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(54) **Packaging for liquid products equipped with a straw**

(57) A packaging (1) for liquid products equipped with a straw (5) and comprising a container (3) and a cover (4) hermetically connected to each other is disclosed, where the straw (5) is incorporated within the packaging (1), is insulated by the cover (4) from the external environment and has its lower end always immersed in the liquid product filling the container (3,13).

Preferably the container (3) and the straw (5) are produced at the same time so that the container (3) constitutes a single unit with the straw (5) and the upper end (8) of the straw (5) is positioned in a groove realised in the upper edge of the container (3) and at least partially closed by a tab (9), belonging to the cover (4), to be lifted up from the groove to allow the upper end (8) of the straw (5) to protrude from the packaging (1).

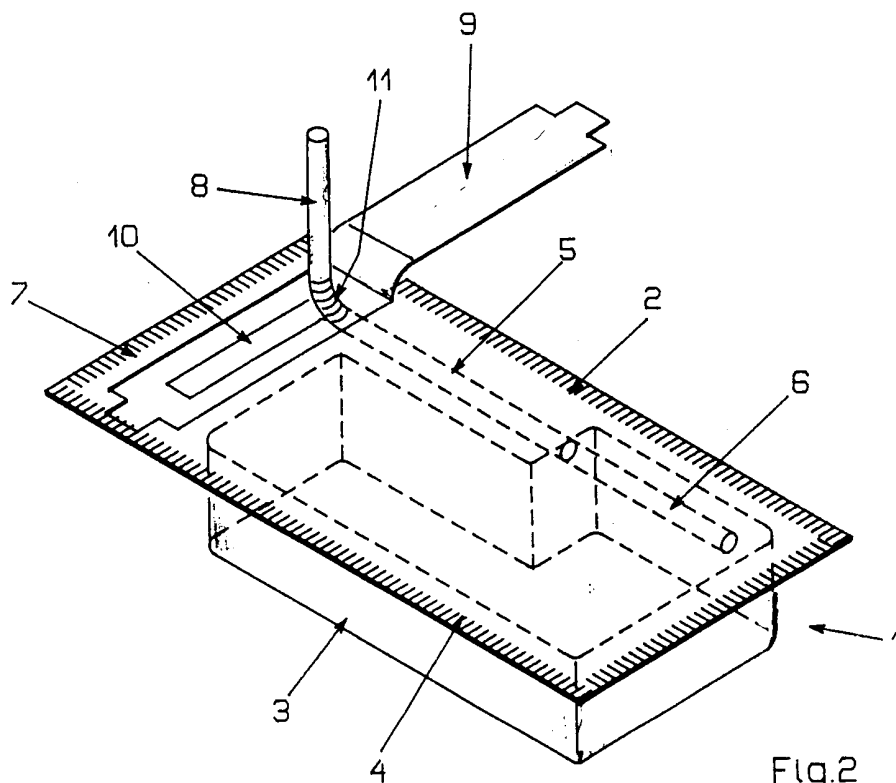


Fig.2

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Description

Field of the invention

[0001] The present invention refers to a packaging for a liquid product equipped with a straw which allows a consumer to consume in an easy and hygiene-saving manner the liquid product filling the packaging.

State of the art

[0002] Packaging for liquid products in the form of a container in metal, cardboard and plastics material of various shapes and with hermetic sealing are widely diffused.

[0003] The consumer which wishes to consume the product (a drink or another liquid product) opens the packaging by pulling up a tab or by puncturing the side of the packaging itself and by inserting a straw, if any, so as to allow the product to be consumed in a more practical manner.

[0004] In both cases, the problem of respecting hygiene standards for safeguarding the health of the consumer is particularly evident.

[0005] In fact, in the case of cans for drinks, there can be an accumulation of dirt around the rim of the lid and/or on the opening tab, which clearly involves not negligible risks of contamination for the product and also, when no straw is used, for the consumer whose lips come into direct contact with the rim of the can.

