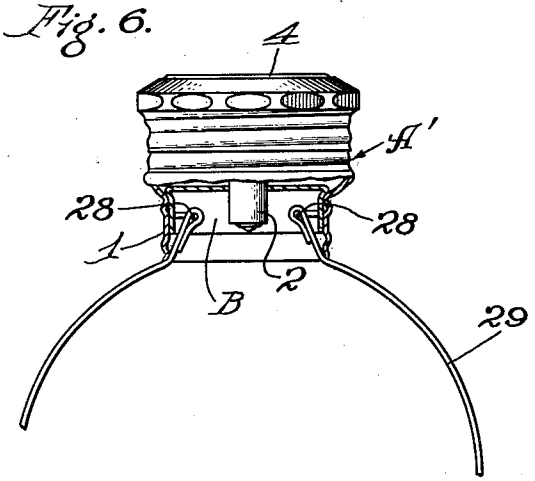
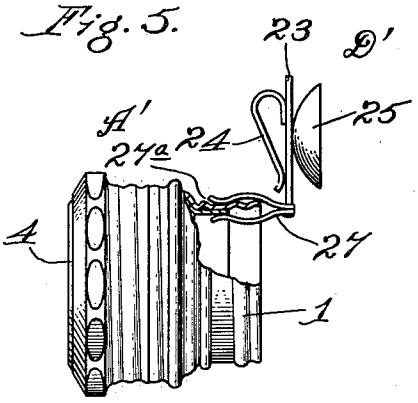


Fig. 5.



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UNITED STATES PATENT OFFICE

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EXTENSION LAMP FLASH LIGHT

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1 Claim. (Cl. 240—10.6)

This invention relates particularly to the provision of an improved flashlight having a removable head carrying a lamp which may be operated as an extension-lamp.

The primary object is to provide a flashlight of the character indicated having a removable lamp equipped with an extension cord, the head carrying the lamp being equipped with means for supporting the lamp in any desired position. Preferably, means are provided for enabling the lamp to be applied to the head of the user, while the casing containing the battery may be contained in the pocket of the user.

The invention is illustrated in a preferred embodiment in the accompanying drawings, in which—

Fig. 1 is a longitudinal vertical sectional view of a flashlight embodying the invention; Fig. 2, a view, partly in section, of a supporting device for the flashlight head; Fig. 3, a view at right angles to the view shown in Fig. 2; Fig. 4, an elevational view showing the flashlight head in position to be used for head-lighting purposes; Fig. 5, a view, partly in section, of a flashlight head equipped with a supporting device of modified form; and Fig. 6, a view, partly in section, of another modification.

In the construction illustrated in Figs. 1–4, A designates a flash-light casing equipped with a removable head A′ containing a lamp A^2; B designates a lamp-support mounted in the head A′; C designates an extension cord; and D designates a support-device, or adapter, which may be employed to support the head A′ when the lamp is used as an extension lamp.

In the illustration given, the lamp-support B is fixedly mounted, as by a forced fit, in a tubular member 1, which forms a part of the head A′; the lamp or bulb A^2 is mounted in a socket 2 with which the member B is equipped; a reflector 3 and a lens 4 are mounted in the free end portion of the head, the bulb extending freely through an opening 5 in the base of the reflector; and a spring 6 is interposed between the reflector and the member B.

The socket 2 is shown fitted with an insulation disk 7 equipped with a central contact 8 against which the central contact of the bulb bears. The other contact of the bulb is in electrical contact with the socket 2, which, in turn, is in electrical contact with the casing through the medium of the member B.

The sleeve 1 of the head has screw connection in 9 with the open end of the casing A.

The extension cord C is normally housed in a space or chamber 10 located between the member B and a disk 11 which is secured in the casing some distance below its open end. The disk 11 is equipped with a central contact 12 which bears against the central contact 13 of the cell or battery 14.

The cord C contains a wire 15 which is grounded on the metallic member B and on the casing. Also, the cord contains a wire 16 which is connected with the central contact 8 at one end and with a contact 17 at the other end. Another section of wires 16^a connects the central contact 12 with a contact 18. The two contacts 17 and 18 form a part of a switch 19 equipped with a movable member 20 which is adapted to bridge the contacts 17 and 18 and close the circuit.

The casing A is shown equipped with the usual base-cap 21 in which is mounted a spring 22 which makes electrical contact between the outer electrode of the dry cell and the casing.

The adapter D is shown as comprising a plate 23 equipped with a spring-clip 24 on one side and with a vacuum cup 25 on the other side. The plate or strip 23 is equipped with a hinged member 23^a which may be connected by means of a pintle 23^b with a hinged member 26 with which the lamp-support B is hinged.

The adapter D may be stored in the chamber 10 above the extension cord C.

When desired, the casing-head A′ may be removed, and the adapter D applied, as shown in Fig. 4. In the position shown in Fig. 4, the vacuum cup 25 may be pressed against the head of the user and thus the lamp may be used as a headlight.

If desired, the spring-clip or hook 24 may be used as a means of supporting the lamp upon any convenient object.

In the modification shown in Fig. 5, D′ designates an adapter of modified form. In this instance the adapter is constructed as previously described, except that the plate 23 is equipped with a spring-clip device 27 which presents spring jaws 27^a in each direction from the plate. Thus, the adapter may be clamped upon the rear-edge portion of the sleeve 1 of the head A′.

It will be understood, therefore, that the adapter D′ is capable of being turned so as to present either the vacuum cup or the clip 24 in a rearward direction.

In the modification shown in Fig. 6, the lamp-support B is equipped internally with wire brackets 28 to which are attached the ends of an elastic band 29 which may be placed upon the head of

the user. The band 29 may be folded in the space below the lamp-support.

The removable head equipment with an extension cord enables the user to employ the lamp for head-lighting purposes. It may, for example, be secured on the head of the user while an automobile repair is being effected, the battery being slipped in the pocket of the user during such temporary use of the device. On the other hand, the flashlight may be used in the ordinary manner.

It will be noted that when the device is used in the extended manner shown in Fig. 4, the wire 15 of the extension cord forms an electrical connection between the outer terminal of the lamp and the casing A. The circuit is completed through the medium of the switch-member 20, regardless of whether the lamp is used in the ordinary position or is used in the extended position.

The foregoing detailed description has been given for clearness of understanding only and no unnecessary limitations should be understood therefrom, but the appended claim should be construed as broadly as permissible in view of the prior art.

What I regard as new, and desire to secure by Letters Patent, is:

A flashlight comprising: a casing having therein a partition wall dividing the casing into a lower dry-cell compartment and an upper extension-cord compartment; a lamp-equipped head including a sleeve removably mounted on said casing; a lamp-supporting disc fixedly mounted in said sleeve; a battery in said dry-cell compartment; an extension-cord connected with said head and in circuit with the lamp therein, said cord being normally housed in said upper compartment; a flange and hinge member depending from said lamp-supporting disc; and an adapter equipped with means for supporting the lamp head, when removed from the casing, through the medium of said flange and hinge member.

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