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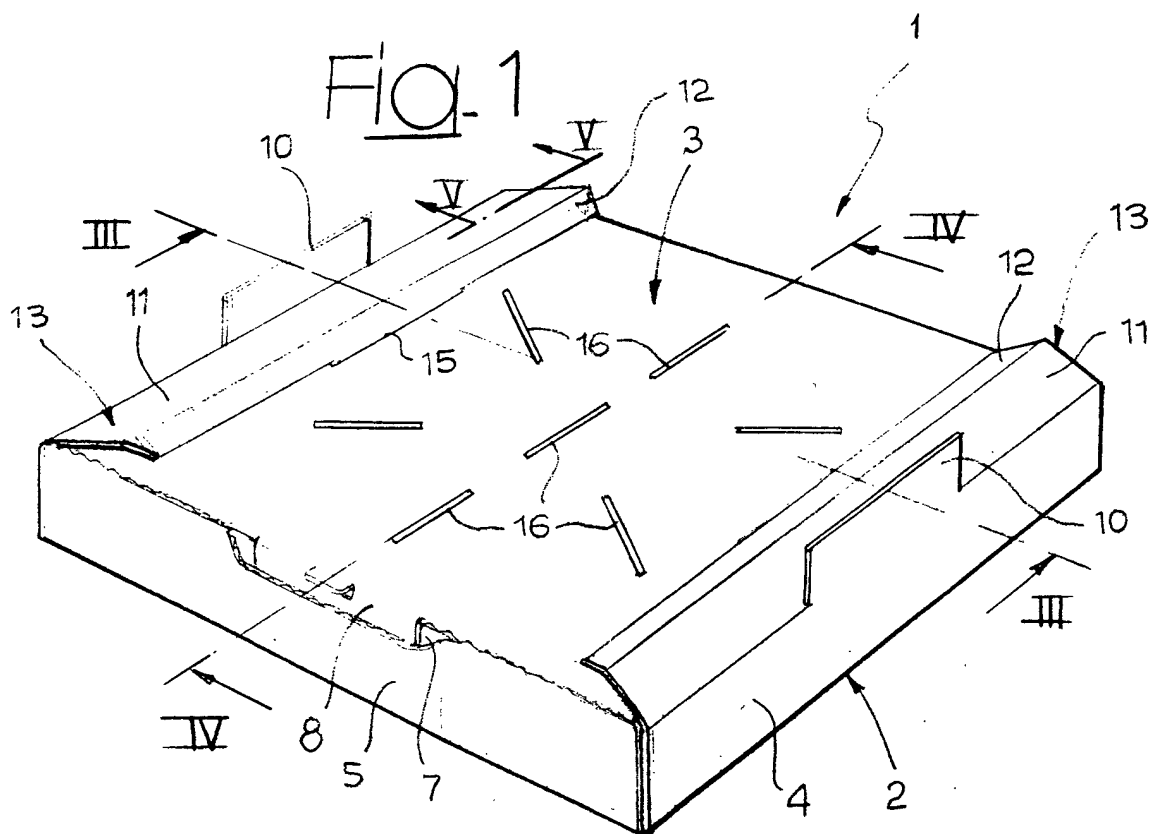
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(54) **Container for carrying hot pizzas and the like**

(57) A container for carrying hot pizzas and the like, comprising a box (1) made of cardboard or of a similar material, having a base (2) and a lid (3) connected to the base (2) in such a way that it can be opened and re-closed. The lid (3) has breather openings (16) and at

least one pair of raised parts (13) set at a distance apart, which project upwards and have the function, during use, of spacer supports for a similar box superimposed in a stacked condition on the lid (3). The raised parts conveniently consist of elongated tubular elements (13) which are integral with the lid (3).



Description

[0001] The present invention relates to containers for carrying hot food, in particular pizzas and the like.

[0002] The containers for carrying away food that are currently in use traditionally consist of boxes made of cardboard or of a similar material, having a base and a lid connected to the base in such a way that it can be opened and re-closed. The side wall of the box is usually provided with breather openings for outflow of the steam that is developed by the pizza during transportation. The said side openings are, however, inadequate for ensuring effective and complete exit of the steam, the natural tendency of which is evidently upwards, the steam being intercepted and condensing against the lid of the box. In addition to the fact that this causes the pizza to go cold very fast, it also produces contamination of the pizza by the steam that condenses against the inner wall of the lid, and consequently the organoleptic characteristics of the pizza or the like inside the container are rapidly degraded, often without any possibility of restoring them even if the food undergoes re-heating.

