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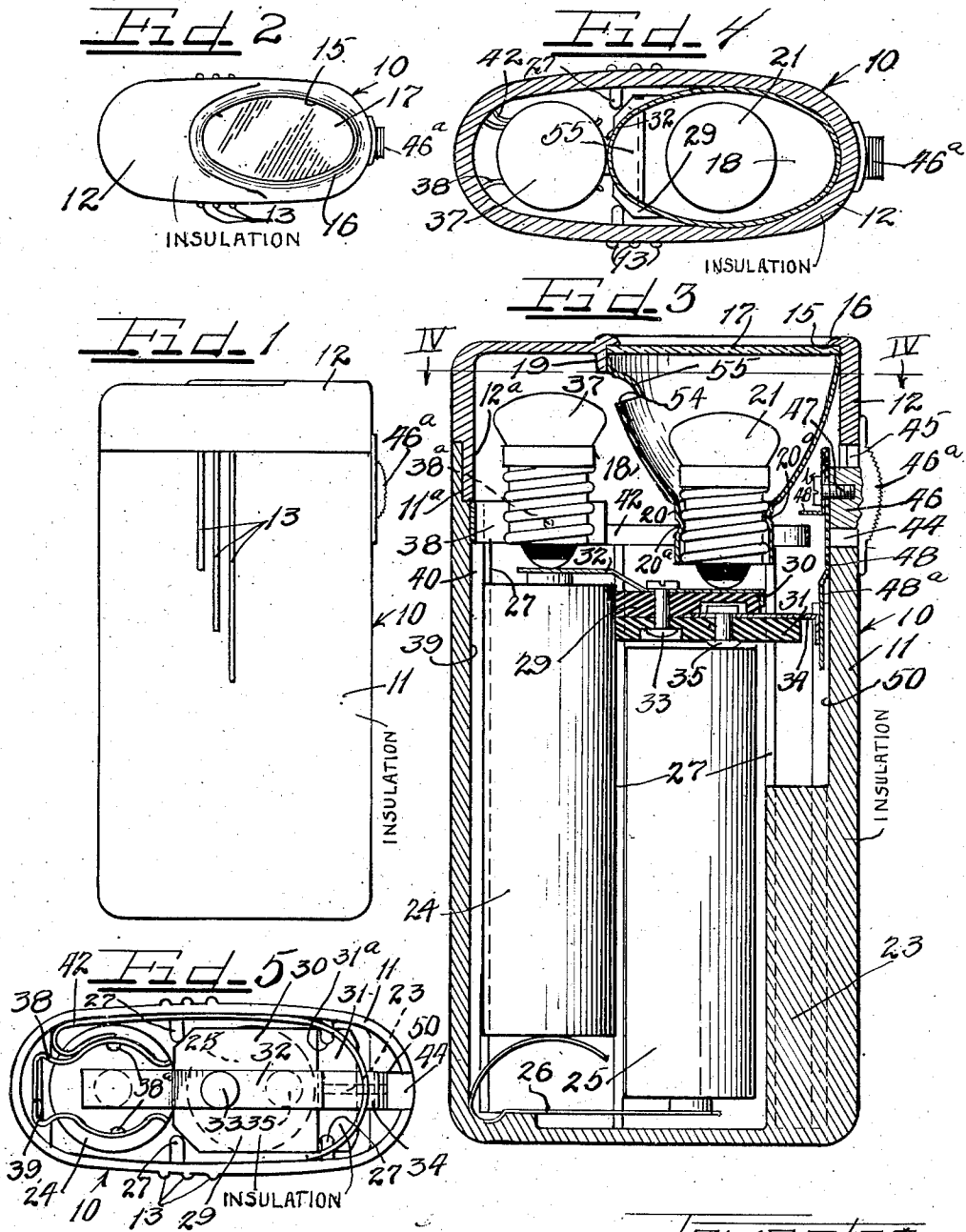
L. H. SNYDER

