

June 15, 1948.

R. AGUILAR ET AL
FIVE OUTLET ELECTRIC PLUG

2,443,367

Filed May 29, 1945

2 Sheets-Sheet 1

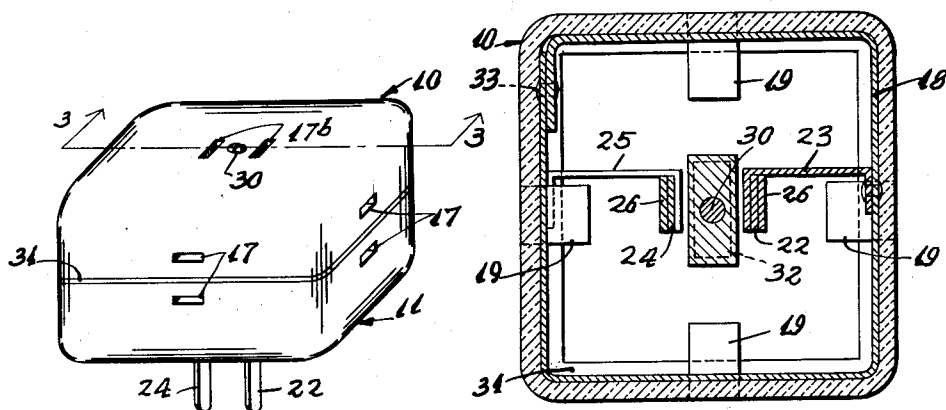


Fig. 1

Fig. 4

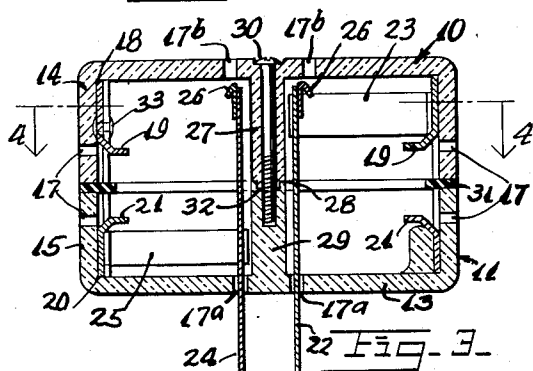


Fig. 3

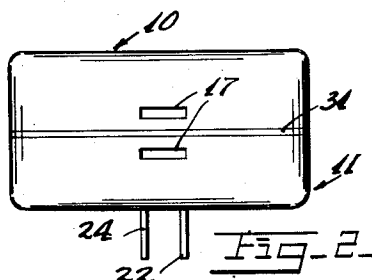


Fig. 2

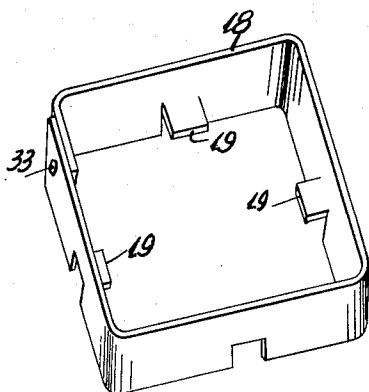


Fig. 5

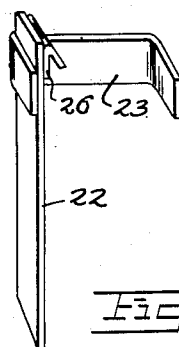


Fig. 6

BY

INVENTORS
Ramon Aguilar
Tacito Svaicari
Goltan Polack
ATTORNEY

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R. AGUILAR ET AL

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2 Sheets-Sheet 2

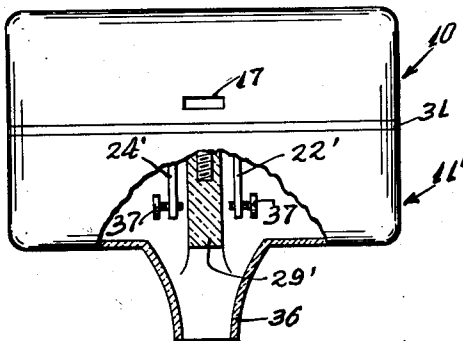


Fig. 7

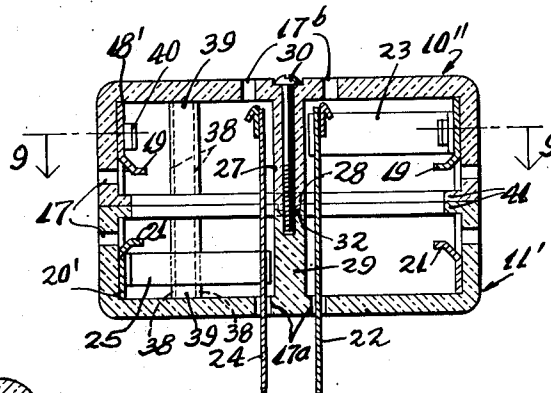


Fig. 8

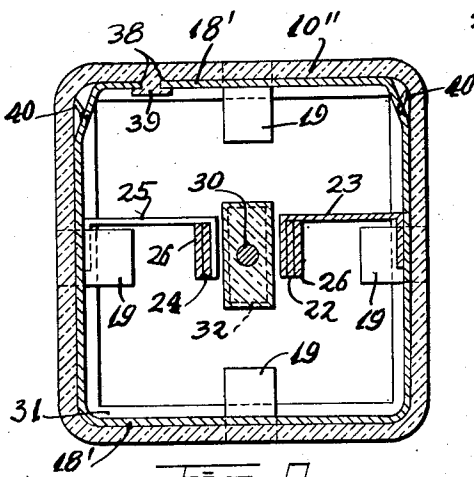


Fig. 9

BY

INVENTORS
Ramon Aguilar
Tacito Svaicari
Golden H. Polach
 ATTORNEY

UNITED STATES PATENT OFFICE

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FIVE OUTLET ELECTRIC PLUG

Ramon Aguilar and Tacito Svalcarl,
New York, N. Y.Substitute for application Serial No. 508,558, No-
vember 1, 1943. This application May 29, 1945,
Serial No. 596,542

3 Claims. (Cl. 173—334)

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This invention relates to new and useful improvements in a five outlet or other number of outlets electric plug.

This application is a substitute for our abandoned application, filed on November 1, 1943, Serial Number 508,558.

More specifically, the invention contemplates the construction of a new outlet electric plug which is characterized by a pair of opposed hollow insulation body sections having spaced end walls and aligned skirt walls, said skirt walls having a plurality of slots arranged in superimposed pairs for receiving the prongs of electric plugs.