[0006] Likewise, a lack of sufficient hygiene conditions is also a not negligible problem when containers or cans made of plastics material are used, where the part to be punctured in order to access the drink is composed of a foil cover.

[0007] The already known packaging called "brick packs" are made of a container in cardboard provided with a pliable point in its upper part which is punctured by the consumer, which then introduces a straw which is found separately or glued to a side of the container.

[0008] Even this type of packaging, however, does not ensure complete hygiene as the consumer must nevertheless handle the straw in order to separate it from the packaging, to remove it from its wrapping and to insert it in the container.

[0009] Furthermore, the insertion of the straw in the container involves some risks of contaminating the straw end which, when the pliable point is punctured, draws traces of dirt, if any, present in the punctured area inside the container and, consequently, also contaminates the product into which the straw has been inserted.

[0010] A packaging according to the present invention is suitable to overcome the above mentioned drawbacks as it fully respects the hygiene standards for safeguarding the health of the consumer and, at the same time, it is economical and simple to use.

Summary of the invention

[0011] The present invention refers to a packaging for liquid products equipped with a straw, comprising a container and a cover hermetically connected each other, where the straw is incorporated within the packaging and is isolated by the cover from the external environment; the lower end of the straw is always immersed in the liquid product filling the container.

[0012] When the consumer lifts up a tab belonging to the cover, the upper end of the straw protrudes automatically from the packaging due to the straw flexibility, thus enabling the liquid product to be consumed in a practical and hygiene-saving manner.

Brief description of the drawings

[0013] The present invention will be now described with reference to two embodiments disclosed only for illustrative purposes and not in a limiting sense with reference to the enclosed figures, where:

- figure 1 shows a perspective view of a first embodiment of a packaging according to the present invention, with the packaging in closed condition;
- figure 2 shows a perspective view of the packaging of figure 1 in open condition, with the upper end of the straw protruding therefrom;
- figures 3 and 4 show, respectively, the packaging of figure 1 cross-sectioned according to planes III-III and IV-IV of figure 1;
- figure 5 shows the packaging of figure 1 lengthways sectioned according to plane V-V of figure 1;
- figure 6 shows a perspective view of a second embodiment of a packaging according to the present invention, with the packaging in closed condition;
- figure 7 shows a perspective view of the packaging of figure 6 in open condition, with the upper end of the straw protruding therefrom;
- figure 8 shows a detailed view of the upper portion of the packaging of figure 7.

Detailed description

[0014] The present invention refers to a packaging for liquid products equipped with a straw, comprising a container and a cover hermetically connected each other, where the straw is incorporated within the packaging and is insulated by the cover from the external environment; the lower end of the straw is always immersed in the liquid product filling the container.

[0015] The container and the straw are produced at the same time in a manner not disclosed therein as it is known to any person skilled in the art, the container constituting a single unit with the straw.

[0016] at the same time as the straw, so as to constitute a single unit with the packaging. The upper end of the straw, i.e. the end of the straw used by the consumer

to consume the product, is positioned in a groove realised in the upper edge of the container and at least partially closed by a tab, belonging to the cover, to be lifted up from the groove to allow the upper end of the straw to protrude from the packaging.

[0017] Figure 1 shows a perspective view of a first embodiment of a packaging 1 according to the present invention, comprising the container 3, the cover 4 and the straw 5; the lower end 6 of the straw 5 is so positioned into the container 3 to be always immersed in the liquid product (not shown in the enclosed figures to simplify the graphical representation) which fills the container 3.

[0018] According to the embodiment shown by figure 1, the packaging 1 has a substantially parallelepiped shape and the straw 5 is positioned into a "L"-shaped groove realised in the upper edge 2 of the container 3.

[0019] The upper end 8 of the straw 5 is positioned in a first portion 10 of the "L"-shaped groove, realised in a transversal side 7 of the upper edge 2 of the container 3 and closed by the tab 9 belonging to the cover 4; the lower end 6 of the straw 5 is positioned in a second portion of the "L"-shaped groove, provided in a longitudinal side of the upper edge 2 of the container 3 and so inclined that the lower end 6 of the straw 5, protruding from the second portion of the "L"-shaped groove, remains always immersed in the liquid product.

