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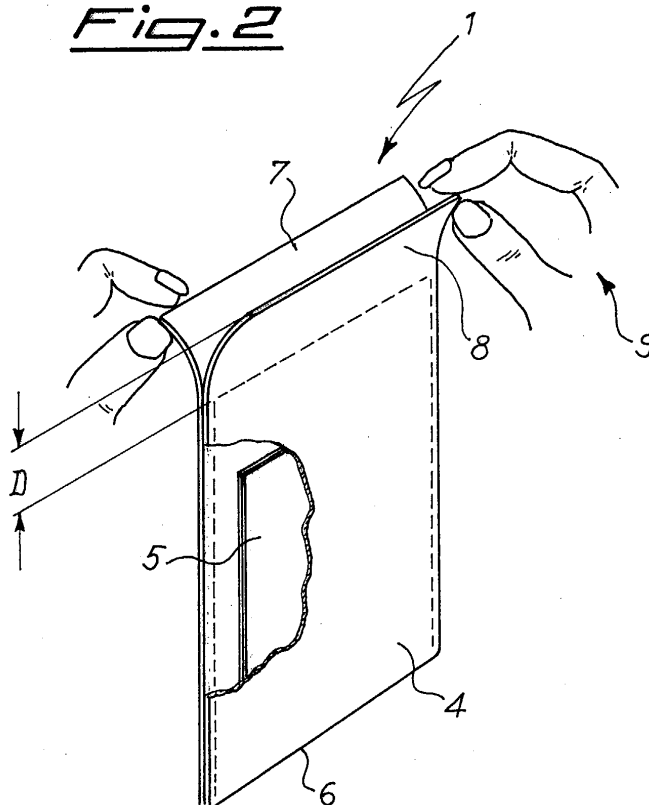
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(54) **Container for semidense or liquid cosmetic or pharmaceutical products combined with an applicator for the said cosmetic or pharmaceutical products**

(57) This invention relates to a container for semidense or liquid cosmetic or pharmaceutical products combined with an applicator (3) for the said cosmetic or pharmaceutical products, the said container (2) comprising a sheet of flexible material (4) welded around the said applicator (3), the said applicator (3) comprising a support (5) preimpregnated with the said cosmetic or phar-

maceutical products, the said sheet (4) of flexible material being folded upon itself along a fold line (6) to enclose the said support (5), characterised in that the said support (5) is associated with the said sheet (4) of flexible material and in that the said sheet (4) is welded in such a way as to form a pair of flaps (7, 8) so as to permit a user (9) to open and use the said container (1) without touching the said support (5).

**Fig. 2**



## Description

**[0001]** This invention relates to a container for semi-dense or liquid cosmetic or pharmaceutical products combined with an applicator for the said cosmetic or pharmaceutical products, particularly but not exclusively to a container and an applicator for gels, creams, emulsions or foams according to claim 1.

**[0002]** Containers in the form of a sachet designed to contain semidense or liquid cosmetic or pharmaceutical products are known.

**[0003]** These sachets are usually sealed and flexible. Also these sachets provide that one side of the same can be opened.

**[0004]** The sachet, whether manufactured from paper or plastics material, requires the user to perform a tearing operation in order to open its openable side.

**[0005]** Within these sachets there may be housed, for example, throwaway wipes impregnated with detergent substances or substances for personal hygiene, or pharmaceutical substances for topical use.

**[0006]** The tearing operation is usually assisted by the presence of a notch or pre-cut line close to one edge of the sachet, or a combination of notch and pre-cut line.

**[0007]** The pre-cut line and the notch create a kind of division in the sachet, that is a division in which it is possible to distinguish a principal body and an edge.

**[0008]** When a user wishes to access the contents housed within the sachet, for example the moist wipe, he must seize the main body with one hand and seize the edge with the other and effect a tearing operation so as to detach the edge from the said principal body.

**[0009]** However the tearing operation is commonly inconvenient and difficult. Sometimes the tear is imperfect and it is necessary to use scissors or similar instruments to complete the operation of opening the sachet.

**[0010]** Furthermore, as soon as the user has completed opening the sachet, it is unavoidable that the wipe will come into contact with the epidermis of the user's fingers. This may give rise to contamination of the wipe when the wipe is preimpregnated with pharmaceutical substances for topical use, with consequences which are easily imagined.

**[0011]** Furthermore, on completing this operation the user will have soiled hands because of the product impregnating the wipe and this will result in a necessary operation of washing the hands, an operation which it is not always possible to perform.

**[0012]** In the light of the state of the art described, the object of this invention is to provide a container for semi-dense or liquid products combined with an applicator for the said products which are devoid of the abovementioned disadvantages relating to the known art.

