Aug. 11, 1925. 1,549,437

C. H. BISSELL

ELECTRIC PLUG RECEPTACLE

Filed Feb. 7, 1920 2 Sheets-Sheet 1

Fig. 1.

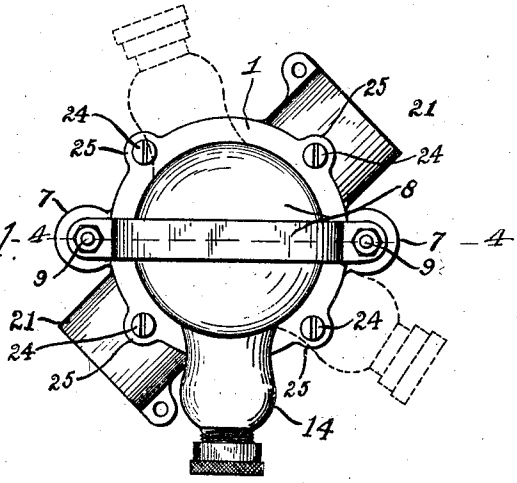
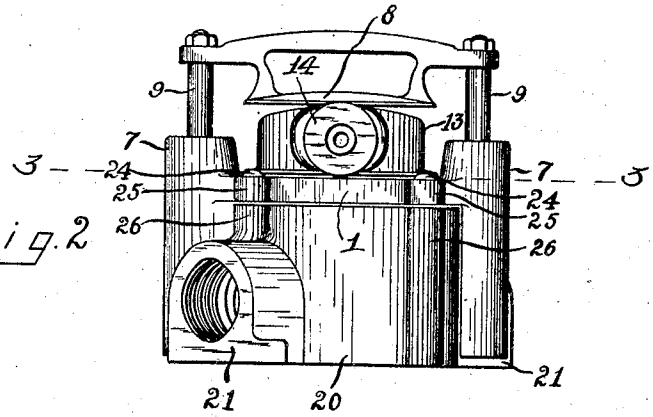


Fig. 2.



INVENTOR.

Carl H. Bissell

BY Parsons & Bodell

ATTORNEYS.

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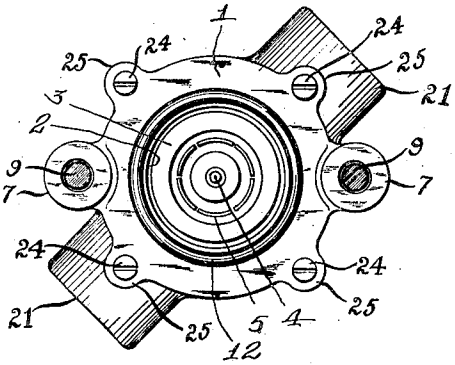


Fig. 3

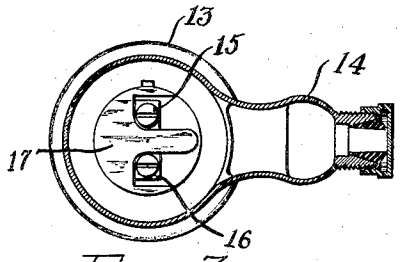


Fig. 7

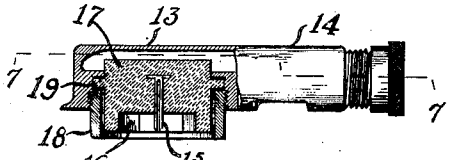


Fig. 6

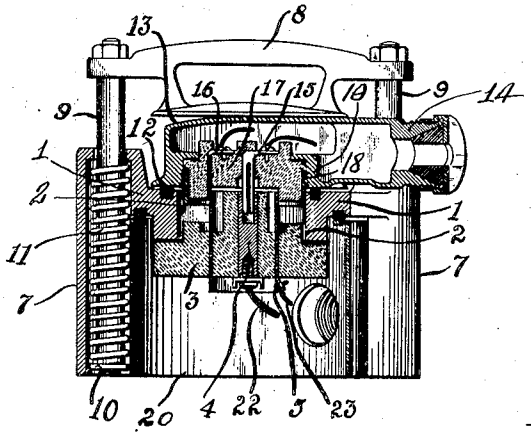


Fig. 4

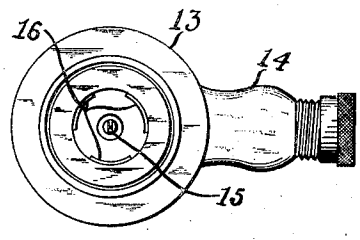


Fig. 5

INVENTOR.
Carl H. Bissell
BY
Parsons & Bodell
ATTORNEYS.

Patented Aug. 11, 1925. 1,549,437

UNITED STATES PATENT OFFICE.

CARL H. BISSELL, OF SYRACUSE, NEW YORK, ASSIGNOR TO CROUSE-HINDS COMPANY, OF SYRACUSE, NEW YORK, A CORPORATION OF NEW YORK.

ELECTRIC PLUG RECEPTACLE.

Application filed February 7, 1920. Serial No. 356,899.

To all whom it may concern:

Be it known that I, CARL H. BISSELL, a citizen of the United States, and a resident of Syracuse, in the county of Onondaga and State of New York, have invented a certain new and useful Electric Plug Receptacle, of which the following is a specification.

This invention relates to plug receptacles and has for its object a plug receptacle detachable for conduit outlet boxes and provided with a cover, which also serves to hold the plug in the socket, which receptacle is particularly simple in construction, highly efficient and durable in use, and readily applied to the conduit outlet boxes.

The invention consists in the novel features and in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawings, in which like characters designate corresponding parts in all the views.

Figure 1 is a plan view of this plug receptacle and plug, the conduit outlet box being also shown.