2,383,223

SEARCHLIGHT

Filed Sept. 21, 1942

2 Sheets-Sheet 1



Inventor
Leland H. Snyder

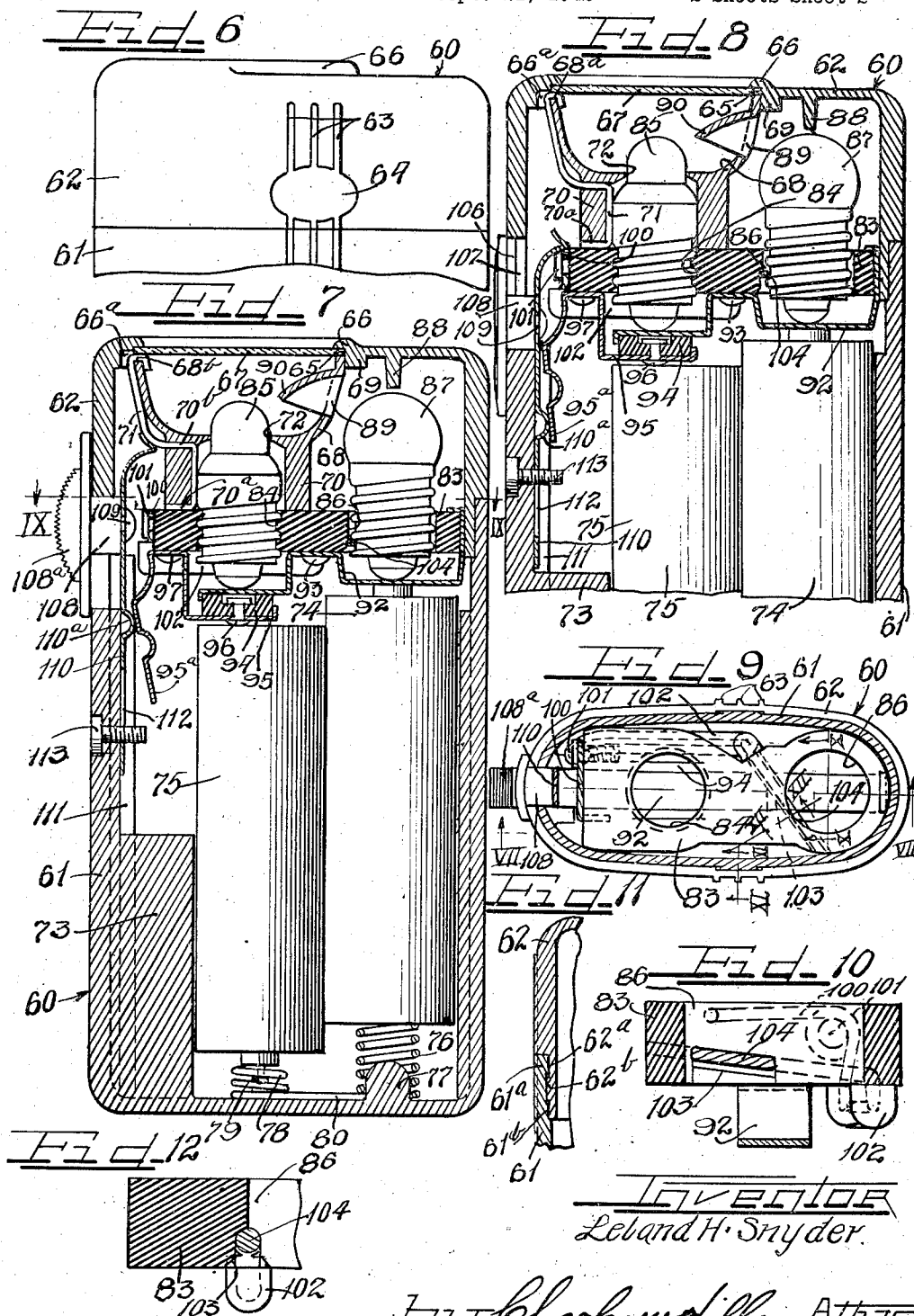
By Charles W. Wells Attys.

L. H. SNYDER

SEARCHLIGHT

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2 Sheets-Sheet 2



UNITED STATES PATENT OFFICE

2,383,223

SEARCHLIGHT

Leland H. Snyder, Chicago, Ill., assignor to Quality Hardware and Machine Corporation, Chicago, Ill., a corporation of Illinois

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5 Claims. (Cl. 240—10.6)

This invention relates to battery hand lamps, and more particularly to that type of lamp in which a plurality of bulbs are provided to be lighted selectively at the will of the operator.

Conventional flashlights are provided with one or more bulbs as a source of light and with one or more reflectors for causing the light to be projected in the form of more or less sharply defined beams of light visible in darkness for a long distance. Consequently, conventional flashlights may not safely be used under black-out conditions for illuminating or signaling purposes.

The present invention provides a flashlight having one bulb mounted at the bottom of a reflector, for throwing a more or less sharply defined beam of light for use under ordinary conditions. The flashlight of the present invention further includes a second bulb mounted within the casing of the flashlight. The light from the second bulb is admitted into the reflector in a downward direction through a hooded slot in the reflector, whereby the light from the second bulb is projected from the reflector in an extremely diffused form so as not to be visible for a long distance. The reflector may be formed of a non-metallic material, for instance, a white plastic, to provide an evenly diffused light. The flashlight of this invention is further provided with a sliding contact which operates to close a circuit energizing the bulb emitting the bright light when pushed one way, and to close a circuit energizing the second bulb emitting dim light when pushed in the opposite direction.

