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ILLUMINATION MEANS FOR HANDBAGS AND THE LIKE

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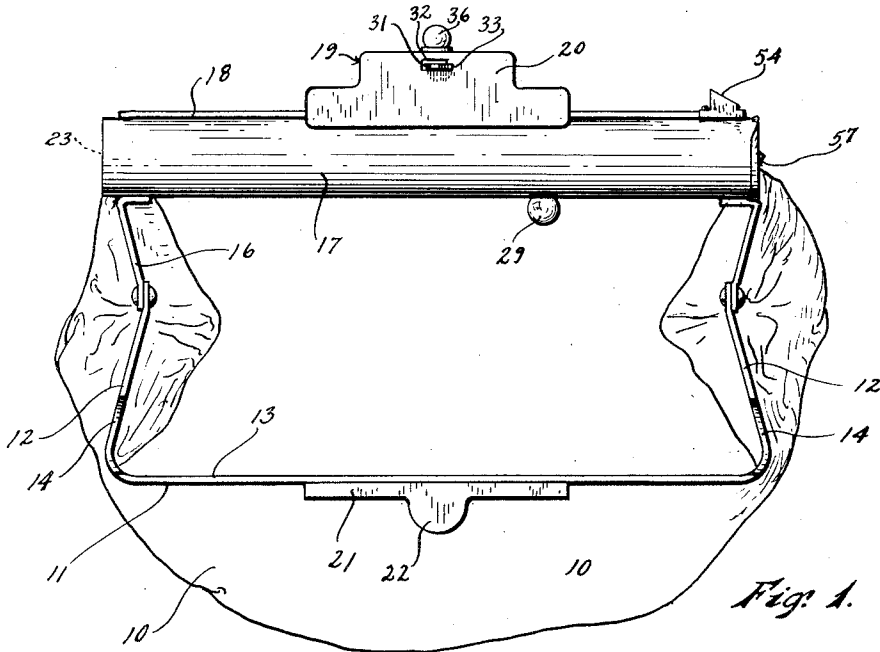


Fig. 1.

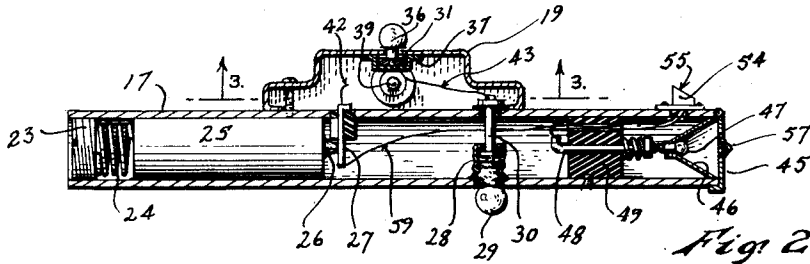


Fig. 2.

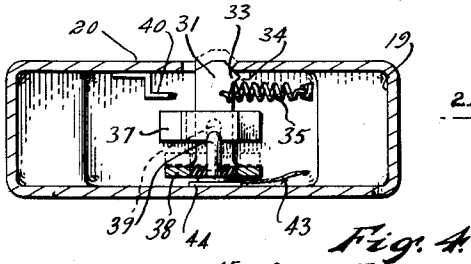


Fig. 4.

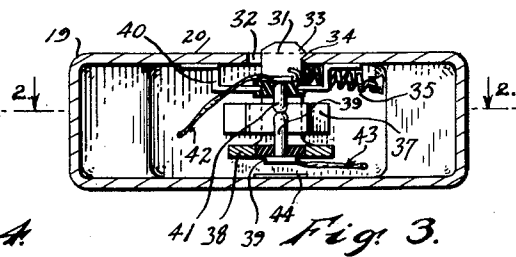


Fig. 3.

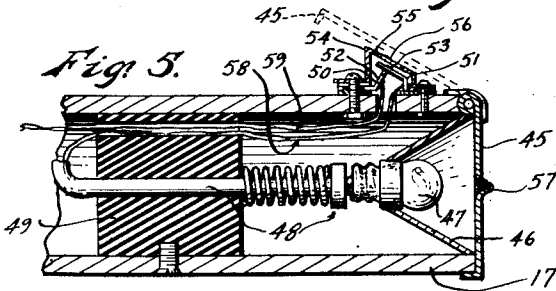


Fig. 5.

