

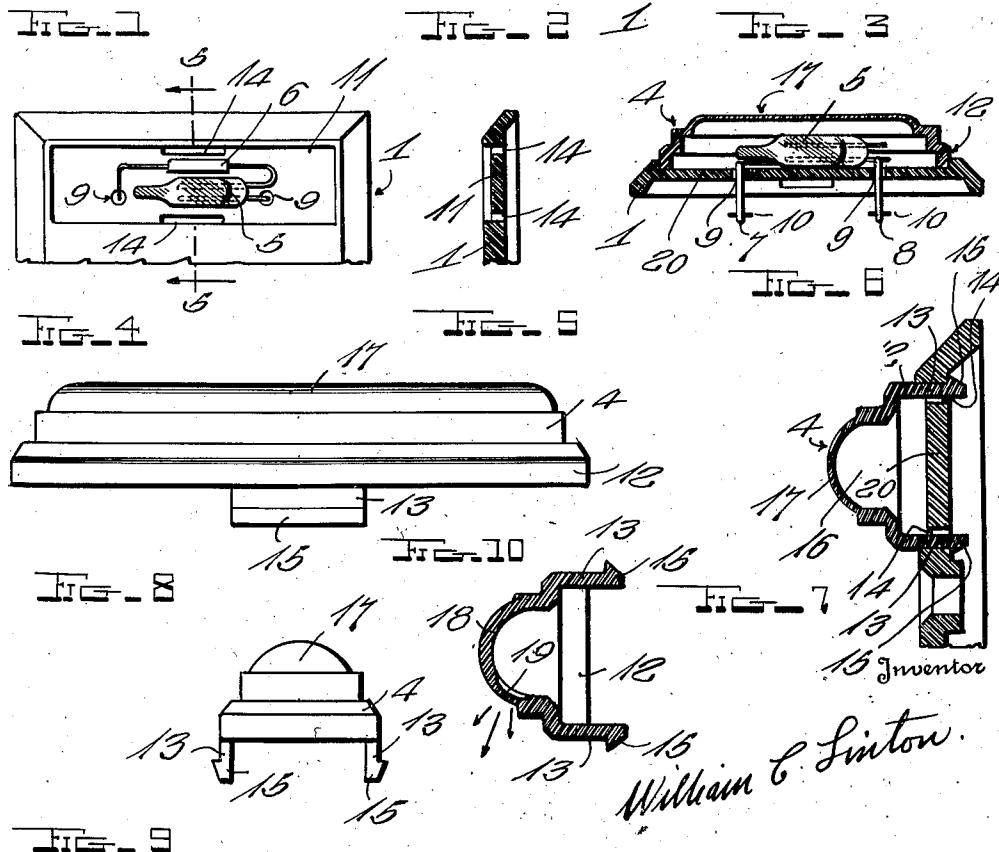
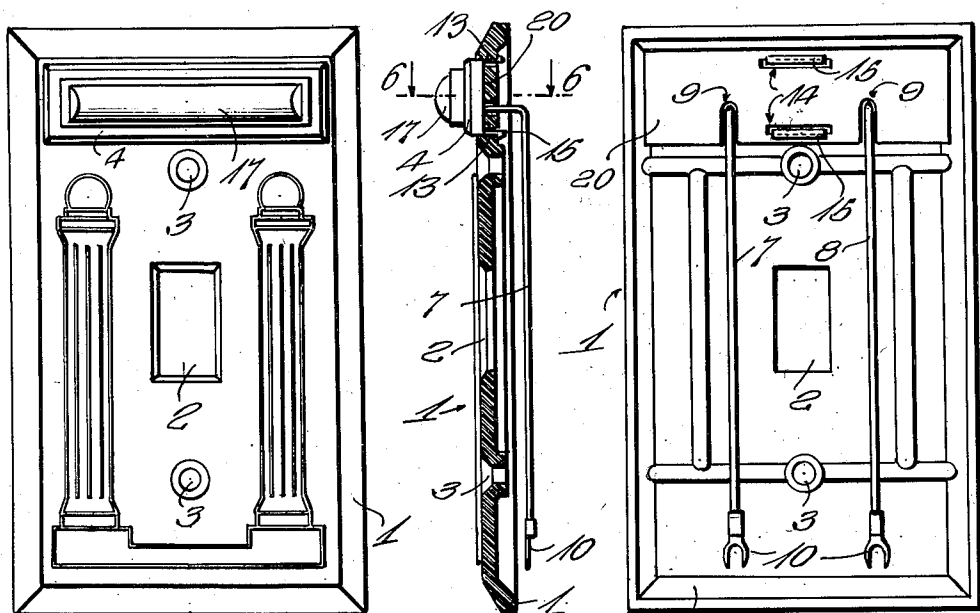
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ILLUMINATED ESCUTCHEON FOR ELECTRICAL OUTLETS

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## UNITED STATES PATENT OFFICE

2,428,167

ILLUMINATED ESCUTCHEON FOR  
ELECTRICAL OUTLETS

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1 Claim. (Cl. 240—2)

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The present invention relates to escutcheon plates for shielding electrical switches and more particularly to a plastic illuminated switch plate which will more readily render the operating knob of a switch visible when installed in a dark or secluded place.

Switch plates are generally employed to cover cut-out boxes housing electrical switches as not only to shield the latter but render the same more attractive and of pleasing appearance and it is an object of the invention to provide an illuminated switch plate in which the lamp thereof is entirely or adequately sealed off from the electrical connections of a switch to which it is applied.

A further object of the invention is to provide a detachable lens for housing the lamp of illuminated plastic switch plates whereby the lens may be of the same color or of different colors than the plate and a lens which is attachable to a switch plate without the aid of separable fastening elements thereby making it possible to more quickly assemble the switch plate and yet greatly reduce the cost of manufacture.

