Aug. 11, 1931. O. KROLDRUP 1,818,855

COMBINED FLASH LIGHT AND WRITING PAD

Filed Sept. 20, 1929

Fig. 1.

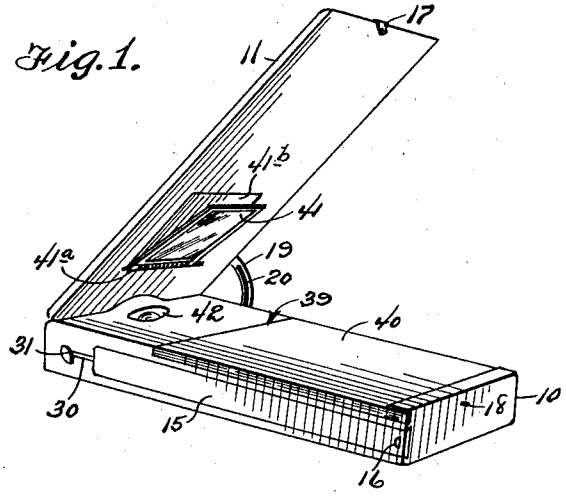


Fig. 2.

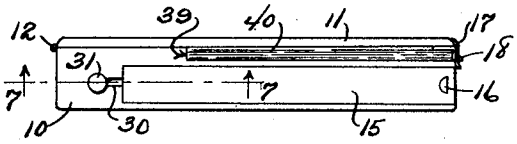


Fig. 3.

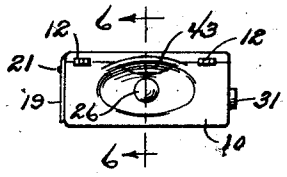


Fig. 4.

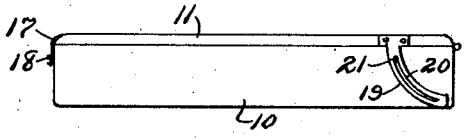


Fig. 5.

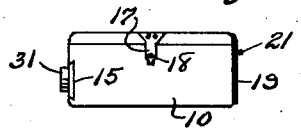


Fig. 6.

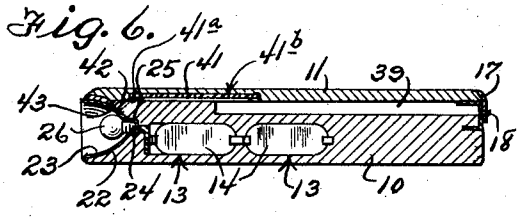
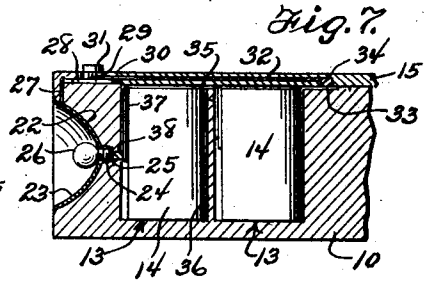


Fig. 7.



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UNITED STATES PATENT OFFICE

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COMBINED FLASH LIGHT AND WRITING PAD

Application filed September 20, 1929. Serial No. 393,996.

The invention relates to general utility devices and has for its general object the provision of a combined writing pad and flashlight, the device being capable of use either as a flashlight alone or for illuminating a writing pad at night and being particularly convenient for use by the police, doctors, newspaper reporters and others who are frequently compelled to write under conditions where there is no adequate light.

An important object of the invention is to provide a device of this character in which a portion of the light of the flashlight is caused, under certain conditions and when so desired, to be reflected onto the writing surface, it being also conceivable that the device may be constructed in such manner that it will illuminate only the writing surface, the rays of light being prevented from issuing from the device in the nature of a flashlight.

Another object of the invention is to provide a device of this character and for this purpose so constructed as to contain a desired number of dry cells which will furnish the current necessary for the energization of an incandescent lamp which constitutes the illuminating means, the arrangement being such that these cells may be quickly and easily removed and replaced with new ones when exhausted.

Another object is to provide a device of this character which will be simple and inexpensive to make, easy to use, positive in action, efficient and durable in service, and a general improvement in the art.

With the above and other objects and advantages in view, the invention preferably consists in the details of construction and the arrangement and combination of parts to be hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which:—

Figure 1 is a perspective view of the complete device showing the cover thereof opened for effecting illumination of a writing surface.

