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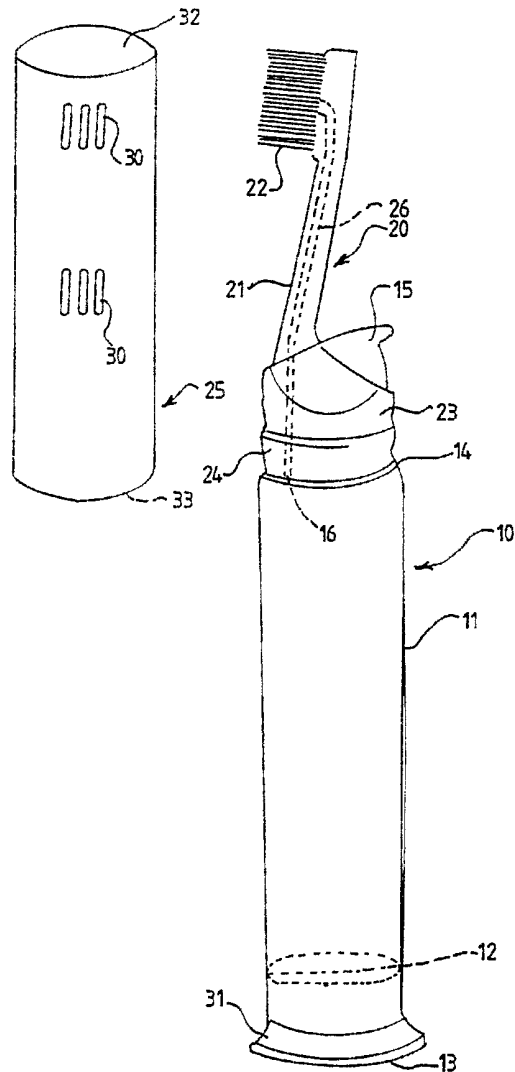
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(56) Documents Cited  
**GB 2085717 A GB 1257353 A GB 0792448 A**  
**GB 0635724 A GB 0627739 A GB 0443561 A**  
**GB 0352823 A**

(58) Field of Search  
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(54) **Dispenser**

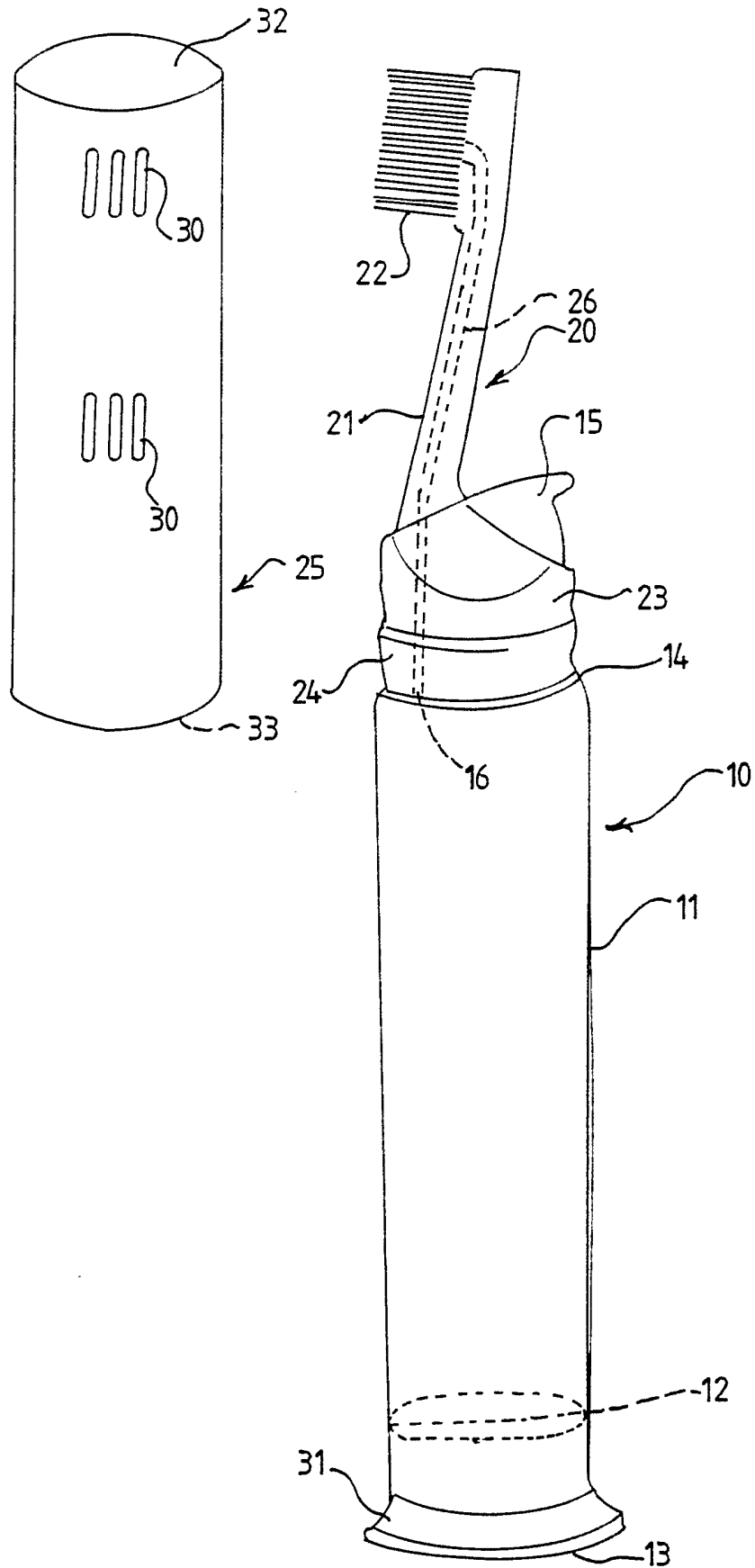
(57) A dispenser e.g. for toothpaste, comprises a container (11) for containing a substance to be dispensed and a brush (20) comprising a neck (21) secured at one end to the container (11), and having bristles (22) at or towards an end of the neck (21) remote from the container (11), and means to urge substance through an opening (16) in the container (11) and into a passageway (26) of the neck (21) of the brush (22), the passageway (26) extending to and opening at the bristles of the brush (22) where the substance is dispensed. The means urging the substance may be hydraulic or pneumatic pressure which may operate to move a piston. Alternatively the piston may be moved by mechanical means such as a ratchet.



