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[Continued on next page]

(54) Title: ORAL CARE SYSTEM

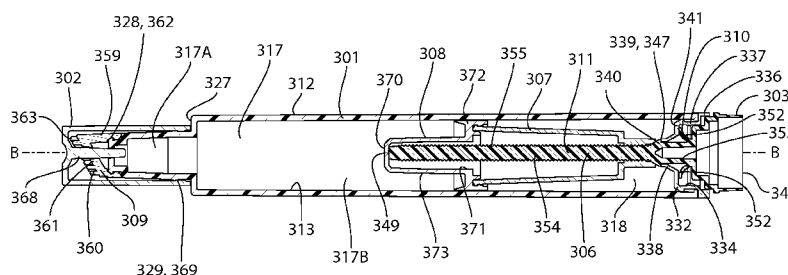


FIG. 6

(57) Abstract: An oral care system, such as a toothbrush having a detachable dispenser containing an oral care material. The dispenser includes a housing; an internal reservoir for containing a fluid and a dispensing orifice for dispensing the fluid; a first cam surface, the first cam surface being non-rotatable with respect to the housing; a reciprocator comprising an actuator, a drive screw, and a second cam surface, the reciprocator being rotatable with respect to the housing; an elevator forming a transverse end wall of the reservoir, the elevator being non-rotatable with respect to the housing and threadably coupled to the drive screw; wherein rotation of the actuator causes the elevator to (1) axially advance, and (2) axially reciprocate.



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TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2010/060874

A. CLASSIFICATION OF SUBJECT MATTER
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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, COMPENDEX, INSPEC, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 93/03648 A1 (ENGLISH PHILIP [US]; SZPAK ANTHONY [US]) 4 March 1993 (1993-03-04) page 6, line 12 - page 10, line 4; figures 1-15	1-26,34
A	US 2006/207627 A1 (THORPE RICHARD C [GB] ET AL) 21 September 2006 (2006-09-21) paragraph [0029] - paragraph [0041]; figures 1-8	1-26,34
X	GB 666 082 A (ROBERT BRIGHTEN SALISBURY) 6 February 1952 (1952-02-06)	17,18,21,22,34
Y	page 1, line 8 - page 2, line 66; figures 1-3	19,20
A		23-26
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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 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 5 December 2011	Date of mailing of the international search report 11/01/2012
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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 Kunz, Lukas
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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2010/060874

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4 277 194 A (SMITH DONALD R) 7 July 1981 (1981-07-07) column 3, line 3 - column 4, line 37; figures 1-4	19,20
Y	----- US 2004/240928 A1 (TROCINO RICHARD B [US]) 2 December 2004 (2004-12-02) paragraph [0034] - paragraph [0042]; figures 2-10 -----	19,20

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2010/060874

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. Claims Nos.: 27-33
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. 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.
- 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: 1-16

Toothbrush with a detachable dispenser using a plunger for dispensing a substance stored in a reservoir, wherein a cam mechanism causes an axial reciprocation of the plunger.

2. claims: 17-26, 34

Toothbrush with a detachable dispenser using a plunger for dispensing a substance stored in a reservoir, wherein the drive screw operating the plunger does not penetrate into the reservoir.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 27-33

Independent claim 27 refers in line 14 to "the collar", although no such collar has been mentioned in the preceding portion of the claim. The presence of the collar is deliberately omitted in independent claim 27 as a difference to independent claim 1. Therefore, independent claim 27 and thus also its dependent claims 28 to 33 are so unclear that no search and examination can be carried out for them.

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.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2010/060874

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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