Figure 2 is a side elevation with the cover closed.

Figure 3 is a front end view with the cover closed.

Figure 4 is an elevation of the side opposite that shown in Figure 2.

Figure 5 is an elevation of the rear end or end opposite that shown in Figure 3.

Figure 6 is a detail sectional view taken on the line 6—6 of Figure 3.

Figure 7 is a detail sectional view taken on the line 7—7 of Figure 2.

Referring more particularly to the drawings, I have shown the device as comprising a body portion 10 and a cover 11 hinged thereto as shown at 12. This body portion 10 is represented as of more or less hollow formation or formed with a plurality of pockets or sockets 13 within which are removably mounted dry cells 14 of a type used in connection with flashlights of various kinds. These pockets or sockets 13 open out to one side edge of the body 10, these open ends being normally closed by a slide 15 having a dove-tailed mounting in the casing and preferably provided with a thumb-nail grip 16 so that it may be grasped and pulled out when necessary. The cover 11 is coextensive in length with the body 10 and its free end is preferably provided with a spring or other catch 17 cooperating with a keeper 18 on the end of the body. By this arrangement it will be seen that the device may be folded up and carried in a manner similar to a small kodak. To limit the opening movement of the cover it is preferable to equip it with a curved arm 19 having an arcuate slot 20 therein slidably engaging a pin 21 on one side of the body, it being preferable that the engagement be rather close so that when the cover is opened into the position shown in Figure 1 it will remain open without being held by the operator or user.

That end of the body at which the cover 11 is hinged, is here shown as formed with a recess 22 within which is mounted a reflector 23 at the center of which is located a socket 24 receiving the base 25 of an incandescent lamp 26. This socket 24 is of metal and the lamp is of the single contact type, its base 25 constituting one terminal which is, of course, in electrical connection

with the socket 24. The reflector is further represented as having an extension or tongue 27 thereon adapted to be engaged by a metal slide 28 which constitutes a switch and which carries a stem 29 slidable along a slot 30 and equipped with a button or head 31. Within the sliding cover 15 is a metallic strip 32 which overlies and which constitutes retaining means for the metal slide 28 and which is in electrical contact therewith.

One endmost battery cell 14 has its outside terminal 33 extended laterally and engaging a projection 34 on the metal strip 32. The outside terminal 35 of the other cell 14 is extended at an angle to overlie the partition 36 between the pockets 13 and engages against the outside of the first mentioned cell 14 so that the two cells will be connected in series. The other terminal 37 of the second mentioned cell 14 engages against a metallic contact element 38 which in turn engages against the central electrode of the electric lamp or incandescent bulb 26.

The top surface of the body 10 is recessed as shown at 39 and within this recess is located a removable writing pad 40 which may be held in place in any desired manner whatsoever.

An important feature of the invention is the provision of a mirror 41 mounted on the under side of the cover, and an opening 42 in the body 10 registering with a corresponding opening 43 in the reflector 23. When the incandescent lamp is energized and the cover 11 is open as indicated in Figure 1 a portion of the light from the lamp will pass through the registering openings 43 and 42 and will fall onto the mirror 41 from which it will be reflected down onto the writing pad 40 so that the user may make notes, memoranda or the like even in the dark. If desired, a cover might be provided to cover the reflector 23 so that no light can issue therefrom.

Attention is directed to the fact that the mirror 41 is hinged, preferably by means of a spring hinge 41*a* on the underside of the cover 11 so that when the cover is swung open the mirror will swing downwardly so as to reflect the light from the lamp onto the writing surface 40. This is necessary to obtain the proper angle of reflection as otherwise the light might be caused to shine into the eyes of the operator. It will be observed that when the cover is closed the mirror 41 occupies a position within a recess 41*b* in the underside of the cover so as not to add undue bulk which would interfere with the compactness when the device is in closed position.

