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E. T. CROOK
ELECTRICAL OUTLET

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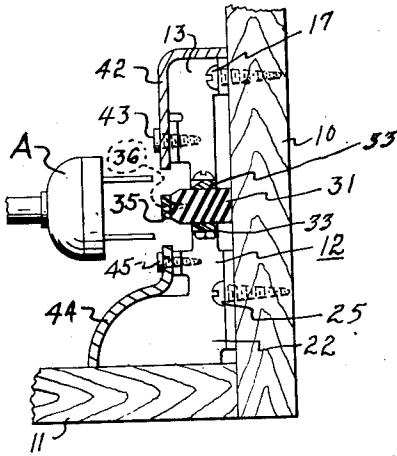


Fig. 2.

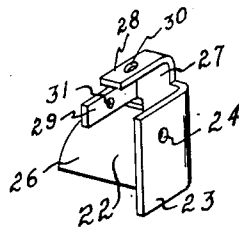


Fig. 4.

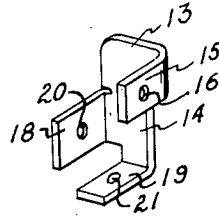


Fig. 3.

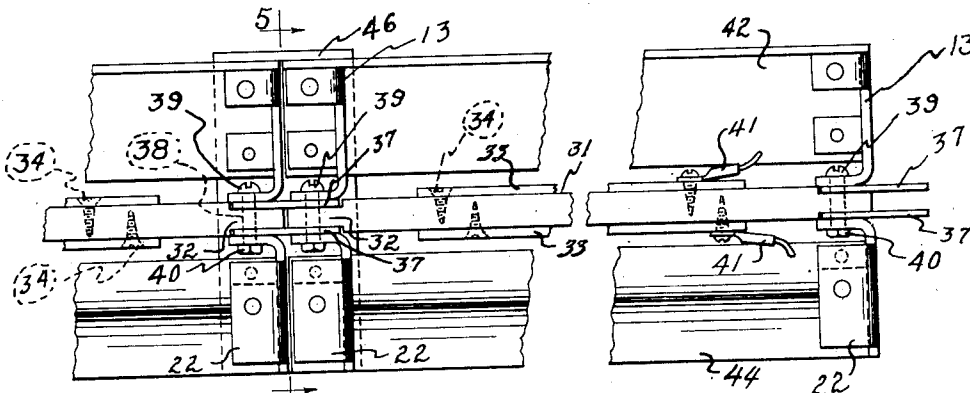


Fig. 1.

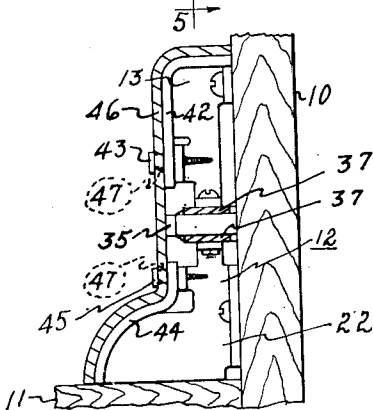


Fig. 5.

ERWIN T. CROOK.
INVENTOR.

BY *Schley and Schley*

ATTORNEYS

UNITED STATES PATENT OFFICE

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ELECTRICAL OUTLET

Erwin T. Crook, Dallas, Tex.

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5 Claims. (Cl. 173—334.1)

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This invention relates to new and useful improvements in electrical outlets, and in particular to the type of outlets adapted to be mounted near the bottom portion of a building partition.

It is one object of this invention to provide an improved electrical outlet which may be utilized to furnish electric power at any point along the baseboard of a building partition.

It is a particular object of the invention to provide an improved electrical outlet which eliminates the necessity of having a great number of individual outlets spaced about the walls of a room, and allows electric power to be drawn at any point or points from the baseboard of the walls of the room.

Another object of the invention is to provide an improved electrical outlet which is simple in structure and economical to manufacture, comprising a minimum number of parts, and which is very flexible in its adaptation to particular installations, as much or as little electric power outlet facilities as desired being available by utilization of various combinations of the invention.

Yet another object of the invention is to provide an improved electrical outlet which simulates the appearance of the normal baseboard and may be joined in sections so as to provide a desirable length of baseboard, and which is constructed in such a manner as to be very safe, the possibility of a person touching the electric conductor or of a short occurring being substantially eliminated.

A still further object of the invention is to provide an improved electrical outlet of the character described which may be installed in the place of the usual baseboard and does not require a special structure in the wall or floor portions of the building in which the device is to be utilized.