The invention contemplates the use of band-like conductor strips extending within and around said skirt walls and having a plurality of contact prongs aligned with said slots. It is proposed to provide a pair of central conductor strips respectively connected with and supported by said band-like conductor strips. Insulation means is used for separating said band-like conductor strips to prevent short circuiting of the electric plug.

The invention also contemplates the use of means for facilitating the connection of an external electric circuit with said central conductor strips. This specification discloses two different means for accomplishing this purpose, each comprising another embodiment of the invention. In one form a pair of projecting prongs is used for this purpose. In another form an arrangement is provided whereby a cable may enter the insulation body and be connected with said central conductor strips.

Still further the invention proposes novel means for holding the band-like conductor strips in position.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a perspective view of an outlet electric plug constructed in accordance with this invention.

Fig. 2 is an elevational view of the plug shown in Fig. 1.

Fig. 3 is an enlarged sectional view taken on the line 3—3 of Fig. 1.

Fig. 4 is a horizontal sectional view taken on the line 4—4 of Fig. 3.

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Fig. 5 is a perspective view of one of the band-like conductor strips used in the plug.

Fig. 6 is a perspective view of one of the central conductor strips.

Fig. 7 is a side elevational view of an outlet electric plug constructed in accordance with another form of this invention, a portion of this view being broken away to disclose interior parts.