**[0013]** According to this invention this object is accomplished through a container for semi-dense or liquid cosmetic or pharmaceutical products combined with an applicator for the said cosmetic or pharmaceutical products according to claim 1.

**[0014]** Through this invention it is possible to provide a container for semi-dense or liquid products combined with an applicator for the said products which reduces or eliminates the need for the user to touch the applicator of the products during the operation of opening the container and during the operation using the applicator itself.

**[0015]** The features and advantages of this invention will be apparent from the following detailed description of an embodiment illustrated by way of a non-restrictive example in the appended drawings, in which:

- Figure 1 shows a plan view from above of an embodiment of the container combined with the applicator according to this invention,
- Figure 2 shows a perspective view in partial cross-section of the embodiment illustrated in Figure 1, at the time when a user is on the point of opening the container.

**[0016]** With reference to the appended figures, 1 indicates the combination of a container 2 for semi-dense cosmetic or pharmaceutical products (for example gels, foams) or liquid such products (for example emulsions) with an applicator 3 for the said cosmetic or pharmaceutical products.

**[0017]** Container 2 comprises a sheet 4 of substantially polygonal shape. In the particular embodiment sheet 4 takes the form of a member of rectangular shape.

**[0018]** Obviously the use of sheet 4 of rectangular shape is only preferred; there is nothing to prevent the use, for example, of a sheet of circular shape.

**[0019]** The material of which this sheet 4 is made is for example a peelable flexible layered material comprising a polyester (PET) film overlain externally on an aluminium (Al) sheet internally covered by a polyethylene (PE) film with the possible interposition of a nylon (N) coupling film.

**[0020]** Applicator 2 comprises a support 5 which is pre-impregnated or moistened with the abovementioned cosmetic or pharmaceutical products.

**[0021]** As will be seen from the figures, support 5 has a width L1 which is smaller than or at the limit identical to the width L2 of sheet 4 and also has a height H1 which is less than or at the limit equal to the width H2 of sheet 4.

**[0022]** Support 5 may comprise a non-woven fabric belonging to the group of polypropylene fibres or polyester fibres.

**[0023]** In this specific embodiment support 5 is associated through a thermal welding operation (indicated by the thick line in Figure 1) with sheet 4 of flexible material. This thermal welding operation involves a pair of opposite edges of the support or alternatively the thermal welding operation is performed along the entire perimeter of support 5.

**[0024]** Alternatively, support 5 may comprise a non-woven viscose fabric.

**[0025]** In this specific embodiment support 5 is associated through a bonding operation (indicated by the thick

line in Figure 1) with sheet 4 of flexible material. This bonding operation involves a pair of opposite edges of the support or alternatively the bonding operation can be carried out along the entire perimeter of support 5.

[0026] With reference to Figure 2, it will be noted that sheet 4 of flexible material is bent back on itself along a folding line 6 to enclose support 5 within it.

[0027] In particular, sheet 4 is hermetically sealed through a further heat welding operation (indicated by a dashed line in the figures) around support 5.

[0028] The thermal welding is carried out along the longitudinal and transverse edges of sheet 4 in such a way as to define the pair of flaps or lips 7, 8.

[0029] In other words the thermal welding operation corresponding to the transverse edges of sheet 4 forms a pair of flaps 7, 8 having the dimension D such as to allow the same to be grasped by a user 9.

[0030] Dimension D of flaps 7 and 8 is substantially less than height H2 of sheet 4.

[0031] This pair of flaps 7, 8 advantageously allows user 9 to open and use container 1 without touching support 5.

[0032] A welding material having a low plasticisation point, such as for example a material comprising a polyethylene film, is usually used to effect the thermal welding operation for sheet 4.

[0033] In a preferred embodiment width L1 of support 5 is substantially identical to the dimension L2 of sheet 4 and height H1 of support 5 is less than height H2 of sheet 4.

[0034] In this situation, and assuming that a support 5 comprising a non-woven fabric belonging to the group of polypropylene fibres or polyester fibres is used, it is possible to effect the association of support 5 with sheet 4 and simultaneous sealing of container 1 through a single thermal welding operation.

[0035] This further has the advantage that the cosmetic or pharmaceutical products moistening support 5 cannot escape from the support itself.

[0036] In use, user 9 seizes flaps 7 and 8 of flexible sheet 4 and exerts a pulling force along opposite radial directions so as to effect peeling of container 1. Support 5 is exposed and ready to be applied without user 9 having to touch it with his hands.

[0037] In fact, once container 1 is open, user 9 uses the container itself as a supporting element for support 5.

