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(54) **Dispensing device preferably for but not limited to the cosmetics and pharmaceutical sectors**

(57) The device in question is a dispensing device (1) particularly suitable for the cosmetics and pharmaceutical sectors that includes handle (2) with ring (3). Said ring has a support structure for a product to be dispensed such as, for example, a netting on which said

product is placed so that it does not slip inside the handle. Said product is protected by cover element (4), coupled with said ring (3).

The dispensing device (1) can be comfortably grasped by the user using handle (2) and the product can therefore be quickly applied.

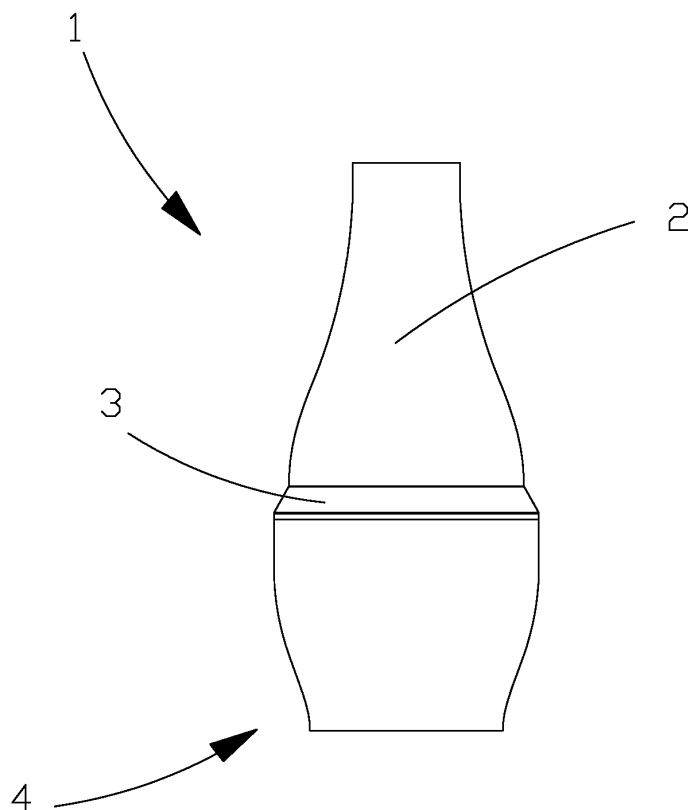


Fig. 1

Description

[0001] This invention refers to a device for products in a solid form with a pasty consistency. More in particular the invention concerns a dispensing device for the aforementioned products.

[0002] The application range for such a device may be highly variable and may extend, for example, from the cosmetics sector to that of dermapharmaceutical sector. Examples of typical products belonging to these two sectors are deodorants, depilatory products, perfumes, lip products such as chapsticks and lipsticks.

[0003] The devices known up to now for the aforementioned products are designed to contain the product to be applied in a sealed container, generally cylindrical, oval or with a polygonal profile. The above-mentioned product comes out from this container at the time of use.

[0004] To use the product contained in such devices you must first open the container and then cause the product to exit, done by acting on the container by rotating a wheel installed at one end of the container or by pushing on its base or using spring mechanisms or other particular and complex pushing systems.

[0005] Such devices generate the need to perform two separate procedures as described above and which generally require use of both hands.

[0006] In addition such devices may have the problem that the mechanisms used to permit the product to exit may break or jam. This prevents the product from exiting easily from the container and from being immediately available for use.

[0007] The aim and function of the invention in question is to solve the previously described problems and other problems by creating a dispensing device that is practical and quick to use so that the user can use the product without encountering particular difficulties with more or less complex mechanisms or devices.

[0008] The invention therefore provides for a dispensing device characterized by the fact that it includes a handle with a ring on which the product to be dispensed is placed, with said product being protected by a cover element that is coupled with said ring.

[0009] This invention does not suffer from the aforementioned problem of known dispensers because it does not have the aforementioned mechanisms required to cause the product to be dispensed to come out.

[0010] In addition this invention, compared to the above-mentioned known devices, is more practical to use. In fact to use the product to be applied all the user has to do is to remove the cap and when this is done the product to apply is already properly positioned for use. All the user has to do is to grasp the upper part of the dispenser or the handle to extract the product from the cover or base element and use it immediately.

[0011] Another advantage is that the device according to this invention may have a handle of variable configuration that can be modeled in order to be much more ergonomic and comfortable to grasp when compared to

known devices.

