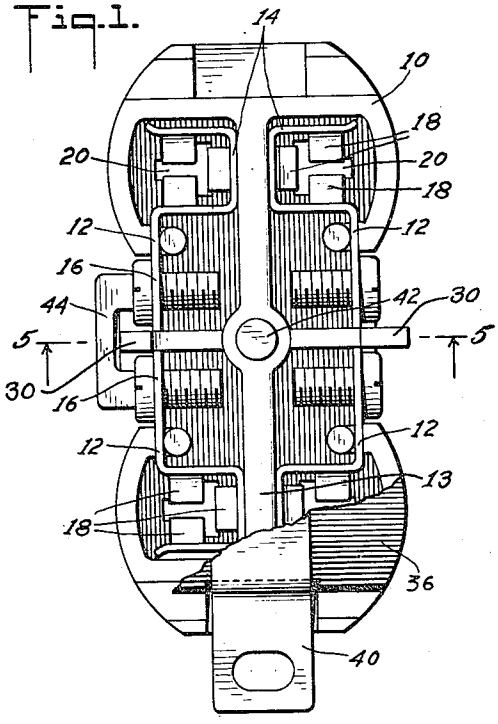
March 3, 1936. G. E. FITZGERALD 2,032,980

ATTACHMENT PLUG RECEPTACLE

Filed Sept. 19, 1931

Fig.1.



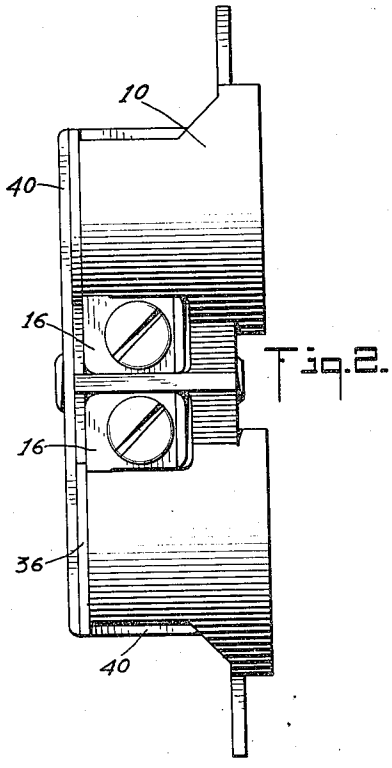


Fig.2.

Fig.3.

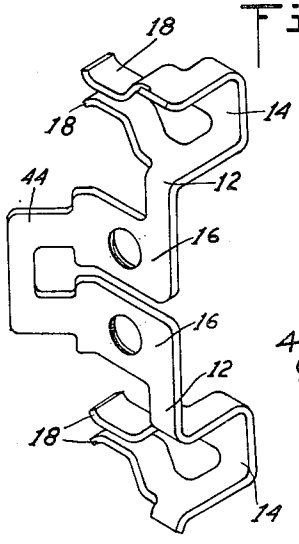


Fig.5.

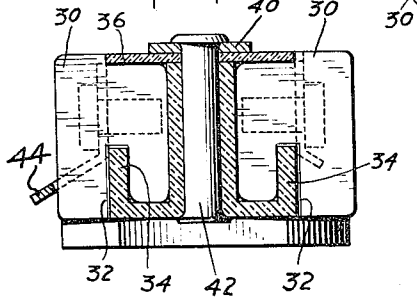
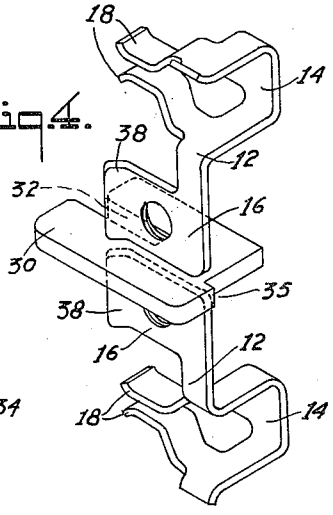


Fig.4.



