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(54) Lid for flexible or semi-rigid containers, particularly for granular or powder products

(57) A lid is described for flexible or semi-rigid containers, particularly for granular or powder products, of the type having a substantially parallelepiped shape, with a top aperture (3) defined by a reinforcing frame structure (6), said lid being of plastic material, of the stopper or hinged type, with a substantially flat upper plate (7), a skirt (8) engaging with the outer top edge of the container (1) and an inner skirt (9), continuous or discontinuous, running parallel to the outer skirt (8) and engaging with said frame (6).

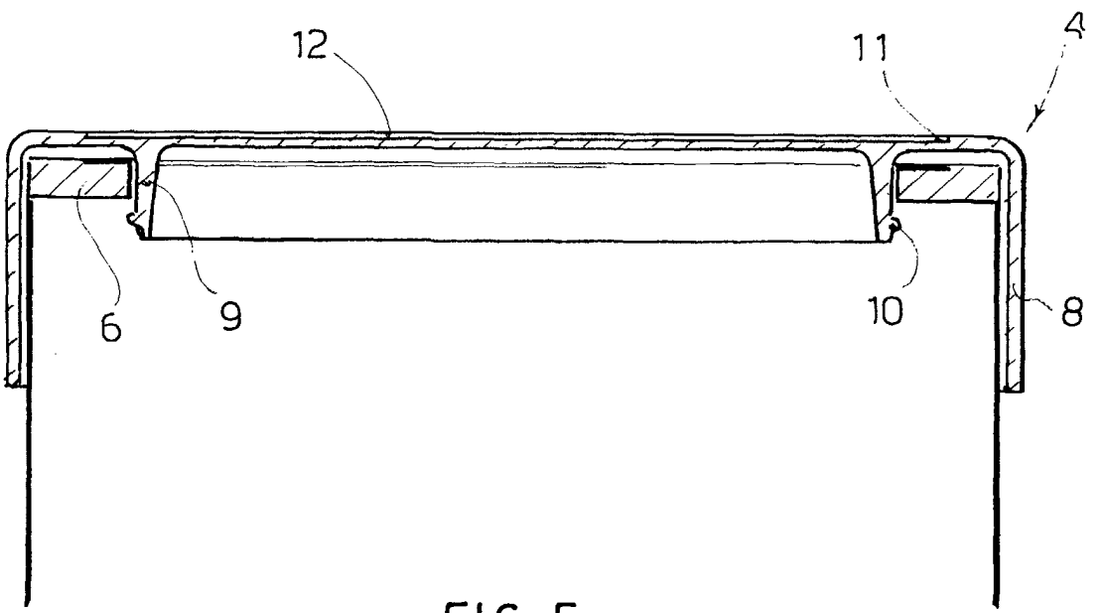

FIG. 5

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Description

[0001] The present invention relates to a lid for flexible or semi-rigid containers, particularly for granular or powder products, such as coffee, flours or the like.

[0002] For packaging of granular or powder products, or in any case of products with a solid consistency, containers made of a flexible sheet material are widely used, for example those of the so-called gusset type.

[0003] These are made of single-ply or multi-ply material, with one or both surfaces being heat-weldable, for example of polyethylene. The package is obtained in a per se know manner by successive folds, making transverse or longitudinal welds between superimposed parts of the heat-weldable layers.

[0004] These containers have the disadvantage of not maintaining their shape, normally parallelepiped, if they are not vacuum packaged and, in any case, if they are vacuum packaged, they tend to collapse after opening.

[0005] To overcome these disadvantages, patent EP-A-0522326 in the name of LUIGI GOGLIO, proposes a container of flexible material of the above type, stiffened with a base plate and a top plate consisting of a rectangular frame structure.

[0006] Such a container maintains its shape after opening and can therefore be used to remove part of the product, until it is all consumed.

[0007] Said container is provided with a lid, generally of cardboard, as described, for example, in European patent EP-A-0663343, also in the name of LUIGI GOGLIO.

