

Sept. 25, 1945.

A. FLECKENSTEIN

2,385,620

ELECTRIC OUTLET ACCESSORY FIXTURE

Filed June 1, 1944

Fig. 1.

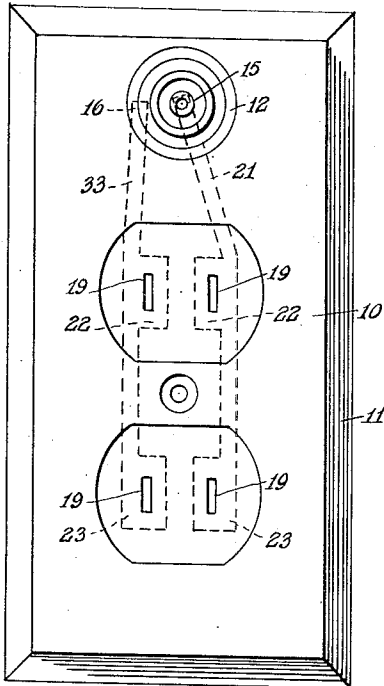


Fig. 2.

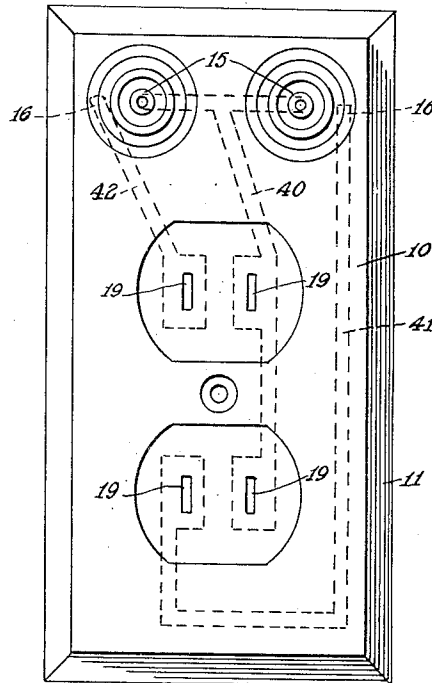


Fig. 3.

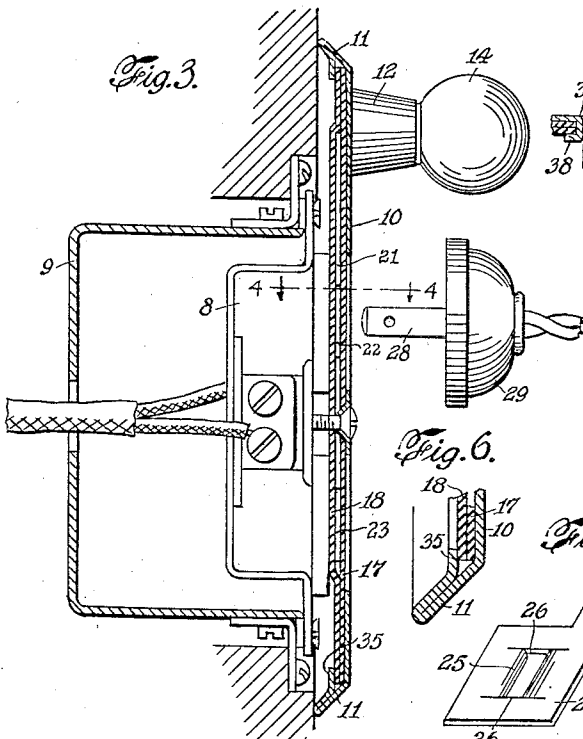


Fig. 4.

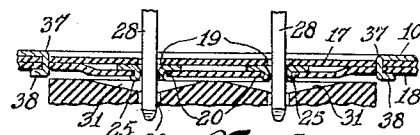


Fig. 5.

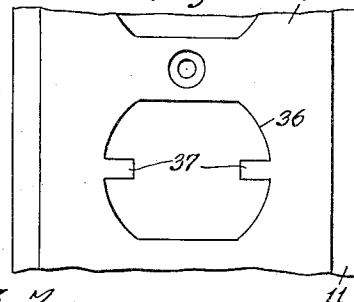


Fig. 6.

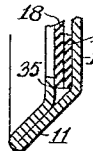
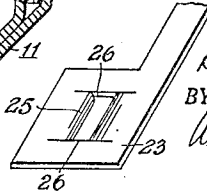


Fig. 7.



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UNITED STATES PATENT OFFICE

2,385,620

ELECTRIC OUTLET ACCESSORY FIXTURE

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Application June 1, 1944, Serial No. 538,220

6 Claims. (Cl. 177-311)

This invention relates to electrical fixtures and more particularly to an accessory fixture for use with plug-in type electrical outlets for connecting a pilot-light thereto.

