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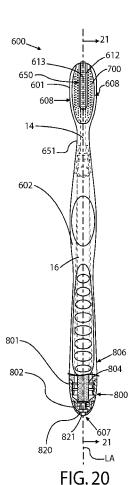
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[Continued on next page]

(54) Title: FLUID DISPENSING ORAL CARE IMPLEMENT



(57) Abstract: A fluid dispensing oral care implement with fluid delivery system. The implement includes a storage member containing a fluid. A channel formed of one or more wicking or capillary members extends through at least a portion of the oral care implement to deliver fluid(s) through one or more fluid outlets via capillary action. In one embodiment, the fluid outlet is comprised of a wicking or capillary material and is disposed in the head of the implement. In some embodiments, the implement may include a valve and a specially configured storage cap. A variety of fluids can be administered for therapeutic, hygienic, and/or other benefits, such as fresh breath, tooth whitening, tooth sensitivity, plaque and/or tartar control, or producing sensations of heat, cool, or tingling.

- (74) Agent: CHUNG, Judy W.; Colgate-Palmolive Company, Patent Department, 909 River Road, P.O. Box 1343, Piscataway, New Jersey 08855-1343 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
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Published:

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12 January 2012

INTERNATIONAL SEARCH REPORT

International application No PCT/US2011/027042

A. CLASSIFICATION OF SUBJECT MATTER INV. A46B11/00

ADD.

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)

A46B

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 practical, search terms used)

EPO-Internal

C. DOCUMI	ENTS CONSIDERED TO BE RELEVANT	
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
х	US 4 088 412 A (DEL BON LUIGI) 9 May 1978 (1978-05-09)	1,5, 7-11,13, 16
Y	figures 1-3 column 1, lines 5-17 column 1, lines 63-65 column 4, lines 4-21 column 5, line 47 - column 6, line 10	18,19, 22,23,27
X	US 3 910 706 A (DEL BON FRANCO) 7 October 1975 (1975-10-07) figure 1 column 1, lines 5-16 column 2, lines 6-8,29 column 4, lines 15-30	1,5, 7-11,13, 16

X Further documents are listed in the continuation of Box C.	X 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 document 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	Date of mailing of the international search report
16 November 2011	28/11/2011
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Kerner, Bodo

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International application No. PCT/US2011/027042

INTERNATIONAL SEARCH REPORT

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
2. X Claims Nos.: 38-41 because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically: see FURTHER INFORMATION sheet PCT/ISA/210
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
see additional sheet
1. X As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
X No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-18

Oral care implement with different fluid flow rates $% \left(1\right) =\left(1\right) \left(1\right) \left$

2. claims: 19-28

Fluid dispensing toothbrush with valve and vent opening

3. claims: 29-37

Fluid dispensing toothbrush with storage cap and sealing

socket

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2011/027042

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
1	US 2008/176183 A1 (GATZEMEYER JOHN J [US] ET AL) 24 July 2008 (2008-07-24) the whole document	1-18	
	US 4 124 316 A (O ROURKE JAMES L) 7 November 1978 (1978-11-07) figures 1,4 column 1, lines 14-20 column 2, lines 28-38 column 3, lines 12-29	19,22, 23,27	
,	DE 20 2004 008909 U1 (JABLONKA MARTIN [DE]) 23 September 2004 (2004-09-23) the whole document	19,22, 23,27	
	US 2007/183838 A1 (UMAR SANI [NG]) 9 August 2007 (2007-08-09) figures 1,3 paragraphs [0003], [0017]	29,31, 34,35 18	
(US 2005/232687 A1 (ZEH MARK A [DE] ET AL) 20 October 2005 (2005-10-20) figure 2b paragraphs [0001], [0007] - [0009]	29,31, 34,35	
	WO 2011/106017 A1 (COLGATE PALMOLIVE CO [US]; BOYD THOMAS [US]; KENNEDY SHARON [US]; PATE) 1 September 2011 (2011-09-01) the whole document	1-37	

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2011/027042

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4088412	Α	09-05-1978	NONE	
US 3910706	Α	07-10-1975	NONE	
US 2008176183	A1	24-07-2008	AU 2008207972 A1 CA 2676354 A1 CA 2752242 A1 CA 2752243 A1 CN 101662973 A CO 6210787 A2 EP 2111135 A2 TW 200901943 A US 2008176183 A1 WO 2008091935 A2	31-07-2008 31-07-2008 31-07-2008 31-07-2008 03-03-2010 20-10-2010 28-10-2009 16-01-2009 24-07-2008 31-07-2008
US 4124316	Α	07-11-1978	NONE	
DE 202004008909	U1	23-09-2004	NONE	
US 2007183838	A1	09-08-2007	NONE	
US 2005232687	A1	20-10-2005	NONE	
WO 2011106017	 A1	01-09-2011	NONE	

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 38-41

Independent claim 38 and therefore also dependent claims 39-41 fall under Rule 39.1(iv) PCT as their subject-matter contains method steps for treatment of the human body by therapy. Claim 38 specifies: "contacting an oral surface of a user with the fluid outlet; wicking the fluid through the fluid outlet; dispensing the fluid onto the oral surface". Paragraph [0068] gives examples for such fluids like antibacterial agents or anti-inflammatory agents. The use of such fluids, e.g. chlorhexidine (also mentioned in this paragraph) is clearly therapeutical as it kills bacteria.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.2), should the problems which led to the Article 17(2) declaration be overcome.