More particularly, one type of flashlight according to this invention has two bulb sockets insulated from each other, the socket for the bulb used for normal illumination being a sleeve integral with a metallic reflector. The socket for the bulb to be used under black-out conditions is formed by a spring clip electrically connected to a spring bar extending across the interior of the flashlight casing past and spaced from the bulb socket connected to the reflector and having a free end below the reflector. A longitudinal switch bar has its rear end in permanent sliding contact with a negative ground. Upon forward movement of the switch bar into contact with the reflector, the bulb intended for normal illumination is energized. Upon backward movement of the switch bar, a projection on the bar contacts the free end of the spring bar to energize the bulb intended to furnish faint light for use during black-outs.

In another form of flashlight according to the present invention, two bulbs are socketed in an

insulating panel disposed within the battery casing above two batteries disposed side by side in the battery casing lengthwise thereof. The bulb to be used for normal illumination projects into a hooded, slotted reflector formed of an insulating bone white plastic material. A metal strip attached to the underside of the panel connects the contact points of both bulbs to the positive pole of one of the batteries, which are connected in series. A longitudinal switch bar has its rear end in permanent sliding contact with a negative ground. Upon forward movement, the switch bar contacts a bare wire disposed on the outside of the reflector and electrically connected to the bulb intended for normal illumination. On backward movement of the switch bar, the latter contacts a bare portion of another wire extending along the panel and electrically connected to the bulb to be used under black-out conditions. If desired, the aperture in the panel receiving the bulb intended for use under black-out conditions may have a smooth cylindrical inside, the wire connecting the bulb electrically to its energizing circuit being disposed in the manner of a chord within the aperture at the same angle as the pitch of thread in the bulb base whereby the bulb can be screwed into the aperture in spite of the absence of threads on the inside of the aperture.

It is, therefore, an important object of the present invention to provide a flashlight capable of emitting a more or less sharply defined beam of bright light for use during normal conditions, as well as a diffused dim or faint light for use under black-out conditions.

A further object of this invention is to provide a flashlight having a reflector formed with a hooded slot through which light may be admitted from a bulb disposed inside the flashlight casing for projection in diffused form from the reflector.

A further object of the invention is to provide a flashlight having a reflector formed of non-metallic material such as a white plastic for projecting evenly diffused light therefrom.

Another object of this invention is to provide a flashlight having a contact which, when moved in one direction, closes a circuit including a bulb so disposed in relation to the reflector as to furnish a beam of bright light and, when moved in another direction, closes a second circuit including a bulb so disposed as to emit light which enters the reflector downwardly through a hooded slot to be projected in a diffused form.

Other and further objects and features of this invention will become apparent from the ap-

pending claims and from the following detailed description of two examples of a flashlight according to this invention shown in the accompanying drawings, in which:

Figure 1 is a side view of a flashlight according to this invention;

Figure 2 is a plan view of the flashlight of Figure 1;

Figure 3 is an enlarged longitudinal cross-sectional view of the flashlight of Figure 1;

Figure 4 is a transverse cross-sectional view taken along the line IV—IV of Figure 3;

Figure 5 is an enlarged plan view of the flashlight with the cover, the electric bulbs and the switch bar removed.

Figure 6 is a fragmentary side elevational view of another flashlight according to this invention;

Figure 7 is a longitudinal vertical cross section, with parts shown in elevation, of the flashlight of Fig. 6 taken along the line VII—VII of Fig. 9 and showing the flashlight with the switch closing the circuit intended for normal illumination;

Figure 8 is a fragmentary view similar to Fig. 7 but showing the switch closing the circuit intended for illumination under black-out conditions;

Figure 9 is a transverse cross-sectional view taken along line IX—IX of Fig. 7 with the two bulbs removed;

Figure 10 is a fragmentary vertical cross-sectional view taken along the line X—X of Fig. 9;

Figure 11 is a fragmentary longitudinal cross-sectional view taken along the line XI—XI of Fig. 9; and

Figure 12 is a fragmentary vertical cross-sectional view taken along the line XII—XII of Fig. 9.

As shown on the drawings:

In Figures 1 to 5, a flashlight according to this invention is indicated generally by the reference numeral 10 and includes a casing 11 of flattened oval cross-sectional form and a cover 12. The casing and cover are both formed of insulating material, for instance, fibrous or resinous plastic materials. As shown in Figure 3, the casing 11 and the cover 12 are rabbeted at 11a and 12a so as to fit together in overlapping or partly telescoping relationship. The outside of the casing 11 is formed with a series of parallel longitudinal ribs 13 intended for decorative purposes.

