United States Patent [19]

Sample

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[45] **Jan. 30, 1973**

[54] **ELECTRICAL WALL RECEPTACLE COVER**

[76] Inventor: **Donald W. Sample,** 2262 Vistamar Road, Toledo, Ohio 43611

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[21] Appl. No.: **79,924**

[52] **U.S. Cl.** .....**339/159 R,** 174/67, 339/119 C, 339/170

[51] **Int. Cl.** **H01r 13/50**

[58] **Field of Search** .....339/20, 36, 39, 119 C, 121, 339/123, 154 R, 154 A, 156 R, 156 A, 157 R, 159, 163, 166, 170, 147 C; 174/66, 67, 138 F; 220/22.2, 22.4

[56] **References Cited**

UNITED STATES PATENTS

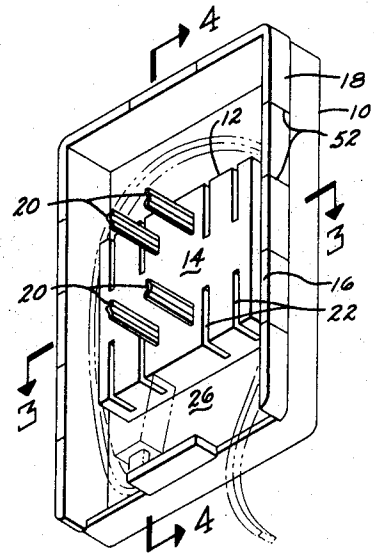
2,654,074	9/1953	Lancelot	339/92 M
2,255,336	9/1941	Seghers	339/166
2,508,770	5/1950	O'Shinsky	339/157 R
1,831,809	11/1931	Hertzberg	339/159 C
2,619,516	11/1952	Schneider	339/159 R

Primary Examiner—Marvin A. Champion
Assistant Examiner—Lawrence J. Staab
Attorney—William P. Hickey

[57] **ABSTRACT**

A cover for electrical wall receptacles. The cover has prongs which fit into the sockets of the wall receptacle to hold the cover in place and provide electrical connections to sockets provided on the inside of the cover for receiving the usual electrical cord plugs. The sockets are positioned in a pedestal having clearance with respect to the sides of the cover, so that the electrical cords can be wrapped around the pedestal inside of the cover. The sockets are preferably formed by slits in the side edge of the pedestal so that the prongs of the electrical plug can be slid edgewise into the sockets, and so that the pedestal need have a height substantially no greater than the thickness of the usual electrical cord plug.

11 Claims, 8 Drawing Figures



Patented Jan. 30, 1973 3,714,616

2 Sheets-Sheet 1

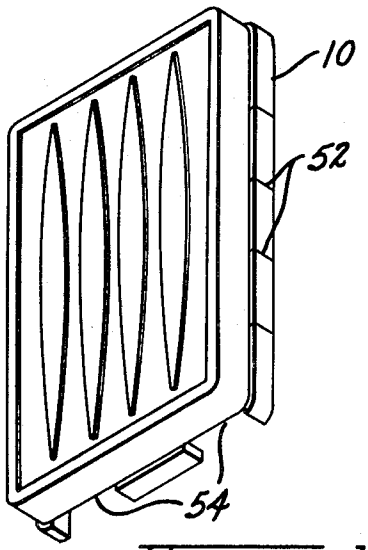


FIG. 1.

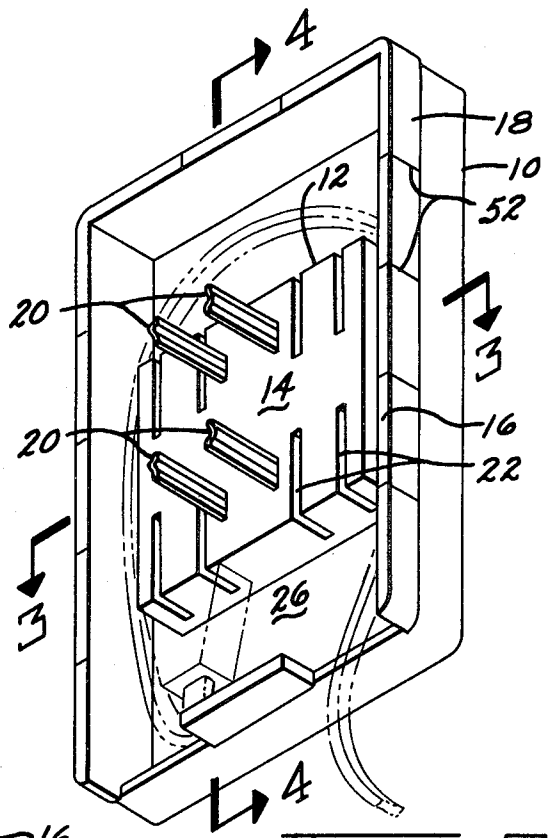


FIG. 2.

