No. 818,387. PATENTED APR. 17, 1906.

G. H. METHEANY.

SWITCH RECEPTACLE.

APPLICATION FILED MAY 25, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

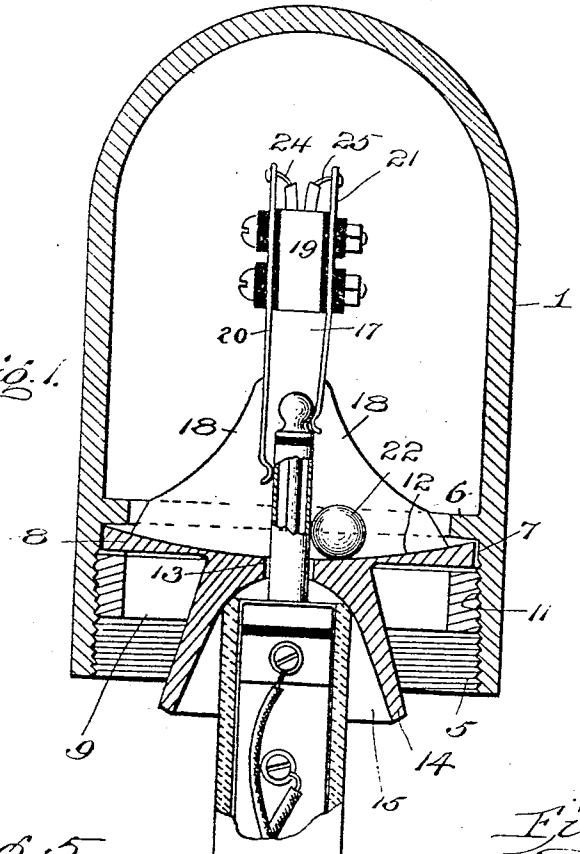


Fig. 5.

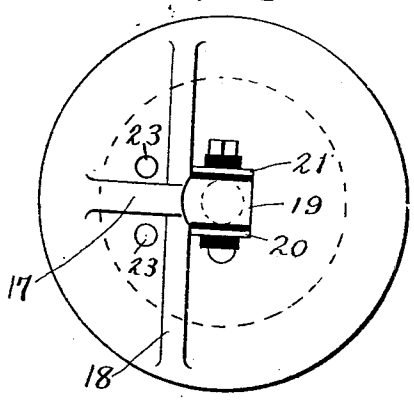
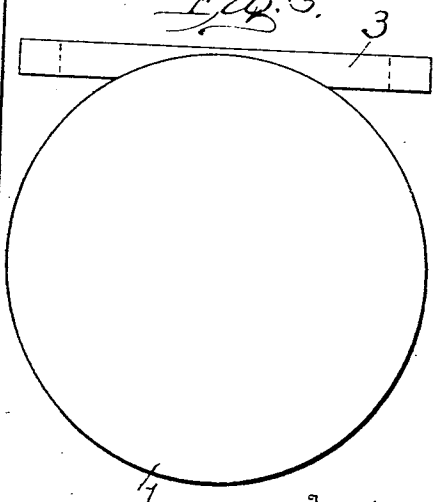


Fig. 3.



Witnesses

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Connectors, Quick detachable, Fixture

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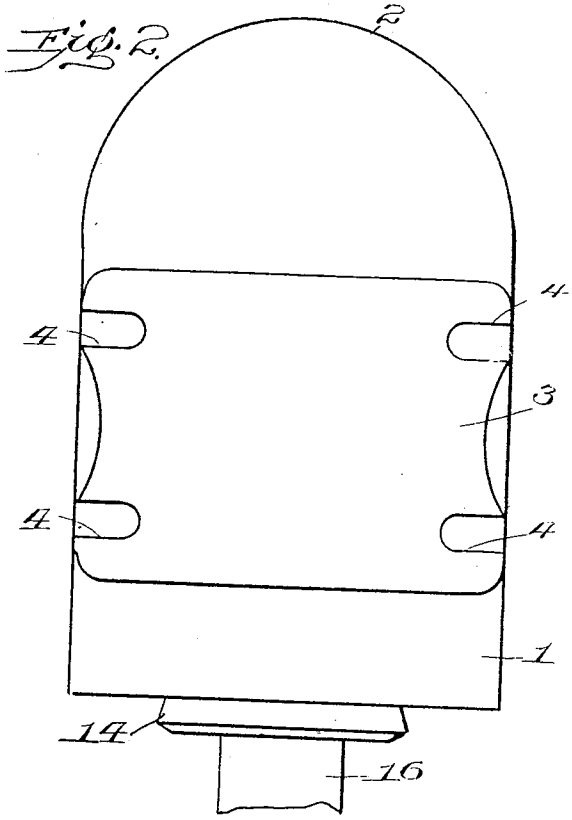
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SWITCH RECEPTACLE.

