

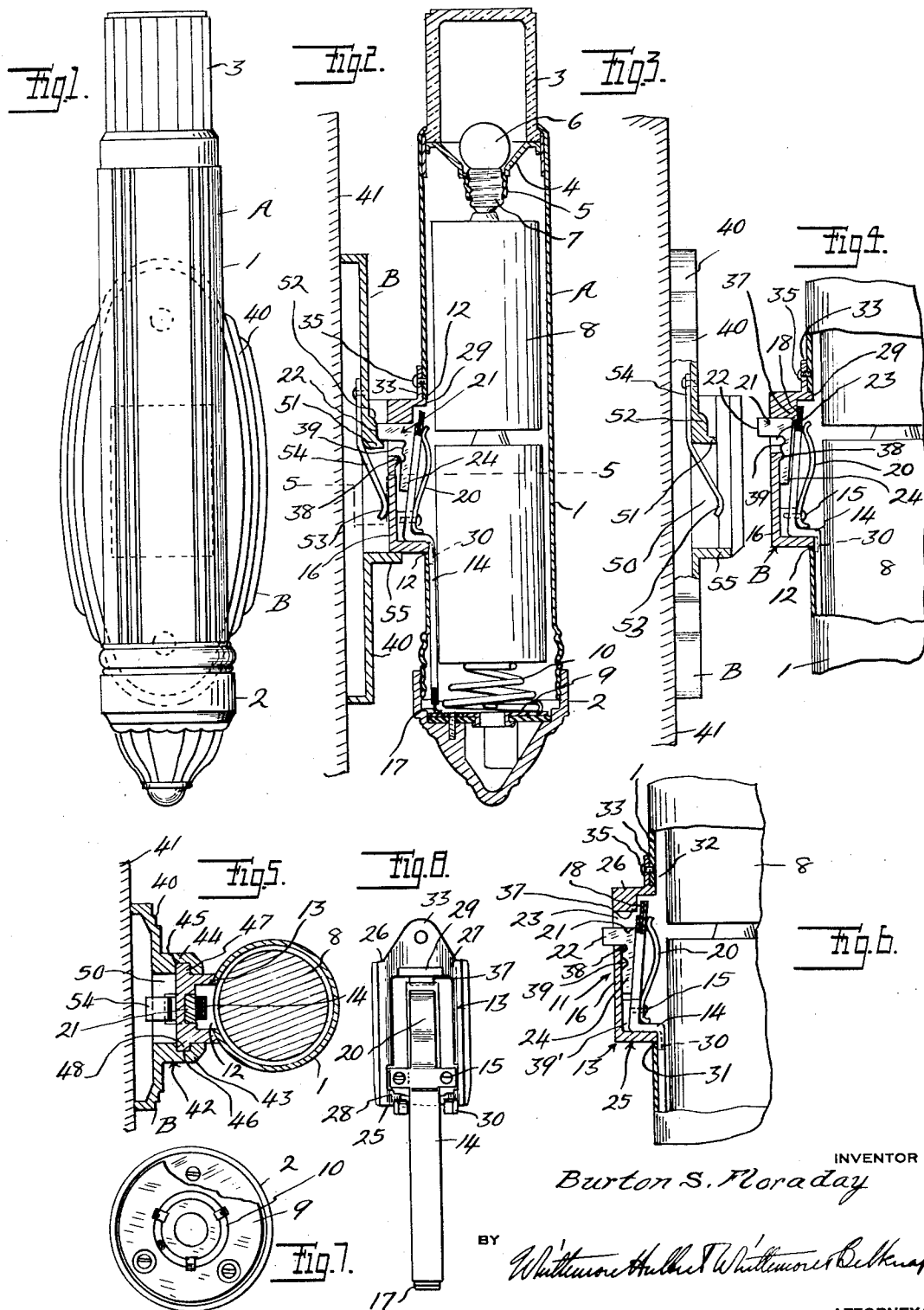
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ELECTRIC LIGHT

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ELECTRIC LIGHT

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This invention relates generally to lights and refers more particularly to an electric light of the self-contained portable unit type capable of being supported by an upright holder.

One of the essential objects of the invention is to provide a light with a switch that is operable automatically by a part of the holder when the light is placed therein to open the circuit to the light bulb and that is operable automatically when the light is removed from the holder to close the circuit to the light bulb.

Another object is to provide a light wherein the switch aforesaid is operable manually at will after it has been removed from the holder to open and close the circuit to the light bulb.

