



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:  
**28.05.2008 Bulletin 2008/22**

(51) Int Cl.:  
**A46B 5/00 (2006.01)**

(21) Application number: **06425794.2**

(22) Date of filing: **23.11.2006**

(84) Designated Contracting States:  
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR**  
Designated Extension States:  
**AL BA HR MK RS**

(72) Inventor: **Antonaccio, Saverio**  
**15076 Ovada (AL) (IT)**

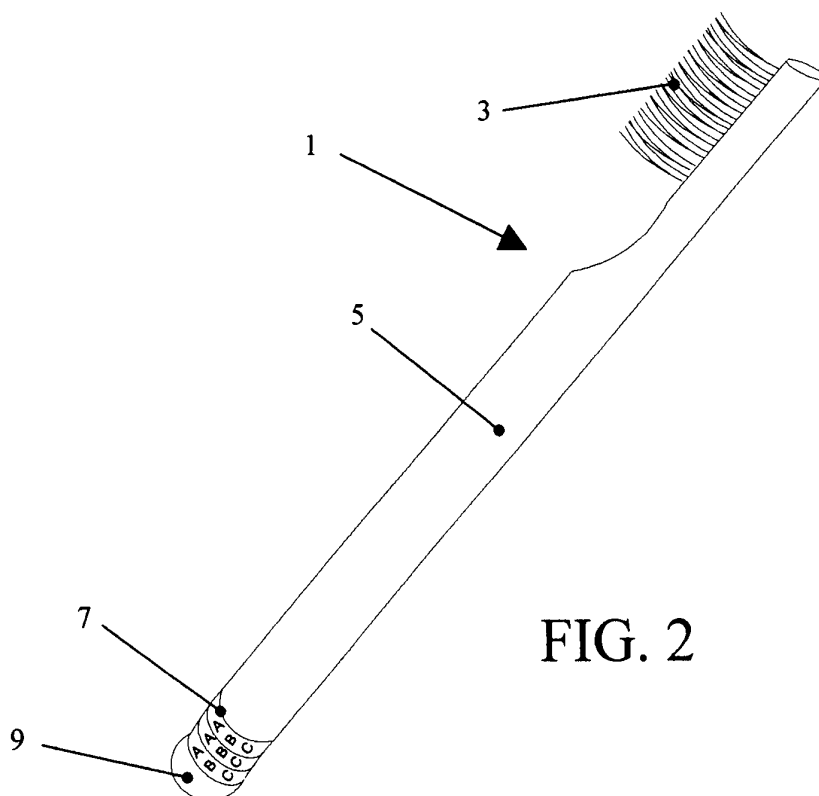
(74) Representative: **Garavelli, Paolo**  
**A.BRE.MAR. S.R.L.,**  
**Via Servais 27**  
**10146 Torino (IT)**

(71) Applicant: **Vanity Line S.p.A.**  
**15076 Ovada, AL (IT)**

(54) **Improved toothbrush**

(57) A toothbrush (1) is described, comprising a brushing head (3), and an handle (5) connected at an end to the head (3) and equipped with an appendix (6) at another opposite end; the handle (5) is further equipped with a plurality of identifying elements (7)

adapted to be placed above and/or around the appendix (6) and each one of which contains identifying signs of a user of the toothbrush (1). Holding means (9) are further provided, adapted to prevent the identifying elements (7) from going out of the appendix (6).



**FIG. 2**

## Description

**[0001]** The present invention refers to an improved toothbrush.

**[0002]** Numerous toothbrush arrangements are known in the art, with related patents, that deal with the solution of the most various technical problems in this field.

**[0003]** The present invention deals with a practical problem that is common to all toothbrushes: identifying their owner when there are several toothbrushes of a type that is identical or very similar one to the other.

**[0004]** This problem is very widely common, especially due to the fact that, for a correct mouth hygiene, toothbrushes must be preferably replaced every six months and therefore, in any house where more than two people live, there could be many different toothbrushes, more or less used, and more or less mutually similar. Always for a correct mouth hygiene, even if there are relatives in the same family group, the exchange of toothbrushes is an event to be avoided, since with it also the exchange of mouth germs occurs, that can bring about widespread health problems. It is obvious that the problem is further aggravated if toothbrush owners are not relatives or does not belong to the same family, but are strangers.

