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KEYHOLE ILLUMINATOR WITH SLIDING SWITCH

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FIG. 1

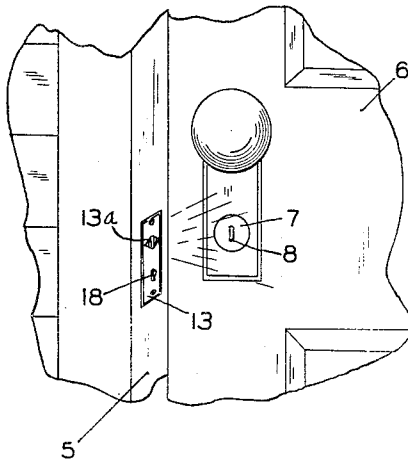


FIG. 2

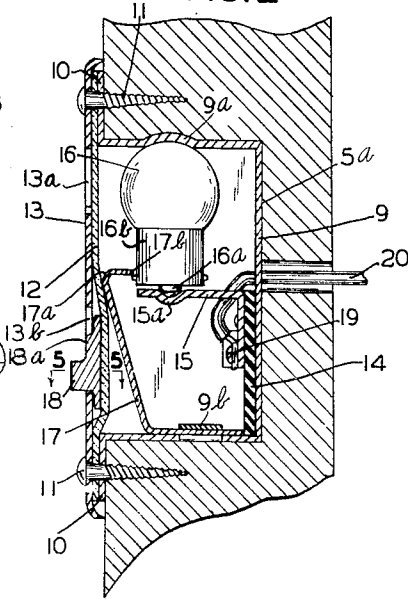


FIG. 3

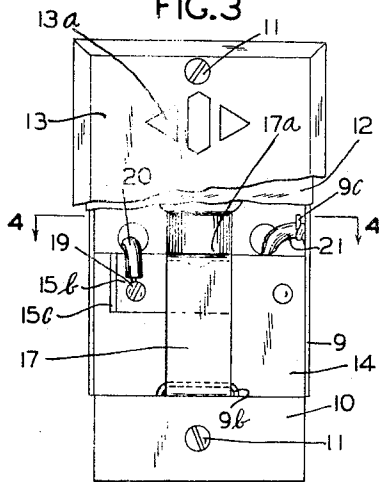


FIG. 4

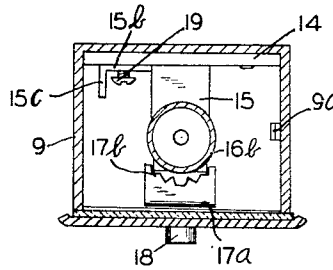
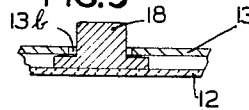


FIG. 5



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KEYHOLE ILLUMINATOR WITH SLIDING SWITCH

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3 Claims. (Cl. 240—2.13)

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This invention relates to lighting devices which, although capable of various uses, are particularly adapted for exposure to the weather to throw a beam of light onto a fixed point, as, for example, onto the key-receiving portion of an exterior doorlatch.

It is the general object of this invention to provide a novel and improved lighting device of cheap and simple construction which can be installed as on a door-jamb to throw a beam of light onto the key-receiving opening of an adjacent doorlatch.

A further object is to provide such a lighting device which includes a casing within which an electric light bulb may be placed, the casing having an open front, a flexible transparent sheet closing the front of the casing to prevent the entry of rain and snow into the casing and an electric switch adapted to be operated through flexure of the transparent sheet to establish a lighting circuit to the bulb.

