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(54) **Soap packaging**

(57) Package comprising walls (1) defining an enclosure containing a liquid (2) and means (3) for extracting

said liquid (2), said walls (1) comprising an external layer comprising solid soap.

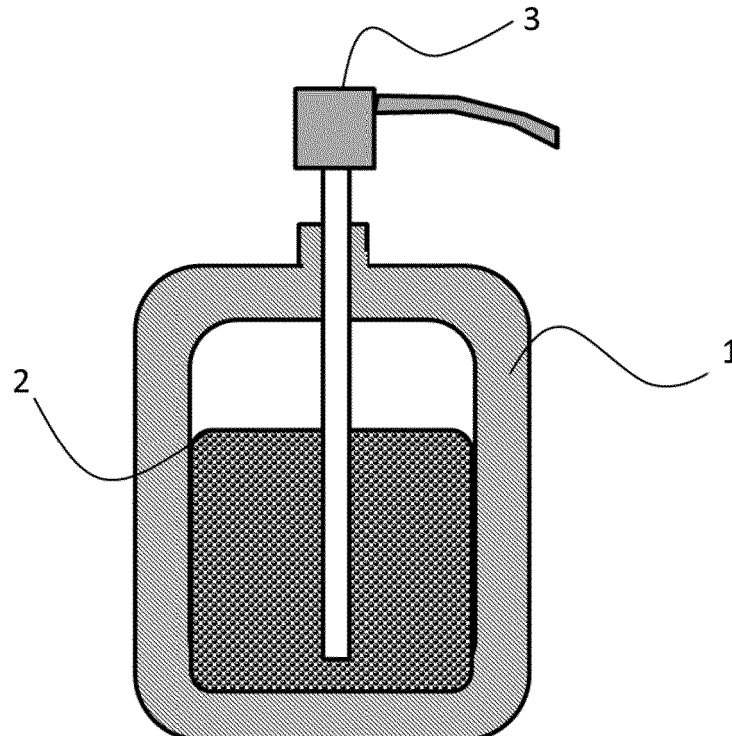


Fig. 1

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Description

Field of the Invention

[0001] The present invention is related to a soap packaging.

Background

[0002] Nowadays, active packaging is used in many industries. Such packaging combines the passive role of enclosing the package goods, giving an adequate aspect, and acting as a barrier against environmental conditions, such as a gas and moisture barrier, and acting for reducing bacterial growth (package comprising bacterial growth inhibitors), or reducing oxygen partial pressure (package comprising oxygen scavenger).

[0003] Combining several products in one packaging is also known and desirable. For example, document US 4969580 discloses a shampoo and hair conditioner hanger, thus combining two personal care products in one item. Document US 2008/237365 also discloses a packaging product having two functionalities, with an enclosed liquid soap accessible by a dispenser and an air freshener enclosed in a strip located around the package, thereby providing two functionalities in one package product.

Summary of the Invention

[0004] The present invention is related to a package comprising walls defining an enclosure containing a personal care liquid and means for extracting said liquid, said walls comprising an external layer comprising solid soap.

[0005] Advantageously, the enclosed liquid is selected from the group consisting of hair shampoo, hair conditioner, skin moisturiser, antiseptic solution and deodorising solution. The means for extracting the liquid is selected from the group consisting of roller balls and piston dispenser.

[0006] Preferably, the walls defining the enclosure comprise an inner barrier layer, said inner barrier layer being impermeable to the enclosed liquid.

[0007] Advantageously, the inner barrier layer comprises a biodegradable polymer such as polylactic acid and polyhydroxy alkanoate.

Figures

[0008] Fig. 1 represents an example of soap packaging according to the invention.

Detailed Description of the Invention

[0009] The present invention is related to an enclosure for packaging personal care liquid such as shampoo, hair conditioner, moisturiser, disinfectant and the like. The

packaging of the invention is **characterised in that** the external surface of the package comprises solid soap, so that the user may use said solid soap to wash his skin and the enclosed liquid for an additional personal care functionality.

[0010] Preferably, the packaging walls are essentially consisting of solid soap. For example, said packaging can be moulded from melted soap in the form of a hollow body comprising a top opening. The opening is used to fill the hollow body with the desired liquid and to draw out the liquid upon use.

[0011] The packaging is preferably produced in two moulded parts, a bottom moulded part having the form of a hollow prism with a bottom closure, and a top moulded closure, said top closure comprising means for extracting the liquid contained in the package, or means for securing the means for extracting the liquid, the top moulded closure being sealed on the bottom moulded part.

