

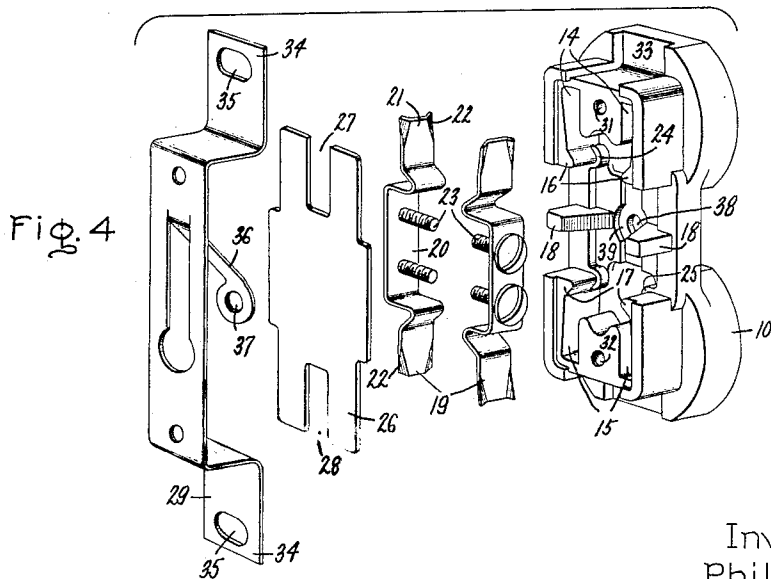
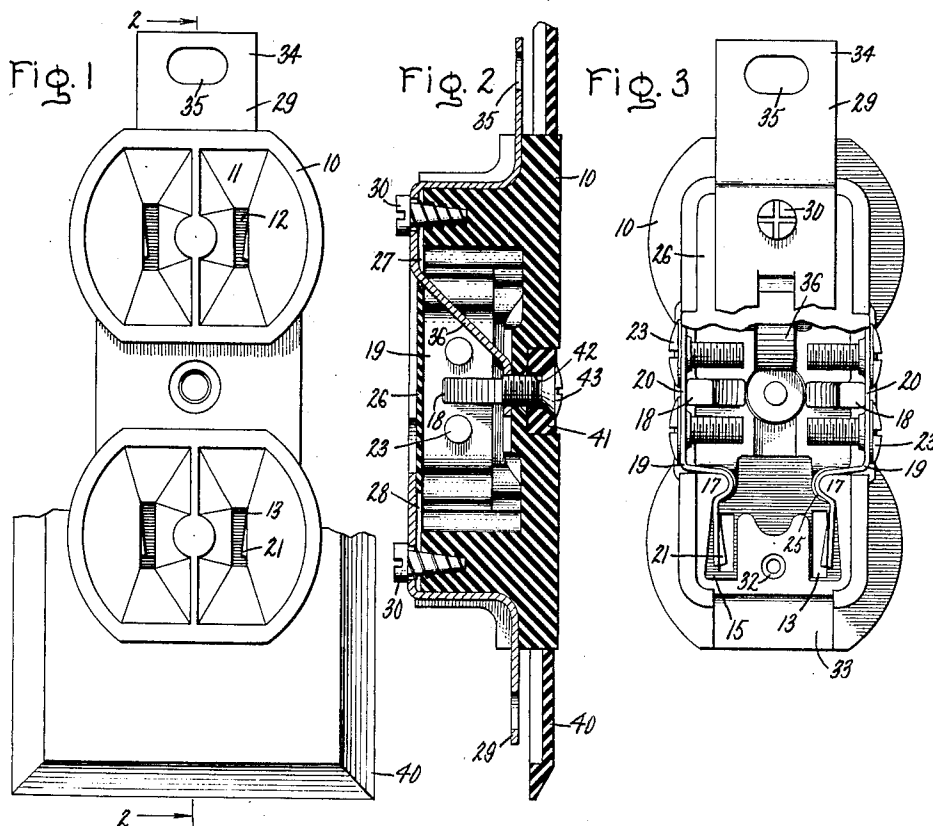
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P. HUTT

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RECEPTACLE FOR ELECTRIC WIRING SYSTEM

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Inventor:
Philip Hutt,
by *Harry E. Dunbar*
His Attorney.

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RECEPTACLE FOR ELECTRIC WIRING
SYSTEMSPhilip Hutt, Milford, Conn., assignor to General
Electric Company, a corporation of New York

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4 Claims. (Cl. 173—330)

The present invention relates to receptacles for electric wiring systems such as are used for connection with two or more attachment plugs. More specifically, the invention relates to the type of receptacle which has a body held on a supporting strap or yoke and a face plate secured to the body by a screw electrically connected to the supporting strap.

The object of my invention is to provide an improved construction of receptacles of the type above specified which is safe in operation and may be produced at comparatively low cost.

For a better understanding of what I believe to be novel and my invention, attention is directed to the following description and the claims appended thereto in connection with the accompanying drawing.

In the drawing I have shown a duplex receptacle for receiving two attachment plugs. Fig. 1 illustrates a front view of the receptacle; Fig. 2 illustrates a section along line 2—2 of Fig. 1; Fig. 3 is a back view of the receptacle with the supporting strap partly broken away; and Fig. 4 is a perspective exploded view of the receptacle.

