Aug. 26, 1947. J. F. O'BRIEN ET AL 2,426,235

OUTLET BOX UNIT

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Fig. 1

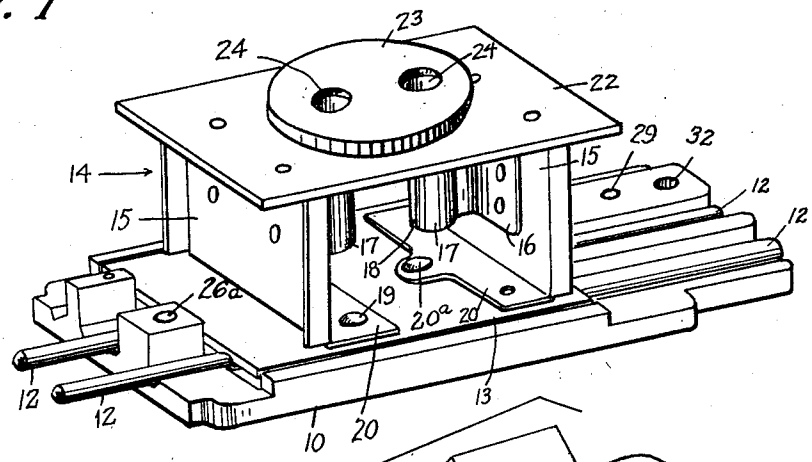

Fig. 2

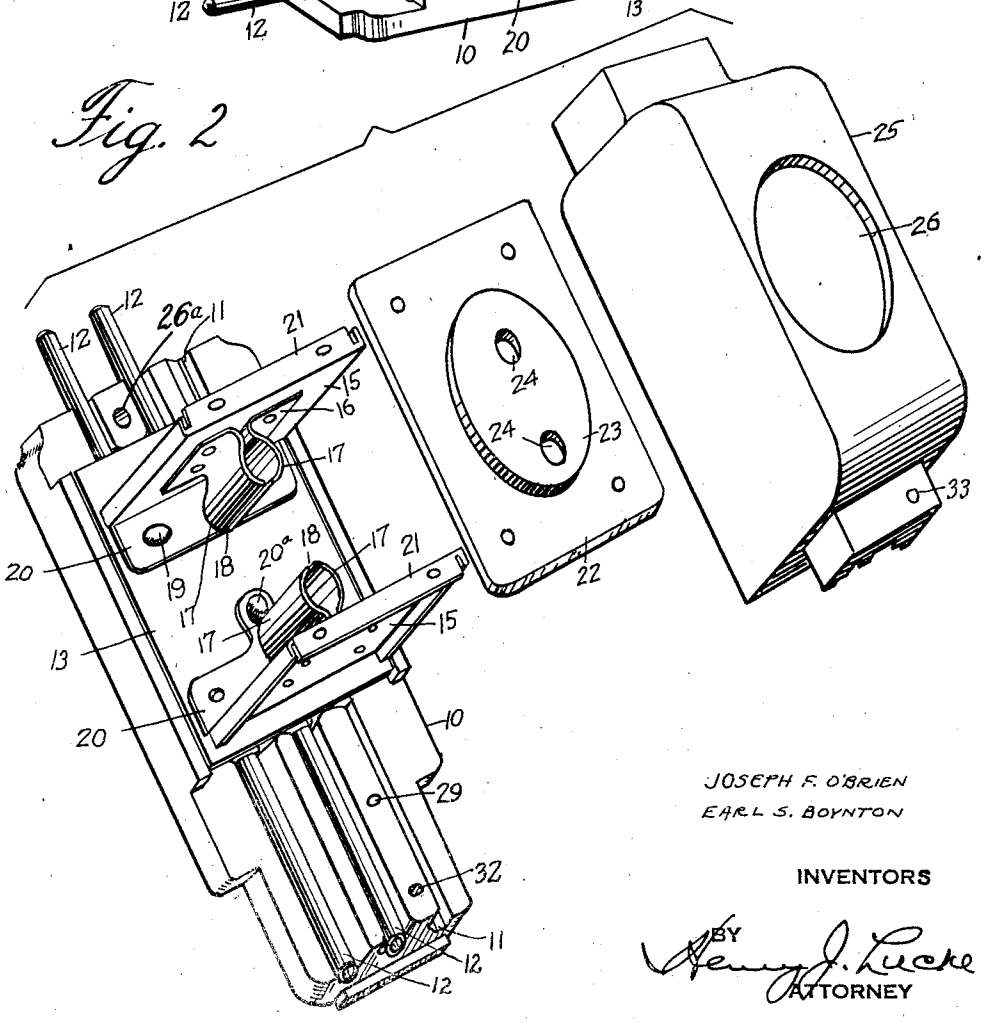

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Fig. 3

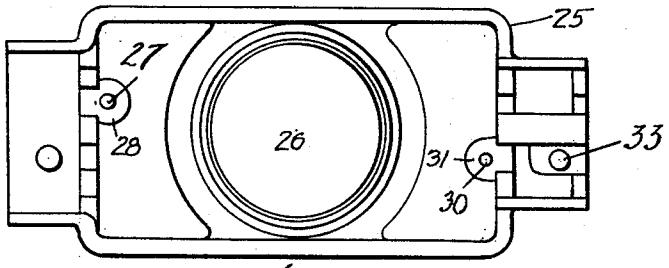


Fig. 4

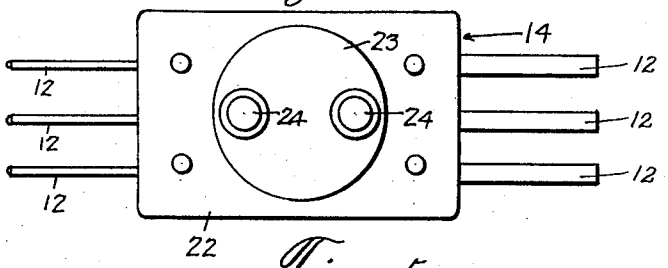


Fig. 5

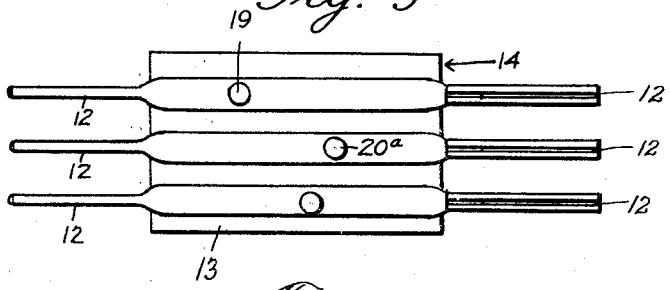
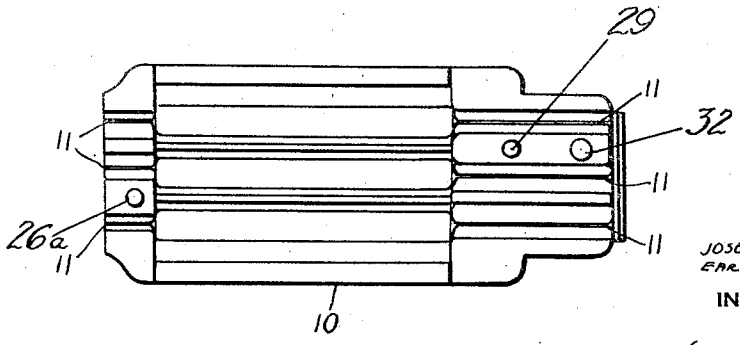


Fig. 6.



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UNITED STATES PATENT OFFICE

2,426,235

OUTLET BOX UNIT

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3 Claims. (Cl. 173—330)

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The present invention relates to serially-connected electric wiring systems, and more particularly to an outlet box unit adapted to be connected into the system in the usual manner as are the standard conductor units of said system.

More particularly, it is an object of the present invention to provide an outlet box unit for the reception of plugs connected to devices requiring and drawing relatively large current, such as electric irons, electric toasters, electric stoves, etc.

More especially it is an object of this invention to provide an outlet box unit adapted to receive a standard two-prong phone plug used in the place of the usual type of plugs provided with such devices. These phone-type plugs subserve the purpose of carrying the relatively large current better than the heretofore customarily used type of plug attached to such instruments, and this is due to the thickness of the prongs of such phone plugs which supply the necessary large surface area for the transmission of such current. Furthermore, such phone-type plugs are much more sturdy than the usual electrical device plug, but these factors make it incumbent to provide an outlet box which is not only capable of meeting the requirements of the current carrying capacity of the electrical device, but also of accommodating the prongs of such plug.