[0008] It has nevertheless been noted that such a lid has drawbacks due, for example to the presence of notches in the cardboard blank forming the lid, which tend to give rise to tabs protruding from the side profiles of the container, which besides being unsightly, do not allow precise dimensions to be maintained when the containers are placed side by side. Furthermore, the seal of such a container is sometimes not satisfactory.

[0009] The aim of the invention is to eliminate the illustrated drawbacks, providing a lid particularly for semi-rigid containers of the above type, that is simple and cheap to make, ensures a tight seal on the product, and gives the container a perfectly uniform outward appearance.

[0010] These objects are achieved by the lid according to the invention, which has the characteristics of appended independent claim 1.

[0011] Advantageous embodiments of the invention are described in the dependent claims.

[0012] The lid according to the invention is made of plastic material and in a first embodiment is of the stopper type, which snap fits into the mouth of the container and is removed at each use thereof, whilst in a second embodiment it is of the hinged type and remains constantly joined to the container, until the product is consumed, being opened by tipping.

[0013] With the container sealed and before opening, the stopper lid is applied thereto, in a slightly raised position, so that the opening of the container is closed by a peel-off membrane or layer of easy-open material heat-welded along the perimeter of the rectangular frame, said layer being removed before the first use. For re-closure of the container, the stopper lid is lowered thereon, so that an inner protrusion thereof couples with the inner edge of the frame, thus ensuring an excellent seal.

[0014] The hinged lid has a base frame or skirt which is disposed around the upper edge of the container, on one side of which a closing plate acting as a lid proper is hinged.

[0015] The base frame is advantageously glued and welded to the edge of the container, but it is also possible to provide for it to be applied with a snap fit to said frame of the container, like the stopper lid.

[0016] In this case also the mouth of the container is advantageously closed with a peel-off membrane (easy-open material) which is removed on opening of the container.

[0017] Closure of the hinged lid is ensured by fitting thereof with the side of said peripheral frame opposite to that of hinging.

[0018] The lid according to the invention also has on its upper surface a slightly lowered seating, intended to receive a sheet of plastic, possibly with printed writing or drawings, serving to personalize the lid, without having to intervene directly thereon, as is necessary with prior art lids.

[0019] The plastic sheet to be applied to the lid is advantageously recovered in the manufacturing process of the container from punching of the aperture thereof with material that hitherto constituted waste.

[0020] Further characteristics of the invention will be clearer from the detailed description that follows, referring to purely exemplary and therefore non-limiting embodiments thereof, illustrated in the appended drawings, in which:

Figure 1 is an exploded axonometric view, showing a lid according to a first embodiment of the invention and the relative container;

Figure 2 is a front elevational view of the container in Figure 1 with the lid raised;

Figure 3 is a sectional view taken along the line III-III of Figure 2;

Figure 4 is an enlarged sectional view of the top part of Figure 3, in which the lid is shown applied to the sealed container before opening;

Figure 5 is a sectional view like that of Figure 4, in which the lid is shown re-applied to the container after the first opening;

Figure 6 is an axonometric view of a container provided with a lid according to a second embodiment of the invention, shown in the open position;

Figure 7 is a top plan view of the container of Figure 6;

Figure 8 is a sectional view of the top part of the container taken along the line VIII-VIII of Figure 7;

Figure 9 is a sectional view like that in Figure 8, with the lid in the closed position;

Figure 10 is an enlargement of the detail enclosed in the circle A of Figure 9.

[0021] With reference to said figures, and for now to Figures 1 to 5, 1 generically designates a container of the semi-rigid type, for example of the type described in EP-A-0522326, particularly for containing granular or powder products, such as coffee and the like.

[0022] The container 1 is parallelepiped-shaped, with a wide aperture 3 at the top (see in particular Figure 1), sealed with a peel-away membrane 2 of the easy-open type (Figures 3, 4) that is removed on opening of the container, which can be closed by means of the lid according to the invention, designated as a whole with reference numeral 4.

[0023] As can be seen in Figure 1, said aperture 3 defines in the top wall of the container 1 a peripheral frame 5, beneath which a reinforcing frame 6, advantageously of plastic material, is disposed.

