

UNITED STATES PATENT OFFICE.

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ELECTRICAL RECEPTACLE.

No. 819,418.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed November 17, 1904. Serial No. 233,088.

To all whom it may concern:

Be it known that I, PHILIP H. FIELDING, a citizen of the United States, residing at the city of New York, in the borough of Manhattan and State of New York, have invented certain new and useful Improvements in Electrical Receptacles, of which the following is a full, clear, and exact description.

This invention relates to receptacles for incandescent lamps, and has special reference to devices of this character which are adapted for use in electric signs or in other places where the receptacles are to be supported upon the face of a plate.

The object of the invention is to provide a cheap and simple form of receptacle which will be substantially waterproof, which can be mounted and dismounted very easily, and in which the binding-screws and metal parts are properly housed and protected.

The invention consists of the construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side view of the receptacle mounted in operative position in connection with its supporting-plate and the wires. Fig. 2 is a rear elevation of the receptacle. Fig. 3 is a central section thereof, and Fig. 4 is a rear elevation with the protecting and supporting cap removed.

The receptacle consists of a body *a*, of insulating material, having a cylindrical cavity *a'*, open at its front face and partially lined by a metallic threaded bushing *a²* to receive an Edison lamp-base. The outer edge of this bushing is turned over to form a flange and rest against the rim of the body *a*. The body *a* has a cylindrical or partially-conical rear portion which terminates forwardly in an annular flange *a³*, whereby it is possible to pass the body of the receptacle through a hole in a plate and bring it to a position where the flange *a³* will rest against the face of the plate. Such a plate is shown at A, and it may be understood to represent the face of an electric sign or any other supporting-plate. The opening in the plate will be of such diameter as to be just filled by the rear portion of the receptacle when it has passed through it.

To hold the body of the receptacle firmly in position in the plate A, I provide a dome-shaped cover B, preferably of porcelain, having an internal diameter and shape such as to fit neatly over the rearwardly-extending portion of the body *a* and adapted to pass entirely over said portion and having a face or shoulder to rest against the rear face of the plate *a*. To hold this cover in place, I use a central screw-bolt *b*, which passes through a central hole in the cover and through another central hole in the body *a*, said hole terminating at the bottom of a pocket *c²*, formed in the bottom of the cylindrical cavity *a'*. A nut screws over the end of the bolt, and when turned up tightly the cover B and the body portion *a* are drawn together, their shoulders abutting the respective faces of the plate A and clamping the annular edge of the said plate between them, and thus securely holding the receptacle in place. On the rear face of the body *a* a rectangular integral projection of porcelain *a⁴* is formed, through which the screw-bolt passes and constituting a dividing-wall along the center of the rear face of the receptacle. On one side of this dividing-wall is mounted a metal plate *c*, carrying a binding-screw *c'* and connected with the threaded bushing *a²* by means of a rivet or wire *d*, extending in a direction parallel to the axis of the receptacle and through the wall of the body *d*. On the other side of the dividing-wall is another metallic plate *e*, having a binding-screw *e'* and connected by means of a similar but shorter wire *f* with a metallic plate located on the bottom of the cylindrical cavity *a'* and having a central contact-surface to receive the central contact of the lamp-base.

The cover B is provided with four slots or notches *g*, arranged in pairs in such position that the circuit-wires conveying the current to and from the receptacle may pass through these notches and engage with the binding-posts *c'* and *e'* without being cut or spliced. In Fig. 4 it will be seen that the insulation of the wires is removed from a short section and the bare wire then passed under the binding-screws and caught thereby. This wiring operation is performed before the cover is ad-

justed. After the wires are properly connected the cover is adjusted by simply saddling it over the wires, allowing them to pass into the notches, and then securing by means of the central screw, as before explained.

