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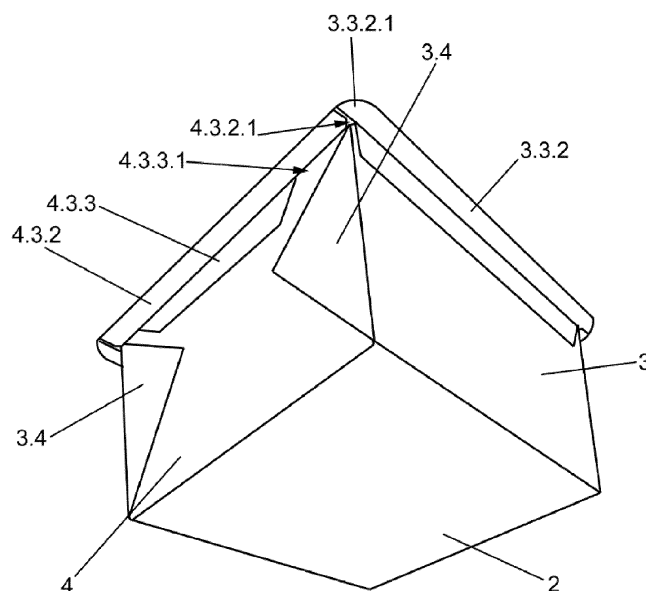
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CONTAINER
- (57) The present invention falls within the technical field of storage using containers, preferably cardboard containers. In a particular embodiment, said containers are intended for packaging food products, available in a variety of shapes and sizes, depending on the products to be packaged.
- In particular, the present invention relates to a container for packaging products. Said container is obtained from folding at various points and the attachment to one another of elements of an extended flat sheet, which after its assembly configures said product packaging container.
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- FIG.2A
- EP 4 332 011 A1
- Processed by Luminess, 75001 PARIS (FR)

**Description****OBJECT OF THE INVENTION**

[0001] The present invention falls within the technical field of storage using containers, preferably cardboard containers. In a particular embodiment, said containers are intended for packaging food products, available in a variety of shapes and sizes, depending on the products to be packaged.

[0002] In particular, the present invention relates to a container for packaging products. Said container is obtained from folding at various points and the attachment to one another of elements of an extended flat sheet, which after its assembly configures said product packaging container.

**BACKGROUND OF THE INVENTION**

[0003] The present invention is encompassed in the product packaging sector, specifically by means of containers configured from an extended flat sheet, in particular by means of folding and attachment operations of elements of said extended flat sheet.

[0004] This technical field currently involves several containers for packaging products, which allow not only their storage but also the protection thereof. As such, the state of the art envisages plastic, cardboard or wooden containers that allow for the storage of the products.

[0005] For optimal and economical storage, these containers allow the several of said containers to be stacked. However, said stacking causes the accumulation of weight on the lower containers, which causes the deterioration of the containers, as well as of the content thereof.

[0006] Likewise, said storage conditions require the container to be rigid enough to withstand both the products packed inside same and the stresses to which it is subjected during transport and, above all, during stacking. Solutions of this type are shown, for example, in document EP 3542670 A1, where reference is made to elements that make it possible to obtain a partially rigid container, but which have drawbacks for the correct stacking of several containers due to the configuration of the reinforcing elements.

[0007] Containers that do not have sufficient rigidity do not allow for aligned stacking, which results in a lack of space and deterioration of containers and products. Likewise, the containers are often covered by plastic elements located in the upper portion of the container, as described in document EP 3768118 A1.

[0008] However, excessively rigid containers involve an increased weight of the container, a greater volume occupied by same, and a higher manufacturing cost, both in terms of quantity of material and in the steps for assembling the containers. Likewise, containers that are highly rigid reduce the possibility of stacking between them, which in turn hinders the efficient storage of the

products.

**DESCRIPTION OF THE INVENTION**

[0009] The present invention makes it possible to solve the aforementioned problems in that it allows products to be stored and packaged in a rigid container, which facilitates stacking and, therefore, storage and transport logistics, while protecting the corresponding product.

[0010] Thus, the first inventive aspect is aimed at a container for packaging products, configured from an extended flat sheet, wherein the container comprises:

- a lower wall, comprised in a perimeter delimited by at least four straight lower edges,
- at least two front walls, each of which is coupled to a corresponding lower edge of the lower wall, said lower edges being opposed to one another, wherein each of the front walls is comprised in a perimeter delimited by at least two first front edges that are straight and opposed to one another, and two second front edges that are straight and opposed to one another, and wherein a first front edge coincides with the lower edge of the lower wall to which the front wall is coupled,
- at least two lateral walls, each of which is coupled to a corresponding lower edge of the lower wall, said lower edges being opposed to one another, wherein each one of the lateral walls is comprised in a perimeter delimited by at least two first lateral edges that are straight and opposed to one another, and two second lateral edges that are straight and opposed to one another, and wherein a first lateral edge coincides with the lower edge of the lower wall to which the lateral wall is coupled,

wherein each front wall comprises:

- a first flange, substantially parallel to the lower wall and coupled to a first front edge opposed to the lower edge of the lower wall to which the front wall is coupled, and
- an assembly flap coupled to each of the second front edges, wherein each lateral wall comprises a second flange, which in turn comprises:
  - a first portion that extends along a longitudinal direction X-X', coupled to the first lateral edge opposed to the lower edge of the lower wall to which the lateral wall is coupled, further comprising a tab at each end along its longitudinal direction X-X',
  - a second portion that extends along the longitudinal direction X-X', coupled and substantially parallel to the first portion, comprising a chamfer at each end along the longitudinal direction X-X', and
  - a third portion that extends along the longitu-

*dinal direction X-X', coupled to and substantially parallel to the second portion, and located such that it comprises a space at each end along the longitudinal direction X-X', the length of the third portion being substantially less than the length of the second portion,*

*wherein the lower wall, the front walls and the lateral walls form an internal cavity configured to house products,*

*wherein each assembly flap of each front wall is coupled to the sides of the lateral walls opposed to the internal cavity,*

*wherein the first portion of each second flange is folded and located substantially parallel to the lower wall, coplanar with each first flange of each front wall, wherein the second portion of each second flange is doubly folded and substantially parallel to the first portion of each second flange, said second portion being substantially coupled to the first portion along its longitudinal direction X-X', and*

*wherein the third portion of each second flange is folded and coupled to the sides of the lateral walls opposed to the internal cavity.*

**[0011]** In this way, by configuring several sections, an extended flat sheet allows a container to be obtained by assembly which defines an internal cavity for packaging products with suitable rigidity for better stacking and storage. Said sections are the lower wall, the lateral walls and the front walls.