INVENTOR

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by his attorneys

Howson and Howson

Patented Mar. 3, 1936 2,032,980

UNITED STATES PATENT OFFICE

2,032,980

ATTACHMENT PLUG RECEPTACLE

George E. Fitzgerald, Stratford, Conn., assignor to The Arrow-Hart & Hegeman Electric Company, Hartford, Conn., a corporation of Connecticut

Application September 19, 1931, Serial No. 563,830

8 Claims. (Cl. 173—330)

Duplex receptacles as heretofore known, may be classified generally as the common or single circuit type and the separate feed type. The former type is generally used where the current drain from both outlets when used simultaneously, is small, for example when two reading lamps are connected or when a reading lamp and an electric fan are connected. The latter type is useful where the current drain is heavier.

One of the many instances of the utility of this type is in a kitchen where an electric refrigerator and an electric iron are to derive current through the same receptacle. If both outlets were fed from the same branch circuit of the power system that circuit might, when both the refrigerator and iron were drawing current, become overloaded. When the outlets are fed separately, that is by different branch circuits, the difficulty of overloading is removed.

It is an object of this invention to make a receptacle which is provided with means by which it may be readily changed from the common type, which is fed from one branch circuit of the power system, to the separate feed type in which the outlets are fed separately.

Another object is to provide a contact assembly which may be used for the common type of receptacle or the separate feed type, at will.

Other objects and advantages of the invention will appear as it is described in connection with the accompanying drawing.

In the drawing:—

Fig. 1 is a bottom view of the invention.

Fig. 2 is a side view of the invention.

Fig. 3 is a perspective view of one pair of contacts usable in the improved receptacle.

Fig. 4 is a perspective view of a pair of contacts with the conducting bridge removed, and the barrier for insulating said contacts, usable in the improved receptacle.

Fig. 5 is a transverse section view of the invention taken on line 5—5 of Fig. 1.

Referring to the drawing, the invention is shown in connection with a duplex receptacle having a hollow casing 10 in which are housed stamped sheet metal current carrying members 12 which have contact portions 14 and wire terminals 16. The metallic members of each outlet are mutually insulated by a spine 13 running longitudinally up the middle of the casing 10. As shown, the contact portions of the metallic members 12 are preferably formed by bending the metallic members at right angles, inwardly of the receptacle, and then reversely bending the end portions of the members into a U-formation. Contact fingers 18 project from the edge of the contact portions 14, toward the front of the receptacle, so as to be engageable by the prongs (not shown) of a conventional attachment plug cap when the prongs are passed through the conventional T-slots 20 in the front of the receptacle, (the bottom as seen in Fig. 1). For securing the feed wires to the receptacle, conventional binding screws are threaded into apertures in the wire terminals 16.

Located between and insulating the wire terminals are plates or barriers 30 of sheet insulation or molded insulating material. These barriers extend perpendicularly to the wire terminals and are held between the wire terminals by reason of the periphery of a slot 32, cut in the front edge of each barrier, engaging with the side wall 34 of the receptacle. The bottom or rear edge of the plate is recessed to accommodate a conventional rear cover plate 36 of insulating material, which supports the metallic members 12 in a well known manner, and also supports the barriers 30 in a novel manner. The cover plate 36 is held to the receptacle body 10 by the supporting strap 40 and central rivet 42 as usual.

The barriers 30 are held in position perpendicular to the wire terminals by virtue of the front portions 38 of the terminals being bent at an angle of approximately 45° to the plane of the terminals. Thus the neighboring edges of the terminals while lying against the barriers 30 hold them in their proper position.

The invention as thus far described is described and claimed in the copending application of Arvid H. Nero, Serial No. 563,812 filed September 19, 1931, patented October 16, 1934, No. 1,977,487 and insofar as it is claimed, therein, no claim is made herein. As heretofore indicated it is desirable for some uses to which the receptacle may be put, to have the metallic member of the one outlet connected to the metallic member of the other outlet lying on the same side of the spine 13, as in the common type of receptacle which is used in a two wire circuit. For other uses of the receptacle it may be desirable to have certain contacts of each outlet of the receptacle insulated from every other, as are the right hand contacts in Fig. 1. The receptacle can then be used with a three wire circuit and one or both outlets can be controlled remotely independently of each other, by one or more switches. Or it may be desirable to have all the contacts insulated from each other so the outlets can be fed separately by a four wire circuit.

