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J. J. PADEN

2,478,006

CONTINUOUS ELECTRICAL RECEPTACLE

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FIG. 1.

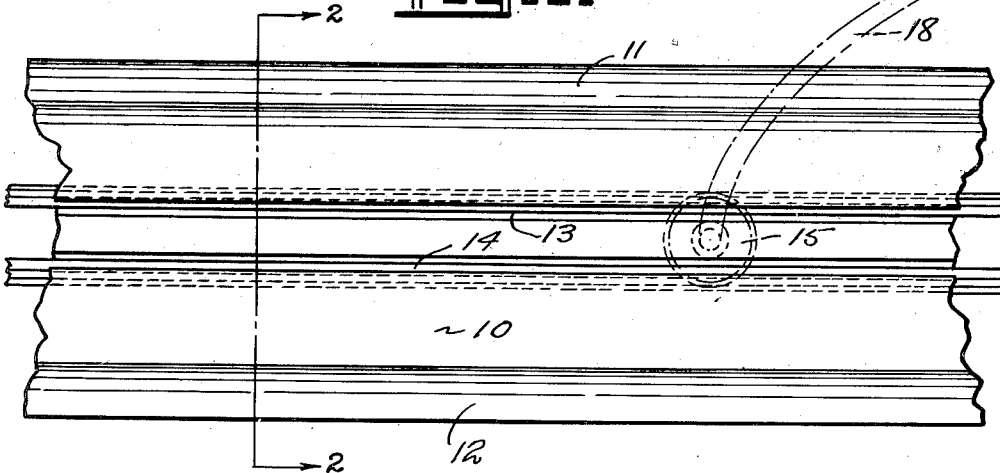


FIG. 2.

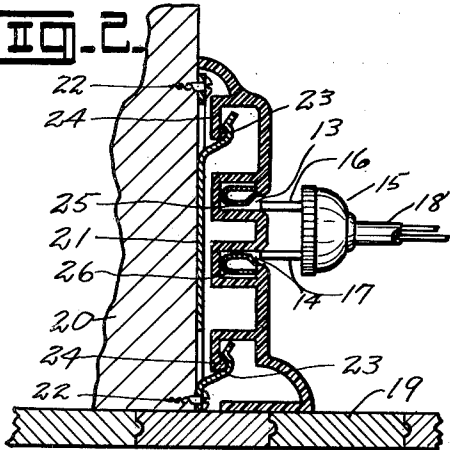


FIG. 3.

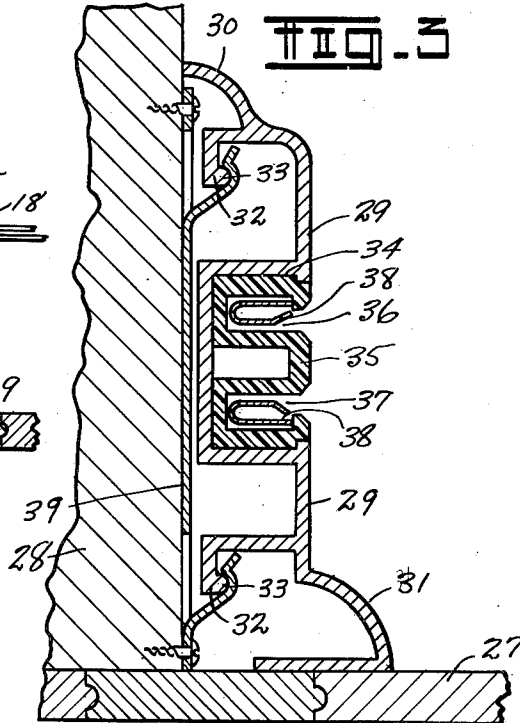
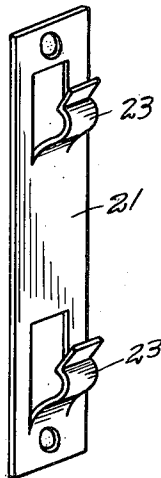


FIG. 4.



Inventor

James J. Paden.

W. B. Harpman

Attorney

UNITED STATES PATENT OFFICE

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CONTINUOUS ELECTRICAL RECEPTACLE

James J. Paden, Poland, Ohio

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2 Claims. (Cl. 173—334.1)

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This invention relates to electrical receptacles and more particularly to such receptacles formed in continuous lengths.

The principal object of the invention is the provision of an electrical receptacle of the continuous length type.

A further object of the invention is the provision of an electrical receptacle, the component parts of which may be extruded and assembled in interlocking engagement.