[0038] In order to satisfy contingent and specific requirements a person skilled in the art could apply numerous modifications and adaptations and the replacement of components with other functional equivalents to the preferred embodiment of the invention described above without however going beyond the scope of the following claims.

## Claims

1. Container for semidense or liquid cosmetic or phar-

maceutical products combined with an applicator (3) for the said cosmetic or pharmaceutical products, the said container (2) comprising a sheet of flexible material (4) welded around the same to applicator (3), the said applicator (3) comprising a support (5) preimpregnated with the said cosmetic or pharmaceutical products, the said sheet (4) of flexible material being folded back on itself along a fold line (6) to enclose the said support (5), **characterised in that** the said support (5) is associated with the said sheet (4) of flexible material and **in that** the said sheet (4) is welded in such a way as to form a pair of flaps (7, 8) so as to permit a user (9) to open and use the said container (1) without touching the said support (5).

2. Container according to claim 1, **characterised in that** the said pair of flaps (7, 8) have a dimension (D) such as to permit them to be grasped by the said user (9).

3. Container according to claim 1, **characterised in that** the said support (5) comprises a non-woven fabric belonging to the group of polypropylene fibres or polyester fibres.

4. Container according to claim 3, **characterised in that** the said the said support (5) is associated with the said sheet (4) of flexible material by thermal welding.

5. Container according to claim 1, **characterised in that** the said support (5) comprises a non-woven viscose fabric.

6. Container according to claim 5, **characterised in that** the said the said support (5) is associated with the said sheet (4) of flexible material by adhesive bonding.

7. Container according to any of the preceding claims, **characterised in that** the said sheet (4) of flexible material is constructed of peelable polyethylene.

8. Container according to any of the preceding claims, **characterised in that** the said support (5) has a width (L1) which is less than the width (L2) of the said sheet (4) and that the said support (5) has a height (H1) which is less than the width (H2) of the said sheet (4).

9. Container according to claims 1 to 7, **characterised in that** the said support (5) has a width (L1) equal to the width (L2) of the said sheet (4) and that the said support (5) has a height (H1) less than the width (H2) of the said sheet (4).

10. Container according to claims 2, 8 and 9, **charac-**

**terised in that** the said dimension (D) of the said pair of flaps (7, 8) is less than the height (H2) of the said sheet (4).