Fig. 8 is another vertical sectional view similar to Fig. 3 but illustrating another embodiment of this invention.

Fig. 9 is a horizontal sectional view taken on the line 9—9 of Fig. 8.

The new outlet electric plug, in accordance with this invention, includes a pair of opposed hollow insulation body sections 10 and 11, respectively. The body section 10 has an end wall 12 which is spaced from a corresponding end wall 13 of the body section 11. The body section 10 is provided with a skirt wall 14 which is in alignment with a skirt wall 15 of the body section 11. These skirt walls 14 and 15 are provided with a plurality of slots 17 arranged in spaced superimposed pairs, one slot of each pair being in one of the skirt walls and the other slot of each pair being in the other of said skirt walls. These pairs of slots 17 are of such size and spacing to accommodate the spaced prongs of conventional electric light plugs.

A band-like conductor strip 18 extends within and around the skirt wall 14 and is formed with a plurality of flexible contact prongs 19 aligned with the slots 17 of said skirt wall. Another band-like conductor strip 20 extends around and within the skirt wall 15 and is formed with a plurality of flexible contact prongs 21 aligned with the slot 17 in the skirt wall 15. A central conductor strip 22 is connected to and supported indirectly by the band-like conductor strip 18. More specifically, a strap 23 is connected between the band-like conductor strip 18 and the conductor strip 22 for supporting the latter. Another central conductor strip 24 is connected with and indirectly supported by the band-like conductor strip 20. More specifically, a strap 25 is connected between these parts and accomplishes the supporting mentioned.

The bottom ends of the conductor strips 22 and 24 project from a pair of spaced slots 17^a formed in the end wall 13. The projecting ends of these strips 22 and 24 simulate prongs adapted to engage a conventional electric socket. The end wall 12 is also formed with a pair of slots 17^b through which the prongs of an electric plug may be engaged to contact the top ends of the conductor

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strips 22 and 24. Small resilient strips 26 are attached upon the top ends of the conductor strips 22 and 24 to cooperate with the prongs intended to be engaged through the slots 17.

The body section 10 is formed with a central projection 27 from the end wall 12 which has the shoulder 28 cooperative with a complementary shoulder upon the end of another projection 29 which is formed on the end wall 13. A screw 30 engages through the end wall 12 and through the projections 27 and 29 for releasably connecting the body sections 10 and 11 together. A gasket 31 of insulation material is clamped in between the adjacent contacting faces of the body sections 10 and 11 and extends in between the adjacent portions of the band-like conductor strips 18 and 20 to separate these conductor strips and prevent short circuiting of the electric plug.

The contacting shoulders 28 are formed with non-circular inter-engaging portions 32 which hold the body sections 10 and 11 from turning. These inter-engaging portions 32 are shown to be of rectangular shape, see particularly Fig. 4. The band-like conductor strips 18 and 20 are formed from strips of material bent into the band-like shapes and having their end portions overlapping and secured together with rivets 33 or other fastening elements.

The electric circuit through the electric plug may be traced from the projecting end of the central conductor strip 22 to the inner portion of said conductor strip 22, then along the strip 23 to the band 18. The circuit from the projecting end of the conductor strip 24 may be traced to the strip 25 and then to the band 20. It will readily be seen that one or more, up to five in number, electric plugs may be mounted on the sides and on the top of said body sections 10 and 11 so that their prongs engage through a pair of said superimposed slots 17 to electrically contact with a pair of said prongs 19 and 21, or the said strips 26 for closing an electric circuit through the plug.

In Fig. 7 a modified form of the invention is disclosed which distinguished from the prior form in the fact that the body section 11' is formed with a central tubular neck 36 through which the leads of a cable may be engaged. These leads may be connected with the central conductor strips 22' and 24', respectively. These conductor strips 22' and 24' correspond with the conductor strips 22 and 24 in the prior form of the invention and are connected up with the band-like conductor strips identically as previously explained. A partition wall 29' formed in the body section 11' prevents short circuiting of the leads entering the plug. The conductor strips 22' and 24' are provided with small set screws 37 for clamping the ends of the leads. In other respects this form of the invention is similar to the prior form and like parts are indicated by like reference numerals.

