No. 675,690. Patented June 4, 1901.

C. WAGNER.

CONTACT PLUG.

(Application filed Feb. 28, 1901.)

(No Model.)

Fig. 1.

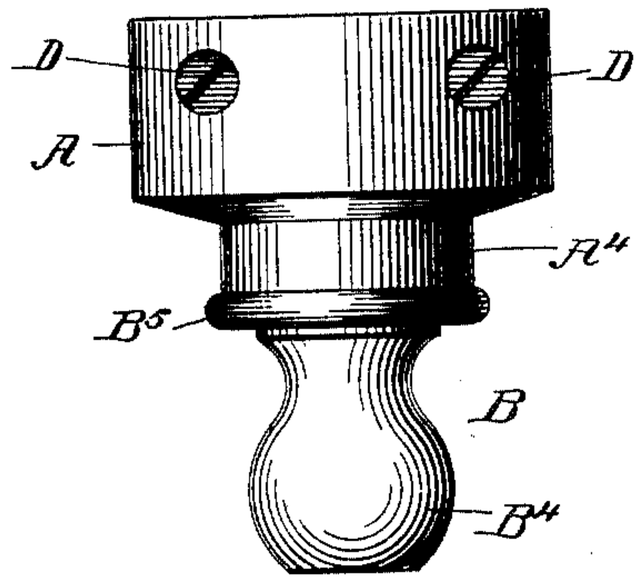


Fig. 2,

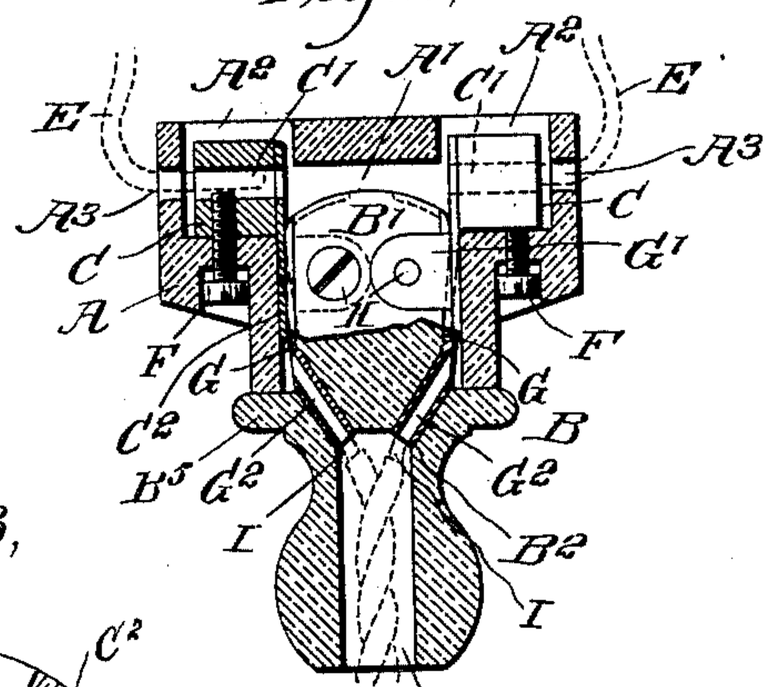


Fig. 3,

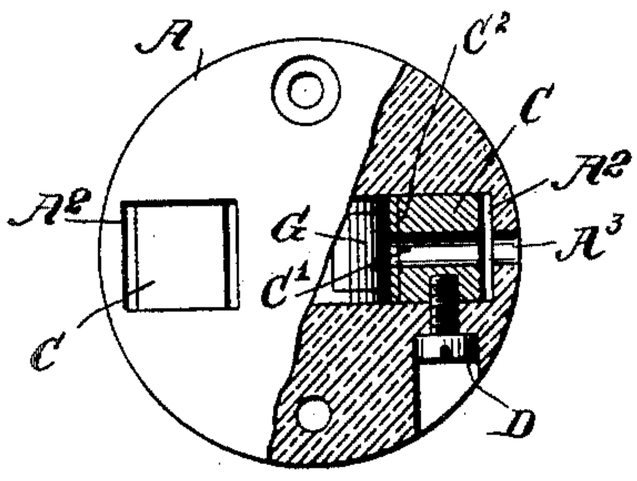


Fig. 4.