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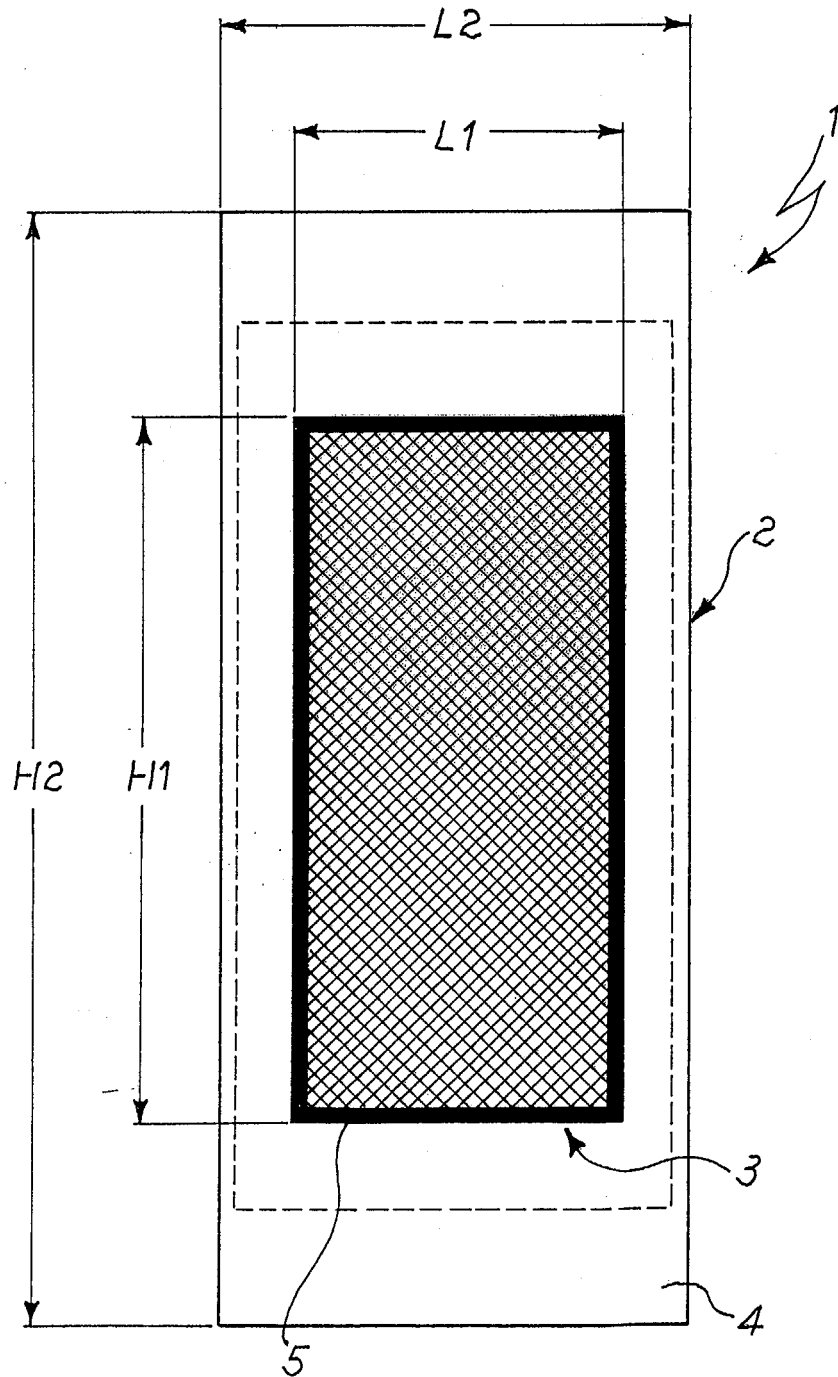
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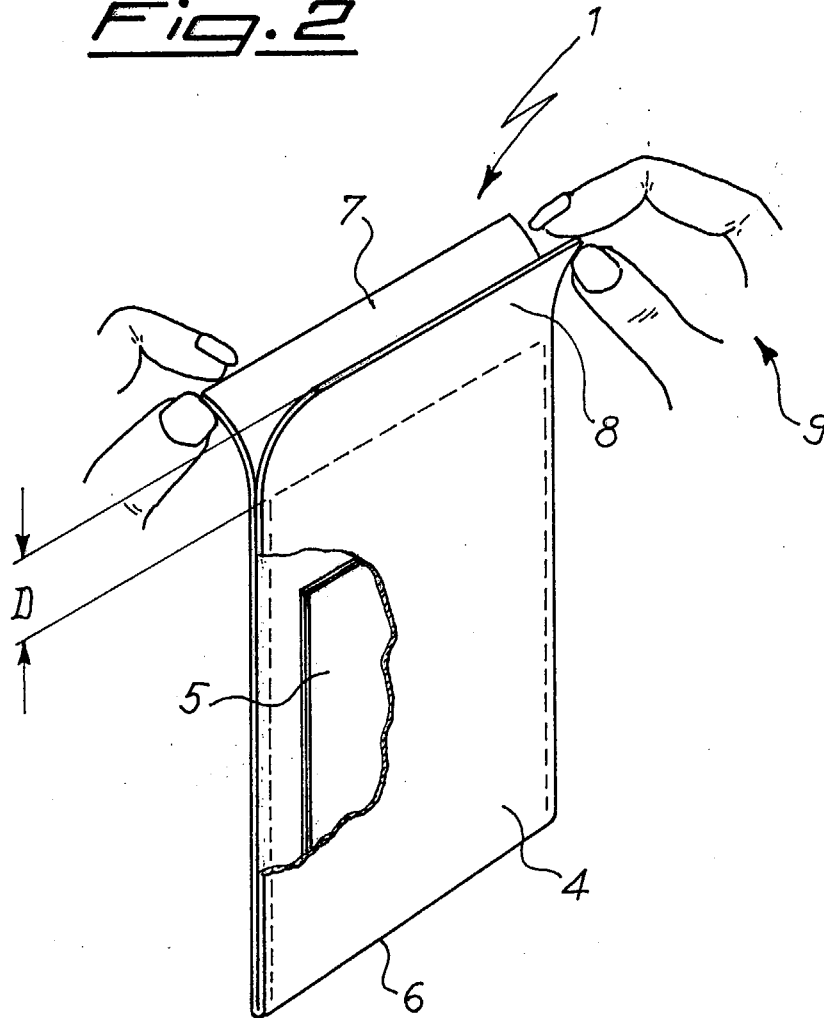
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Fig. 1



*Fig. 2*





European Patent  
Office

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Application Number  
EP 04 42 5581

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| The present search report has been drawn up for all claims   |  |   |   |
| Place of search<br><b>Munich</b>   |  | Date of completion of the search<br><b>14 December 2004</b> | Examiner<br><b>Cazacu, C</b>                        |
| CATEGORY OF CITED DOCUMENTS<br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document<br>T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |  |   |   |

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