More especially, the parts of the outlet box are required to be very sturdy, the receiving terminals generous in size, yet tight-fitting, and the base and socket designed to withstand the pull-out of the plug without fracturing or displacing any of the parts.

Other features, objects and details of the present invention will appear as the description of an exemplification thereof proceeds.

In the accompanying sheets of drawing:

Fig. 1 is a perspective view of the uncovered outlet box unit of our invention;

Fig. 2 is an exploded view of said unit;

Fig. 3 is a bottom view of the housing cap;

Fig. 4 is a top view of the socket member;

Fig. 5 is a bottom view of said member, and

Fig. 6 is a top view of the closure base plate.

Referring to said drawings it will be seen that the outlet box unit comprises a base plate 10 of insulating material provided with a series of longitudinal grooves 11, 11, for the accommodation of the conductors 12, 12. Said conductors are riveted to a rigid insulating strip 13 forming a part of the socket member 14, which latter also comprises a pair of spaced parallel metal plates 15, 15, to each of which is riveted a metal strap 16, 16, formed cylindrically 17, 17, intermediate

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its ends and split down the middle 18, 18. One of said plates is connected to one of the conductors by means of a rivet 19 passing through a bottom flange 20 of said plate and through the insulating strip, while the other plate is similarly riveted 20a to another of the conductors. If the system is a three-wire one, the third conductor may be riveted to the insulating strip. Thus the straps with the split cylindrical formations and plates are conductively connected to a pair of the conductors. The tops of said plates are bent over to provide flanges 21, 21, to which is riveted an insulating piece 22 having a raised circular portion 23 through which holes 24, 24, extend in alinement with the cylindrical formations of the aforesaid straps. The bottom of the socket member including the conductors seat naturally into the top of the base plate, and over said socket member and embracing the sides thereof is a housing cap 25 of insulating material having an opening 26 in the top thereof for accommodating the raised circular portion 23 of insulating piece 22. The ends of said housing cap are provided with the usual male and female terminations as are the conductors 12, 12. The parts are secured in place by passing screws through alined holes 26a—27 in the base plate and a boss 28 of the cap (Fig. 6) respectively; additionally, by passing screws through alined holes 29—30 in the base plate and a boss 31 of the cap; and further by passing screws through alined holes 32—33 in the base plate and male termination of said cap.

Having described our invention, what we claim is:

1. An electrical unit comprising mutually spaced insulating members, one of said insulating members being provided with mutually parallel grooves, a pair of opposed mutually spaced metal plates connected to and separating said insulating members, said mutually spaced metal plates extending normal to said insulating members, a terminal receiving member conductively connected to each of said plates, said receiving member being in the form of a strap having an intermediate cylindrical portion adapted to receive the terminal of a plug, parallel conductors disposed in said grooves and conductively connected to said metal plates through one of said insulating members, the other of said insulating members having holes therein alined with said cylindrical portions, a base connected to one of said insulating members, and a cover of insulating material enclosing said metal plates and their respective receiving members.

2. An electrical unit comprising an insulating

strip, parallel conductors disposed beneath one face thereof, a base of insulating material disposed below said insulating strip and enclosing said parallel conductors, opposed spaced metal plates respectively mounted endwise on the upper face of said strip, rivets passing through said strip and said base and conductively connecting said metal plates and said conductors, terminal receiving members conductively connected to said metal plates, said receiving members being in the form of straps having each an intermediate cylindrical portion, an insulating piece secured to the opposite ends of said metal plates, said piece having holes therein in alinement with said cylindrical portions, and a cover of insulating material enclosing said metal plates and their respective terminal receiving members.

3. An electrical unit comprising an insulating strip, parallel conductors disposed beneath one face thereof, a base of insulating material disposed below said insulating strip and enclosing said parallel conductors, opposed mutually spaced metal plates respectively mounted endwise on the upper face of said strip, said metal plates having flanges lying flush with said strip, rivets passing

through said flanges, said strip and said base and certain of said conductors to selectively conductively connect said metal plates with said conductors, terminal receiving members conductively connected to said metal plates, said receiving members being in the form of straps having each an intermediate split cylindrical portion, an insulating piece secured to the other ends of said metal plates, said piece having holes therein in alinement with said cylindrical portions, and a cover of insulating material enclosing said metal plates and their respective terminal receiving members.

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