[0012] Preferably, the means for extracting the liquid comprises roller balls and/or piston dispenser secured on the opening of the top closure, for example by means of a screw thread.

[0013] The inner cavity of the packaging can possibly be subdivided in more than one subcavity for storing different liquids. The separation between the different cavities can be either horizontal or vertical. In case of a vertical separation, two separate piston dispensers can be included in the top cap, for example for separately dispensing shampoo and hair conditioner. In case of a horizontal separation, a roller ball dispenser can be used on the bottom side of the package to provide deodoriser and a piston dispenser on the top closure.

[0014] An advantage of the invention is to reduce the total amount of scrap, as the packaging can be used even when empty, and there remains no packaging once the product has been fully used, except for the piston dispenser, which can be reused.

[0015] When the soap is soluble in the enclosed liquid, it is useful to include an inner barrier layer in the wall of the package to avoid interaction between the liquid and the soap. To reduce packaging scrap, such inner layer can for example be a thin polymeric film applied on the inner surface of the moulded soap. Advantageously, such thin film is a biodegradable polymeric film such as polylactic acid (PLA) or natural polyester such as polyhydroxyalkanoate (PHA), preferably polyhydroxybutyrate (PHB).

Claims

1. Package comprising walls defining an enclosure containing a liquid and means for extracting said liquid, said walls comprising an external layer comprising solid soap.
2. Package according to claim 1, wherein said liquid is

selected from the group consisting of hair shampoo, hair conditioner, skin moisturiser, antiseptic solution and deodorising solution.

3. Package according to any of claims 1 or 2, wherein the means for extracting the liquid is selected from the group consisting of roller ball and piston dispenser. 5
4. Package according to any of the previous claims, wherein the walls defining the enclosure comprise an inner barrier layer, said inner barrier layer being impermeable to the enclosed liquid. 10
5. Package according to claim 4, wherein said inner barrier layer comprises a biodegradable polymer. 15
6. Package according to claim 5, wherein the biodegradable polymer is selected from the group consisting of polylactic acid and polyhydroxy alkanoate. 20

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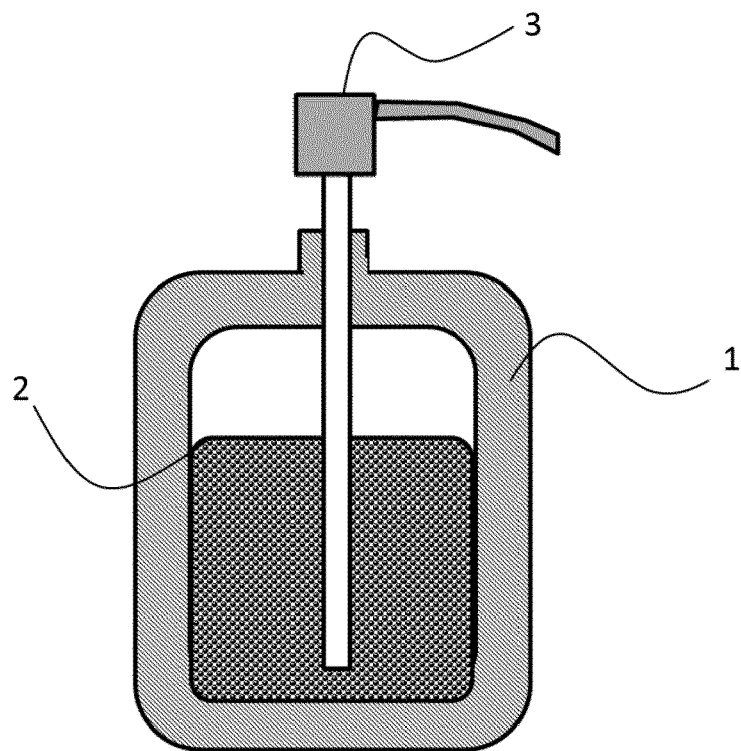


Fig. 1



EUROPEAN SEARCH REPORT

Application Number
EP 13 17 0131

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 6 572 301 B1 (ROBINSON TARGREW [US]) 3 June 2003 (2003-06-03) * column 4, line 20 - line 40; figures 3-5 *	1-4	INV. A47K5/12 A47K7/03 A45D34/06 B65D23/08 C11D17/04
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 23 October 2013	Examiner Fajarnés Jessen, A
CATEGORY OF CITED DOCUMENTS 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 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			

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

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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
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- US 2008237365 A [0003]