One side of the end of the cover 12 is pierced by a generally oval aperture 15 rimmed by an internal flange 16. The aperture 15 extends over more than half of the length of the cover end and is closed by a similarly shaped glass or lens 17 held against the underside of the rim 16 by a reflector 18 shaped similarly to the aperture 15 and force-fitted between the side wall of the cover and a dependent flange 19 extending from the cover side wall around the aperture 15. The reflector 18 is provided with an extended sleeve 20 for holding a light bulb 21. The sleeve or socket 20 is formed with depressed spots or dimples 20a staggered to engage the threads of the bulb 21. The sleeve or socket 20 can also be formed to provide a snug fit therein of the bulb 21 and may have formed therein a small depressed spring which will engage the thread of the bulb with spring pressure for securely holding the bulb.

The casing 11 is formed with a short internal rib or stem 23 extending from one short side wall below the aperture 15 toward the other short side wall to provide lateral support for two batteries or dry cells 24 and 25, whose ends do not occupy

anywhere near the entire bottom surface of the casing. As shown, the battery 24 further away from the stem 23 has its positive pole turned up, while the battery 25 adjacent the stem 23 has its positive pole turned downward. A connecting spring 26 connects the two batteries electrically while at the same time lifting the two batteries off the inner bottom surface of the battery case, the battery 24 being lifted somewhat higher than the battery 25. The clip 26 further serves to cushion any shock to which the batteries 24 and 25 may be subjected should the flashlight be handled roughly or dropped.

As shown in Figure 3, the battery 24 extends higher than the battery 25. Disposed on top of the battery 25, and held against lateral displacement by the battery 24 and longitudinal ribs 27 on the inside of the casing 11, is a connecting assembly 29, including a generally square flat insulating member 30 of rubber or other insulating material and a lower flat insulating member 31 extending laterally beyond the covering member 30. As shown in Figure 5, the members 30 and 31 are formed with bevelled corners, and the member 31 has edge recesses 31a, for receiving the ribs 27. Over the top of the member 30 extends a contact bar 32 having an offset end projecting laterally so as to overlie the positive pole member of the battery 24. The members 30 and 31 and the contact bar 32 are held in assembled relationship by a rivet member 33 whose lower head is countersunk into the member 31 so as not to contact the negative pole of the battery 25. A second contact bar 34 is clamped between the members 31 and 30, in spaced relationship to the contact bar 32, and projects laterally away from the battery 25 to present a downwardly deflected end portion extending in closely spaced relationship to the end wall whence projects the stem 23. This contact bar 34 is connected electrically to the negative pole of the battery 25 by a second rivet 35 piercing the member 31 and the contact bar 34 and having one end projecting from the underside of the member 31 into contact with the negative pole of the battery 25. The under side of the member 30 is formed to provide a recess to accommodate the other head of the rivet 35.

As shown in Figure 3, the contact point of the bulb 21 contacts that part of the contact bar 32 above the member 30. The contact point of a second electric bulb 37 contacts the off-set end of the contact bar overlying the positive pole of the battery 24. The bulb 37 is held in place by an appropriately shaped spring clip 38. This spring clip may be shaped, for instance, in the form of a U having the legs thereof expanded to accommodate the bulb. The expanded portion is suitably formed with staggered dimples or depressed spots 38a adapted to engage the threads of the bulb. The clip 38 may be held in place by having a slightly expanded bottom part inserted into a groove 39 formed in a slightly thickened side wall section 40. As shown in Figure 5, a cross bar 42 having an end bent back upon itself and held between the spring clip 38 and the casing wall extends across one long side of the casing supported by the top of the ribs 27 in spaced relationship to the socket 20 with its curved free end extending around the short casing wall whence projects the stem 23 in fairly close or spaced relationship to the latter side wall.

Above the stem 23 the top of the casing side wall is pierced by a longitudinal slot 44, and the overlapping portion of the cover 12 is pierced

by a registering slot 45. A switch member 46 shorter than the two slots 44 and 45 is movable therein, being provided with an outer knurled knob 46a having terminal projections that slide upon the outer short casing side wall beyond the upper and lower ends of the slots 44 and 45. Attached to the inside of the switch member 46 by means of a screw 47 is an elongate contact bar 48 having an inwardly offset end 48a which slides over the deflected end of the contact member 34 in permanent contact therewith. A groove 50 formed in the side wall of the casing between the slot 44 and the stem 23 receives the offset end of the switch bar 48a as well as the deflected end of the contact bar 34 to prevent lateral displacement of these members. A strip 48b projects inwardly from the contact bar so as to be movable into contact with the free end of the cross bar 42.

As shown in Figures 3 and 4, the reflector 18 is pierced by a transverse slot 54 adjacent the bulb 37, and the wall of the reflector is bent inwardly above the slot 54 to form a hood 55 which will direct light from the bulb 37 admitted through the slot 54 downwardly into the reflector.

