

No. 791,603.

PATENTED JUNE 6, 1905.

H. BEAU & C. PORTILLO.
ELECTRICAL CONTACT DEVICE.

APPLICATION FILED JULY 10, 1902.

FIG. 1.

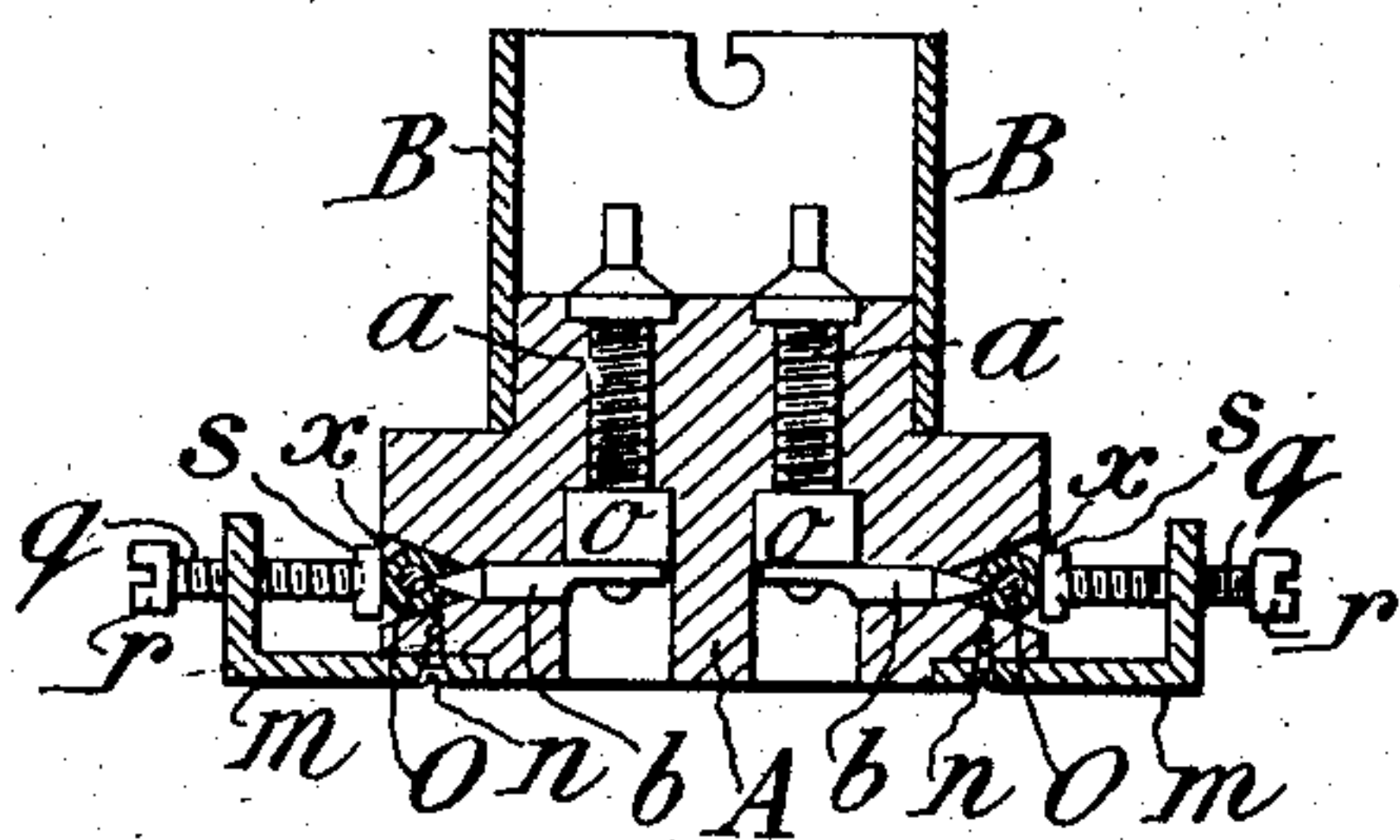


FIG. 2.

