

March 1, 1938.

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2,109,771

RADIO TUBE SOCKET AND SUPPORT

Filed Dec. 5, 1936

Fig. 1

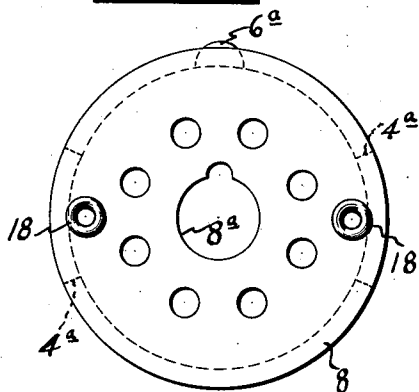


Fig. 2

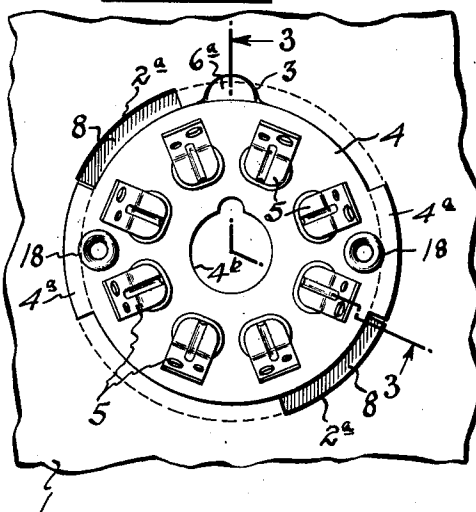


Fig. 3

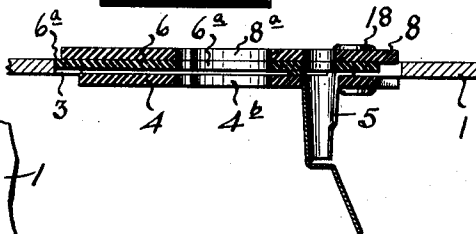


Fig. 4

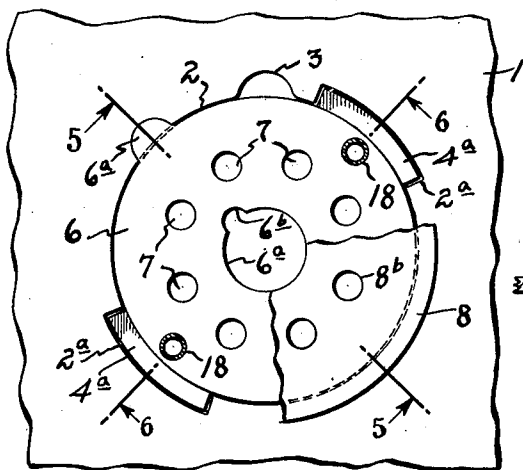


Fig. 5

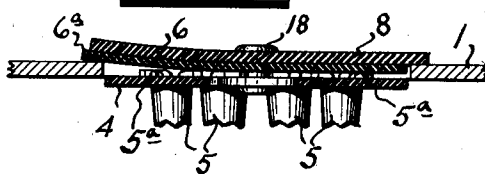
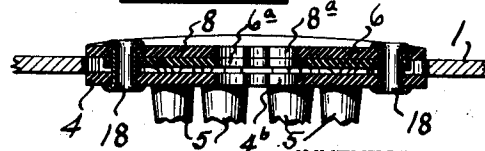


Fig. 6



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2,109,771

RADIO TUBE SOCKET AND SUPPORT

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Application December 5, 1936, Serial No. 114,314

1 Claim. (Cl. 173—339)

This invention relates to improvements in radio sockets by means of which they may be readily mounted on and locked in a suitable support such as a chassis of a radio receiver.

5 The many objects of this invention will be apparent from the following detailed description of several embodiments thereof.

This invention resides substantially in the combination, construction, arrangement and relative 10 location of parts, all in accordance with the following description when taken in connection with the attached drawing.