As is well known, the aforesaid type of outlet comprises a receptacle containing spring contacts, which is usually mounted in a metal box set into the wall, the receptacle having slots into which standard plugs having blade contacts may be inserted. The spring contacts within the receptacle frictionally engage the blade contacts of the plug and hold it in place. This engagement is adequate to retain the plug and make good electrical contact even though the plug is not fully inserted.

In order to close the box in which the receptacle is mounted and provide a finished appearance, metal plates having suitable apertures to expose the face of the receptacle are customarily placed over the box and secured to the receptacle, usually by a single screw in the center of the plate.

The present invention provides an accessory fixture incorporating a pilot-light and a socket therefor, which fixture may also serve as a substitute for the usual closure plate. It comprises a thin body of dielectric material having apertures through which an attachment plug may be inserted into the receptacle and when this is done the blade contacts of the plug connect the socket of the pilot-light with the current supply, which is connected to the contacts within the receptacle, through the medium of contact members carried by the dielectric body and adapted to engage the blade contacts of the plug as they pass through the apertures. The invention provides a simple device which may be installed without any electrical skill merely by removing the usual cover-plate and replacing it with this device. It is sufficiently thin so as not to interfere with the normal operation of the electrical outlet, and indeed, may be made thin enough so that, if desired, it may be used on top of instead of in place of the usual cover-plate. Its installation on standard type outlets, almost universally used, requires only the removal and replacement of the single retaining screw.

The advantages of pilot-lights in connection with electrical outlets are well recognized. They serve as visible warnings that current is being supplied to some electrical appliance and reduce the hazards of inadvertently leaving in circuit such things as electric irons, toasters, soldering irons and heaters. Ordinarily, such

pilot-lights are to be had only by the installation of a special electrical fixture and the services of a skilled electrician. The device of the present invention converts a standard outlet into an outlet equipped with a pilot-light without requiring any contact with or change in the electrical wiring, and requires no skill for its installation. The device also serves to provide a source of illumination at the outlet which may be used as a night light, for example in sick rooms, nurseries, bathrooms, etc., the light being turned on and off by the insertion and removal of a standard plug.

In order to fully explain how the invention may be practiced, reference may be had to the following detailed description of the present preferred embodiment thereof, taken in conjunction with the drawing, in which:

Fig. 1 is an elevation of one form of the device having a single pilot-light serving both receptacles of a dual outlet;

Fig. 2 is a similar view of another form having a separate pilot-light for each outlet;

Fig. 3 is a vertical section through a wall outlet showing the device installed;

Fig. 4 is an enlarged detail section on the line 4-4 of Fig. 3, showing the plug partially inserted;

Fig. 5 is a detail elevation of a portion of the metal cover-plate before assembly;

Fig. 6 is a detail of an edge of the assembled device showing one method of marginally securing the sheets of insulation to the metal cover-plate; and

Fig. 7 is an enlarged perspective view of a portion of one of the metal strips which makes the contact with a blade of an attachment plug.

Referring to Figs. 1 and 3, a receptacle 8 is mounted in a box 9 covered and closed by the fixture of the invention which comprises a cover-plate 10 having the usual beveled edge 11, which plate need be only slightly longer and may be of the same width as standard cover-plates. For maximum strength with minimum thickness it may be made of a rigid metal such as steel. At the upper end it is provided with a casing 12 enclosing a standard socket of any desired type, for example a screw socket, for securing and making contact with the terminals of an electric lamp 14. The socket has the usual central terminal 15 and side terminal 16, insulated from each other. Secured to the rear of the cover-plate are two sheets of thin dielectric material 17 and 18 containing apertures 19 and 20 so placed as to be in alinement with the usual open-

ings in the receptacle of a standard electrical outlet. Between the insulating sheets 17 and 18 are thin metal strips of the shape shown in dotted lines. The strip 21 is attached to the central terminal 15 of the lamp socket and has enlarged portions 22 and 23 which surround the apertures 19 and 20 in the dielectric material. These enlarged portions are perforated and formed as shown in Fig. 7 to provide a pair of curved lips 25, which are given sufficient resiliency by making the strips of spring metal and slotting the metal as shown at 26. Referring to Fig. 4, it will be seen that the opening 20 in the lower layer of insulation is somewhat larger than the opening 19 in the upper layer so that the lips 25 are free to spring somewhat as the blade contact 28 of the attachment plug 29 is inserted.

The usual standard receptacle is provided with openings 30 and around these openings it is usually recessed as shown at 31. These recesses provide ample space for the slightly protruding lips 25 even though they extend a considerable distance beyond the layer of insulation 18.