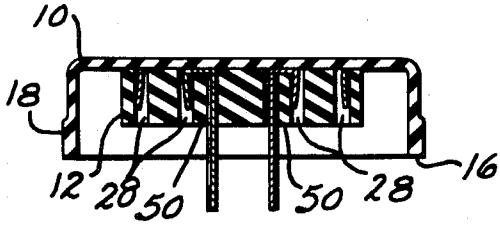


FIG. 3.

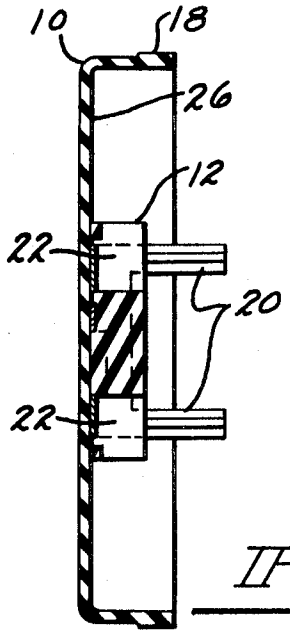


FIG. 4.

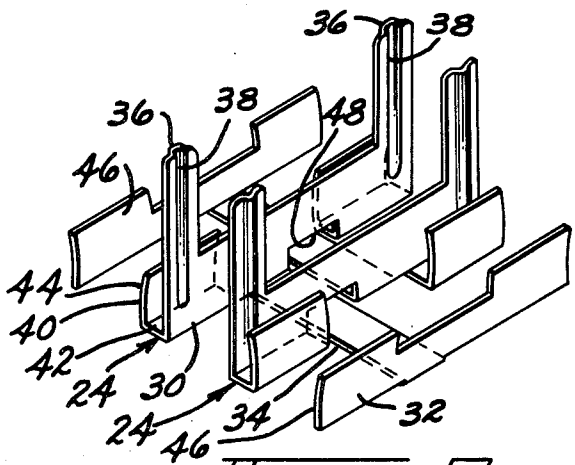


FIG. 5.

INVENTOR.
DONALD W. SAMPLE
BY
William P. Hickey
ATTORNEY

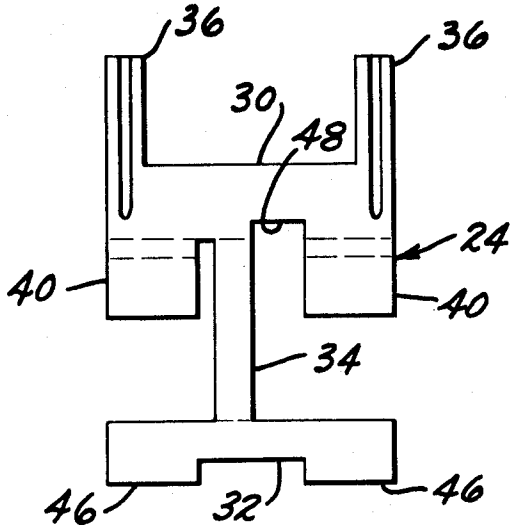


FIG. 6.

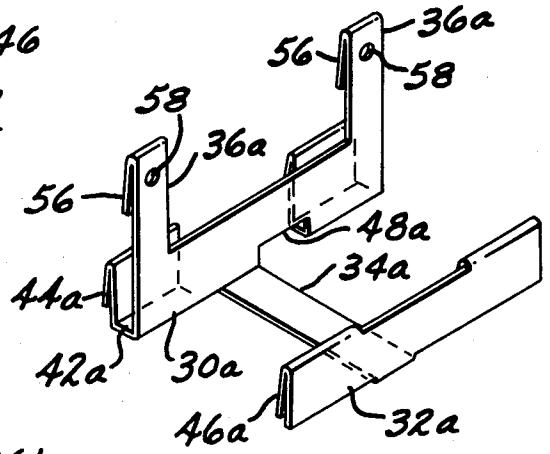


FIG. 7.

