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(54) **TRAY FOR PACKAGING FRESH FOOD, PARTICULARLY FOOD CAPABLE OF RELEASING LIQUIDS**

(57) A tray (1; 30) made of plastic material and/or paper material for packaging food products, in particular fresh food products capable of releasing liquids, is described, the tray comprising a base (2), and side walls (3a, 3b) that define a compartment (4) for containing a food, the side walls (3a, 3b) being joined at the base (2) by an area (A) of connection and ending at the top with

a peripheral edge (5) with a substantially perimeter extension, and ribs (6) extending on said area (A) of connection and on said side walls (3), the tray (1; 30) being characterized in that said ribs (6) are flared in said area (A) of connection so as to have a larger breadth in said area (A) of connection than the breadth on the side walls (3a, 3b).

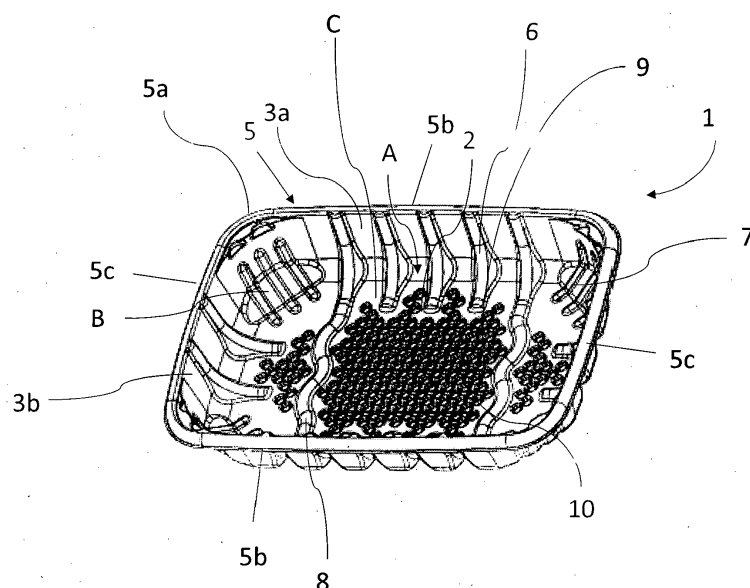


Fig. 1

## Description

### Field of application

**[0001]** In its most general aspect, the present invention refers to a tray suitable for packaging food products, in particular but not exclusively fresh food capable of releasing liquids (exudates), such as for example meat or fish.

**[0002]** More specifically, the present invention relates to a tray made of plastic material and/or paper material suitable for packaging food products, having better characteristics of mechanical resistance, in particular resistance to compressive deformation, and wherein the plastic material and/or paper material is preferably recyclable or biodegradable.

### Prior art

**[0003]** Containers made of plastic material for packaging food or food products, in particular fresh food capable of releasing liquids (exudates), such as for example meat or fish, are well known and widely used, especially for retail sale in supermarkets.

**[0004]** Typically, containers of this type are in the form of a tray or bowl comprising a bottom and side walls that define a compartment for containing the food to be packaged, the side walls ending at the top with a perimeter edge projecting outwards from the container.

**[0005]** In the case of food products that can easily perish and are capable of releasing liquids, such as meat and fish, the tray usually also comprises on the bottom a napkin made of absorbent material or an equivalent absorbent system capable of retaining possible liquids released by the food to prolong the shelf life of the packaged food for as long as possible.

**[0006]** As is known, in a modality of packaging with the above tray, the food to be packaged is placed on the bottom of the tray and subsequently a closing film is applied by wrapping it around the tray by means of designated wrapping machines.

**[0007]** Film wrapping creates, however, a considerable lateral compression that causes the side walls to bend toward the inside of the tray, the latter taking an unaesthetic "dog bone" shape that is not appreciated by the consumer. In fact, said lateral compression causes the tray to squeeze and therefore a quite large deformation during film wrapping, that can possibly also cause the tray to break where the plastic material forming the same is not sufficiently elastic.

**[0008]** Also known in the art is making reinforcement ribs on the tray, in particular on the side walls of the same. This allows to improve the mechanical properties of the tray, in particular increasing its stiffness without increasing the amount of plastic material used for its production.

**[0009]** However, this solution reduces only partially the deformation of the tray during wrapping of the closing film, and it is therefore unsatisfactory for preventing the

tray from being significantly squeezed toward the inside, thereby taking the "dog bone" shape.

**[0010]** The main purpose of the present invention is to provide a tray (or bowl) for packaging food products, in particular food products capable of releasing liquids, that has better properties of mechanical resistance, in particular resistance to compression, so as to resist to external compression forces that are due, for example, to the wrapping of a closing film around it.

**[0011]** A further purpose of the present invention is to provide a tray as described above which can be produced in a simple manner and at low cost.

### Summary of the Invention

**[0012]** These and other purposes are achieved by a tray made of plastic material and/or paper material for packaging food, in particular fresh food capable of releasing liquids, the tray comprising a base and side walls that define a compartment for containing a food, the side walls being joined at the base by an area of connection and ending at the top with a peripheral edge with a substantially perimeter extension, and reinforcement ribs extending on said area of connection and on said side walls, the tray being characterized in that said ribs are flared in said area of connection so as to have a larger breadth in said area of connection than the breadth on the side walls.

**[0013]** Advantageously, the increase of the breadth of the ribs flared in the area of connection with respect to the breadth of the ribs on the side walls surprisingly enhances the stiffness of the packaging to the point that it prevents an excessive bending of the side walls toward the inside when they are subjected to the external compression forces, for example during wrapping of a closing film, thereby preventing excessive squeezing of the tray that would make it take a double-T or "dog bone" conformation.

**[0014]** In an embodiment, the above-mentioned ribs extend also on a peripheral area of the base of the tray and the breadth of the ribs in the area of connection is larger than their breadth in the peripheral area of the base.

**[0015]** In an embodiment, the peripheral edge of the tray has a tract descending from its outward-facing end which defines an annular skirt with a substantially perimeter extension, said annular skirt having a curved profile with curvature toward the outside/projecting outwards.

