

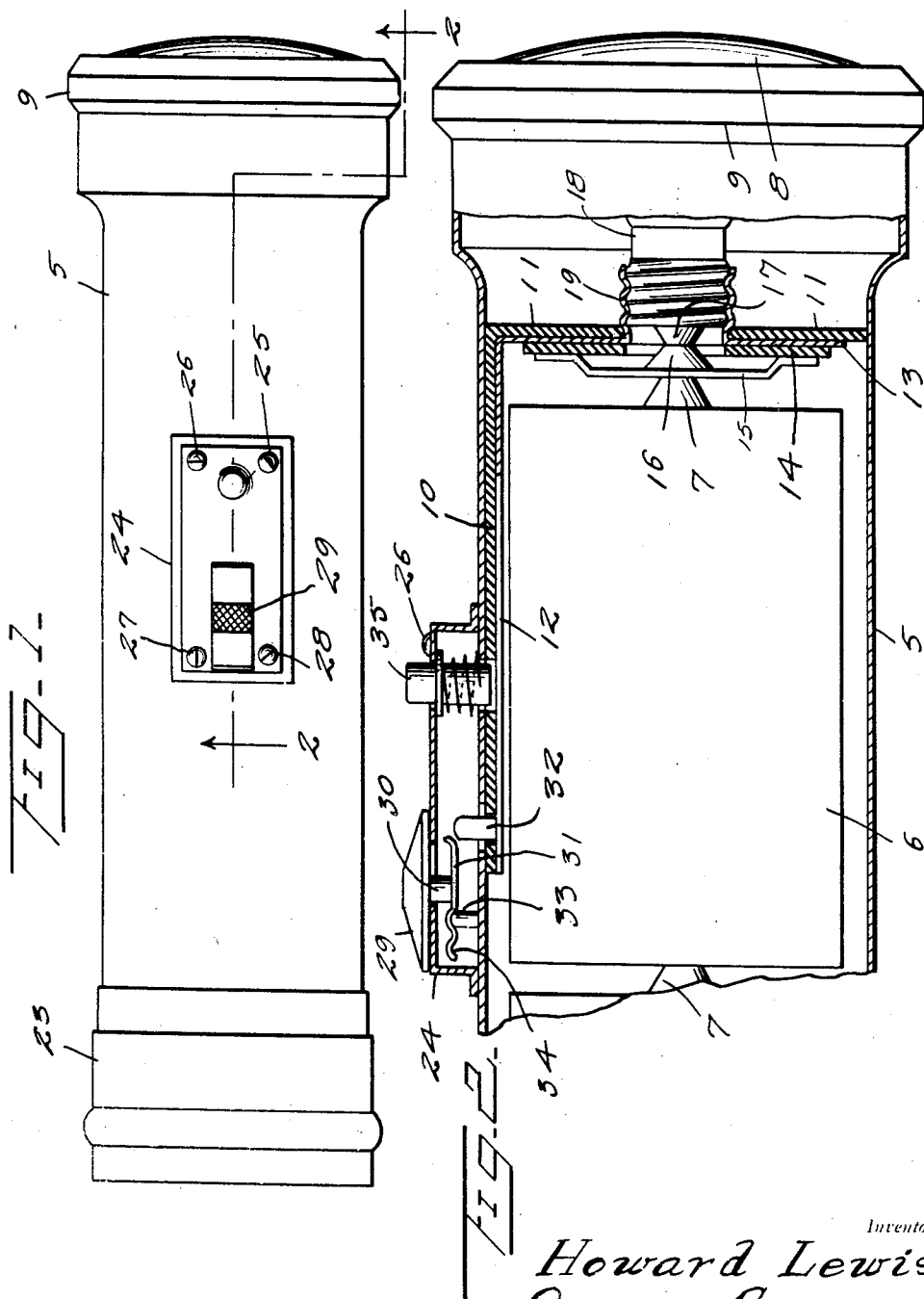
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O. GRAY ET AL

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FLASHLIGHT SWITCH

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FLASHLIGHT SWITCH

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1 Claim. (Cl. 200—60)

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The present invention relates to new and useful improvements in flashlights and more particularly to a switch for controlling the energizing of the bulb of the flashlight.