**[0012]** In this way, the lower wall makes it possible, in an operative situation, i.e., once the container is assembled, to configure a base or depth of said internal cavity, while the arrangement of the front and lateral walls makes it possible to generate the walls, arranged around the base, which define the height or depth of said internal cavity.

**[0013]** Both the lower wall and the front and lateral walls are defined in specific spaces. Particularly, its perimeter is delimited by a series of edges that determine its extension.

**[0014]** In this way, the lower wall shares each one of its edges with one of the front or lateral walls, since said sections are joined through the corresponding shared edge.

**[0015]** Thus, the lower wall is joined alternatively, and through one of its edges, to a front wall and to a lateral wall.

**[0016]** In a particular embodiment, the lower edges and/or the first front edges and/or the second front edges and/or the first lateral edges and/or the second lateral edges of the front and lateral faces of the container comprise folding lines.

**[0017]** In other words, said edges allow the sections of the extended flat sheet to be folded for a more adequate configuration of the container, allowing a more efficient folding of each section and thus ensuring the po-

sition of each element during assembly.

**[0018]** In a particular embodiment, the number of lateral walls and front walls is the same.

**[0019]** Additionally, the extended flat sheet has additional sections, attached either to the front walls or to the lateral walls, which advantageously allow the formation of sections for the definition of a platform that enables closing means for closing the internal cavity to be supported.

**[0020]** In other words, firstly, each front wall has a first flange that, in an operative situation, meaning once the container is assembled, is substantially parallel to the lower wall and is located at the point of maximum height of the internal cavity.

**[0021]** Simultaneously, each lateral wall in turn comprises a second flange which, in an operative situation, is also substantially parallel to the lower wall, and therefore substantially parallel to each first flange. In the same way, each second flange is also located at the point of maximum height of the internal cavity.

**[0022]** Thus, advantageously, the set of first and second flanges configure a platform or support, substantially parallel to the base of the internal cavity and located at its highest point. Said support is configured to support thereon means for closing the internal cavity.

**[0023]** In this way, since the support is located at the furthest point from the lower wall of the interior cavity, the support makes it possible to support closing means that totally or partially cover the entire internal volume of the internal cavity.

**[0024]** Additionally, each second flange is configured from at least the following portions:

- a first portion formed along a longitudinal direction X-X', wherein a tab is located at each end of said first portion along said longitudinal direction X-X',
- a second portion also formed along the longitudinal direction X-X', wherein a chamfer is located at each end of said second portion along said longitudinal direction X-X', and
- a third portion formed along the longitudinal direction X-X', wherein a space is located at each end of said first portion along said longitudinal direction X-X', in such a way that the length, measured in the longitudinal direction X-X', of the third portion is substantially less than the length of the second portion, also measured in the longitudinal direction X-X'.

**[0025]** Said first, second and third portions are arranged substantially parallel and concatenated two by two, joined together by means of common edges. Thus, the first portion is joined to one of the lateral edges of a lateral wall, while the second portion is joined to the first portion and the third portion is joined to the second portion.

**[0026]** Said first, second and third portions are folded, in an operative situation, such that they configure the second flange as part of the aforementioned support.

**[0027]** In this way, the first portion is folded and located substantially parallel to the lower wall, coplanar with each first flange of each front wall, while the second portion is doubly folded and substantially parallel to the first portion, and the third portion is folded and coupled to the sides of the lateral walls opposed to the internal cavity.

**[0028]** Advantageously, this configuration allows the second flange, once assembled in its position, to maintain said position and have sufficient rigidity to act as a support for closing means that cover the products inside the internal cavity, as well as to act as a support for additional containers when same are stacked on top of each other.

**[0029]** In this way, the first and second flanges, by means of the present configuration, make it possible to obtain a perimeter structure around the container in an operative situation, the perimeter structure improving the stacking of the containers on top of each other as well as the rigidity and stability thereof, which also prevents the containers from being deformed by the weight of other supported containers or by blows.

**[0030]** In a particular embodiment, the container further comprises closing means, in particular a lid, configured to cover the internal cavity.

**[0031]** These closing means are fixed on each first flange, preferably on the first portion of each first flange, and on the first portion of each second flange. That is, the closing means are located on the perimeter structure shaped by the first and second flanges once they have been folded to configure the container.

**[0032]** Lastly, the container according to the first inventive aspect also comprises, on each front wall, assembly flaps which, in an operative situation, are able to be coupled to each adjacent lateral wall.

**[0033]** Advantageously, this configuration provides rigidity to the container, since each assembly flap acts as a reinforcement of the structure that configures the internal cavity. In this way, each assembly flap partially embraces the adjacent lateral wall, so that each front wall maintains its position on the lower wall more robustly.

**[0034]** In a particular embodiment, the space of the third portion of each second flange is a straight contour, which advantageously allows the assembly flaps to be housed in said space, and thus that there is no overlapping of sections of the extended flat sheet while obtaining of the container. Additionally, these assembly flaps also do not overlap with the second flange thanks to the chamfers in the second portion of said the second flange.

**[0035]** In a particular embodiment, the length of the first portion of each second flange is substantially greater than the length of the second and third portions. This advantageously makes it possible to maintain the position of each lateral wall of the container, since said first portion extends along the longitudinal direction X-X' to the adjacent front walls.