Other objects of the invention will be in part obvious and in part pointed out hereinafter.

In order that the invention and its mode of operation may be readily understood I have in the accompanying drawings set out an embodiment of the same.

In the drawings:

Fig. 1 is a front elevation of the complete switch plate.

Fig. 2 is a vertical sectional view of the same with the lens thereof in side elevation.

Fig. 3 is a rear elevation of the same.

Fig. 4 is a detail front elevation of the plate with the lens removed.

Fig. 5 is a detail vertical sectional view with the lamp removed taken on the line 5—5 of Fig. 4 in the direction of the arrow points.

Fig. 6 is a longitudinal sectional view taken on the line 6—6 of Fig. 2 in the direction of the arrow points.

Fig. 7 is an enlarged sectional view showing the connection between the lens and plate.

Fig. 8 is a side elevation of the lens.

Fig. 9 is an end elevation of the lens and

Fig. 10 is a cross sectional view of a slightly modified form of lens.

The switch plate 1 is molded from plastic materials having a suitable design upon the outer face and reinforcing ribs upon the rear face thereof which are molded therewith. This plate has the usual openings therein one of which 2

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receives the knob of the switch and the others 3 are for receiving the screws for attaching the plate to a conventional cut-out box.

Arranged upon the outer face of the plate is a shell or lens 4 which houses a miniature neon glow lamp 5. This lamp has one terminal thereof connected to a leak resistor 6 and the other terminal thereof connected to a lead wire 7. A lead wire 8 is connected to the opposite terminal of the leak resistor and both lead wires 7 and 8 extend through openings 9 formed within the plate 1. The free extensions of the wires 7 and 8 are each provided with a spade type connector 10 for providing a connection therebetween and the electrical terminals of the switch arranged with a cut-out box to which the plate is to be attached.

The plate 1 has formed therein a rectangularly shaped recess 11 in which snugly fits the base section 12 of the lens whereby when the lens is seated therein the lateral movement of the lens upon the plate will be limited. However, to attach the lens to the plate a pair of legs 13 are formed with and extend from the opposite sides of the base portion 12 and the free ends of these legs 13 are insertable through elongated slots 14 and the outer extremity of each leg has formed therewith a knob extension 15 which rest upon the rear face of the plate 1 so as to prevent the lens from being removed from the plate. These molded plastic leg portions have sufficient resiliency as to permit the legs and their lateral extensions 15 to be forced through the slots 14 and after the extensions 15 have passed through the slots they will be forced by the spring action of the legs to be seated in the position as best shown in Fig. 7 of the drawings, whereat the lens will be prevented from being withdrawn from the plate until such time as it is desired to remove the lens and thereby forcing the legs toward one another until the extensions 15 are permitted to again pass through the slots 14. This snap-on connection obviously does not require separable fastening elements such as screws and the like attaching the lens upon the plate.

The plate is preferably molded from suitable thermosetting materials and being opaque it will not only form a shield for the electrical connections housed within a cut-out box, but will also cover the same from view exteriorly of the plate. The shell 4 is also molded from plastic materials either of the same material as that of the plate or of thermoplastic material which has better light emitting qualities and yet not having as high

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electrical insulating qualities as that of the plate.

The lens is formed with an elongated cavity 16 which receives and houses the lamp 5 and resistor 6, but the thickness of the dome shaped wall 17 of the lens 5 is less than that of the remaining walls of the lens thereby rendering the wall 17 translucent so as to permit the rays of light from the lamp to emit therefrom.

In the modified form of lens as shown in Fig. 10 of the drawings, the dome shaped wall 18 of the lens is the same thickness as the remaining walls to render the same opaque and has a section 19 thereof reduced in thickness so that the rays of light from the lamp may pass therethrough in the direction of the arrows as shown, whereby the light rays will be directed down upon the outer face of the plate and concentrated on the switch knob as it projects through the opening 2 of the plate.

The lamp, resistor and lead wire thereof, are seated upon the outer face of the plate and that section 20 of the plate seals the same off from any electrical contacts with the cut-box when the plate is attached to the latter. The wires 7 and 8 including those parts which extend through the openings 9 are covered with suitable insulating materials for protecting the same from contact with any electrical parts within the cut-out box.

The lens by being attachable to the outer face of the plate may thereupon be molded from almost any suitable translucent or transparent materials without forming an opening therein for permitting the light rays to pass therethrough. The lens may be of the same color as that of the plate or of a different color or a cover plate of different combinations of colors may be had to suit one's color schemes.

I claim:

A combined switch plate and lamp housing as-

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sembly therefor molded entirely from plastic insulating materials comprising a plate having a switch knob opening extending therethrough, said plate having a shallow recess formed in the outer wall thereof and arranged at one side of said switch knob opening therein, a bottom wall for said recess lying substantially flush and parallel with the rear wall of said plate, said bottom wall having a pair of rectangularly shaped openings extending therethrough arranged at the opposite sides of said recess, a lamp housing molded from translucent plastic material, a base formed with said lamp housing and snugly seatable within said recess so as to prevent rectilinear sliding or turning movement of said lamp housing with respect to said plate, said lamp housing projecting from the outer wall of said plate whereby the light rays emitted from a lamp housed therein may project downwardly upon a switch knob projecting through the opening therefor in said plate, a pair of parallel yieldable arms each having one end formed with and projecting from said lamp housing, said arms extending through the rectangularly shaped openings formed within said bottom wall of the recess and a laterally projecting knob formed with the outer extremity of each arm for cooperative snap-on engagement with the rear wall of said plate.

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