[0024] The lid 4, advantageously made of plastic material, is of the stopper type, and has a substantially flat upper base 7 and a peripheral skirt 8. Inside said peripheral skirt 8 a second continuous or discontinuous skirt 9 is provided, at a distance from the outer skirt 8 about equal to the width of the frame 6.

[0025] The inner skirt 9, or in any case the small walls protruding downward from the lid 4, have a tooth 10 able to snap engage with the inner edge of the frame 6.

[0026] When the container 1 is sealed, before opening, the lid 4 is positioned slightly raised from the container 1, at least for a distance equal to the length of said skirt 9, so that said skirt does not interfere with the peel-away membrane 2 which seals the container, as shown in Figure 4.

[0027] After the first opening of the container 1 and thus removal of the peel-away membrane 2, the container can be re-closed by replacing the lid 4 thereon, lowering it until the tooth 10 of the inner skirt 9 engages with the inner edge of the frame 6, as shown in Figure 5.

[0028] In this condition, besides secure fastening, an excellent seal between lid and container is ensured, also through the presence of the double skirt 8, 9 which surrounds the frame 6.

[0029] The lid 4, once applied to the container 1, as can be seen for example in Figure 5, forms a minimum bulk on the edge of said container, at the same time maintaining the initial size, thus ensuring neat side-by-side arrangement of a plurality of containers.

[0030] When the contents of the container 1 have been consumed, the stopper 4 may be used to close a new container, which will thus be sold without the stopper 4, but with only the peel-away membrane 2 and possibly with a protective wrapper.

[0031] A depression or hollow 11 is formed on the upper wall 7 of the lid, rectangular in shape and with the perimeter parallel to the outer perimeter of the lid, such as to accommodate a plastic sheet 12, of the same size, which is glued or heat-welded to the lid 4. Said sheet 12 advantageously has writing and/or artwork such as to customize the lid 4, without having to print directly on the lid, a fact that brings undoubted advantages.

[0032] Moreover, said rectangular plastic sheet 12 is advantageously recovered from the waste from punching the aperture 3 of the container during manufacture thereof, from a plastic film.

[0033] The second embodiment of the invention is now described, referring to Figures 6 to 10, in which the same reference numerals used with respect to the first embodiment described will be used to distinguish two like or similar parts.

[0034] In this case the lid 4 is of the hinged type and has an upper plate 7 hinged to one side of the skirt 8, which is fixed by means of adhesive or by heat-welding to the upper outside edge of the container 1.

[0035] On the inside of the skirt 8 a second, shorter, skirt 9 is provided, which abuts against the upper wall of the frame 6.

[0036] According to an alternative to what is illustrated in the appended figures, the inner skirt 9 can have the same configuration as the corresponding skirt 9 of the first embodiment, so that the procedure for coupling the lid 4 to the container takes place not with adhesive or welding means, but through engagement with the inner edge of the frame 6. This can prove advantageous if reuse of the hinged lid 4 is desired after emptying of the container 1.

[0037] Returning to the description of Figures 6 to 10, the lid plate 7 has, on the side 20 opposite that of hinging 19, a tooth 21 which during closing of the lid snap fits into a corresponding recess 22 formed in said inner skirt 9, as can be better seen in Figure 10, thus ensuring secure closing of the container. In order to improve the seal, a gasket acting between the lid plate 7 and the skirt 9 can be provided.

[0038] Opening of the lid is facilitated by a pull-tab 23 protruding from the front of the top plate 7.

[0039] In this case also, an adhesive sheet 12 can be applied to the upper wall of the plate 7 exactly like that of the preceding embodiment.

[0040] In both of the embodiments described, said adhesive sheet 12, suitably printed, can be applied to the inside face of the plate 7, thus acting, for example, as a purchase voucher.

[0041] From what has been described the advantages of the invention are obvious, in that it fully solves the problems of the lids of the prior art.

[0042] Of course the invention is not limited to the particular embodiments described previously and illustrated in the appended drawings, but numerous modifications of detail within the reach of a person skilled in the art can be made thereunto and are to be understood as coming within the scope defined by the appended claims.

