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3,095,523

MEANS DISCHARGING STATIC ELECTRICITY FROM HAIR

Filed April 10, 1961

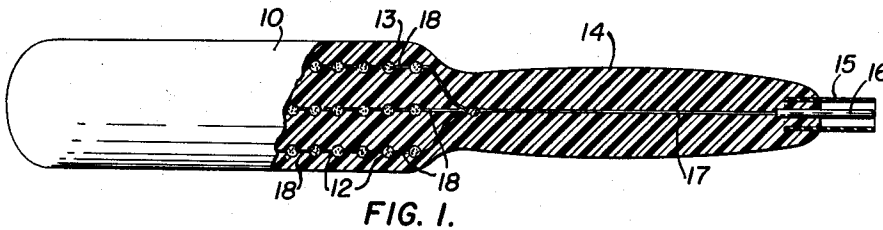


FIG. 1.

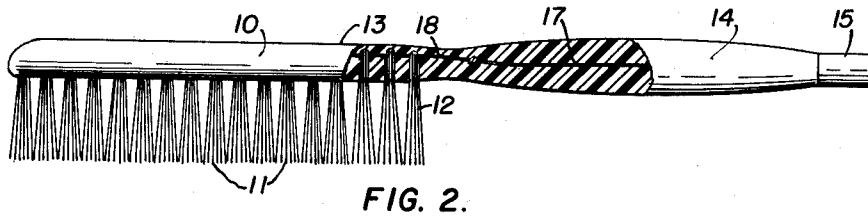


FIG. 2.

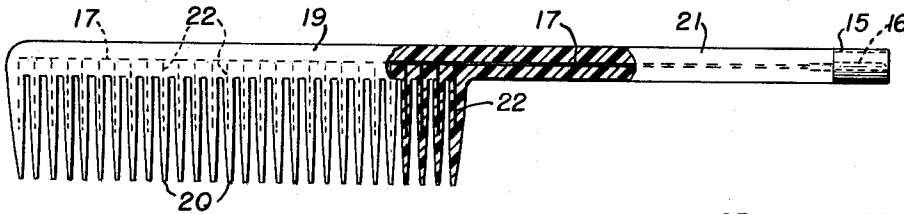


FIG. 3.

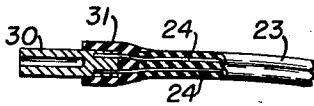


FIG. 4.

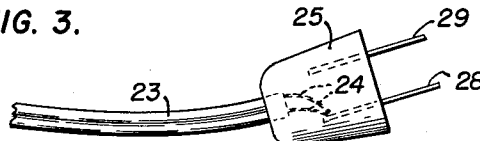


FIG. 5.

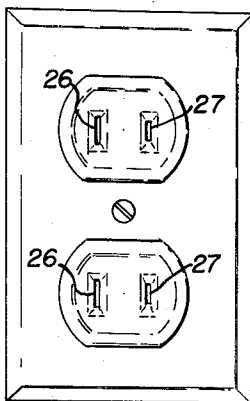


FIG. 6.

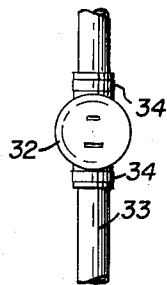


FIG. 7.

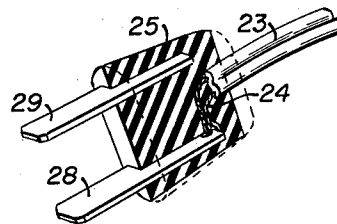


FIG. 8.

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3,095,523 MEANS DISCHARGING STATIC ELECTRICITY FROM HAIR

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2 Claims. (Cl. 317-2)

This invention relates to an apparatus for bleeding off or discharging the static electricity from a person's hair while brushing or combing it and thus prevent the hair from standing up or spreading out in a manner to interfere with its proper styling. In order to accomplish this continuous discharge of static electricity from the customer's hair it is necessary to have the comb or brush grounded while in use. There are two satisfactory grounding connections available in all beauty shops, the plumbing system and the neutral wire in the electrical system. The piping may be exposed in only a few inaccessible places in a modern beauty shop but every operator's station is supplied with standard electrical outlets, and it is to the utilization of this source of grounding that this invention is primarily directed.