The objects and advantages of the invention will more fully appear from the following description made in connection with the accompanying drawings wherein like reference characters refer to the same or similar parts throughout the various views and in which:

Fig. 1 is a perspective view showing the lighting device installed on a door jamb in position to throw a beam of light onto the key-receiving portion of a latch of an adjacent door;

Fig. 2 is a vertical section taken through the door-latch from front to rear as it is mounted in a doorjamb;

Fig. 3 is a view in front elevation of the lighting device, certain portions of the cover plate and transparent sheet being broken away to more clearly illustrate other portions of the device;

Fig. 4 is a horizontal section taken on the line 4—4 of Fig. 3 as indicated by the arrows; and

Fig. 5 is a horizontal section taken on the line 5—5 of Fig. 2 as indicated by the arrows.

Referring to the drawings, there is shown a doorjamb 5, a door 6 being mounted in the door-frame of which the jamb forms a part and the said door being equipped with the customary latch 7 having a key-receiving opening 8. The lighting device of the present invention is adapted to be fitted within a mortise 5a cut in the face of the doorjamb 5 at a point adjacent the key-receiving opening 8 of the latch 7 when the door 6 is closed.

The lighting device of the invention includes a boxlike casing 9 open at its front and prefer-

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ably equipped with attachment tabs 10 projecting from its top and bottom portions adjacent its front whereby the casing can be secured as by wood screws 11 to the doorjamb. A flexible transparent sheet 12 fits over the front of the casing 9, this sheet being preferably formed of plastic material and acting to seal the front of the casing 9 from the weather to prevent the entry of rain, snow, and ice into the casing. A cover plate 13 overlies the sheet 12, the cover plate 13 and the sheet 12 being held tightly against the front portion of the casing 9 and being also attached to the doorjamb 5 by the same screws 11 that secure the casing 9 to the doorjamb.

A block of electrical insulation 14 is attached to the lower portion of the rear wall of the casing 9 and secured thereto as by a rivet. Mounted on this block of insulation 14 is an angular bracket 15 having a horizontal arm which opposes the top of the casing 9 in properly spaced relation from the top of the casing that an electric light bulb 16 may be interposed between the top of the casing and the horizontal arm of the bracket 15. To retain the bulb in place, the top of the casing 9 is provided with an upwardly bulged portion 9a to receive the central part of the glass globe of the bulb, and similarly the horizontal arm of the bracket 15 is provided with a downwardly bulged portion 15a to receive the central electrical contact 16a of the electric light bulb. The said horizontal arm of the bracket 15 has sufficient resiliency to permit the mounting of the electric light bulb in the position specified with the central contact 16a of the bulb in engagement with the horizontal arm of the bracket and with the outer electrical contact 16b of the bulb in spaced relation from the horizontal arm of the bracket.

The bottom of the casing 9 has a slotted and upwardly pressed portion forming a strap 9b to receive the lower portion of a spring switch 17. This switch is formed of strap metal and it projects upwardly and forms an angularly bent nose 17a which normally engages the resilient sheet 12 at about its central portion. From the nose 17a the arm of the switch extends rearwardly opposite the outer contact 16b of the electric light bulb and the inturned end 17b of the switch is arcuately cut and toothed so that normally this inturned end lies in slightly outwardly spaced relation from the contact 16b out of engagement therewith but the switch 17 can be flexed inwardly to carry the end 17a into engagement with the outer contact 16b of the bulb.

The cover plate 13 opposite the globe portion

of the electric light bulb 16 is provided with a barred window 13a, and this window is preferably located at about the level of the key-receiving portion 8 of the latch 7 so that, when the electric light bulb 16 is energized, a beam of light will be thrown onto said key-receiving portion 8. The cover plate 13 is also provided with an aperture 13b below the nose 17a of the switch 17 and received within the aperture 13b and guided by the walls of this aperture between the transparent sheet 12 and the cover plate 13 is a flanged key 18. This key 18 is capable of limited sliding movement in the aperture 13b and the key is provided with a cam portion 18a which may engage with a portion of the cover plate 13 above the aperture 13b, causing the key to move inwardly somewhat. The key 18 may be pushed inwardly if desired as is a push button to flex the central portion of the flexible sheet 12 inwardly, thereby swinging the switch 17 inwardly and bringing the inner end 17b of the switch into engagement with the outer contact 15b of the bulb. Upon release of the key the resiliency of the spring switch 17, as well as the resiliency of the transparent sheet 12 will return the key and the parts to their normal position as shown in Fig. 2. If for any reason it is desired to retain the switch 17 in engagement with the outer contact 15b of the electric light bulb, this can be readily done by sliding the key 18 upwardly to bring the cam surface 18a in engagement with the inner side of the cover plate 13 opposite the nose 17a, and the switch 17 will then be drawn into fixed engagement with the outer contact 15b of the electric light bulb until the key 18 is slid downwardly again to the position shown in Fig. 2.

