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(56) Documents Cited:
EP 0372195 A **WO 2010/092310 A1**
DE 003032523 A

(58) Field of Search:
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Other: **EPODOC, WPI**

(54) Title of the Invention: **Toiletries device**
Abstract Title: **A pressurised fluid container with a disconnectable segment**

(57) A pressurized fluid container suitable for holding perfume comprises a main container 3 having a removable and disconnectable segment 2. The segment 2 may refill automatically via fitting 7 when connected to the container 3. The segment may then be disconnected providing therefore a smaller and more portable container for the fluid. In the home environment the segment 3 may be reconnected as appropriate in order to refill it, or the main container may be used.

FIGURE 1

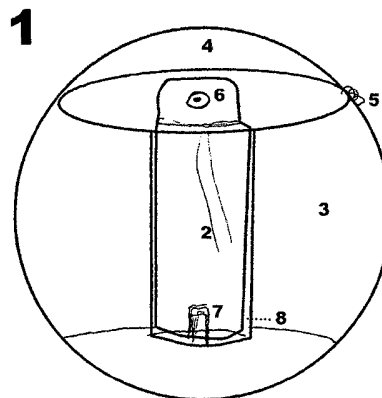


FIGURE 1

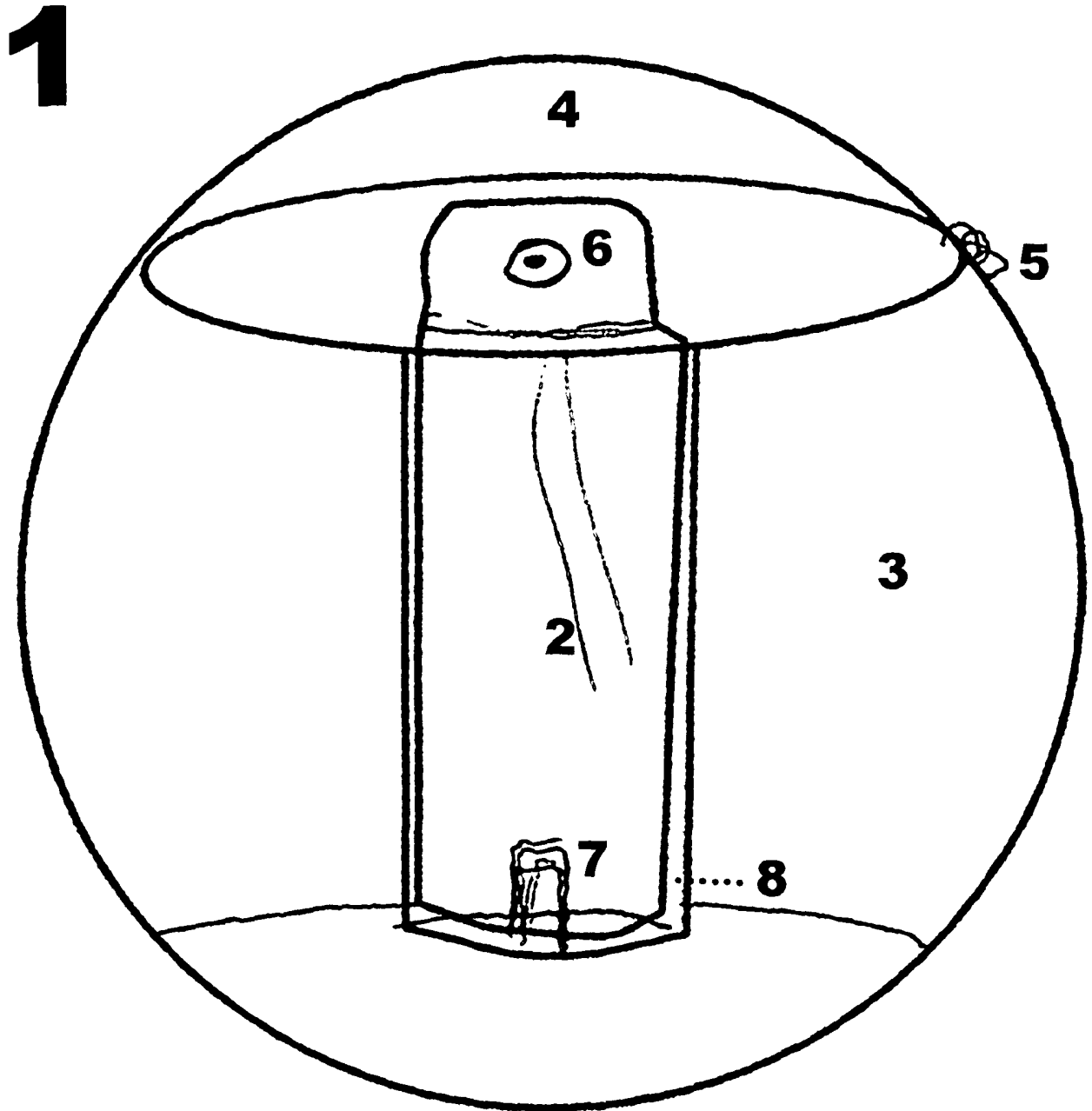
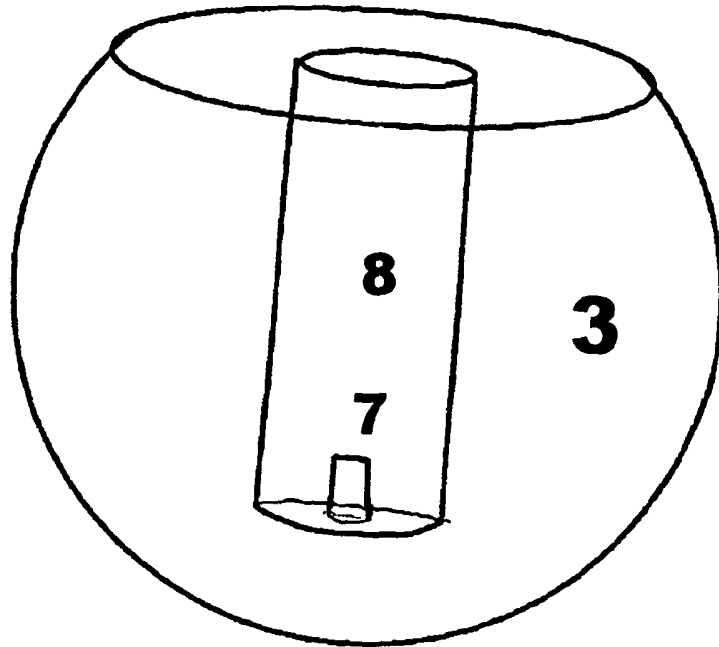
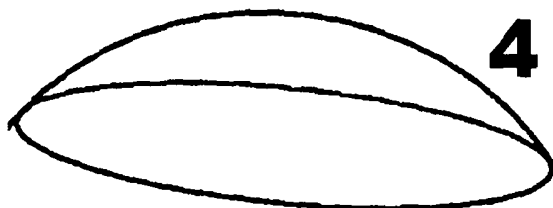
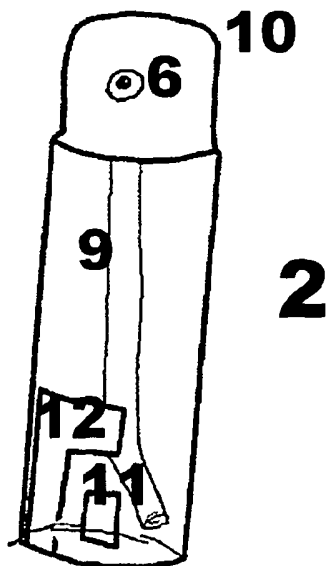


FIGURE 2



1



TOILETRIES DEVICE

Field of the Invention

The present invention relates to a toiletries device providing a container with a separable segment, more particularly a fragrance container such as a bottle of perfume, with a separate refillable segment.

Background

Miniaturised versions of popular goods are very useful, attractive and common in today's world, where ease, convenience and portability are highly prized. In line with this, it is possible to buy miniaturised versions of many toiletries, for travel purposes, and to meet customs and excise and border control measures.