In Figs. 8 and 9 another form of the invention is disclosed which is very similar to the first form but distinguishes in the construction and mounting of the band-like conductor strips 18' and 20' respectively. These conductor strips are made from strips of metal. However, their ends are not permanently connected together. Instead, the ends of these strips normally engage into side grooves 38 formed in the sides of boss strips 39 formed upon the inner faces of the skirt walls of the body sections of the plug. Small tongues 40 are stamped from the material of the strips 18' and 20' and abut against the inner faces of

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the skirt walls for resiliently urging the said ends of the conductor strips 18' and 20' into said grooves 38. The body sections 10' and 11' are also formed with internal flanges 41 forming separators for the adjacent edges of the band-like conductor strips 18' and 20'. In other respects this form of the invention is similar to that previously shown and like reference numerals identify like parts in each of the several views.

The band-like conductor 18' and 20' may be removed by forcing the end portions thereof out of the grooves 38. To do this the tongues 40 must be compressed. When the ends of said conductor strips are slipped out of the grooves 38 it is an easy matter to remove the said band-like conductor strips.

While we have illustrated and described the preferred embodiments of our invention, it is to be understood that we do not limit ourselves to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described our invention, what we claim as new and desire to secure by United States Letters Patent is:

1. An outlet electric plug, comprising a pair of opposed hollow insulation body sections releasably connected together and having spaced end walls and aligned skirt walls having a plurality of slots arranged in spaced superimposed pairs, band-like conductor strips extending within and against the inner surfaces of said skirt walls and having a plurality of contact prongs aligned with said slots, a pair of central conductor strips separately connected with and supported by said band-like conductor strips, insulation means for separating said band-like conductor strips, and means for facilitating the connection of an external electric circuit with said central conductor strips, said insulation means comprising a gasket mounted between said body sections.

2. An outlet electric plug, comprising a pair of opposed hollow insulation body sections releasably connected together and having spaced end walls and aligned skirt walls having a plurality of slots arranged in spaced superimposed pairs, band-like conductor strips extending within and against the inner surfaces of said skirt walls and having a plurality of contact prongs aligned with said slots, a pair of central conductor strips separately connected with and supported by said band-like conductor strips, insulation means for separating said band-like conductor strips, and means for facilitating the connection of an external electric circuit with said central conductor strips, said insulation means comprising a gasket mounted between said body sections, and having inner edge portions disposed between the adjacent edges of said band-like conductor strips.

3. A multiple electrical outlet comprising a pair of hollow casing sections having matching side walls and spaced end walls, a conductor strip disposed against the inner surfaces of the side walls of one of the sections, a conductor strip disposed against the inner surfaces of the side walls of the other sections, each conductor strip having a form corresponding to that of the side walls and supported against internal displacement, each conductor strip having contact lugs, the lugs of one conductor strip being disposed in opposition to the lugs of the other conductor strip, the sections having slots aligned with said lugs to

receive conductor prongs of electrical connectors, said slots and lugs being disposed in pairs in each pair of engaged side walls, the sections having internal posts connectable to each other, a conductor strip connected to one of the first-named conductor strips and extending against said posts from one of the sections through and outwardly of the other section to provide an external connector prong, a second conductor strip connected to the other of said first-named conductor strips and extending against the opposite side of the posts through the sections and outwardly thereof to provide a companion connector prong, and a screw extending through the posts to connect the sections to each other and hold the parts assembled.

RAMON AGUILAR.
TACITO SVAICARI.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,717,836	Conner -----	June 18, 1929
1,781,528	Schneemann -----	Nov. 11, 1930
1,867,381	Sadacca -----	July 12, 1932
1,907,817	Hubbell -----	May 9, 1933
1,917,745	Weiss -----	July 11, 1933
2,245,068	Chirelstein -----	June 10, 1941
2,298,342	Brus -----	Oct. 13, 1942