In order that the invention may be adapted to

these varying uses, a U-shaped conductor or bridge 44 is soldered to the bent ends 38 of the wire terminals, or the bridge may be formed integrally with the wire terminals from one piece of metal. In either case the bridge is formed so that it may be broken off easily with the use of a pair of pliers or other tool, without damaging the wire terminals or adversely affecting the usefulness of the metallic members. The break will normally occur at the point where the bridge joins the wire terminals. Whether or not the metallic members 12 are joined by the bridge 44, the barrier will be used so that in case it is desired to break the bridge 44 off, the members 12 will then be insulated from one another.

As may be seen in the drawing the receptacle is symmetrical about its longitudinal axis so that when a pair of members 12 are joined by the bridge 44 the contact assembly thus formed may be used on either side of the spine 13.

Thus it will be apparent that I have provided a receptacle which is susceptible to a variety of uses and may be easily transformed from the one type of receptacle to another type.

Many variations within the scope of this invention will occur to those skilled in the art, therefore I do not limit myself to the exact form of the invention as shown.

I claim:—

1. In an attachment plug receptacle comprising an insulating body having a plurality of outlets, metallic members on the same side of the body having contact portions and wire terminals, means holding said members in assembled position in said insulating body, insulating means between adjacent ends of said members, and a conducting bridge integrally connecting said members and bridging said insulating means and being structurally weaker than the members which it connects so as to be capable of removal when said component parts of the receptacle are in assembled position.

2. In an attachment plug receptacle having a plurality of outlets, metallic members having contact portions and wire terminals, insulating means between a pair of wire terminals on the same side of the receptacle, and a conducting bridge electrically connecting said pair of terminals, at least a portion of said bridge being structurally weaker than the wire terminals which it connects whereby the bridge may be broken away without destroying said metallic members.

3. In an attachment plug receptacle having a plurality of outlets, metallic members having contact portions and wire terminals, insulating means between a pair of wire terminals on the same side of the receptacle, and a conducting bridge electrically connecting said pair of terminals and integrally united therewith and adapted to be broken away without destroying said metallic members, said conducting bridge being removable upon the application of ordinary manual force while said metallic members are in assembled position in the receptacle.

4. A one piece metallic member for an attachment plug receptacle, comprising contact portions and wire terminal portions, and a conducting bridge uniting said wire terminals, said bridge being removable by breaking away from said wire terminals upon the application of ordinary manual force while said member is in assembled position in a receptacle and without impairing the utility of said terminals and said contact portions.

5. In an attachment plug receptacle having a plurality of outlets, metallic members having contact portions and wire terminals, insulating means extending out from the side of said receptacle between a pair of wire terminals on the same side of the receptacle, and a conducting bridge straddling said insulating means and electrically connecting said pair of terminals and integrally united therewith and adapted to be broken away without destroying said metallic members, said conducting bridge being removable upon the application of ordinary manual force while said metallic members are in assembled position in the receptacle.

6. A one piece metallic member for an attachment plug receptacle, comprising contact portions and wire terminal portions, and a conducting bridge uniting said wire terminals and formed to straddle insulating means projecting from the side of the receptacle between said terminal portions, said bridge being removable by breaking away from said wire terminal upon the application of ordinary manual force while said member is in assembled position in a receptacle and without impairing the utility of said terminals and said contact portions.

7. In an attachment plug receptacle having a plurality of outlets, metallic members having contact portions and wire terminals, insulating means between a pair of wire terminals on the same side of the receptacle, and a conducting bridge electrically connecting said pair of terminals and integrally united therewith, the juncture of said bridge and terminals being structurally weaker than the terminals whereby said bridge may be broken away without destroying said metallic members, said conducting bridge being removable upon the application of ordinary manual force while said metallic members are in assembled position in the receptacle.

8. A one piece metallic member for an attachment plug receptacle, comprising contact portions and wire terminal portions, and a conducting bridge uniting said wire terminals, the juncture of said bridge and terminals being structurally weaker than the terminals whereby said bridge is removable by breaking away from said wire terminal upon the application of ordinary manual force while said member is in assembled position in a receptacle and without impairing the utility of said terminals and said contact portions.

GEORGE E. FITZGERALD.