[0020] The first portion 10 of the "L"-shaped groove is orthogonal to the second one.

[0021] The first portion 10 of the "L"-shaped groove wherein the upper end 8 of the straw 5 is positioned is shown in figure 2 and (by a dashed line) in figure 4, while in figures 1, 3 and 5 it is covered by the upper portion 8 of the straw 5; the second portion of the "L"-shaped groove wherein the lower end 6 of the straw 5 is positioned is shown in figure 3 and (by a dashed line) in figure 5, while in figures 1, 2 and 4 it is covered by the lower portion 6 of the straw 5.

[0022] According to the preferred embodiment shown in figure 2, once the tab 9 has been lifted up the upper end 8 of the straw 5 protrudes from the first portion 10 of the "L"-shaped groove automatically due to the flexibility of the expandable part 11 of the straw 5, thus enabling the liquid product to be consumed in a practical and hygiene-saving manner but, without departing from the scope of the invention, the upper end 8 of the straw 5 can be extracted from the first portion 10 of the "L"-shaped groove manually: said manual extraction involves risks of contamination as set forth above.

[0023] The automatic protrusion of the upper end 8 of the straw 5 is achieved by fixing in a known manner the straw 5 in the "L"-shaped groove with its upper end 8 protruding from the lateral side 7 of the upper edge 2 of the container 3 as shown in figure 2 and by forcing the upper end 8 of the straw 5 into the first portion 10 of the "L"-shaped groove: the upper end 8 of the straw 5 is therefore lightly pre-loaded by the elastic contrasting action exerted by the expandable part 11 of the straw 5.

[0024] Preferably the tab 9, once lifted up for opening

the packaging 1, cannot be removed from the packaging 1.

[0025] Figures 3, 4 and 5 show, respectively, the packaging of figure 1 sectioned according to planes III-III, IV-IV and V-V of figure 1; said figures clearly show the straw 5 positioned into the "L"-shaped groove realised in the upper edge 2 of the container 3 and the lower end 6 of the straw 5 protruding from the "L"-shaped groove inside the container 3 so as to be always immersed in the liquid filling the container 3.

[0026] Finally, figures 1 to 5 show that at least a lateral side of the substantially parallelepiped-shaped container 3 provides for one or more hollow or indentations 12 for achieving a more ergonomic hold of the packaging 1 by the consumer when the liquid product is being consumed but said one or more hollows or indentations 12 can be omitted without departing from the scope of the invention.

[0027] Figures 6 to 8 show a second embodiment of a packaging 1, comprising the cylindrical-shaped container 13 and the cover 16 hermetically connected each other; the upper end 15 of the straw 14 is positioned in a groove 18 realised in the cover 16 of the packaging 1, while the lower end of the straw 14 is positioned inside the cylindrical container 13 and remains always immersed in the liquid, not shown to simplify the graphical representation.

[0028] Similarly to the cover 4 belonging to the first embodiment of the invention disclosed above, the cover 16 provides for a tab 17, which covers in a hermetic manner the groove 18 wherein the upper end 15 of the straw 14 is positioned, so as to protect it from the external environment (figure 6).

[0029] According to the preferred embodiment shown in figures 7 and 8, once the tab 17 has been lifted up the upper end 15 of the straw 14 protrudes from the groove 18 automatically due to the flexibility of the expandable part 19 of the straw 14, thus enabling the liquid product to be consumed in a practical and hygiene-saving manner but, without departing from the scope of the invention, the upper end 15 of the straw 14 can be extracted from the groove 18 manually, said manual extraction involving risks of possible contamination as set forth above.

[0030] Preferably the tab 17, once lifted up for opening the packaging 1, cannot be removed from the packaging 1.

[0031] Furthermore, the container 13 is produced (in a manner not disclosed therein as it is known to any person skilled in the art) at the same time as the straw 14, the straw 14 and the container 13 being united each other as to constitute a single unit.