**[0036]** In a particular embodiment, the configuration of at least one of the first flanges comprises the following elements:

- a first portion that extends along a longitudinal direction X-X', coupled to the first front edge opposed to the lower edge of the lower wall to which the front wall is coupled,
- a second portion that extends along the longitudinal direction X-X', coupled and substantially parallel to the first portion, further comprising a tab at each end along its longitudinal direction X-X', and
- a third portion that extends along the longitudinal direction X-X', coupled and substantially parallel to the second portion,

wherein the length of the second portion is substantially greater than the length of the first and third portions,

wherein the first portion of each first flange is folded and located substantially parallel to the lower wall, wherein the second portion of each first flange is doubly folded and substantially parallel to the first portion of each first flange, said second portion being substantially coupled to the first portion along its longitudinal direction X-X',

wherein the third portion of each first flange is folded over and coupled to the sides of the front walls opposed to the internal cavity,

wherein each of the flanges of the second portion of the first flange is simultaneously:

- overlapping a tab of the second portion of the second adjacent flange, and
- coupled to said tab of the second portion of the second adjacent flange, leaving the chamfer space of the second portion of said second adjacent flange (4.3) free.

**[0037]** Advantageously, the present configuration allows the first flange, once assembled in its position, to maintain said position and have sufficient rigidity to act as a support for closing means that cover the products inside the internal cavity, as well as to act as a support for additional containers when same are stacked on top of each other.

**[0038]** In a particular embodiment, at least one of the following junctions of the container is made by means of adhesive or heat sealing:

- the attachment of at least one of the assembly flaps to a lateral wall,
- the attachment of the closing means,
- the attachment of at least one of the joints of the first and/or the second flange.

**[0039]** Advantageously, this allows efficient and simple joining of the indicated segments.

**[0040]** In a particular embodiment, at least one front wall further comprises a plurality of holes, distributed inside the perimeter delimited by the first front edges and the second front edges.

**[0041]** Said holes allow ventilation of the internal cavity, as well as fluidic communication between the interior of the internal cavity and the exterior. It also allows a slight weight reduction of the container.

**[0042]** In a particular embodiment, the container is made of cardboard, and preferably the closing means are made of plastic.

## DESCRIPTION OF THE FIGURES

**[0043]** To complete the description, and for the purpose of helping to make the features of the present invention more readily understandable, this description is accompanied by a set of figures constituting an integral part of the same, which by way of illustration and not limitation represents the following:

Figure 1A shows a first particular embodiment of an extended flat sheet which, after being folded and assembled, configures a first particular embodiment of a container.

Figure 1B shows a second particular embodiment of an extended flat sheet which, after being folded and assembled, configures a second particular embodiment of a container.

Figures 2A and 2B show two perspective views of a particular embodiment of the container, obtained from the extended flat sheet shown in Figure 1B.

## PREFERRED EMBODIMENT OF THE INVENTION

**[0044]** Figure 1A shows a first particular embodiment of an extended flat sheet (1.1) which, after folding its sections around the different edges, configures a first embodiment of a container (1).

**[0045]** As can be seen in the present Figure 1, the extended flat sheet (1.1) comprises a lower wall (2), delimited by four lower edges (2.1), said lower edges (2.1) being straight and configuring a rectangular lower wall (2).

**[0046]** According to the view provided in Figure 1A, two front walls (3) extend from two facing sides of the lower wall (2), in this case the left and right sides, one on each side of said lower wall (2).

**[0047]** Each front wall (3) is rectangular, and is delimited by two first front edges (3.1) and two second front edges (3.2), all of them straight. Additionally, the first front edges (3.1) are facing one another, as well as the second front edges (3.2).

**[0048]** Additionally, as shown in Figure 1A, each front wall (3) extends from the lower wall (2) from one of the lower edges (2.1), which in turn coincides with one of the first front edges (3.1) of said front wall (3). A first flange (3.3) extends along a longitudinal direction X-X' on the first opposite front edge (3.1) on each front wall (3).

**[0049]** This first flange (3.3) is made up of a first portion (3.3.1), of a length substantially equal to the length of the first front edge (3.1), a second portion (3.3.2) located

after the first portion (3.3.1) and joined thereto. Lastly, the first flange (3.3) also comprises a third portion (3.3.3), located after the second portion (3.3.2) and joined thereto. The first (3.3.1), second (3.3.2) and third (3.3.3) portions are substantially parallel to each other and are integrally machined in the same section of the extended flat sheet (1.1).

**[0050]** Additionally, the second portion (3.3.2) of the first flange (3.3) further comprises, at each of the ends thereof along the longitudinal direction X-X', a tab (3.3.2.1) in the shape of a circular sector, for better support of the first flange (3.3) in the assembled container (1).

**[0051]** As can be seen in Figure 1A, each front wall (3) further comprises two rows of three holes (3.5) for fluidic communication between the interior of the container (1) and the exterior.

**[0052]** Moreover, each front wall (3) further comprises, from each of its second front edges (3.2), an assembly flap (3.4). Said assembly flap (3.4) extends, integrally, from a first front edge (3.2) of the front wall (3) and is substantially perpendicular to the first flange (3.3.1). Additionally, it has a rounded contour, which is coupled to the adjacent lateral wall (4).

**[0053]** As can be seen in Figure 1A, from the two remaining sides, also facing one another, of the lower wall (2), in this case the upper and lower sides according to the view of the present Figure 1A, two lateral walls (4) extend, one on each side of said lower wall (2).

**[0054]** Each lateral wall (4) is rectangular, and is delimited by two first lateral edges (4.1) and two second lateral edges (4.2), all of them being straight. Additionally, the first lateral edges (4.1) are facing one another, as well as the second lateral edges (4.2).

