

- (21) Application No. 44596/77 (22) Filed 26 Oct. 1977 (19)  
 (31) Convention Application No. 14631/76 (32) Filed 18 Nov. 1976 in  
 (33) Switzerland (CH)  
 (44) Complete Specification published 12 Aug. 1981  
 (51) INT. CL.<sup>3</sup> A46D 1/00  
 (52) Index at acceptance  
 A4K FA



## (54) HAIRBRUSH

(71) I, GEMMA BRENN, a Swiss citizen, of Via Ghiringhelli 55, Bellizona, Switzerland, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to a hairbrush.

Brushes for cleaning the scalp and hair have been proposed which, in addition to teeth or thread-like elements, such as bristles, have, in the interstices between such teeth or thread-like elements, a layer of an absorbent material which is intended to collect hair-filth, dust and dandruff. The absorbent material is removable so that it can be replaced with unused material coming from a storage compartment included in the utensil's body, when a certain degree of soiling has been attained.

Brushes of the kind previously proposed have a number of disadvantages.

In the first place, they are comparatively intricate in construction and bulky, on account of the space which is required for holding the supply of absorbent material and of the means necessary for attaching a piece of unused material in position in place of the discarded, used piece.

In addition, inasmuch as the absorbent material is placed between the utensil teeth, the efficiency of collecting and absorbing the hair-filth, dust and dandruff is comparatively poor since it is dependent upon direct contact of the hairs with the absorbent material. As a matter of fact, in practice only a portion of the hair will come into direct contact with the absorbent material positioned between the brushes' teeth. It should also be noticed that a considerable part of filth, dust, dandruff and possibly also hair-dye (in the case of as-dyed hair) is deposited on the scalp which generally does not come into direct contact with the absorbent material provided in such previously proposed brushes.

According to the present invention I provide a hairbrush for cleaning the scalp and hair comprising a supporting body with a handle and a plurality of tufts of teeth protruding from the body, each tuft compris-

ing a plurality of central reinforcing cores each wholly covered by an absorbent material which is capable of removing dust and dandruff from the scalp and hair.

In addition, it is an advantage that the tufts of teeth are removably connected to the brush body, with a view to replacing the soiled teeth with clean teeth.

In preferred embodiments of my hairbrush the efficiency of the stripping and collecting action of the hair filth, dust, dandruff and so on, not only from the hair but also from the scalp is considerably improved over that of the above mentioned previously proposed brushes. As a matter of fact, in my preferred embodiments all or substantially all the users hairs come into sliding contact with the teeth: and the teeth, with their points, may reach the user's scalp throughout.

Moreover, the construction of the hairbrush is considerably simplified and even its bulk can be maintained within the size limits of the previously proposed brushes for cleaning the scalp and the hair.

It is immaterial how the tufts of teeth are arranged on the hairbrush body. They can be arranged in a number of parallel rows on a single side of the utensil body, or along more sides; a single array of tufts of teeth can be provided, or the arrangement can be along a single spiral winding around the utensil body.

The hairbrush can be disposable after a certain number of uses when the teeth of an absorbent material have reached such a degree of soiling as not to absorb any more hair-filth, dust and so forth. However, if the kind of absorbent material so allows, it is also possible to wash the soiled teeth occasionally with appropriate detergents.

In such embodiments the tufts may be permanently fixed to the brush body.

If, conversely, the utensil tufts are removably affixed to the brush body, it will be apparent that the construction is more intricate and, if so, it is convenient to group tufts in rows so as to be replacable at one and the same time. Advantageously, in such a case, individual rows of tufts can be fastened conventionally to supporting rods to be

positioned in specially provided seatings within the brush body. In another embodiment, rows of tufts without any supporting member of their own are used which can be

5 mounted on supporting rods, these latter being latchable to the brush body.

The absorbent material which can be used in the practice of this invention can be of various natures, provided that an adequate

10 absorbing power is afforded. This material can be, for example, blotting paper, cotton or swab, but also a covering material such as cotton thread or a thread of other fibres,

15 spirally wound around the cores or twistedly positioned between a couple of wires of plastics material threads, can be used. In other embodiments the tufts are obtained by spraying suitable absorbent material onto

20 appropriate cores such as threadlike members, bristles and the like, and many other materials.

The absorbent teeth may be arranged in tufts in admixture with non absorbent bristles or non absorbent teeth.

25 The core can be a metal wire, a thread of a thermosetting plastics material, a bristle or like material adapted to impart to such teeth a desired stiffness matched with an appropriate flexibility.