One of the problems encountered by beauty operators is static electricity. Under certain atmospheric conditions the build-up of static electricity in a customer's hair, especially when dried after being shampooed, makes the hair so unruly that it is sometimes difficult to dress it properly, particularly with the modern puff styles. This condition seems to have become even more annoying with the introduction of so many dielectric and static generating plastics in the manufacture of brushes and combs. Under normal conditions much of this static electricity can discharge through the hands of the operator, but if the brush or comb handle is made of a material having high dielectric strength, as is true of many modern plastics, discharge in this manner is almost completely inhibited.

The manner in which this purpose is accomplished will be clearly understood from the following description and the accompanying drawing, in which:

FIGURE 1 is a partly sectional top view of a hairbrush equipped with this invention.

FIGURE 2 is a partly sectional side view of the hairbrush shown in FIGURE 1.

FIGURE 3 is a partly sectional side view of a comb similarly equipped.

FIGURE 4 is a partly sectional detail of one end of a special extension cord.

FIGURE 5 is a detail of the other end of the same cord.

FIGURE 6 is a sectional detail of the plug shown in FIGURE 5.

FIGURE 7 is an elevational view of a standard electrical wall outlet shown for reference.

FIGURE 8 is a general elevational view of an optional electrical connection clamped to a water pipe.

I have found that if an electrical conductor is embedded in the handle of a comb or brush, with branches in contact with the base of each tooth or tuft of bristles, and said conductor is then connected to an extension cord which is properly grounded, there is no further difficulty from accumulation of static electricity in the customer's hair. Referring to FIGURES 1 and 2, a hairbrush 10 of conventional appearance, has the usual bristles 11 of dielectric material made into tufts 12 which are molded or inserted into holes in the base 13. The base 13 of the brush 10 is integrally molded to a conventional handle 14 except that the handle 14 is modified to accept at its extremity a dielectric ferule 15 containing a projecting electrical connector 16. Embedded in the handle 14 is

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an electrically conductive wire 17 in contact with the connector 16 and having branches 18 leading to and in contact with the bases of the tufts 12. In FIGURE 3 a plastic or hard rubber comb 19 having teeth 20 and handle 21 is similarly equipped with ferule 15 and connector 16 and electrically conductive wire 17 having branches 22 extending into the base of each tooth 20.

Referring now to FIGURES 4, 5 and 6, an insulated extension cord 23 having flexible wires 24 is affixed to an outlet plug 25. It is to be noted that although a single wire extension would suffice, the bulk of extension cord on the market is manufactured with two wires and it would be more expensive to use a specially ordered single wire extension than to adapt the standard two wire extension to this use. Both wires 24 of the cord 23 are therefore attached to a female electrical connector 30 which is molded to the cord 23 by an insulating sleeve 31.

As shown in FIGURE 7, modern standard electrical outlets are provided with a wide slot 26 and a narrow slot 27. The wide slot 26 leads to the grounded or neutral wire of the electrical power circuit and the narrow slot 27 leads to the ungrounded or "hot" wire of the circuit. It has been found that this invention will operate equally well under normal conditions if connected to either side of the power circuit, but in order to avoid all possibility of danger during abnormal conditions, such as the operator standing on a wet floor using a brush or comb in which the insulation is defective or damaged, the plug 25 is equipped with one wide prong 28 to fit slot 26 and one narrow prong 29 to fit slot 27 so that it can be inserted but one way into a standard electrical outlet. Both flexible wires 24 in extension cord 23 are attached to the wide plug 28 so that it is possible to connect the cord 23 only to the neutral wire of the system by way of slot 26.

When either the brush 10 or the comb 19 is attached to the cord 23 by means of connectors 16 and 30 and the cord is plugged into a standard electrical outlet so that the conductor 17 is grounded to the neutral wire of the power system by way of prong 28 and slot 26, any static electricity generated by brushing or combing the customer's hair will be bled off continuously so that it cannot accumulate in quantities that will interfere with the proper handling of the customer's hair.

It is possible also to achieve the same results by plugging the cord 23 into a special receptacle 32 shown in FIGURE 8 made to fit plug 25 and grounded to any water pipe 33 by means of clamps 34.

The invention is not limited to the exemplary constructions herein shown and described, but may be made in various ways within the scope of the appended claims.

What is claimed is:

1. A hair comb having a back and integral teeth of dielectric material, a conductive wire within said back and extending the length thereof, conductive branches connected with said wire and extending into said teeth, an extension cord connected with said wire, and means connecting said cord with a ground.

2. A hair brush having a base of dielectric material and tufts of bristles projecting therefrom, said bristles also being of dielectric material, a branched electrically conductive wire within said base and extending to the base ends of said bristles, an extension cord connected with said wire and means connecting said cord with a ground.

References Cited in the file of this patent

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