**[0055]** Moreover, as shown in Figure 1A, each lateral wall (4) extends from the lower wall (2) from one of the lower edges (2.1), which in turn coincides with one of the first lateral edges (4.1) of said lateral wall (4). A second flange (4.3) extends along a longitudinal direction X-X' on the opposite first lateral edge (4.1) on each lateral wall (4).

**[0056]** This second flange (4.3) is made up of a first portion (4.3.1), of a length greater than the length of the first lateral edge (4.1), a second portion (4.3.2) located after the first portion (4.3.1) and joined thereto. Lastly, the second flange (4.3) also comprises a third portion (4.3.3), located after the second portion (4.3.2) and joined thereto. The first (4.3.1), second (4.3.2) and third (4.3.3) portions are substantially parallel to each other and are integrally machined in the same section of the extended flat sheet (1.1).

**[0057]** Additionally, the first portion (4.3.1) of the second flange (4.3) further comprises, at each of the ends thereof along the longitudinal direction X-X', a tab (4.3.1.1) in the shape of a circular sector, for better support of the second flange (4.3) in the assembled container (1).

**[0058]** The second portion (4.3.2) comprises a chamfer (4.3.2.1) at each of the ends thereof along the longi-

tudinal direction X-X'. As shown in Figure 1A, said chamfer is machined at 45° in a small extension of the second portion.

[0059] Lastly, the third portion (4.3.3) comprises a straight space (4.3.3.1) at each of the ends thereof along the longitudinal direction X-X', so said third portion (4.3.3) has a length substantially less than the first (4.3.1) and second (4.3.2) portions.

[0060] Additionally, the areas that can be seen delimited by dashed lines and also dashed stripes show the areas in which an adhesive or heat sealing is applied for the assembly of the container (1) from the folding of the extended flat sheet (1.1).

[0061] Figure 1B shows a second particular embodiment of an extended flat sheet (1.1) which, after folding its segments around the different edges, configures a second embodiment of a container (1).

[0062] In this way, like Figure 1A, present Figure 1B shows a central section that corresponds to the lower wall (2) and, on each side of said lower wall (2), there are two front walls (3) facing each other, joined to said lower wall by means of a first front edge (3.1) coinciding with one of the lower edges (2.1) of the lower wall (2). Additionally, the other two facing sides of the lower wall (2) are each joined to a lateral wall (4) by means of a first lateral edge (4.1) coinciding with one of the lower edges (2.1) of the lower wall (2).

[0063] As in the embodiment shown in Figure 1A, each front wall (3) comprises an extension in the form of a first flange (3.3) and each lateral wall (4) comprises an extension, in the form of a second flange (4.3), which comprise the same previously mentioned portions. Both the first flanges (3.3) and the second flanges (4.3) are integral with their respective front walls (3) and lateral walls (4).

[0064] In this case, the assembly flaps (3.4) have a corner configuration and also overlap the lateral walls (4).

[0065] Again, as in the case of Figure 1A, the areas delimited by dashed stripes show areas in which an adhesive or heat sealing is applied for the assembly of the container (1) from the folding of the extended flat sheet (1.1).

[0066] Additionally, Figures 2A and 2B show a container (1), already assembled and in an operative situation. Said container (1) is obtained by assembling an extended flat sheet (1.1) like the one shown in Figure 1B. In particular, by folding said extended flat sheet (1.1) and attachment thereof by means of adhesive in the indicated areas.

[0067] As can be seen in Figure 2B, the container (1) comprises an internal cavity (2.2) wherein the products are stored, delimited by the lower wall (2) as the base of said internal cavity (2.2), as well as by the front walls (3) and the lateral walls (4), the internal cavity (2.2) being open to the outside on the side facing the lower wall (2).

[0068] Additionally, Figures 2A and 2B show how the assembly flaps (3.4) overlap the lateral walls (4), without interfering with the second flange (4.3) of said lateral wall (4).

[0069] In this way, each assembly flap (3.4) is partially housed in the corresponding space (4.3.3.1) of the third portion (4.3.3) of the second flange (4.3), so that said straight space allows for a simpler assembly of the container (1) by avoiding the overlapping of different sections of the extended flat sheet (1.1).

[0070] On the other hand, the tabs (3.3.2.1) of the first flange (3.3) and the tabs (4.3.1.1) of the second flange (4.3) overlap and are fixed to each other to configure the structural support for closing means, in particular a lid (not shown). Additionally, the chamfer (4.3.2.1) of the second flange (4.3) prevents the tab (3.3.2.1) of the first flange (3.3) from overlapping the tab (4.3.1.1) of the second flange (4.3).

## Claims

1. Container (1) for packaging products, configured from an extended flat sheet (1.1), **characterised in that** the container (1) comprises:

- a lower wall (2), comprised in a perimeter delimited by at least four straight lower edges (2.1),
- at least two front walls (3), each of them coupled to a corresponding lower edge (2.1) of the lower wall (2), said lower edges (2.1) being opposed to one another,

wherein each of the front walls (3) is comprised in a perimeter delimited by at least two first front edges (3.1) that are straight and opposed to one another, and two second front edges (3.2) that are straight and opposed to one another, and wherein a first front edge (3.1) coincides with the lower edge (2.1) of the lower wall (2) to which the front wall (3) is coupled,

- at least two lateral walls (4), each of them coupled to a corresponding lower edge (2.1) of the lower wall (2), said lower edges (2.1) being opposed to one another,

wherein each of the lateral walls (4) is comprised in a perimeter delimited by at least two first lateral edges (4.1) that are straight and opposed to one another, and two second lateral edges (4.2) that are straight and opposed to one another, and wherein a first lateral edge (4.1) coincides with the lower edge (2.1) of the lower wall (2) to which the lateral wall (4) is coupled, wherein each front wall (3) comprises:

- a first flange (3.3), substantially parallel to the lower wall (2) and coupled to a first front edge (3.1) opposed to the lower edge (2.1) of the lower wall (2) to which the front wall (3) is coupled, and