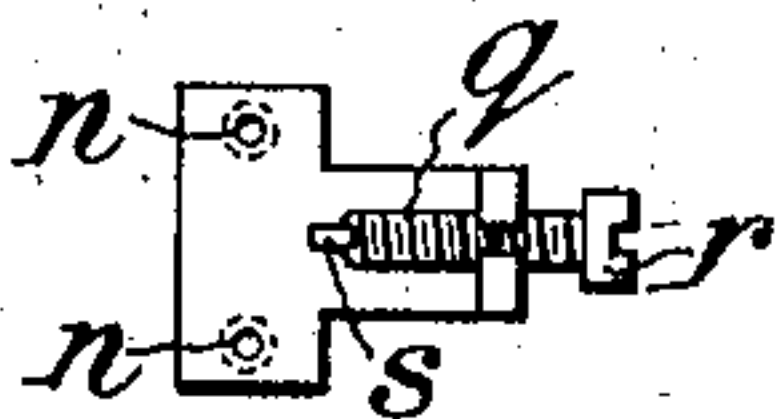
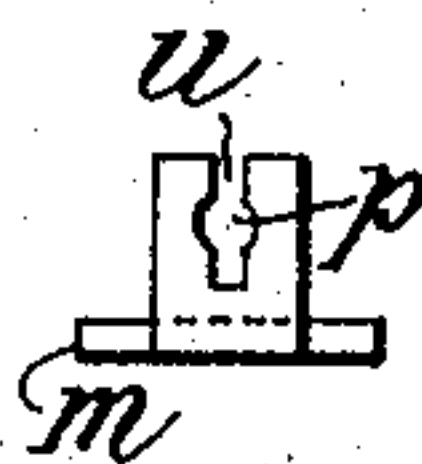


FIG. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRI BEAU, OF PARIS, FRANCE, AND CIPRIANO PORTILLO, OF MADRID, SPAIN.

ELECTRICAL CONTACT DEVICE.

SPECIFICATION forming part of Letters Patent No. 791,603, dated June 6, 1905.

Application filed July 10, 1902. Serial No. 115,005.

To all whom it may concern:

Be it known that we, HENRI BEAU, a citizen of the Republic of France, residing in Paris, France, and CIPRIANO PORTILLO, a subject of the King of Spain, residing in Madrid, Spain, have jointly invented certain new and useful Improvements in Electrical Contact Devices, of which the following is a specification.

Our invention relates to current-taking or contact devices capable of the most varied applications, and operates, essentially, by making contact with or pressing upon bare or insulated conductors by means of screws or pins.

This device is especially adapted for temporary installations or for illumination by means of incandescent electric lamps fixed to wires or cables arranged in festoons or upon walls or for lamps fixed against gratings, constituting panels or surfaces of any kind in the decoration of which electric light is employed.

When we apply our device, as is most generally the case, to insulated conductors, the screws or points which receive the current by means of pressure upon the conductors penetrate the insulating layer, thereby rendering it unnecessary to bare the conductors at the point where the current is to be taken, and all trace of the penetration by means of which the current has been taken at once disappears when the pins are no longer engaged in the insulation after the removal of the current-taking support. The pins which actually make contact with the electrical conductors may advantageously be independent of the parts which effect the clamping, and they may be hidden within the insulated base of the support, thereby preventing the formation of short circuits between the outer rods which effect the clamping, the screw-heads of which might come into contact with metallic or conducting parts. By this construction also the pointed current-taking rods or pins are forced through the insulation and into the conductor with a simple rectilinear movement and are held there by the frictional embrace of the insulation even if the forcing-screw should become a little loosened.

We will now describe a specific embodiment of our current-taking support with reference to the accompanying drawings.

Figure 1 is a cross-section of a lamp-socket support with circular groove and concealed point. Fig. 2 is a detailed plan view of one of the clamping members which cause the point to penetrate the insulation of the conductor. Fig. 3 is an end view of the same part.