Figure 2 is an elevation of parts seen in Figure 1.

Figure 3 is a sectional view on the plane of line 3—3, Figure 2, the plug being omitted.

Figure 4 is a vertical sectional view, partly in elevation, taken on the plane of line 4—4, Figure 1.

Figure 5 is an inverted plan view of the plug.

Figure 6 is a sectional view, partly in elevation of the plug.

Figure 7 is a section on line 7—7, Figure 6.

This plug receptacle comprises generally a body having an entrance opening by means of which the plug with its terminals is engaged with the terminals of the receptacle, a cover for the opening, a spring tending to move the cover toward its closed position and also into engagement with the plug to positively hold the same engaged with the receptacle.

1 designates the body, which is here shown as a ring-shaped plate having an opening 2 therein, in which is supported a base 3 of insulation carrying the central and outer terminals 4, 5, the base being secured to the body in any suitable manner as by screws. The terminals 4, 5, may be of any suitable form, size and construction. The body also includes depending tubular members 7 which are integral therewith and located diametrically opposite each other.

8 is the cover for closing the opening 2, the cover being spring-pressed and movable rectilinearly into and out of position to close the opening 2. As here shown it is carried by rods 9 extending into the tubular parts 7 and having shoulders 10 at their lower ends. The springs 11 which serve to actuate the cover toward its closed position are located in the tubular parts 7 and are interposed between the shoulders 10 and the top walls of said tubular parts 7. The body is provided with a suitable gasket 12 around the opening 2 and on which the cover 8 normally seats and also on which the body 13 of the plug rests.

The plug is constructed to move laterally under the cover 8 after the same has been lifted under the action of the springs 11 and, as here shown, is in the form of a circular box having an outwardly radially extending nipple 14, or handle 14, for the service wires, the body being closed at its top and edges and being open at its bottom. Central and outer terminals 15 and 16 are supported by a base 17 of insulation in the body 13 of the plug and the terminals are exposed through the open side thereof, the base and terminals being here shown as held in position by the ring 18 threading in the open side of the body 13 against an annular flange 19 provided on the base 17 of insulation. In operation, the cover is retracted or pulled upwardly against the action of the springs 11 and the plug moved under the cover 8 and then inwardly to engage its inner and outer terminals 15 and 16 with the central and outer terminals 4 and 5 of the plug receptacle, the cover being clamped against the upper side of the plug by reason of the springs 11.

Owing to the ring-shaped body 1 of the receptacle and the depending tubular members 7, the body is readily mountable upon the open side of a conduit outlet box 20 which box is cylindrical in general form and has laterally extending nipples 21 for connection with electric conduits for enclosing the service wires 22 and 23 which are connected to the inner and outer terminals 4, 5. The body of the plug receptacle is secured to the box in any suitable

manner as by screws 24 extending through lugs 25 in the ring-shaped body 1 and threading into the complemental lugs 26 on the peripheral face of the conduit outlet box. The tubular parts 7 of the plug receptacle extend along the outer side of the box.

This plug and plug receptacle is particularly advantageous in that it can be used in connection with conduit outlet boxes and further in that it provides means by which the plug is firmly engaged with the socket without providing a comparatively deep socket or under plug.

What I claim is:

1. An electric plug receptacle comprising a body having an entrance opening and a seat around the opening and a cover normally resting on the seat, in combination with a plug receptacle movable into the receptacle under the cover, the cover being movable rectilinearly to and from the seat and into engagement with the plug when the plug is in the entrance opening under the cover and a spring for moving the cover rectilinearly against the plug.

2. An electric plug receptacle, comprising a body, formed with an entrance opening, and a seat around the opening, a cover movable rectilinearly toward and from the opening, and having a portion engaging the seat, and a spring for moving the cover into closed position, in combination with a plug movable under the cover and into the opening, the cover being arranged, so that, it presses the plug into the receptacle.

3. An electric plug receptacle comprising a body formed with an entrance opening, a cover movable toward and from the opening and having guide rods on opposite sides of the opening, the body being formed with guide passages for the rods, and springs acting on the rods to move the cover rectilinearly into its closed position, substantially as and for the purpose described.

4. An electric plug receptacle comprising a body formed with an entrance opening, a cover movable toward and from the opening and having guide rods on opposite sides of the opening, the body being formed with guide passages for the rods, and springs acting on the rods to move the cover rectilinearly into its closed position; in combination with a plug movable laterally under the cover and in position to be pressed rectilinearly by the cover against the receptacle, substantially as and for the purpose specified.

5. The combination with a conduit outlet box formed with an opening in one side of a plug receptacle comprising a body mounted in the open side of the box and guides depending from the body on the outside of the box, a cover closing the body and having projections movable in said guides, springs in the guides and acting on the projections to hold the cover in its closed position and in engagement with the plug, the plug being movable under the cover in position to be engaged and pressed into the receptacle by the cover.

6. The combination with a conduit outlet box having an opening in one side, of a plug receptacle comprising a body mounted on the open side of the box and having an opening, terminals carried by the body, the body also having tubular parts extending on opposite sides of the box, a cover for the opening in the body, and springs located in the tubular parts and acting on the rods, rods depending from the cover and extending into the tubular parts and a plug movable laterally under the cover and having terminals for coacting with the terminals of the receptacle, substantially as and for the purpose specified.

7. An electric plug receptacle, having an entrance opening, a plug for coacting with the receptacle, and a cover movable rectilinearly toward and from the opening, springs for moving the cover toward closed position, and such cover pressing on the plug in the direction of the axis of the plug when the plug is in the receptacle.

In testimony whereof, I have hereunto signed my name, at Syracuse, in the county of Onondaga and State of New York, this 20th day of December, 1919.

CARL H. BISSELL.