- an assembly flap (3.4) coupled to each of the second front edges (3.2),

wherein each lateral wall (4) comprises a second flange (4.3), which in turn comprises:

- a first portion (4.3.1) that extends along a longitudinal direction X-X', coupled to the first lateral edge (4.1) opposed to the lower edge (2.1) of the lower wall (2) to which the lateral wall (4) is coupled, further comprising a tab (4.3.1.1) at each end along its longitudinal direction X-X',
  - a second portion (4.3.2) that extends along the longitudinal direction X-X', coupled and substantially parallel to the first portion (4.3.1), comprising a chamfer (4.3.2.1) at each end along the longitudinal direction X-X', and
  - a third portion (4.3.3) that extends along the longitudinal direction X-X', coupled to and substantially parallel to the second portion (4.3.2), and located such that it comprises a space (4.3.3.1) at each end along the longitudinal direction X-X', the length of the third portion (4.3.3) being substantially less than the length of the second portion (4.3.2),
- wherein the lower wall (2), the front walls (3) and the lateral walls (4) make up an internal cavity (2.2) configured to house products,
- wherein each assembly flap (3.4) of each front wall (3) is coupled to the sides of the lateral walls (4) opposed to the internal cavity (2.2),
- wherein the first portion (4.3.1) of each second flange (4.3) is folded and located substantially parallel to the lower wall (2), coplanar with each first flange (3.3) of each front wall (3),
- wherein the second portion (4.3.2) of each second flange (4.3) is doubly folded and substantially parallel to the first portion (4.3.1) of each second flange (4.3), said second portion (4.3.2) being substantially coupled to the first portion (4.3.1) along its longitudinal direction X-X', and
- wherein the third portion (4.3.3) of each second flange (4.3) is folded and coupled to the sides of the lateral walls (4) opposed to the internal cavity (2.2).

2. Container (1) according to claim 1, **characterised in that** the length of the first portion (4.3.1) of each second flange (4.3) is substantially greater than the length of the second (4.3.2) and third (4.3.3) portions.
3. Container (1) according to any of the preceding claims, **characterised in that** the lower edges (2.1) and/or the first front edges (3.1) and/or the second front edges (3.2) and/or the first lateral edges (4.1) and/or the second lateral edges (4.2) comprise folding lines.

4. Container (1) according to any of the preceding claims, **characterised in that** the space (4.3.3.1) of the third portion (4.3.3) of each second flange (4.3) is a straight contour.

5. Container (1) according to any of the preceding claims, **characterised in that** at least one first flange (3.3) comprises:

- a first portion (3.3.1) that extends along a longitudinal direction X-X', coupled to the first front edge (3.1) opposed to the lower edge (2.1) of the lower wall (2) to which the front wall (3) is coupled,
  - a second portion (3.3.2) that extends along the longitudinal direction X-X', coupled and substantially parallel to the first portion (3.3.1), further comprising a tab (3.3.2.1) at each end along its longitudinal direction X-X', and
  - a third portion (3.3.3) that extends along the longitudinal direction X-X', coupled and substantially parallel to the second portion (3.3.2), wherein the length of the second portion (3.3.2) is substantially greater than the length of the first (3.3.1) and third (3.3.3) portions,
- wherein the first portion (3.3.1) of each first flange (3.3) is folded and located substantially parallel to the lower wall (2),
- wherein the second portion (3.3.2) of each first flange (3.3) is doubly folded and substantially parallel to the first portion (3.3.1) of each first flange (3.3), said second portion (3.3.2) being substantially coupled to the first portion (3.3.1) along its longitudinal direction X-X',
- wherein the third portion (3.3.3) of each first flange (3.3) is folded and coupled to the sides of the front walls (3) opposed to the internal cavity (2.2),
- wherein each of the tabs (3.3.1.1) of the second portion (3.3.2) of the first flange (3.3) is simultaneously:

- overlapping a tab (4.3.1.1) of the second portion (4.3.2) of the adjacent second flange (4.3), and
- coupled to said tab (4.3.1.1) of the second portion (4.3.2) of the adjacent second flange (4.3), leaving the space of the chamfer (4.3.2.1) of the second portion (4.3.2) of said adjacent second flange (4.3) free.

6. Container (1) according to any of the preceding claims, **characterised in that** it further comprises closing means (5), configured to cover the internal cavity (2.2), wherein the lid (5) is fixed on each first flange (3.3), preferably on the first portion (3.3.1) of each first flange (3.3), and on the first portion (4.3.1) of each second flange (4.3).

7. Container (1) according to any of the preceding claims, **characterised in that** at least one of the following junctions is made by means of adhesive or heat sealing:

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- the attachment of at least one of the assembly flaps (3.4) to a lateral wall (4),
- the attachment of the closing means (5),
- the attachment of at least one of the joints of the first (3.3) and/or second (4.3) flange.

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8. Container (1) according to any of the preceding claims, **characterised in that** at least one front wall (3) further comprises a plurality of holes (3.5), distributed inside the perimeter delimited by the first front edges (3.1) and the second front edges (3.2).

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9. Container (1) according to any of the preceding claims made of cardboard, **characterised in that** the closing means (5) are preferably plastic.

