

G. L. PATTERSON.
ELECTRIC PLUG RECEPTACLE.
APPLICATION FILED OCT. 8, 1907.

900,773.

Patented Oct. 13, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

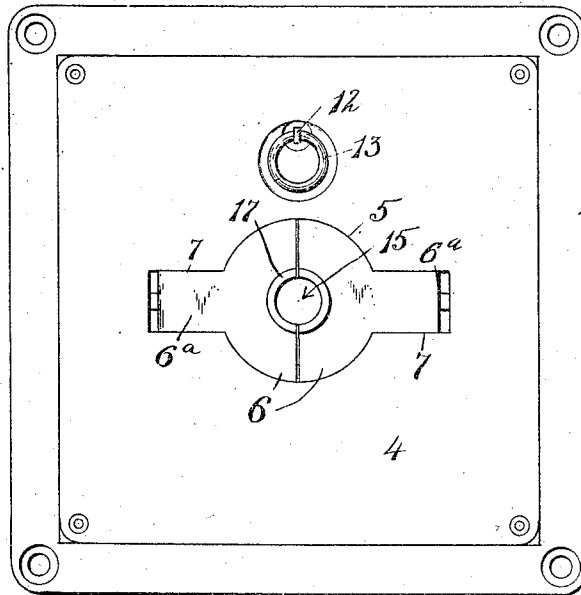
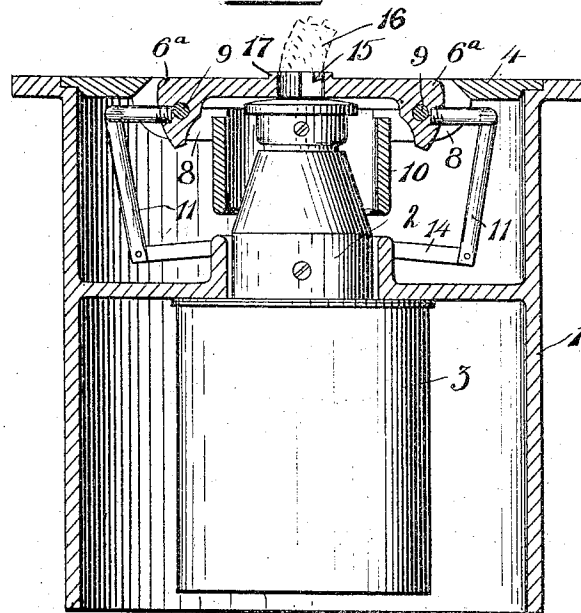


Fig. 2.



Witnesses:

Chas. A. Ward
Langdon Moore

Inventor

G. L. PATTERSON

By his Attorneys

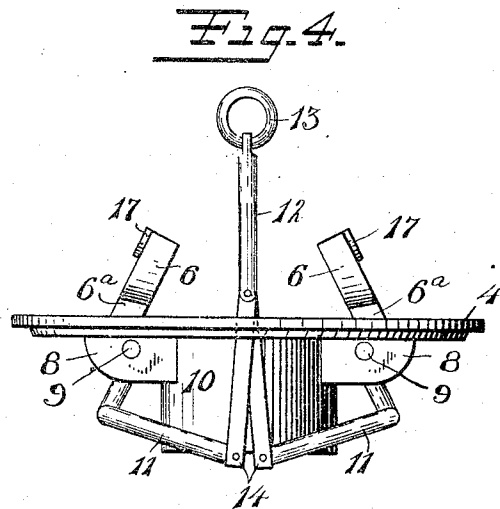
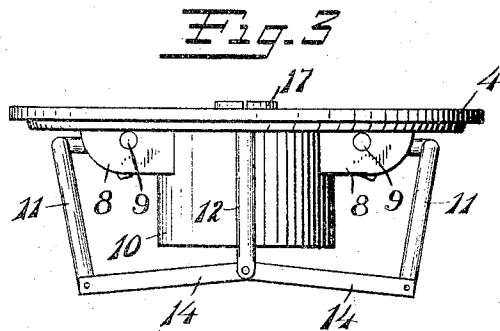
Barrett, Rimmer & Mitchell

G. L. PATTERSON.
ELECTRIC PLUG RECEPTACLE.
APPLICATION FILED OCT. 8, 1907.

900,773.

Patented Oct. 13, 1908.

2 SHEETS—SHEET 2.



Witnesses:
Chas. E. Dard
Langdon Moore

Inventor
G. L. PATTERSON
By his Attorneys
Bartlett Thomas Whitehall

UNITED STATES PATENT OFFICE.

GEORGE LEWIS PATTERSON, OF NEW YORK, N. Y., ASSIGNOR TO ALICE C. PATTERSON, OF NEW YORK, N. Y.

ELECTRIC PLUG-RECEPTACLE.

No. 900,773.

Specification of Letters Patent.

Patented Oct. 13, 1908.

Application filed October 8, 1907. Serial No. 396,525.

To all whom it may concern:

Be it known that I, GEORGE LEWIS PATTERSON, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Electric Plug-Receptacles, of which the following is a full, clear, and exact description.