**[0016]** In this way, the peripheral edge of the tray does not have a corner conformation, but rather a roundness which is useful during wrapping of the closing film. In fact, the above-mentioned annular skirt allows the closing film to follow and slide along a curved surface of the edge, dampening the stresses of the lines of automatic packaging and reducing the risk of creating potential points of break of the film during the step of wrapping the closing film.

**[0017]** In an embodiment, the tray has a shape with

square section, for example square or rectangular section, comprising first opposite side walls and second opposite side walls.

**[0018]** In an embodiment, the tray has a shape with square section and further comprises corner areas of connection between adjacent side walls having a curved profile with curvature toward the outside of the tray, said perimeter edge also having a first tract with a curved profile at each of said corner areas of connection between adjacent side walls and further having, preferably, second tracts slightly curved toward the outside of the tray at at least one pair of opposite side walls.

**[0019]** Advantageously, the curved profile of the perimeter edge in the corner areas of connection between adjacent walls and preferably also at opposite side walls allows to further enhance the overall stiffness of the perimeter edge so as to resist to external compression forces, in particular to compressive forces that are due to the wrapping of a closing film around the tray.

**[0020]** In an embodiment, the tray comprises second ribs that extend vertically at corner areas of connection between side walls adjacent to each other.

**[0021]** Advantageously, said second ribs contribute to enhance the overall stiffness of the tray together with the ribs made on the side walls.

**[0022]** In an embodiment, the corner areas of connection between adjacent side walls of the tray have a beveled lower portion.

**[0023]** Advantageously, said beveled corner areas of connection allow to reduce the strain of the plastic material during the production of the tray (for example during thermoforming), thereby increasing the resistance of the tray.

**[0024]** In an embodiment, the tray further comprises one pair of third ribs, each of which extending on the base between opposite ribs of opposite side walls until they connect to said ribs.

**[0025]** Preferably, the above-mentioned third ribs have a curvilinear profile, for example a substantially waved profile.

**[0026]** Advantageously, said third ribs, synergically with the ribs made on the side walls of the tray, contribute to further increase the resistance to compression/squeezing of the tray.

**[0027]** In particular, the above-mentioned third ribs increase mechanical resistance, in particular the stiffness of the tray, at the base, preventing the formation of points of potential collapse thanks to their conformation with a curved profile, such as for example a waved profile.

**[0028]** Preferably, the above-mentioned third ribs are raised in relation to the base of the tray so as to have also the function of supporting the packaged food, preventing the food from lying directly on the base and thereby preventing the food from remaining in contact with the exudate it has possibly released during storage.

**[0029]** In an embodiment, the container further has, under the base, a chamber for collecting the exudate possibly released by the packaged food, said chamber

being in fluid communication with the compartment for containing the food.

**[0030]** Preferably, the chamber comprises a plurality of cavities integrally formed with said base, that extend under said base and are open to the tray compartment for containing. Said cavities are preferably adjacent to each other so as to form at least one alveolar, substantially honeycombed, structure.

**[0031]** In an embodiment, the chamber for collecting the exudate comprises a first alveolar structure arranged in a substantially central area of the base of the tray, preferably between the third ribs, and optionally at least one second alveolar structure arranged in a peripheral area of the base, preferably externally with respect to a respective third rib.

**[0032]** In another embodiment, the tray is made without any chamber for collecting the exudate possibly released by the packaged food, such as the chamber with alveolar structure described above.

**[0033]** The tray according to the invention may be made of a plastic material, suitable for packaging food.

**[0034]** In an embodiment, the material forming the tray is a plastic material comprising or consisting of PET, polypropylene (PP) or polystyrene (PS).

**[0035]** In another embodiment, the material forming the tray is a paper material, such as for example a paper material derived from cellulose pulp.

**[0036]** In a preferred embodiment, the tray is made of plastic material comprising or consisting of PET. Preferably, PET may be an amorphous PET (APET) or a semi-expanded or expanded PET (XPET). The tray may be made in the form of monolayer or multilayer comprising one or more of the above-mentioned materials.

**[0037]** In another embodiment, the tray is made of at least one biodegradable and possibly compostable polymer selected from polylactic acid (PLA), starch-based polyphasic polymers such as for example materials known under the trade name Mater-bi and combinations thereof. The tray may be made in the form of monolayer or multilayer of the above-mentioned biodegradable polymers.

**[0038]** Further characteristics and advantages of the present invention will become clearer from the following description, which is provided by way of non-limiting example also with reference to the provided attached drawings.

#### Brief Description of the Drawings

**[0039]** In the attached drawings:

- Figure 1 shows a perspective view of a tray according to an embodiment of the invention;
- Figure 2 shows a top view of the tray of Figure 1;
- Figures 3 and 4 show each a side view of the tray of Figure 1 from different sides;

- Figure 5 shows a perspective view of a tray according to another embodiment of the invention
- Figure 6 shows a top view of the tray of Figure 5

#### Detailed description

**[0040]** In the present description below, the terms "upper", "lower", "outer" and "inner" refer to the orientation of a particular embodiment as shown in the respective figures.

**[0041]** Moreover, in the present description, it should be understood that the technical characteristics previously and hereinbelow specifically described may be combined with each other in any way, forming further embodiments of the present invention which, for the sake of brevity, are not specifically described, but which fall within the scope of protection of the present invention.

**[0042]** In the present description below, the terms "container", "tray" and "bowl" are considered to have the same meaning and thus to be interchangeable.

**[0043]** In the present description, the term "PET" or "polyethylene terephthalate" indicates a polymeric material essentially consisting of polyethylene terephthalate or comprising polyethylene terephthalate together with a co-monomer. In particular, the PET may be semi-crystalline PET with a crystallinity level higher than 5 and up to 30% or may be amorphous (APET) with a crystallinity level equal to or less than 5% or less. The crystallinity may be possibly reduced with appropriate measures for instance by choosing an appropriate type of PET in relation to the monomer content in the material and minimizing the period of time in which the material can be found in the production process (process of thermoforming) at a temperature in which there is a significant crystallization rate. Alternatively, the PET may be of the semi-expanded or expanded type (XPET).

