Sept. 15, 1925. 1,553,711

C. E. MYERS

MULTIPLE PHONE BINDING POST

Filed Oct. 19, 1922

Fig. 1.

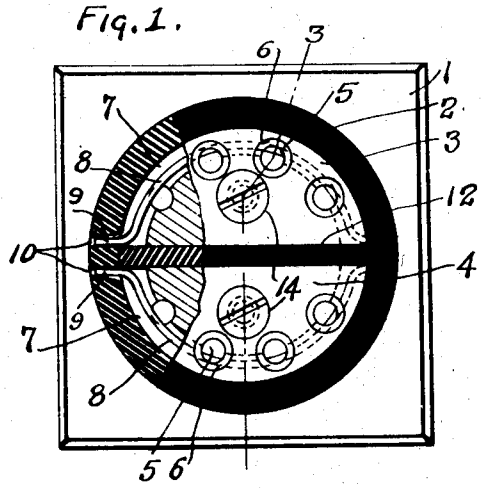


Fig. 3.

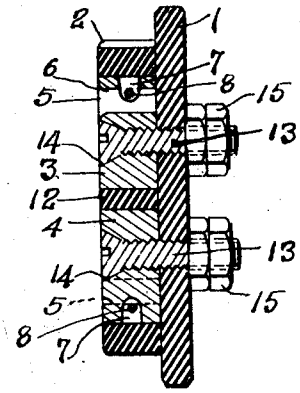


Fig. 2.

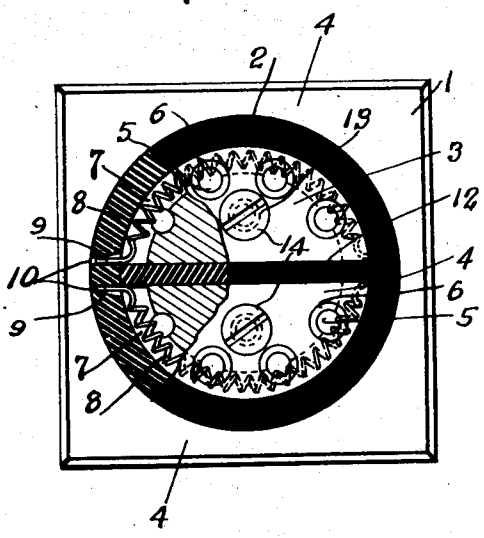
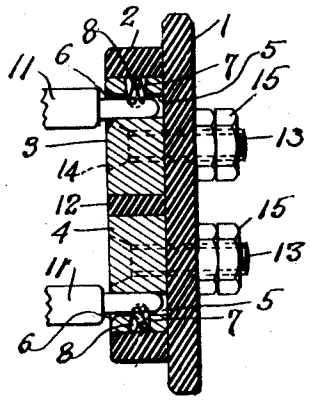


Fig. 4.



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UNITED STATES PATENT OFFICE.

CLARENCE EARLE MYERS, OF DAYTON, OHIO, ASSIGNOR TO THE BARKELEW ELECTRIC MANUFACTURING COMPANY, OF MIDDLETOWN, OHIO, A CORPORATION OF OHIO.

MULTIPLE-PHONE BINDING POST.

Application filed October 19, 1922. Serial No. 595,506.

To all whom it may concern:

Be it known that I, CLARENCE EARLE MYERS, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Multiple-Phone Binding Posts, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to apparatus for reception of radio messages, and in particular to multiple phone binding posts.

It is a further object of my invention to provide a binding post which will automatically and yeildingly engage the phone plugs without the necessity of any special mechanism such as set screws and the like.

It is an additional object of my invention to provide a common binding post for a plurality of phones utilizing two main contacts.

It is a further object of my invention to provide a unit which may be assembled either in the form of a plug or on a board in which the several parts are held together by the two binding posts.

It is a further object of my invention to provide yielding means of engaging the plugs so as to accommodate the varying sizes of plugs, accommodate the wear on the binding post and insure a firm contact between the several parts to form a satisfactory connection.

It is an additional object to provide means of assembling quickly and positively the several parts and to provide a structure which will have the minimum of parts.

Referring to the drawings:

Figure 1 is a plan view with a part of the structure cut away to show the method of location of the resilient engaging means;

Fig. 2 is a similar view showing a modified form of resilient engaging means;

Fig. 3 is a section on the line 3—3 of Fig. 1;

Fig. 4 is a section on the line 4—4 of Fig. 2.

Referring to the drawings in detail:

1 is a supporting board upon which is mounted an insulating ring 2. The board 1 is of insulating material. Within this ring there are located two oppositely disposed semi-circular contact members designated respectively 3 and 4. Each of the members are provided with a plurality of apertures 5 to receive the phone plugs. The mouths of these apertures are tapered as at 6 to facilitate the ready entrance of the plug into the aperture.