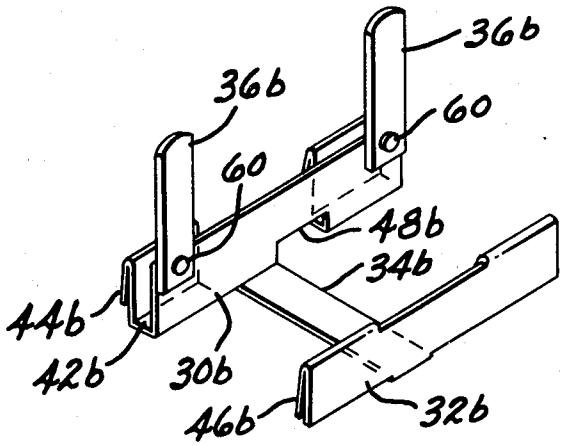


FIG. 8.

INVENTOR.
DONALD W. SAMPLE
BY
William P. Hickey
ATTORNEY

ELECTRICAL WALL RECEPTACLE COVER

BACKGROUND OF THE INVENTION

The usual electrical wall receptacle has a pair of open face sockets into which the plug of the usual electric appliance cord is inserted. The cords come in standard lengths, and when the electrical appliance connected thereto is positioned closer than this length, the excess cord is left randomly looped on the floor. The looped cords and the plugs are unsightly, as is the wall receptacle, and numerous accidents have occurred when children have partially withdrawn the plugs and touched the partially withdrawn plug prongs.

An object of the present invention is the provision of a cover for the usual wall receptacle which will obscure the unsightly appearance of the wall receptacle, while preferably also increasing the number of outlets.

Another object of the present invention is the provision of a cover having receptacles therein to which contact is made by prongs which project into the usual wall receptacle, and which is further constructed so that the cover must be removed and the electrical continuity broken before the cord plugs are installed in the cover receptacles.

A further object of the invention is the provision of a cover having a central pedestal with cord clearance between the pedestal and the sidewalls of the cover around which excess cord can be wound.

A still further object of the invention is the provision of a cover having a new and improved edge socket slots for receiving the prongs of the electrical plugs, so that the plugs can be inserted sideways and so that a minimum depth is required for receiving the cord plugs.

A still further object of the invention is the provision of a new and improved connector for receptacles wherein two identical members can be nested to provide at least one pair of prongs and at least two pair of sockets contacts.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an isometric view of a wall socket cover embodying principals of the present invention;

FIG. 2 is an isometric bottom view of the cover shown in FIG. 1;

FIG. 3 is a sectional view taken approximately on the line 3—3 of FIG. 2;

FIG. 4 is a sectional view taken approximately on the line 4—4 of FIGS. 2 and 3;

FIG. 5 is an isometric view of a pair of identical stamped electrical connectors as nested in the cover shown in FIGS. 1–4;

FIG. 6 is a contoured metal sheet which can be suitably bent to provide one of the connectors shown in FIG. 5;

FIG. 7 is an isometric view of another embodiment of stamped electrical connector, a pair of which can be nested and used in the cover shown in FIGS. 1–4; and

FIG. 8 is an isometric view of another embodiment of stamped electrical connector, a pair of which can be nested and used in the cover shown in FIGS. 1–4.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The embodiment of cover plate shown in the drawings generally comprises an open face box **10** having a central pedestal **12** projecting outward from the center of the bottom of the box with the face **14** of the pedestal **12** being slightly depressed from the face **16** of the sidewalls **18** of the box. The box shown in the drawings is rectangular in shape, and has plug clearance between the pedestal and the top and bottom sidewalls of the box. The embodiment shown in the drawings also has cord clearance between the lateral sides of the pedestal **12** and the vertical sidewalls **18** of the box. The box **10** and pedestal **12** can be made of any suitable material, but is preferably made of a non-conductive material as for example a plastic. The pedestal **12** may be fastened to the cover in any suitable manner, but is preferably cemented to the box **10**.

The cover is adapted to be secured into position over a wall receptacle by means of at least one pair of prongs, and preferably two pair of prongs **20** which are inserted in the sockets of the wall outlet. The pedestal **12** is provided with at least two pair of sockets **22** having contacts therein which are connected with the prongs **20**, and into which the prongs of the usual electric cord plugs are adapted to be positioned. The prongs **20** are preferably constructed and positioned so that fingers cannot be inserted underneath the cover in contact with the prongs **20** while the prongs **20** are in electrical contact with the connectors of a wall receptacle. In the preferred embodiment shown in the drawings, electrical contact between the prongs **20** and the sockets **22** is provided by a pair of electrical conductors made from metal stampings **24** the individual ones of which are identical. The stampings **24** are such that they can be nested without contacting each other when rotated 180° from each other. The nested stampings are then inserted into recesses **28** in the face of the pedestal which is attached to the bottom **26** of the box. The pedestal **12** is then cemented onto the bottom **26** to lock the stampings **24** in place.