Other objects, advantages and novel details of construction of this invention will be made more apparent as this description proceeds, especially when considered in connection with the accompanying drawing, wherein:

Figure 1 is a front elevation of a light and holder embodying my invention;

Figure 2 is a vertical sectional view through the structure illustrated in Figure 1;

Figure 3 is a fragmentary edge elevation of the holder;

Figure 4 is a fragmentary elevation of the light and showing the movable switch element in engagement with the stationary switch element;

Figure 5 is a sectional view taken on the line 5—5 of Figure 2;

Figure 6 is a fragmentary elevation of the light and showing the movable switch element in spaced relation to the stationary switch element;

Figure 7 is a fragmentary top plan view of the spring support in the removable closure for the lower end of the casing;

Figure 8 is a fragmentary rear elevation of the switch unit.

Referring now to the drawing, A is a light of the self-contained portable unit type and B is a holder therefor.

Preferably the light A comprises a tubular casing 1 having a removable closure 2

at its lower end and a glass dome 3 at its upper end, a frustro conical reflector 4 engaging the casing 1 at the lower end of the dome 3 and having a depending tubular portion 5, an electric light bulb 6 within the reflector 4 and having a terminal 7 anchored within the depending portion 5 thereof, an electric battery 8 within the casing 1 and preferably comprising two dry cells, a metal disc 9 secured within but insulated from the closure 2 at the lower end of the casing, a coil spring 10 on the disc 9 and holding the battery 8 against the bulb terminal 7, and an electric switch unit 11 at one side of the casing 1 intermediate the ends thereof for controlling the illumination of the bulb 6. Preferably the switch unit is located in an opening 12 in the casing 1 and comprises a trough-shaped member 13 closing the opening 12 and constituting a lateral projection of the casing, an insulated electric conductor bar 14 secured intermediate its ends by a headed element 15 to the outer wall 16 of the member 13 and having exposed end portions 17 and 18 respectively, a spring 20 anchored on the headed element 15 and bearing against the bar 14 adjacent the exposed end 18 thereof, and a metal button 21 of substantially inverted L configuration having the base 22 thereof movable in an opening 23 in the wall 16 of the trough-shaped member and having the stem 24 of the L movable longitudinally of the member 13 between the wall 16 and the insulated bar 14. As shown, the ends 25 and 26 respectively of the trough-shaped member 13 are recessed at 27 and 28 respectively to conform to the curvature of the casing 1 and have lugs 29 and 30 respectively engaging opposite ends 31 and 32 respectively of the opening 12. A flange 33 projects upwardly from the end 26 and is fastened to the casing 7 by a screw 35. Preferably the outer wall 16 of the member is provided at the upper edge of the opening 23 with a shoulder 37 for engagement by the exposed end 18 of the bar 14 and is provided at the lower edge of said opening 23 with a ridge 38 for engagement by the serrated face 39 of the stem 24 of the button. The wall 16 also has a shoulder 39' at its lower

end receiving the headed element 15. Thus with this construction the exposed end 18 of the bar 14 is held by the spring 20 in engagement with the shoulder 37 of the trough-shaped member to close the circuit to the bulb 6 when the button 21 is in raised position against the upper edge of the opening 23, as illustrated in Figure 4. When the button 21 is moved downwardly by hand to the lower edge of the opening 23, as illustrated in Figure 6, the upper end 18 of the bar will be pressed inwardly by the stem 24 of the button, consequently the exposed end 18 of the bar will be spaced from the shoulder 37 and the circuit to the bulb 6 will be opened.

The holder B preferably comprises a bracket 40 attachable to a wall 41 and having a substantially U-shaped portion 42 upon its outer face for receiving the trough-shaped member 13 of the light. As shown, the upright sides 43 and 44 respectively of the U-shaped portion are provided with longitudinally extending grooves or channels 45 and 46 respectively for receiving lateral flanges 47 and 48 respectively of the member 13, and are located at opposite side edges of an opening 50 in the bracket. At the upper edge of said opening is a ridge 51 and just above this ridge is a cam 52, while projecting outwardly through the opening 50 is the free end 53 of a loose spring 54 that is secured to the back of the bracket 40.

In use, when the member 13 is placed in the U-shaped portion 42 of the holder the button 21 will be moved inwardly by the cam 52, as illustrated in Figure 2, with the result that the exposed end 18 of the bar will be moved away from the shoulder 37 and the circuit to the bulb 6 will accordingly be opened. The base 55 of the U will serve as a stop for the member 13, and the free end 53 of the spring will bear against the wall 16 of the member 13 and will effectively hold the lamp in position. In this connection it will be noted that the ledge 51 is located at such a point relative to the base 55, that the ledge would be engaged by the button 21. Consequently should the button 21 be at the lower end of the slot 23 in the member 13 when the latter is inserted into the holder B, the button 21 will engage the ledge 51 before the lower end of the member 13 engages the base 55 and accordingly will be moved upwardly in the slot 23 to the position illustrated in Figure 2. Thus when the light is removed from the holder the button 21 and upper end 18 of the bar 14 will be moved by the spring 20 so that the serrated face 39 of the button will engage the ridge 38 and will remain in raised position, and the exposed end 18 of the bar will engage the shoulder 37 and thereby close the circuit to the bulb 6. As a result the bulb 6 will be illuminated when the light is carried in the hand after being removed from the

holder. However, if desired the circuit to the bulb 6 may then be opened by merely moving the button 21 downwardly to its lowermost position as illustrated in Figure 6.