**[0005]** In order to solve this type of problem, there are some arrangements in which the toothbrush handle is equipped with small spaces in which the toothbrush owner can write his name, or is equipped with an actual display of the digital type, adapted to display several pieces of information, among which the user name.

**[0006]** However, while the first arrangement appears subjected to deletion of the user name from the space after a prolonged use and subjected to always have a pen or a fountain pen available that is suited for writing in such space, the second arrangement appears costly and complicated to make, in a toothbrush whose use and replacement are frequent.

**[0007]** Object of the present invention is solving the above prior art problems, by providing an improved toothbrush, in which it is possible to point out the user name (through its presentation in extended or abbreviated form, or through a distinctive sign), in a permanent way, that can at the same time be replaced at will at any time.

**[0008]** A further object of the present invention is providing a toothbrush as described above that can be simply and immediately realised and configured, and is practical and handy for its user.

**[0009]** The above and other objects and advantages of the invention, as will appear from the following description, are obtained by an improved toothbrush as claimed in claim 1. Preferred embodiments and non-trivial variations of the present invention are claimed in the dependent claims.

**[0010]** The present invention will be better described by some preferred embodiments thereof, provided as a non-limiting example, with reference to the enclosed drawings in which:

- Figure 1 is a side view of an embodiment of the toothbrush of the present invention, in the state in which it is before its customisation;
- Figure 2 is a side view similar to Fig. 1 in which the toothbrush of the present invention is shown in the state in which it is after its customisation;
- Figure 3 is a perspective view of another embodiment of the toothbrush of the invention, with its handle having a triangular cross section; and
- Figure 4 is a perspective view of another embodiment of the toothbrush of the invention, with its handle having a square-shaped cross section.

**[0011]** With reference to the Figures, some preferred embodiments of the toothbrush of the present invention are shown and described. It will be immediately obvious to the skilled people in the art that numerous variations and modifications (for example related to shape, sizes and parts with equivalent functionality) can be made to the described toothbrush without departing from the scope of the invention as claimed in the enclosed claims.

**[0012]** With reference to the Figures, an improved toothbrush 1 according to the present invention substantially comprises a brushing head 3; and an handle 5 connected to an end of the head 3 and equipped with an appendix 6 at the opposite end. Such appendix 6 can simply be an elongation of the handle 5 (not shown) and therefore can have the same size of the handle 5 itself, or, as shown in Fig. 1, can be a sort of support whose section is lower than the handle 5 section, connected to the handle 5 in order to be able to be used as supporting base for the identifying elements 7 described below.

**[0013]** In an innovative way, the handle 5 and/or the brushing head 3 (not shown) are further equipped with a plurality of identifying elements 7 adapted to be placed above and/or around the appendix 6: each one of such identifying elements 7 contains identifying signs of an user of the toothbrush 1 in order to be able to apply them on the toothbrush 1 itself to customise it. For such purpose, the identifying elements 7 can be of different colours, and are preferably composed of letters of the alphabet, and/or fantasy drawings and characters, arranged on the whole or on part of the visible surface of the identifying element 7.

**[0014]** In the embodiment shown in Fig. 1 and 2, the identifying elements 7 are of a ring shape and are adapted to be placed around the appendix 6 in order to realise the final configuration of Fig. 2. By suitably rotating such elements 7, the user can make his name, or an abbreviation, or customised recognising signs, appear.

**[0015]** It is obvious that the cross section forms of the handle 5 and the identifying elements 7 can be all known geometric forms, such as for example triangles, quadrilaterals (squares and rectangles), or polygons (pentagons, hexagons, etc.), of the regular or irregular type. All these forms will preferably hollow, in order to be able to place them above and around the appendix 6 or directly above and around the handle 5.

**[0016]** In order to complete its final use configuration, the toothbrush 1 of the invention is further equipped with holding means 9 adapted to prevent the identifying elements 7 from going out of the appendix 6 once installed thereon.

**[0017]** In particular, as shown in Fig. 1 and 2, the holding means 9 could be shaped as a plug connected at the end of the appendix 6 in order to be a natural elongation and the end part of the handle 5. Also in this case, obviously, the most various configurations of the holding means 9 are possible, both according to the cross section of the handle 5, and according to the final result (identifying and/or aesthetic one) of the configuration of toothbrush 1 that has to be obtained.

