

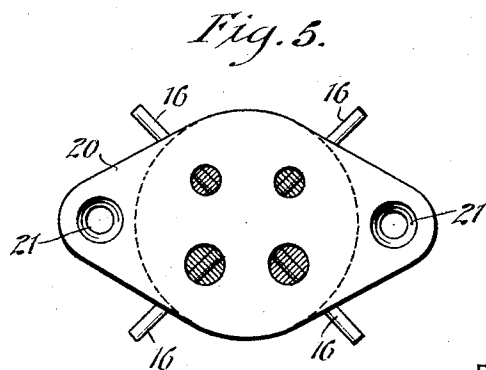
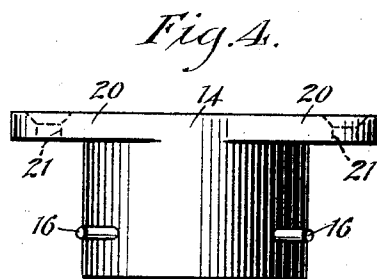
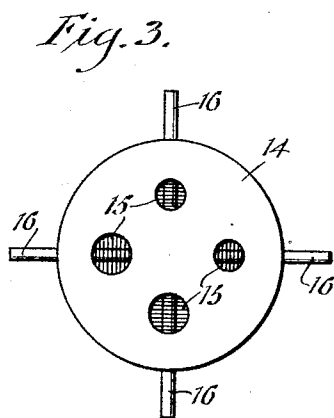
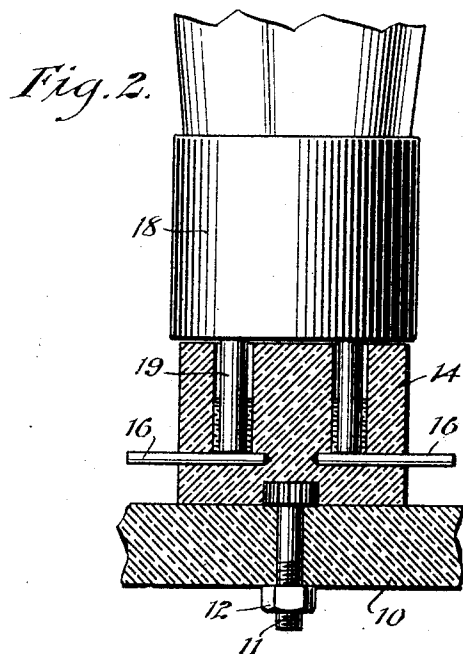
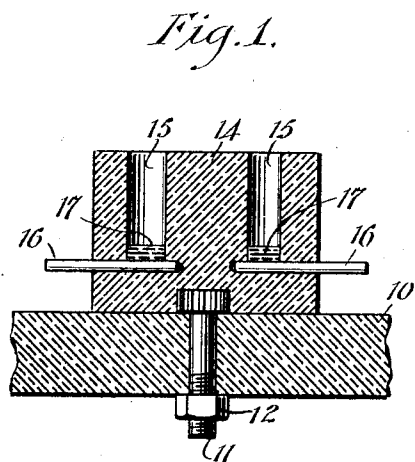
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1,792,973

ELECTRICAL SOCKET

Filed Dec. 4, 1928



WITNESSES

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## UNITED STATES PATENT OFFICE

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## ELECTRICAL SOCKET

Application filed December 4, 1928. Serial No. 323,623.

This invention relates to electrical sockets.

It is among the objects of the present invention to provide an improved electrical socket adapted to insure electrical connection with the prongs of a device received by said socket and suitable electrical conductors associated with the socket.

A further object of the present invention is to provide an electrical socket in which the necessity of resilient means for insuring proper contact is avoided.

Other and more general objects of the invention include the combination and interrelation of parts whereby the whole forms a simple convenient structure especially adapted for the demands of economic manufacture.

With these and other objects and features of the present invention in view, reference may be had to the following specification taken in connection with the accompanying drawings, in which

Figure 1 is a transverse sectional view of one form of my present invention associated with a supporting panel;

Fig. 2 is a similar view illustrating a radio tube associated with my improved socket;

Fig. 3 is a top plan view of my improved socket with the tube removed;

Fig. 4 is a side elevation of a modified form of the invention, and

Fig. 5 is a top plan view of the invention as illustrated in Fig. 4.

Referring more particularly to Figs. 1, 2 and 3, my improved socket is illustrated as supported by a suitable base 10, to which the socket is secured by having embedded therein and thus secured thereto, a depending externally threaded member 11, which is adapted to be received through a suitable aperture in the base 10 and to be secured thereto by engagement of a nut 12 with the external threads of the member 11. Obviously, other means for securing the socket to a suitable support or panel may be provided without departing from the spirit or scope of the invention, this fact being illustrated by the form of the invention illustrated by Figs. 4 and 5, as will be hereinafter pointed out.

The socket forming part of my present invention includes a suitable body 14 here illus-

trated as round but which may be of any desired configuration. The body 14 is preferably formed of hard rubber, glass, or any other desired non-conducting material. The body 14 is provided with a plurality of longitudinally extending bores 15, which extend through the top of the body and terminate short of the bottom thereof. In the present disclosure there have been shown four such bores, this form of the invention being particularly adapted for association with the four-prong radio receiving tube. Extending into the bores 15, there are provided electrical conductors 16. The conductors 16 are preferably cast into the base or body 14, whereby they are permanently associated with the lower end of the bores 15. It will be readily understood, however, that, if desired, other suitable means of securing the conductors 16 within the bores 15 may be provided.

For maintaining efficient electrical conduction between the prongs of an electrical instrument which are received within the bores 15 with the conductors 16, fluid-conducting means, shown at 17, is provided. The fluid conductor is preferably mercury, but may be other suitable fluid electrically conducting material. As illustrated in Fig. 2, an electrical instrument illustrated in the form of a vacuum tube 18, is adapted for mounting upon the base 14, the prongs 19 being received within the bores 15 and being surrounded by the fluid conductor 17, which also contacts with the conductors 16, thus insuring efficient electrical contact between the prongs and the conductors 16.

Referring more particularly to Figs. 4 and 5, the form of the invention herein illustrated, is substantially similar to that form of the invention previously described. The connecting means including the threaded member 11 and the nut 12, is illustrated in Figs. 1, 2 and 3, which, however, is supplanted by the provision of laterally extending apertured flanges 20 associated with the upper end of the body 14. Association of the socket with a supporting panel is provided by suitable fastening means, such as screws or the like, which extend through aperture 21 in the flanges 20.

From the foregoing it will readily be seen that by the use of my present invention, the fluid conducting means prevents corrosion of the prongs 19 and that the lack of uniformity in the length of the prongs will not militate against the proper conduction of electrical energy between the prongs 19 and the conductors 16. It will further be seen that the invention is well suited to the demands of economic manufacture and that its simplicity of construction and operation is such as to increase its efficiency. It will be readily understood that from time to time the conducting fluid 17 may be added to to compensate for losses thereof.

What is claimed is:

An electrical socket including a body, longitudinal bores in said body, electrical conductors cast in said base communicating with said bores, fluid conducting means within said bores and in contact with said conductors, whereby conducting prongs received within said bores will be caused to have electrical conduction with said bores through said fluid means, and means for securing said socket to a supporting panel, said means including a threaded fastening device embedded in the bottom of said body and extending therefrom.

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