No. 892,755. PATENTED JULY 7, 1908.

W. S. MAYER.

PLUG FOR ELECTRICAL CONNECTIONS.

APPLICATION FILED AUG. 26, 1907.

FIG. I.

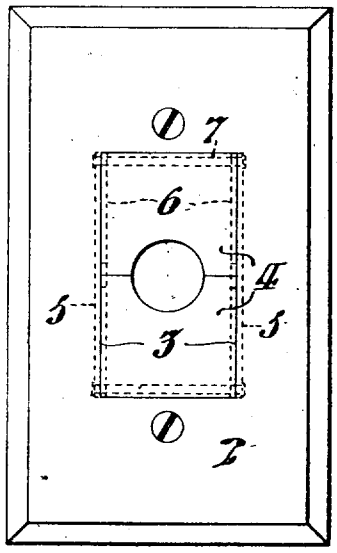


FIG. II.

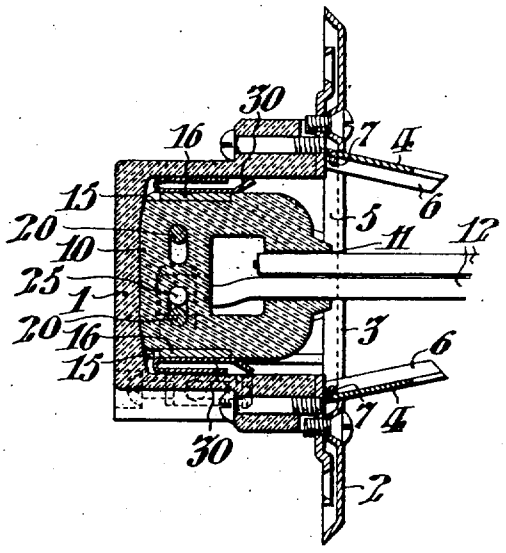


FIG. III.

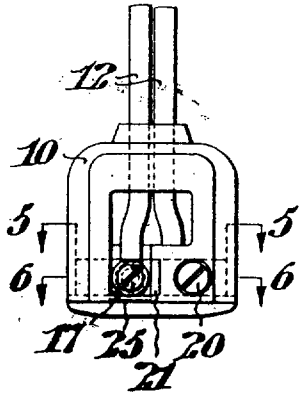


FIG. IV.

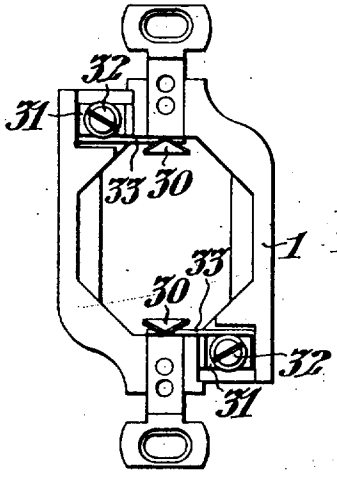


FIG. V.

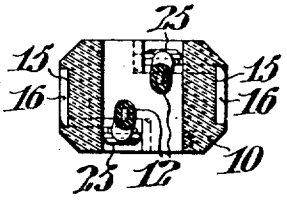
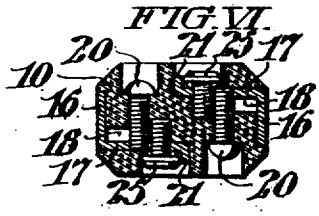


FIG. VI.



WITNESSES:

Laura Kleinfelder

Herbert E. Page

INVENTOR:

Walter S. Mayer

By Byron N. Anderson,

Attorney.

UNITED STATES PATENT OFFICE.

WALTER S. MAYER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE MACHEN & MAYER ELECTRICAL MANUFACTURING COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF NEW JERSEY.

PLUG FOR ELECTRICAL CONNECTIONS.

No. 892,755. Specification of Letters Patent. Patented July 7, 1908.

Application filed August 26, 1907. Serial No. 390,158.

To all whom it may concern:

Be it known that I, WALTER S. MAYER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Plugs for Electrical Connections, of which the following is a specification.

My invention relates to an improvement in plugs adapted for use in the making of electrical connections to complete an electric circuit or circuits.

My invention also relates to an improvement in the construction of face plates adapted to close the opening in the receptacle, into which the plug is placed.

One object of my invention is to provide a plug having its contact members so located and placed therein that the arc formed upon the withdrawal of the plug from its receptacle occasions little or no damage upon its contact members.

A convenient embodiment of my invention is illustrated in the accompanying drawings forming a part of my specification, but it will be understood that various changes in the details of construction may be made without departing from the spirit and scope of my invention.

In the drawings, Figure I is a plan view of the face plate of my device; Fig. II is a longitudinal sectional view of the face plate, the plug and the receptacle; Fig. III is a side elevation of the plug, showing a couple of cords connected thereto; Fig. IV is a top plan view of the receptacle, the face plate being removed; Fig. V is a view on the line 5—5 of Fig. III; and Fig. VI is a view on the line 6—6 of Fig. III.