A construction designed to carry out the invention will be hereinafter described together with other features of the invention.

The invention will be more readily understood from a reading of the following specification and by reference to the accompanying drawing, wherein an example of the invention is shown, and wherein:

Fig. 1 is a side elevation taken from the rearward side of an electrical outlet constructed in accordance with the invention,

Fig. 2 is a vertical, transverse, sectional view taken intermediate the ends of one of the outlet units.

Fig. 3 is an isometric view of the top mounting bracket,

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Fig. 4 is an isometric view of the lower mounting bracket, and

Fig. 5 is a vertical, cross-sectional view taken on the line 5—5 of Fig. 1.

In the drawings, the numeral 10 designates the lower portion of the usual wall partition as occurring in residential and business structures. A floor 11 abuts the wall and extends at right angles in the usual manner, forming a corner in which the usual type of baseboard (not shown) is customarily positioned.

In place of the usual baseboard, applicant's electrical outlet device, designated generally by the numeral 12, is positioned so as to perform the functions of the usual baseboard and at the same time provide extensive electrical outlet facilities.

The device or structure 12 includes a top mounting bracket 13 which may be formed by stamping and bending sheet metal or by casting from plastics, or from any other suitable material and by any desirable means. The bracket 13 includes a central, substantially rectangular plate-like portion 14 which is adapted to extend in a vertical plane at right angles to the surface of the wall 10. The plate 14 is formed with an ear 15 at the upper portion of its rearward edge, the ear 15 extending at right angles to the plate so as to be parallel to the surface of the wall. An opening 16 is provided in the ear 15 to receive a wood screw 17 by which the bracket may be secured to the wall 10 at the desired location. A second and a third ear 18 and 19, respectively, extend from the lower front edge and the bottom edge 14 and at right angles thereto, the ear 18 being parallel to the wall 10 while the ear 19 is perpendicular thereto. Openings 20 and 21 are provided in the ears 18 and 19 for receiving screws in a manner to be more clearly set out hereinafter.

A bottom mounting bracket 22, formed similarly to the top bracket 13 from metal or other suitable material, is provided for mounting in the corner between the wall 10 and the floor 11 so as to project at right angles therefrom. The bracket 22 is substantially L-shaped in cross-section, the shorter leg 23 being adapted to engage the surface of the wall 10 and having an opening 24 provided therein for receiving a wood screw 25 to secure the bracket in position upon the wall surface. The longer leg of the bracket 26 is arcuate in outline so as to conform to the curvature of the customary shoe mold (not shown) and is provided with an upstanding section 27 contiguous to the arcuate

portion 26. The section 27 is provided with an ear 28 at its upper end, said ear extending laterally at right angles to the portion 27 so as to be perpendicular to the wall 10, and a second ear 29 extends laterally from the front edge of the upstanding portion 27 so as to be substantially parallel to the wall surface. The ears 28 and 29 are provided with openings 30 and 31' respectively, for receiving screws to be described hereinafter. It is pointed out, that the horizontal distance between the ear 29 and the leg 23 of the bracket 22 is substantially equal to the horizontal distance between the ears 15 and 18 of the top bracket 13 whereby the ears 18 and 29 are in substantial vertical alinement when the top and bottom brackets 12 and 22 are secured in position upon the surface of the wall 10.

In installing this improved baseboard outlet, a plurality of the top and bottom brackets are secured to the wall surface at points spaced along the wall and at uniform height above the floor 11. The lateral spacing of the brackets depends entirely upon the length of the sections to be mounted thereupon and will be governed thereby.

An elongate spacer strip of molding 31', substantially rectangular in cross-section is adapted to have its ends positioned between the ears 19 and 28 of the top and bottom brackets so as to be in contact therewith. The ends of the spacer 31' are cut away on their top and bottom sides to form pins 32 at each end of the spacer, said pins being equal in width but less in thickness than the body of the spacer itself. The spacer 31' may be formed of wood or plastic or may be of any other suitable composition which has electrical insulating properties, and has secured to its top and bottom sides, elongate, flat, contact strips 33 of metal, such as copper, to provide contacting surfaces. The strips 33 are secured to the spacer by means of suitable screws 34 countersunk in the surface of the strips so as to present a substantially continuous surface, and have their front edges beveled, as shown in Fig. 2 of the drawings. An additional strip 35, which may be of metal or plastic, as desired, is secured to the front edge or face of the spacer 31' by means of suitable screws 36, countersunk in said strip.