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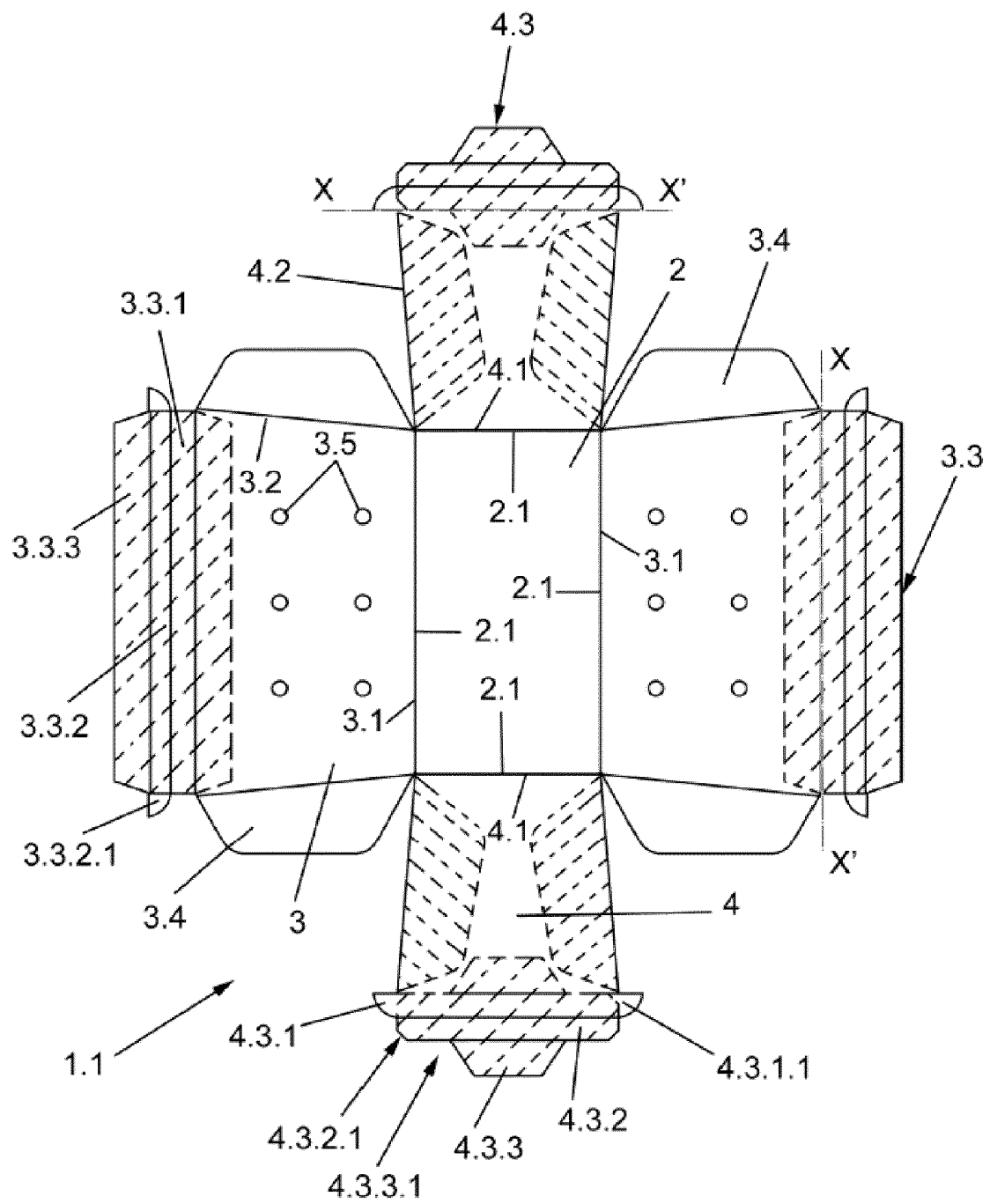


