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2,438,006

ELECTRIC CORD

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FIG. 1

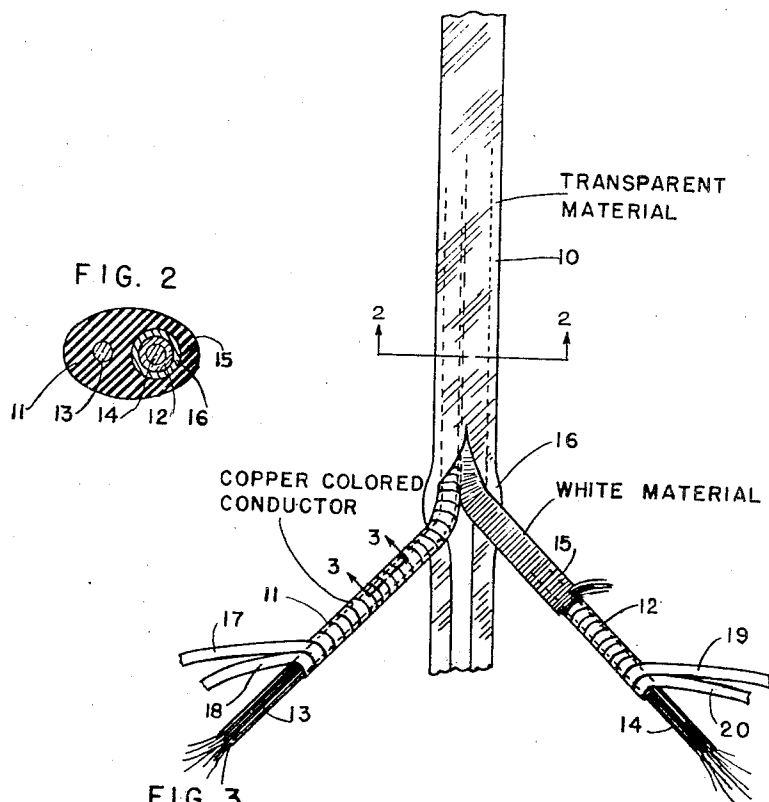


FIG. 2

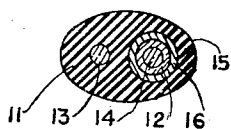
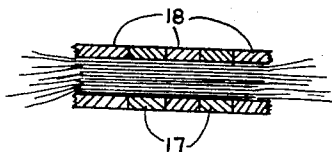


FIG. 3



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ELECTRIC CORD

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4 Claims. (Cl. 174—112)

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This invention relates to electrical cords such as are particularly useful in electrical apparatus such as wearable hearing aids or the like.

In such portable or wearable electrical apparatus as hearing aids, it is desirable that electrical cords connecting various parts of the apparatus, for example, the cord extending between the amplifier case and earpiece be of pleasing and inconspicuous appearance. Many persons whose hearing is impaired and who should wear a hearing aid decline to do so because, among other reasons, of the unsightly appearance of the cord extending from the amplifier case to the receiver and because of a feeling that such cord when contrasted to the color of their skin makes them conspicuous.

It is therefore an object of the present invention to provide an improved wearable electrical cord having a pleasing appearance and one which tends to make the wearer thereof feel less conspicuous because of its presence.

Another object of the present invention is to provide an electrical cord having a white-pinkish color which blends in well with the color of the skin of persons of the white or Caucasian race.

A further object of this present invention is to provide an improved electrical cord of a color resembling that of flesh color, of simple inexpensive construction and of a minimum number of component parts.

The features of the present invention which are believed to be novel are set forth with particularity in the appended claims. This invention itself, both as to its organization and manner of operation, together with further objects and advantages thereof, may best be understood by reference to the following description taken in connection with the accompanying drawing in which:

Figure 1 shows an elevational view of an end of an electrical cord embodying the present invention;

Fig. 2 shows a sectional view taken substantially on line 2—2 of Fig. 1; and

Fig. 3 shows a sectional view taken substantially on line 3—3 of Fig. 1.