The brackets 13 and 22 are secured to the wall, one above the other, in pairs for mounting the spacers 31'. The spacers may be of any desirable length but normally, will be about four feet in length so that one pair of brackets would be positioned four feet from another pair and the spacer extend therebetween. Additional sets of brackets and spacers may be utilized, as shown in Fig. 1 of the drawings, to give a greater length of outlet space. In this instance, a second pair of brackets 13 and 22 are mounted next one of the first pair and an additional pair about four feet therefrom. A second spacer extends between these brackets and has its pin 32 at one end abutting the pin 32 of the adjacent spacer.

A pair of rectangular connectors 37, equal in width to the spacers, are positioned above and below the abutting pins 32, and are equal in length to the combined length of the pins so as to lie snugly within the cut away portion of the two spacers. Holes 38, in vertical alinement with the holes 21 and 30 in the ears 19 and 28, are formed in the pins and the connectors, so that bolts 39 may be passed therethrough and secured by nuts 40. The bolts 39 fasten the spacers to each other and to the brackets, thus providing a secure mounting for the spacers.

A pair of electrical conductors 41 are connected from a suitable source of electrical power (not shown) to the upper and lower contact strips 33 by engagement beneath one of the screws 34 holding said strips, so that the strips become extensions of the conductors 41 and electric power may be drawn therefrom.

It is pointed out, that the upper and lower strips 33 terminate short of the brackets 13 and 22 at either end of the spacer 31' so that shorting of the strips to the bracket is prevented. The space provided between the space and the bracket is considerably greater than the width of the prong of an ordinary electric plug so that shorting through said prong is also prevented.

An elongate angular top cover plate 42, being substantially L-shaped in cross-section and having its corner rounded, is adapted to be secured to the ears 18 of the top bracket 13 by means of suitable screws 43, so as to overlie said bracket and have its inner edge abutting the surface of the wall 10, while the lower edge terminates a short distance above the strip 35 carried by the spacer 31'. Thus an elongate slot is provided between the plate 42 and the strip 35. A bottom cover plate 44 shaped to conform to the outline of the bottom bracket 22 and having its lower portion curved outwardly and downwardly to simulate the normal shoe mold (not shown), is provided to overlie the bottom bracket 22. The upper portion of the plate 44 lies adjacent the ear 29 and is secured thereto by suitable screws 45 which engage within the opening 31' formed in the ear 29. The upper edge of the plate 44 terminates a short distance below the strip 35 so as to provide an elongate slot therebetween, while the lower extremity of the plate abuts the surface of the floor 11 to provide a neat and attractive structure. The lower curved portion of the plate 44 is formed to snugly engage the arcuate portion of the bottom bracket, as shown in Fig. 2 of the drawings.

Since the ears 18 and 29 are in substantial vertical alinement with the forward face of the spacer 31', the vertical portions of the top and bottom cover plates along with the vertical strip 35 present a smooth and substantially continuous surface, broken only by the elongate slots above and below said strip. It is pointed out, that the width of the slots is not sufficient to allow the insertion of a child's finger, or the like, into said slot, so that a safe structure is provided.

The plates 42 and 44 may be formed of metal or plastic or other suitable substance, and are normally equal in length to the spacers 31' although other lengths may be utilized. When more than one length of cover plate is used, the ends of the plates abut at the pairs of brackets mounted side by side, as shown in Fig. 1 of the drawings, and a narrow auxiliary plate 46 is provided to cover this joint. The plate 46 is substantially equal in width to the two pairs of brackets and shaped to conform to the outer surface of the upper and lower plates 42 and 44, so as to overlie snugly said plates. Openings 47 are provided in the plate 46 to receive the screws 43 and 45 to hold said plate and the plates 42 and 44 in place.

Thus, a very flexible structure is provided which may be readily adapted to varying requirements as to the length of outlet space desired. The spacers 31' and plates 42 and 44 may be formed in any desired length, and utilized in any desired multiple of such lengths. Obviously, provision may be made for inside and outside corners in the

baseboard portion of a wall surface, and it is not deemed necessary to show such means in the drawings. Also, the outlet may be terminated at any desired point and the usual baseboard continued from that point.

In the use of this improved outlet, the usual two-prong electric plug A is employed, the prongs of the plug being inserted at any desired point within the slots above and below the strip 35. As the plug is pressed against the cover plates, the prongs engage the contact strips 33 to complete the circuit, the beveled edges of the contact strips serving to spread the prongs slightly, whereby a good contact is assured. The plug is thus frictionally held by such engagement.