When the bulb 21 is to be energized for illumination purposes under normal conditions, the knob 46a of the switch is pushed forward. The then closed circuit includes the bulb 21, the reflector 18, the contact bar 48, the contact bar 34, the batteries 25 and 24 and the contact bar 32. When the bulb 37 is to be energized for illumination or signaling purposes under blackout conditions, the switch knob 46a is pushed back. The circuit then closed includes the bulb 37, the spring clip 38, the cross bar 42, the contact bar 48 with its projection 48b, the contact bar 34, the batteries 25 and 24, and the contact bar 32. If neither bulb is to be energized, the knob 46a is disposed so that the contact bar 48 and its projection 48b contact neither the reflector 18 nor the cross bar 42.

The bulbs 21 and 37 may be of any desired color. The same applies to the glass 17, for which a lens may be substituted.

Any type of suitable safety catch may be provided for the knob 46a for preventing accidental energization of the bulb 21 with consequent projection of a beam of bright light under blackout conditions.

In assembling the flashlight of this invention, the spring clip 26 is first inserted, and the batteries 24 and 25 are superposed on the clip. The connecting assembly 29 is next disposed over the top of the battery 25; the spring clip 38 is inserted into the groove 39; the cross bar 42 is disposed on top of the ribs 27, and the bulb 37 is screwed into place or pushed into place. Then the switch members 46 and 48 are disposed in the slot 44 and groove 50, and the cover 12 with the glass 17, reflector 18 and bulb 21 are attached to the top of the casing.

Another flashlight according to this invention is illustrated in Figs. 6 to 12 and designated generally in Figs. 6 to 9 by the reference numeral 60. This flashlight includes a casing 61 of flattened oval cross sectional form and a cover 62. The casing and cover are both formed of insulating material, for instance, fibrous or resinous plastic material. As shown in Fig. 11, the casing 61 and cover 62 are rabbeted at 61a and 62a so as to fit together in overlapping or partly telescoping relationship. The rabbeted cap or cover portion 62a fits inside the rabbeted casing por-

tion 61a and is provided with an outer lock boss 62b mating with a shallow groove 61b on the inside of the rabbeted casing portion 61a. The lock boss 62b fits into the groove 61b to hold the cap securely to the body. When the flashlight is compressed at the level of the lock boss 62b, the lock boss 62b is disengaged from the groove 61b so that the cap or cover 62 can be pulled out of the casing 61.

The outside of the casing 61 is formed with a series of parallel longitudinal ribs 63 intended for decorative purposes. A medallion 64 on the outside of the cap 62 may indicate the point of pressure to release the lock boss 62b.

One side of the end of the cover 62 is pierced by a generally oval aperture 65 rimmed by an internal flange 66. The aperture 65 extends over more than half of the length of the cover end and is closed by a similarly shaped glass or lens 67 held against the underside of the rim 66 by a reflector 68 shaped similarly to the aperture 65 and force-fitted between the side wall of the cover and a dependent flange 69 extending from the cover side wall around the aperture 65.

The reflector 68 is formed of non-metallic material, for instance, a white plastic material. The bottom of the reflector 68 is pierced by a rounded aperture 72, and a deeply dependent flange 70 is formed about this aperture in spaced relationship to the edge of the aperture. The bulb portion of the electric bulb intended for normal illumination purposes can thus project into the reflector through the aperture 72 while the tubular flange 70 is wide enough to receive the enlarged bulb base. For providing a negative electrical contact for such an enlarged bulb base, a bare wire 71 is disposed lengthwise inside the tubular flange 70, the lower end of the wire being deflected outwardly within a radial groove 70a in the bottom surface of the dependent flange 70. This lower wire end terminates flush with the outside of the flange 70. The higher end of the wire 71 is deflected radially outward through an aperture 70b piercing the juncture of the reflector 68 with the dependent flange 70. The wire 71, having emerged from the aperture 70b, extends upwardly along the outside of the reflector 68 with its end portion received in a recess 66a in the flange 66 and in a recess 68b in the edge of the reflector 68, the tip of the wire being folded around the reflector edge.

The casing 61 is formed with a short internal rib or stem 73 extending from one short side wall below the aperture 65 toward the other short side wall to provide a lateral support for two batteries or dry cells 74 and 75, whose ends do not occupy anywhere near the entire bottom surface of the casing. As shown in Figs. 7 and 8, the battery 74 is further away from the stem 73 and has its positive pole turned up, while the battery 75 adjacent the stem 73 has its positive pole turned downward. A coiled spring 76 disposed below the battery 74 about a knob 77 projecting from the bottom of the casing lifts the battery 74 above the level to which the battery 75 is lifted by a coiled spring 78 disposed between transverse ribs 79 rising from the bottom of the casing. A wire 80 connects the two coil springs 76 and 78, electrically, and thereby also the two batteries 74 and 75. As shown in Figs. 7 and 8, the battery 74 extends higher than the battery 75. A panel 83 formed of insulating material extends across the casing 61 having one end spaced by substantial distance from the casing side whence projects the stem 73 and another

end closely spaced from the opposite casing side. Above the battery 75 the panel 83 is pierced by a round internally threaded aperture 84 receiving in threaded engagement the threaded base of a bulb 85 intended for illumination under normal conditions and having an enlarged base portion received within the depending flange 70 as well as a bulb portion extending into the reflector 68. Above the battery 74 the panel 83 is pierced by a round aperture 86 which is not threaded internally and which receives the threaded base portion of a bulb 87 intended for illumination under black-out conditions. A rib 88 projects inwardly from the cover top opposite the end of the bulb 87 for limiting any upward movement of this bulb. Adjacent the bulb 87, the reflector is slotted at 89 and provided with a hood 90 for reflecting light emitted from the bulb 87 downwardly into the reflector 68.