The metal strip 33 (Fig. 1) which is attached at one end to the outer contact 16 of the lamp socket is similar to the strip 21. The two strips 21 and 33 are held in place between the layers of insulation 17 and 18 which in turn are secured in the metal face plate 10. These sheets of insulation may be secured at the edges of the plate 10 as shown in Fig. 6 by folding back the outer edge of the plate and bending it inwardly against the edges of the insulation as shown at 35. Referring to Fig. 5, the plate 10 is formed with openings 36 which are stamped out so as to provide tongues 37 which may be bent at right angles and inserted through slots provided in the layers of insulation and crimped around them as shown at 38 in Fig. 4.

The embodiment just described provides a single pilot-light for two outlets. In Fig. 2 there is shown a modified form of the invention in which there are two pilot-lights, one for each outlet. The metal strip 40 is connected with one terminal 15 of each of the lamp sockets and protrudes into the apertures 20 overlying one of the openings in each of the two receptacles of the outlet. The metal strip 41 is connected with another terminal 16 of one of the lamp sockets and protrudes into the aperture overlying the other opening of one of the receptacles. The strip 42 is similarly connected to the other lamp socket and associated with the other receptacle.

It will be observed that with the fixture of the invention in place over an electrical outlet, the pilot-light can be connected in circuit and used as a source of illumination merely by inserting the blade contacts of a plug through the fixture and into the receptacle. This will connect the light to the current supply whether or not any appliance is attached to the plug.

It is within the scope of the invention to provide a manually operated switch or switches in association with any one of the conducting strips 21, 33, 40, 41 or 42 if desired, such switches to be mounted in any desired manner on the face of the plate 10 for easy access. The device may be made otherwise than as above specifically described, for example by molding all or part of it from an insulating plastic in which the conductors may be imbedded during forming, thus eliminating the metal plate 10 altogether.

Considering these and other possible changes the embodiment specifically described is to be taken as merely illustrative and the invention

is to be construed broadly within the purview of the claims.

What is claimed is:

1. An accessory fixture for use with an electrical outlet having a contact-carrying receptacle adapted to receive an attachment plug having blade contacts, said fixture comprising a thin dielectric body adapted to overlie said receptacle and having apertures to receive said blade contacts, contact means carried by said body and adapted to engage said blade contacts when they are inserted in said apertures, a lamp socket supported on said fixture and having terminals, and means electrically connecting said terminals with said contact means.

2. An accessory fixture for use with an electrical outlet having a contact-carrying receptacle adapted to receive an attachment plug having blade contacts, said fixture comprising a thin dielectric body having apertures to receive said blade contacts, spring metal fingers carried by said body and protruding into said apertures to engage said blade contacts when they are inserted therein, a lamp socket supported on said fixture and having terminals, and means electrically connecting said terminals with said fingers.

3. A combined cover-plate and pilot-light fixture for use with a flush-type electrical outlet having a contact-carrying receptacle adapted to receive an attachment plug having blade contacts, said fixture comprising a cover plate for said outlet adapted to overlie said receptacle, insulation carried by said plate and having apertures aligned with those in said receptacle, contact means carried by said insulation and protruding into said apertures, a lamp socket mounted on said plate, and means electrically connecting said means with said lamp socket.

4. A combined cover-plate and pilot-light fixture for use with standard flush-type electrical outlets which have openings to receive an attachment plug having blade contacts, said fixture comprising a cover-plate adapted to be secured over said outlet, a lamp socket carried by said plate, said plate comprising a thin body of insulation having apertures aligned with and overlying the openings in said outlet, said insulation carrying metal strips connected to the terminals of said socket and protruding into said apertures for frictional engagement with said blade contacts whereby insertion of said plug into said outlet will connect said lamp socket in parallel therewith through said blade contacts.

5. A combined cover-plate and pilot-light fixture for use with a flush-type electrical outlet having two receptacles adapted to receive two plugs having blade contacts, said fixture comprising a cover plate adapted to be secured over said outlet, two lamp sockets carried by said plate, said plate comprising a thin body of insulation having apertures aligned with and overlying the openings in said receptacles, said insulation carrying a metal strip connected to one terminal of each of said sockets and protruding into apertures overlying one of the openings of each of said receptacles and other metal strips separately connected to the remaining terminals of each of said sockets and protruding into the apertures overlying the remaining openings of each of said receptacles, whereby insertion of a plug into either of said receptacles will connect one of said sockets in parallel therewith through said blade contacts.

6. A combined cover-plate and pilot-light fixture for use with a flush-type electrical outlet

having a contact-carrying receptacle with openings to receive an attachment plug having blade contacts, said fixture comprising a thin metal face plate having openings to overlie the openings in said outlet, two sheets of insulation secured to the rear of said plate and having apertures alined with and overlying the openings in said receptacle, thin resilient metal strips secured between said sheets of insulation and having portions pro-

truding into said apertures, and a lamp socket provided with terminals and mounted on said fixture and having its terminals electrically connected to said strips, whereby insertion of said blade contacts through said apertures and into said receptacle will connect the contacts therein with said terminals.

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