Claims

1. A lid for flexible or semi-rigid containers, particularly for granular or powder products, of the type having a substantially parallelepiped shape, with an aperture (3) at the top defined by a reinforcing frame (6) with a rectangular structure, **characterized in that** said lid (4) is made of plastic material and has a substantially flat top plate (7), an outer peripheral skirt (8) that can engage with the upper outside edge of the container (1) and a continuous or discontinuous inner skirt (9) that can engage with said frame (6).

2. A lid according to claim 1, **characterized in that** said upper plate (7) is integral with said skirts (8, 9), so as to form a stopper lid that can be snapped on to said container (1).

3. A lid according to claim 2, **characterized in that** said inner skirt (9) extends parallel to said outer peripheral skirt (8), at a distance therefrom substantially corresponding to the width of said frame (6), so as to be able to engage with the inside edge of the frame (6).

4. A lid according to claim 3, **characterized in that** said inner skirt (9) has a tooth (10) able to engage beneath said inner edge of the frame (6).

5. A lid according to claim 1, **characterized in that** said top plate (7) can turn around a side (19) of said outer peripheral skirt (8), so as to form a hinged lid.

6. A lid according to claim 5, **characterized in that** said outer skirt (8) is fixed by means of gluing or heat-welding to the upper outside edge of the container (1), whilst said inner skirt (9) abuts against the upper surface of said frame (6).

7. A lid according to claim 5, **characterized in that** said inner skirt (9) engages with the inner edge of said frame (6).

8. A lid according to any one of claims 5 to 7, **characterized in that** between the side (20) of said top plate (7) opposite the hinging side (19) and the corresponding side of said inner skirt (9) reciprocal engagement means (21, 22) are provided to ensure closure of the lid.

9. A lid according to any one of claims 5 to 8, **characterized in that** a gasket is provided between said top plate (7) and said skirt (9) to improve the seal.

10. A lid according to any one of claims 5 to 9, **characterized in that** on the side (20) of the top plate (7) opposite said hinging side (19), a pull tab (23) such as to facilitate opening of the lid is provided.

11. A lid according to any one of the preceding claims, **characterized in that**, before opening of the container (1), said top aperture (3) is sealed by a peel-away membrane (2).

12. A lid according to any one of the preceding claims, **characterized in that** said top plate (7) has a lowered seating or recess (11) with its edge parallel to the outer edge of the lid (4), said recess (11) being able to accommodate a sheet of printed plastic material (12).

13. A lid according to claim 12, **characterized in that** said sheet of plastic material (12) is recovered from punching of said aperture (3) of the container (1), in the process of manufacturing said container from a film of plastic material.

14. A flexible or semi-rigid container, particularly for granular or powder products, provided with a lid according to any one of the preceding claims.