[0012] Further characteristics and details of the invention can be better understood from the following description which is given as a non-limiting example and which refers to the accompanying drawings wherein:

figure 1 represents a side view of the closed device according to the present invention as a whole;
figure 2 shows a cross-section view of the device in figure 1;
figure 3 is an exploded side view of the invention in question;
figure 4 shows an exploded side view and cross section of the device according to the present invention.

[0013] Referring to the accompanying drawings, number 1 denotes the device according to the present invention as a whole, including handle 2, ring 3 and cover element or cap 4.

[0014] Handle 2 is used to grasp device 1 when it is being used. Handle 2 has a basically cone-shaped form that permits element 1 to be firmly and comfortably grasped. For example handle 2 can have a cone-shaped form or the form of an irregular truncated cone.

[0015] In one preferential form the handle is a hollow and empty element to make the entire device 1 lighter and reduce production costs.

[0016] Handle 2 has, at its end facing cap 4, a profile that permits it to make a joint with ring 3 as can be seen in detail in figures 2 and 4.

[0017] In its turn ring 3 has, on the side facing the handle, a profile that is complementary to that of handle 2; said profile permits ring 3 to be firmly coupled to said handle 2.

[0018] Ring 3 has a hook means, such as a threading, that permits it to hook to cap 4 in order to close device 1.

[0019] Said ring 3 also has a support structure, not shown in the figure, for product 8 to be dispensed such as, for example, a netting on which said product is placed so that it does not slip inside the handle.

[0020] Cap 4 consists of hollow external element 5 and supporting element 6, which is also hollow, placed inside external element 5. Therefore supporting element 6 must have a shape that is compatible with external element 5 so that the former can be introduced into the latter.

[0021] The shape of the two aforementioned elements 5 and 6 can be equal or different. In particular the internal shape of supporting element 6 is complementary to that of product 8 which is contained in the same supporting element 6.

[0022] External element 4 can have any shape as long, however, as it has a flat and sufficiently wide base 7 so that said base can be used as a stable support base for device 1 as shown in figure 2.

[0023] As described previously the cap supporting element 6 is inserted inside the cap. Such an element 6 is firmly connected to external element 5 of the cap by us-

ing, for example, a joint. Supporting element 6 also has hook means such as, for example, threading that meshes with ring 3 in order to permit, for example, the cap to be closed by screwing it on the rest of device 1 of this invention.

[0024] As an alternative handle 2 may have a flat upper surface on which to set device 1 rather than on the flat surface 7 of cap 4.

[0025] In addition the surface of said handle 2 can be rough in order to make it easier to grasp.

[0026] This invention is preferably manufactured out of a plastic material, such as polyolefin, but can also be made out of any other material.

[0027] The size of such a device varies depending on the product to be dispensed. In fact, for example, a device for deodorant products is larger than a device for lipstick.

[0028] In addition the particular shape of the device according to the present invention also permits it to be used to apply products belonging to different sectors from the dermapharmaceutical or cosmetics sectors such as, for example, the stationary sector. The product to be dispensed could therefore be glue, polishes or other similar products.

[0029] The configuration of the dispenser according to the present invention makes it easy to fill the dispenser (1) during the production process. In fact the product (8) to be dispensed is inserted in cover element (4) and, more specifically, into supporting element (6), in a melted state, passing through ring (3) which has holes that make it suitable for said filling process, before ring (3) is permanently coupled with handle (2).

[0030] A technician in the sector can also envisage several modifications or variations which are to be held as included within the scope of protection of the present invention.

4. Dispensing device (1) according to the previous claims **characterized by** the fact that said ring (3) includes means for anchoring it with the product to be dispensed.

5. Dispensing device (1) according to the previous claims **characterized by** the fact that said handle (2) includes means for coupling with said ring (3).

6. Dispensing device (1) according to the previous claims **characterized by** the fact that said coupling means between said handle (2) and said ring (3) are screw-on devices.

7. Dispensing device (1) according to the previous claims **characterized by** the fact that said coupling means between said handle (2) and said ring (3) are joint means.

8. Dispensing device (1) according to the previous claims **characterized by** the fact that said supporting element (6) includes means for coupling with said ring (3).

9. Dispensing device (1) according to the previous claims **characterized by** the fact that said handle (2) is rough.

Claims

1. Dispensing device (1) designed in particular for the cosmetics and pharmaceutical sectors, **characterized by** the fact that it includes handle (2) with ring (3) on which the product to be dispensed is positioned, said product being protected by cover element (4) which couples with said ring (3).
2. Dispensing device (1) according to the previous claim **characterized by** the fact that said cover element (4) includes hollow external element (5) and hollow supporting element (6) positioned inside said hollow external element (5) and designed to contain the product coupled with said ring (3).
3. Dispensing device (1) according to the previous claims **characterized by** the fact that said external element (5) includes flat base (7) by which the device can rest on surfaces.

