Oct. 17, 1933. W. E. WEGNER 1,931,310

INDICATING DEVICE FOR SWITCHES

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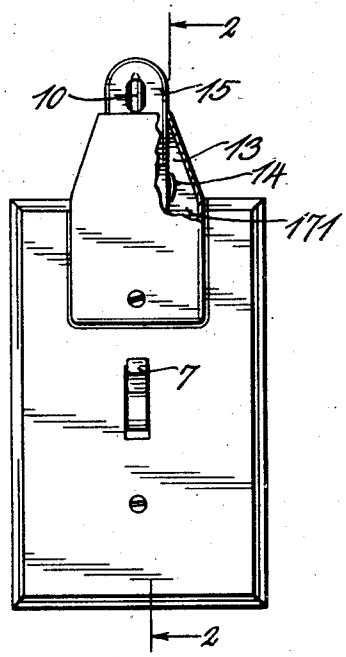


Fig.1.

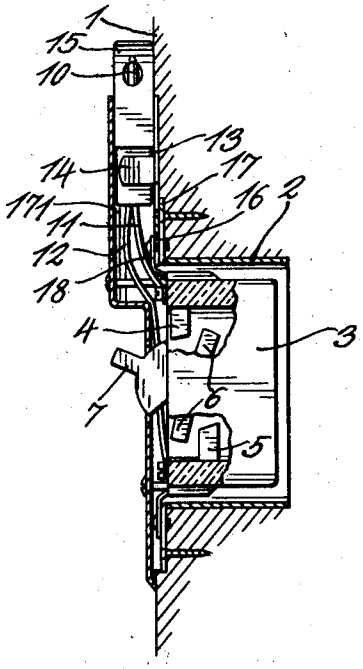


Fig.2.

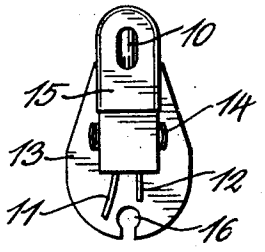


Fig.3.

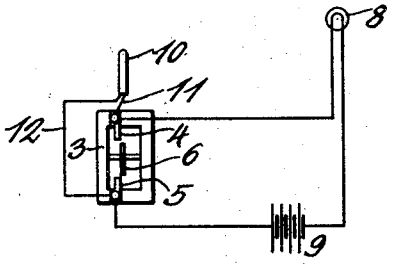


Fig.4.

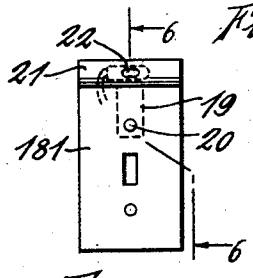


Fig.5.

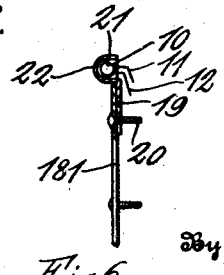


Fig.6.

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INDICATING DEVICE FOR SWITCHES

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2 Claims. (Cl. 200—167)

This invention relates to an indicator for use with switches.

Where switches are located in the room with the light that they control, the room is dark when the light is turned off and the position of the switch is therefore difficult to find unless a person is so well acquainted that he can find the same in the dark.

Where switches control lights located at a distance, as, for example, where the switch is located in the kitchen and the light is located in the basement, the light is often left burning when it is unnecessary for it to do so, simply because it requires a close inspection of the switch to tell whether the light is burning or not.

It is the object of this invention to produce a simple indicating device that can be applied to any switch and which will indicate by means of a light, the position of the switch so that the latter can readily be located in a darkened room and which when applied to a switch that controls a light located in another room, will serve to indicate whether this light is burning or not.

This invention, briefly described, consists in a small gasfilled lamp of the neon type that is so designed that it will operate on a voltage of a hundred volts and up to five hundred volts, and which is secured to a base that can readily be fastened to the switch and which is also provided with conductors that can be connected with the terminals of the switch.

In order to more clearly describe this invention and the manner in which it is constructed and used, reference will be had to the accompanying drawing in which the preferred embodiment thereof has been illustrated, and in which:

Fig. 1 is a front view showing a switch cover plate of a special construction and provided with my improved indicator;

Fig. 2 is a section taken on line 2—2, Fig. 1;

Fig. 3 is a plan view of the indicator showing the same secured to a removable base;

Fig. 4 is a diagram showing the relation of the switch, the lamp that it controls and the indicator;

Fig. 5 is a plan view of a switch cover plate showing a slightly modified form of indicator secured in place thereon; and

Fig. 6 is a section taken on line 6—6, Fig. 5.