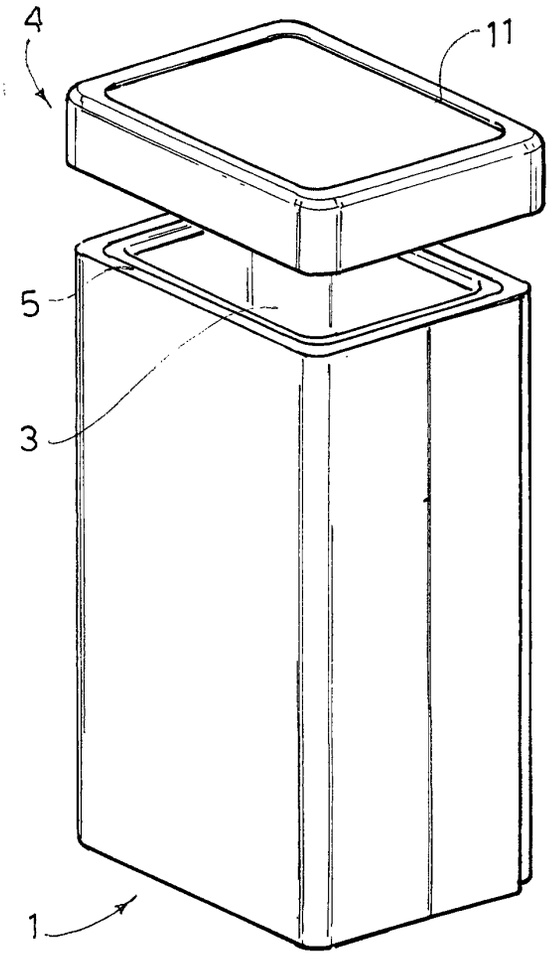

FIG. 1

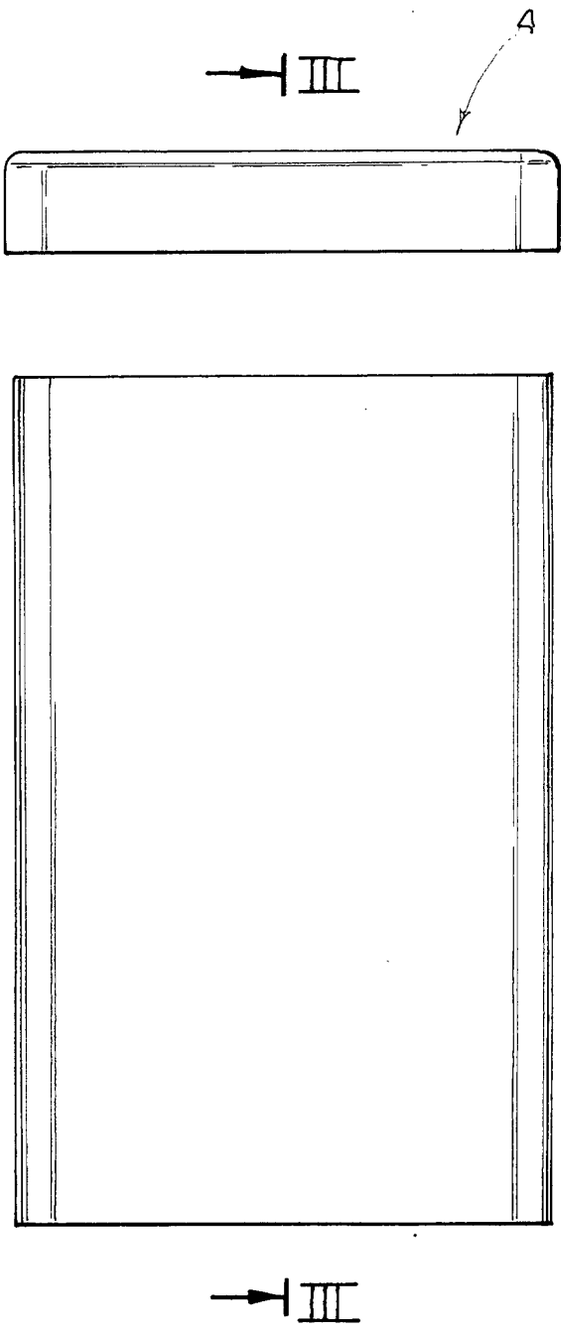

FIG. 2