[0003] A further serious drawback of conventional boxes lies in the possibility, which is far from rare, of exit of fluid substances typical of a pizza (oil, melted cheese, tomato juice) through the side breather openings, with evident consequences.

[0004] The purpose of the present invention is to overcome the above-mentioned drawbacks.

[0005] According to the invention, the above purpose is achieved by providing a container of the type specified at the beginning of the present description, the main characteristic of which is defined in the ensuing Claim 1.

[0006] Further secondary characteristics of the container are defined in Claims 2 to 14.

[0007] The arrangement of the breather openings on the lid of the container, instead of on the side walls, enables the steam, which is generated by the pizza or the like inside the container during transportation, to come out of the container effectively in a natural way, with an appreciable reduction of phenomena of condensation on the walls of the container, and hence of contamination and organoleptic degrading of the pizza. The presence of raised parts projecting from the lid makes it possible to maintain the above effect unaltered also in the case where the container is transported stacked together with other identical containers.

[0008] Further advantages of the present invention will emerge from the ensuing detailed description, with reference to the attached drawings, which are provided purely by way of non-limiting example and in which:

- Figure 1 is a schematic perspective view of a container according to a first embodiment of the invention, represented in the closed condition for transportation of a pizza or the like;
- Figure 2 is a view similar to that of Figure 1, with the container in the open position;

- Figure 3 is cross-sectional view according to the line III-III of Figure 1;
- Figure 4 is a cross-sectional view according to the line IV-IV of Figure 1;
- Figure 5 is a cross-sectional view at a larger scale according to the line V-V of Figure 1;
- Figure 6 is a view similar to that of Figure 1 of a variant of the container according to the invention;
- Figure 7 illustrates the container of Figure 6 in the open condition;
- Figure 8 is a cross-sectional view according to the line VIII-VIII of Figure 6; and
- Figure 9 is a cross-sectional view according to the line IX-IX of Figure 6.

[0009] With reference initially to Figures 1 to 4, number 1 designates, as a whole, a container according to the invention for carrying hot pizzas and the like, the said container consisting in a box made of cardboard or of a similar material obtained from a single dinked and creased plane plate.

[0010] The box 1, which in the example illustrated has a generally quadrangular shape, comprises a base 2 with a bottom wall 33 surrounded by walls projecting at right angles upwards, namely, side walls 4, a front wall 5 and a rear wall 6, and a lid 3 articulated to the top side of the rear wall 6 of the base 2 in such a way that it can turn between the closed position, represented in Figure 1, and the open position, represented in Figure 2.

[0011] The front wall 5 has a double thickness and is formed centrally with an elongated receptacle 7 designed for engagement of a tongue 8 which projects from the front side of the lid 3 for retention thereof in the closed position, in the way that is more clearly visible in Figure 1.

[0012] The side walls 4 have, at their respective top edges, pairs of flaps 9 which are folded parallel to the plane of the bottom wall 3 of the base 2, and between which respective flaps 10 directed upwards in the plane of said side walls 4 project.

[0013] The lid 3 is formed, at its side margins, with respective flaps 11, which are in turn provided with respective folded end tabs 12, normally set in the condition represented in Figures 1, 3 and 4 and in Figure 2 for the left-hand flap 11, with reference to the drawing. The right-hand flap 11 in said drawing is instead represented in a condition prior to its final placing, during assembly of the box 1. In said final placing, the flaps 11 with the corresponding end tabs 12 are folded towards the inside of the lid 3 and onto the top face of the latter, in such a way as to define two elongated tubular raised parts 13 with a substantially triangular cross section. For fixing of the tubular raised parts 13 in their operative condition, two tongues 14 are provided which project centrally from the free edges of the marginal tabs 12 of the flaps 11 and which are inserted through corresponding slits 15 present in the lid 3. The conformation of the tongues 14, one of which may be seen in greater detail in Figure 3,

is such that their engagement inside the slits 15 is substantially irreversible.

[0014] The lid 3 is moreover formed with a plurality of slits 16, arranged, for instance, like spokes, as in the case of the example illustrated, which define respective breather openings.

[0015] In the closed condition of the box 1 represented in Figures 1, 3 and 4, the rear wall 6 of the base 2 is set in the upright position, with rear appendages 17 of the flaps 9 engaged inside corresponding openings 18 in the way represented in detail in Figure 5, and with the tongue 8 inserted inside the receptacle 7. The tubular raised parts 13 extend parallel to the side walls 4 of the base 2, and the flaps 10 project above the maximum level of said tubular raised parts 13.