**[0044]** Preferably, the co-monomer is selected from the group consisting of isophthalic acid (IPA), cyclohexanedimethanol (CHDM) and diethylene glycol.

**[0045]** Moreover, the "PET" for use in the present invention comprises virgin PET (i.e. newly produced directly from a fossil source), recycled PET (r-PET) for example coming from post-consumption, recyclable PET in particular obtained from thermoforming waste, and combinations thereof.

**[0046]** In the present description, "biodegradable polymer" indicates any polymer having characteristics suitable for use in the production of packaging containers and which, after its working life, may be degraded by microorganisms (bacteria and/or fungi) for example in water, natural gases, such as carbon dioxide and methane, and/or in biomass. Preferably, the biodegradable polymer for use in the present invention is polylactic acid (PLA). In particular, the biodegradable polymeric material may also be compostable, namely it is a biodegradable polymeric material that in an industrial composting process (55-60°C) disintegrates by at least 90% in 3

months (EN 13432), decomposing within six months into CO<sub>2</sub>, water, and minerals, without releasing toxic substances in the compost. Preferably, a biodegradable and compostable polymer for use in the present invention is a starch-based polyphasic polymer, such as for example a material known under the trade name Mater-bi.

**[0047]** Moreover, the biodegradable material, for example PLA, may be virgin (i.e. newly produced), recyclable, for example obtained from thermoforming waste, or a combination thereof.

**[0048]** In the present invention, the container may be a single layer (monolayer) or multilayer of plastic material selected from the above-mentioned materials and may be obtained in the desired form and dimensions by means of a common thermoforming technique from an extruded sheet of the plastic material.

**[0049]** The single layer or monolayer may consist for example of a virgin plastic material (such as virgin PET or virgin PLA) or a recyclable plastic material such as r-PET obtained for example from post-consumption bottles optionally deprived in a conventional manner from impurities that may negatively affect the production process of the container according to the invention and/or the characteristics of the final container.

**[0050]** In the case of multilayer containers, a preferred configuration is a triple-layer container (ABA) in which the outer layer and the inner layer are both made of a virgin plastic material, whereas the middle layer is formed by a mixture consisting of a virgin plastic material and a recycled and/or recyclable plastic material, or the middle layer is formed by a recycled and/or recyclable plastic material. Preferably, the virgin plastic material and the recycled or recyclable plastic material are of the same type.

**[0051]** For example, in case PET is used, an ABA multilayer container may have the outer layer and the inner layer both made of 100% virgin PET, whereas the middle layer may be entirely made of r-PET or may be a mixture consisting of virgin PET and r-PET in which the percentage of virgin PET varies from 5% to 40%.

**[0052]** Alternatively, in case PLA is used, an ABA multilayer container may have the outer layer and the inner layer both consisting of 100% virgin PLA, whereas the middle layer is a mixture consisting of 70% virgin PLA and 30% recyclable PLA (i.e., derived from thermoforming waste).

**[0053]** In an embodiment, the material used for the production of the tray may be cellulose fiber.

**[0054]** The thermoformed container has a base, side walls and a peripheral upper edge.

**[0055]** Said containers, whether monolayer or multilayer, may be made of both a material such as PET (or comprising PET), which is a plastic material widely used in the packaging field in particular thanks to its good recyclability characteristic, and of a biodegradable and possibly compostable polymer, such as polylactic acid (PLA) or Mater-bi. Said containers may be made of materials having characteristics that make the container transpar-

ent, semi-transparent, or colored (opaque), depending on the need of the user.

**[0056]** Figures 1-4 show a container in the form of a tray according to an embodiment of the invention, and said container is globally indicated with reference number 1.

**[0057]** The tray 1 has a shape with substantially square section and comprises a base 2 from which first opposite side walls 3a and second opposite side walls 3b extend vertically, said side walls, together with base 2, delimiting a compartment 4 for containing a fresh food (not shown), for example a food capable of releasing liquids (exudates). The first opposite side walls 3a and the second opposite side walls 3b are sloped toward the outside of the tray 1 and are joined at the base 2 by an area A of connection that has a substantially curvilinear profile. The first opposite side walls 3a and the second opposite side walls 3b end at the top in a peripheral edge 5 projecting outwards and extending substantially along the entire perimeter of the tray 1.

**[0058]** Moreover, the tray 1 has corner areas B of connection between respective first side walls 3a and second side walls 3b adjacent to each other, said corner areas B having a curvilinear profile with curvature toward the outside of the tray 1 and a beveled lower portion 12.

**[0059]** Moreover, the tray 1 has reinforcement ribs 6, which project toward the inside of the tray and have a substantially tubular shape, the ribs 6 being substantially parallel to each other and extending continuously on the area A of connection between the base 2 and the side walls 3, on the upper part on the same side walls 3 (first opposite side walls 3a and second side walls 3b) up to the proximity of or up to substantially contacting the perimeter edge 5 and, on the lower part, in a peripheral area C of the base 2 of the tray 1.

**[0060]** The ribs 6 may be any desired shape functional to the reinforcement of the tray 1, such as for example a square shape, for example with a square or rectangular section, a shape with circular or elliptical section, a wedge-shape, etc.

**[0061]** According to an aspect of the present invention, the breadth of the ribs 6 is larger in the areas A of connection than on the first side walls 3a and the second side walls 3b and on the peripheral area C of the base 2.

**[0062]** In the present embodiment, said larger breadth may be made by flaring (or, in other words, by widening) the ribs 6 in the areas A of connection up until possibly involving also part of the peripheral area C of the base 2 so that it take, for example, a substantially truncated-cone or truncated-pyramid profile at the flaring (indicated with reference number 6a in Figure 3) with the larger base facing the outside of the tray.