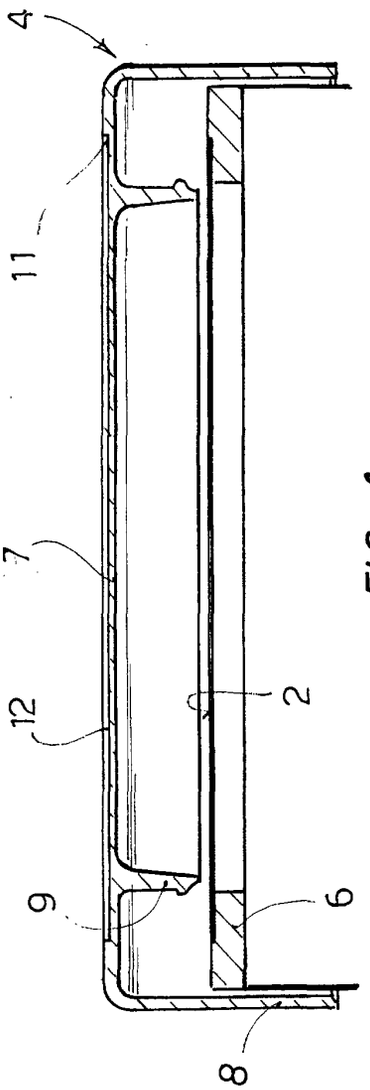

FIG. 4

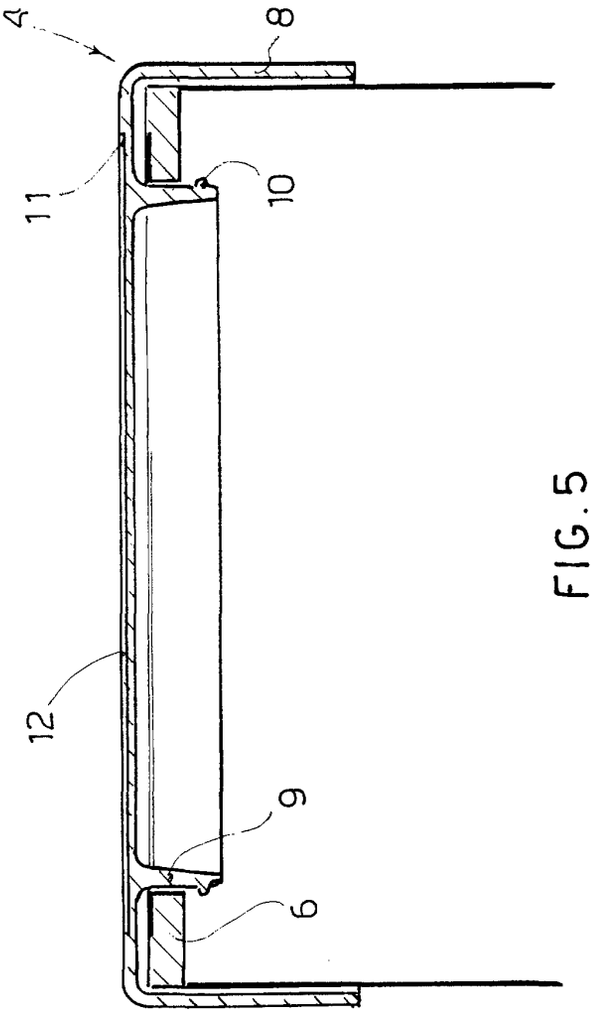

FIG. 5

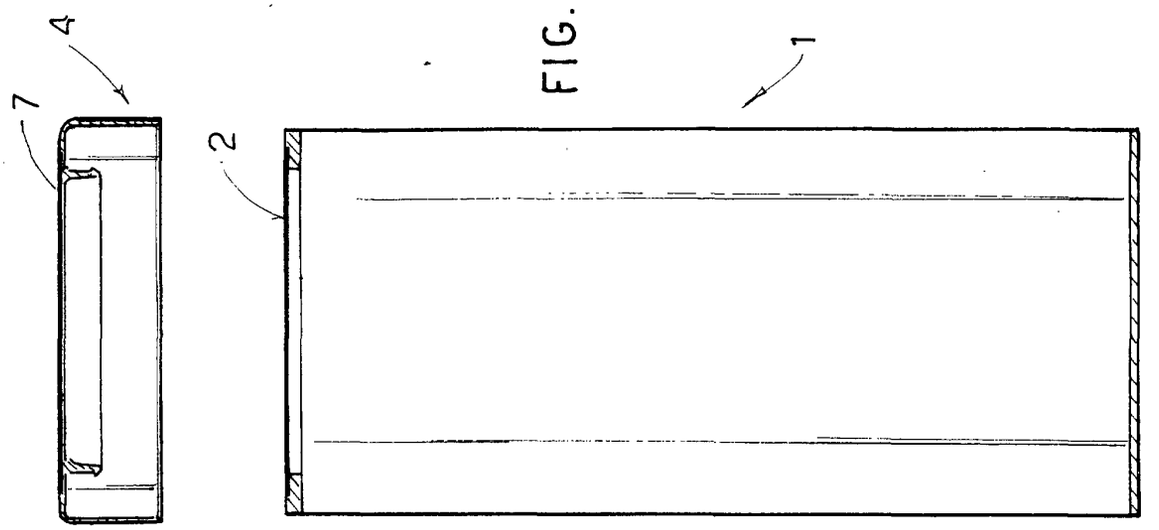

