



(11) **EP 2 574 254 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
19.06.2013 Bulletin 2013/25

(51) Int Cl.:
A46B 9/04 (2006.01) A46B 9/06 (2006.01)

(43) Date of publication A2:
03.04.2013 Bulletin 2013/14

(21) Application number: **12193452.5**

(22) Date of filing: **26.08.2010**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

- **Rooney, Michael**
Millburn, NJ New Jersey 07041 (US)
- **Moskovich, Robert**
East Brunswick, NJ New Jersey 08816 (US)
- **Casini, Luca**
I-20124 Milano (IT)
- **Pringiers, Jacob**
Colombo 5 (LK)

(30) Priority: **26.08.2009 US 547627**

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC:
10749573.1 / 2 470 045

(74) Representative: **Jenkins, Peter David**
Page White & Farrer
Bedford House
John Street
London WC1N 2BF (GB)

(71) Applicant: **Colgate-Palmolive Company**
New York, New York 10022 (US)

(72) Inventors:

- **Jimenez, Eduardo**
Manalapan, NJ New Jersey 07725 (US)

(54) **Oral care implement having diverging cleaning elements**

(57) An oral care implement implementing a cleaning element arrangement having diverging cleaning elements. In one aspect, the invention is an oral care implement comprising a handle and a head. A plurality of cleaning elements extend from the first surface of the head so as to form a ring about an axis extending from the first surface of the head. Each of the cleaning elements from the first surface of the head at inclined orientation so as to radially diverge from the axis. In one embodiment, a cleaning element wall also extends from the first surface of the head and circumferentially surrounds the plurality of cleaning elements. In another aspect, the invention may be an apparatus for incorporation into an ansate oral care implement that utilizes the aforementioned arrangement of cleaning elements.

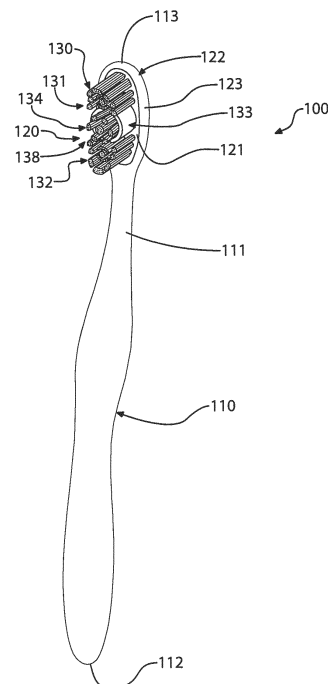


FIG. 1

EP 2 574 254 A3



PARTIAL EUROPEAN SEARCH REPORT

Application Number

under Rule 62a and/or 63 of the European Patent Convention.
This report shall be considered, for the purposes of subsequent proceedings, as the European search report

EP 12 19 3452

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	US 2005/273954 A1 (GAVNEY JAMES A JR [US] GAVNEY JR JAMES A [US]) 15 December 2005 (2005-12-15) * figure 8 * * paragraphs [0006], [0010], [0058], [0059] *	1-5	INV. A46B9/04 A46B9/06
A	----- WO 02/45617 A1 (GLAXOSMITHKLINE CONSUMER HEALT [DE]; KRAEMER HANS [DE]) 13 June 2002 (2002-06-13) * page 13, line 18 - line 22 * * page 19, line 18 - line 20 * * figures 1, 15A-15C, 18B *	1-5	
A	----- CH 215 110 A (SPYRA PAUL [DE]) 15 June 1941 (1941-06-15) * paragraph [0001] * * figures 1-3 *	1-5	
A	----- US 1 901 230 A (PALMER DUEY HAROLD) 14 March 1933 (1933-03-14) * paragraph [0001] * * figures 1-3 *	1-5	
			TECHNICAL FIELDS SEARCHED (IPC)
			A46B
INCOMPLETE SEARCH			
<p>The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC so that only a partial search (R.62a, 63) has been carried out.</p> <p>Claims searched completely :</p> <p>Claims searched incompletely :</p> <p>Claims not searched :</p> <p>Reason for the limitation of the search: see sheet C</p>			
Place of search		Date of completion of the search	Examiner
Munich		13 May 2013	Kerner, Bodo
CATEGORY OF CITED DOCUMENTS		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	
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			

2
EPO FORM 1503 03 82 (P04E07)

**INCOMPLETE SEARCH
SHEET C**Application Number
EP 12 19 3452

Claim(s) completely searchable:
1-5

Claim(s) not searched:
6-12

Reason for the limitation of the search:

Reference is made to the pre-search communication of 06.03.2013 according to Rule 62a EPC and the applicant's reply of 18.04.2013:

Following the clarification-request by the examining division in view of the above EPC Rule, the applicant filed his reply with the arguments below as to why the originally filed set of claims would fulfil the requirements of Rule 43(2) EPC:

(a) claims 1, 6 and 12 recite alternative solutions to the problem of how to deliver improved cleaning of a user's teeth;

(b) it is inappropriate to cover these alternative solutions in a single independent claim since each of claims 1, 6 and 12 recites some features that are not present in others of these claims; to combine all of these claims in a single independent claim would lead to a claim having complex language;

This argumentation, however, cannot be followed:

Concerning argument (a) it is to be noted that this is a very general problem to be solved which is applicable to every new toothbrush, not only of the type claimed.

Concerning argument (b) the applicant cited Rule 43(2)(c) EPC, i.e. "alternative solutions to a particular problem, where it is inappropriate to cover these alternatives by a single claim". It seems, however, possible and appropriate to cover claims 1, 6 and 12 by a single claim, i.e. by claim 1 with the features "second surface opposite the first surface" and "so as to form a loop that surrounds the ring" removed. Therefore, the exception of Rule 43(2)(c) EPC is not given.

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

EP 12 19 3452

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.

13-05-2013

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2005273954 A1	15-12-2005	AU 2006280949 A1	22-02-2007
		BR PI0614580 A2	04-12-2012
		CA 2617663 A1	22-02-2007
		CN 101583296 A	18-11-2009
		EP 1915103 A2	30-04-2008
		KR 20080044883 A	21-05-2008
		US 2005273954 A1	15-12-2005
		WO 2007022527 A2	22-02-2007
		WO 0245617 A1	13-06-2002
AT 326192 T	15-06-2006		
AU 1606402 A	18-06-2002		
AU 2002216064 B2	22-04-2004		
BR 0116021 A	13-01-2004		
CA 2430849 A1	13-06-2002		
CN 1487810 A	07-04-2004		
CZ 20031588 A3	15-10-2003		
DE 60119769 T2	24-05-2007		
EP 1339346 A1	03-09-2003		
ES 2264997 T3	01-02-2007		
HU 0302206 A2	28-10-2003		
JP 3813928 B2	23-08-2006		
JP 2004528054 A	16-09-2004		
MX PA03005007 A	12-02-2004		
NZ 526252 A	26-11-2004		
PL 366124 A1	24-01-2005		
TW 531408 B	11-05-2003		
US 2006248667 A1	09-11-2006		
WO 0245617 A1	13-06-2002		
CH 215110 A	15-06-1941	NONE	
US 1901230 A	14-03-1933	NONE	