The stampings **24** have two longitudinally extending vertical strips **30** and **32** that are connected together at the bottom thereof by an integral laterally extending strip **34**. The longitudinally extending vertical strip **30** has two vertically extending projections, or prongs **36**, on opposite ends thereof. Each prong **36** has a longitudinally extending fold **38** which stiffens the prong and assures engagement with the contacts of a wall receptacle. The ends of the longitudinal strip **30** are also provided with socket contacts **40** that are spaced apart from the strip **30** by laterally bent portions **42**. The ends of the laterally bent portions **42** are bent vertically in arcuate fashion to provide spring contacts **44**. In some instances the contacts **44** may be made as a bent over upper edge portion of the strips **30** offset from the prongs **36**.

The other longitudinally extending strip **32** is similarly provided with socket contacts by bent over upper edge projections **46** which face in the same direction as the bent over projections **44**. The lateral strip **34** is positioned just inwardly of the projections **40** and **46** and a recess **48** is provided in the bottom edge of the strip **30** inwardly of the strip **34** to provide clearance with respect to the strip **34** of a nested stamp-

ing 24. In the nested condition of a pair of stampings 24, the spring contacts 44 of one strip 34 will face the spring contacts 46 of the other stamping 24 to provide four socket contacts. The recess 28 extends through the pedestal in the regions accommodating prongs 36 and contacts 40 and 46. The pedestal has portions 50 which bear against the lateral portions 42 and other portions which bear against the lateral strips 34 to securely hold the stampings 24 in place. It will, therefore, be seen that in the preferred embodiment wherein plastic is utilized for the box 10 and pedestal 12, only four separate pieces are required to produce the cover. In the preferred embodiment, the portions of the recesses 28 forming the sockets 22 communicate both with the exposed face of the pedestal and the adjacent side edge of the pedestal so that the prongs of a plug can be either pushed sideways into the sockets 22 to the position shown by the dot-dashed line of FIG. 2, or can be pushed endwise into the recess 22 and then rotated into the position shown in FIG. 2.

As previously explained, the electrical conductors 24 are made of stampings. In the stamping process, a flat sheet is contoured into a generally H-shaped configuration the longitudinal legs of which form the strips 30 and 32 and the lateral leg of which forms the strip 34. The prongs 36 are formed by projections which extend outwardly from the strip 30 to the opposite side from the strip 32, while the socket contacts 40 are formed by portions which extend from the inside edge of the strip 30 towards the other strip 32. The socket contacts 46 are formed by projections which extend laterally from the edge of the strip 32 that is positioned away from the strip 30. The opposite ends of the lateral strip 34 are bent upwardly to bring the strips 30 and 32 into upright position, and the ends of the prongs 36 and the projections 42 and 46 can then be bent backwardly upon themselves to produce the finished connector configuration.

Suitable openings are provided in the side edges of the cover for the electrical cords to project out of. In the preferred embodiment, the side edges of the box are scored as at 52, and sections of the side edges between the scores 52 are broken out to provide recesses 54 for electrical cords. In the embodiment shown in FIG. 1, portions between score marks were broken off at the bottom of the box to provide the openings 54 shown.

The embodiment of electrical connector shown in FIG. 7 is generally similar to the connector shown in FIGS. 2–6; and the portions of FIG. 7 which correspond to portions of the embodiment shown in FIGS. 2–6 are designated by a like reference numeral characterized further in that a suffix "*a*" is affixed thereto. In the embodiment shown in FIG. 7, the contacts 46*a* are produced by a folded over portion which extends from the top edge of the longitudinally extending portion 32*a*. Similarly, the contacts 44*a* are made by a folded over portion which extends from the top edge of the longitudinally extending portion 30*a*. In the embodiment shown in FIG. 7, the prongs 38*a* have a folded over portion 56 at their top edge to provide a spring bias for engagement with the contacts of a wall receptacle. In addition, the top portion of each prong 38*a* is provided with an opening 58 positioned to receive a detent that is sometimes provided in wall receptacles.

