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HEARING AID CONNECTION

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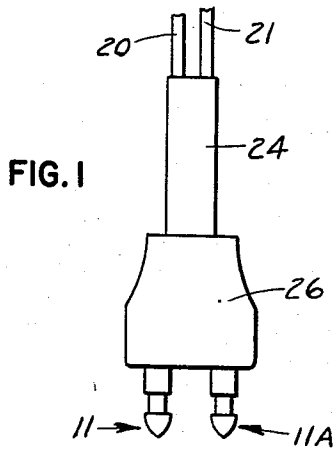


FIG. 1

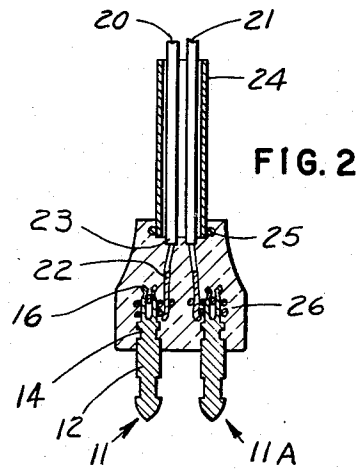


FIG. 2

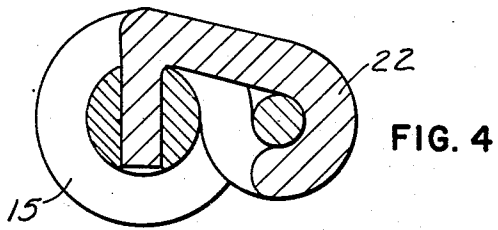


FIG. 4

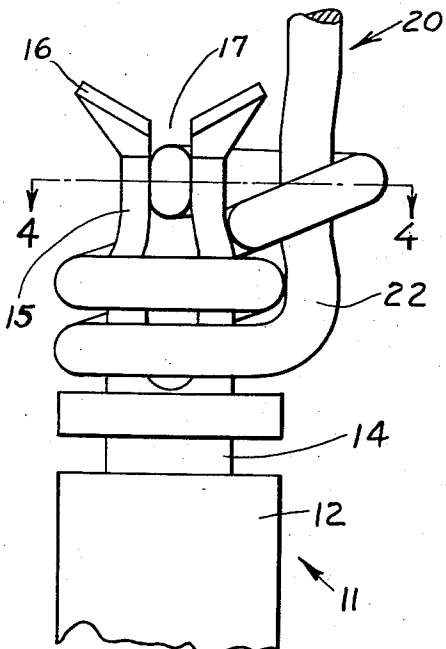


FIG. 3

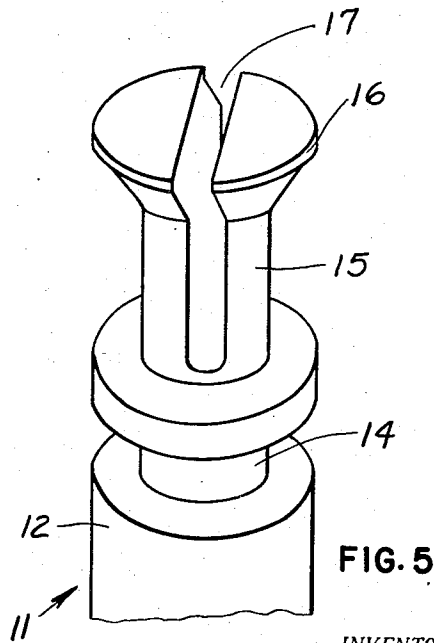


FIG. 5

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**HEARING AID CONNECTION**

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2 Claims. (Cl. 339-105)

This invention relates to hearing aid connections and more particularly to a mechanical means of connecting the tinsel wire to the prong connections for the transmitter and the receiver.

One of the objects of the present invention is to provide a mechanical means for connecting the tinsel wire to a prong in a hearing aid.

Another object of the present invention is to provide a light weight, sturdy, easily manufactured, pleasantly appearing connection of a tinsel wire to a prong in a hearing aid.

A hearing aid consisting of a receiver worn in the human ear and a transmitter carried on the person, must of necessity, be light in weight and pleasantly appearing. Persons with a hearing deficiency are usually sensitive to their disability and to the mechanical hearing aid which they use.