A channel-way 7 is cut in the periphery of each of these semi-circular portions 3 and 4 and in the channel-way there is located a resilient member 8 which has its ends 9 inserted in a slot 10 cut in the ring 2.

This resilient member may be of any desired form but I prefer the form shown in Fig. 2 which is a helical spring having the sides of the coils towards the apertures 5 and partially in the path thereof so that as the plugs 11 are inserted each plug will pass between a portion of the coils and be embraced by each, thus preventing lateral movement of the plug, and positively forcing it in engagement with the members 3 and 4.

The members 3 and 4 are separated by an insulating partition 12. These respective halves are fastened to plate 1 by the binding posts 13 which may be either threaded therethrough or projected therethrough having a tapered head 14 flush with the outer surface of 3 and 4 and having their inner threaded ends equipped with nuts 15 for binding the terminal wires thereon.

The spring 8, having its ends 9 in the apertures 10 and also being located in the trough on the periphery of 3 or 4, prevents the relative movement of 3 or 4 with respect to the ring 2, thus locking the several parts together while the dividing partition 12 forces the members 3 and 4 outwardly against the ring 2 and against the resistence of the spring. Thus a compact unit consisting of a few simple parts is provided.

It will be readily appreciated that my invention may be adapted to a multiple phone plug without deviating from my invention, without modifying my invention, or the purposes for which it is to be used.

It will be understood that I do not desire to be confined to the detail embodiment illustrated and described but comprehend within my invention suitable modifications.

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

1. As a new article of manufacture, a connector including a pair of contact members having a plurality of apertures therein, means to insulate said contact members

from one another, a binding post connected to each of said contact members and resilient means arranged within each of said contact members and substantially in a path with the apertures therein for engaging the phone plugs inserted therein, and an insulating member surrounding said contact members adapted to support the free ends of the resilient means and to prevent electrical contact between the free ends of the resilient means, and an insulating support for the entire structure supported thereon by the binding posts.

2. In combination in a multiple phone connector, a pair of semi-circular contact members having a plurality of apertures therein to receive phone plugs, a cutaway portion on the periphery of said contact members adjacent said apertures adapted to receive a resilient means, a resilient means in said cutaway portion in each of said contact members, means to insulate said contact members from one another, and an insulating ring surrounding said members, and supporting free ends of the resilient means so as to prevent contact of said ends with one another.

3. In combination in a multiple phone connector, a pair of semi-circular contact members having a plurality of apertures therein to receive phone plugs, a cutaway portion on the periphery of said contact members adjacent said apertures adapted to receive a resilient means, a resilient means in said cutaway portion in each of said contact members, means to insulate said contact members from one another, and an insulating ring surrounding said members, and supporting free ends of the resilient means so as to prevent contact of said ends with one another, said resilient means consisting of helical springs having the sides of the coils thereof introduced into a portion of said apertures whereby the phone plugs will engage between the portions of said coils and will be held yieldingly against the contact members.

4. In combination in a multiple phone binding post, semi-circular contact members, an insulating partition therebetween, binding posts adapted to locate and support said contact members, said contact members having a plurality of spaced apertures therein and a groove on the periphery of each contact member intersecting a portion of said apertures, a yielding means located in said groove having its free ends located on a line parallel to the transverse axis of the assembly, an insulating ring surrounding said contact members and closing said grooves, said rings having apertures cut therein for the reception of the free ends of the resilient members.

5. In combination in a multiple phone binding post, semi-circular contact members, an insulating partition therebetween, binding posts adapted to locate and support said contact members, said contact members having a plurality of spaced apertures therein and a groove on the periphery of each contact member intersecting a portion of said apertures, a yielding means located in said groove having its free ends located on a line parallel to the transverse axis of the assembly, an insulating ring surrounding said contact members and closing said grooves, said rings having apertures cut therein for the reception of the free ends of the resilient members, and said resilient members consisting of helical springs being located in the path of said apertures and adapted to engage with phone plugs inserted between coils thereof, whereby the several parts are held in yielding engagement with one another.

6. In a multiple phone connector, a combination of plurality of contact members, each adapted to receive a plurality of phone plugs, an insulator for separating the two contact members, resilient means on the connector for holding said phone plugs in mechanical and electrical relation with the contact members, a housing for assembling the contact members, insulator and resilient means into a complete unit, and means for mounting the complete unit on a panel or base, said mounting also providing means for connecting the electrical circuits to the contact members.

In testimony whereof, I affix my signature.

CLARENCE EARLE MYERS.