Aug. 2, 1949. G. B. BENANDER 2,477,952

TRIPLE PLUG RECEPTACLE

Filed Aug. 12, 1948

Fig. 1.

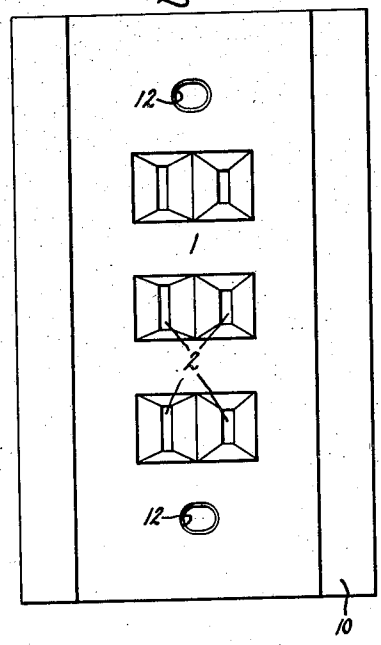


Fig. 3.

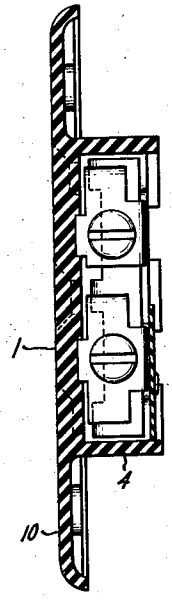


Fig. 2.

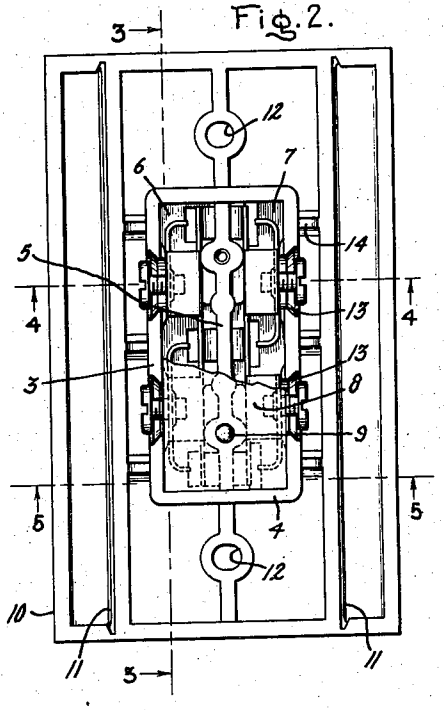


Fig. 4.

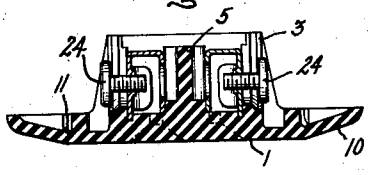


Fig. 5.

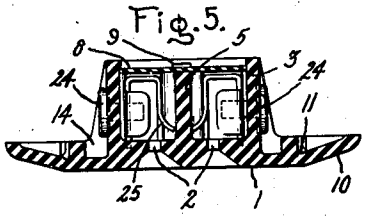
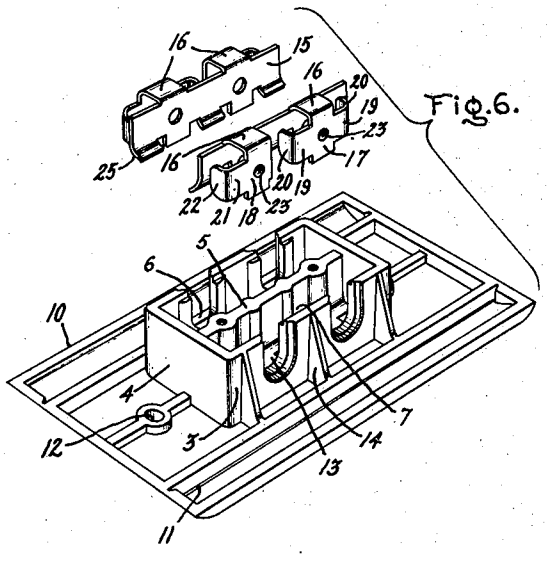


Fig. 6.



Inventor:
George B. Benander,
by Alfred E. Robst.
His Attorney.

Patented Aug. 2, 1949 2,477,952

UNITED STATES PATENT OFFICE

2,477,952

TRIPLE PLUG RECEPTACLE

George B. Benander, Oaklawn, R. I., assignor to Monowatt Incorporated, a corporation of Connecticut

Application August 12, 1948, Serial No. 43,802

2 Claims. (Cl. 173—330)

1

In connection with plug receptacles such as are used for house wiring, for example, it is often desirable to have a receptacle to which three plugs or attachment caps may be connected, i. e. a receptacle with three pairs of plug openings or slots. Also, in such receptacles, it is desirable to provide binding posts or screws on each side of the receptacle so that two two-conductor cables may be connected to the receptacle, one cable carrying current to the receptacle, and the other leading from the receptacle to another wiring device, the receptacle thus serving as a wire splicer.