APPLICATION FILED MAY 25, 1905.

2 SHEETS—SHEET 2

Fig. 2.



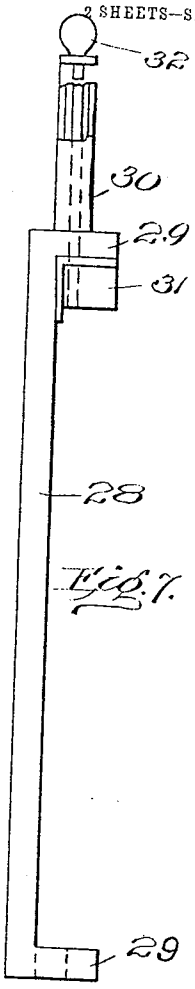


Fig. 7.

Fig. 4.

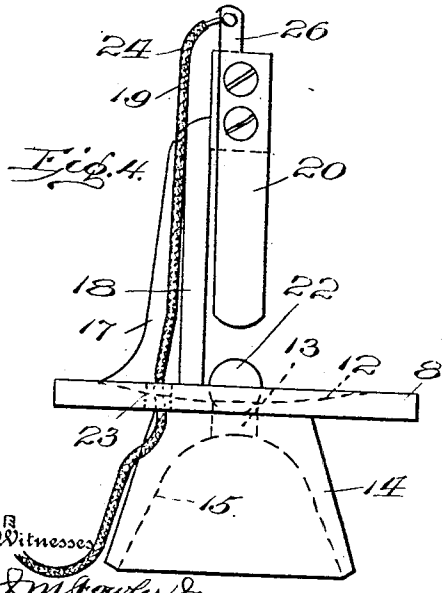
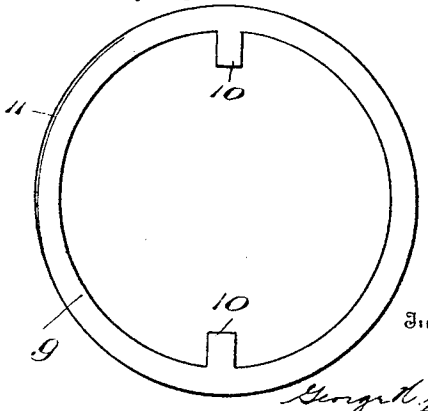


Fig. 6.



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UNITED STATES PATENT OFFICE.

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SWITCH-RECEPTACLE.

No. 818,387. Specification of Letters Patent. Patented April 17, 1906.

Application filed May 26, 1905. Serial No. 262,264.

To all whom it may concern:

Be it known that I, GEORGE H. METHEANY, a citizen of the United States, residing at Lima, in the county of Allen and State of Ohio, have invented certain new and useful Improvements in Switch-Receptacles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain new and useful improvements in switch-receptacles or "jack-boxes" for connecting a portable telephone with the central station.

Under various conditions it is often desirable, and, in fact, necessary, along a line to connect up with the central station by means of a switch-receptacle or box and a portable telephone. This is accomplished by having at suitable intervals in the circuit normally opened branch terminal conductors brought down (as the lines are generally supported upon poles) from each of the line conductors to a switch-receptacle. The branches from the main line are connected to spring-terminals, as hereinafter specified. The circuit can be closed by means of a plug-connector.