30 In order that the invention may be more fully understood an embodiment in accordance therewith will now be described by way of example only with reference to the accompanying drawings, in which:

35 Figure 1 is a side elevational view, partly in cross-section, of a hairbrush;

Figure 2 is a cross-sectional view, taken along the line IV—IV of Figure 1

40 Figure 3 is a side view of a component part of the brush shown in Figure 1.

Referring to Figures 1 and 2 the brush body 1 has four parallel grooves 11, 12, 13, 14 open downwards with the exception of their end distant from the handle 2, where they are

45 locked by a transverse slat 15, while, in correspondence with the opposite end, they can be latched by small latches 5.

Within these grooves of the body 1, there can be inserted rods which carry tufts of

50 several types of teeth. If so, each rod forms an entity with the tufts affixed thereto.

The tufts comprising reinforcing cores wholly covered with absorbent material may be used alongside tufts comprising other

55 forms of teeth: for the purposes of illustrating several kinds of teeth. Figure 2 is shown with rods carrying teeth of different kinds inserted in grooves 11 to 14.

Thus, in the groove 11 is inserted a rod 16 which carries at regular intervals, tufts of

60 teeth 17, each of which is formed by a wire shank covered by a strip of blotting paper. As shown in Figure 3, these tufts can be formed also by teeth 15 covered with blotting paper,

65 in admixture with threadlike elements 18 of a

non-absorbent material, such as bristles.

Within the groove 12 a rod 19 is inserted, which carries teeth tufts 20, formed by plastics material filaments on which cotton

70 threads (shown schematically) have been spirally wound to wholly cover the filaments. The groove 13, conversely, receives a rod 21 which carries teeth tufts 22, formed by wires

75 on which cotton staples, or staples of a like absorbent material have been applied by spraying. Lastly, the groove 14 receives a rod 23 which carries simple bristle tufts 24.

Usually, my brush will have absorbent teeth all of the same kind, possibly combined with nonabsorbing teeth: for example, there

80 can be provided alternate rows of absorbent and nonabsorbent teeth, such as bristles and the like:

#### WHAT I CLAIM IS:—

85 1. A hairbrush for cleaning the scalp and hair comprising a supporting body with a handle and a plurality of tufts of teeth protruding from the body, each tuft comprising a plurality of central reinforcing cores

90 each wholly covered by an absorbent material which is capable of removing dust and dandruff from the scalp and hair.

2. A hairbrush as in claim 1 wherein the tufts of teeth are removably fastened to the

95 body.

3. A hairbrush as in claim 2 where the body has grooves into which rods are removably inserted, each rod carrying at least one

100 tuft of teeth.

4. A hairbrush according to claim 1, 2 or 3 wherein each core is a plastics material filament.

5. A hairbrush as in claim 4 wherein the covering of absorbent material is in the form

105 of a cotton thread spirally wound around the respective filament.

6. A hairbrush as in claim 4 wherein the covering of absorbent material is in the form of fibres sprayed on to the respective core.

110

7. A hairbrush substantially as described herein with reference to the accompanying drawings.

For the Applicants:  
LLOYD WISE, TREGEAR & CO.,  
Norman House,  
105—109 Strand,  
London, WC2R 0AE.

Printed for Her Majesty's Stationery Office by Burgess & Son (Abingdon) Ltd.—1981. Published at The Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.

1595424

COMPLETE SPECIFICATION

2 SHEETS

*This drawing is a reproduction of  
the Original on a reduced scale*

Sheet 1

Fig.1

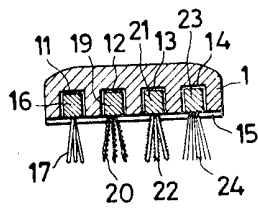
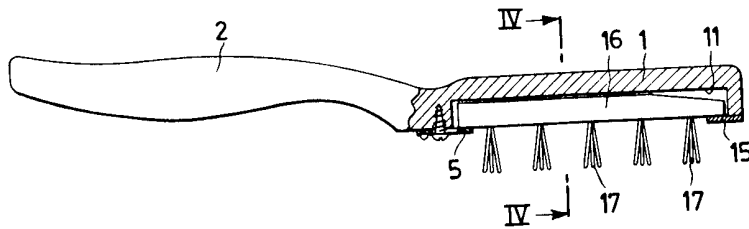


Fig.2

1595424

COMPLETE SPECIFICATION

2 SHEETS

*This drawing is a reproduction of  
the Original on a reduced scale*

Sheet 2

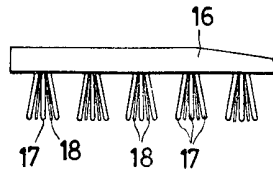


Fig. 3