[0016] Thanks to the arrangement described above, and in particular to the configuration of the breather openings 16, the steam produced during use by the pizza or the like inserted inside the container 1 is able to come out effectively and naturally upwards, appreciably reducing the formation of condensate on the inner face of the lid 3, and consequently reducing any risk of degradation due to hydration of the pizza itself.

[0017] The tubular raised parts 13 enable, during use, positioning, on the lid 3 of the box 1, of a similar or identical box, which is shown partially and is designated by 1' in Figure 4, in such a way that the two boxes are stacked one on top of the other. The base of the box 1' set at the top is thus kept at a distance from the lid 3 of the underlying box 1, and any possible obstruction of the breather openings 15 is in this way prevented. The side flaps 10 in this case conveniently act as arrest sides for lateral containment of the overlying box 1'.

[0018] According to another aspect of the invention, the base 2 of the box 1 may conveniently be formed integrally with a circular dish 19, which is formed integrally with the bottom wall 33 by simple pressure forming, and the circumferential edge of which is joined to the remaining part of the bottom wall 33 of the base 2 conveniently by means of a pre-dinked perimetral line 20 designed to render extremely convenient the separation of said dish from the base 2.

[0019] The dish 19, which is designed to enable the user to consume at his own convenience the pizza previously housed in the container 1, can be formed with a series of ribs 21 in relief, which are also made by pressure forming and which have the function of keeping the pizza at a distance from the bottom 33 of the base 2 during transportation.

[0020] The variant of the container represented in Figures 6 to 9 is conceptually similar to the embodiment described previously with reference to Figures 1 to 6, and in what follows only the differences will be described in detail, using the same reference numbers for the parts that are identical or similar.

[0021] In the aforesaid variant, the container, designated as a whole by 101, is also provided with breather slits 16, which are present only on the lid 3, and said lid

3 is also formed with a pair of integral raised parts which are set at a distance from one another and which, during use, have the function of supports for a similar box 101' (Figure 8), which is stacked on top of the lid 3. Also the said raised parts, designated by 23, consist of a pair of elongated tubular elements, in this case having a generally quadrangular cross section, and are defined by flaps 24, 25, 26 which are folded towards the outside (instead of towards the inside as in the previous case) of the lid 3. The end flaps 24 are in turn provided with respective tongues 28 which, in the closed condition of the lid 3 with respect to the base 2, engage inside corresponding slits 27 formed between the side walls 4 of said base and the corresponding flaps 9.

[0022] The sides for lateral arrest of the box 101' stacked on top of the box 101 are formed, in the present case, by dinked tabs 29 of the flaps 25 of the tubular raised parts 23, which project upwards parallel to the side walls 4 of the base 2.

[0023] Of course, the details of construction and the embodiments may vary widely with respect to what is described and illustrated herein, without thereby departing from the scope of the present invention. The arrangement and configuration of the breather openings 16 of the lid 3, as well as the arrangement, number and conformation of the tubular raised parts 23, may thus differ, from the constructional standpoint, from what has been described purely by way of example with reference to the drawings.

Claims

1. A container for carrying hot pizzas and the like, comprising a box (1; 101) made of cardboard or of a similar material, having a base (2) and a lid (3) connected to the base (2) in such a way that it can be opened and re-closed, **characterized in that** said lid (3) has breather openings (16) and at least one pair of raised parts (13; 23) set at a distance apart, which project upwards and have the function, during use, of spacer supports for a similar box (1'; 101') superimposed in a stacked condition on said lid (3).
2. The container according to Claim 1, **characterized in that** said base (2) is without breather openings.
3. The container according to Claim 1, **characterized in that** said raised parts (13; 23) are formed integrally with the lid (3).
4. The container according to Claim 3, **characterized in that** said raised parts (13; 23) consist of side flaps (11, 12; 24, 25, 26) folded so as to define elongated tubular elements.
5. The container according to Claim 4, **characterized**

in that said flaps (11; 12) are folded towards the inside of the lid (3) and have respective marginal appendages (14) engaged through the corresponding retention slits (16) of the lid (3).