One of the objects of the invention is the construction of a switch-receptacle or box which can be easily secured to a support, preferably a pole of the line.

Another object of the invention is the construction of a switch-receptacle or box normally closed upon all sides or ends, but which is provided with means permitting of the insertion of a plug-connector therein for closing the circuit.

A further object of the invention is the provision of means for entirely surrounding the open branch terminals of a circuit, a portion of said means capable of being moved for permitting of the insertion of means for closing the circuit.

With these and other objects in view the invention consists of certain other novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the claims hereto appended.

In the drawings, Figure 1 is a view, partly in vertical section, of a switch-receptacle and a plug constructed in accordance with the present invention. Fig. 2 is a rear view of the switch-receptacle or jack-box shown in Fig. 1. Fig. 3 is a top plan view of the receptacle shown in Fig. 2. Fig. 4 is a view in side elevation of the removable floor or base member, a standard carried thereby, and the spring-terminals secured to said standard; and Fig. 5 is a top plan view of the same. Fig. 6 is a plan view of the locking member employed for retaining the base member or floor of the device in position. Fig. 7 is a view in side elevation of the member of the plug-connector which carries contact-surfaces.

Referring to the drawings by numerals, 1 designates a casing, which is preferably an inverted-cup-shaped receptacle. The top 2 of the casing 1 is convex in structure for more efficiently shedding off liquid. An integral plate or bracket 3 is formed upon the casing 1. The bracket 3 is provided with notches or recessed portions 4 4 upon each side for receiving suitable fastening means which is employed for securing the casing 1 upon a support. It will be seen upon referring to Fig. 3 that the bracket or plate 3 is flat in shape. The casing 1 is provided with an internal screw-threaded surface 5, formed near its lower end. An annular bead or extension 6 is formed integral upon and within the casing 1. The screw-threaded surface 5 terminates short of the bead or extension 6, as will be clearly seen at 7, Fig. 1. A removable base member or floor 8 is secured within the casing 1 by means of an annular locking member 9. The locking member 9 is provided with lateral inwardly-projecting extensions 10 10 and with a screw-threaded outer surface 11. The extensions 10 facilitate the adjustment of the locking member 9 within the casing 1.

The upper surface of the base member or floor 8 is concaved at 12. A central aperture 13 is formed in the base member 8. Said member is provided with a conical-shaped depending portion or member 14. The depending portion 14 is provided with a concaved portion 15, which constitutes a guiding means for directing the upper end of the plug-connector 16, which is provided with the contact-surfaces, into the casing 1. Formed integral upon the base member 8 is a standard 17, which is provided with webs or ribs 18. The vertical standard 17 is provided with an integral block 19 upon its upper end. The block 19 supports the removable insulated terminals 20 and 21. The terminals 20 and 21 are formed of resilient material.

The apertured portion of the base member 8 is normally closed by a valve member 22, which is preferably a sphere. When the upper end of the plug is not positioned within the casing, the sphere 22 will normally close the apertured portion 13 of the member or floor 8, thus keeping the casing or receptacle free from insects, dust, &c. When the contact-surfaces of the plug-connector are positioned as shown in Fig. 1, the sphere constituting the valve means, will be moved to one side of the opening; but as soon as the plug is removed the sphere will roll down the inclined or concaved upper surface 12 of base member 8 and be positioned, as shown in Fig. 4, within a portion of the aperture 13. The base member or floor 8 is provided with an aperture 23, formed therein upon each side of the standard 17. The apertures 23 are provided in the floor or base member for permitting of the connecting of the branches 24 and 25 with the spring-terminals 20 and 21, respectively. Each of the branches is preferably connected to its spring-terminal through the medium of an extension 26. The extension 26 is of less width than the body of the spring-terminal and projects vertically therefrom.

