

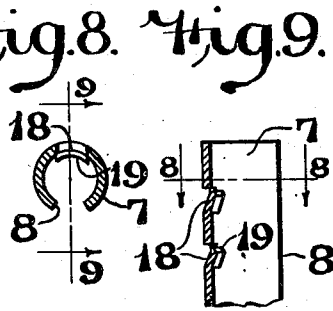
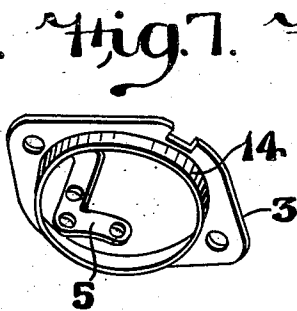
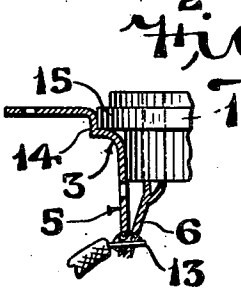
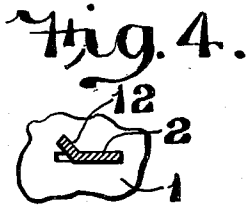
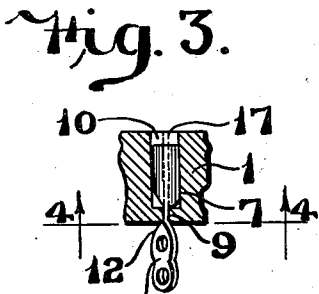
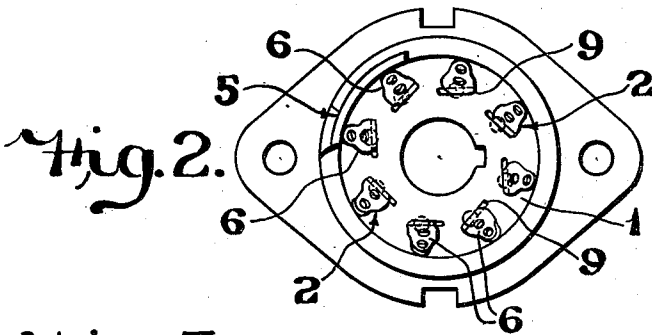
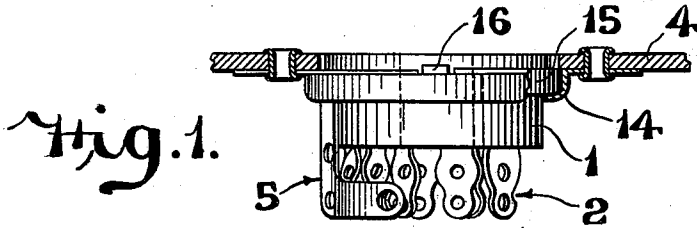
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W. K. HENNING

2,291,808

SOCKET

Original Filed July 23, 1937



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2,291,808

SOCKET

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Original application July 23, 1937, Serial No. 155,214. Divided and this application August 11, 1939, Serial No. 289,520

6 Claims. (Cl. 173-339)

This application constitutes a division of my application Serial Number 155,214, filed July 23, 1937, now Patent No. 2,200,332, issued May 14, 1940.

My invention relates to sockets for vacuum tubes.

One of the objects of my invention is to provide an improved contact and wiring terminal construction which will insure good contact with the tube prongs and will hold the contact and wiring terminal in position securely and definitely.

A further object of my invention is to provide a tube socket construction having an improved ground connection.

Further objects and advantages of the invention will be apparent from the description and claims.

In the drawing in which an embodiment of my invention is shown—

Fig. 1 is a side elevational view of the socket and securing cup;

Fig. 2 is a bottom view of the construction of Fig. 1;

Fig. 3 is a fragmentary sectional view showing a contact and wiring terminal member in position in the base;

Fig. 4 is a sectional view on the line 4-4 of Fig. 3;

Fig. 5 is an elevational view of the contact and wiring terminal member;

Fig. 6 is a fragmentary view showing the ground connection between the wiring terminal and saddle.

Fig. 7 is a perspective view showing the saddle and ground connection.

Fig. 8 is a sectional view on the line 8-8 of Fig. 9; and

Fig. 9 is a sectional view on the line 9-9 of Fig. 8.

Referring to the drawing in detail, the construction shown comprises an insulating base 1, a plurality of wiring terminal contact members 2 mounted on the base, and an annular seat or saddle member 3 in which the insulating base 1 is mounted for securing the base in position on the panel 4. The securing saddle is provided with an integral tongue 5 which may extend downwardly and be electrically connected with one or more of the wiring terminal tongues 6 as shown in Figs. 1, 2, and 6.