In the past manufacturers have used every effort to keep the hearing aid, light in weight, small in size and pleasantly appearing. This effort resulted in a delicate instrument not given to use or the slightest abuse. The result has been costly repairs and inconvenience by lack of use of the instrument to the user.

The present invention tackles and overcomes one of the major problems of hearing aid failure, namely, the disconnection of the extremely delicate tinsel wire from the prong. In any electrical wire device, persons pull on the wire instead of gripping the connection and pulling on it. In a hearing aid the connection is so extremely small that necessity plus convenience leads to cord or tinsel wire pulling when the prongs are to be disconnected from the transmitter or the receiver.

With these and other objects in view, the invention consists of certain novel features of construction which will be more fully described and particularly pointed out in the appended claims.

Like reference numerals refer to like parts in the accompanying drawings in which:

Figure 1 is a side elevational view of a hearing aid prong embodying the present invention.

Figure 2 is a longitudinal cross-sectional view similar to Figure 1.

Figure 3 is a greatly enlarged fragmentary side elevational view of a prong with tinsel wire connection.

Figure 4 is a horizontal cross-sectional view taken along line 4-4 of Figure 3.

Figure 5 is a fragmentary perspective view of the end of a prong.

In proceeding with this invention, having particular reference to the drawing, two prongs generally indicated at 11 and 11A are provided of exactly the same construction each having a body 12, a circular recess 14, a shank 15, a mushroom head 16 and a slot 17 which extends through head 16 and into shank 15.

A tinsel wire is provided consisting of two strands gen-

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erally indicated at 20 and 21 comprising a copper wire 22 having a fabric covering 23 which is cut back to provide a bare wire connection to prong 11. The bare copper wire 22 is wound around shank 15 and tied into a knot with the bitter end of the wire positioned in slot 17. Mushroom head 16 is then upended to squeeze wire 22 tightly in slot 17. It will be noted that no matter what the pull on strand 20 the connection between wire 22 and shank 15 will withstand the tensile strength of the copper wire 22 itself because the knot absorbs a major portion of the pull force while the closed slot 17 anchors the end of wire 22.

Strands 20 and 21 are encompassed by a covering 24 which is gripped on one end by a loop of wire 25. Prongs 11, 11A, the end of covering 24 and bare copper wire 22 are covered with molded plastic 26 which forms a plug body 26 for engagement with either a transmitter or a receiver. The molded plastic flows around circular recess 14 to form an anchor or binding means or plug body for prongs 11, 11A.

Thus it will be seen that a sturdy, neat appearing hearing aid connection is provided which is light in weight and durable in construction.

Having illustrated and described one embodiment of the present invention, by way of example, but realizing that structural changes could be made and other examples given without departing from either the spirit or scope of this invention.

What I claim is:

1. A hearing aid connection consisting of a prong body, a circular recess in said prong body, a shank terminating in a mushroom head on one end of said prong body, a slot extending through said mushroom head and into said shank, a covered wire provided with a bare end, said bare end wrapped in convolutions around said shank with the extreme end gripped in said slot, said wire slip knotted to snub said wrapped convolutions around said shank said mushroom head retaining said convolutions on said shank, a molded plug body encompassing part of the covered wire, all of the bare wire, the convolutions, the knot, shank and circular recess to form an integral unit.

2. A hearing aid connection consisting of two prong bodies, a circular recess in each said body, a shank adjacent said circular recess, a mushroom head on the end of each shank, a slot in said mushroom head extending into said shank, a covered wire consisting of two strands provided with bare wire ends, a covering encompassing said wire strands terminating at said bare ends, each bare wire end having a multiple number of turns around the respective shank of each prong body with said bare wire formed into a knot having the bitter end of said wire located and gripped in the respective slot, said knot snubbing said turns around the respective shank and against the respective mushroom head, a non-conducting electrical material molded around said two prongs, including the circular recesses, bare wire, shanks, turns, knots, mushroom heads and said covering encompassing said wire strands to form a plug body having the ends of said two prongs projecting therefrom on one end and said two wire strands extending from the other end thereof.

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