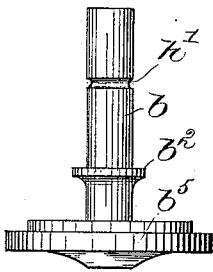
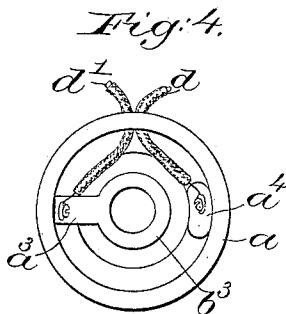
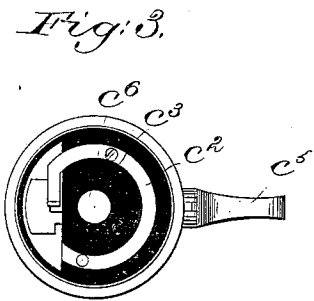
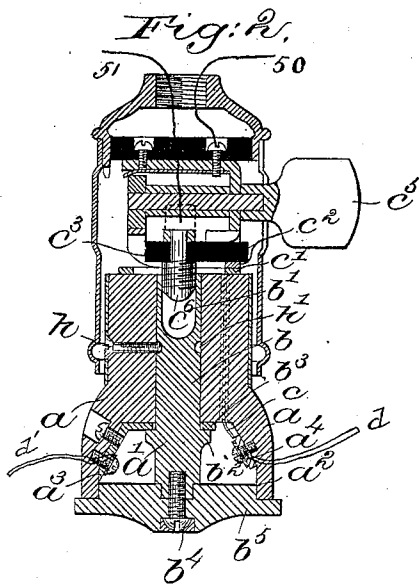
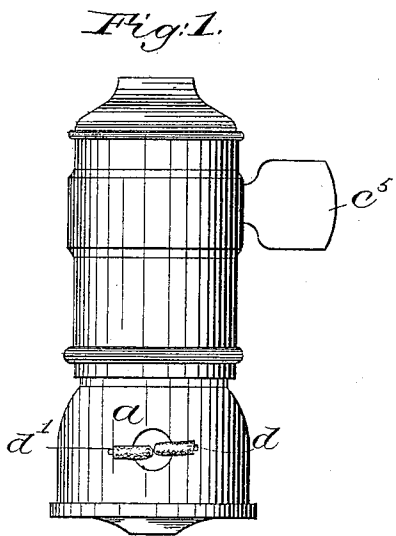


(No Model.)

J. L. KIMBALL.
ELECTRIC PLUG CIRCUIT CLOSER.

No. 466,052.

Patented Dec. 29, 1891.



Witnesses.

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JAMES L. KIMBALL, OF BOSTON, MASSACHUSETTS.

ELECTRIC PLUG CIRCUIT-CLOSER.

SPECIFICATION forming part of Letters Patent No. 466,052, dated December 29, 1891.

Application filed January 22, 1891. Serial No. 378,624. (No model.)

To all whom it may concern:

Be it known that I, JAMES L. KIMBALL, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Electric Plug or Attachment, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to an attachment or plug to which are connected the cords or insulated conducting-wires of a translating device, such as an incandescent electric lamp or motor, and by means of which attachment or plug the said lamp or other translating device may be electrically connected to a socket or fixture which is electrically connected to the source of supply.

The plug or attachment as now commonly constructed is made so that when it is screwed into its socket the cords are twisted and frequently become broken, and the insulation on the cords is liable to become worn or abraded and the conducting-wires brought in contact with each other, whereby a short circuit of the generating apparatus is liable to take place.

This invention has for its object to construct the plug or attachment so that the conducting-cords are not twisted when the attachment or plug is screwed into its socket.

My invention therefore consists in a plug or attachment for electric translating devices, the combination, with one member provided with a circuit terminal, of a second member inserted through the first member and provided with a circuit-terminal, one of the said members being movable, and conducting-cords connected to the stationary member, substantially as will be described.

Other features of my invention will be pointed out in the claims at the end of this specification.

Figure 1 represents in elevation a plug or attachment and its socket, into which it is screwed to electrically connect the conducting-cords and lamp-terminals with the terminals of the socket; Fig. 2, a vertical longitudinal section of the plug or attachment and a portion of the socket shown in Fig. 1; Fig. 3, a top or plan view of the socket shown in Fig. 1; Fig. 4, a top or plan view of the sta-

tionary member of the plug or attachment shown in Fig. 1; Fig. 5, a view in elevation of the movable member of the plug or attachment.

