July 13, 1948. E. L. METTZ 2,445,033

RADIO PLUG ADAPTER

Filed May 23, 1947

Fig. 1.

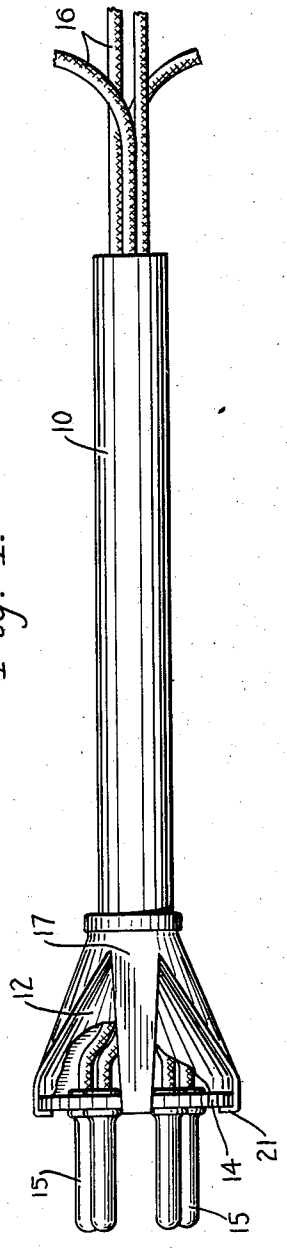


Fig. 2.

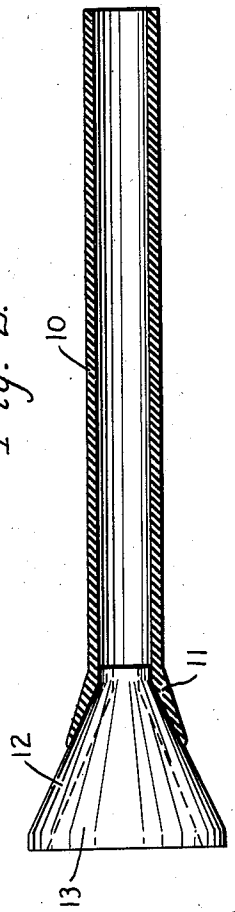


Fig. 4.

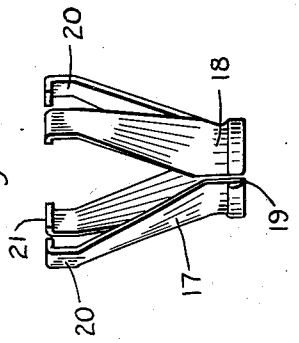
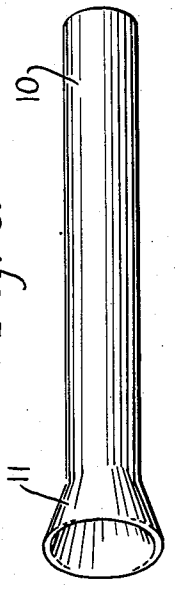


Fig. 3.



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RADIO PLUG ADAPTER

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3 Claims. (Cl. 173—361)

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This invention relates in general to connectors and more particularly to electrical plugs.

It is a primary object of my invention to provide an electrical connector that will prevent the conductors thereto from being pulled out.

It is another object of my invention to provide an electrical connector having a protector to prevent pulling loose the conductors which frequently causes short circuits and damage to electrical components.

It is another object of my invention to provide an electrical plug having an outer clamp which surrounds the conductor carrying portion to prevent the pulling out of the conductors.

The above and other objects and advantages will become readily apparent when the following specification is read in conjunction with the accompanying drawings in which

Figure 1 is a side view of a connector plug embodying my invention.

Figure 2 is a longitudinal cross-sectional view of the connector plug illustrated in Figure 1 without the core, contact pins and conductors.

Figure 3 is a side view of the flexible sleeve utilized to enclose the conductors in the connector illustrated in Figure 1.

Figure 4 is a front view of the clamp member utilized in the device illustrated in Figure 1.

Referring to Figures 1 and 3 it is seen that the reference numeral 10 refers to a flexible tubing having a flared end 11. The flared end 11 is proportioned to be fitted over a conical shaped core 12 formed of insulating material and having a hollowed-out portion 13. A thin insulating wafer 14 is provided with a plurality of male pins 15. The ends of conductors 16 are fastened to the interior of the pins 15 in the usual manner by soldering or other suitable means.

In order to hold the wafer 14 tightly against the end face of the core 12 there is provided a metal clamp 17. The metal clamp 17 is of crown-like configuration and comprises a base 18 which may be split at 19 to permit ease in fitting the clamp over the core 12. Extending upwardly and outwardly from the base 18 are a plurality of prongs 20 each having a bent- over portion 21 at the outer extremity thereof for pressing tightly the wafer 14 against the core 12. The lower portion 18 of the clamp 17 is made of conical shape to fit the lower portion of the core 12 over which the flared portion 11 of the flexible tube 10 is placed.

In assembly, the conductors 16 are drawn through the flexible tube 10 and the core 12. The bared ends of the conductors are then soldered

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into the hollow pins 15 in the usual manner. The flared portion 11 of the flexible tube 10 is then fitted over the small end of the core 12. Base 18 of the clamp 17 is placed on the flare 11 and pushed up so that the prongs 20 extend the full length of the core 12 and the bent-over portions 21 are pressed against the wafer 14 as illustrated in Figure 1.

My connector may be advantageously used in radio equipment for such purposes as a loudspeaker connector or as a battery plug for those radio sets utilizing dry batteries.

In removing the plug or connector it is necessary only to grasp the flexible tube 10 and pull. Such action places no strain upon the conductors 16 and there is thus no danger of the conductors being pulled loose and causing a short circuit.

Changes and modifications may be made in the device without departing from the spirit of the invention. Having thus described my invention, what is claimed is:

1. An electrical connector comprising a hollow core, a flexible tube having one end flared to fit over one end of said core, a wafer having a plurality of contact pins, said wafer adapted to be held against the other end of said core, a clamp having one end shaped to grip and press the flared end of the flexible tube, prongs on said clamp, and bent over portions on the end of each of said prongs for clamping said wafer against said core.

2. An electrical connector comprising a hollow tapered core, a flexible tube having a flared end adapted to fit over the small end of said tapered core, a wafer of insulating material having a plurality of contact pins thereon, said wafer adapted to be positioned against the other end of said core, a clamp of crown-like configuration, elongated prongs on said clamp, said clamp adapted to encircle and grip the flared portion of said flexible tube, said prongs being positioned to overlay said core, and a bent-over portion on the end of each of said prongs for gripping said wafer.

3. An electrical connector comprising a hollow tapered core of insulating material, a flexible tube having a flared end to fit over the small end of said tapered core, a wafer of insulating material, a plurality of contact pins mounted on said wafer, a clamp having a base adapted to encircle and tightly grip the flared portion of the flexible tube, said clamp being of crown-like configuration and having a plurality of prongs extending from the base adapted to overlay the outside of said core.

and means on the end of each of said prongs for pressing said wafer against said core.

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