The foregoing description of the invention is explanatory thereof and various changes in the size, shape and materials, as well as in the details of the illustrated construction may be made, within the scope of the appended claims, without departing from the spirit of the invention.

What I claim and desire to secure by Letters Patent is:

1. An electrical outlet for use with standard two-pronged electrical plugs having extending therefrom a pair of parallel electrical contact prongs, including, a plurality of lower brackets adapted to be secured to a wall surface at the juncture of said surface with a floor surface, each of said lower brackets having a laterally directed ear upon its upper portion, an insulating spacer of substantially rectangular cross-section disposed upon said ears and extending along the wall surface with the longitudinal edge adjoining said surface, said spacer having a thickness substantially equal to the distance between the parallel prongs of a standard two-pronged electrical plug, a plurality of upper brackets positioned above said spacer and engaging the upper surface thereof, each of said upper brackets having a laterally directed ear upon its lower portion, said ears engaging the upper face of the spacer and being in vertical alignment with the ears carried by the lower bracket, a lower electrical conductor of substantially rectangular cross-section carried upon the lower face of the spacer and extending between adjacent lower brackets, the upper face of the conductor abutting the lower face of the spacer, an upper electrical conductor of substantially rectangular cross-section secured to the upper face of the spacer and extending between adjacent upper brackets, the lower face of the upper conductor abutting the upper face of the spacer, the conductors being spaced apart by the spacer a distance substantially equal to the distance between the parallel prongs of a standard two-pronged electrical plug whereby said conductors may be engaged by the prongs of such plugs as the latter straddle the outer longitudinal edge of the spacer, an elongate cover plate secured to the lower brackets and extending in substantially parallel relation with respect to the spacer, and an upper cover plate secured to the upper brackets and extending in substantially parallel relation to the spacer.

2. An electrical outlet as set forth in claim 1, wherein the electrical conductors have their outer longitudinal edges beveled for facilitating the engagement of said conductors by the prongs of a standard electrical plug.

3. An electrical outlet as set forth in claim 2, and a guard strip secured to the outer longitudinal edge of the substantially rectangular spacer, said strip being substantially in vertical alignment with the upper and lower cover plates.

4. An electrical outlet for use with standard two-pronged electrical plugs having extending therefrom a pair of parallel electrical contact prongs, including, mounting means securable to a wall surface comprising an upper bracket and a lower bracket, each of said brackets having a laterally directed ear, an insulating spacer confined between the ears on the upper and lower brackets whereby the spacer is supported by said brackets, said spacer having a thickness substantially equal to the distance between the parallel prongs of a standard two-pronged electrical plug, a second pair of brackets similar to the first mentioned pair and positioned at a point on the spacer remote from said first mentioned pair of brackets, a pair of electrical conductors secured to the upper and lower faces of the spacer, whereby said conductors are spaced apart a distance substantially equal to the distance between the parallel prongs of such standard two-pronged electrical plug and may be engaged by the prongs of such standard electrical plug straddling the spacer, said electrical conductors being substantially rectangular in cross-section and having their faces abutting the faces of the spacer, each conductor having its forward edge bevelled for facilitating the engagement of the same by the prongs of a standard electric plug, a cover plate secured to the upper brackets, and a cover plate secured to the lower brackets.

5. An electrical outlet for use with standard two-pronged electrical plugs having extending therefrom a pair of parallel electrical contact prongs, including, mounting means securable to a wall surface comprising an upper bracket and a lower bracket, each of said brackets having a laterally directed ear, an insulating spacer confined between the ears on the upper and lower brackets whereby the spacer is supported by said brackets, said spacer having a thickness substantially equal to the distance between the parallel prongs of a standard two-pronged electrical plug, a second pair of brackets similar to the first mentioned pair and positioned at a point on the spacer remote from said first mentioned pair of brackets, a pair of electrical conductors secured to the upper and lower faces of the spacer, whereby said conductors are spaced apart a distance substantially equal to the distance between the parallel prongs of such standard two-pronged electrical plug and may be engaged by the prongs of such standard electrical plug straddling the spacer, a cover plate secured to the upper brackets, a cover plate secured to the lower brackets, and a guard strip secured to the outer longitudinal edge of the spacer, said strip being in vertical alignment with the upper and lower cover plates.

ERWIN T. CROOK.

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