FIG.1A

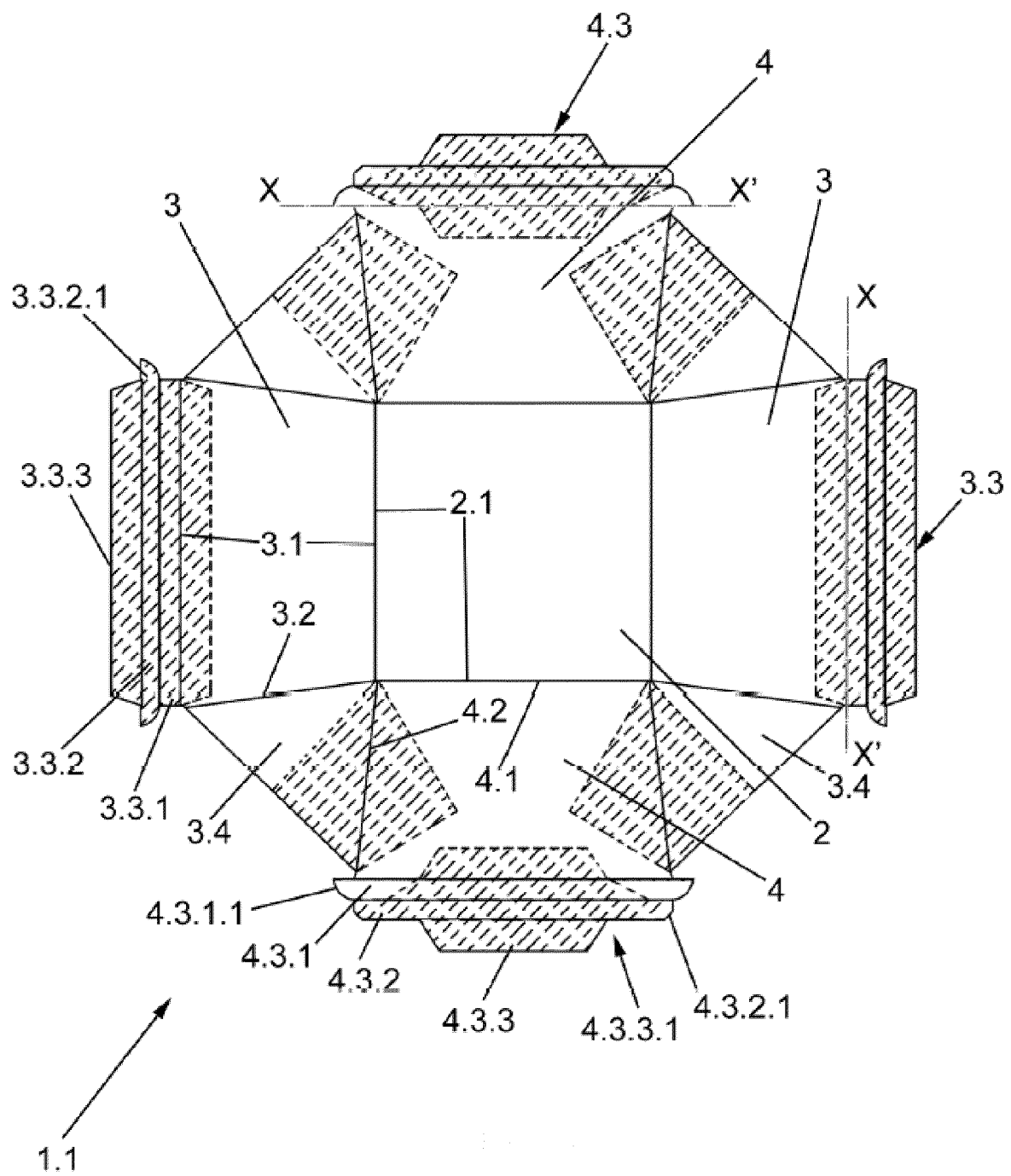


FIG.1B

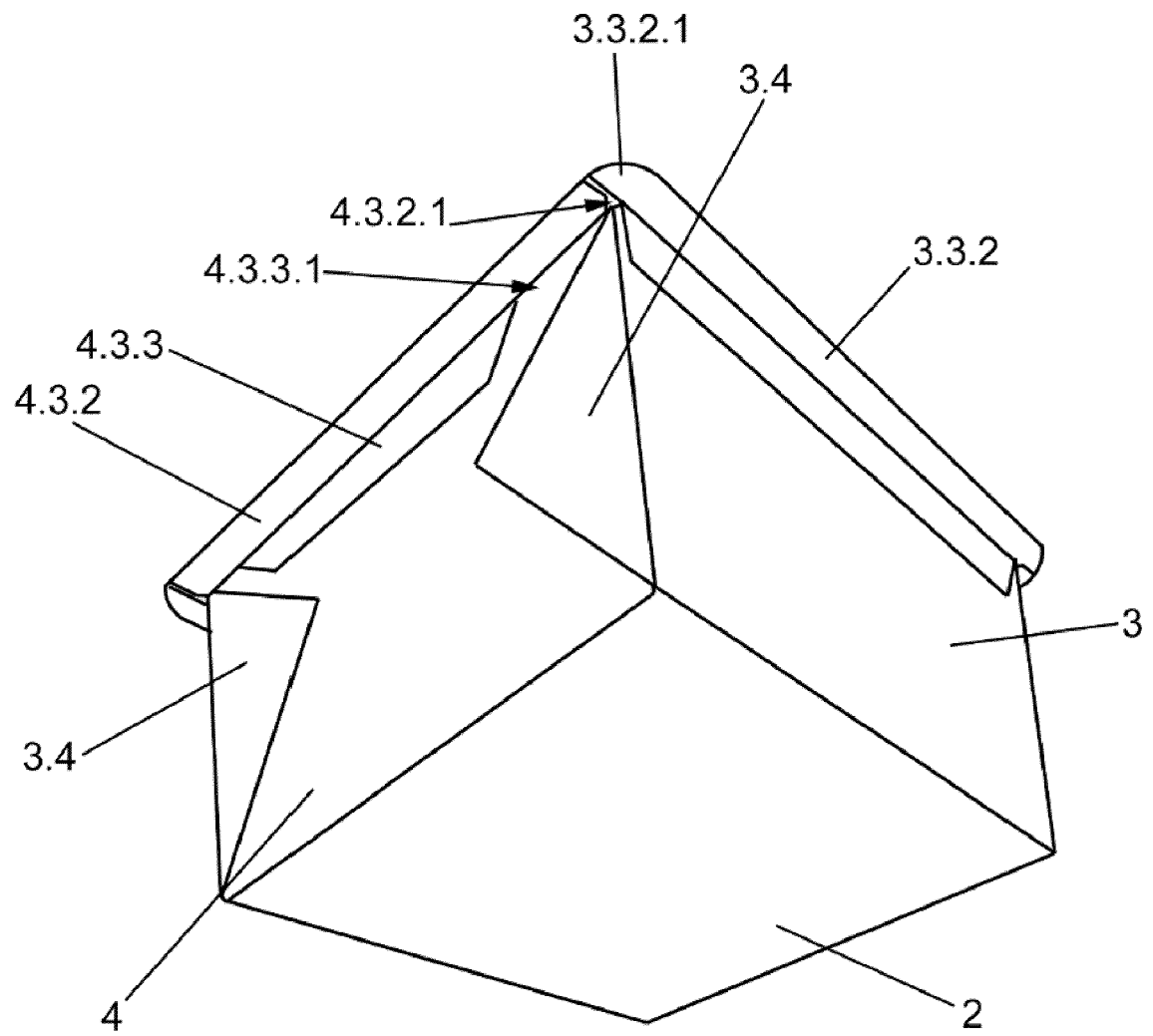


FIG.2A

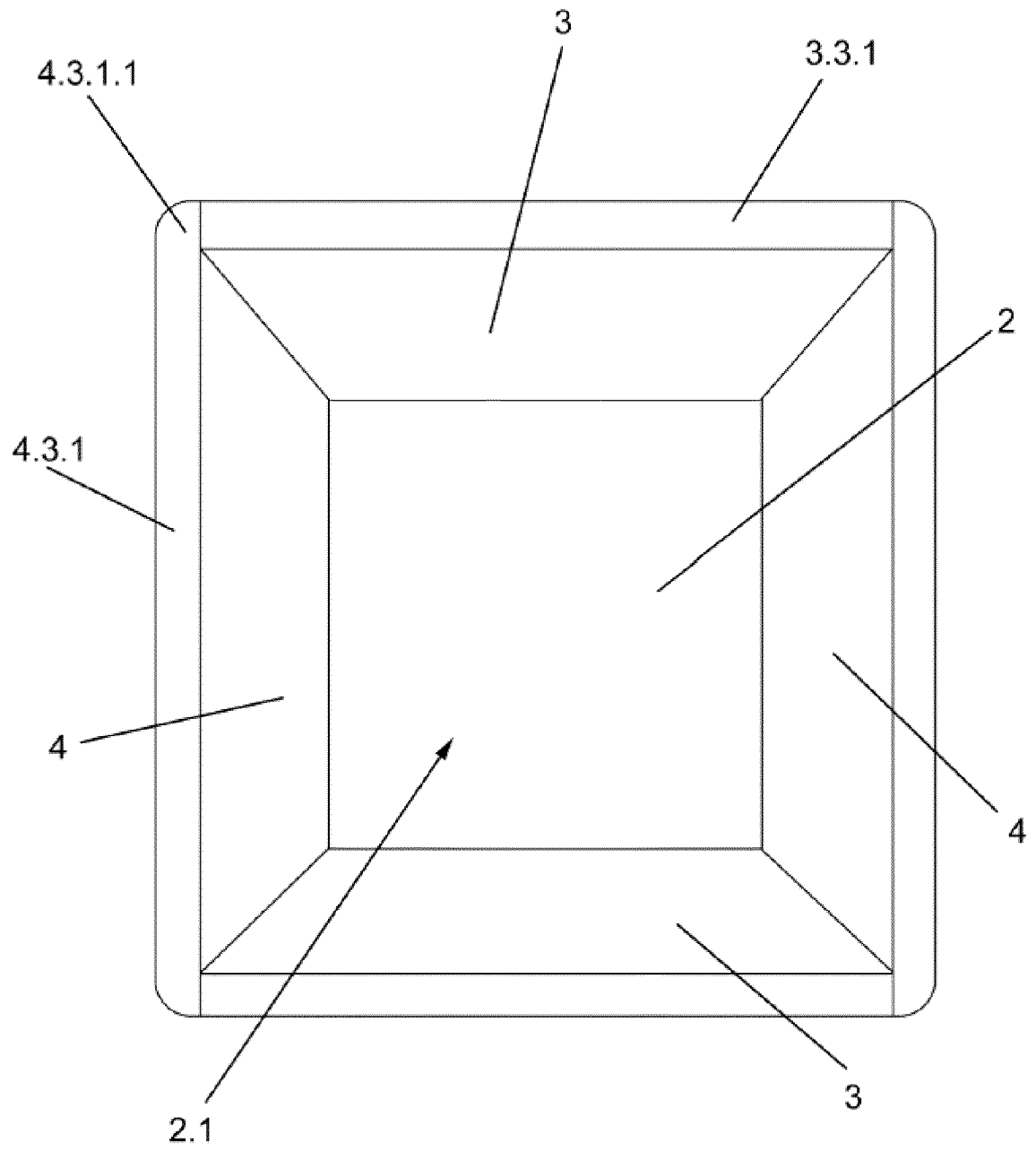


FIG.2B



## EUROPEAN SEARCH REPORT

Application Number

EP 23 18 2354

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EPO FORM 1503 03.82 (P04C01)

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WO 2016/181015 A1 (JOSPAK OY [FI]) 17 November 2016 (2016-11-17) * page 2, line 27 - page 4, line 29; figures 1-7 *	1-9	INV. B65D5/20 B65D5/24 B65D5/28
X	FR 3 016 347 A1 (GLOBAL PRINT PAPERS [FR]) 17 July 2015 (2015-07-17) * page 1, line 1 - page 3, line 7; figures 1-7 *	1-9	
X,D	EP 3 542 670 A1 (STACKPACK B V [NL]) 25 September 2019 (2019-09-25) * paragraph [0037] - paragraph [0055]; figures 1-6 *	1-9	
A	US 2 944 721 A (CHOATE JAMES R) 12 July 1960 (1960-07-12) * column 1, line 58 - column 2, line 57; figures 1-6 *	1-9	
			TECHNICAL FIELDS SEARCHED (IPC)
			B65D
The present search report has been drawn up for all claims			
Place of search <b>Munich</b>		Date of completion of the search <b>27 October 2023</b>	Examiner <b>Lämmel, Gunnar</b>
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	

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 23 18 2354

5

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