The contact and wiring terminal member 2 may be of sheet metal shaped to provide a contact sleeve 7 split along one side only at 8 for engaging the tube prong and wiring terminal

tongue portion 6 extending downwardly through a slot 9 at the bottom of the contact-receiving recess 10. In order to hold the contact and wiring terminal member 2 in position securely and definitely, I provide a notch 11 (Fig. 5) in one edge of the tongue whereby a wing portion 12 is formed having a cut edge shoulder portion which can be bent out so as to lie underneath the insulating base, as shown in Figs. 1, 3 and 4. The wiring terminal tongues 6, after being twisted to the desired position, may be bent outwardly slightly for convenience in wiring and to bring them into position so as to be engageable by the ground connection, if desired, as shown in Figs. 1, 2, and 6.

In making the wiring connection with the wiring terminal which it is desired to ground, the bared end of the wire 13 may be inserted through registering openings in the ground connection 5 and wiring terminal tongue 6 and secured in position by soldering, as shown in Fig. 6.

The insulating base 1 may be secured in the seat or saddle 3 by means of a cupped flange portion 14 underlying a flange 15 on the insulating base 1 and by means of tongues 16 struck inwardly from the seat member 3 and engaging in notches in the insulating base 1, thus definitely positioning the saddle 3 with respect to the insulating base 1 and holding the base firmly in the saddle.

In order to enable the contact and wiring terminal members 2 to be inserted into the recesses in the insulating base, the contact-receiving portion of the recess is provided with a pair of longitudinally-extending grooves 17 leading to the ends of the slot 9 so that in assembly the edges of the tongue 6 can engage these grooves as the contact is being slipped into position. The ground connection 5 may, if desired, be shaped to engage more than one of the wiring terminal tongues 6 as shown in Fig. 2. Also, if desired, more than one ground connection may be provided.

As shown in Figs. 8 and 9, the sleeve portion 7 may be substantially circular in cross section so as properly to engage the cylindrical tube prong and may have tongue portions 18 struck inwardly therefrom having cut edge portions 19 extending transversely of the sleeve portion 7 for scraping engagement with the tube contact.

It will be seen that the construction shown provides a simple ground connection and that the contact and wiring terminal members are held in position firmly and definitely by means of the cut

edge shoulder on the wing portion 12 of the wiring terminal tongue 6.

Further modifications will be apparent to those skilled in the art and it is desired, therefore, that the invention be limited only by the prior art 5 and the scope of the appended claims.

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

1. A tube socket comprising an insulating base, pin-engaging contacts and wiring terminals 10 mounted on said base, and means for mounting said base on a panel comprising a sheet metal member having an annular apertured seat portion in which said base is seated with the wiring terminals extending beyond the apertured seat 15 portion and having portions to be secured to said panel, said sheet metal member having an integral tongue portion extending from and bendable relative to said annular portion adjacent to the apertured seat and extending generally parallel to the wiring terminals axially beyond the apertured seat portion and electrically connected with a wiring terminal to form a ground connection.

2. A tube socket comprising an insulating base, 25 pin engaging contacts on said base, wiring terminals extending laterally from one face of said base, mounting means comprising a sheet metal apertured ring-like member in which said base is seated having integral portions to be secured to 30 a panel, means for preventing relative rotation of said socket and mounting, and an integral downwardly extending bendable integral ground terminal on said mounting terminating adjacent the end of a predetermined socket terminal and 35 in substantial alignment therewith whereby it may be electrically connected thereto.

3. A tube socket comprising an insulating base, pin engaging contacts on said base, wiring terminals 40 extending laterally from one face of said base, mounting means comprising a sheet metal ring-like member in which said base is seated having portions to be secured to a panel, means for preventing relative rotation of said socket and mounting, a downwardly extending ground- 45

terminal on said mounting terminating adjacent the end of a predetermined socket terminal and in substantial alignment therewith whereby it may be electrically connected thereto, and a laterally extending portion on said ground terminal terminating adjacent a second predetermined socket terminal for electrical connection thereto.

4. A mounting for a socket base having wiring terminals extending downwardly therefrom, comprising a centrally apertured sheet metal ferrule having an axis and an internal substantially flange-like support disposed axially at one end of the ferrule to receive said socket and having integral portions for mounting on a support, and an integral downwardly extending bendable ground terminal on said ferrule extending axially away from said integral portions terminating at a point such as to be adjacent the end of one of such wiring terminals and in substantial radial alignment therewith.

5. A socket comprising a base, a ferrule having an aperture defined by an inner edge secured thereon for supporting said base, a plurality of radially positioned sheet metal wiring terminals 30 extending axially from the bottom face of said base and an integral ground terminal depending from and bendable relative to the inner edge of said ferrule and terminating substantially in radial alignment with a predetermined wiring terminal.

6. A socket comprising a base, a ferrule fixed thereon for supporting said base, a plurality of radially positioned sheet metal wiring terminals 35 extending from the bottom face of said base and having wiring perforations adjacent their ends, and a ground terminal depending from and bendable relative to the inner edge of said ferrule and terminating adjacent the end of a predetermined terminal, said ground terminal having a perforation in substantial alignment with the perforation in the adjacent terminal, whereby a single conductor may be inserted through both perforations.

WARREN K. HENNING.