Between the apertures 84 and 86 a metal strip 92 is affixed to the underside of the panel 83 by means of a rivet or screw 93. The strip 92 is offset below the bulb 87 so as to provide an electrical connection between the contact point of the bulb 87 and the positive pole of the battery 74. This offset portion of the strip 92 has an upwardly deflected end portion which occupies the space between the corresponding end portion of the panel 83 and the inside of the cap 62, the tip of the strip 92 being further deflected inwardly to lie on the top end surface of the panel 83. The other end portion of the strip 92 is offset to contact the contact point of the bulb 85, the tip of this end portion of the strip being deflected downwardly. Enfolded by the offset end portion of the strip 92 underlying the contact point of the bulb 85 is an insulating member 94 whose outside abuts against the downwardly deflected tip of this end portion of the strip 92. A metal strip 95 is affixed to the underside of the insulating member 94 by means of a rivet 96 having a lower head contacting the negative pole of the battery 75 and an upper head countersunk within the body 94 so as not to contact the strip 92. The inside end of the strip 95 is deflected upwardly so as to be folded about the lower inside edge of the insulating member 94. On the outside, the member 95 is offset upwardly, and the offset portion is affixed to the outside end portion of the panel 83 by means of a rivet 97. Beyond the rivet 97 the strip 95 is curved downwardly and terminates in a straight portion 95a urged by the spring action of the downwardly curved portion against the inside of the casing 61 lengthwise thereof. The middle of the straight portion 95a is curved inwardly, for a purpose to be disclosed hereinbelow.

A bare metal wire 100 extends across the free end of the panel 83 adjacently and parallel with the top edge thereof. One end of this wire is deflected inwardly and buried in the end of the panel 83. On the other side of the end of the panel 83 the wire 100 is bent about a screw 101 extending into the end surface of the panel 83, the wire 100 then extending downwardly along the outer edge of the end of the panel 83. The wire 100 then extends along the bottom surface of the panel 83 within insulating material 102 as far as the rivet 93. As shown in Figures 9, 10 and 12, the wire 100 then extends diagonally across the panel 83 at an upward angle equal to the pitch of the thread in the base of the bulb 87 within a groove 103 formed in the bottom of the panel 83. As illustrated in Figure 12, the wire 100 is laid at the bottom of the relatively deep groove 103 and

held in the groove by staking, the material forming the walls of the groove being peened down over the wire. As shown in Figures 9 and 10, the diagonal direction of the groove 103 is such that the groove enters the aperture 86 through the panel 83, a portion of the side wall of the groove being absent and the wire 100 projecting into the aperture 86, whereby a wire portion 104 projects into the aperture which wire portion 104 can be used for threading the bulb 87 into the aperture 86. The wire 100 terminates past the wire portion 104 flush with the surface of the panel 83.

Above the stem 73 the top of the casing side wall is pierced by a longitudinal slot 106, and the overlapping portion of the cover 62 is pierced by a registering slot 107. A switch member 108 shorter than the two slots 106 and 107 is movable therein, being provided with an outer knurled knob 108a having terminal projections that slide upon the outer short casing wall beyond the upper and lower ends of the slots 106 and 107. Attached to the inside of the switch member 108 by means of a screw or rivet 109 is an elongated contact bar 110 capable of sliding lengthwise of the casing within a longitudinal groove 111 formed in the casing wall. The lower end portion of the contact bar 110 is slotted longitudinally at 112 and this slot is pierced by a screw 113 projecting inwardly from the casing wall and serving as a stop for upward and downward movement of the contact bar 110. Shortly above the slot 112 the contact bar is formed with an inwardly curved portion 110a adapted to mate with the inwardly curved portion of the end portion 95a of the negative ground strip 95, when the switch is in neutral position. The upper end of the contact bar 110 is bent inwardly and terminates with an outwardly bent tip. The curved bar end is adapted to contact the bare wire 100 laid across the end of the panel 83 when the switch member is moved downward, and the outwardly curved tip of the contact bar end is adapted to contact the bare wire 71 extending downwardly along the outside of the reflector 68 when the switch member is moved upwardly.