Prior Art

Miniaturised toiletries are known, that is popular toiletries are sold in smaller versions, including deodorants. These smaller versions are simply miniaturised containers of the same toiletries, and hence suffer from small capacity and the environmentally unfriendly consequences with regard to the levels of packaging required by smaller containers, containing less product.

Toiletries such as perfume and other liquids are a relatively expensive commodity, and available in containers with relatively high volumes. Travel bottles may be found however such bottles are provided with a conventional opening through which the liquid from the large container has to be poured, such that pouring can result in loss of some of the liquid. In addition most perfume and aftershave bottles are provided with vaporizer mechanism for spraying the liquid, and such containers cannot be opened and/or poured easily.

European patent application EP 1 744 955 (TURGEMAN) discloses a refill bottle adapted to repeatedly receive and dispense liquid such as perfume. The refill bottle comprises a bottle having

a bottom segment and an upper segment, a dispensing opening provided in the upper segment wherein the opening is adapted to be covered, and a refill mechanism provided in the bottom segment wherein the liquid is received into the bottom segment through a refill mechanism from a regular bottle provided preferably with a spraying mechanism.

Granted Canadian patent CA 2 224 502 (DE LAFORCADE) discloses an device comprising: a reservoir for a pressurized product: a valve body in communication with said reservoir; a first valve mounted in said valve body, said first valve movable between an open position and a closed position; a second valve mounted in said valve body, said second valve oriented in a direction opposite to that of said first valve and substantially in alignment with said first valve, said second valve movable between an open position and a closed position; an actuating element attached to at least one of said first valve and said second valve, said actuating element having a dispensing element for dispensing the pressurized product in said reservoir; and an elastic element for urging said first valve and said second valve to said closed positions.

Advantageously therefore the present invention provides a toiletries device that allows a segment to be disconnected from a home-based less-portable toiletry fluid container to form a smaller, more portable means of utilising the toiletry fluid.

Summary of the Invention

According to the present invention there is provided a toiletry device comprising a pressurised container for fluid with a disconnectable segment; said container in use having higher internal pressure than said segment, and said segment refilling with fluid when connected.

Ideally the device is used for fragrance, and is formed of glass. In further embodiments the device may be used for shaving foam, deodorant, liquid soap or other toiletries.

Ideally the segment is also made of glass. In the preferred embodiment the container and segment are disposed to connect to another in a way that the contents of the container may pass to the segment, through a fitting or valve, said fitting being securely opened when the connection is in place and securely closed when the segment are not connected.

Ideally therefore the contents of the container pass to the segment automatically through the fitting when the two parts are connected, with at all other times the fitting being closed such that no escape of contents or fluid is possible when the segment is disconnected.

In the preferred embodiment the fitting is formed at least in part of a rubber compound bush in combination with a spike or nozzle on the container, said nozzle being held closed under the pressure from the container contents, and said nozzle being disposed to penetrate the bush.

Upon penetration the nozzle ideally depresses a seal on the fitting or container to release the pressurised contents through the nozzle into the segment, such as by use of a valve. In other embodiments the seal is on the segment and nozzle on the container. In yet further embodiments other mechanisms to transfer the contents under pressure may be used,

Ideally the refillable segment of the device also provides the atomiser or spray for spraying the liquid from the device. This means the same spray head may be used whilst the user is on the move without the need for further toiletries device and the portable segment if kept refilled will not run out.

The segment in the preferred embodiment is removably placed into a cavity in the container, whereby it is automatically refilled. This minimises the space used by the device. Ideally the container and refill segment when connected form an attractive and self-contained whole that is not liable to come apart under the forces of gravity.

In addition, ideally the refillable segment is disconnectable or separable only when required, making the segment and the container effectively two parts of a whole.

In some embodiments both parts are usable without the other, in that the container is provided with a nozzle for the user to dispense the fluid as well as the segment having a nozzle for dispensing fluid.

In preferred embodiments alignment of the container and refill segment are automatic, with such alignment engaging the fitting, and releasing transfer of the contents.

In further embodiments the refillable segment is refilled by other means, such as attachment to the container by externally provided means such as a tube, hose or pipe. In addition or in the alternative adjacent placement of the container and refillable segment may connect the container and refillable segment and engage the fitting.

