

Oct. 13, 1925.

1,557,526

P. HARTMANN

ELECTRICAL FIXTURE SUPPORT

Filed June 15, 1921

2 Sheets-Sheet 1

Fig. 1.

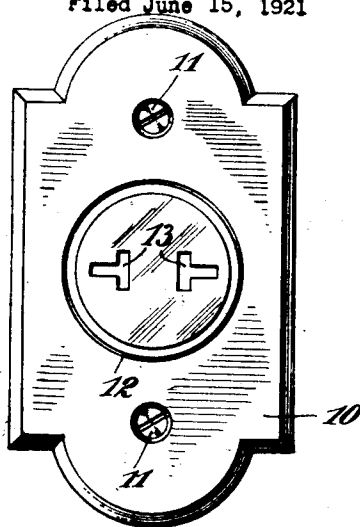


Fig. 2.

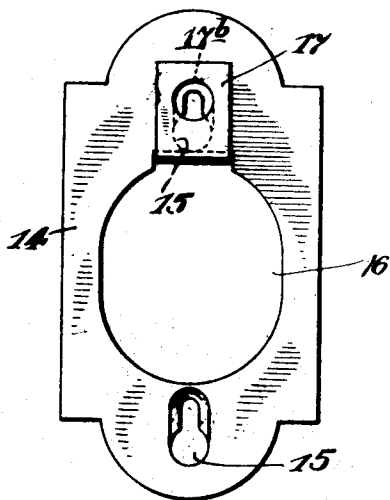


Fig. 3.

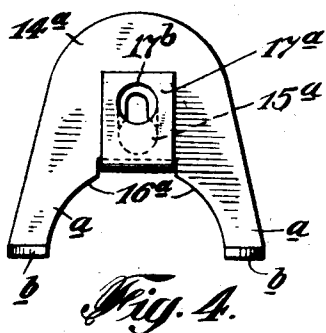
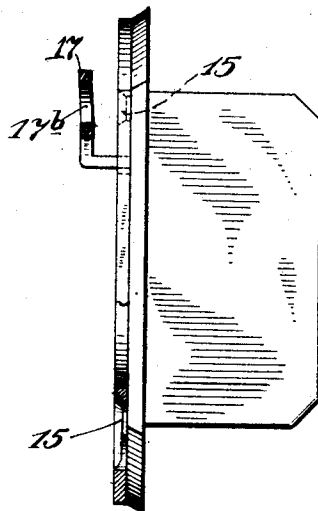


Fig. 4.

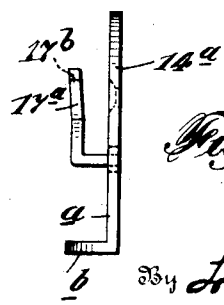


Fig. 5.

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Fig. 6.

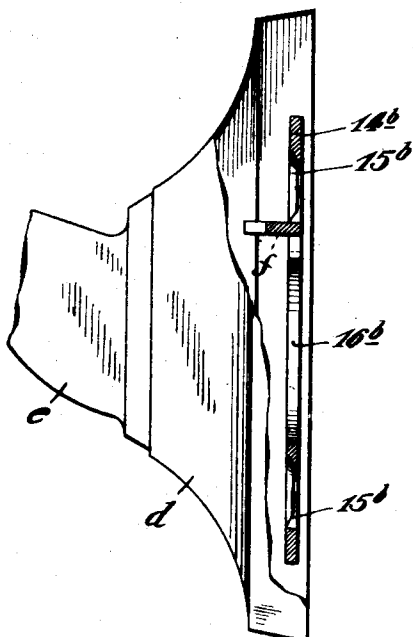


Fig. 7.

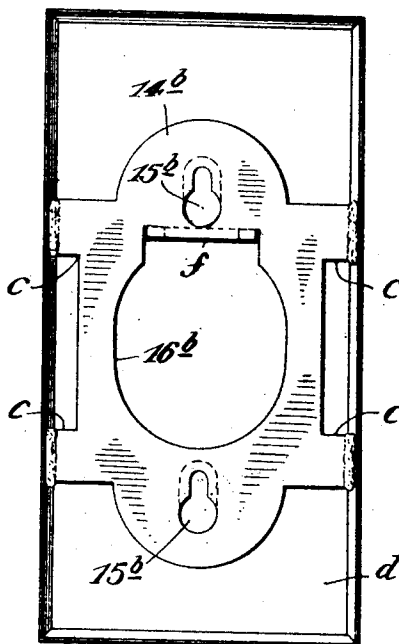


Fig. 8.

