

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 June 2006 (22.06.2006)

PCT

(10) International Publication Number
WO 2006/063423 A1

(51) International Patent Classification:

A45D 44/00 (2006.01) **A46B 17/00** (2006.01)
A46B 5/00 (2006.01) **B67D 1/00** (2006.01)
A46B 11/00 (2006.01) **G01F 11/00** (2006.01)

(21) International Application Number:

PCT/BR2005/000243

(22) International Filing Date:

25 November 2005 (25.11.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

MU8403214-6 17 December 2004 (17.12.2004) BR

(71) Applicant and

(72) Inventor: **GOMES, Antonio Carlos** [BR/BR]; Av. Antônio Borges 75, APT. 1104, MATA DA, CEP 29065-250 Praia, Vitoria (BR).

(74) Agent: **FAFÁ BORGES, Wagner José**; Rua Diógenes Nascimento das Neves N°52, Barro Vermelho, CEP-29057-670 Vitória (BR).

(81) Designated States (unless otherwise indicated, for every

kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every

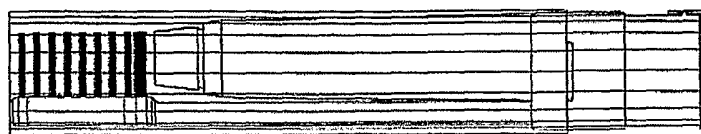
kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: TOOTHBRUSH WITH DENTAL FLOSS AND TOOTHPASTE



a detachable compartment for dental floss, figure 7. These attachments can be better understood on figures 6 and 8; the fully assembled brush can be seen on figure 1.

(57) Abstract: Utility model patent for a pocket toothbrush which is composed by a part that serves as cap for the components, figure 2, that also is placed at the base of the body of the brush, as shown in figure 3; on the body of the brush, figure 4, are attached a toothpaste tube, figure 5, and



WO 2006/063423 A1

“TOOTHBRUSH WITH DENTAL FLOSS AND TOOTHPASTE”

This utility model patent application refers to a pocket toothbrush designed to aid dental hygiene by eliminating the need of carrying toothpaste and dental floss separately as they are incorporated in the toothbrush design.

5 Currently, the pocket toothbrushes available are made up of two parts: one part which serves as the cap and another, the body, supporting the bristles of the brush. When separated, the cap is placed at the base of the body, opposite from the bristles, providing an adequate length to allow the brushing. To complete the brushing, the user should carry a tube of toothpaste and a package of dental floss, all of which inevitably
10 must be stored inside a bag or in a pocket, taking up considerable space in an indiscreet manner.

 It is impossible, with the present designs, to carry everything necessary in a convenient and discreet manner inside a pocket; a fact which leads many people to give up brushing their teeth after eating, when away from home, or in the case of children,
15 after lunch or snack at school.

 Intending to solve this problem, the patent hereby presented was developed, in which the brush, toothpaste and dental floss are combined in a single unit, utilizing the same volume formerly taken by a toothbrush. The unit can be discreetly and easily carried, even in a shirt pocket, without being noticed. Also of note is the fact that
20 toothpaste tube is recyclable and the dental floss compartment is detachable.

 The invention can be better understood through the following detailed description according to the annexed figures, where:

Figure 1 represents the assembled toothbrush, where is seen the how are stored the toothpaste tube, the bristles and the dental floss.

25 Figure 2 represents the part which serves as cap and which is placed on the base of the body as shown in figure 3, when the toothbrush is ready for use.

On the body of the brush, where the bristles are also located, figure 4, is where the toothpaste tube, figure 5, is stored in a slot located on the base of the body, as shown in figure 6.

30 Figure 7 represents the dental floss compartment, which will be detachable, and can be pressed back into the base of the toothbrush, as shown in figure 8.

CLAIMS

1. "TOOTHBRUSH WITH DENTAL FLOSS AND TOOTHPASTE", is characterized by a part that serves as cap for the components, figure 2, that also is placed at the base of the body of the brush, as shown in figure 3; by a toothpaste tube, figure 5, attached to
5 the body, figure 4; and by a detachable compartment for dental floss, figure 07. These attachments can be better understood in figures 06 and 08. The fully assembled toothbrush is shown in figure 02. All parts are made of atoxic and antiallergic material.