A still further object of the invention is the provision of an electrical receptacle formed in continuous lengths which may be used as a baseboard and quarter round finish in a building construction.

A still further object of the invention is the provision of an electrical receptacle of the continuous length type wherein interlocking component parts may be assembled on their longitudinal axis to form an operative assembly.

The continuous electrical receptacle shown and described herein has been designed to form a more efficient type of electrical receptacle than has heretofore been devised. It is known that various attempts have been made to protect electrical receptacles and that they usually comprise a number of intricately formed parts affixed to one another in an intricate assembly, the whole of which was expensive and thereby out of reach of the average purchaser. By reason of such formation and assembly difficulties the use of continuous electrical receptacles has been greatly limited.

The present invention relates to a continuous electrical receptacle which may be formed of two interlocking extrusions which may be of metal and/or plastic, as desired, and which are arranged and designed for interlocking engagement in longitudinal assembly. The construction is relatively simple and efficient in use and thereby capable of being economically formed and installed and thus capable of inexpensive sale to the ultimate user.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing, wherein:

Fig. 1 is a front elevation of a portion of a continuous electrical receptacle.

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Figure 2 is a cross section taken on line 2—2 of Figure 1.

Figure 3 is an enlarged cross section similar to Figure 2 and illustrating a modification in the continuous electrical receptacle.

Figure 4 is a perspective elevation of a mounting clip used in installing the continuous electrical receptacle shown in Figures 1, 2 or 3.

By referring to Figures 1, 2 and 3 of the drawings it will be seen that a continuous electrical receptacle in the form of a baseboard and quarter round molding has been disclosed and consists of an upright body section 10 having a curved uppermost portion 11 and a curved lowermost portion 12, the latter portion simulating the conventional quarter round employed with baseboard constructions as used in dwellings and the like.

The upright body section 10 is provided with a pair of horizontally positioned, longitudinally extending slots 13 and 14, respectively, spaced one above the other and midway between the upper and lowermost portions 11 and 12, respectively, of the continuous electrical receptacle. The slots 13 and 14 are spaced with respect to one another a distance equal to the normal spacing of the connection prongs of a conventional electrical connection plug, such as shown in Figure 2, wherein the body of the plug is indicated by the numeral 15 and the prongs by the numerals 16 and 17, respectively.

In Figure 1 of the drawings broken lines indicate the plug body 15 and a connecting section of conductor 18.

By referring specifically to Figure 2 of the drawings in which a cross section of the continuous electrical receptacle of Figure 1 is illustrated, it will be seen that a representation of a floor is illustrated and indicated by the numeral 19 and a wall or partition is illustrated and indicated by the numeral 20. A mounting clip 21, which is also shown in perspective detail in Figure 4 of the drawings, is shown affixed to the wall 20 as by means of screws 22 and it will be observed that it is provided with a pair of struck-out, semi-hook like members 23. The continuous electrical receptacle is formed with a pair of downturned extensions 24 which are enlarged at their lower ends to register with the semi-hook like members 23 of the mounting clip 21.

It will thus be seen that the continuous electrical receptacle may be positioned as shown in Figure 2 of the drawings on the wall 20 and the floor 19 in appropriate baseboard and quarter round position by placing it in engagement with the wall 20 and moving it downwardly so as to

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engage the downwardly depending sections 24 thereof with the semi-hook like members 23. It will be seen that by installing the electrical receptacle in this manner the clip 21 is completely covered. It will be obvious to those skilled in the art that preferably a plurality of mounting clips 21 are employed so as to mount the continuous electrical receptacle securely at intervals along its length.

Still referring to Figure 2 of the drawings it will be seen that the continuous electrical receptacle has a pair of undercut channels formed longitudinally therein and in registry with the horizontal slots 13 and 14 heretofore described. The undercut channels are, in effect, continuations of the slots 13 and 14 and are completely enclosed, with the exception of the openings formed by the slots 13 and 14. Each of the undercut channels registering with the slots 13 and 14, respectively, is adapted to receive and retain rolled spring metal shapes 25 and 26, respectively, which are identical except that they are positioned in the slots 13 and 14 and the undercut channels in communication therewith in oppositely disposed relation. It will be seen that the undercut channels are each relatively higher than the effective height of the slots 13 and 14 with which they register and that they are, therefore, able to retain the rolled spring metal shapes 25 and 26 as the same engage the front wall of the body section 10 of the continuous electrical receptacle and are thereby retained in position.