**[0063]** It was observed that the ribs 6 having a larger breadth in the area A of connection between the base 2 and the side walls 3 considerably increase resistance to bending (compression) of the side walls when the tray is wrapped in a closing film, such as for example a heat-shrinkable closing film, thereby preventing excessive de-

formation of the tray, and therefore preventing the formation of the undesired double-T shape.

**[0064]** In the present embodiment, the ribs 6 extend on both the first opposite side walls 3a and the second opposite side walls 3b. However, the ribs 6 may be made only on a pair of opposite side walls, in particular on the opposite side walls having the larger length in the case of a tray with rectangular section, such as the first opposite side walls 3a of the tray 1 shown in Figures 1-4.

**[0065]** The tray 1 further comprises second ribs 7, substantially parallel, at the corner areas B of connection between adjacent side walls 3a, 3b and that are also in the beveled lower portion 12 of said areas B of connection. The second ribs 7 are completely similar to the ribs 6 on the first side walls 3a and on the second side walls 3b, except that they are not flared and that they contribute to enhance the overall stiffness of the tray 1 together with the ribs 6 made on the side walls 3a and 3b.

**[0066]** According to another aspect of the present invention, the peripheral edge 5 of the tray 1 has a tract descending from its outward-facing end which defines an annular skirt 20 with a substantially perimeter extension, the annular skirt 20 having a curved profile D with curvature toward the outside/projecting outwards.

**[0067]** Said skirt 20 with curved profile D allows the closing film, during its wrapping around the tray 1, to follow and slide the conformation of the edge 5, dampening the stresses of the lines of automatic packaging and reducing the risk of creating potential points of break of the film.

**[0068]** According to another aspect of the invention, the peripheral edge 5 of the tray 1 has a tract 5a that also has a curved profile at each corner area B of connection between first side walls 3a and second side walls 3b adjacent to each other. Moreover, preferably, the peripheral edge 5 has tracts 5b that are slightly curved toward the outside of the tray at the first opposite side walls 3a and tracts 5c slightly curved toward the outside of the tray at the second opposite side walls 3b, said tracts 5b and 5c being each connected to tracts 5a with curved profile at opposite corner areas C of connection.

**[0069]** This allows to increase the stiffness of the tray 1 at the perimeter edge 5.

**[0070]** The tray 1 further comprises third ribs 8 that extend each on the base 2 between opposite ribs 6 of the first opposite side walls 3a until connecting to said ribs 6.

**[0071]** The above-mentioned third ribs 8 have a curvilinear profile, preferably a substantially waved profile. Said curvilinear profile, synergically with the ribs 6 made on the side walls 3a, 3b of the tray 1, increases the mechanical resistance to compression/squeezing of the tray 1.

**[0072]** In particular, the function of said third ribs 8 is to avoid the formation of points of potential collapse of the tray 1. In fact, the curvilinear profile such as the waved profile allows to obtain a mechanical stiffness in opposition to the bending forces applied during the step of wrap-

ping the film on the tray 1.

**[0073]** In the present embodiment, the third ribs 8 are raised in relation to the base 2 of the tray 1 so as to have also the function of supporting the packaged food, preventing the food from lying directly on the base 2 and thereby preventing the food from remaining in contact with the exudate it has possibly released during storage.

**[0074]** The tray 1 further comprises, under the base 2, a chamber 9 integrally formed with said base 2 and in fluid communication with the compartment 4 for containing the food.

**[0075]** The chamber 9 comprises a plurality of cavities 11, integrally formed from said base 2 and with a substantially hexagonal shape, the cavities 11 extending under the base 2 (i.e. lowered) and being open to the compartment 4 for containing of the tray 1. The cavities are adjacent to each other so as to form at least one alveolar, substantially honeycombed, structure 10.

**[0076]** In the present embodiment, the chamber 9 for collecting the exudate comprises a first alveolar structure 10a arranged in a central area of the base 2 between the third ribs 8 and two alveolar structures 10b each arranged in one peripheral area of the base 2 externally with respect to a respective third rib 8.

**[0077]** The function of the chamber 9 is, by means of the cavities 11 of the honeycomb capillary structure 10, to collect the exudate produced by the fresh food during the storage period. In this way, the storage of the fresh food is improved, since the latter is not in contact with the exudate released by it.

**[0078]** Figures 5-6 show a container in the form of a tray according to another embodiment of the invention which is globally indicated with reference number 30.

**[0079]** The elements of the tray 30 that are structurally and/or functionally equivalent to corresponding elements of the tray 1 described above will be assigned the same reference numbers and, for the sake of brevity, said elements will not be further described.

**[0080]** The tray 30 differs from the tray 1 described above because it lacks the chamber 9 formed on the base 2 for collecting the exudate possibly released by the packaged food, whereas for the rest it is structurally equivalent to the tray 1 described above.

**[0081]** In the light of the above, the tray according to the invention attains the predetermined purposes and achieves considerable advantages compared to the prior art.

**[0082]** Indeed, thanks to the introduction of ribs on the side walls with flared profile (larger breadth) at the areas of connection between base and side walls, stiffness and compression resistance of the tray are significantly increased, which allows to reduce the risk of excessive deformation of the tray and/or the formation of a dog bone shape during packaging with wrapping of a closing film around the tray, in particular a heat-shrinkable closing film.

**[0083]** Moreover, it should be noted that the tray according to the invention does not entail structural com-

plications compared to the known tray and it can be produced in a simple manner and at low cost, for example by thermoforming with techniques and equipment that are commonly used in the art.

**[0084]** A person skilled in the art may make numerous modifications and changes to the tray according to the invention, which, however, are all within the scope of protection of the annexed claims.