One object of my invention is to provide an improved plug receptacle, having three pairs of plug openings or slots and two binding screws on each side, which is simple in structure and economical of material, whereby it may be manufactured at low cost.

Another object of my invention is to provide a receptacle having an improved contact structure which, while simple and economical to manufacture, grips the prongs of a plug on both sides so as to provide firm electrical engagement and firm seating of the plug.

For a consideration of what I believe to be novel and my invention, attention is directed to the following specification and to the claims appended thereto.

In the drawing, Fig. 1 is a face view of a plug receptacle embodying my invention; Fig. 2 is a rear view thereof with a part of a backplate broken away; Fig. 3 is a sectional view taken on line 3—3, Fig. 2; Fig. 4 is a sectional view taken on line 4—4, Fig. 2; Fig. 5 is a sectional view taken on line 5—5, Fig. 2; Fig. 6 is an exploded view of the contact structures and housing, looking from the rear.

The receptacle comprises a base or housing of suitable insulating material having a top or face wall 1 provided with three pairs of plug openings or slots 2, side walls 3, and end walls 4. Extending longitudinally of the base is a partition wall 5 which, with the side and end walls, defines two pockets or chambers 6 and 7. These are open at the bottom or rear of the receptacle. They are covered by a thin backplate 8 of insulating material held in place by suitable fastening means 9. In the present instance, a faceplate 10 is shown as being formed integral with the base and as having its side edges provided with longitudinally extending grooves 11 whereby one or both edges may be broken off for ganging after the manner disclosed and claimed in my Patent 2,212,145, patented August 20, 1940. In faceplate 10 are

2

openings 12 to receive screws for mounting the structure on an outlet box. In each side wall 3 are two U-shaped slots 13 isolated from each other by tapered reinforcing walls 14 which serve to form a pocket for each slot 13.

In pockets 6 and 7 are contact structures adapted to be engaged by the prongs of a plug inserted in any pair of plug openings. Each contact structure comprises a longitudinally extending backplate 15 having integral with its rear edge two spaced tongues 16 which extend at right angles to the backplate and at their ends carry contact bars 17 and 18 which are parallel to backplate 15. Contact bar 17 has two wings 19 each provided with an inturned end 20 extending toward the backplate 15, and contact bar 18 has a single wing 21 provided with an inturned end 22 extending toward the backplate 15. Ends 20 and 22 stand in line with openings 2 and are spaced with respect to the backplate to grip the prongs of a contact plug between the ends and the backplate, thus providing a firm contact with each side of a contact prong. Contact bars 17 and 18 are provided with tapped openings 23 for binding screws 24, the heads of the screws being positioned in the U-shaped slots 13. In backplates 15 are openings which stand in line with the inner ends of the screws so that the screws may be turned in without interference. The free ends of contact bars 17 and 18 are positioned in recesses in the front wall as shown clearly in Figs. 3 and 4. Backplates 15 on their forward edges have curved tongues 25 (Fig. 5) which engage wall 5 to position the contact structure with respect to each wall. The contact structures are of a width such that they fit snugly in recesses 6 and 7.

It will be clear from a consideration of Fig. 6 that each contact structure can be stamped from a rectangular strip of sheet metal and formed up with a minimum of waste and with a minimum of forming operations. This enables the contact structures to be manufactured at low cost. At the same time, there is provided a contact structure wherein the prongs of a plug are engaged firmly on each side so as to provide good electrical connections.

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

1. A triple plug receptacle comprising a housing having a face wall, side and end walls, an open rear, and a longitudinally extending partition which divides the casing into two longitudinally extending pockets, said face wall being provided with three pairs of plug openings, and said

side walls being provided each with two spaced U-shaped slots, contact structures in said pockets, each comprising a longitudinally extending backplate positioned adjacent to said partition, two bars integral with the rear edge of the backplate and spaced apart a distance such that they stand in line with said U-shaped slots, two wings on one of said bars having inturned ends in line with two of said pairs of plug openings and one wing on the other bar having an inturned end in line with the other of said pairs of plug openings, the ends of said inturned ends being positioned close to said backplate to grip firmly plug contacts inserted between said ends and said backplate, and binding screws in said bars with their heads positioned in said U-shaped slots.

2. A contact structure for use in a triple plug receptacle comprising a longitudinally extending backplate, two bars integral with the rear edge of the backplate and spaced apart and from the ends thereof, two wings on one of said bars having inturned ends and one wing on the other bar having an inturned end, the ends of said inturned ends being positioned close to said backplate to grip firmly plug contacts inserted between said ends and said backplate, and binding screws in said bars.

GEORGE B. BENANDER.

No references cited.