[0032] Finally, according to a further embodiment not shown in the figures, the lower end of the straw (5, 14) is composed of a channel made directly on a side of the container (3, 13) by a forming process.

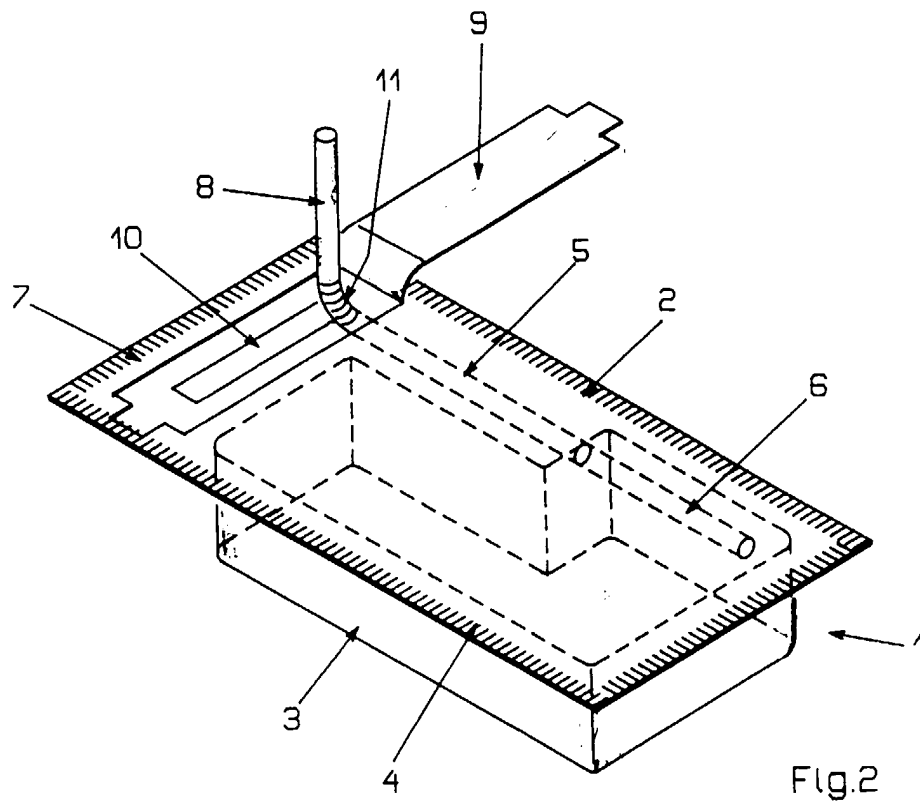
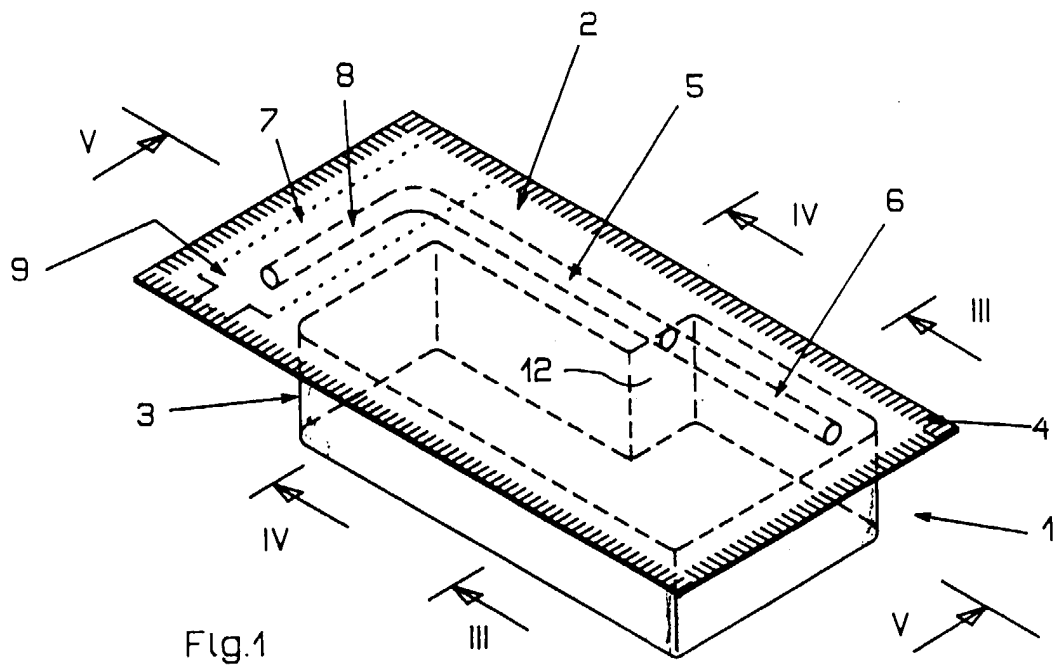
[0033] All modifications of and improvements in packaging for liquid products equipped with a straw as sug-