**[0018]** According to the available space, the identifying elements 7 could be one, two or more: the Figures show the configuration with three identifying elements 7, in order to compose a sort of end user abbreviation.

**[0019]** As regards their operating installation, a first preferred possibility is that the identifying elements 7 are provided separately with respect to the toothbrush 1, and are adapted to be inserted on the appendix 6 in a configuration and an arrangement chosen by the user.

**[0020]** As an alternative, the identifying elements 7 can be pre-assembled onto the toothbrush 1, and be adapted to be rotated on the appendix 6 in a configuration chosen by the user according to their rotation.

## Claims

### 1. Toothbrush (1) comprising:

- a brushing head (3);
- an handle (5) connected at one end to said head (3) and equipped with an appendix (6) at an opposite end;

#### characterised in that:

- said handle (5) and/or said brushing head (3) are further equipped with a plurality of identifying elements (7) adapted to be connected above and/or around said appendix (6), each one of said identifying elements (7) containing identifying signs of a user of said toothbrush (1).

### 2. Toothbrush (1) according to claim 1, **characterised in that** said identifying elements (7) are of a ring shape.

### 3. Toothbrush (1) according to claim 1, **characterised in that** said identifying elements (7) have a cross section shaped as an hollow triangle.

### 4. Toothbrush (1) according to claim 1, **characterised in that** said identifying elements (7) have a cross section shaped as an hollow quadrilateral.

### 5. Toothbrush (1) according to claim 1, **characterised in that** said identifying elements (7) have a cross section shaped as an hollow polygon.

### 6. Toothbrush (1) according to claim 1, **characterised in that** said identifying signs are letters of the alphabet.

### 7. Toothbrush (1) according to claim 1, **characterised in that** said identifying signs are fantasy drawings and characters.

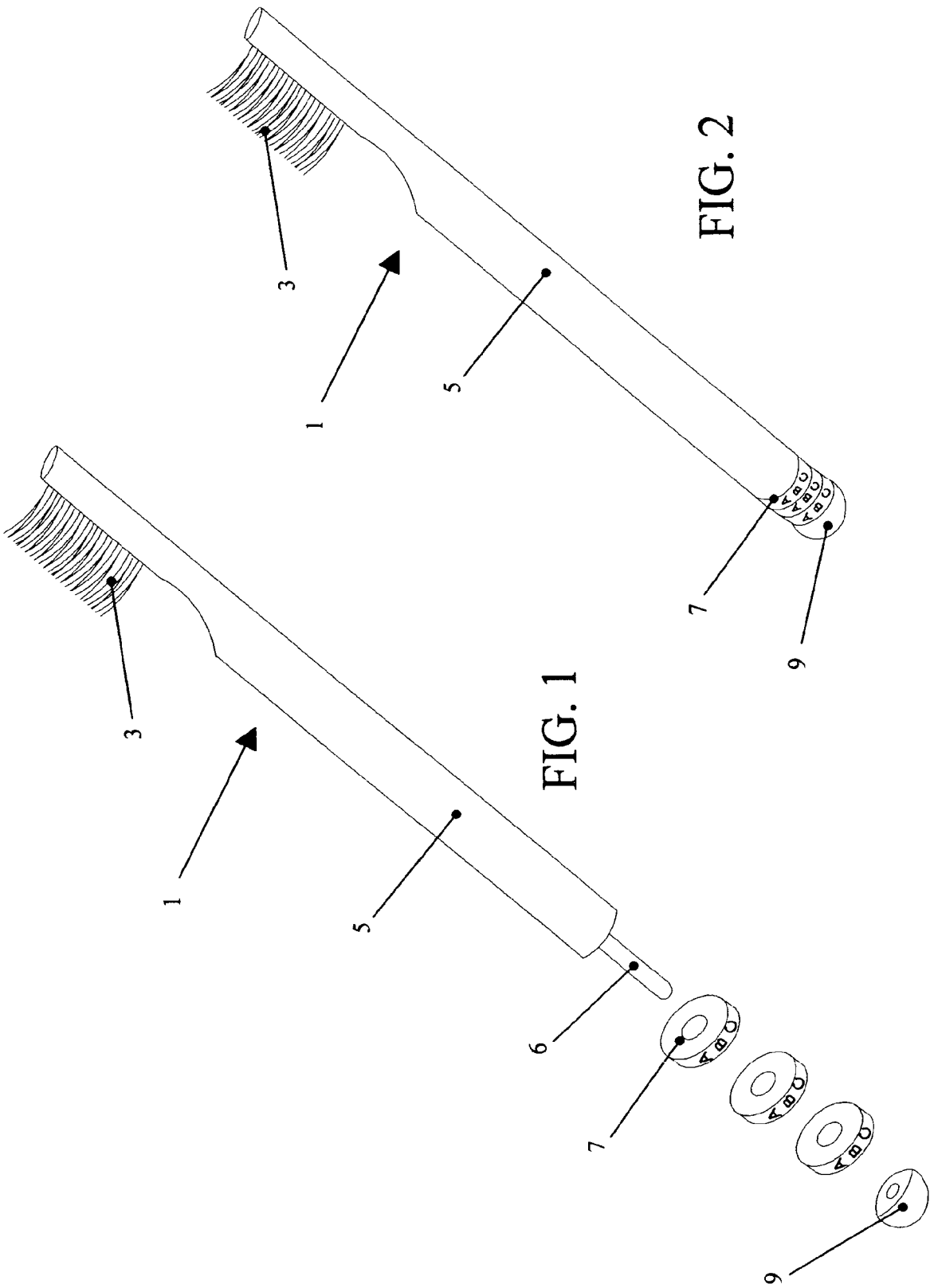
### 8. Toothbrush (1) according to claim 1, **characterised in that** it is further equipped with holding means (9) adapted to prevent said identifying elements (7) from going out of said appendix (6).