FIG. 3

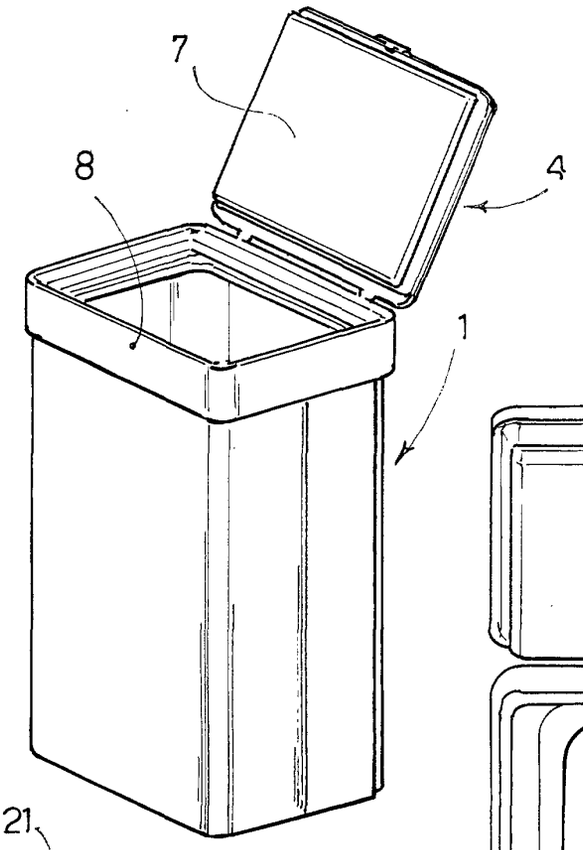

FIG. 6

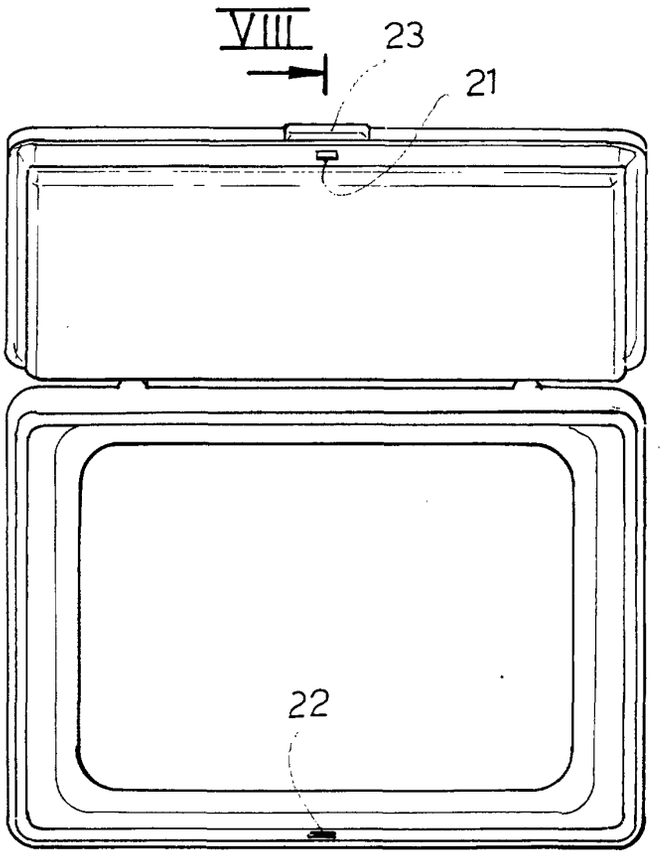