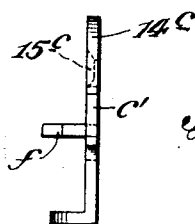
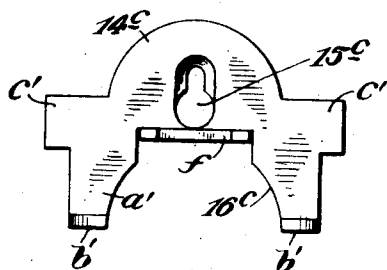


Fig. 9.

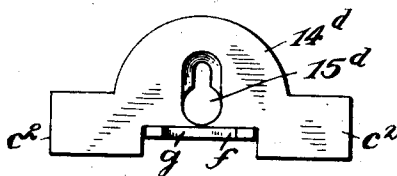


Fig. 10.

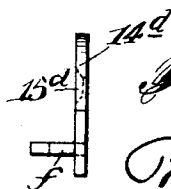


Fig. 11.

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UNITED STATES PATENT OFFICE.

POVL HARTMANN, OF BROOKLYN, NEW YORK, ASSIGNOR TO ELECTRIC OUTLET COMPANY, INC., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

ELECTRICAL FIXTURE SUPPORT.

Application filed June 15, 1921. Serial No. 477,634.

To all whom it may concern:

Be it known that I, POVL HARTMANN, a subject of the King of Great Britain, and resident of the borough of Brooklyn, county of Kings, city and State of New York, have invented certain new and useful Improvements in Electrical Fixture Supports, of which the following is a specification.

My invention relates to supports for electrical fixtures and has for its object to provide devices of novel form whereby electrical fixtures may be connected and hung in operative relation to electrical outlets of the wall receptacle type in a simple and efficient manner and without requiring any structural changes whatsoever in the receptacle or other outlet. Other more specific objects of my invention will appear from the description hereinafter and the features of novelty will be pointed out in the appended claims.

In the accompanying drawings, which illustrate several forms of the invention without defining its limits, Figure 1 is a face view of an electrical outlet of the wall receptacle type; Fig. 2 is an elevation of one form of support; Fig. 3 is a side view thereof as combined with said outlet; Fig. 4 is an elevation of another form of support; Fig. 5 is a side view thereof; Fig. 6 is a sectional elevation showing the invention in another form; Fig. 7 is a face view thereof, and Figs. 8, 9, 10 and 11 are views illustrating still further developments of said invention.

As shown in Fig. 1, the outlet may comprise the usual cover 10 which is fastened to the receptacle by means of the screws 11 in the well known way and is provided with an opening 12 through which a standard plug or other terminal may be inserted into electrical connection with the outlet, for instance by having the customary contact blades of said standard plug inserted into the customary openings 13 of the receptacle, it being understood that said receptacle may be of any well known standard type.

The invention, in the form illustrated in Figs. 2 and 3, comprises a member in the form of a plate 14 of metal or other suitable material which, in outline and dimensions, may correspond to the cover 10 of the outlet receptacle and which is provided with slots 15 preferably of the key-hole type and internally bevelled, as shown in Fig. 2. In addition, the plate 14 is formed with an

intermediate opening 16 of sufficient dimensions to expose the opening 12 of the cover 10 when the plate 14 is combined therewith, as will be more fully explained hereinafter. The plate further includes a means for supporting an electric fixture, which means, in the illustrated example, comprises a hook 17 preferably comprising an integral part of said plate and stamped therefrom and bent into shape so as to be located at the desired or any convenient position as, for instance, at the upper end of the opening 16, as shown in Fig. 2. The hook 17 is preferably provided with an opening 17^b in registry with the reduced end of the slot 15 for the insertion of a screw-driver or the like, as will appear more fully hereinafter.