gested by the normal experience and by the natural evolution of the technique may be effected by a skilled person without departing from the scope of the present invention.

Claims

1. Packaging for liquid products equipped with a straw, comprising a container (3, 13) and a cover (4, 16) hermetically connected each other, characterised in that the straw (5, 14) is incorporated within the packaging (1) and is insulated by the cover (4, 16) from the external environment and in that the lower end of the straw (5, 14) is always immersed in the liquid product filling the container (3, 13). 10
2. Packaging according to claim 1, characterised in that the container (3, 13) and the straw (5, 14) are produced at the same time, the container (3, 13) constituting a single unit with the straw (5, 14). 15
3. Packaging according to claim 1, characterised in that the upper end (8, 15) of the straw (5, 14) is positioned in a groove realised in the upper edge of the container (3, 13) and at least partially closed by a tab (9, 17), belonging to the cover (4, 16), to be lifted up from the groove to allow the upper end (8, 15) of the straw (5, 14) to protrude from the packaging (1). 20 25
4. Packaging according to claim 3, characterised in that, once the tab (9, 17) has been lifted up, the upper end (8, 15) of the straw (5, 14) protrudes from the groove automatically, due to the flexibility of the expandable part (11, 19) of the straw (5, 14). 30 35
5. Packaging according to claim 3, characterised in that, once the tab (9, 17) has been lifted up, the upper end (8, 15) of the straw (5, 14) is extracted from the groove manually. 40
6. Packaging according to claim 3, characterised in that the tab (9, 17), once lifted up, cannot be removed from the packaging (1). 45
7. Packaging according to claim 3, characterised in that the packaging (1) has a parallelepiped shape and in that the straw (5) is positioned into a "L"-shaped groove realised in the upper edge (2) of the container (3), the upper end (8) of the straw (5) being positioned in a first portion (10) of the "L"-shaped groove realised in a transversal side (7) of upper edge (2) of the container (3) and closed by the tab (9), the lower end (6) of the straw (5) being positioned in a second portion of the "L"-shaped groove provided in a longitudinal side of the upper edge (2) of the container (3) and protruding there- 50 55
8. Packaging according to claims 4 and 7, characterised in that the automatic protrusion of the upper end (8) of the straw (5) from the first portion (10) of the "L"-shaped groove is achieved by fixing the straw (5) in the "L"-shaped groove with its upper end (8) protruding from the transversal side (7) of upper edge (2) of the container (3) and by forcing into the first portion (10) of the "L"-shaped groove the upper end (8) of the straw (5), pre-loaded by the contrasting elastic action exerted by the expandable part (11) of the straw (5). 5
9. Packaging according to claim 7, characterised in that at least a lateral side of the parallelepiped-shaped container (3) provides for at least an indentation (12). 10
10. Packaging according to claim 3, characterised in that the container (13) of the packaging (1) has a cylindrical shape, in that the upper end (15) of the straw (14) is positioned in a groove (18) realised in the cover (16) of the packaging (1), in that the lower end of the straw (14) is positioned inside the cylindrical container (13) of the packaging (14) and in that the cover (16) provides for a tab (17) which covers the groove (18) in an hermetic manner. 25
11. Packaging according to claim 1, characterised in that the lower end of the straw (5, 14) is realised through a channel made directly on a side of the container (3, 13) by a forming process 30

from.