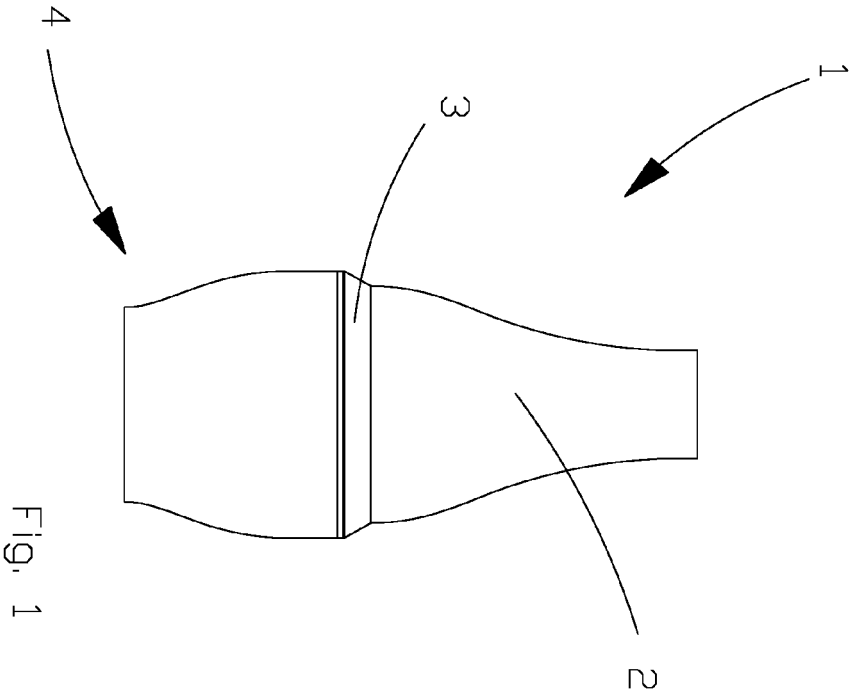


Fig. 1

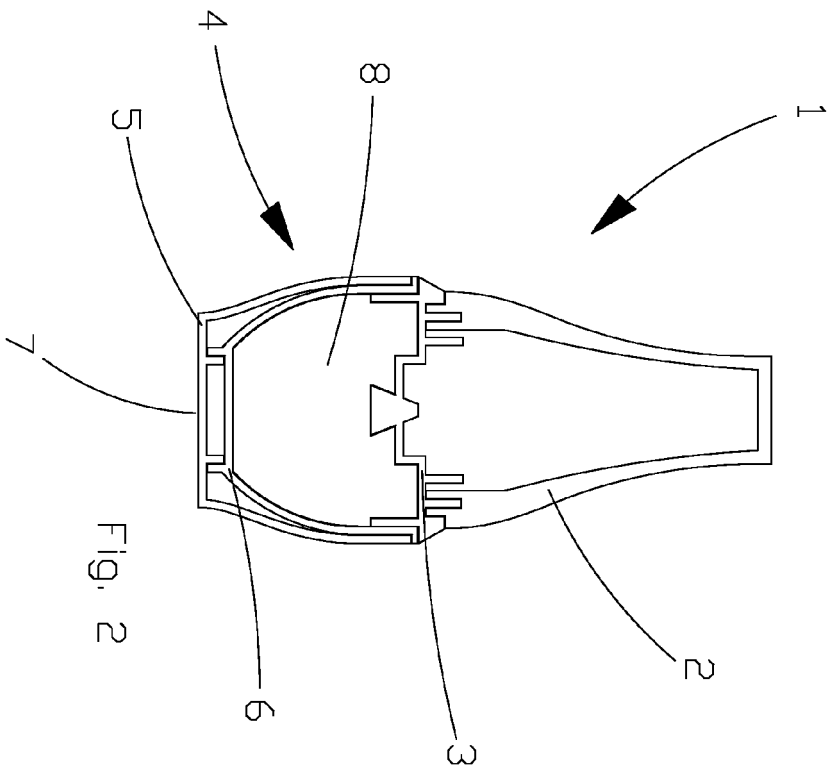


Fig. 2

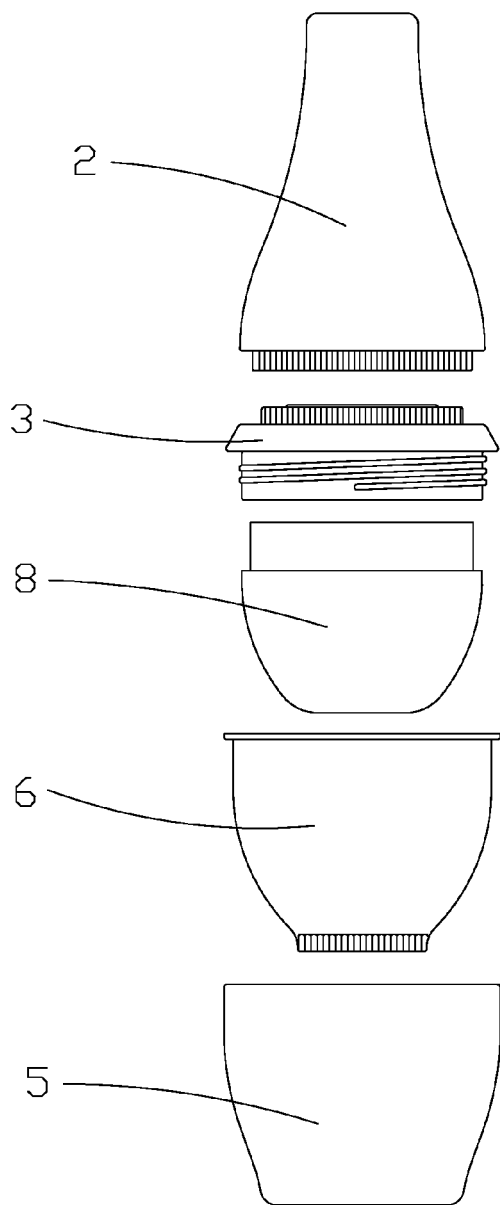


Fig. 3

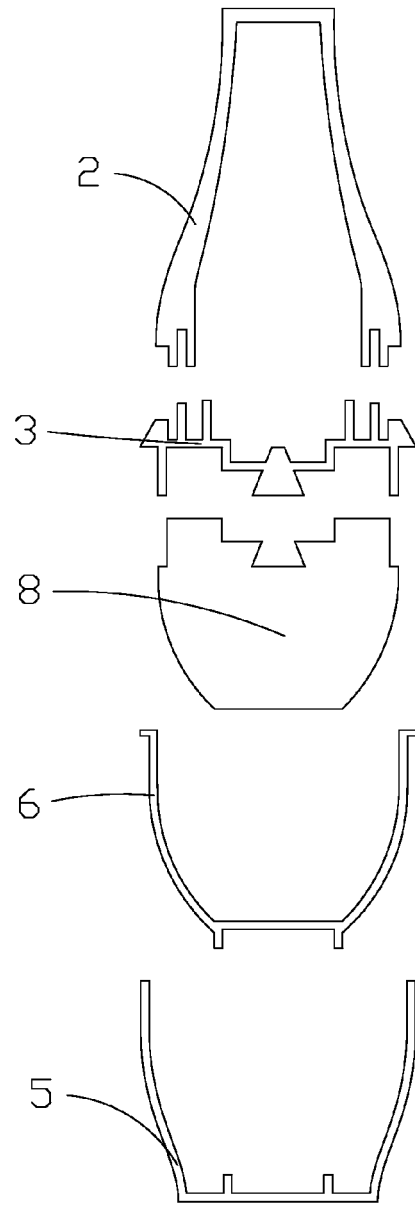


Fig. 4



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 4 235 557 A (HAYES THOMAS H [US]) 25 November 1980 (1980-11-25) * column 2, line 25 - column 3, line 32; figures 1-3 *	1-9	INV. A45D40/00
X	GB 2 162 822 A (OREAL) 12 February 1986 (1986-02-12) * page 2, line 19 - page 3, line 11; figures 1-5 *	1-9	
			TECHNICAL FIELDS SEARCHED (IPC)
			A45D
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 31 May 2007	Examiner Nicolás, Carlos
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			

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

EP 07 10 3856

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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31-05-2007

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 4235557	A	25-11-1980	CA	1117480	A1	02-02-1982

GB 2162822	A	12-02-1986	BE	902352	A1	06-11-1985
			DE	3516408	A1	07-11-1985
			FR	2563711	A1	08-11-1985
			IT	1183823	B	22-10-1987
			JP	61033604	A	17-02-1986