What I claim as my invention is:

1. In an electric light and holder assembly, the combination of an electric light of the self-contained portable unit type having a slide engaging portion and a switch including a button movable transversely of the slide engaging portion to open a circuit in the light and movable longitudinally of the slide engaging portion to an operative position so that the light circuit aforesaid may be closed, and a bracket attachable to a wall and provided with a longitudinally extending slide for the reception of the slide engaging portion aforesaid of the light, and means intermediate the ends of the slide for successively moving the button transversely and longitudinally.

2. In an electric light and holder assembly, the combination of an electric light of the self-contained portable unit type having a slide engaging portion and a switch including a button movable transversely of the slide engaging portion to open a circuit in the light and movable longitudinally of the slide engaging portion to an operative position so that the light circuit aforesaid may be closed, and a bracket attachable to a wall and provided with a longitudinally extending slide for the reception of the slide engaging portion aforesaid of the light, and means intermediate the ends of the slide for moving the button aforesaid of the light.

3. An electric light of the self-contained portable unit type having a slide engaging portion constituting a fixed contact element of a circuit in the light, a movable contact element urged into engagement with said fixed element to close the circuit, means for disengaging the movable element from the fixed element to open the circuit, including a button movable transversely of the slide engaging portion and having a part movable longitudinally of the movable element, said button and movable element being constructed and arranged in such a way that the movable element will be prevented by said part from engaging the fixed contact when the button is in one position transversely of the slide engaging portion and said part is in one position longitudinally of the movable element but may engage the fixed contact element to close the circuit when the button is in another position transversely of the slide engaging portion and said part is in another position longitudinally of the movable element.

4. In an electric light and holder assembly, the combination of an electric light of the self-contained portable unit type having a slide engaging portion and a switch includ-

ing a button movable transversely of the slide engaging portion to open a circuit in the light and movable longitudinally of the slide engaging portion to an operative position so that the light circuit aforesaid may be closed, and a bracket attachable to a wall and provided with a longitudinally extending slide for the reception of the slide engaging portion aforesaid of the light, a cam intermediate the ends of the slide for moving the button transversely of the slide engaging portion, and a projection intermediate the ends of said slide engageable with the button after it has been engaged by the cam so that it will be moved longitudinally of said slide engaging portion.

5. An electric light of the self-contained portable unit type provided at one side with a laterally projecting portion adapted to slide longitudinally of a bracket disposed parallel to the light and having a manually operable switch element projecting laterally from said portion and operable automatically by a part of the holder while said portion is sliding longitudinally of the bracket.

6. A holder for lights of the self-contained portable unit type having a switch and an operating member therefor, including a bracket having a slide for receiving a portion of the light, and means intermediate the ends of the slide for shifting the operating member in one direction so that a circuit in the light will be opened, and means also intermediate the ends of the slide for shifting the operating member in a different direction so that the light circuit aforesaid may be closed automatically upon withdrawal of said portion from said slide.

7. A holder for lights of the self-contained portable unit type having a switch and an operating member therefor, including a bracket having a slide for receiving a portion of the light, and spaced means intermediate the ends of the slide for successively actuat-

ing the switch operating member of the light so that different results will be obtained.

8. In combination, a bracket having a slide and longitudinally spaced projections intermediate the ends thereof, of a light of the self-contained portable unit type having a portion movable longitudinally of said slide and having a switch control member successively operable by said projections as the portion aforesaid of the light is moving longitudinally of the slide.

9. A holder for lights of the self-contained portable unit type, including a bracket attachable to a wall and having a substantially vertical slide for a light, a stop for said light at the lower end of said slide, and means intermediate the ends of said slide for camming inwardly a control button of the light to open an electric circuit in the light when a portion of the latter is moved longitudinally in said slide toward said stop.

10. A holder for lights of the self-contained portable unit type, including a bracket attachable to a wall and having a substantially vertical slide for a light, a stop for said light at the lower end of said slide, and means intermediate the ends of the slide and effective during movement of a portion of a light longitudinally of the slide for actuating a control button of the light.

11. A holder for lights of the self-contained portable unit type, including a bracket attachable to a wall and having a substantially vertical slide for a light, and means intermediate the ends of the slide and operable during movement of a portion of the light longitudinally of the slide for moving a control button of the light from "off" to "on" position so that a circuit in the light will be open while the light is in the slide but will be closed upon withdrawal of the light from the slide.

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