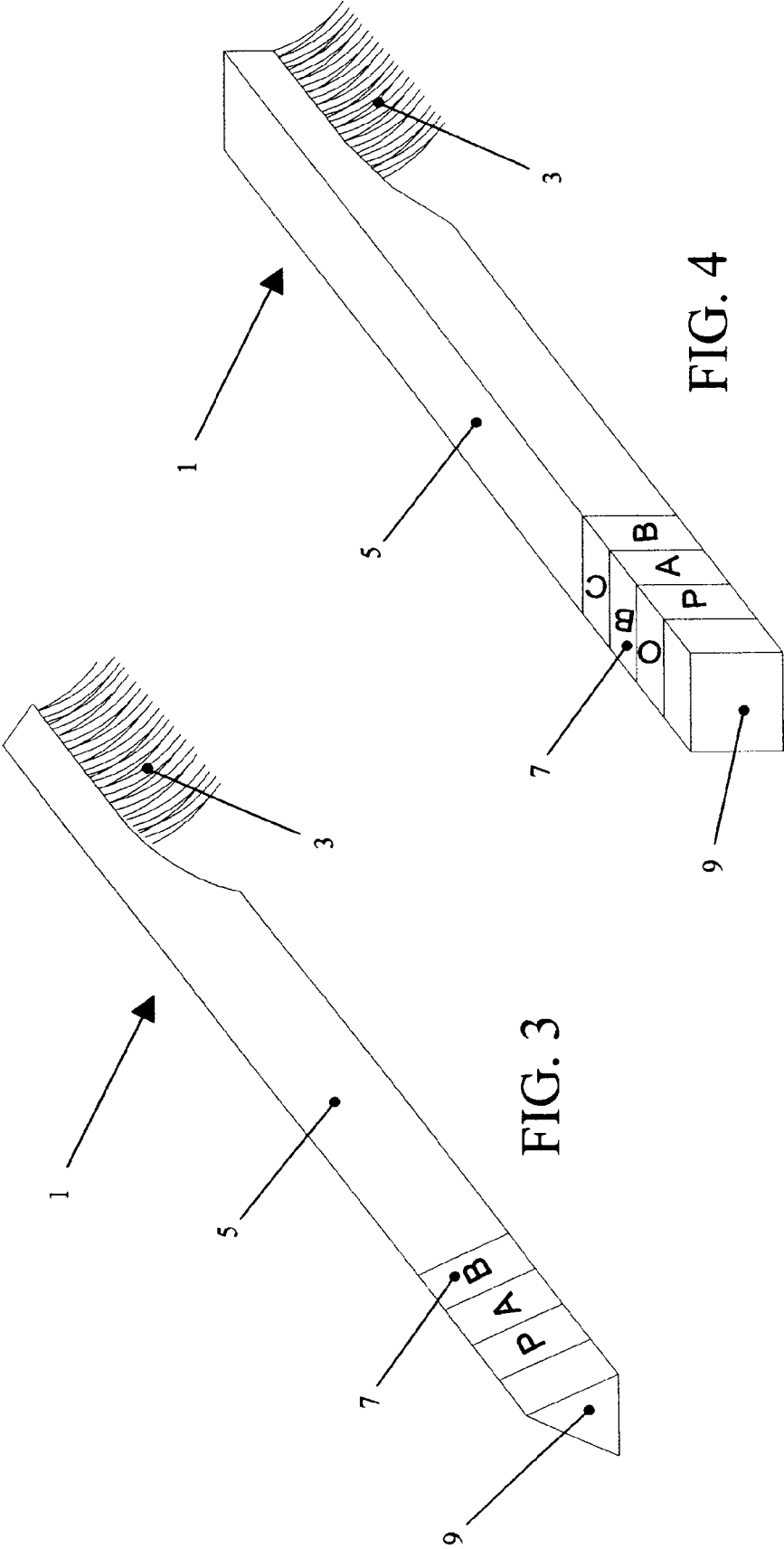
### 9. Toothbrush (1) according to claim 8, **characterised in that** said holding means (9) are a plug connected at an end of said appendix (6) in order to be a natural elongation and an end part of said handle (5).