In the alternative or in addition a screw thread may be provided to stably secure the refill segment to, or seat the refill segment in, the container.

Brief Description of Figures

Figure 1 shows a front view of a preferred embodiment of the device;

and

Figure 2 an exploded view of the preferred embodiment with the segment disconnected.

Detailed Description of Preferred Embodiment of the Invention

The preferred embodiment of the device 1 is shown as spherical with a flattened bottom, with the refill segment 2 seated in the container 3. A lid (4) is also provided, hinged at 5. Ideally this lid is constructed largely of the same material as the container and segment but may be constructed of a metallic material.

In further embodiments the lid may be a screw fitting, clip fit or other attachment. In yet further embodiments no lid is provided or a part may be provided that forms a lid or nozzle for the container, such that the container may be used without the segment.

Additionally in some embodiments the lid may be removable and replaceable such that when the segment is in place in the container the lid may be used as a button to activate the spray head 6. In such embodiments the spray head sprays the fluid to exit the lid 4.

Ideally the segment is automatically aligned by its placement into a sleeve (8) in the container (3). Ideally the segment (2) may only be placed into the sleeve 8 in one direction and with one orientation. Further embodiments may require the segment 2 to be screwed on clipped into place in the sleeve 8 and/or container 3 or otherwise connected.

This sleeve 8 guides the alignment of the segment 2 into the container 3 and simultaneously connects the fitting (7) in order to permit transfer of the container contents to the segment 2.

Figure 2 shows the segment 2, container 3 and lid 4 of the preferred embodiment all disconnected.

In order for the segment 2 to dispense the fluid, the user must press down on the button (10), dispensing fluid through the spray head 6. The fluid in the segment may be under pressure, with the spray head 6 being a vapouriser, or in further embodiments, the button 10 may provide a pumping action, drawing fluid along a hose 9 from an inlet 11.

Ideally there is provided a mechanism for release of air from the segment, 2, prior to refilling the segment 2 with the contents of the container 3. This may be enabled by a two stage valve opening mechanism and/or gas escape route (12). Such an arrangement would require the segment 2 to be connected along a largely vertical axis with for instance a 'locking' step along a rotational or horizontal axis; and may require a user to perform two steps in connecting the segment to the container 3, such as initially placing the segment 2 into the sleeve 8 to release the air, and subsequently screwing the segment 2 into the container to make the connection.

In further embodiments the device may be formed of a container with an externally connected segment. This segment may slide onto the container, or clip onto or otherwise connect, allowing a fitting to be made and the contents of the container to pass to the segment. Such an arrangement, such as where the segment is clipped into place and then slid down the container to finalise the connection may allow for initial release of trapped air in the segment.

In further embodiments the container and/or segment and/or device may be constructed in part or whole of aluminium or other metal.

The invention has been described by way of examples only and it will be appreciated that variation may be made to the above-mentioned embodiments without departing from the scope of invention.

With respect to the above description then, it is to be realised that the optimum dimensional relationships for the parts of the invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention.

Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

Claims

1. A toiletry device comprising a pressurised container for fluid with a disconnectable segment; said container in use having higher internal pressure than said segment, and said segment refilling with fluid when connected.
2. A toiletry device according to claim 1 for perfume or after-shave.
3. A toiletry system of providing a portable container for fluid according to any preceding claim.



Application No: GB1018657.5

Examiner: Emma Tonner

Claims searched: 1-3

Date of search: 20 November 2011

Patents Act 1977: Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance
X,Y	1-3	WO2010/092310 A1 (GALINHA) see p.5, line 34 - p. 6, line 23 and figs. 6A,B
Y,A	1, 2	EP0372195 A (CANDIANI) see col.4, lines 10-22
Y,A	1	DE3032523 A (DURR-DENTAL) see English abstract

Categories:

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

Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC^X :

Worldwide search of patent documents classified in the following areas of the IPC

A45D; B05B; B65D

The following online and other databases have been used in the preparation of this search report

EPODOC, WPI

International Classification:

Subclass	Subgroup	Valid From
A45D	0034/00	01/01/2006
B65D	0021/02	01/01/2006