The socket-support in the embodiment illustrated is constituted by a circular base or disk A, of wood or other insulating material, in the periphery of which is formed a circular groove α . Upon this support is fixed a socket B, suitably adapted for the reception of an incandescence electric lamp by means of a bayonet-joint. The washer A receives internally rods a , which are screwed therein and which extend within the socket B in order to serve for the adjustment of the lamp and supply the current which is to pass into the filament. These rods terminate below in an enlarged portion o , against which bears the tail of a pin b . The enlarged portion o or the inner contact ends of the rods a may be applied after the rods are screwed in place either by soldering an additional piece on or by upsetting the end of the rod. The two pins b are forced into two diametrically opposite points of the washer A to the bottom of the annular groove α , formed in the periphery of the said washer A, in such a manner that the points of the pins b project slightly within the suitably acute angle of the groove α . The groove α may be V-shaped, as shown, or of other suitable shape for accommodating conductors of different diameters. A bead of solder deposited at the bottom of the holes formed in the washer A insures perfect assemblage of the pointed pins b with the rods a , so that the electric current which has to be taken by the pointed pins b may certainly pass into the rods a and reach the electric lamp in the example under consideration; but it will of course be understood that the electric current reaching the current-contact points in this manner may be utilized for any other purpose than the supply of an electric lamp fitted di-

rectly upon the washer. The groove x of the washer A receives the two insulated conductors O O.

Below the washer A are fixed at two diametrically opposite points metal angle-pieces m , fixed by two screws n , the raised portion of which is pierced by a screw-threaded hole p , through which passes the rod q , which presses on the conductor O, so as to produce contact by the application of the pin b . This screw-threaded rod q terminates externally in a slot-headed head r in order that it may be adjusted by means of a screw-driver, and the other extremity of the rod q is slightly enlarged, as shown at s , in order that it may present a certain height at this point and press efficiently upon the conductor O. In order to permit of the introduction of the rod q into the part m , the angle-piece may present (see Fig. 3) a slot u , permitting of the engagement of the flat head s , so as to bring the rod q up to the screw-threaded hole p . The rod q is then screwed in. By this means the clamping-screw which presses upon the conductor in order that the current-taking pins b may penetrate the insulation and make contact with the metal core does not receive current. This latter reaches the rods a through parts which are entirely within the support.

The current-taking members are concealed within the support. They cannot, therefore, come into contact in any way with outer objects, thus preventing the accidental formation of short circuits.

The current-taking rods may be formed in such a manner as to establish perfect contact with the metal of the conductor. They may be, for example, screw-threaded rods with a pin of greater or less sharpness, or pins may be employed or tongues sufficiently pointed to penetrate the insulation and make contact with the metal to a suitable extent.

What we claim, and desire to secure by Letters Patent of the United States, is--

1. A current-taking support for incandescence-electric-lamp sockets and the like provided with a grooved edge, and comprising pointed current-taking rods held fixed in use and adapted to penetrate the insulation of conductors and to make contact with the metal thereof, and means for forcing such conductors into contact with said current-taking rods, whereby the fixed rods penetrate the insulation and make contact with the conductor by a simple rectilinear movement.

2. A current-taking support for incandescence-lamp sockets and the like provided with a base of insulating material having a grooved edge, and provided also with pointed current-taking rods b held fixed in use and projecting into said grooves and with screw-threaded rods q terminating opposite said grooves, said rods b making contact with the respective terminals of the socket.

3. A current-taking support for incandescence-electric-lamp sockets and the like in the periphery of which is formed a V-shaped groove x for receiving the conductors, said support comprising in combination pointed current-taking rods adapted to penetrate the insulation of the conductors and to make contact with the metal thereof, and means positioned outside of the conductors for forcing such conductors into contact with said current-taking rods, whereby the fixed rods penetrate the insulation and make contact with the conductor by a simple rectilinear movement, the shape of the groove serving to forcibly guide the conductors to the points of the current-taking rods.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

HENRI BEAU.
CIPRIANO PORTILLO.

Witnesses:

MARCEL ARMENGAUD, Jeune,
EDWARD P. MACLEAN.