The receptacle comprises a body of insulating material 10 which has a front portion 11 forming two pairs of spaced slots 12, 13 for receiving and guiding the prongs of attachment plugs to be connected to the receptacle. The back of the base, as best shown in Fig. 4, forms pairs of recesses 14, 15 in alignment with the aforementioned slots 12 and 13, respectively. The outer side walls of the slots 14, 15 form buttresses 16 and 17, respectively. Two other buttresses 18 are formed by the back of the base and are located between the buttresses 16 and 17. The slots 14, 15 and the buttresses 16, 17, 18 serve to accommodate and to support two spring contacts 19. Each spring contact has a U-shaped portion 20 with contacts proper 21 formed by bent extensions of the legs of the U and provided with inclined edge portions 22. A pair of wire screws 23 are secured to each spring contact. The aforementioned buttresses 16, 17, 18 form a 3-point contact with each spring contact. During assembly the contacts proper, that is, the extensions or end portions of a spring contact, are inserted into a slot 14 and a slot 15, respectively. The spring action of the spring contacts then assures a firm contact with the buttresses 16, 17, 18, at the same time locating the end portions, that is, the contacts proper 21, centrally in the slots 14, 15. When so located the bent edge portions facilitate insertion of the prongs of an attachment plug through the slots

12 into the receptacle and at the same time assure a firm electrical contact therewith. The spring contact 19 when inserted into the slots 14, 15 are brought into engagement with shoulders 24, 25 formed by the buttresses 16 and 17, respectively, and acting to fix the positions of the spring contacts. The back of the base is closed by an insulating back plate 26 which has two aligned slots or openings 27 and 28.

A supporting strap or yoke 29 for holding the receptacle on an outlet box is attached to the back of the base by means of two self-tapping screws 30 threaded into bores 31 and 32 formed in the back of the base centrally between the slots 14 and 15, respectively. The strap 29 has portions fitting into recesses 33 in the back of the base. End portions or lugs 34 of the strap have openings 35 to facilitate connection with corresponding portions or ears of an outlet box (not shown). The central portion of the strap 29 has a section 36 lanced-out of the strap by a punching operation and bent forward towards the front of the base. When assembled the strap section 36 projects through one of the slots 27. The free end portion of the section 36 has a threaded opening 37 and when assembled with the base engages the rear of the front thereof with the opening 37 in alignment with a corresponding bore 38 in the center of the front of the base. This end portion of the strap fits into a recess 39 formed on the rear side of the front of the base and acts to align the threaded opening 37 of the strap 36 with the bore 38 in the front portion. The bore 38 is slightly wider in diameter than the threaded opening 37 of the strap section 36.

A face plate 40 of conventional construction is associated with the receptacle. The face plate has a central portion 41 extending across the central portion of the front of the base with a bore 42 in alignment with the bore 38 in the base. The face plate is securely fastened to the base 10 and the strap 29 by means consisting of a screw 43 projecting through the aligned bores 42 and 38 and threaded into the opening 37 of the strap section.

Thus, with my invention I have accomplished an improved receptacle for electric wiring systems in which a supporting strap secured to a base is provided with a lanced-out section projecting towards the front portion of the base and having a threaded opening mechanically and electrically directly connected to a screw or like locking means to hold a face plate in fixed position on the base of the receptacle.

Having described the method of operation of my invention, together with the apparatus which I now consider to represent the best embodiment thereof, I desire to have it understood that the apparatus shown is only illustrative and that the invention may be carried out by other means.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. A receptacle for electric wiring systems comprising an insulating base having a front portion with a bore and a recessed back portion, contact means located in the recessed back portion, a supporting strap engaging the recessed back portion and having a lanced-out section extending towards the front portion, said section having an opening in alignment with said bore adapted to receive a face plate screw.

2. A receptacle for electric wiring systems comprising an insulating base having a front portion with a bore and a recessed back portion, contact means located in the recessed back portion, a supporting strap extending across and secured to the recessed back portion and having a lanced-out section extending towards the front portion, said section having a threaded opening in alignment with said bore, a face plate associated with the receptacle having a portion with an opening in alignment with said bore, and a screw securing the face plate directly to the threaded opening of said section.

3. A duplex receptacle for electrical attachment plugs comprising an insulating base having a front portion forming two pairs of spaced slots for receiving and guiding prongs of plugs

to be attached thereto and a back portion forming recesses in alignment with said slot, buttresses partly formed on the outer walls of said recesses, a pair of spring contacts projecting into the recesses and each having a three-point contact on the buttresses, an insulating back plate having a slot, and a supporting strap for holding the back plate on the base, said strap having end portions for attachment to an outlet box and a section projecting through the slot in the back plate towards the front portion, a face plate having an opening, and a screw means projecting through the face plate opening and engaging said section to secure the face plate to the supporting strap.

4. A duplex receptacle comprising an insulating base having a front portion with a central bore and a recessed back portion, contact means disposed in the recessed back portion, an insulating back plate with a recess engaging the back portion, and a supporting strap for holding the back plate in position and for supporting the receptacle on an outlet box, said strap having a section integrally formed therewith and bent forward into engagement with the front portion and having a threaded opening in alignment with said bore, a face plate enclosing the front portion having a central part extending across the front portion with an opening in alignment with the threaded opening, and a screw projecting through the openings for directly securing the face plate to said strap section.

PHILIP HUTT.