

Sept. 17, 1940.

C. A. WOODWARD

2,215,260

INDICATING DEVICE

Filed Feb. 5, 1937

*Fig. 1.*

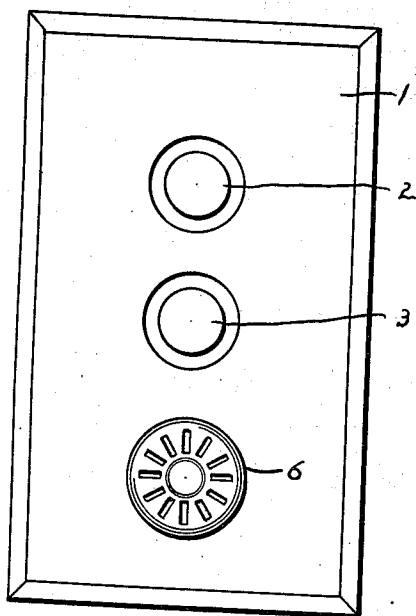


*Fig. 2.*

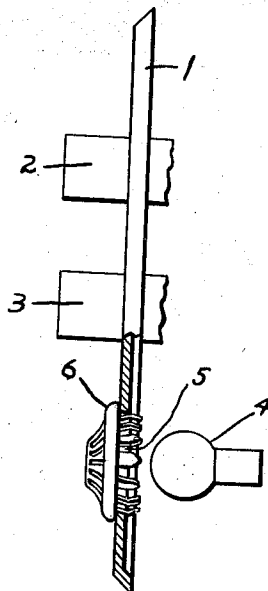


*Fig. 3.*

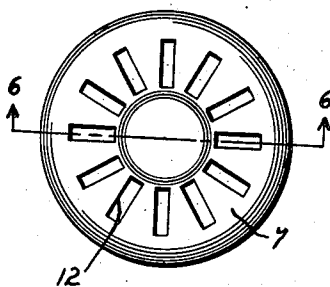


*Fig. 4.*

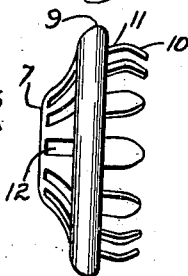


*Fig. 5.*

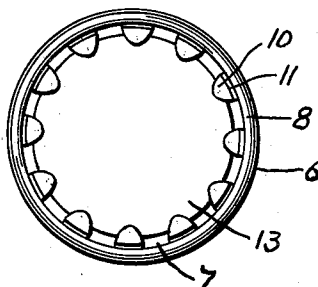


*Fig. 7.*

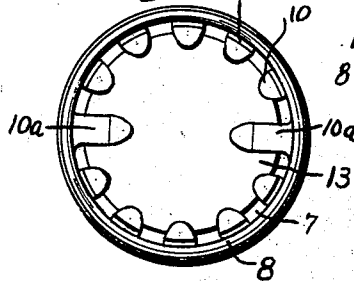
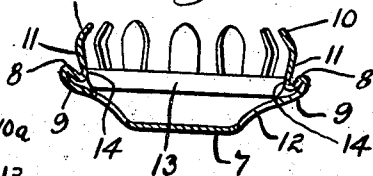


*Fig. 6.*



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*Att'y.*

## UNITED STATES PATENT OFFICE

2,215,260

## INDICATING DEVICE

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Application February 5, 1937, Serial No. 124,249

## 1 Claim. (Cl. 177—329)

My invention relates to improvements in indicating devices and is directed to the provision of an improved device of the character described adapted for attachment to a push button switch plate or the like support so as to make it possible for a person to determine if the circuit is open or closed.

An object of my invention is to provide an indicating device of simple and inexpensive construction which may be simply and conveniently applied to a support.

Referring to the drawing, in which I have illustrated preferred embodiments of my invention—

Figure 1 is a front view of a push button switch plate with my improved indicating device assembled therewith;

Fig. 2 is an edge view of the installation shown in Fig. 1 showing a lamp bulb behind the switch plate, a portion of the switch plate being shown in cross-section;

Fig. 3 is a front plan view of my indicating device per se;

Fig. 4 is a side view of the device shown in Fig. 3;

Fig. 5 is a rear view of the device shown in Figs. 3 and 4;

Fig. 6 is a section taken along the line 6—6 of Fig. 3, and

Fig. 7 is a rear view of a modified form of indicating device.