In combining the fixture support so far described with the outlet shown in Fig. 1, the screws 11 are first screwed outwardly to bring the heads thereof away from the cover just sufficiently to permit the insertion thereunder of the internal bevels of the slots 15. The plate 14 is connected with the cover 10 by causing the heads of the screws 11 to pass through the enlarged ends of the slots 15, after which said plate is moved downwardly or in a corresponding manner to bring the internal bevels of said slots 15 beneath the heads of said screws 11 and to seat the shanks of the latter in the reduced portions of said slots 15 at the ends thereof; if required, the screws 11 may then be again driven home, for instance by inserting a screw-driver through the opening 17^b of the hook 17, it being understood that the diameter of the heads of the screws 11 is greater than the width of the narrow portions of said slots 15. The plate 14 is in this manner firmly secured in surface engagement with the cover 10, the parts being preferably so dimensioned and arranged that said plate 14, in its operative position, will also register with said cover 10 while the opening 16 is in registry with the opening 12 of the outlet so that the apertures 13 are freely accessible for the insertion of the plug or other device whereby the electrical connection is to be effected; as is shown in Fig. 3, the hook 17 will be located in front of and above the apertures 13. It will be understood that the bevels of the heads of the screws 11 and the internal bevels of the slots 15 co-operate to clamp the plate 14 in position on the outlet and that with the de-

scribed arrangement the screw-heads lie substantially flush with the face of the plate 14.

The electric fixture, of whatever type it may be, may now be suspended on the hook 17, it being understood that the standard plug or other device for completing the electrical connection has previously been properly connected with said fixture and inserted into the apertures 13.

To disconnect the supporting device the particular fixture is first removed from the hook 17, after which it is simply necessary to shift the plate 14 relatively to the cover 10 to bring the enlarged ends of the slots 15 into registry with the screw-heads and then to lift the plate 14 away, the plug or other device being at the same time withdrawn or disconnected from the apertures 13.

In the form shown in Figs. 4 and 5, the member or plate 14^a is provided with preferably diverging legs *a* which define a space 16^a corresponding to the opening 16 of the previous form; said plate 14^a virtually represents the plate 14 cut transversely at an intermediate point and is provided with a single opening 15^a also preferably of the key-hole type and having an internal bevel, said plate being further provided with a hook 17^a corresponding to the hook 17 of the plate 14; the hook 17^a preferably also includes the opening 17^b for the accommodation of a screw-driver or the like. In addition, the legs *a* are preferably provided at their free ends with lugs *b* which may comprise integral portions of said legs formed by properly bending the free ends thereof.

With this form of my invention it is necessary to loosen up only one of the screws 11 in the manner previously described, the combination of the plate or member 14^a with the outlet being otherwise effected in the same way as previously set forth. In its operative position the opening 16^a registers with the opening 12 of the outlet, the hook 17^a being positioned in front of the same and above said opening 12 and utilized in the same way as described with respect to Figs. 2 and 3. The lugs *b*, which project outwardly in the same direction as the hook 17^a, serve to position the plug or other device and hold it against dislodgment whereby the electrical connection is made in a manner to prevent short circuiting thereby.

In Figs. 6 and 7, a member or plate 14^b of substantially the same type as the plate 14 of Fig. 2 is constructed in the form of a canopy bridge and is provided at opposite edges with outwardly projecting lugs *c*, preferably comprising integral parts of said plate or member 14^b. The latter is fitted within the open end of a canopy *d* of an

electrical fixture *e* of any conventional form and is fixed in position by having the lugs *c* secured to contiguous portions of the canopy *d*, preferably, though not necessarily, in a permanent manner, as by soldering, riveting, screwing or the like. The plate 14^b does not have the hook 17, the latter being replaced by the lugs *c* and their connection with the canopy *d*, but otherwise may be the same as the plate 14 and similarly provided with internally bevelled key-hole slots 15^b and an opening 16^b.

This form of my invention is attached to the cover 10 of the outlet in the same way as described with respect to the member or plate 14, that is, by loosening up the screws 11 and then passing them first through the enlarged ends of the key-hole slots 15^b and shifting the plate 14^b relatively to the cover 10 to bring the shanks of said screws into the reduced ends of said slots. As the canopy, when hung upon the outlet cover 10, prevents access to the screws 11, the latter are preferably also unscrewed only a sufficient distance to space the heads of said screws from the cover 10 to an extent corresponding approximately to the thickness of the internal bevels of the key-hole slots 15^b, so that when the plate 14^b is placed in position it will be frictionally held in place by frictional engagement with said cover 10 and the heads of the screws 11. This proceeding, with respect to the outward adjustment of the screws 11, may, as stated hereinbefore, also be followed with the forms previously described.