The plug-connector 16 is made strong and heavy to stand out-door usage. The handle 27 preferably contains suitable fuses to protect the user from inquiry by reason of the telephone-line being accidentally crossed with high-tension or other dangerous currents. Within the handle 27 of the plug 16 is secured a segmental member 28, which is provided with an upper and a lower annular portion 29. Integral with the upper annular portion 29 is a cylindrical contact-surface 30. Insulated from the upper annular portion 29 and the cylindrical portion 30, but carried thereby, is the member 31, which is provided with a contact-surface 32. The contact-surfaces 30 and 32 are engaged by the spring-terminals 20 and 21, respectively. The plug is positioned, as shown in Fig. 1, for closing the circuit. It is to be noted that the means which is positioned within the casing 1, whereby the circuit may be closed by the use of a plug-connector, can be removed from said casing by unscrewing the locking member 9.

Upon the removal of the locking member 9 the base member or floor 8, carrying the spring-terminals, can be readily withdrawn, leaving the empty inverted-cup-shaped casing mounted upon its support.

The depending portion 14 of the base member affords suitable means whereby said base member may be secured against the annular bead or extension 6 while the locking member 9 is being positioned within or removed from the casing 1.

It is to be noted that the concavo-convexed portion 2 of the casing 1 constitutes a bulged-end structure.

What I claim is—

1. A device of the character described, comprising an inverted, cup-shaped casing, said casing provided with an internal screw-threaded surface formed near its lower edge, an annular extension formed upon the inner face of said casing, said screw-threaded surface terminating short of said annular extension, a removable base member positioned within said casing, and contiguous to said annular extension, said base member provided with an upper concaved surface and with a central aperture, said member provided with a conical, depending portion, said depending portion provided with a concaved recess, a standard formed integral upon said base member, ribs extending in opposite directions from said standard and formed integral with said base member, a block formed upon the upper end of said standard, spring-terminals carried by said block, and an annular locking member positioned within said casing for securing said base member in a fixed position, said locking member provided with an outer screw-threaded surface and with inwardly-projecting extensions.

2. A device of the character described comprising an inverted, cup-shaped casing, a removable member of the same diameter as the diameter of the interior of said casing, positioned within said casing, means for securing said member within said casing, said member provided with an aperture, a ball-valve positioned within said casing and normally closing said aperture, and terminal-carrying means formed upon said member.

3. A device of the character described, comprising a casing closed at its top and open at its bottom, a removable member positioned within and closing the bottom of said casing, said member provided with a depending guiding portion and an aperture, a ball-valve closing said aperture, and terminal-supporting means carried by said member.

4. A device of the character described, comprising a casing, open at its bottom and closed at its top, a removable member of the same dimensions as the dimensions between the inner walls of said casing, said member positioned within said casing, said member provided with a series of apertures and with terminal-carrying means, and valve means for closing one of said apertures.

5. A device of the character described, comprising a casing closed at its top and open at its bottom, a removable member closing said bottom, said member provided with an aperture, a ball-valve for closing said aperture, and terminal-carrying means formed upon said member.

6. A device of the character described, comprising a casing, a removable member positioned within said casing, means for securing said member within said casing, guid-

ing means carried by said member, valve means carried by said member, and terminal-carrying means carried by said member.

7. A device of the character described, comprising a casing closed at its top and open at its bottom, a removable member positioned within the lower portion of said casing, means for securing said removable member within said casing, depending guiding means formed upon said member, terminal-carrying means formed upon said member within said casing, said member provided with an aperture, and a ball-valve for closing said aperture.

8. In a device of the character described, the combination of a casing closed at its top and open at its bottom, a removable bottom of substantially the same width as the interior of said casing, positioned within the same, a revoluble locking member threaded into said casing and in engagement with the said bottom, terminal-carrying means supported by said bottom, conical guiding means formed upon said bottom, said bottom provided with an opening, and valve means for closing said opening.

9. In a device of the character described, the combination of a casing closed at its top and open at its bottom, an extension formed interiorly of said casing, a removable bottom positioned within said casing and in engagement with said extension, a removable, annular locking member threaded into said casing and in engagement with said bottom, and terminal-carrying means positioned within said casing.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE H. METHEANY.

Witnesses:

IRA R. LONGSWORTH,

HOWARD B. LONGSWORTH.