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27-10-2023

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
<b>WO 2016181015 A1</b>	<b>17-11-2016</b>	<b>NONE</b>	
-----			
<b>FR 3016347 A1</b>	<b>17-07-2015</b>	<b>NONE</b>	
-----			
<b>EP 3542670 A1</b>	<b>25-09-2019</b>	<b>AU 2019239530 A1</b>	<b>15-10-2020</b>
		<b>CA 3094563 A1</b>	<b>26-09-2019</b>
		<b>DK 3768118 T3</b>	<b>18-07-2022</b>
		<b>EP 3542670 A1</b>	<b>25-09-2019</b>
		<b>EP 3768118 A1</b>	<b>27-01-2021</b>
		<b>ES 2921375 T3</b>	<b>24-08-2022</b>
		<b>JP 7213332 B2</b>	<b>26-01-2023</b>
		<b>JP 2021518316 A</b>	<b>02-08-2021</b>
		<b>LT 3768118 T</b>	<b>10-08-2022</b>
		<b>MA 52070 A</b>	<b>27-01-2021</b>
		<b>PL 3768118 T3</b>	<b>22-08-2022</b>
		<b>PT 3768118 T</b>	<b>30-06-2022</b>
		<b>RU 2751384 C1</b>	<b>13-07-2021</b>
		<b>US 2021053714 A1</b>	<b>25-02-2021</b>
		<b>WO 2019179930 A1</b>	<b>26-09-2019</b>
-----			
<b>US 2944721 A</b>	<b>12-07-1960</b>	<b>NONE</b>	
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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

**REFERENCES CITED IN THE DESCRIPTION**

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**Patent documents cited in the description**

- EP 3542670 A1 [0006]
- EP 3768118 A1 [0007]