At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patents Rules 1990.

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Title: Dispenser

Description of Invention

This invention relates to a dispenser and more particularly but not exclusively to a dispenser for dispensing toothpaste.

So called "pump action" toothpaste dispensers are known for dispensing toothpaste onto a separate toothbrush. However where such dispensers are used to dispense toothpaste onto different toothbrushes belonging to more than one person, such dispensers are unhygienic.

According to the invention I provide a dispenser comprising a container for containing a substance to be dispensed and a brush comprising a neck secured at one end to the container, and having a brush part at or towards an end of the neck remote from the container, means to urge substance through an opening in the container and into a passageway of the neck of the brush, the passageway extending to and opening at the brush where the substance is dispensed.

Thus where the substance dispensed is toothpaste and the brush is a toothbrush, the dispenser is intended for use by a single toothbrush user and is therefore more hygienic than known toothpaste dispensers.

The invention will now be described with reference to the accompanying drawings which is a purely illustrative view of a dispenser in accordance with the invention.

Referring to the drawing there is shown a toothpaste dispenser 10 comprising a container 11 which, in this example, includes a piston 12 which is movable from a position towards one lower end 13 of the container 11 towards another top end 14 in response to operation of an actuator 15, to urge toothpaste out of the container 11 above the piston 12, through an opening 16 at the top end 14 of the container 11. The piston 12 may be movable by ratchet or other mechanical means as is well known in the art, and/or by hydraulic or pneumatic

pressure or any other means. In another arrangement, the substance may be urged from the container 11 purely by hydraulic or pneumatic pressure, without there being a piston.

Secured to the container 11 is a toothbrush 20 which comprises a neck 21 and a brush 22.

Conveniently, the toothbrush is moulded integrally in a plastics material, with a top closure member 23 of the container 11, which provides a mounting for the actuator 15 and has a friction ring 24 which co-operates with a lid 25 which is arranged to be received over the toothbrush 20 to cover the toothbrush 20 when it is not in use.

The neck 21 of the toothbrush 20 has a passageway 26 therein which extends from the opening 16 from the container 11, or from a small toothpaste reservoir between the opening 16 and the passageway 26 into which the toothpaste is urged from the container 11. The passageway 26 extends from the one end of the neck 21 secured to the container 11, to the brush 22 where it opens into the bristles thereof.

Thus upon operation of the actuator 15, toothpaste can be dispensed onto the bristles of the brush 22 for use.

The container 11 makes a convenient handle for use of the toothbrush 20 and the neck 21 and configuration of the brush 22 ensures that the toothbrush 20 can perform substantially the same as a conventional toothbrush.