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6. The container according to Claim 4, **characterized in that** said flaps (24, 25, 26) are folded towards the outside of the lid (3) and have respective marginal appendages (28) engaged in corresponding retention slits (27) of the base (2). 10
7. The container according to Claim 1, **characterized in that** it further comprises arrest sides (10; 29) which project upwards beyond said raised parts (13; 23) for containment of the aforesaid similar box (1'; 101') set in a stacked condition on top of said lid (3). 15
8. The container according to Claim 7, **characterized in that** said arrest sides (10) are formed by flaps integral with the base (2). 20
9. The container according to Claim 7, **characterized in that** said arrest sides (29) are formed by flaps integral with said raised parts (23). 25
10. The container according to any one of the preceding claims, **characterized in that** it is formed by a single dinked and creased plate. 30
11. The container according to one or more of the preceding claims, **characterized in that** said base (2) has a bottom wall (33) in which a dish (19) is integrally formed, said dish (19) being separable from said bottom wall (33). 35
12. The container according to Claim 11, **characterized in that** said base dish (19) has a plurality of projecting parts (21). 40
13. The container according to one or more of the preceding claims, **characterized in that** said breather openings of the lid (3) consist of a set of slits (16) arranged in the form of spokes. 45

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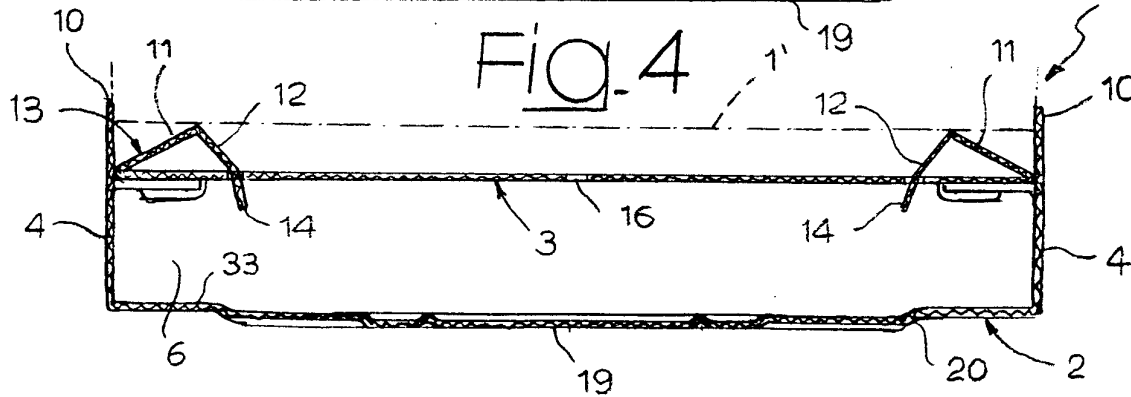
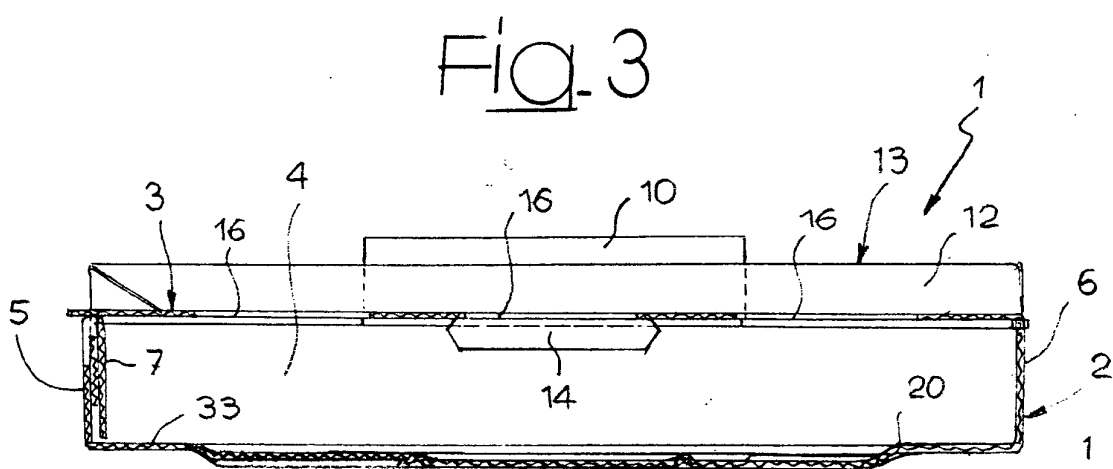
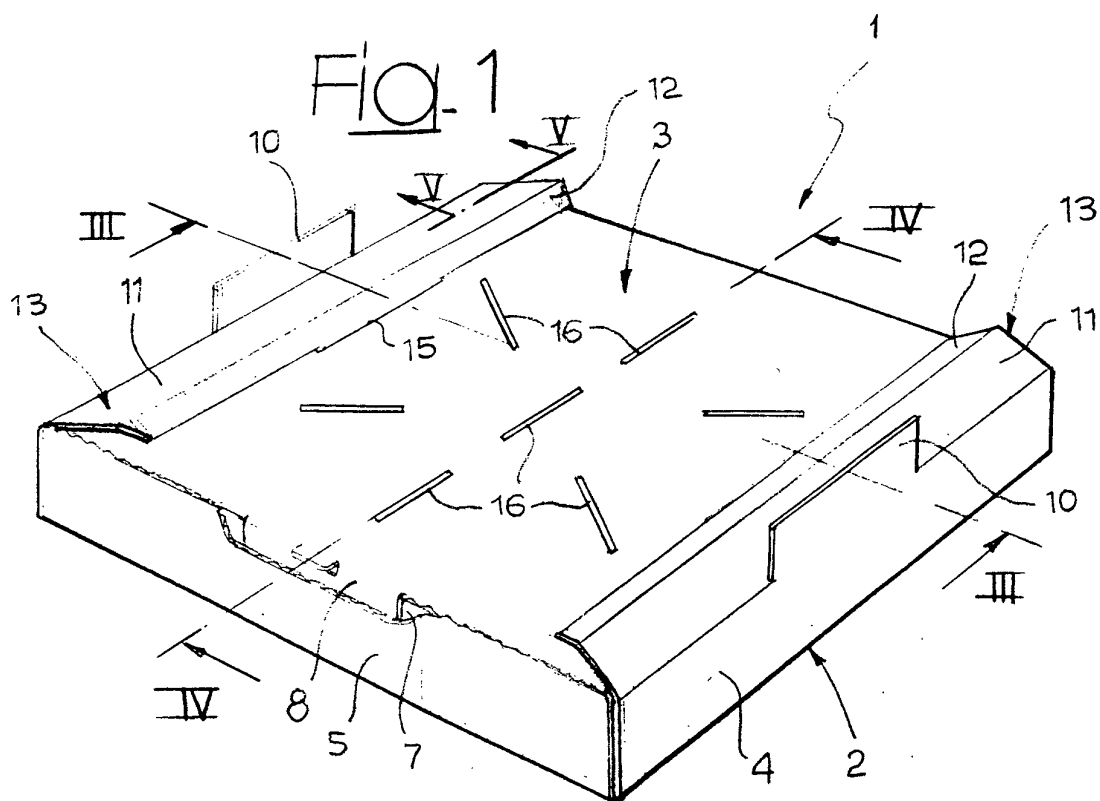