The electrical cord 10, of white-pinkish color resembling the color of the skin of persons of the white or Caucasian race, comprises copper conductors 11 and 12 formed respectively on strands 13 and 14 of rayon, silk or other similar material for stiffness of assembly. The conductors 12 are covered with nontransparent rayon or silk 15 of white color and conductors 11 are bare. Conductors 11 and 12 lie parallel and are encased in

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a tube of flexible transparent material 16 preferably of a transparent plastic such as that bearing the trade name "Vinylite".

The conductors 11 and 12, which are preferably of copper or copper color, and which may, for example, extend between the amplifier case and earpiece or bone conductor, or between batteries and amplifier case in hearing aid apparatus, need only be of small current capacity. In the preferred embodiment shown, conductors 11 and 12 comprise, respectively, pairs of conductors 17, 18 and 19, 20, each having a rectangular cross section and being wound in side-by-side relationship on the respective strands 13 and 14, as shown in Fig. 3. Such conductors 17, 18 and 19, 20 of small cross section are wound respectively on strands 13 and 14 of some flexible material such as rayon, to provide flexibility and freedom from breakage in the copper conductors and also to make it easy to wind the conductors 11 and 12 on the strands 13 and 14. It is understood, however, that solid or braided conductors may be moulded in the transparent casing 16 without initially mounting them on such strands 13 and 14, but an advantage resides in winding at least a pair of conductors in side-by-side relationship to form the composite conductor 11 in Fig. 1 in that the spacing, however small, between adjacent edges of conductors 17 and 18 causes desirable discontinuities in the light reflected from the conductor 11 to produce the desired appearance while providing a high degree of flexibility.

It is an important feature of the present invention to cover only one of such conductors 11 and 12 with a material 15 with a whitish color such as white rayon and to embed or mould the white covered conductor and the bare copper conductor 11 in side-by-side relationship within transparent material 16 such as a plastic, preferably "Vinylite."

Plastics, such as "Vinylite," are moulded around the two parallel extending conductors by extrusion.

The bare conductor 11 and covered conductor 12 are preferably moulded as shown in Fig. 1 in parallel extending relationship without twist with respect to casing 16. A similar effect to that produced by those parallel extending conductors may be achieved by twisting the conductors 11 and 12 prior to moulding them in the plastic material.

It is noted that transparent plastics such as "Vinylite" have a refractive index in the range of 1.5 to 1.6 and inasmuch as the cross section of the cord is oval shaped as shown in Figure 2

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the embedded copper conductor is viewed to a large extent by refracted light rays. Such being the case, the copper conductor 13 for all practical purposes in use is visible at substantially all angles when viewed by an observer.

This is particularly true where the transparent plastic is polymerized resins of the vinyl type known as "Vinylite."

While the particular embodiments of the present invention have been shown and described, it will be obvious to those skilled in the art that changes and modifications may be made without departing from this invention in its broader aspects, and, therefore, the aim in the appended claims is to cover all such changes and modifications as fall within the true spirit and scope of this invention.

I claim:

1. A flesh-colored cord for people of the white race comprising, in combination, a pair of conductors encased in a transparent plastic material, one of said conductors being of copper color and the other conductor being covered with whitish material whereby the assembled cord has a color resembling flesh color.

2. An electric cord comprising a copper-colored conductor, a second conductor extending parallel with said copper-colored conductor, a whitish-colored covering over said second conductor, and a transparent sheath over both said conductors and said cover.

3. An electric cord comprising a flexible copper-colored conductor, a flexible whitish-colored

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conductor lying alongside said copper-colored conductor, and a transparent sheath over both said conductors.

4. A flesh-colored cord for people of the white race comprising, in combination, a pair of conductors at least one of which comprises a pair of copper-colored conductors wound over a core in side-by-side relationship to produce discontinuities in light reflected from said one conductor, a whitish nontransparent covering for the other conductor, and a transparent material encasing said pair of conductors.

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