Assuming that the device has been constructed as above described, the operation is as follows: When the cover 11 is closed down upon the body 10 with the catch 17 engaged with the keeper 18 it is apparent that the device is readily capable of use simply as a flashlight. When it is desired to use the device as a flashlight, the operator grasps the button 31 and moves it toward the lamp end of the device so that the metal slide 28 will engage against the extension or tongue 27. When this is done it is apparent that the circuit is completed through the two cells 14 in series and the filament of the incandescent lamp 26 so that light will be produced which will be thrown out by the reflector 23 to the place desired exactly in the same manner as in connection with any other type of flashlight. However, when the device is to be used for assisting in the making of notes or the like at night, it is merely necessary to disengage the catch 17 from the keeper 18 and move the cover 11 into its open position as shown in Figure 1, the arm 19 cooperating with the pin 21 acting to maintain the cover at the proper position with respect to the writing surface. When the operator then presses the button 31 toward the lamp end of the device to close the circuit through the cells and filament of the lamp 26, it is apparent that a certain amount of light from the lamp will pass through the registering openings 43 and 42 in the reflector and body respectively and will be thrown onto the mirror 41 from which it will be reflected onto the writing surface 40. Ordinarily the mirror 41 is contained within the recess 41*b* but it will naturally be understood that when the cover 11 is opened the spring hinge 41*a* will operate to swing the mirror 41 downwardly into the inclined position shown in Figure 1 so as to insure the light being thrown onto the writing surface.

The switch device comprising the parts 27 to 31 is shown as of the sliding type in view of the fact that it is highly desirable that the current be left turned on while the notes or other writing may be made. If a cover be provided for the reflector 23 it is clear that the device will not operate at all as a flashlight, when such is desired, but will nevertheless act to throw light upon the writing surface 40. The member or element 40 may be simply a pad of superposed sheets such as are very well known or may be of some special construction if such is desired for any reason. Whenever it is necessary to replace worn out cells 14 with new ones it is a simple matter to engage the thumb nail within the notch 16 and pull the slide 15 sufficiently to expose the cells 14 which may then be removed and replaced with new ones without in any way interfering with any other part of the apparatus.

From the foregoing description and a study of the drawings it will be apparent that I have thus provided a very simply constructed and inexpensive device for the purpose specified and one which will be highly efficient and a great convenience to the po-

lice, physicians, ambulance attendants, newspaper reporters and in fact many other persons having occasion to make notes or other writings at night without proper facilities. It is believed that the construction, operation and advantages will be readily apparent without further explanation.

While I have shown and described the preferred embodiment of the invention, it should be understood that I reserve the right to make all such changes in the details of construction and the arrangement and combination of parts as will not depart from the spirit of the invention or the scope of the subjoined claims.

Having thus described the invention, I claim:—

1. In a device of the character described, a body member formed to support a writing surface, a cover hinged upon said body member and carrying an independently movable mirror, a plurality of battery cells within the body member, an incandescent lamp mounted within the body member and adapted to be energized by said cells, the body member having an opening through which light from said incandescent lamp may fall upon said mirror and be reflected onto the writing surface.

2. In a device of the character described, a body member formed to support a writing surface, a cover for the entire body hinged thereto and carrying a swingably mounted mirror, a plurality of battery cells within the body member, an incandescent lamp mounted within the body member and adapted to be energized by said cells, the body member having an opening through which light from said incandescent lamp may fall upon said mirror and be reflected onto the writing surface, and a manually operable switch mounted on the body for controlling energization of the incandescent lamp.

3. In a device of the character described a body member formed to support a writing surface and provided with a hinged cover, means for holding the cover closed, other means for limiting the opening movement of the cover, a mirror swingably mounted within a recess in the under side of the cover and movable out of said recess when the cover is opened, a plurality of cells mounted within the body, a reflector mounted within one end of the body, an incandescent lamp located within the reflector and electrically connected with one terminal of the cells, a switch device mounted on the body and interposed in circuit between the cells and the incandescent lamp, the body and the reflector being formed with registering openings adapted to permit light to pass onto said mirror and be reflected thereby onto the writing surface.

4. A device of the character described comprising a body having a hinged cover and equipped at one end with an incandescent lamp and reflector and containing battery means for energizing the lamp, a switch device mounted on the body for controlling the energization of the lamp, the body having an opening through which light from the lamp may pass, and a reflector on the under side of the cover adapted to receive said light and reflect the same onto the writing surface, said second named reflector being hingedly attached to said cover to be removable with respect thereto.

In testimony whereof I affix my signature.

OTTO KROLDRUP.