In the accompanying drawing,

15 Figure 1 is a top plan view of a radio tube socket in accordance with this invention;

Figure 2 is a bottom plan view thereof mounted in a support;

Figure 3 is a cross-sectional view taken on the line 3—3 of Figure 2;

20 Figure 4 is a top plan view of the socket with the top plate partly broken away showing the socket inserted in the support prior to rotation of the socket to lock it in place;

Figure 5 is a cross-sectional view taken on the line 5—5 of Figure 4; and

25 Figure 6 is a cross-sectional view taken on the line 6—6 of Figure 4.

The form of socket shown in Figures 1 to 6 inclusive is of the type now commonly made in which three thin plates of insulating material such as "Bakelite" of substantially circular form are stamped out and clamped together in superposed position. The bottom plate 4 is of substantially circular form but has a pair of ears 4^a concentric with the disc but of larger diameter, as is clear from Figure 2. The disc 4 when the socket is designed for use with metal tubes has a central notched opening 4^b, as is clear from Figure 2 and has a plurality of apertures through 40 which the prong receiving clips or contact terminals 5 may project. These clips are provided with ears 5^a, as is shown in Figure 5, which rest against one face of the disc. A second disc 6 is superimposed upon the first disc so as to lie over the ears 5^a. This disc is substantially circular and is of the same diameter as disc 4, but is provided at its periphery with an ear or lug 6^a, as is clear from Figure 4. It likewise has a central aperture 6^a and a notch 6^b. This disc 50 is provided with a series of apertures 7 positioned so as to be in alignment with the apertures in disc 4 and the terminal clips 5 therein when the plates are superposed. On top of disc 6 is the top or cover disc 8 which is of a diameter substantially 55 equal to the diameter of the ears 4^a of disc 4.

Disc 8 has a series of apertures 8^b in alignment with the aperture 7 of disc 6 when the parts are superposed. At the center of the disc is an aperture 8^a which aligns with the apertures 6^a and 4^b. All of these parts are clamped together by means 5 of eyelets 18.

The support is shown at 1 in the form of a thin metal plate which may be a part of the chassis of a radio receiver for example. It is provided with a central opening 2 which is of substantially 10 the same diameter as the diameter of discs 4 and 6. The aperture is provided with a pair of notches 2^a which are substantially the same shape as the ears 4^a and with a notch 3 of substantially the same shape as the ear 6^a on the disc 6. The 15 socket is slipped into the aperture 2 from the top of the plate, that is downwardly in Figure 5, and downwardly into the plane of the paper in Figure 4 in a position so that the ears 4^a pass through the notches 2^a. The socket is inserted 20 until the projecting rim of the disc 8 overlies the plate. At this time the ear 6^a rests on the plate. The socket is then rotated in any suitable way, as by inserting a tool in the central aperture of the socket and rotating it until the ear 6^a snaps 25 into the notch 3. It will be noted for example that the parts are relatively positioned and proportioned so that the space between the plates of discs 4 and 8 is about equal to the thickness of the support 1. When the ear 6^a clips into the notch 30 3 the socket is permanently locked in place and may not be removed unless the ear 6^a is forced up out of the notch. This provides a simple, inexpensive construction by means of which the locking of the socket in the chassis may be insured in 35 such a way that when necessary the socket can be removed, but which will prevent undesired loosening of the socket.

From the above description it will be apparent to those skilled in the art that this invention 40 involves certain features of construction which may be embodied in other physical forms. By way of example, the ears 25 in the molded construction may be molded as integral parts of the main body of the support, and of course of the 45 same material. I do not therefore desire to be strictly limited to the disclosure as given for purposes of illustration, but rather to the scope of the appended claim.

I claim:

A combination as described, comprising a thin wall having a circular opening therein provided with spaced notches, a thin flexible plate lying in said opening and having a projection lying in one of said notches, a plate of insulating mate- 55

rial on one side of said first plate and overlapping said wall at the opening, a second plate of insulating material lying on the other side of said first plate having ears adapted to pass
5 through others of said notches and overlapping said wall, means for securing all of said plates

together to form a unit, and a plurality of contacts mounted on said unit, said projection moving into its notch when the unit is turned so that said ears overlap said wall.

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