When the bulb 85 is to be energized for illumination purposes under normal conditions, the knob 108 is pushed forward. The then closed circuit includes the bulb 85, the wire 71, the contact bar 110, the negative ground strip 95, the batteries 75 and 74, and the contact strip 92. When the bulb 87 is to be energized for illumination or signaling purposes under black-out conditions, the switch knob 108a is pushed back. The circuit then closed includes the bulb 87, the wire 100, the contact bar 110, the negative ground strip 95, the batteries 75 and 74, and the contact strip 92. If neither bulb is to be energized, the knob 108a is disposed so that the inwardly curved portion 110a of the contact bar 110 fits within the mating inwardly curved portion of the negative ground strip 95 and so that the inwardly curved top end portion of the contact bar 110 contacts neither the wire 71 nor the wire 100.

Either or both of the bulbs 85 and 87 may be colored red, blue, green or other color whereby a diffused colored light or a clear bright colored light may be projected from the flashlight for signaling purposes either under normal conditions or under black-out conditions.

In assembling the flashlight of Figures 6 to 12, the coiled springs 76 and 78 joined by the wire 80 are first inserted into the casing, the batteries 74 and 75 are disposed over the springs, the inter-

connected assembly including the panel 83 and the insulating member 94 is inserted, the bulbs 85 and 87 are screwed into the apertures 84 and 86, and the cap with lens and reflector is placed over the casing.

The flashlight of Figures 6 to 12 is distinguished by a plastic or non-metallic reflector preferably of bone white color for providing an even diffused light. The reflector being non-conducting, a wire is placed on the outside of the reflector and inside the reflector aperture for establishing electrical contact between the bulb base within the reflector aperture and a sliding switch contact bar outside the reflector. Other characteristic features of the flashlight of Figures 6 to 12 include an insulating panel carrying all contact bars and strips except the switch bar as well as all the light bulbs as one interconnected unit. This panel is provided with wires forming at one end poles adapted to be contacted by the switch bar and having the other ends disposed within the panel apertures receiving the bulbs. The end of the wire laid within the black-out bulb receiving panel aperture is disposed at the same angle as the pitch of thread in the bulb base, whereby the bulb can be screwed into the panel aperture in the absence of any internal threads in the panel aperture. This construction simultaneously provides means for negative pole contact for the bulb intended for black-out purposes. The wire leading to the black-out bulb is conveniently and inexpensively held in place in a groove in the panel by a staking method. Other features of the flashlight of Figures 6 to 12 include a screw in the side of the casing acting as a positive stop for maximum end movement of the sliding contact bar and curved depressions in the sliding and stationary contact bars which provide for an inexpensive neutral stop for the switch button.

It will thus be seen that I have provided a simple, inexpensive and compact flashlight adapted for use both under normal conditions and under black-out conditions for illuminating and signaling purposes. Many details of my construction may be varied within a wide range without departing from the principles of this invention and it is, therefore, not my purpose to limit the patent granted on this invention otherwise than necessitated by the scope of the appended claims.

I claim as my invention:

1. A battery operated flashlight adapted for use both under normal conditions and under black-out conditions including a casing, an apertured cover, an insulating reflector having a hooded slot within said cover below said aperture, an insulating panel extending within said casing, an electric bulb seated in said panel and extending into said reflector, a second electric bulb seated in said panel and extending into the vicinity of said hooded slot, an electrically conducting wire contacting the base of said first electric bulb and extending over the outside of said reflector, a second electrically conducting wire contacting the base of said second electric bulb and extending along said panel to form a post adjacent but spaced from said first wire extending over said reflector, and switch means for selectively connecting said post and said first wire extending over said reflector to a battery electrically connected to the contact points of said two electric bulbs.

2. A battery operated flashlight adapted for use both under normal conditions and under black-out conditions including a casing, an apertured cover, an insulating reflector having a hooded slot within said cover below said aperture, an insulat-

ing panel extending within said casing pierced by an internally threaded aperture below said reflector for receiving in threaded engagement a bulb adapted to extend into said reflector, a bulb received by said panel aperture in threaded engagement and extending into said reflector, said panel being further pierced by a second aperture having a smooth rounded inside for receiving a second electric bulb adapted to extend into the vicinity of said hooded slot, a second electric bulb received by said second panel aperture and extending into the vicinity of said hooded slot, an electrically conducting wire contacting the base of said first electric bulb within said first aperture and extending over the outside of said reflector, a second electrically conducting wire forming a post adjacent to but spaced from said first wire and extending within said second panel aperture at an angle equal to the pitch of the thread on the base of said second bulb whereby said second bulb can be held in threaded engagement within said second aperture by said second wire, and switch means for selectively connecting said post and said first wire extending over the reflector to a battery electrically connected to the contact points of said two electric bulbs.