FIG. 7

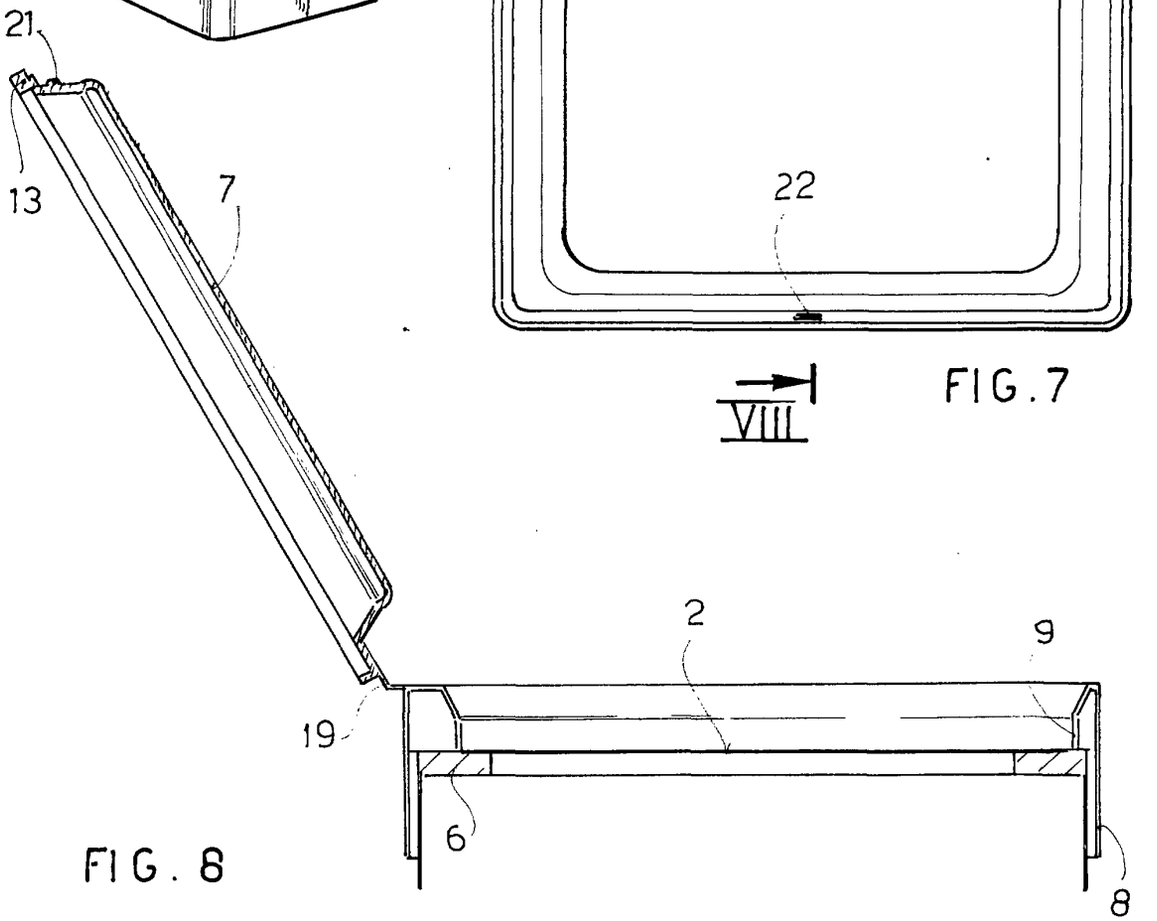

FIG. 8

FIG. 9

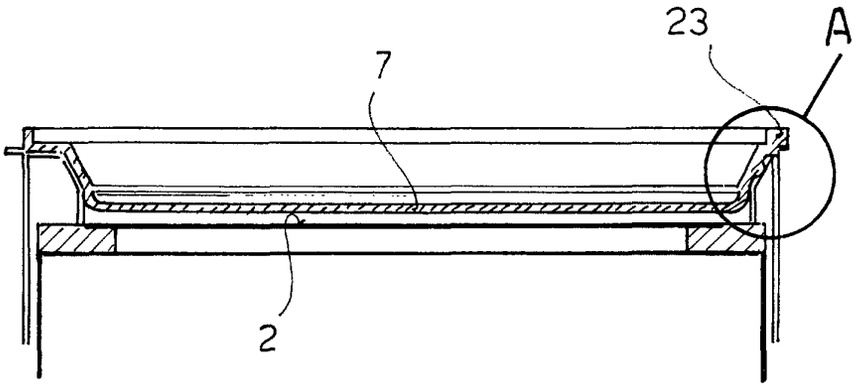

FIG. 10