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ILLUMINATION MEANS FOR HANDBAGS AND THE LIKE

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1 Claim. (Cl. 240-6.45)

The invention relates to portable electric lighting devices operated by dry cell batteries, although it may also be applied otherwise. It is particularly designed for use as a permanent part in ladies' handbags, travelling bags, physicians and surgeons' medicine and tool cases, and others, to illuminate the interior of such receptacles, and spaces within enclosures, and in addition to afford utility as a search light for illuminating areas exteriorly of a portable receptacle upon which it is installed.

It is an important object to present a switch construction and light mounting specially adapted to use in the latch housing of a handbag having the familiar pivoted balls forming opposite sides of the opening thereof.

It is an important aim also to present a switch construction for such use which will automatically open the circuit to the lamp illuminating the interior of the bag or other receptacle when the latter is closed.

A further object is to give a novel construction of switch useful in such devices.

Additional objects, advantages and features of invention reside in the construction, arrangement and combination of parts involved in the embodiment of the invention, as will appear from the following description and accompanying drawing, wherein

Figure 1 is a top view of an open handbag in which my invention is incorporated;

Figure 2 is a longitudinal sectional view of the battery, lamp, and switch housing.

Figure 3 is a section on the line 3-3 of Figure 2, looking upward, the switch closed.

Figure 4 is a similar view with parts removed, the switch open.

Figure 5 is an enlarged fragmentary section showing the search light and switch therefor.

There is illustrated a handbag 10 which may be of any usual material and in any desired shape as to the bag portion proper. The bag has an opening therein one side of which is secured in the usual manner to one ball section 11 which may be of the usual form for such an opening, with the exception that in each arm 12 immediately adjacent the bight or top bar 13 there are formed semi-circular notches 14 adapted to embrace a battery and lamp case 17 forming part of the opposite ball 15 which is pivoted to the one 11. The latter consists of two arms 16, complementary to the arms 12, but shorter and having their outer ends soldered or welded to the side of a tubular battery and lamp case 17, which may be either cylindrical or polygonal in cross sec-

tion. On the upper side of this case 17 a bar 18 may be secured forming the top member of the ball, and to which the edge of the bag material may be secured as usual. By this construction both ends of the casing 17 are exposed without the bag, for the uses to be indicated hereinafter.

A switch housing 19 is mounted on the upper side of the case 17 formed with a flat side 20 at the inner side, to which is opposed a flat plate 21 fixed on the bight of the ball 11 and having a release plate 22 projected outward therefrom at its middle, for a purpose to be described.

One end of the case 17 is closed by a manually removable screw cap 23 inwardly of which there is disposed a compression helical spring 24 confined by the cap against the bottom of a battery cell 25 of usual form, the opposite end having its usual central electrode 26 engaged against an insulated plate or contact bar 27 projected into the case at right angles to the longitudinal axis thereof. A distance further longitudinally on the case, a lamp receptacle 28 is set in the wall of the case 17 so that a standard lamp 29 may be screwed therein with its bulb just without the case. An insulated electrode 30 within the receptacle is formed by the headed end of a bolt which is extended upwardly across the case 17 and secured in a suitable insulating mounting in the side of the case 17 exposed just within one end of the housing 19.

In the top of the housing 19 there is mounted for transverse sliding movement a bar 31 somewhat like a latch bar, its mounting also permitting a slight movement at the extremity next the side 20 in a longitudinal direction with respect to the housing and case 17. This bar is projected at times through a slot 32 in the flat side 20, and is formed with a lateral bill 33, bevelled at opposite sides as at 34 and adapted to pass through the slot also. A contractile spring 35 is anchored to one end of the housing 19 and connected to the bar 31 so as to pull the bill 33 toward the adjacent end of the slot 32, whereby the bevelled edges of the bill will bear slidingly against the end of the slot, holding the bar 31 at either limit of its movement yieldable however, to manual pressure. The bar 31 has a knob 36 thereon exposed suitably at the outer and top side of the housing 19 for manipulation as required to reciprocate the bar. The bar is mounted in a strap support 37 secured to the top of the housing 19 and permitting the necessary sliding and lateral movement of the bar, as indicated.

At the inner end of the bar 31 there is formed

an integral downward extension 38 near the flat side 20 of the housing, this extension being broadened and having mounted therein with suitable insulation a contact 39 projected horizontally inward. On the opposite side of the housing below the bar there is secured a bridge plate 40 having an insulated contact 41 therein projected coaxially with the contact 39, so that the two abut end to end when the bar 31 is at or near the outer limit of its movement, being held yieldingly in such contact by engagement of the end of the slot 32 with the inner bevelled edge of the bill 33. The contact 41 is connected by wire 42 to the battery contact bar 27, and the contact 39 is connected by wire 43 to the bolt electrode 30 of the lamp receptacle 28.

