March 10, 1936. R. L. TRIPLETT 2,033,405

RADIO TUBE SOCKET

Filed May 11, 1933

Fig. 1.

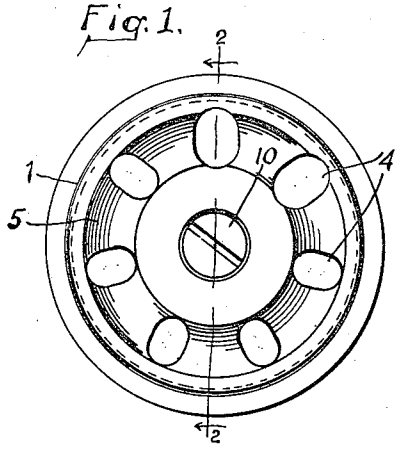


Fig. 3.

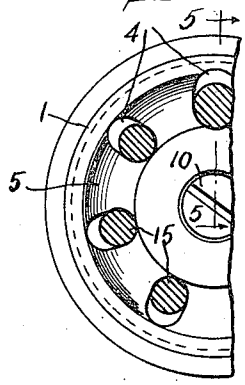


Fig. 4.

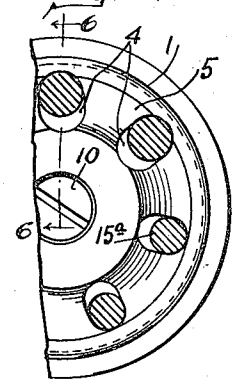


Fig. 2.

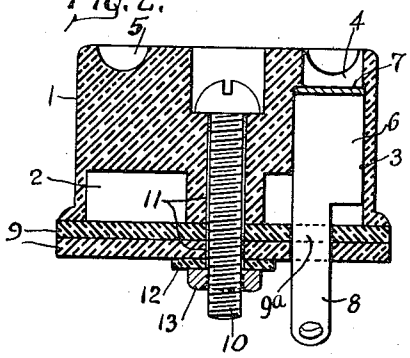


Fig. 5.

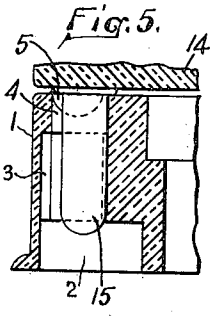


Fig. 6.

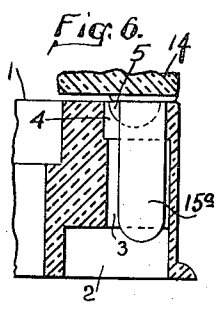


Fig. 9.

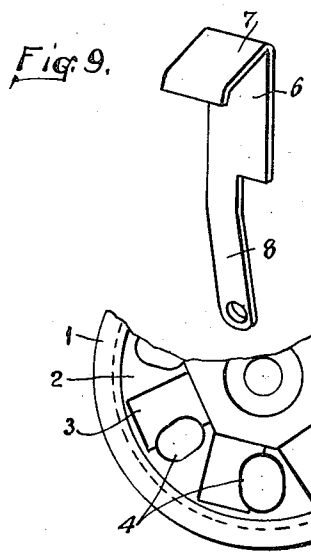


Fig. 7.

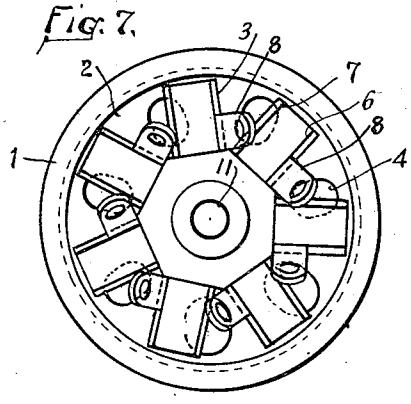


Fig. 8

Inventor

RAY L. TRIPLETT,

BY Toulmin & Toulmin

Attorneys

Patented Mar. 10, 1936 2,033,405

UNITED STATES PATENT OFFICE

2,033,405

RADIO TUBE SOCKET

Ray L. Triplett, Bluffton, Ohio

Application May 11, 1933, Serial No. 670,534

2 Claims. (Cl. 173—328)

This invention relates to improvements in radio sockets, and has for its object to provide a radio socket adapted to receive radio tubes having bases of different sizes, and prongs thereon arranged in different circles.

It is particularly the object of this invention to provide a radio tube socket consisting of a body member having therein a series of holes arranged in a circle around a definite center, with the holes elongated diametrically with relation to the center of the body member so as to accommodate tubes having prongs arranged in different circles.

These and other advantages will appear from the following description taken in connection with the drawing.