Still referring to Figure 2 of the drawings it will be seen that when the plug 15 is moved toward the continuous electrical receptacle the prongs 16 and 17 will enter the slots 13 and 14 and hence the undercut channels in communication therewith and thus bring the prongs 16 and 17 into mechanical and electrical engagement with the spring metal shapes 25 and 26. It will further be observed that the spring metal shapes 25 and 26 are of approximate U-shape, one of the arms of each of the U shapes being bent toward the other to form guides for the proper reception of the prongs 16 and 17 of the electrical connection plug 15.

In the preferred form of the invention, such as shown in Figures 1 and 2 of the drawings, the entire body member of the continuous electrical receptacle is formed of a dielectric material such as any of the well known moldable plastics, and, as such, may be extruded on a plastic extrusion press in the cross sectional form illustrated in one piece and in which piece the spring metal shapes 25 and 26 may be inserted and are self-retaining to form the current carrying portions of the continuous electrical receptacle.

It will be obvious to those skilled in the art that in some instances it may be desirable to form the majority of the continuous electrical receptacle of metal and such a modification is shown in enlarged detail in Figure 3 of the drawings.

By referring now to Figure 3 of the drawings it will be seen that a floor is indicated by the numeral 27, a wall or partition by the numeral 28 and a metallic continuous electrical receptacle body by the numeral 29. It is provided with a rounded upper surface 30 and a representation of a quarter round forms its lowermost portion and is indicated by the numeral 31. It is provided with down-turned mounting members 32 each of which are enlarged at their lowermost

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end preferably by having a longitudinally extending rib 33 formed thereon.

The center portion of the continuous electrical receptacle body 29 is provided with a relatively larger undercut channel 34 in which a modifying section 35 is positioned. The modifying section includes a pair of spaced longitudinally extending channels 36 and 37 each of which communicates with the exterior of the section 35 through appropriately spaced slots and are thereby capable of receiving the prongs of an electrical connection plug (not shown).

Each of the undercut channels 36 and 37 is adapted to receive a spring metal strip 38, it being observed that the spring metal strips are positioned in oppositely disposed relation to one another, and further that each comprises a modified U-shape. One of the arms of each of the U shapes is bent toward the other to provide guides for the prongs of the electrical connection plug. It will be seen that while the body section 29 may be of metal, the modifying section 35 must be formed of a dielectric material such as plastic. It will further be seen that both of the sections 29 and 35 may be extruded and one positioned in the other for self-retention therein.

The modified form of the continuous electrical receptacle is mounted on the wall 28 by means of a plurality of mounting clips 39, one of which is shown in Figure 3 of the drawings, and which mounting clips conform exactly with the mounting clip 21 shown in Figure 4 of the drawings and heretofore described.

It will thus be seen that a simple and efficient electrical receptacle of the continuous length type has been disclosed which may be economically formed as by extruding the same and that it may be formed of a plastic or other insulating material and the electrical conductor supplied, as illustrated in Figure 2, or it may be formed as shown in Figure 3 with a metallic body and a modifying section 35 longitudinally engaged therewith for self-retention therein and the same provided with the electrical conductor 38. In either form of the invention the continuous electrical receptacle provides a combination baseboard quarter round and electrical outlet wherever installed and is attractive in over-all appearance and efficient in design and safe in use.

Having thus described my invention, what I claim is:

1. In a continuous electrical receptacle comprising an extruded body section having a pair of longitudinally extending downturned flanges formed on one side thereof, longitudinally extending rounded ribs formed on the inner face of each of the said downturned flanges, a dovetailed channel formed in the other side of the extruded body section and a secondary extruded body section disposed in said dovetailed channel, a pair of spaced undercut grooves in the face of the said secondary extruded body section and an electrical conductor disposed in each of the said grooves and retained therein by the said undercut shape thereof, and means for mounting the said receptacle on a wall to form a baseboard, said mounting means comprising brackets having upstanding spring clips thereon and affixed to said wall and said clips detachably engaging each of the said longitudinally extending flanges of the said electrical receptacle body section.

2. In a continuous electrical receptacle com-

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prising an extruded body section having a pair of longitudinally extending downturned flanges formed on one side thereof, longitudinally extending rounded ribs formed on the inner face of each of the said downturned flanges, a dove-tailed channel formed in the other side of the extruded body section and a secondary extruded body section disposed in said dovetailed channel, a pair of spaced undercut grooves in the face of the said secondary extruded body section and an electrical conductor disposed in each of the said grooves and retained therein by the said undercut shape thereof, and means for mounting the said receptacle on a wall to form a base-board, said means comprising a plurality of clips, each of which has outwardly and upwardly extending semi-hook shaped members for registry

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with the said downturned flanges of the said extruded body section to hold the said receptacle body section tightly against a wall on which the said clips may be positioned.

JAMES J. PADEN.

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