## Claims

1. A tray (1; 30) made of plastic material and/or paper material for packaging food products, in particular fresh food products capable of releasing liquids, the tray comprising a base (2), and side walls (3a, 3b) that define a compartment (4) for containing a food, the side walls being joined at the base (2) by an area (A) of connection and ending at the top with a peripheral edge (5) with a substantially perimeter extension, and ribs (6) extending on said area (A) of connection and on said side walls (3a, 3b), the tray (1; 30) being **characterized in that** said ribs (6) are flared in said area (A) of connection so as to have a larger breadth in said area (A) of connection than the breadth on the side walls (3).
2. The tray (1; 30) according to claim 1, wherein said ribs (6) extend also on a peripheral area (C) of the base (2) and the breadth of the ribs (6) in said area (A) of connection is larger than their breadth in the peripheral area (C) of the base (2).
3. The tray (1; 30) according to claim 1 or 2, wherein said peripheral edge (5) has a tract descending from its outward-facing end which defines an annular skirt (20) with a substantially perimeter extension, said annular skirt (20) having a curved profile (D) with curvature toward the outside.
4. The tray (1; 30) according to any one of the preceding claims, further comprising corner areas (B) of connection between adjacent walls (3a, 3b), said corner areas (B) having a curved profile with curvature toward the outside of the tray (1; 30), said perimeter edge (5) also having a first tract (5a) with a curved profile at each of said corner areas (B) of connection and further having, preferably, second tracts (5b; 5c) slightly curved toward the outside of the tray (1; 30) at at least one pair of opposite side walls (3a; 3b).
5. The tray (1; 30) according to claim 4, further comprising second ribs (7) that extend vertically at said corner areas (B) of connection between side walls (3a, 3b) adjacent to each other.
6. The tray (1; 30) according to claim 4 or 5, wherein said corner areas (C) of connection between adja-

cent side walls (3a, 3b) have a beveled lower portion (12).

7. The tray (1; 30) according to any one of the preceding claims, further comprising one pair of third ribs (8) each of which extending on the base (2) between opposite ribs (6) of opposite side walls (3a; 3b) until they connect to said ribs (6), said third ribs (8) having a curved profile, preferably a substantially waved profile. 5 10
8. The tray (1) according to any one of the preceding claims, further comprising under the base (2) a chamber (9) for collecting the exudate possibly released by the packaged food, said chamber (9) being in fluid communication with the compartment (4) for containing said food. 15
9. The tray (1) according to claim 8, wherein the chamber (9) comprises a plurality of cavities (11) integrally formed from said base (2), that extend under said base (2) and are open to the tray compartment (4) for containing, said cavities (11) being adjacent to each other so as to form at least one alveolar, substantially honeycombed, structure (10). 20 25
10. The tray (1) according to claim 9, wherein said chamber (9) comprises a first alveolar structure (10a) arranged in a substantially central area of the base of the tray (1), preferably between the third ribs (8), and optionally at least one second alveolar structure (10b) arranged in a peripheral area of the base (2), preferably externally with respect to a respective third rib (8). 30 35
11. The tray (1; 30) according to any one of the preceding claims, wherein the tray (1) has a square shape comprising first opposite side walls (3a) and second opposite side walls (3b). 40
12. The tray (1; 30) according to any one of the preceding claims, wherein the plastic material forming said tray (1; 30) comprises or consists of PET. 45
13. The tray (1; 30) according to claim 12, wherein said PET is selected from amorphous PET (APET), semi-crystalline PET or semi-expanded or expanded PET (XPET). 50
14. The tray (1; 30) according to any one of the preceding claims 1 to 11, wherein the plastic material forming said tray (1; 30) comprises or consists of a biodegradable and possibly compostable polymer, said plastic material preferably being polylactic acid (PLA), a starch-based polyphasic polymer known under the trade name Mater-bi or combinations thereof. 55

15. The tray (1; 30) according to any one of the preceding claims 1 to 11, wherein the material forming said tray (1; 30) comprises or consists of a paper material.