-1/3-

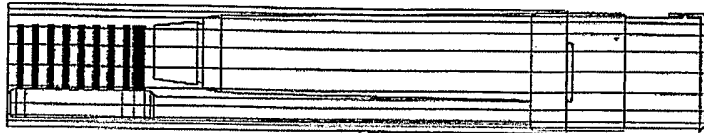


Fig 1

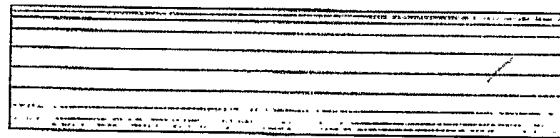


Fig 2

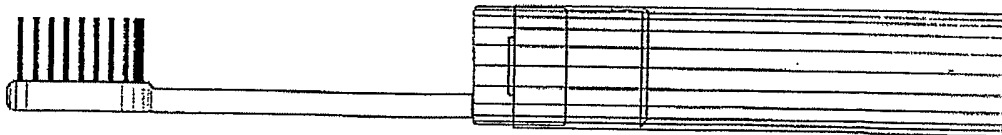
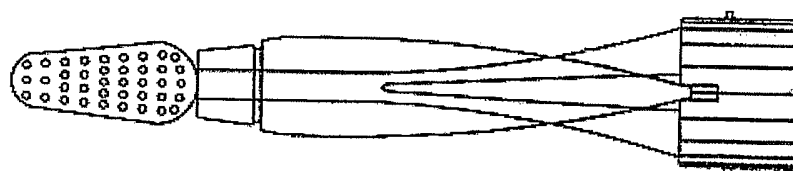
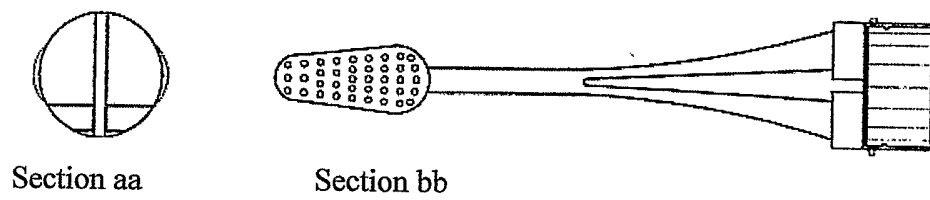
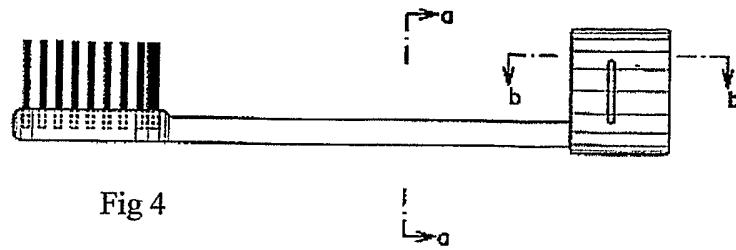


Fig 3

-2/3-



-3/3-

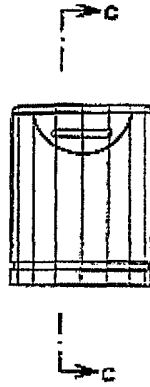
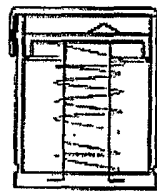


Fig 7



Section cc

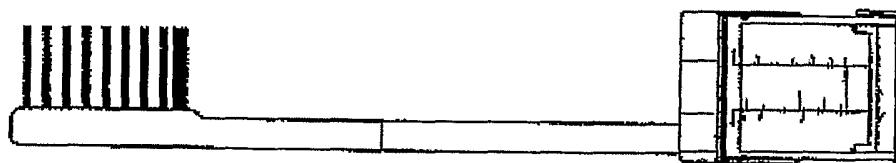


Fig 8

INTERNATIONAL SEARCH REPORT

International application No.
PCT/BR 2005/000243

A. CLASSIFICATION OF SUBJECT MATTER

IPC⁸: **A45D 44/00** (2006.01); **A46B 5/00** (2006.01); **A46B 11/00** (2006.01); **A46B 17/00** (2006.01); **B67D 1/00** (2006.01); **G01F 11/00** (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC⁸: A45D (2006.01); A46B (2006.01); B67D (2006.01); G01F (2006.01)Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI; EPODOC; X-FULL

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 1997/004685 (HENSEY Noel) 13 February 1997 (13.02.1997) <i>abstract, introduction, page 1, lines 8-9, statements of invention, page 7, lines 4-8, lines 25-28, page 11, lines 9-11, claims 1, 19-24.</i> --	1
X	WO 1995/030352 (DE QUITERIO Y MAHUGO Jose) 16 November 1995 (16.11.1995) <i>abstract, drawings 4-6.</i> --	1

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search
24 January 2006 (24.01.2006)Date of mailing of the international search report
7 February 2006 (07.02.2006)Name and mailing address of the ISA/ AT
Austrian Patent Office
Dresdner Straße 87, A-1200 ViennaAuthorized officer
AIGNER M.

Facsimile No. +43 / 1 / 534 24 / 535

Telephone No. +43 / 1 / 534 24 / 458

INTERNATIONAL SEARCH REPORT

International application No.
PCT/BR 2005/000243

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2004/0237995 A1 (MUALEM Oved) 2 December 2004 (02.12.2004) <i>abstract, background of invention, page 1, [0004], summary, page 3, [0041] - [0053], claim 1.</i> --	1
A	US 6672783 B1 (LICATA Kenneth Rocco et al.) 6 January 2004 (06.01.2004) <i>abstract, detailed description of the invention, column 3, lines 56-63, column 6, lines 2-5, claim 1.</i> --	1
A	US 2002/0100490 A1 (BODWALK Mark Anthony) 1 August 2002 (01.08.2002) <i>abstract, objects and summary of the invention, page 1, [0010] - [0012], claims 1, 7.</i> --	1
A	US 5044386 A (NELSON Gary M.) 3 September 1991 (03.09.1991) <i>abstract, summary of the invention, column 1, lines 37-68, claim 3.</i> --	1
A	US 5040553 A (LONDONO Victor H.B. et al.) 20 August 1991 (20.08.1991) <i>abstract, background of the invention, column 1, lines 9-12, summary of the invention, column 1, line 68, column 2, lines 1-3, claims 1, 6.</i> --	1
A	US 4957125 A (YANEZA Merle L.) 18 September 1990 (18.09.1990) <i>abstract, summary of the invention, column 1, lines 17-18, claim 1.</i> ----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/BR 2005/000243

Patent document cited in search report			Publication date	Patent family member(s)	Publication date
US	A	20020100490		none	
US	A	20040237995		none	
US	A	4957125	1990-09-18	none	
US	A	5040553	1991-08-20	none	
US	A	5044386	1991-09-03	none	
US	B1	6672783	2004-01-06	none	
WO	A	1995030352		none	