Referring to Figs. 1 and 2 of the drawing, I have shown a push button switch plate 1 of conventional form, which plate is provided with a pair of buttons 2 and 3 for actuating an electric switching mechanism (not shown) so as to open or close the circuit. A lamp bulb 4 secured in a socket (not shown) is disposed behind the switch plate 1 and in line with a circular opening 5 in the switch plate. The lamp bulb 4 is connected electrically with the switch mechanism in such a way that it lights when the circuit controlled by the push buttons 2 and 3 is closed in a manner well known in the art. My indicating device 6 has a holder member secured to the plate 1 through yieldable means engaging the material of the plate adjacent the aperture 5. The holder member has an apertured face disposed opposite the aperture 5 of the support. A light transmitting plate is assembled with the holder member in line with the opening 5 so that when the bulb 4 is lighted, light from the bulb is transmitted through the plate and the apertured face of the holder, indicating to a person that the electrical circuit is closed.

Referring to my preferred form of indicating

device, as most clearly illustrated in Figs. 3–6 of the drawing, I have provided a holder member having a substantially cup-shaped portion 7. The walls at the open end of the cup-shaped portion extend inwardly as at 8 (Fig. 6) forming a support-engaging means in the form of a base flange 9 which is of greater diameter than the aperture 5 of the support 1. Yieldable arm portions 10 project from the inwardly-extending portion 8 of the flange 9 and are arranged, in my preferred form, in an annular series around the inner edge of the portion 8, as most clearly shown in Fig. 5. The arms 10 are provided with shoulders 11 for engagement with the material of the support 1 adjacent the aperture 5 to secure the holder member to the support.

As a means for enabling light to pass through the holder, one or more openings 12 are provided in the material of the cup 7 facing the opening 5 of the support. The openings 12 are disposed about the center of the cup-shaped portion 7, in my preferred form, in a way to give a radiant effect when light shines through them, but it is understood that the number and arrangement of the openings 12 in the cup-shaped portion 7 is purely a matter of design and forms no part of my present invention. A circular light-transmitting plate 13 is assembled with the holder member at the free end of the cup-shaped portion 7. The plate 13 is formed of any suitable light-transmitting material and has a diameter slightly larger than that of an imaginary circle at the inside surfaces of the portions 14 of the flexible fingers 10 disposed near the points of the junction of the fingers 10 with the inwardly-turned portion 8 of the flange 9, as shown in Fig. 6. In assembling the plate 13 with the holder member, the plate is moved through the imaginary circle defined by the free ends of the fingers 10 and then is forced by the portions 14 of the fingers into abutting engagement with the material of the cup-shaped portion 7. After this action, the portions 14 of the fingers expand to engage the plate 13 under slight spring tension so as to hold the plate in assembly with the holder member.

The modified form of my indicating device, as shown in Fig. 7, differs from my first form by having attaching means in the form of a pair of opposed fingers 10<sup>a</sup>, preferably of the annular series of fingers 10 shown in my first form, bent over so as to be superposed above a surface of the plate 13. As a result of this construction, the plate 13 is held in secure assembly with the

holder member between the superposed portions of the fingers 10<sup>a</sup> and the material of the cup-shaped portion 7.

5 It will thus be seen that the indicating devices of my invention comprise a minimum number of parts which may be easily assembled together. Also, the devices are capable of easy assembly with a support so as to meet the conditions of practical use.

10 Although I have illustrated and described preferred embodiments of my invention, I do not wish to be limited thereby because the scope of my invention is best set forth in the following claim.

15 I claim:

An indicating device of the class described

comprising a holder member formed from a single piece of metal and a light-transmitting member assembled with said holder member, said holder member being generally cup-shaped and having a series of apertures formed in the bottom thereof so that said light-transmitting member may be visible through the apertures in said bottom, and a series of yieldable fingers adjacent to the rim of said cup-shaped portion, said fingers being shaped and arranged near their points of connection with said cup-shaped portion to permit forced passage of said light-transmitting member and to hold it in position in said cup-shaped portion as and for the purpose described.

CLEMENT A. WOODWARD.