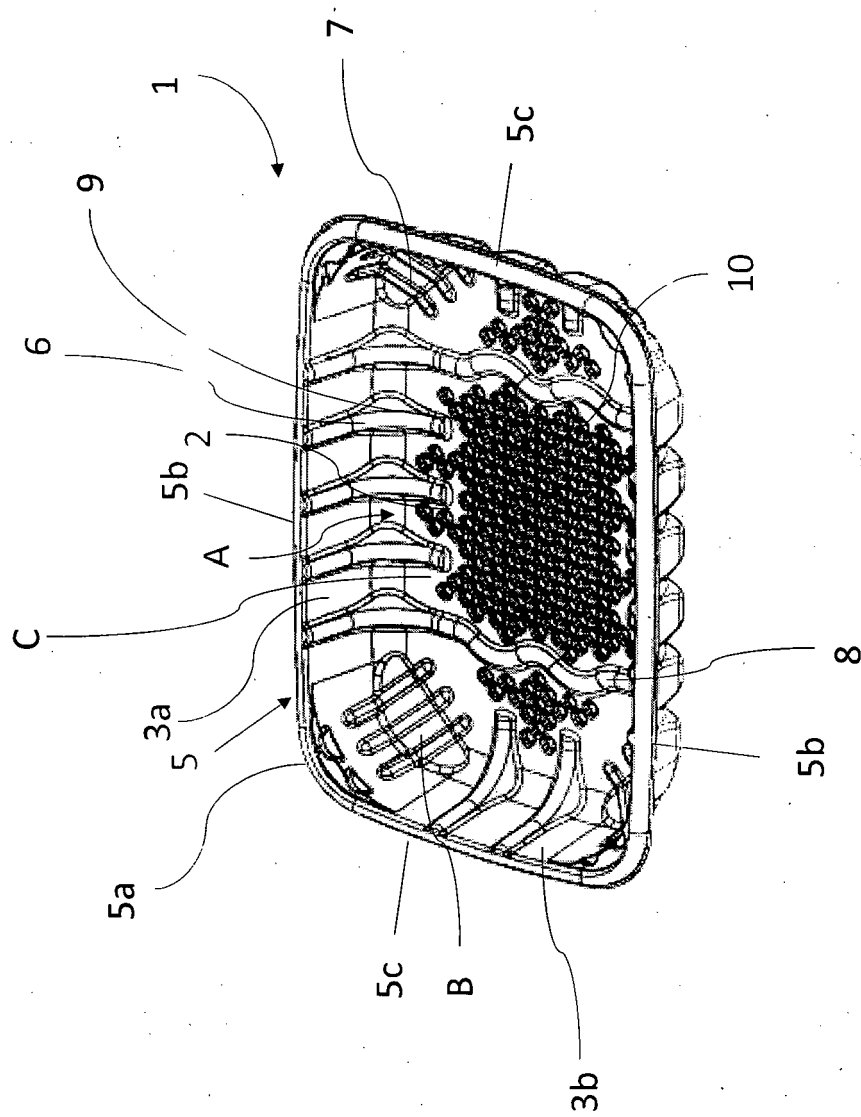


Fig. 1



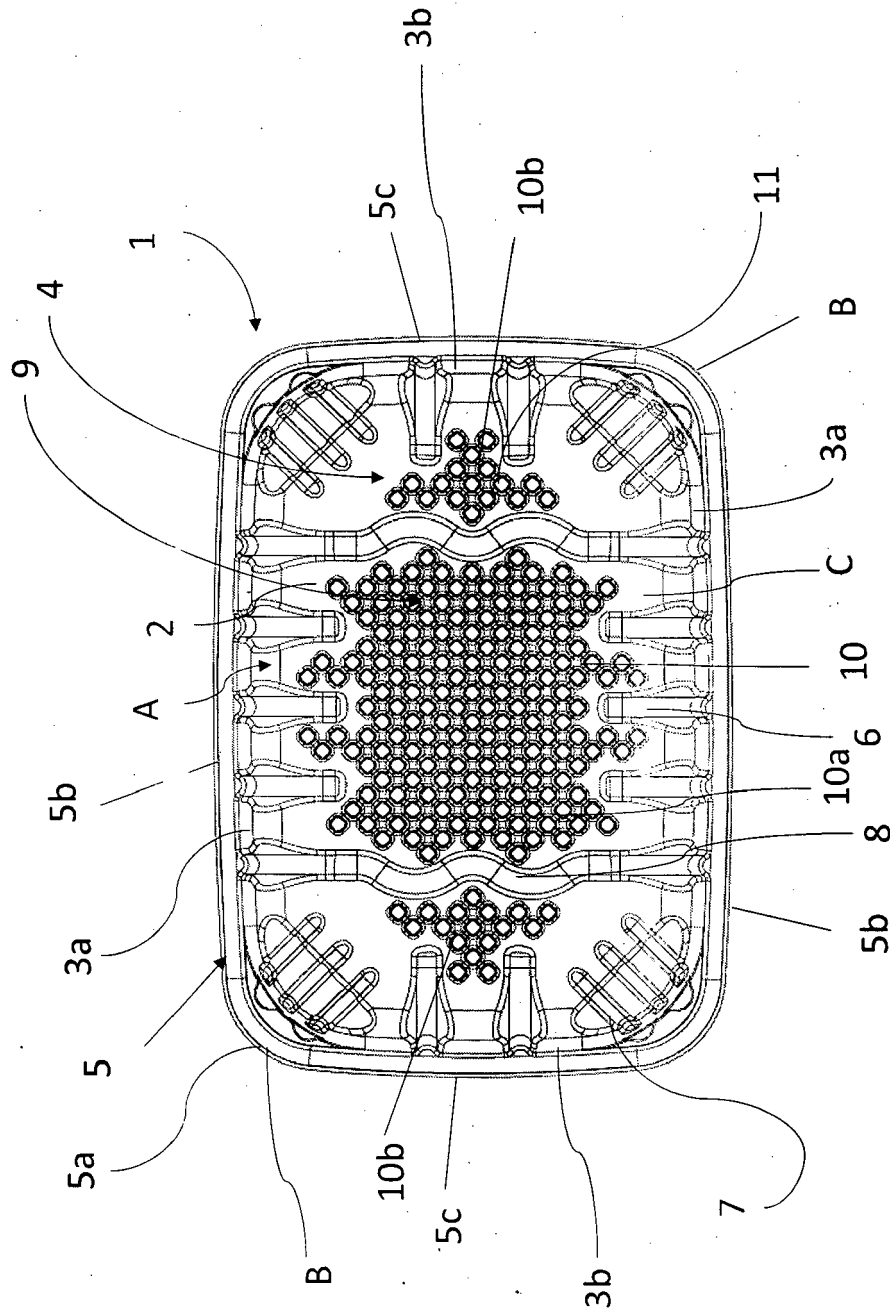


Fig. 2

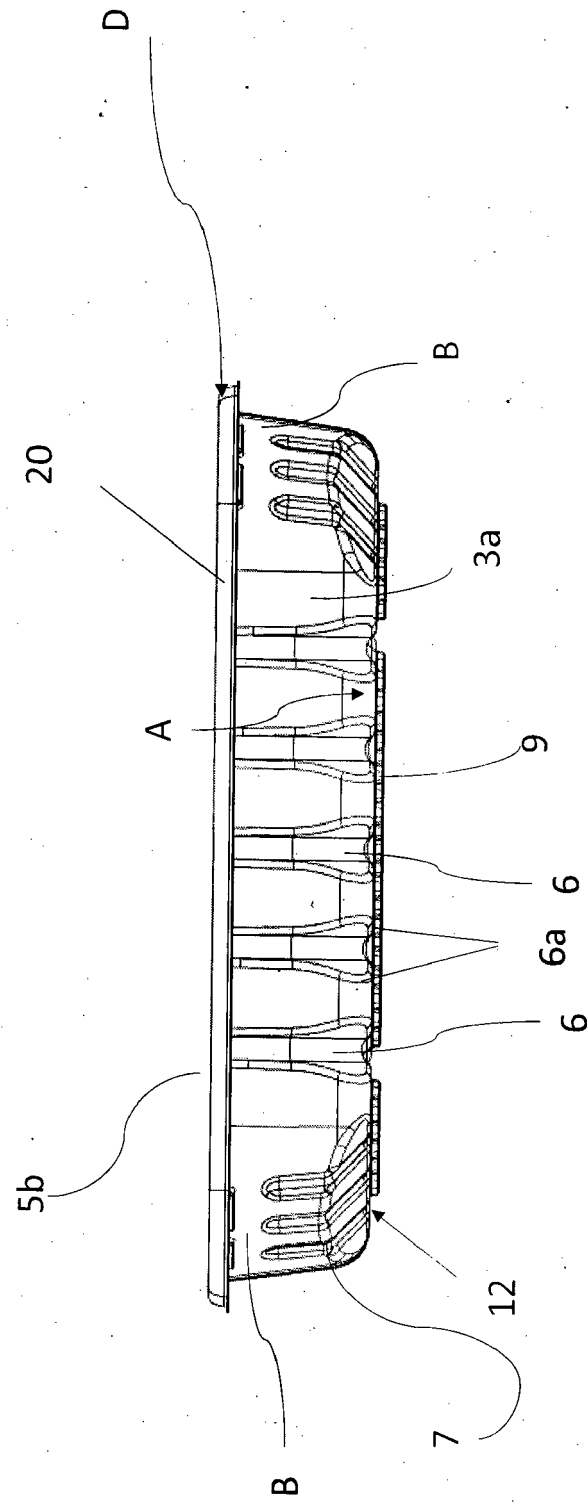


Fig. 3

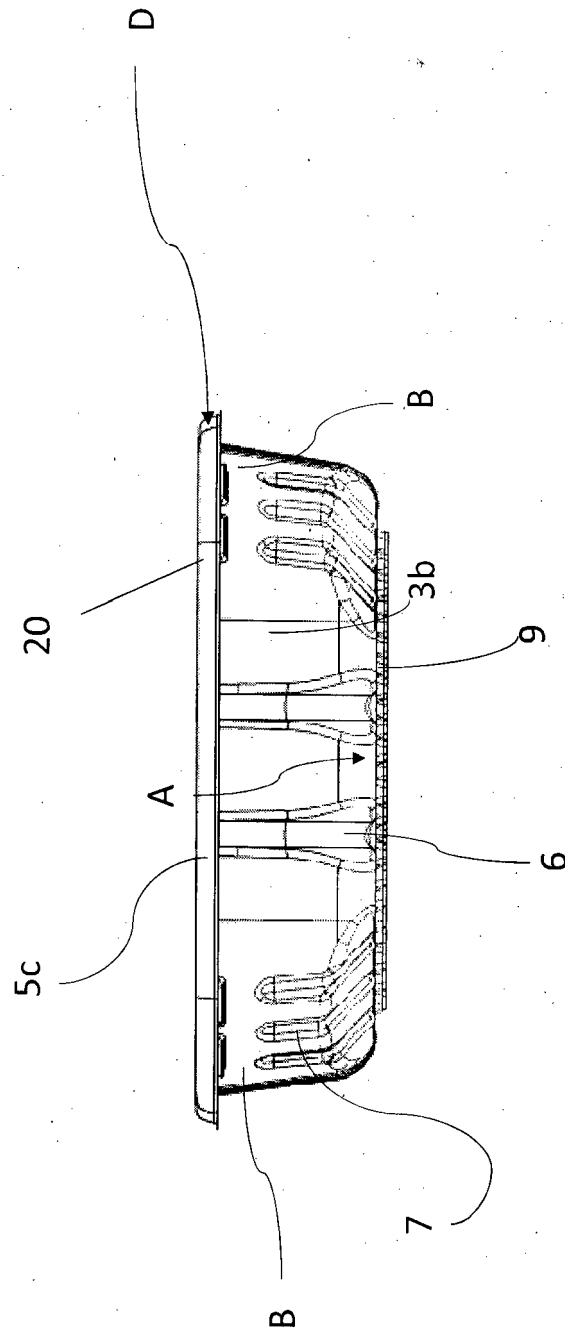


Fig. 4