The bracket 15 has an arm 15b projecting laterally of the main portion thereof, and this arm has an end portion 15c turned forwardly and it carries a set screw 19 to which a wire 20, running from a suitable source of electricity, is connected. At the opposite side of the casing 9 from that towards which the arm 15b extends, a hook-like tab 9c is inwardly punched from the casing and a second wire 21 running to ground is attached to this hook-like tab.

It will be readily seen that a circuit controlled by the switch 17 may be completed to the electric light bulb 16 when the switch 17 is brought into engagement with the outer contact 15b of the bulb. As the circuit is closed, a beam of light may be thrown out by the bulb onto the key-receiving portion 8 of the doorlatch and the house owner can thus readily find the keyhole to insert the key properly in the latch to open the door. While the device is intended primarily for use in throwing a beam of light onto a doorlatch, the device can also be used for throwing a beam of light onto any desired point.

The device is very simple and can be very easily installed. Normally the lighting device of the present invention will be operated by a dry cell or it may be hooked up to the household lighting circuit by employing a low voltage transformer.

It will of course be understood that various changes may be made in the form, details, arrangement, and proportions of the various parts without departure from the scope of the present invention, which generally stated consists in the matter shown and described and set forth in the appended claims.

I claim:

1. A lighting device for doorlatches and the like comprising a casing open at its front, a bulb

supporting bracket connected to said casing and insulated therefrom, said bracket and one wall of said casing having means for supporting an electric light bulb therebetween with the glass portion of the bulb contacting the wall and with the central contact of the bulb engaging said bracket, a flexible transparent sheet closing the front of said casing, a spring switch grounded to said casing and having an operating arm lying adjacent the inner side of said transparent sheet and normally disposed in slightly spaced relation from the position that the outer contact of the bulb will occupy, a cover plate overlying said transparent sheet and having an opening there-through through which the light may shine from said bulb, and an operating key supported between said cover plate and said transparent sheet and adapted to be actuated to flex inwardly a portion of said sheet opposite said operating arm to establish contact between said operating arm and the outer contact of said bulb.

2. The structure defined in claim 1, said cover plate having an aperture therein through which said key extends, said key being slidably supported between said cover plate and said transparent sheet, and said key having a cam portion which, when the key is slid to one position, will work against said cover plate to push inwardly the referred to portion of said flexible sheet.

3. A lighting device for doorlatches and the like comprising a rectangular casing open at its front and adapted to be received within a mortise which may be cut as in a door jamb, an angular bracket supported in insulated relation from said casing, said bracket having an arm opposing one wall of the casing, said arm and the wall which it opposes each having recesses thereon to receive an electric light bulb therebetween with the central contact of the light bulb in engagement with said arm and with the glass of the bulb contacting the casing wall, a flexible transparent sheet closing the front of said casing, a cover plate overlying said transparent sheet and having an opening therein through which the light from said bulb may shine, a spring switch arm secured to said casing and normally projecting outwardly against a portion of said sheet and in closely spaced relation from the position that the outer contact of the bulb will assume, and a key projecting through said cover plate and supported between the cover plate and said sheet and adapted to be actuated to flex said portion of said flexible sheet inwardly to force said switch arm inwardly.

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