The container 11 is preferably arranged to contain a predetermined amount of substance, sufficient say for one months use. Dentists recommend replacing a toothbrush once every three months and thus using a dispenser 10 in accordance with the invention, when the toothpaste runs out at the end of this period, this encourages a user to replace the dispenser 10 and hence the toothbrush, every three months.

If desired though, the container 11 may be readily separable from the toothbrush 20, to enable the toothbrush 20 to be used with a replacement, full, container 11.

It can be seen that the lid 25 has openings 30 therein so that a wet toothbrush 20 covered by the lid 25, can dry.

Various modifications are possible without departing from the scope of the invention.

In the arrangement shown in the drawings, the container 11 is substantially cylindrical in configuration, and has at the lower end 13 thereof, a foot formation 31 to enable the dispenser 10 to be stood upright on a support surface.

In another arrangement, the container 11 may be of an alternative configuration, and a foot formation 31 need not be provided.

Thus the lid 25 need not be of the configuration shown which again is generally cylindrical having a closed end 32 and a open end 33, but could be of another shape corresponding to the configuration of the container 11.

It is envisaged that a range of dispensers 10 would be available having brushes 22 of alternative configurations i.e. sizes and bristle strengths and types.

The containers 11 and/or necks 21 of the range of toothbrushes may be made in different colours for easy identity and of course containers 11 having different kinds e.g. flavours of toothpaste therein could be provided.

Although the invention has been described with reference to a dispenser for dispensing toothpaste, it will be appreciated that the invention may be applied to another type of dispenser having integrally or secured to a container thereof, a brush.

For example, a dispenser in accordance with the invention may be used to dispense a cleaning fluid.

In each case, it will be appreciated that the brush is integral with or secured to a container and is generally rigid therewith such that the neck 21 of the brush comprises an element generally rigid with the container.

The features disclosed in the foregoing description or the accompanying drawings, expressed in their specific forms or in terms of a means for performing the disclosed function, or a method or process for attaining the

disclosed result, or a class or group of substances or compositions, as appropriate, may, separately or in any combination of such features, be utilised for realising the invention in diverse forms thereof.

CLAIMS

1. A dispenser comprising a container containing a substance to be dispensed and a brush comprising a neck secured at one end to the container, and having bristles at or towards an end of the neck remote from the container, means to urge substance through an opening in the container and into a passageway of the neck of the brush, the passageway extending to and opening at the bristles of the brush where the substance is dispensed.
2. A dispenser according to claim 1 wherein the substance dispensed is toothpaste and the brush is a toothbrush.
3. A dispenser according to claim 1 or claim 2 wherein the container contains a piston which is movable from a position towards one end of the container towards the other end where the neck is secured to the container, in response to operation of an actuator.
4. A dispenser according to claim 3 wherein the piston is movable in response to the actuator by ratchet means.
5. A dispenser according to claim 3 wherein the piston is movable by hydraulic or pneumatic means.
6. A dispenser according to claim 1 or claim 2 wherein the substance is urged from the container solely by hydraulic or pneumatic pressure.
7. A dispenser according to any one of the preceding claims wherein the brush is readily separable from the container.

8. A dispenser substantially as hereinbefore described with reference to the accompanying drawings.

9. Any novel feature or novel combination of features as herein defined and/or shown in the accompanying drawings.



<b>Relevant Technical Fields</b>  (i) UK Cl (Ed.M)     F1R (RAA, R15A, R15C)  (ii) Int Cl (Ed.)  <b>Databases</b> (see below) (i) UK Patent Office collections of GB, EP, WO and US patent specifications.  (ii)	Search Examiner D DODD
	Date of completion of Search 21 JANUARY 1994
	Documents considered relevant following a search in respect of Claims :- 1-9

**Categories of documents**

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| X: Document indicating lack of novelty or of inventive step.   | P: Document published on or after the declared priority date but before the filing date of the present application.        |
| Y: Document indicating lack of inventive step if combined with one or more other documents of the same category. | E: Patent document published on or after, but with priority date earlier than, the filing date of the present application. |
| A: Document indicating technological background and/or state of the art.   | &: Member of the same patent family; corresponding document.   |

Category	Identity of document and relevant passages	Relevant to claim(s)
X	GB 2085717 A     (BLACKWELL) note eg Figure 14	1-4, 7
X	GB 1257353     (VERGA)	1, 2, 6, 7
X	GB 0792448     (EDWARDS)	1, 2, 3, 7
X	GB 0635724     (ANTOLINI)	1, 2, 3, 7
X	GB 0627739     (VALETTE)	1, 2, 3, 7
X	GB 0443561     (BROWN)	1, 2, 3, 7
X	GB 0352823     (CHRISTIAN)	1, 2, 3, 7

**Databases:**The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).