(No Model.)

P. H. FIELDING.

ELECTRICAL CONNECTOR.

No. 556,967. Patented Mar. 24, 1896.

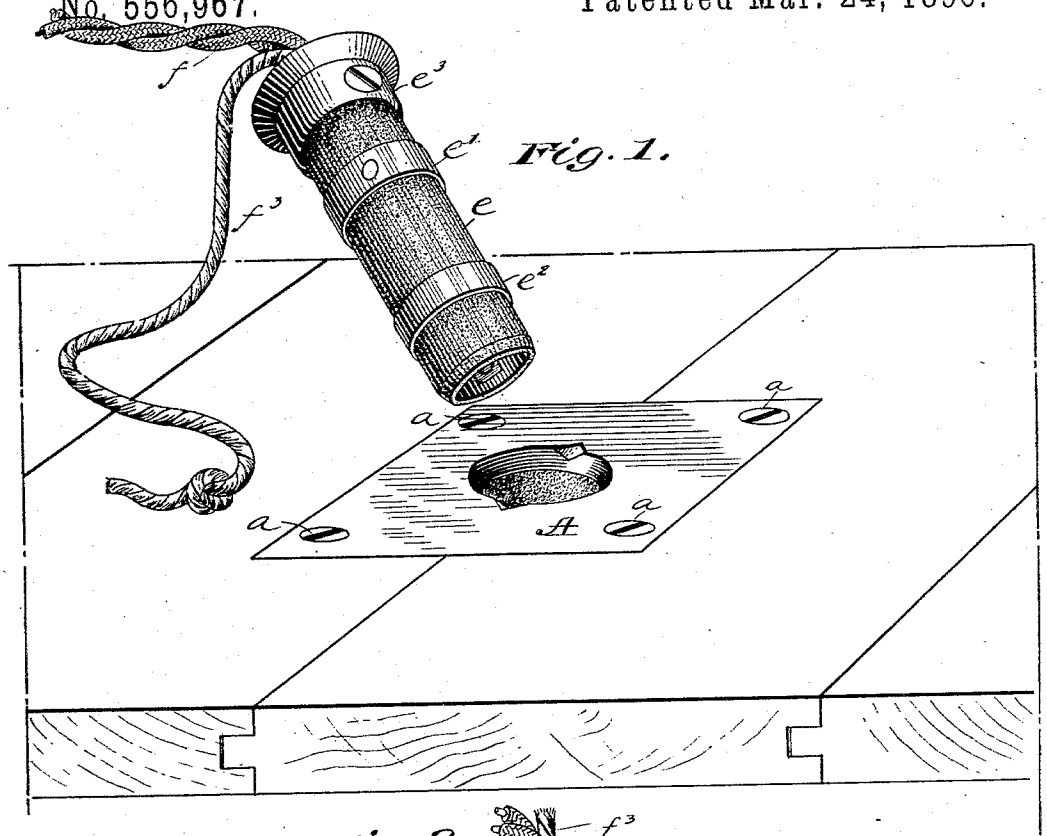


Fig. 1.

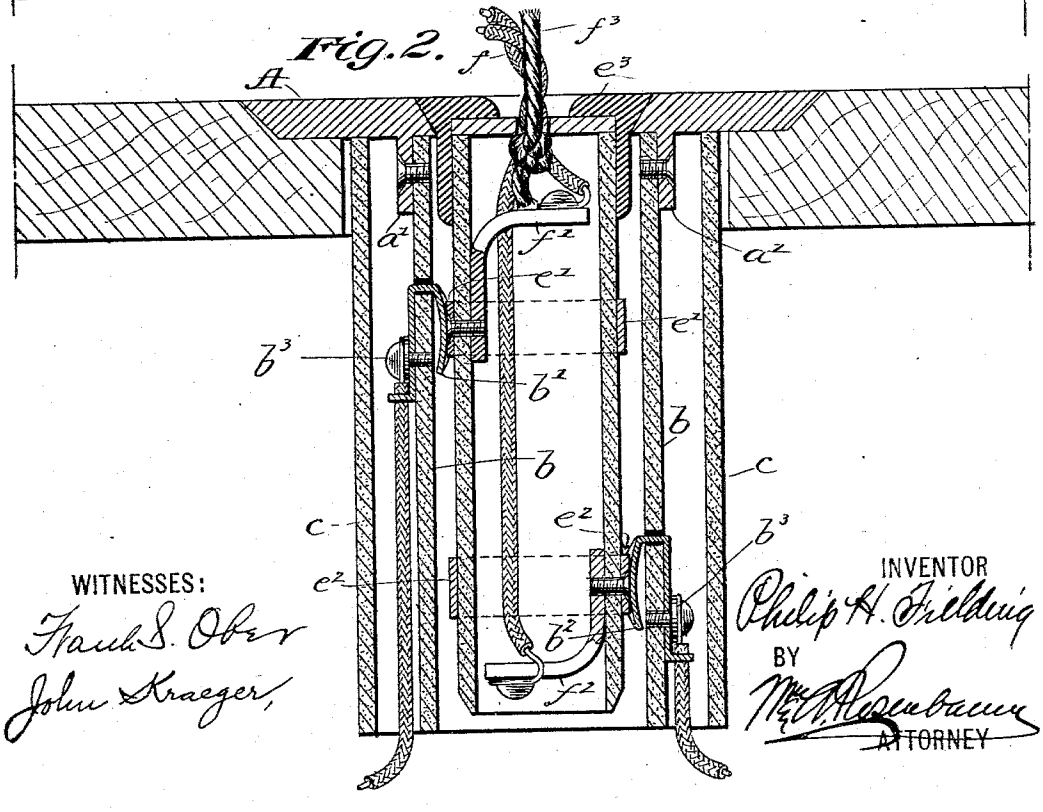


Fig. 2.