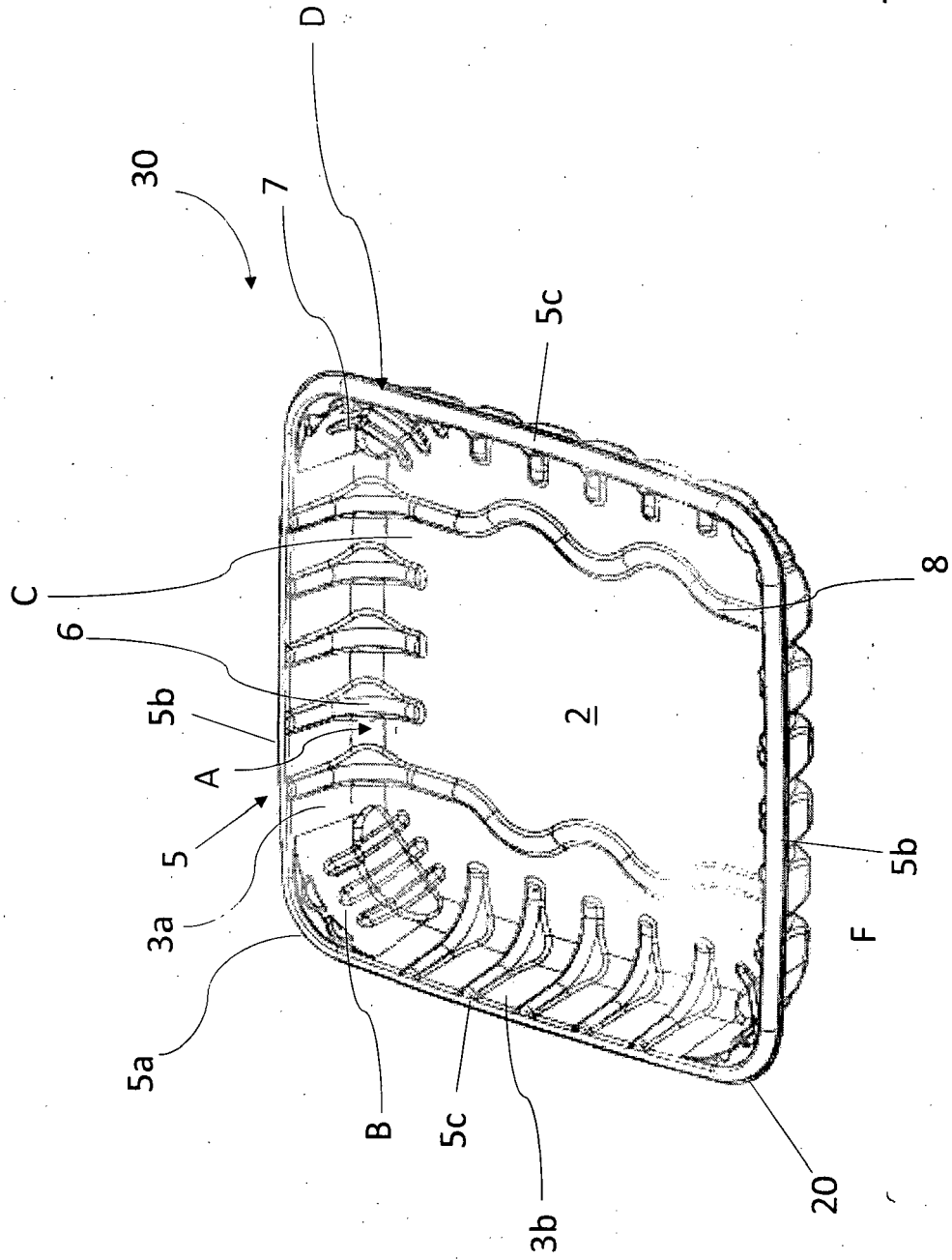


Fig. 5

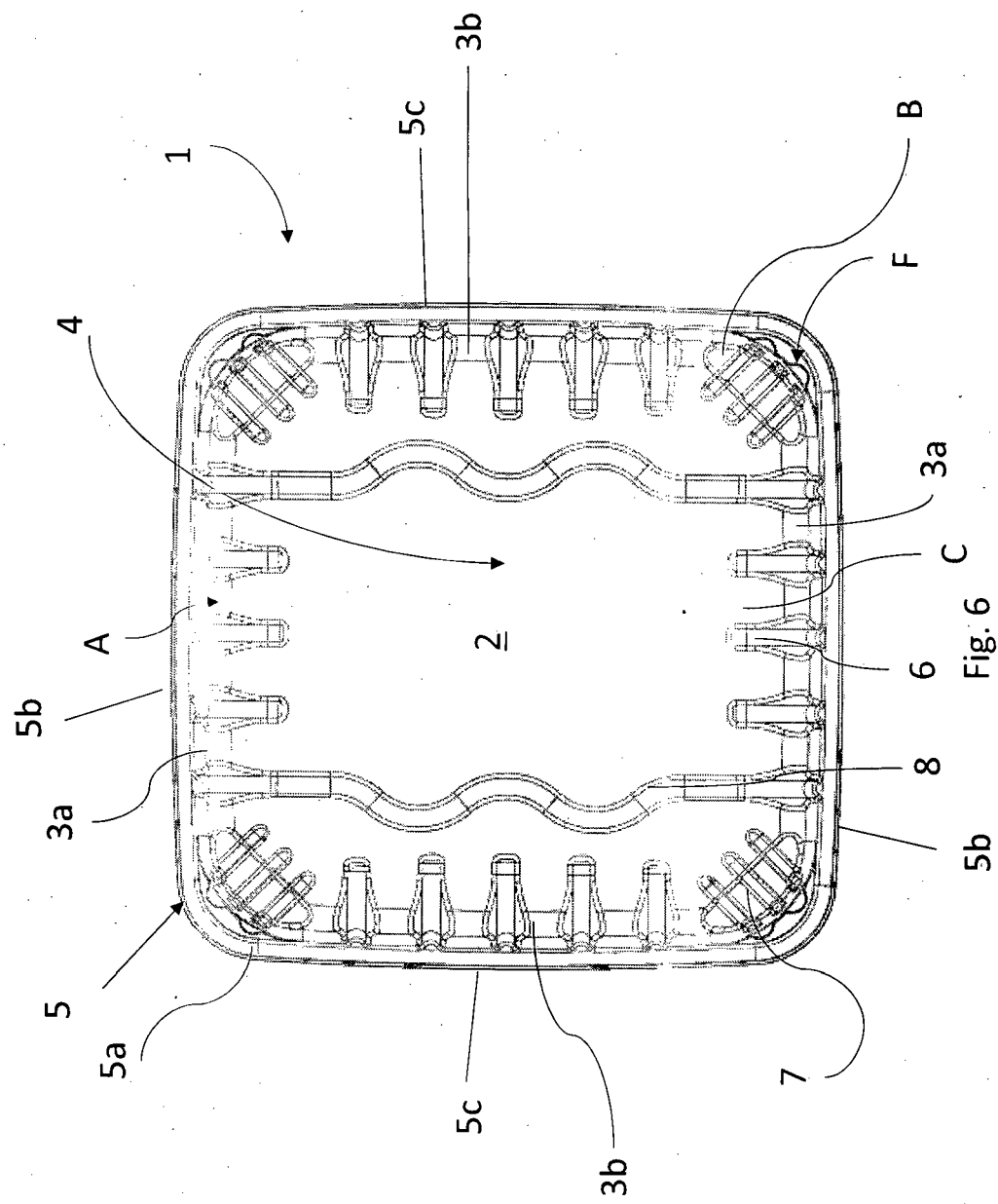


Fig. 6



## EUROPEAN SEARCH REPORT

Application Number

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EPO FORM 1503 03.82 (P04C01)

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Place of search <b>Munich</b>		Date of completion of the search <b>20 December 2022</b>	Examiner <b>Gabrich, Katharina</b>
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