In Figs. 8 and 9 the member or plate 14^c is of substantially the same form as the member 14^a, but is minus the hook 17^a and is provided with lugs *c'* corresponding to the lugs *c* of Figs. 6 and 7. The plate 14^c may also be permanently fixed in the open end of a canopy *d* by soldering the lugs *c'* thereto and may be connected with the cover 10 of the outlet in the manner described with respect to Figs. 6 and 7 with this difference, that only one of the screws 11 is required to be loosened up. The plate 14^c includes one internally bevelled key-hole slot 15^c and legs *a'* which define a space 16^c corresponding to the space 16^a and openings 16 and 16^b and is further provided with lugs *b'* which correspond to and serve the same purpose as the lugs *b*.

As shown in Figs. 10 and 11, the plate or member 14^d is minus the diverging legs and attaching lugs previously mentioned and is of a size to fit within the open end of a canopy *d*, to which the opposite ends of its lugs *c'* may be permanently connected, as by soldering, riveting, screwing or the like, or otherwise fastened in place. The lugs *b* and *b'* of the plates 14^a and 14^c respectively are also omitted from the plate or member 14^d. The latter is connected with the cover

10 of the outlet by means of a single key-hole slot 15^a in the same way as hereinbefore set forth.

5 In the forms shown in Figs. 6 to 11 inclusive, the plates 14^b, 14^c and 14^a may further be each provided with a flange *f* projecting outwardly therefrom, as shown in the drawings, and preferably comprising an integral part of each plate stamped therefrom and bent to its desired position. The flanges *f* are preferably each provided with a recess *g* at the outer edge thereof and are intended to adapt the canopy and fixture equipped with the plates 14^b, 14^c and 14^a to be suspended from hooks located directly upon the outlet or in proximity thereto, which hooks, in such case, pass through the spaces 16^b and 16^c of the plates 14^b and 14^c respectively, or around the corresponding edge of the plate 14^a and fit into the recess *g* of said flanges *f*. In other words, the flanges *f* adapt the invention for use in connection with conventional types of suspending means and where the use of the method of combination with the screws 11 is not desired or possible.

30 With all the forms of my invention it is possible to readily convert an electrical outlet of the receptacle type into an outlet and support for electrical fixtures without requiring an alteration in the physical characteristics of said outlet and without necessitating any complicated operations to effect the combination of the fixture and its electrical connection with said outlet.

35 The device itself, in all forms, is simple in construction and economical to produce and may be applied and operatively utilized without skilled labor and without requiring an outlet of one type to be torn out when an outlet of another type is desired; furthermore, the time and labor required to hang the fixtures and complete the electrical connections is reduced to a minimum, thus decreasing the cost of installation to a corresponding extent. It will be obvious that

the illustrated supporting device may be used with equal efficiency with other types of outlets.

In the forms shown in Figs. 6, 7 and 8 the lugs *c* and *c'* comprise the means whereby the fixture is supported upon the plate while in Fig. 10 the opposite end edges of said plate constitute such means, that is to say, said lugs and end edges correspond in function to the hooks 17 and 17^a or their equivalents.

Various changes in the specific form shown and described may be made within the scope of the claims without departing from the spirit of my invention.

I claim:

1. A unitary fixture support consisting of a plate provided with a key-hole slot for engaging the head of the plate-retaining screw of an electrical receptacle, the upper portion of said slot being counter-sunk to permit the use of the same screw as used for the plate alone, an upwardly bent portion below the slot provided with fixture carrying means, and lateral extensions of the said plate beyond the width of the fixture supporting portion to provide bearing surfaces for the fixture support against the receptacle plate, said lateral extensions forming a plug receiving opening below the outwardly bent portions.

2. A unitary fixture support formed from sheet metal and providing a substantial bearing surface against a receptacle plate, said fixture support being formed with a key-hole slot to engage the head of a retaining-screw of the receptacle plate, a portion of said fixture support below the slot being bent outwardly to provide engaging and supporting means for a lighting fixture and to form a space for the use of an attachment plug in the receptacle.

In testimony whereof I have hereunto set my hand.

POVL HARTMANN.