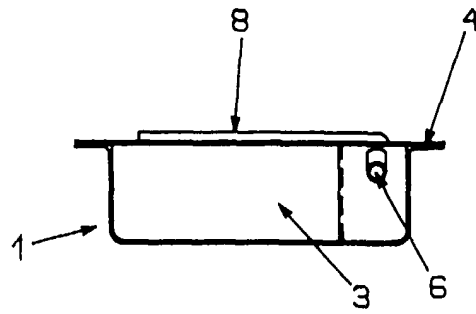


Fig.3

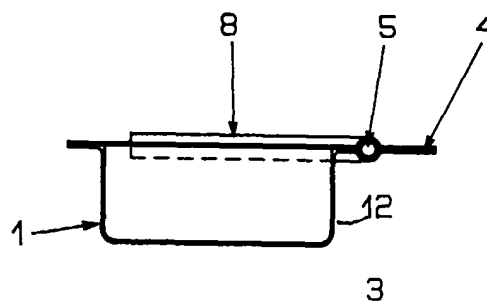


Fig.4

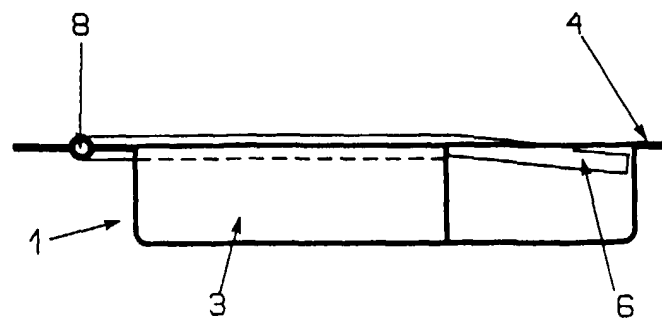


Fig.5

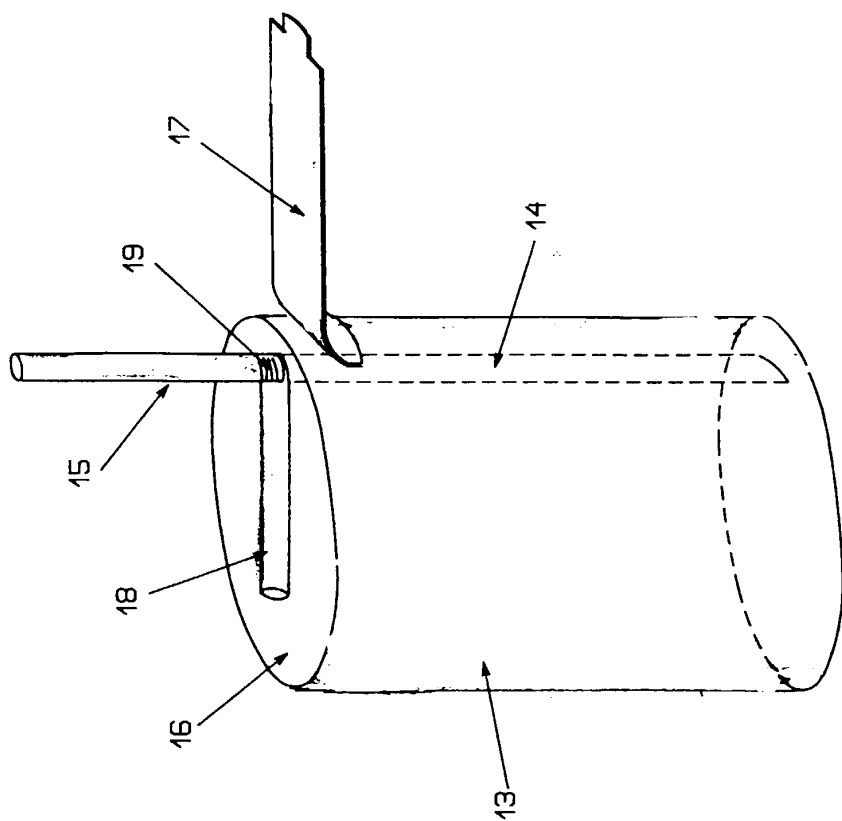


Fig. 7

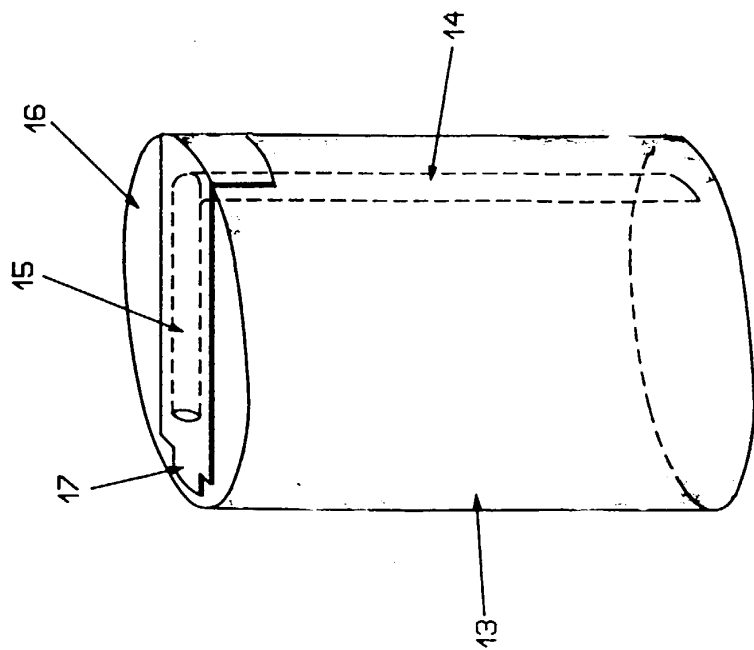


Fig. 6

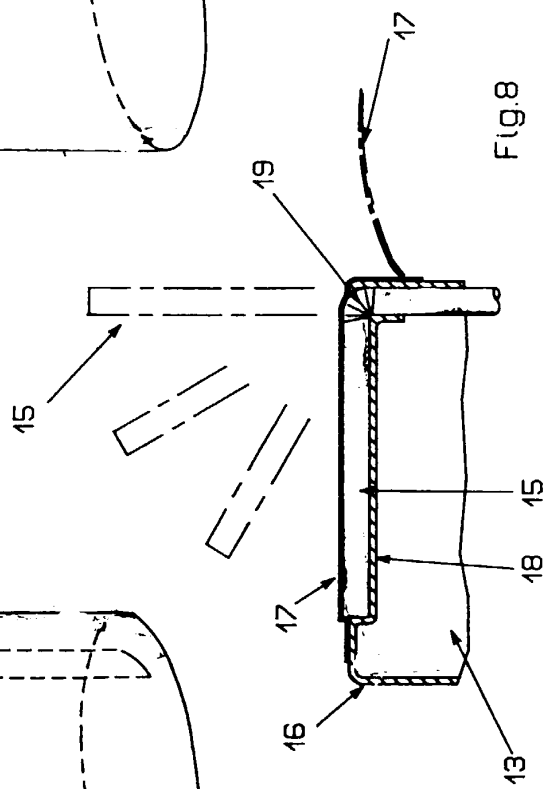


Fig. 8



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EUROPEAN SEARCH REPORT

Application Number
EP 99 11 2245

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Place of search THE HAGUE		Date of completion of the search 16 November 1999	Examiner Berrington, N
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
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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