My improved plug or attachment is composed, as herein shown, of two members a and a' , the member a being made hollow or cup-shaped at its upper end, as at a^2 , and provided with metallic or conducting plates or terminals a^3 and a^4 . The member a is provided with a longitudinal hole or opening extended through it, and into which is inserted the metallic shank b of the member a' . The shank b is made hollow or provided at one end with a threaded socket or recess b' , and the said shank is provided near its opposite end, as shown, with a metallic flange or collar b^2 , adapted to bear against and make contact with an annular ring b^3 , secured to or forming part of the terminal a^3 of the member a . The shank b of the member a' has secured to it, as by a screw b^4 , a cover b^5 , which fits over and covers the cup-shaped portion of the member a . The terminal a^4 is electrically connected, as by a wire c extended through a hole in the member a , to a terminal or metallic ring c' on the under side of the member a , the said terminal or metallic ring c' co-operating with a like terminal or ring c^2 on an insulating block or piece c^3 , herein shown as located within a shell or socket c^4 , provided with a switch c^5 of any usual or well-known construction. The insulating block or piece c^3 has secured to it a threaded post or stud c^6 , adapted to enter the threaded recess b' in the shank b of the member a' . The stud or post c^6 and the rings c^2 form the terminals for the circuit-wires, (not herein shown,) and the metallic shank b and the ring c' form the co-operating terminals to which the conducting-wires d and d' of the incandescent lamp are electrically connected, as above described.

The member a forms the stationary member and the member a' forms the movable member of my improved plug or attachment.

In operation the member a , to which the conducting-cords are attached, is placed in its socket and held stationary by hand, and when so held the member a' is inserted through a hole in the member a and turned by hand, so that its threaded hollow shank will be

screwed upon the threaded stud or post c^6 ; hence the terms "stationary" and "movable" members. As the hollow shank of the movable member is screwed upon the stud or post c^6 , the stationary member is forced or drawn into position to bring its terminal ring c' in contact with the terminal ring c^2 and thus establish electrical connection between the terminals of the plug or attachment and the terminals of the socket, so that by proper manipulation of the switch the circuit of the lamp or other electrical device—as, for instance, a motor—may be completed. When the plug or attachment is thus secured to the socket and the switch turned, as shown in Fig. 1, the current passes over wire 50, switch, ring, or circuit terminal c^2 , ring or circuit terminal c' , wire c , terminal plate a^4 , wire d , through translating device, (not shown,) wire d' , terminal plate a^3 , shank b , screw-threaded terminal c^6 , and wire 51.

It will be noticed that the conducting-cords are not twisted or turned, because the member a to which they are connected is not turned, and in this manner the disadvantages or evil effects resulting from turning or twisting the cords are avoided.

If desired, the cup-shaped recess of the member a may contain or be provided with the usual fuse or fuses. (Not herein shown.)

It may happen in practice that a single plug or attachment may be used with a number of sockets—as, for instance, it may be desirable to use an incandescent drop-light in a different room. In this case the lamp and the plug would be carried from one room to another, and in order to prevent the members from becoming separated a locking device is preferably provided.

The locking device referred to consists, as herein shown, of a screw h , inserted through the member a , and an annular groove h' in the shank of the member a' .

I claim—

1. The combination, with a socket adapted to be connected to a source of electricity and provided with two circuit-terminals, of a removable plug or attachment for an electric translating device composed of two members, one of which is movable with relation to the other, and a circuit-terminal on each member adapted to co-operate with the two circuit-terminals in the socket and thereby establish electrical connection, and conducting-cords leading to the translating device connected to the stationary member and electrically connected with the circuit-terminals on the separate members of the plug, substantially as described.

2. The combination, with a socket adapted to be connected with a source of electricity

and provided with two circuit-terminals, of a removable plug or attachment for an electric translating device composed of two members, one of which is movable with relation to and independent of the other, a circuit-terminal on each member adapted to co-operate with the two circuit-terminals in the socket and thereby establish electrical connection, and two terminal plates on the stationary member, with which the conducting-cords leading to the translating device are connected, said terminal plates being electrically connected with the circuit-terminals on the separate members of the plug, which co-operate with the circuit-terminals of the socket, substantially as described.

3. The combination, with a socket adapted to be connected with a source of electricity and provided with two circuit-terminals, of a removable plug or attachment for a translating device composed of a stationary and a movable member, one of which passes centrally through the other, a circuit-terminal on each member adapted to co-operate with the circuit-terminals in the socket and thereby establish electrical connection, and terminal plates on the stationary member to which the conducting-cords which lead to the translating device are attached, which terminal plates are electrically connected with the circuit-terminals on the separate members of the plug, substantially as described.

4. The combination, with a socket provided with a threaded post and a circuit-terminal c^2 , of a plug or attachment consisting of the member a , provided with a terminal c' , to co-operate with the terminal c^2 , and the member a' , inserted through the member a and provided with a threaded cavity or recess to engage the threaded stud, substantially as described.

5. In a plug or attachment for electric translating devices, the combination, with a stationary member a , provided with a recess a^2 , having terminals therein, and provided with a terminal on its outer end, to which one of the terminals in the said recess is connected, of a movable member composed of a screw-threaded hollow shank extended through the stationary member and connected with the other terminal in the recess and provided with a cover, and a locking device to secure the said members together, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES L. KIMBALL.

Witnesses:

JAS. H. CHURCHILL,
A. S. WIEGAND.