Sept. 1, 1925 1,552,189

R. B. AUSTRIAN

ELECTRICAL CONNECTER

Filed June 24, 1922

Fig. 1

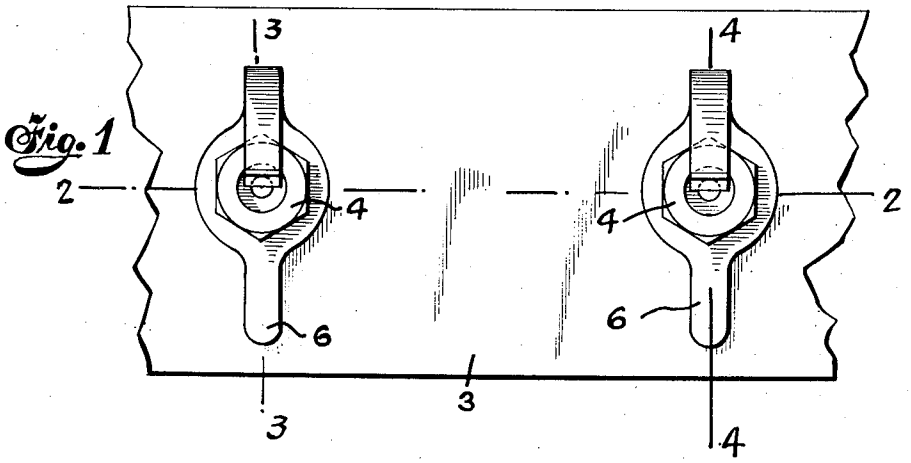


Fig. 2

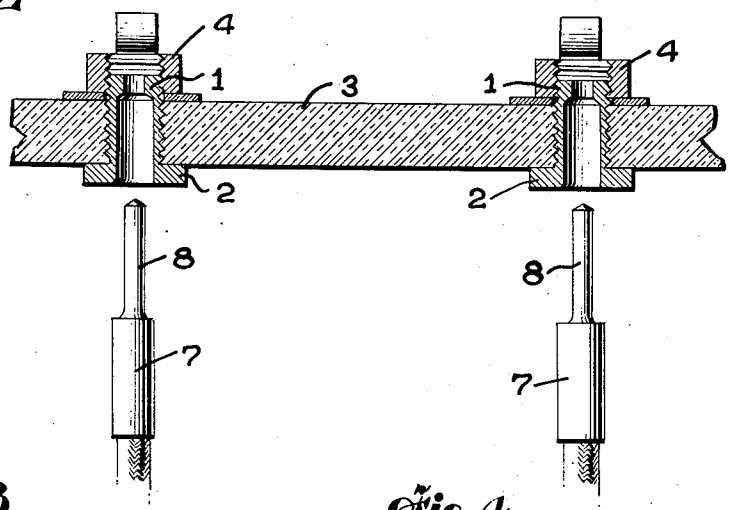


Fig. 3

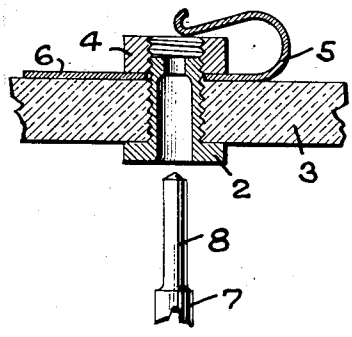
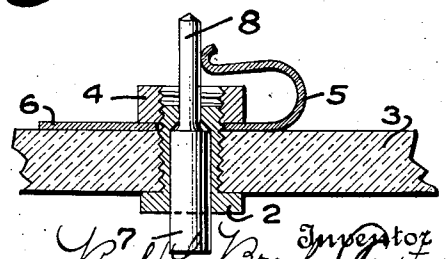


Fig. 4



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By his Attorney
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UNITED STATES PATENT OFFICE.

RALPH BROOKE AUSTRIAN, OF NEW YORK, N. Y., ASSIGNOR TO UNION RADIO CORPORATION, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

ELECTRICAL CONNECTER.