It will be seen that the operation of wiring this receptacle is very simple and that the manner of holding it in position is likewise simple. The cover not only clamps the plate for the purpose of holding the receptacle in place, but also serves as a protection for the metallic exterior parts, preventing contact therewith by any external object. This feature of my invention is subject to a slight modification in case it is desired to use the receptacle under some other condition than that described. For instance, the cover may protect the contacts without necessarily clamping the plate. A. In such a case the cover would not be so deep, but may terminate at any point after overlapping the rear face of the receptacle upon which the metal parts are mounted. This cover protects the live parts from moisture to a great extent.

Having described my invention, I claim—

1. In a device of the character specified, the combination with a supporting-plate having an opening, of an electric receptacle comprising two parts, one of which carries binding-posts, contacts and the other live parts, and partly passes through the opening in said plate and having a face abutting one side of said plate, while the other is a cover adapted to protect the said posts and live parts, and having a face abutting the other side of said plate, and means for securing the two parts together and whereby the supporting-plate may be clamped between the said faces abutting it for sustaining the receptacle in position thereon.

2. In a device of the character specified, the combination with a supporting-plate having an opening therein, of an electric receptacle comprising a body having a socket in its front end and binding-posts for live conductors on its rear end, and an engaging face for said supporting-plate intermediate of its front and rear ends, and its rear end passing through said plate, and a cover adjusted over the binding-posts on the rear end of the body and having an engaging face bearing against the supporting-plate for sustaining the receptacle thereon.

3. A support for electric lamps, comprising a plate having an opening therein, a receptacle within said opening having a shoulder abutting against said plate around the opening and a cylindrical cavity with a threaded metallic bushing therein, and having a rear portion projecting through said opening, a cover for said rear portion having a peripheral edge adapted to abut against

said plate, and separate means for drawing said parts toward one another.

4. A support for electric lamps comprising a plate having an opening therein, a receptacle within said opening and having a shoulder abutting against said plate and a rear portion projecting through the opening, terminal connections upon said rear portion in a plane substantially remote from the plane of said plate, a cover having a peripheral edge adapted to bear against said plate, and separate means for connecting said cover and receptacle.

5. In a support for electric lamps, a plate having an opening therein, a receptacle in said opening having a shoulder abutting against said plate and a rear portion projecting through said opening, terminal connections upon said rear portion in a plane substantially remote from the plane of said plate, and a cover adapted to be secured to said rear portion and having openings in the plane of said connections.

6. In a support for electric lamps, a plate having an opening therein, a receptacle within said opening and having a shoulder abutting against said plate and having a rear portion projecting through the opening, a dividing-wall upon said rear portion, connecting terminals on alternate sides of said rear wall and in a plane substantially remote from the plane of said plate, and a cover adapted to be secured to said receptacle and having a peripheral edge formed to bear against said plate.

7. In a support for electric lamps, a plate having an opening, a receptacle within said opening and having a shoulder formed to abut against said plate and having a rear portion projecting through said opening, a dividing-wall upon said rear portion, terminals upon said rear portion on alternate sides of said rear wall and in a plane substantially remote from the plane of said plate, a cover having a peripheral edge adapted to bear against said plate, and having openings substantially in the plane of said terminals, and separate means for fastening said cover to said receptacle.

8. The combination with a plate having an opening, of a lamp-socket having a portion for extending through said opening and carrying binding-posts and contact connections, a larger portion having a shoulder for engaging the face of said plate, said binding-post-carrying portion having wire-supporting faces at a distance relatively remote from said shoulder, a cover for said portion, and having a shoulder for engaging the rear of said plate, and means for clamping said cover in position and said shoulders against said plate.

9. The combination with a pair of line-
wires, of a plate having an opening through
it, a socket comprising a body portion having
a lamp-socket within it, a shoulder on said
5 body at a plane midward of the ends of said
lamp-socket to abut the face of said plate,
said body portion extending beyond the bot-
tom of said lamp-socket and having wire-
supporting faces on such extending part, a
10 cover therefor having a face for engaging the

rear of said plate and for pressing it upon said
plate and against said shoulder, and means
for securing said parts together.

In witness whereof I subscribe my signa-
ture in the presence of two witnesses.

PHILIP H. FIELDING.

Witnesses:

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