### 10. Toothbrush (1) according to claim 1, **characterised in that** said identifying elements (7) are three or more.

### 11. Toothbrush (1) according to claim 1, **characterised in that** said identifying elements (7) are adapted to be separately provided from said toothbrush (1), and are adapted to be inserted onto said appendix (6) in a configuration and an arrangement chosen by the user.

### 12. Toothbrush (1) according to claim 1, **characterised in that** said identifying elements (7) are adapted to be pre-assembled onto said toothbrush (1), and are adapted to be rotated on said appendix (6) in a configuration chosen by the user.







European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 06 42 5794

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	DE 195 15 984 A1 (BRAUN AG [DE]) 7 November 1996 (1996-11-07) * the whole document *	1-12	INV. A46B5/00
X	GB 887 040 A (FRIEDEMUND MADAUS; ROLF MADAUS; JOHN WERNER MADAUS) 10 January 1962 (1962-01-10) * the whole document *	1-12	
X	US 2 016 644 A (ABRAHAM LUBALL) 8 October 1935 (1935-10-08) * the whole document *	1-12	
X	US 1 380 633 A (BROWN ELMER J) 7 June 1921 (1921-06-07) * the whole document *	1-12	
X	EP 0 683 995 A (CERETTO ROBERTO [IT]) 29 November 1995 (1995-11-29) * the whole document *	1-12	
X	DE 32 48 527 C1 (STREIBEL ADOLF) 28 June 1984 (1984-06-28) * the whole document *	1-12	TECHNICAL FIELDS SEARCHED (IPC) A46B
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 23 April 2007	Examiner Cardan, Cosmin
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

1  
EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 06 42 5794

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

23-04-2007

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 19515984	A1	07-11-1996	AT 220881 T 15-08-2002
		AU 5109096 A 21-11-1996	
		WO 9634577 A1 07-11-1996	
		EP 0771178 A1 07-05-1997	
-----			
GB 887040	A	10-01-1962	NONE
-----			
US 2016644	A	08-10-1935	NONE
-----			
US 1380633	A	07-06-1921	NONE
-----			
EP 0683995	A	29-11-1995	IT T0940114 U1 24-11-1995
-----			
DE 3248527	C1	28-06-1984	CA 1232719 A1 16-02-1988
		EP 0114411 A2 01-08-1984	
		ES 276612 U 16-05-1984	
		NO 834814 A 02-07-1984	
		US 4589159 A 20-05-1986	
-----			