

S. W. ITO.
ELECTRIC ATTACHMENT PLUG.
APPLICATION FILED MAR. 18, 1909.

938,238.

Patented Oct. 26, 1909.

Fig. 1.

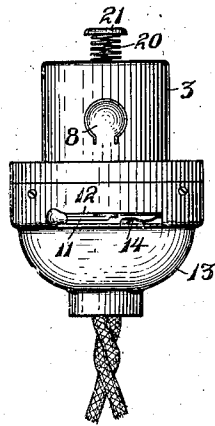


Fig. 2.

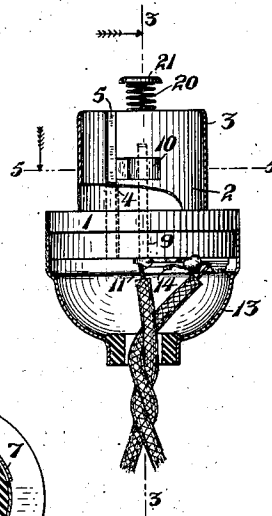


Fig. 5.

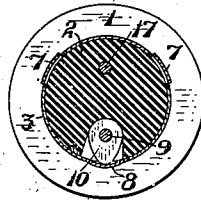


Fig. 3.

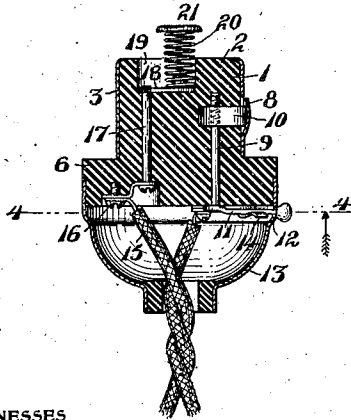


Fig. 4.

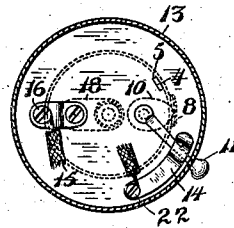
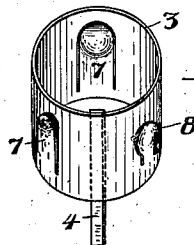


Fig. 6.



WITNESSES

J. C. Thiedner
Nellie B. Keating

INVENTOR,
Saykichi W. Ito,
BY
Francis M. Wright,
ATTORNEY

UNITED STATES PATENT OFFICE.

SEYKICHI W. ITO, OF SAN FRANCISCO, CALIFORNIA.

ELECTRIC ATTACHMENT-PLUG.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SEYKICHI W. ITO, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Electric Attachment-Plugs, of which the following is a specification.

The object of the present invention is to provide an attachment plug for electric lamp sockets which will avoid the necessity of twisting the pair of conducting cords which are attached to it and are used to conduct current from the socket to its place of use.

A further object is to provide a plug of this character through which the circuit will be closed only when the plug is fully connected to the socket.

In the accompanying drawing, Figure 1 is a side view of the plug, the parts being in the position in which the plug is not connected to the socket; Fig. 2 is a sectional view, the parts being in the position in which the plug is connected; Fig. 3 is a sectional view on line 3—3 of Fig. 2; Fig. 4 is a horizontal section on the line 4—4 of Fig. 3; Fig. 5 is a horizontal section on the line 5—5 of Fig. 2; Fig. 6 is a detail perspective view of the contact shell of the plug.

Referring to the drawing, 1 indicates a block of porcelain or other suitable insulating material, having a reduced cylindrical upper portion 2, surrounding which is a contact shell 3. Said shell is formed with a depending tongue 4, which extends into a hole 5 in the lower enlarged portion 6 of the block 1, and thus serves to hold the shell firmly on the reduced portion of the block. Said shell is formed of spring metal, and has cut therefrom three tongues 7, 8, at equal angular distances one from the other, of which the two tongues 7 are longer than the tongue 8, all of said tongues being united at their lower ends to the shell and normally projecting therefrom. Therefore they are adapted to contact with the inner surface of an electric lamp socket, and hold the plug in the socket by spring pressure. Arranged vertically in a bearing in said block 1 is a shaft 9, the upper end of which carries a cam 10 extending through a lateral opening in

the side of the reduced portion 20 of the plug, which cam, when the shaft 9 is rocked, bears against the shorter tongue 8 and presses it outward, thus causing it to firmly engage the side of the lamp socket and hold the plug therein. Upon the lower end of said rock shaft is secured a crank arm 11, extending through a slot 12 in the lower casing 13 of the plug, said crank arm being adapted, when the shaft 9 is rocked, to engage spring clips 14, which then, hold the crank arm in the position to which it has been rocked, in which position the plug is secured in the socket by means of the cam 10.

Of the conducting cords, one, the cord 15, passes to a binding screw 16, which is connected by a bolt 17 through the insulating block 1 with the plate 18 in a recess 19 therein, to which plate is secured a spring 20 having a head 21 adapted to engage the central contact of the electric lamp socket. The other conducting wire is connected by a binding screw 22 to the spring clips 14. The circuit through this wire is therefore closed only when the crank arm 11 has been shifted to the position securing the plug in the socket, the current then passing through said spring clips 14, the crank arm 11, rock shaft 9, and cam 10, to the cylindrical contact shell 3, which is in contact with the cylindrical contact surface of the lamp socket.

In use, the plug is inserted in the socket without twisting, and the crank arm is again moved to the right so as to engage the spring clips. The plug is then securely fastened in the socket. To disconnect the plug, the crank arm is moved to the left, which breaks the circuit through the conducting wires, and relieves the pressure upon the cylindrical surface of the lamp socket, and the plug is then withdrawn.

I claim:—

An attachment plug for lamp sockets comprising an insulating plug having a reduced portion, a contact shell around said reduced portion having a tongue cut therefrom, a rock shaft, parallel with the axis of the plug and of the shell, and having a cam arranged to project said tongue to cause the same to bind against the socket, an arm on said rock shaft for turning the same, contact clips with which said arm is adapted to engage

when the cam has been moved to so project said tongue, a spring arranged centrally of said plug, a contact head carried thereby and two conducting wires, one of which is electrically connected to said spring and the other is connected to said contact clips, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

SEYKICHI W. ITO.

Witnesses:

H. B. DENSON,
FRANCIS M. WRIGHT.