Application filed June 24, 1922. Serial No. 570,654.

To all whom it may concern:

Be it known that I, RALPH BROOKE AUSTRIAN, a citizen of the United States, and a resident of the city, county, and State of New York, have invented an Improvement in Electrical Connecters, of which the following is a specification.

My invention relates to an electrical connecter, particularly adapted for the making of temporary connections in electrical apparatus and aims to provide means whereby a temporary connection may be quickly and securely made with little or no danger of loose connections and a minimum contact resistance. The apparatus of my invention is rugged, simple, inexpensive to manufacture, and adapted to give long wear under exacting conditions of service. It consists of the minimum number of parts, is easily assembled, and when mounted upon electrical apparatus, presents a pleasing appearance to the eye, and occupies a minimum amount of space.

In the drawings I have shown,

In Figure 1, a back view of two of my improved connecters, such as might be used to connect the cords of a telephone instrument,

In Figure 2, a sectional view thereof, taken upon line 2—2 of Figure 1,

In Figure 3, a sectional view of one of the connecters taken upon line 3—3 of Figure 1, showing the apparatus in the unconnected position, and

In Figure 4, a sectional view taken upon line 3—3 of Figure 1, showing the apparatus in connected position.

My improved connecter comprises a cylindrical apertured member 1, which may be provided at its front end with an enlarged flange 2, in order to limit its movement when it is applied to a panel board or other support 3. The member 1 may be screw threaded throughout its length as shown in Figure 2, to permit an engagement with the panel board and is held in position by means of the nut 4, located at the back of the panel board, mounted upon the member 1. Also held in position by the nut 4, is a spring member 5, comprising in its preferred form a single flat piece of metal having an aperture through which member 1 passes having one end bent back upon itself in order to form a contact spring. If desired, an extension of the member 5, such as 6 may be formed to constitute a soldering lug to which the wires of the apparatus may be attached. By the construction shown in the drawings it will be obvious that when the spring engages the portion 8 of the plug as shown in Figure 4, the spring will tend to force the plug in a direction transverse to its longitudinal axis and also, due to the particular structure of the spring, the latter will bear against portion 8 in a downward direction, or longitudinally thus wedging the plug in the aperture. This particular action of the spring on the plug makes the jack self-compensating and in addition provides a constant contact between the spring and jack at all times. The specific form of the member 5 may however be greatly varied, and I do not wish to confine myself to the particular form shown, since it will be obvious that it may be desirable to make many changes, such for instance as making the soldering lug a part of a second member which may be mounted upon the cylindrical member 1, or otherwise changing it as will doubtless be apparent to those skilled in the art. The cooperating member for the parts described above may be in the form of a plug 7, having a reduced end 8, and it is desirable, although not necessary, to make the aperture of the member 1 conform to the shape of the cooperating member. The insertion of the plug 7 causes the spring end of the spring member 5 to be moved from the position shown in Figure 3 to that shown in Figure 4, thereby exerting a considerable spring pressure upon the end 8 of the plug and firmly holding the parts in position. It will be noted that in Figure 3 the spring end of the spring member 5 extends over the aperture in member 1 and that it is moved laterally by the insertion of the plug as shown in Figure 4. A considerable spring pressure is thus put upon the end 8 of the plug 7 with a relatively slight movement of the spring member 5.

The particular modification shown and described in my specification and drawings is that which I at present prefer and is illustrated merely by way of an example and I therefore do not confine myself to the precise details shown and described.

What I claim is:

In a device of the kind described having an apertured member adapted to extend through a board or the like, spring means

comprising a main portion mounted on said apertured member, and a folded portion substantially parallel to said main portion and normally under tension toward said main portion, said folded portion terminating over the before mentioned aperture to engage a plug passing therethrough and pressing against said plug both transversely and longitudinally whereby to wedgingly retain said plug in said aperture.

In testimony whereof, I have signed my name to this specification this 19th day of June, 1922.

RALPH BROOKE AUSTRIAN.