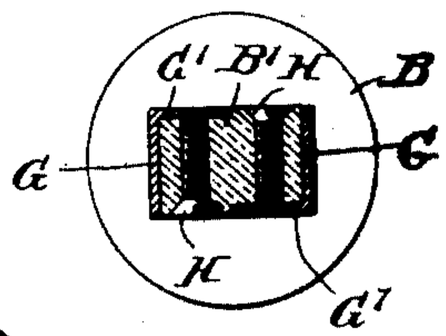
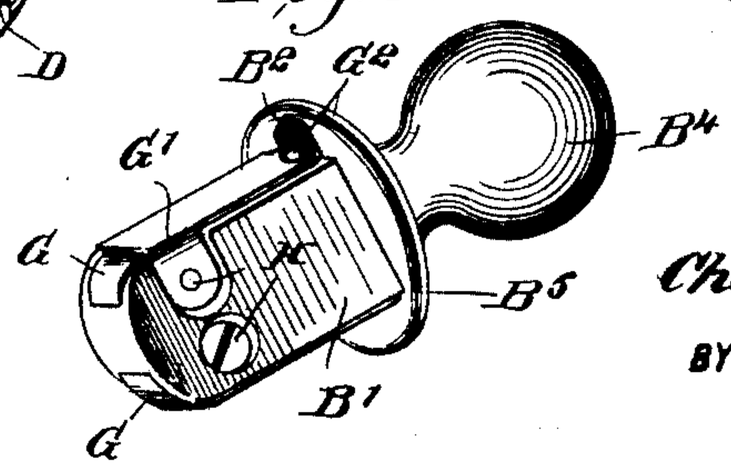


Fig. 5.



WITNESSES:

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CONTACT-PLUG.

SPECIFICATION forming part of Letters Patent No. 675,690, dated June 4, 1901.

Application filed February 28, 1901. Serial No. 49,313. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WAGNER, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Contact-Plug, of which the following is a full, clear, and exact description.

The invention relates to the transmission of electric currents; and its object is to provide a new and improved contact-plug for attachment to walls and other supports and arranged to insure a perfect contact when the plug is in the socket and to allow of conveniently removing the plug from the socket for breaking the contact or inserting the plug to positively make the contact.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the improvement. Fig. 2 is a sectional plan view of the same. Fig. 3 is a rear end elevation of the improvement with parts in section. Fig. 4 is a sectional end view of the plug, and Fig. 5 is a perspective view of the same.

The contact-plug consists, essentially, of a socket A, of porcelain or other suitable non-conducting material, having a recess A′, preferably rectangular in shape, for receiving the correspondingly-shaped shank B′ of a plug B, likewise made of porcelain or other suitable non-conducting material. The recess A′ extends in the socket from the front to within a short distance of the back thereof, and in the back of the socket are formed recesses A^2, connecting at their inner ends with opposite sides of the recess A′, as is plainly indicated in Fig. 2. The recesses A^2 are adapted to receive binding-posts C, secured in place by set-screws D, (see Figs. 1 and 3,) each of the binding-posts being formed with an opening C′, registering with a corresponding opening A^3 in the side of the socket A for the passage of the ends of a wire E, secured in the binding-posts by set-screws F, as is plainly indicated in said Fig. 2. On the inner faces of the binding-posts A^2 are secured or formed spring-arms C^2, extending into the central recess A′ at opposite sides thereof to engage contact-plates G, extending along opposite sides of the shank B′ of the plug B, said contact-plates G having angular arms G′, engaged by set-screws H, to securely fasten the contact-plates G in position on the shank B′ of the plug. The outer ends of the contact-plates G are formed into tubes G^2, extending through angular openings B^2 into a central opening B^3 in the head B^4 of the plug, and said tubes are adapted to receive the ends of wires I, extending through the central opening B^3 in the head, as indicated in dotted lines in Fig. 2.