3. A battery operated flashlight adapted for use both under normal conditions and under black-out conditions including a casing, an apertured cover, an insulating reflector within said cover below said aperture and centrally apertured at its bottom, said reflector being provided with a depending flange around said central bottom aperture and formed with a hooded slot piercing the reflector side turned toward the interior of said casing, an insulating panel extending within said casing, an electric bulb seated in said panel extending within said depending reflector flange through said central bottom reflector aperture into said reflector, an electrically conducting wire contacting the base of said electric bulb and extending over the outside of said reflector, a second electric bulb seated in said panel and extending into the vicinity of said hooded slot, a second electrically conducting wire contacting the base of said second electric bulb and extending along said panel to form a post adjacent to but spaced from said first wire extending over said reflector, and switch means for selectively connecting said post and said first wire extending over said reflector with a battery electrically connected to the contact points of said two electric bulbs.

4. A battery operated flashlight adapted for use both under normal conditions and under black-out conditions including a casing, an apertured cover, an insulating reflector having a hooded slot within said cover below said aperture, an insulating panel extending within and across said casing pierced by two rounded apertures arranged side by side and each adapted to receive an electric bulb, an electric bulb seated in one of the apertures in said panel extending into said reflector, a second electric bulb seated in the other aperture in said panel extending into the vicinity of said hooded slot, an electrically conducting wire contacting the base of said first electric bulb and extending over the outside of said reflector, a second electrically conducting wire contacting the base of said second electric bulb and extending along said panel to form a post adjacent but spaced from said first wire extending over said reflector, a metallic contact strip affixed to the underside of said panel between said panel apertures and offset downwardly to contact the contact points of said two bulbs,

a battery having a pole contacting said contact strip, a metallic ground strip affixed to the underside of said panel below said post and having one end offset downwardly to contact the pole of a second battery disposed within said casing, an insulating member affixed to said ground strip end for insulating said end from said contact strip, means connecting said two batteries in series, a switch bar movable longitudinally within said casing in permanent sliding contact with said ground strip for selectively contacting said first wire or said post, and means for limiting the longitudinal movement of said switch bar in both directions.

5. A battery operated flashlight adapted for use both under normal conditions and under blackout conditions including a casing, an apertured cover, an insulating reflector having a hooded slot within said cover below said aperture, said insulating reflector being formed with a rounded bottom aperture and a dependent flange extending around said aperture, an insulating panel extending within said casing pierced by two rounded apertures extending side by side lengthwise of said casing, one aperture being formed below said reflector aperture for receiving in threaded engagement an electric bulb adapted to extend within said reflector flange and through said reflector aperture into said reflector, the second panel aperture having a rounded smooth inside for receiving the base of a second bulb adapted to extend into the vicinity of said hooded slot, the bottom of said panel being formed with a diagonal groove having a bottom slanting at the angle of the pitch of the thread of said second bulb, said groove being disposed so that a portion thereof merges with said second panel aperture in such a manner that a wire laid at the bottom of said groove will partially project into said second aperture, an electric bulb seated in threaded engagement in said first aperture and extending within said reflector flange through said first aperture into said reflector, a second electric bulb seated in said second panel aperture and extending into the vicinity of said reflector hood with the bulb base adapted to be in threaded engagement with any wire laid at the bottom of said groove, an electrically conducting wire extending inside said

reflector flange in contact with the base of said first electric bulb, said wire further extending over the outside of said reflector, a second electrically conducting wire extending over the outside of said panel adjacently said first wire and having a portion extending along said panel and at the bottom of said groove in threaded engagement with the base of said second electric bulb, a battery disposed in said casing below said first electric bulb and having an upper pole spaced by considerable distance from the contact point of said first electric bulb, a second battery within said casing having an upper pole closely spaced from the contact point of said second electric bulb, means connecting the other two poles of said batteries in series, a metallic contact strip affixed to the underside of said insulating panel between the two panel apertures and having one end offset downwardly to contact the contact point of said first electric bulb and having another end offset downwardly to contact both the contact point of said second electric bulb and the battery pole adjacent thereto, the tip of said second contacting strip end being deflected upwardly and folded about the top edge of the corresponding panel end, a metallic ground strip affixed to the underside of said insulating panel at the panel end adjacent said first panel aperture and having one end deflected downwardly to contact the pole of said first battery adjacent said first electric bulb, an insulating member affixed to said deflected ground strip end for insulating the same from the contact strip end contacting the contact point of said first electric bulb, said ground strip being further provided with another end deflected downwardly to lie along the inside of said casing and provided with an inwardly curved portion, a switch bar extending lengthwise over the casing inside thereof and movable to contact selectively said first wire and said second wire and formed with an inwardly curved portion adapted to mate with the inwardly curved portion of said ground strip when said switch bar contacts neither of said wires, and means operable from the outside of said casing to move said switch bar lengthwise of said casing.

LELAND H. SNYDER.