In the drawings,—1 designates a receptacle of any suitable insulating material, such, for instance, as porcelain, which receptacle is, as usual, adapted to be embedded in a wall or other suitable support, though it need not necessarily be so embedded. 2 designates a face plate adapted to be connected to the receptacle 1. The face plate is provided with a central opening, as indicated at 3, which is adapted to be closed by means of doors 4. The opposite sides of the opening 3 are provided with lateral flanges 5, preferably formed by turning the edges of the plate downwardly, as shown. The doors are provided with downwardly turned or lateral flanges 6. 7 designates pivot pins which extend through the flanges 5 at opposite ends of the opening and which pivot pins also extend through perforations in the flanges 6 upon the doors for the purpose of pivoting the doors to the face plate, as clearly indicated in Figs. I and II of the drawings. When the doors are closed, as indicated in Fig. I, the top surfaces are flush with the surface of the face plate 2.

The plug comprises a member 10 of suitable insulating material, such, for instance, as porcelain. One end of the plug is provided with an opening 11, through which the electric conductor cords 12 pass into the interior of the plug. The plug is provided with depressions 15 in its opposite edges, into which portions 16 of contact members are adapted to be located.

17 designates narrow strips of material which extend inwardly through openings 18 in the plug from the portions 16 of the contact members. The contact members are held in place by means of screws 20, which pass partially through the plug and have screw-threaded engagement with the portion 17 of the contact members, which are carried by the plug. The inner ends of the narrow plates 17 are turned up to form shoulders, as indicated at 21. Such shoulders may be formed, however, in any other suitable manner.

The ends of the electric conductor wires 12 are secured to the inwardly extending portions 17 by means of screws 25, which have screw-threaded engagement with the said members; the ends of the said conductors being wound around the said screws and clamped between the heads of the same and the said portions 17 in the usual well-known manner.

The portions 16 of the contact members are adapted to engage with brushes 30 located in the interior of the receptacle 1. These brushes are secured to angularly-shaped metallic strips 31, which are connected to the receptacle by means of binding screws 32, the latter also being employed as a means of connecting line wires (not shown) to the said strips for the passage of an electric current through the brushes 30, when the latter are in engagement with the contacts 16 of the plug. The contact brushes 30 are of U-shape, as indicated in Fig. II, and

one portion thereof is connected to an arm 33, which is in turn connected to the strip 31. The strips 31 are located in seats formed in the walls of the receptacle, and that the arms 33 are of sufficient length to remove the brushes a considerable distance from the binding screws 32, so that when the plug is removed from the receptacle the electric arc produced has little or no effect upon the ends of the line wires or upon the plate 31 to which the said wires are connected.

It will be observed that the bottom of the plug is entirely closed and that the binding screws 25 are located in depressions or seats formed in the sides of the plug, so that they are practically surrounded by the insulating material of which it is constructed. By means of this construction, it will be noted that only a comparatively small portion of the contact devices 16—17 are in position to be subjected to the action of the electric arc formed when the plug is removed from its receptacle to break the electric circuit.

Having thus described my invention, I claim:—

1. A plug for making electrical connections, comprising a member which is a non-conductor of electricity, the said member having perforations which are located out of alinement upon opposite sides of the said member, contact members located upon the opposite sides of the said member, and having projections extending through the said perforations, securing means extending from opposite sides of the said member and respectively engaging the said projections to secure the contacts in place, and the said member having openings upon its opposite sides communicating with the said perforations.

2. A plug for making electrical connections, comprising a member which is a non-conductor of electricity, the bottom of which member is closed, and the said member having perforations extending from its opposite sides, contacts located upon opposite sides of the said member adjacent to the said perforations, the said contacts having projections which extend into the said perforations, means extending from opposite sides of the said member which engage the respective projections to secure the said contacts in position, and means for connecting electric conductor wires to the said projections.

3. A plug for making electrical connections, comprising a member which is a non-conductor of electricity, the said member having an opening extending through its central portion, and also having perforations extending from opposite sides of the said member transversely of and below the said opening through the said member, and the said member having openings in its opposite sides communicating with the said perforations, contacts located upon opposite sides of the said member in proximity to the said perforations, the said contacts having projections which extend into the said perforations, means for securing the said contacts to the said member and means for securing electric wires to the said projections.

4. A plug for making electrical connections, comprising a member which is a non-conductor of electricity, the said member having perforations which are located upon opposite sides of the said member, contact members located upon the opposite sides of the said member, the said contact members having projections extending through the said perforations, securing means extending from the sides of the said member and respectively engaging the said projections to secure the contacts in place, and the said member having openings communicating with the said perforations.

5. A plug for making electrical connections, comprising a member which is a non-conductor of electricity, the said member having perforations which are located out of alinement upon its opposite sides, contact members located upon the opposite sides of the said member, and having projecting arms extending into the said perforations, securing means adapted to engage the said projecting arms to secure the contacts in place, and means for securing electric conductor wires to the said projecting arms.

In testimony that I claim the foregoing as my invention, I have hereunto signed my name this 21st day of August, A. D. 1907.

WALTER S. MAYER.

In the presence of—

F. WM. FINK,

CHARLES H. RUPELL.