The inner ends of the contact-plates G are bent upon the rounded inner end of the shank B′, so that the plug can be conveniently inserted in the recess A′ to cause the contact-plates G to readily make contact with the spring-arms C^2 of the binding-posts C. The inward movement of the plug B is limited by an annular flange B^5 on the plug engaging the outer end of the neck A^4 of the socket A, as is plainly shown in Figs. 1 and 2.

The set-screws F for securing the wires E in place in the binding-posts C pass from the front of the socket A into the recesses in the socket to then screw into the binding-posts, as is plainly shown in Fig. 2, while the set-screws D for securing the binding-posts in place are passed into the openings in the peripheral surface of the socket A.

By making the shank B′ and the recess A′ conform to each other in cross-section and placing the contact-plates and spring-arms on opposite sides it is evident that whenever the plug B is placed in position in the socket a perfect contact is made by the spring-arms C^2 and the contact-plates G.

By using porcelain for the socket and plug and arranging the contact-plates and spring-arms in the manner described it is evident that no short-circuiting whatever can take place.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A contact-plug, comprising a socket of non-conducting material and having a recess, binding-posts secured in said socket in the back thereof and having spring-arms extending into the recess, a plug of non-conducting material and having a shank for insertion in the socket, said plug being provided with a central opening in its head from the inner end of which opening lead angular openings, and contact-plates secured to the shank at opposite sides, for engaging the spring-arms in said socket, the outer ends of the contact-plates extending into the angular openings, as set forth.

2. A contact-plug, comprising a socket of non-conducting material and formed with a recess in the front for the plug, said recess terminating short of the back of the socket and recesses in the back in communication with the inner end of the front recess at opposite sides thereof, a plug of non-conducting material and having a shank for insertion in said recess and provided in its head with a central opening from the inner end of which lead angular openings, binding-posts secured in the rear recesses of the socket and having spring-arms extending into the central recess at opposite sides thereof, and contact-plates secured on opposite sides of the shank of the plug, for engaging said spring-arms when the plug is inserted, the outer ends of the contact-plates extending into the angular openings, as set forth.

3. A contact-plug, comprising a socket of non-conducting material and formed with a recess in the front for the plug, and recesses in the back in communication with the inner end of the front recess at opposite sides thereof, a plug of non-conducting material and having a shank for insertion in said recess, binding-posts secured in the rear recesses of the socket and having spring-arms extending into the central recess at opposite sides thereof, and contact-plates secured on opposite sides of the shank of the plug, for engaging said spring-arms when the plug is inserted, said contact-plates having their ends formed into tubes for receiving the ends of a wire, the tubes leading to a central opening in said plug, as set forth.

4. A contact-plug, consisting of a socket having a central recess leading out through its front and recesses in its back one on each side of the central recess and communicating therewith, binding-posts arranged in the rear recesses and having spring-arms extending into the central recess, each post having an opening registering with a lateral opening in the socket, and provided with binding-screws, a plug having a shank for insertion in the recess of the socket and provided in its head with a central opening from the inner end of which lead angular openings, and contact-plates secured to the opposite sides of the shank of the plug and having their outer ends terminating in tubes extending into the said angular openings, as set forth.

5. A contact-plug having a plug proper provided with a shank, and contact-plates on opposite sides of the shank and formed with tubular ends extending through openings in the plug to the central opening thereof, as set forth.

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

CHARLES WAGNER.

Witnesses:
V. F. VON LOSSBERY,
R. MEYER,
STEWART L. SAMSON.