The embodiment of electrical connector shown in FIG. 8 is generally similar to that shown in FIG. 7 but differs principally therefrom in the manner in which the prongs are made. Those portions of the embodiment shown in FIG. 8 which are similar to corresponding portions of the previous embodiments are designated by a like reference numeral characterized further in that a suffix "*b*" is affixed thereto. In the embodiment shown in FIG. 8, the prongs 36*b* are made from separate pieces which are fastened to the longitudinally extending strips 30*b* as by rivets 60.

While the invention has been described in considerable detail, I do not wish to be limited to the specific embodiments shown and described, and it is my intention to cover hereby all novel adaptations, modifications, and arrangements thereof which come within the practice of those skilled in the art to which the invention relates.

I claim:

1. A cover for an electrical wall outlet receptacle comprising: an open face box having a bottom surrounded by sidewalls, a pedestal inside said box having a side spaced from the sidewalls of said box to provide plug clearance and having a top end face spaced from said bottom, at least two prongs on said pedestal projecting out of the open face of said box and spaced apart by a predetermined distance for insertion into the socket of a wall outlet receptacle; and at least one pair of apertures in said side of said pedestal spaced apart by said predetermined distance for receiving an electrical plug.

2. The cover of claim 1 wherein said apertures are ends of slots opening outwardly of said top end face of said pedestal.

3. The cover of claim 1 having cord clearance between all sides of said pedestal and the sidewalls of said box.

4. The cover of claim 1 having four prongs projecting out of said end face of said pedestal and by which the cover is secured to a wall receptacle.

5. The cover of claim 4 having plug clearance between opposite sides of said pedestal and the sidewalls of said box.

6. The cover of claim 1 wherein said pedestal has top and bottom end faces with the bottom end face being fixed to the bottom of said box, said pedestal having contact receiving recesses opening outwardly of said bottom end face of said pedestal and which are covered by the bottom of said box.

7. The cover of claim 6 wherein said bottom end face of said pedestal is cemented to said bottom of said box.

8. The cover of claim 6 having electrical connections between said prongs and contacts formed by a pair of identical stamped sheets, each sheet having a pair of longitudinally extending vertical strips connected at their bottom by a lateral strip, one of said longitudinally extending strips having spaced prongs projecting vertically therefrom, said strip having said prongs also having a first pair of longitudinally spaced contacts thereon, and said other strip having a second pair of contacts thereon correspondingly spaced relative to said first pair of contacts.

9. A cover for an electrical wall receptacle for receiving two pronged plugs the prongs of which have a predetermined spacing, said cover comprising: a shal-

low open face box having a bottom surrounded by sidewalls; a pedestal inside said box on said bottom having a top major surface and a side spaced from the sidewalls of said box to provide plug clearance, said pedestal being of a height substantially no greater than the thickness of a plug and said side and top forming a corner edge; a pair of slots extending downwardly from said top major surface through the corner edge and into said side of said pedestal adjacent said plug clearance, said slots being spaced apart by said predetermined distance for receiving an electrical plug; and an electrical contact in each of said slots for engaging an electrical plug, with respective ones of said contacts being connected to respective ones of said prongs.

10. An electrical receptacle comprising: a housing having a bottom surface with two pair of apertures for receiving prongs of an electrical plug therein, said pairs of apertures being spaced apart by a predetermined distance, a pair of prongs projecting downwardly from said housing, and a pair of identical electrical connectors connecting said prongs with contacts in said apertures, each connector having a pair of longitudinally extending vertical strips integrally connected at the top of said vertical strips by a laterally bent strip, one of said vertical strips having a prong projecting vertically downwardly therefrom, said strip having said prong also having a first pair of contacts spaced apart by said predetermined distance, and said other vertical strip also having a pair of contacts spaced apart by said predetermined distance, one of said connectors being positioned with the contacts of said one of its strips in respective apertures of said pairs of apertures and the other of said connectors being positioned with the contacts of its other vertical strip positioned in the respective remaining apertures of said pairs of apertures, each identical electrical connector being bent out of a single piece of metal with the vertical strips and contacts being portions thereof that are bent generally at right angles to the plane of said laterally bent strip.

11. The cover of claim **1** wherein said sidewalls terminate in a first plane and said pedestal terminates in a second plane beneath said first plane, and whereby said sidewalls can seat against the portion of a wall which surrounds the wall outlet receptacle on which the cover is to be mounted.

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