Fig. 2

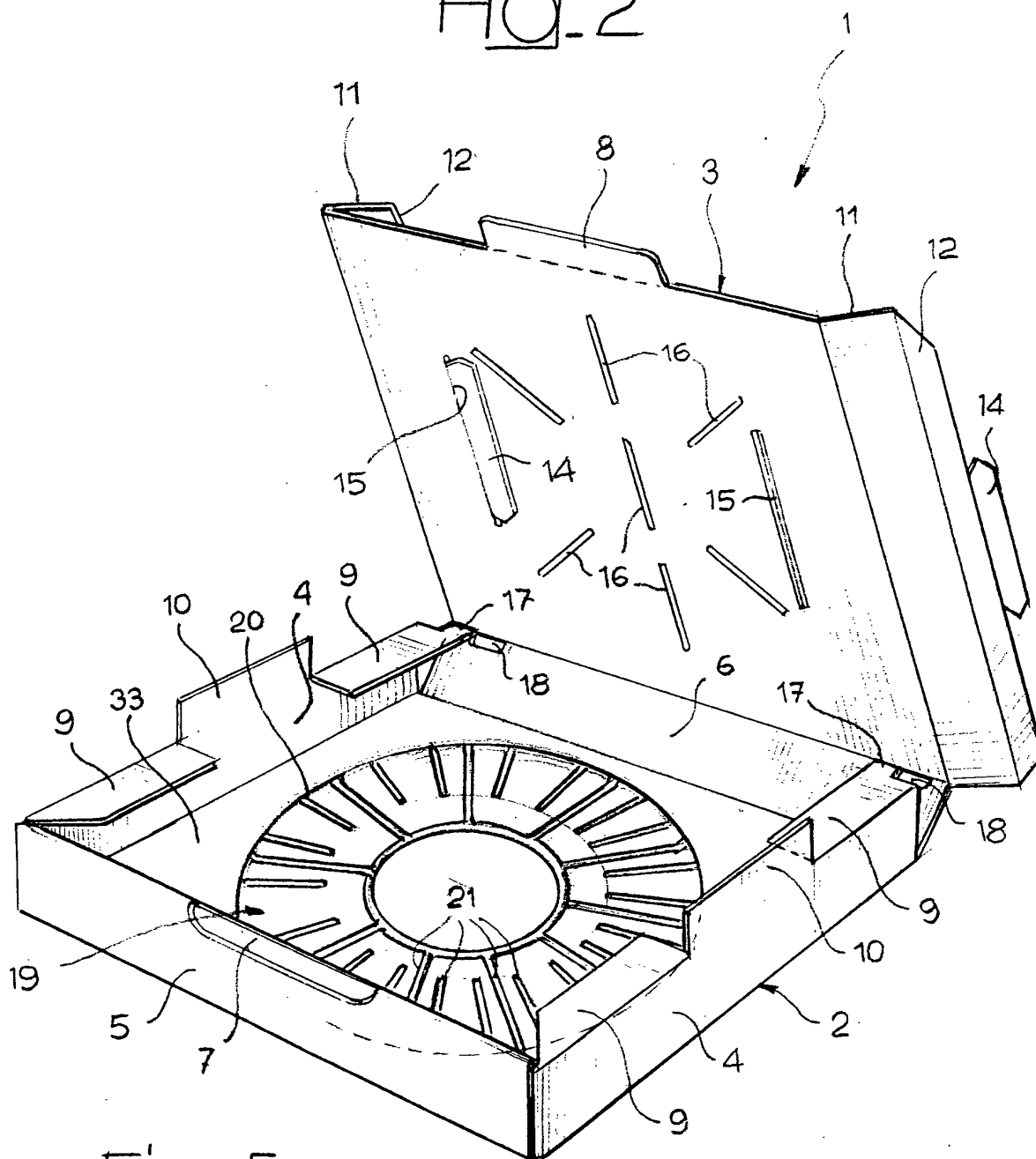


Fig. 5

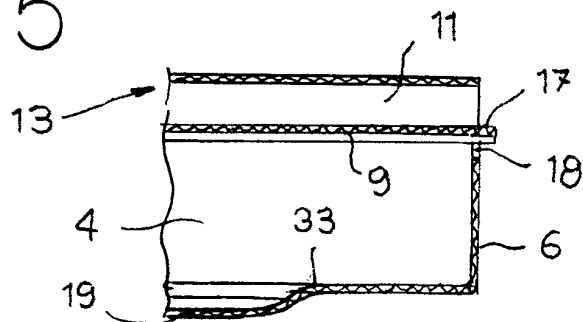


Fig. 6

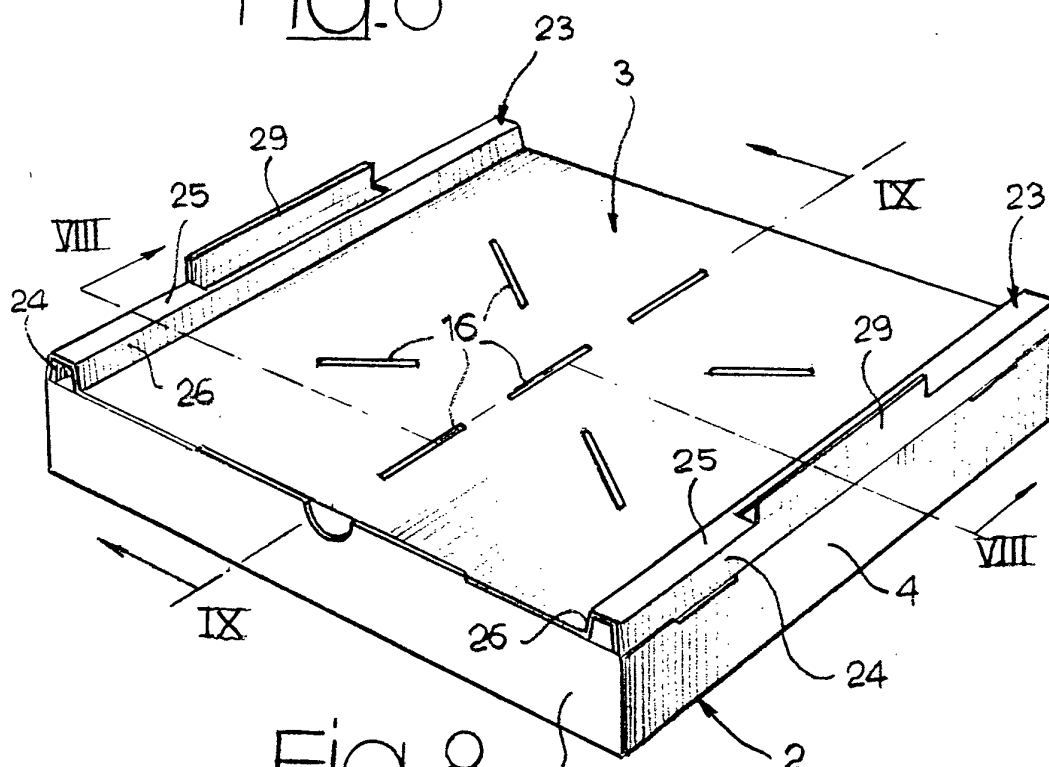


Fig. 8

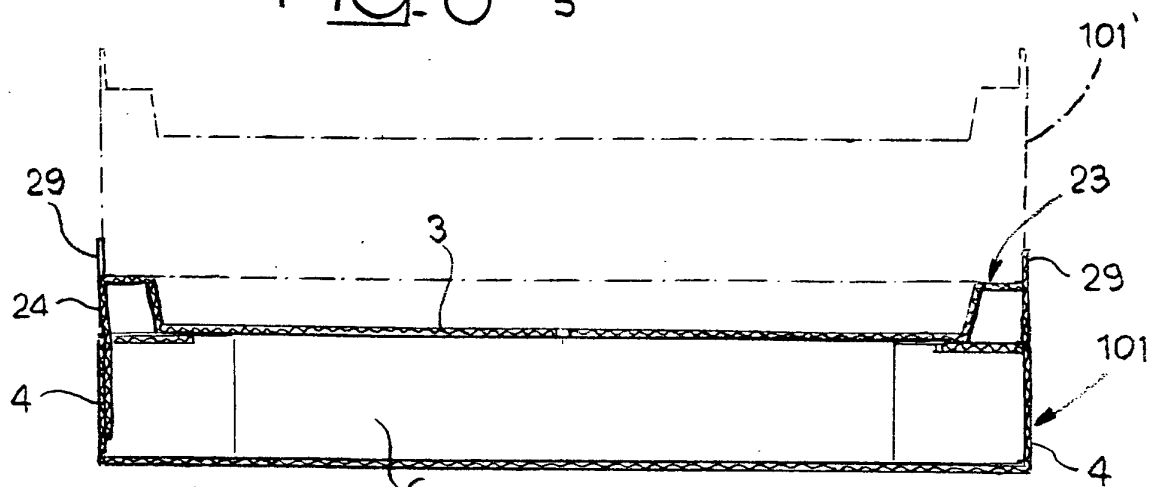


Fig. 9

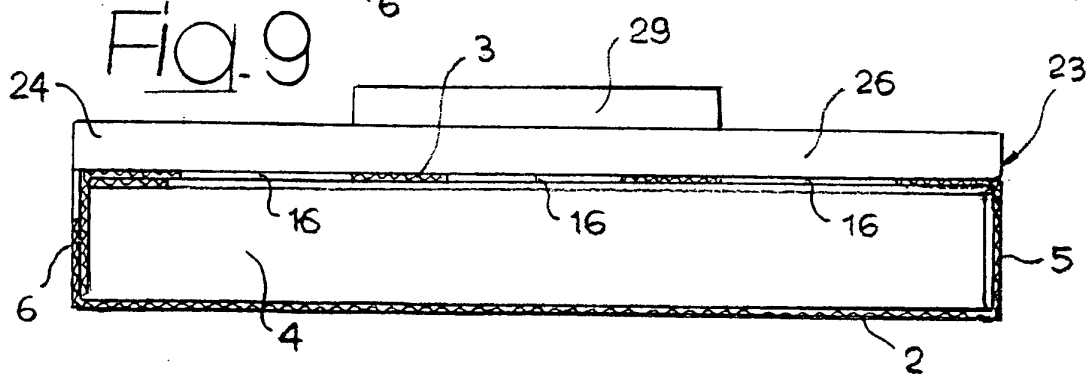
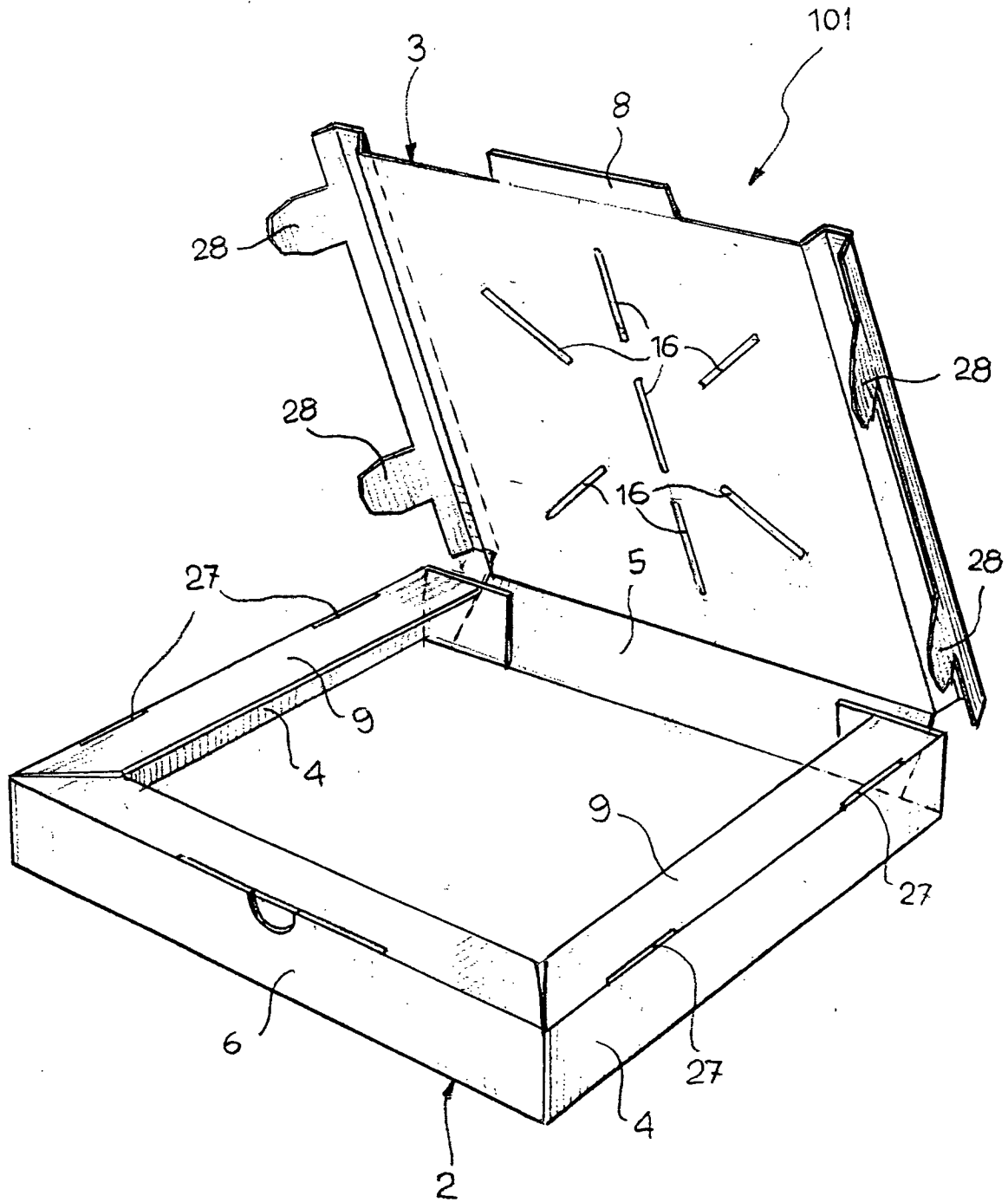


Fig. 7





European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 02 00 2590

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 6 290 122 B1 (CORRELL JOHN D) 18 September 2001 (2001-09-18)	1-3,7,9,10	B65D85/36
Y	* column 5, line 13 - column 10, line 31; figures 1,2,11-14 *	11,12	