In the drawing reference numeral 1 indicates the outer surface of a wall within which is located an ordinary outlet box 2. Located within this box is a switch 3 which is of the usual construction and which is provided with two stationary switch contacts 4 and 5 and a movable switch contact 6 that is controlled by means of a handle 7. The movable switch contact can be moved into such a position that it will connect the contact 4 with contact 5, thereby closing the switch; or into the position shown in Fig. 2 in which it does not make connection with either of the stationary contacts. In Fig. 4 I have shown a single pole switch connected in the circuit so as to control a lamp 8. The source of current has been indicated by reference numeral 9 and has been shown as a battery, but this is merely illustrative as the ordinary house lighting current is usually employed. A neon type gasfilled lamp 10 is shown as connected to the stationary contacts 4 and 5 by means of conductors 11 and 12, respectively. When the switch is in open position, as shown in Fig. 4, the entire voltage of the source of electric current will be applied to the terminals of the indicator lamp and the latter will, therefore glow. When the switch is closed, the indicator lamp will be short circuited and the lamp 8 will be connected in the circuit and will therefore be lighted. It will be seen from the description just given that the indicator lamp will be glowing when the lamp 8 is dark and therefore the switch can readily be found in a dark room as its position will be determined by the indicator lamp that is plainly visible.

If lamp 8 is located in another room, the indicator lamp 10 will show whether it is burning or not. If lamp 8 is burning the indicator lamp will not glow, but if the lamp 8 is not burning the indicator lamp will be glowing and it is therefore possible to tell at a glance whether the switch is in closed or open position.

In order to make it convenient to apply this indicator lamp to installations already in place, a base 13 has been provided. This base is preferably a sheet of metal provided with two spring fingers 14 that are adapted to embrace and hold the casing 15 within which the lamp 10 is located. Base 13 is provided with an opening 16 for the reception of a securing screw. The base is preferably clamped between the lugs 17 and 18 as shown in Fig. 2, and the lamp 10 can therefore be connected with the switch while the cover plate is removed. After the indicator lamp has been connected, the cover can be put in place in the usual manner. The cover plate shown in Figs. 1 and 2, is provided with a compartment 171, for the reception of the indicator lamp. This compartment can be made by pressing outwardly a portion of the plate in the manner shown.

It is evident that the lamp 10 can be placed in a recess in the base of the switch and this is

preferable where a special switch is used, but where the indicator lamp is to be applied to switches already installed, it is necessary to attach it to the same, which can be done either in the manner shown in Figs. 1, 2 and 3, or by the somewhat simpler expedient illustrated in Figs. 5 and 6.

In Figs. 5 and 6 reference numeral 181 designates a cover plate of the usual construction. A special extension plate 19 is put in place between the cover plate and the wall and held in place by means of a screw 20. Plate 19 is provided at one end with a chamber 21 in which the lamp 10 is located. This chamber has an opening 22 through which the lamp can be seen. When the construction shown in Figs. 5 and 6 is employed, the indicator lamp is connected to the switch terminals in the manner explained above and is then covered by means of the cover plate 19 and located in the recess 21 of the same. By means of this simple attachment any ordinary switch can be provided with indicating means which can be readily put in place and easily removed whenever desired.

From the above description it will be seen that I have produced a simple and inexpensive indicating device that can be applied to any existing electrical installation and which will serve to indicate the position of a switch in a dark room and which can also be used to indicate the position of the switch controlling a light in a different room, or which controls any electrical translation device, located at a distance. Although I have indicated that a lamp of the neon type is the most suitable for this purpose, I want it understood that any gasfilled lamp that will glow when subjected to the ordinary voltage employed in connection with house lightings and which will consume only a small amount of current can be employed for this purpose, regardless of whether it contains neon gas or not, and therefore the designation "neon" should be considered merely as descriptive and not as limiting the invention to the use of this particular kind of lamp.

Having described the invention what is claimed as new is:

1. An indicating device for use with light switches having a removable cover plate and switch base held in position by screws, a plate having one end provided with an opening, the end of the plate being designed to extend underneath one end of the cover plate and to be so positioned that the opening will receive one of the securing screws, means carried by the plate for holding a miniature lamp, said means enclosing the lamp except for a small opening and two leads connected with the lamp.

2. In a combination comprising, a switch box, and an insulating base located therein, the base and box having each two cooperating lugs provided with openings for the reception of screws for securing the base to the box, an indicating device comprising a plate having one end provided with an opening, the end of the plate overlapping one of the securing lugs and held against the same by means of the securing screw, an indicator lamp secured to the plate, two stationary switch contacts carried by the base, a movable switch member also carried by the base and movable into and out of contact with the stationary contacts, and conductors extending from the stationary switch contacts to the terminals of the lamp.

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