The cell 25 being grounded to the case 17, at its negative end by the spring 24, and the receptacle 28 being mounted directly on the case, when the bar 31 is moved outwardly, it draws the contact 39 into engagement with the contact 41, and so closes the circuit to the lamp. By reason of the spring 35 drawing the inner bevel of the bar 31 against the end of the slot 32, the switch is held closed until the bar 31 is pressed inward so as to bring the angular tip of the bill 33 inwardly of the end edge of the slot 32, when, by action of the spring 35 drawing the outer bevel of the bill 33 against the end of the slot, the bar will be moved to its inner limit of movement and so held, with the contacts 39 and 41 separated and the circuit open.

It will be noted that the extension 22 of the plate 21 is so located as to fall close against the flat side of the housing over the slot 32 when the handbag is closed, and in such closing, if the user has neglected to open the switch by moving the knob 36 to draw the bar 31 inward, pressure of the plate extension 22 against the end of the bar 31 exposed beyond the housing 19 will force the bar inward until it will be automatically drawn to the inner limit of its movement and so held by action of the spring 35, as described. An insulation stop 44 may be provided on the housing 19 to receive the extension 38 and contact 39 at retracted position.

At the end of the case 17 opposite the battery 25, a hinged spring-pressed closure 45 is provided, hinged at the upper side of the case, and tending to normally remain closed by its spring, yieldable to manual opening. Within this closure a conical reflector 46 is mounted on the case, containing a lamp receptacle in which a lamp 47 is engaged, with its customary central electrode exposed inwardly of the reflector. There it engages and presses rearwardly a spring-loaded contact 48, slidable in a block 49 of insulation material fixed in the case.

On top of the case 17 two insulated longitudinally spaced spring contacts 50 and 51 are mounted, the inner one 50 having an outstanding stationary edge 52 inclined slightly toward the end of the case approximately at an angle of 30 degrees to the case, while the outer contact is extended upwardly from the case and then inclined inwardly longitudinally of the case providing a blade 53 at an angle of approximately 45 degrees so as to lie over and in spaced rela-

tion to the extremity of the outstanding part of the first contact, and substantially at right angles thereto as shown, and adapted to be pressed downward thereagainst at times. A small switch case or housing 54 is secured over these contacts so as to enclose them completely and prevent their engagement with objects that might close the switch ordinarily. The housing 54 is formed with an inclined part 55 closely parallel with the part 53 of the contact 51 when the latter is in open position and also radial to the axis of the closure pivot. An aperture 56 is formed in this sloping side of the housing 54, and on the outer side of the closure 45 a projection 57 is formed so positioned and of such length that when the closure is opened and swung back against the sloping part of the housing 54, the projection will enter the aperture 56 and press the part 53 of the contact 51 against the contact 50. A wire 58 is connected between the contact 51 and the spring loaded contact 48, and a wire 59 is connected between the contact 50 and the battery bar 27.

By the last described construction, whether the bag be closed or open it may be grasped so that the thumb of the hand may be engaged over the end of the case with the closure 45, drawing the latter open and pressing it backwardly until the projection 57 closes the switch in housing 54 and energizes the lamp 47.

This provides a convenient search light for general uses in the same device with the handbag illuminator. The closure 45 will spring to closed position as soon as released, opening the circuit to, and protecting the lamp.

While I have disclosed and described a specific single embodiment of the invention, I do not regard the invention as limited to these specific features, and various changes in the construction and arrangement may be made within the scope of the claim as particularly set forth hereinafter.

For a person returning home at night, the device will be found particularly useful in illuminating the interior of the bag to disclose the latch key in the bag, and at the same time illuminate the way to the door, and the key-hole of the door to be unlocked, the lamp 29 performing the one service, while the lamp 47 serves the others.

I claim:

In a device of the character described a lamp case of tubular form having a hinged closure at one extremity, an electric lamp in the case adjacent the closure, means to energize the lamp including a switch on the side of the case having a stationary contact and a relatively movable spring-sustained contact located toward the said extremity of the case and operatively movable in a direction including principally elements substantially tangent to an arc concentric with the hinge of the closure, a housing on the case enclosing said switch and having an aperture coincident with said element, and a projection on the closure arranged to enter said aperture when the closure is opened fully, to operate the switch.

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