Referring to the drawing:

Figure 1 is a top plan view of the socket member.

Figure 2 is a vertical section on the line 2—2 of Figure 1.

Figure 3 is a top plan view showing one side of the socket member, and showing in cross section the prongs of a tube in which the prongs are arranged in a circle of small radius.

Figure 4 is a view similar to Figure 3, but showing in section the prongs of the tube arranged on a larger radius.

Figure 5 is a section on the line 5—5 of Figure 3.

Figure 6 is a section on the line 6—6 of Figure 4.

Figure 7 is a bottom plan view of the socket with the retaining discs removed therefrom.

Figure 8 is a bottom plan view of the socket member with a part thereof broken away, with the retaining discs removed and the contact members removed.

Figure 9 is a view showing one of the contact members.

The socket is composed of a body 1, of some insulating material. This body member may be in various shapes, but is generally in the form of a cylinder which has in one end an annular recess 2. This recess is substantially deep and has on its outer periphery a thin wall and on its inner periphery a projection.

In the material of the body member and in the bottom of the annular recess is a plurality of rectangular pockets 3. These pockets extend substantially through the body member from the annular recess 2. At one edge of each pocket and extending through the remainder of the body is an oblong hole 4. These holes 4 are offset with respect to the pockets 3 in such a manner that substantially one-half of the cross section of each hole is within a pocket, while the other half is formed by cutting out the material of the body adjacent the hole and between the hole and the end of the body remote from the annular recess 2. The position of these holes with relation to the pockets is well illustrated in Figure 8.

Extending around the end of the body remote from the recess 2 is an annular groove 5, in which the ends of the holes 4 terminate. In Figure 9 there is shown a rectangular plate 6, which has one end 7 bent to form a contact member. The other end of this plate 6 has thereon a narrow extension 8, which serves as a binding post or contact member. This plate and its bent end are resilient. Each plate is inserted in one of the pockets 3, against the side of the pocket remote from the hole 4, so that the part 7 of each plate will extend across a hole 4.

The part 7 will when a prong is not in the hole contact with the side of the pocket adjacent the hole 4 so that the plate is held within the pocket because of the spring-like nature of the plate and its bent end 7. The width of the plate 6 is substantially the same as the long dimension of the pocket 3. Figure 8 shows these pockets without the plates therein. Figure 7 shows the pockets with the plates therein. This figure shows that the parts 7 of the plates project across or at least partly across the holes 4.

The holes 4 are for the purpose of receiving the prongs of a radio tube, and since these holes are oblong in radial direction they may receive tubes having prongs arranged in circles of different diameters. For instance, as shown in Figure 3, this socket may receive a tube in which the prongs are located near the diameter and will engage the ends of the holes adjacent the center of the body. In Figure 4 the socket is shown accommodating a tube in which the prongs are arranged on a larger diameter, and in which the prongs engage the ends of the holes remote from the center of the socket.

The recessed end of the body is covered by means of a pair of discs 9, which are held in position by means of a screw 10 passing through holes 11 in the center of the body and the centers of the discs, with the head of the screw located in a countersink in one end of the body. On the other end of the screw is a washer 12 and nut 13. These discs have a plurality of small holes 9a, through which the extensions 8 project.

The radio tube is indicated by the numeral 14, a fragment of which is shown in Figures 5 and 6.

These tubes have the usual prongs 15 and 15*a*, the numeral 15 indicating the prongs arranged on a smaller circle, while the numeral 15*a* indicates the prongs engaged on a larger circle. While the present socket member may be of general use, it is particularly well adapted for use in connection with radios and especially radio tubes.

It will be understood that I desire to comprehend within my invention such modifications as come within the scope of my claims and my invention.

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

1. In an electron tube socket, a body portion having a recess on one side, a plurality of circularly-disposed radially-elongated pin holes communicating therewith from the other side, a plurality of contact fingers in said recess beneath said pin holes, and an annular groove interconnecting the outer ends of said pin holes and having a width substantially equal to the elongated width of said pin holes, said groove being gradually curving in cross section from each of its extreme diameters downward, whereby to guide pins of different diametric spacings into different portions of said elongated holes.

2. In an electron tube socket, a body portion having a recess on one side, a plurality of circularly-disposed radially-elongated pin holes communicating therewith from the other side, a plurality of contact fingers in said recess beneath said pin holes, and an annular groove interconnecting the outer ends of said pin holes and having a width at least as great as the elongated width of said pin holes, said groove being gradually curving in cross section downward from each of its extreme diameters, whereby to guide pins of different diametric spacings into different portions of said elongated holes.

RAY L. TRIPLETT.