Y	US 5 895 698 A (CACCIATORE PATRICE ET AL) 20 April 1999 (1999-04-20) * column 1, line 34 - column 2, line 46; claim 1; figure 1 *	11,12	
X	EP 0 989 067 A (BONARRIGO CARMELO ;LIZZIO FILIPPO (IT)) 29 March 2000 (2000-03-29) * column 3, line 4 - column 6, line 16; figures 1,7-12 *	1,3,10	
A	US 5 669 552 A (WATANABE MICHAEL E) 23 September 1997 (1997-09-23) * column 2, line 40 - column 3, line 51; figures 1,2,4 *	5,6	
A		1,2,13	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B65D
Place of search	Date of completion of the search	Examiner	
MUNICH	23 August 2002	De Terlizzi, M	
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ON EUROPEAN PATENT APPLICATION NO.**

EP 02 00 2590

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23-08-2002

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6290122 B1	18-09-2001	US 6206277 B1	27-03-2001
		US 6196448 B1	06-03-2001
		US 6065669 A	23-05-2000
		US 2001000561 A1	03-05-2001
US 5895698 A	20-04-1999	NONE	
EP 0989067 A	29-03-2000	IT T0980772 A1	13-03-2000
		EP 0989067 A1	29-03-2000
US 5669552 A	23-09-1997	AU 6902196 A	19-03-1997
		WO 9708062 A1	06-03-1997