WITNESSES:

Frank S. Ober

John Kraeger,

INVENTOR

Philip H. Fielding

BY

Munn & Rosenbaum

ATTORNEY

ANDREW B. GRAHAM, PHOTO-LITHO. WASHINGTON, D.C.

UNITED STATES PATENT OFFICE.

PHILIP H. FIELDING, OF NEW YORK, N. Y.

ELECTRICAL CONNECTOR.

SPECIFICATION forming part of Letters Patent No. 556,967, dated March 24, 1896.

Application filed July 9, 1895. Serial No. 555,435. (No model.)

To all whom it may concern:

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

This invention relates to that class of electrical appliances known as "pockets," which are formed in the floor or walls of a theatrical stage or other place as a means for making a temporary connection with the electrical system for supplying current to portable lighting or other translating apparatus. Devices of this character are usually in the form of a socket or well divided with suitable contact-pieces, internally arranged to engage with a plug which is inserted into the pocket and which is connected with the portable translating device. When the plug is not in place and the pocket is uncovered, as is usually the case, foreign material—such as bits of metal, dirt or water—is likely to fall into the pocket and bridge the contacts therein, thus frequently causing damage by fire or destruction to a portion of the electrical system. In washing the floor it is almost impossible to prevent water getting into the pockets, and in a place like a theatrical stage it is difficult to prevent nails, tacks or other bits of metal from falling therein.

The object of my invention is to provide a pocket which cannot be short-circuited by anything accidentally falling into it, and this is accomplished principally by making the pocket bottomless, so that anything falling into it will pass entirely through and out of connection with the contacts therein, and as an additional safeguard I locate the contacts (if there be more than one) in different horizontal planes, thereby making it difficult for anything passing through the pocket to bridge any two contacts.

It is a further object of my invention to provide a construction of pocket which shall facilitate the making of the connection with the plug, and in which it is impossible to make a wrong connection or cause a short circuit by carelessness in inserting the plug. This is accomplished by the aforesaid arrangement of the contacts in different horizontal planes, in combination with a plug having corresponding contacts also arranged in different horizontal planes, and each consisting of an endless strap or band surrounding the plug. Thus the circuits can be complete only when the plug is forced fully to its seat, and each contact of the plug must necessarily connect with its corresponding contact in the pocket, thus insuring the proper polarity of current.

My invention will be described in detail with reference to the accompanying drawings, in which—

Figure 1 shows the pocket as it appears in the floor and the plug about to be inserted therein. Fig. 2 is a vertical central section of the pocket with the plug in place.

Referring to the drawings by letter, A represents a plate to be fixed in the floor by means of screws *a*. It is provided with a central orifice around which, on the under side, is formed a flange *a'*. To this flange is secured a tubular shell *b*, registering with the opening in the plate and open at both ends. This shell is preferably of non-conducting material, such as fiber, and may be either round or prismatic in cross-section. At two points in different horizontal planes I locate metallic contact-pieces b' and b^2, respectively. One is preferably placed near the upper end of the tube and the other near the lower end and upon opposite sides of the tube. Each contact-piece is U-shaped, the two legs standing respectively inside and outside of the tube, and the bend occupying a slit in the wall of the tube. The outer leg carries a binding-screw b^3 for the supply-wire and the inner leg is curved slightly to form a spring. As before stated, the bottom of the tube is left open, and the space below should be left clear, so that anything falling into the tube may pass through and entirely free and clear of it.

c represents a jacket or sheath of insulating material surrounding the pocket for the purpose of protecting the exterior portions of the contacts and the wires leading thereto, as shown. The plug to be used in connection with this pocket is represented by *e*. It is also in the form of a tube, which should be of the same shape in cross-section as the pocket *b*. Its external diameter is slightly less than the internal diameter of the pocket. It is made of non-conducting material and

provided externally with two metallic straps or bands e' and e^2, respectively. These are placed the same distance apart vertically as the contacts b' and b^2 in the pocket. The plug is provided with a head e^3, which limits the distance which the plug may enter the pocket. The plug forms the terminal of a flexible conducting-cord f, composed of two insulated conductors leading from any translating device or devices, such as a group of lamps. These conductors enter the head of the plug and pass inside of the tube, where they connect respectively with two brackets f' and f^2, which are in turn respectively connected with the bands e' and e^2 by means of rivets or otherwise.

The plug in going to its seat in the pocket presses with some force against the contacts therein, and in order to withdraw it without damage to the flexible conductor I provide a short length of cord f^3 to be used as a handle in pulling out the plug.

Obviously the pocket and plug may contain any number of contact-pieces to suit the system of electrical distribution.

Having described my invention, I claim—

A stage or floor pocket consisting of a tube of insulating material set into the floor or wall, having a free passage through it and provided internally with electrical contacts located against opposite sides and in different planes, so as to be diagonally opposite each other, in combination with a plug of insulating material adapted to enter the tube and provided exteriorly with bands of conducting material adapted to contact respectively with the contacts in the tube, substantially as described.

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

PHILIP H. FIELDING.

Witnesses:

FRANK S. OBER,

JOHN KRAEGER.