My invention relates to electrical connections, and more particularly to a plug and socket connection in which the socket is located in the floor of a theatrical stage or other place, and the plug is inserted therein to make a temporary connection with the electrical system for supplying current to portable lighting and other translating apparatus. Devices of this character are usually in the form of a socket or well provided with internal contacts to engage with the plug which is inserted in the socket and which is connected with the portable translating device. The top plate of the socket is usually flush with the floor or wall and the opening adapted to admit the plug is provided with lids or closures to prevent dirt or other material from clogging or short-circuiting the socket when the plug is removed. It is necessary that these closures be provided with an aperture to allow the wire from the plug to pass therethrough when the plug is in position, and heretofore when it has been desired to insert the plug the operator has inserted his fingers or a suitable tool in this opening to swing the closures outwardly before the plug could be placed in position to complete the circuit. The opening in the top plate allows but little clearance when inserting the plug, and the closures being of substantially the same size it often happens that the plug becomes blocked or the operator's fingers are caught between the plug and the closures.

The object of this invention is to provide the socket or receptacle with means which will permit the operator to quickly open and close the same to allow the plug to be inserted with great rapidity, at the same time preventing all danger to the operator.

In the drawings Figure 1 is a top plan view of a so-called stage-box including my socket and closure. Fig. 2 is a vertical section through the center of the box, showing the

plug and the plug socket in elevation. Fig. 3 is a detail view in elevation of the top plate of the box. Fig. 4 is a similar view showing the parts in different position.

While I have illustrated my invention as preferably constructed, it is understood that various changes might be made without departing from the scope of the same.

In the plug connection as shown in the drawing, 1 represents the box adapted to be seated in a hole in the floor or wall.

2 is the plug of usual form.

3 represents the plug socket proper.

4 is a detachable top plate on the box 1.

5 is the plug opening in the top plate 4.

6—6 are lids or closures for the plug opening 5, each of which closures is provided with a knuckle arm 6^a extending into a slot 7 leading from each side of the opening 5.

8—8 are lugs depending from the top plate on each side of the slot 7.

9 is a pin passing through the lugs 8 and each knuckle arm 6^a to pivot the same at a point beneath the top plate 4.

10 is a guide sleeve secured on the under side of the plug opening 5 to direct the plug 2 into the socket 3.

11 is a lever arm extending from the hinged portion of each closure arm 6^a, and bent to clear the lug 8 and guide sleeve 10.

12 is an operating member passing through an opening in the top plate 4.

13 is a ring or other engaging means carried at the outer extremity of the member 12.

14—14 are connecting links joining the lower extremity of the member 13 with the lever arms 11—11.

15 is an opening in the center of the closures 6 to afford clearance for wire 16 leading from the plug 2, yet not large enough to invite danger when the plug is withdrawn. Around the opening 15 is preferably provided an upstanding protecting flange 17.

It is readily seen from the above description that when it is desired to insert the plug 2, all that is necessary is to pull up on the ring 13 and the closures will instantly open, as shown in Fig. 4. After the plug is inserted, the ring is released and the closures will fall of their own weight back in their original position.

When the parts are in the position shown

in Fig. 4, the operator may lock the closures open by simply swinging the part 12 down into horizontal position.

What I claim is:

- 5 1. In an electrical connection, the combination of a plug and socket, a box, a horizontally disposed cover therefor having an opening adapted to admit the plug, a horizontally hinged closure for said opening, and separate means passing through the top or cover of the box to operate said closure.
- 10 2. In an electrical connection, the combination of a plug and socket, a box, a horizontally disposed cover therefor having an opening adapted to admit the plug, two closures for said opening hinged at opposite sides thereof, and separate means to operate both of said closures simultaneously.
- 15 3. In an electrical connection, the combination of a plug and socket, a box therefor having an opening adapted to admit the plug, two pivoted closures for said opening, a lever extending from each closure, and means connected with said levers to operate said closures.
- 20 4. In a device of the character described, a plug and socket, a box therefor having an opening adapted to admit said plug, closures for said opening hinged at opposite sides thereof and having recesses to afford clearance for the plug connecting wire to pass therethrough, and separate means to operate said closures arranged at one side thereof.
- 35 5. In a device of the character described, a plug and socket, a box, a top plate thereon having an opening adapted to admit the plug, a guide sleeve secured to said top plate, a pair of pivoted closures for said opening, lever arms extending from said
- 40

closures and inside of the box, and means connected with said lever arms to operate the closures simultaneously.

6. In a device of the character described, a plug and socket, a box therefor, a removable top plate for said box having an opening adapted to admit the plug, closures for said opening pivoted to the top plate, lever arms extending from said closures and inside of the box, links connecting said lever arms with each other, and an operating member connected with said links and extending outside of said box.

7. In a receptacle, a floor-plate having a passage therethrough, a lid hinged at one end of said passage, and lid-lifting means underneath said plate making operative connection with said lid, part of said means projecting through said plate to one side of said lid for manual engagement.

8. In a receptacle, a floor-plate having a central passage, a lid therefor, a hinge at one edge of said lid, a pivot for said hinge, a crank operating with said lid, a crank-operating device, a portion of said device projecting through said floor-plate to one side of said lid for manual engagement.

9. In a receptacle, a floor-plate having a passage therethrough, a hinged lid therefor, a crank cooperating with said lid from below, a crank-operating device cooperating with said crank, a portion of said crank-operating device passing through said floor-plate to one side of said lid for manual engagement.

GEORGE LEWIS PATTERSON.

Witnesses:

LANGDON MOORE,
CHAS. A. PEARD.