An important object of the present invention is to provide a switch device for flashlight casings in which the switch may be detachably connected to the casing so as to permit a replacement of the switch should the same become broken without necessitating discarding of the entire flashlight casing.

In the usual flashlight construction the switch is permanently attached to the casing so that should the switch become broken or otherwise become inoperable it is necessary to discard the entire flashlight casing which thereby results in a considerable loss in material and equipment. Accordingly it is an object of the present invention to provide a switch mounting which may be easily and quickly attached to and removed from a flashlight casing so that the switch may be replaced when desired.

A further object of the invention is to provide a device of this character of simple and practical construction, which is efficient and reliable in operation, which materially reduces the maintenance cost of flashlights and which otherwise is well adapted for the purposes for which the same is intended.

And another object is the provision of a dual purpose switch, i. e., one having a means by which the circuit may be held closed without maintaining constant pressure on the button and also having a means for closing the circuit only when pressure is constantly applied thereto.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout and in which:

Figure 1 is a top plan view, and

Figure 2 is an enlarged fragmentary sectional view taken on the line 2—2 of Figure 1.

Referring now to the drawings, the numeral 5 refers to a flashlight casing having therein a plurality of batteries 6 with terminals 7 thereon. At one end of the casing 5 is the conventional lens 8 and lens retaining ring 9.

On the inner side of the casing 5 is arranged

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insulation 10, the upper end of which extends across the casing 5, as denoted by the numeral 11. Also extending down the side of the casing is a metallic contact member 12, which, like the insulation 10, extends across the upper end of the casing, as shown at 13, and is substantially coextensive with said insulation.

Arranged against the under side of the portion 13 is an additional insulating member 14 and below this a cross metallic strip 15 which carries a contact head 16 thereon for connection with the contact head 17 of the light bulb 18.

The upper portion of the metallic member 13 is arranged, as shown at 19 to threadably receive the bulb 18.

When the batteries 6 are placed within the casing they are held in close contact with each other and the uppermost one in contact with the strip 15 by means of a cap 23 which has, preferably, a coil spring therein. This arrangement maintains a constant connection on the positive side.

The switch box 24 is removably held in the casing 5 by means of any desirable number of screws 25, 26, 27 and 28 and at its rear end is arranged a slidable button 29 with a pin 30 extending inwardly of the casing, the pin carrying a metallic strip 31 which, when moved forwardly will engage a conductor pin 32 connected to the contact strip 12 thus completing a circuit from the batteries 6 through conductor parts 15, 16, 17, the lamp 18, parts 19, 13, 12, 32, 31 and 29, through box 24 and case 5 to the cap 23 which is connected to the negative terminal of the rear battery 6 in a conventional manner. At the lower end of the contact strip 31 are two notches 34 and they are arranged to be resiliently held against a pin 33 in order that the upper end of the strip will definitely be held either in or out of contact with the pin 32. With this arrangement it is only necessary to slide the button 29 forwardly and the circuit will be held closed until the button is returned to its rear position.

Arranged at the forward end of the box 24 is a second button 35 which, normally is held in its outward position by means of the coil spring 36 but, when pressed inwardly, will move against the contact strip 12 to complete the circuit.

Repairs to or replacement of the switch, or any

part thereof, may be made by merely removing the screws 25, 26, 27 and 28, thus releasing the switch box 24.

While we have described and illustrated the preferred embodiment of the invention it will be understood that various modifications may be made while keeping within the scope of the appended claim.

Having thus described the invention what we claim is:

A flashlight including a case forming part of the electrical circuit of the flashlight, a conductor member in said case forming a part of the electric circuit, means insulating the conductor member from the case, a switch housing removably connected to said case and formed of an electrically conductive material, a switch slidably connected to the switch housing and movable into and out of engagement with said conductor member for making and breaking the electrical circuit of the flashlight and a spring-retracted plunger switch in electrical contact with the case, said plunger switch being disposed to be manually projected into contact with said conductor member for closing the electric circuit of the flashlight while the plunger is held

in a projected position, said case having spaced openings communicating with the interior of the housing, said connector member having a stud projecting radially outwardly through one of said openings and disposed out of electrical contact with the case and for engagement by the slidable switch when the latter is moved to a circuit closing position and said plunger switch being reciprocally disposed in the other of said openings to contact the conductor member when pressed inwardly against the action of the spring.

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