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(54) **CONTAINER FOR A PHARMACEUTICAL PRODUCT**

BEHÄLTER FÜR EIN PHARMAZEUTISCHES PRODUKT

RÉCIPIENT POUR PRODUIT PHARMACEUTIQUE

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(56) References cited:

**EP-A1- 1 743 842 EP-A1- 2 036 821
EP-A1- 2 805 895 KR-A- 20120 037 540**

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Description

[0001] The present invention relates to a container for a pharmaceutical product of the type specified in the preamble of the first claim.

[0002] A similar container is described in the patent application EP-A-2 036 821.

[0003] In particular, the present invention relates to a secondary container, or rather intended to contain a pharmaceutical product which can at the same time already contain primary containers such as blisters or vials.

[0004] As is known, packaging for pharmaceutical products substantially comprises at least one primary container and one secondary container. The primary container is preferably capable of directly containing the pharmaceutical product, whether solid or liquid, and can therefore consist of a peelable sheet defining a plurality of capsules, such as common blisters, or a vial, for example for containing liquid substances.

[0005] The secondary containers, on the other hand, are capable of containing one or more primary containers.

[0006] Generally, the secondary containers substantially define a box-like shape that can be opened and closed with simplicity, usually in the shape of a rectangular parallelepiped and made of material such as paper.

[0007] Such secondary containers therefore define foldable faces comprising flaps configured to be constrained within specific slots or placed on another face, so as to make the secondary container.

[0008] The known technique described comprises some important drawbacks.

[0009] In particular, the conventional secondary containers do not allow to distinguish in a clear and immediately evident way whether the box has already been opened and closed.

[0010] Therefore, substantially, the containers of the known art do not respond, in a sufficient way, to the new anti-tampering standards, and for this reason they are now hardly usable and not suitable for containing, in a correct manner, the pharmaceutical product inside.

[0011] In this situation, the technical task underlying the present invention is to devise a container for a pharmaceutical product capable of substantially obviating at least part of the aforementioned drawbacks.

[0012] Within the scope of said technical task, it is an important aim of the invention to obtain a container for a pharmaceutical product which responds to the new anti-tampering standards and allows a clear signal to a possible user that the container has already been opened.

[0013] Another important aim of the invention is to provide a container which meets the aforementioned needs while maintaining a discrete manufacturing simplicity and economy.

[0014] The technical task and the specified aims are achieved by a container for a pharmaceutical product as claimed in the annexed claim 1.

[0015] Preferred technical solutions are highlighted in

the dependent claims.

[0016] The features and advantages of the invention are clarified below by the detailed description of preferred embodiments of the invention, with reference to the accompanying figures, in which:

the **Fig. 1** shows a perspective view of a container for pharmaceutical product according to the invention wherein the cover is open and the closure system of the container is evident; and

the **Fig. 2** illustrates a view in section perpendicular to the main axis of a container for pharmaceutical product according to the invention assembled wherein it is evident the spiral shape with which the flat elements are coupled by the means of the portion of the bonding and the fixing portion and, moreover, the way in which the flap protrudes through the second hole in the secondary wall is also evident; and the **Fig. 3** is a plan view of the pre-assembly silhouette of a container for pharmaceutical product according to the invention.

[0017] In the present document, the measurements, values, shapes and geometric references (such as perpendicularity and parallelism), when associated with words like "about" or other similar terms such as "approximately" or "substantially", are to be considered as except for measurement errors or inaccuracies due to production and/or manufacturing errors, and, above all, except for a slight divergence from the value, measurements, shape, or geometric reference with which it is associated. For instance, these terms, if associated with a value, preferably indicate a divergence of not more than 10% of the value.

[0018] Moreover, when used, terms such as "first", "second", "higher", "lower", "main" and "secondary" do not necessarily identify an order, a priority of relationship or a relative position, but can simply be used to clearly distinguish between their different components.

[0019] Unless otherwise specified, as results in the following discussions, terms such as "treatment", "computing", "determination", "calculation", or similar, refer to the action and/or processes of a computer or similar electronic calculation device that manipulates and/or transforms data represented as physical, such as electronic quantities of registers of a computer system and/or memories in, other data similarly represented as physical quantities within computer systems, registers or other storage, transmission or information displaying devices.

[0020] The measurements and data reported in this text are to be considered, unless otherwise indicated, as performed in the International Standard Atmosphere ICAO (ISO 2533:1975).

[0021] With reference to the figures, the container for pharmaceutical product according to the invention is globally indicated with the number **1**.

[0022] Preferably, the container **1** is configured to prevent or signal its tampering. Furthermore, the container

1 is preferably capable of allowing the housing of delicate products such as pharmaceutical products, as already indicated, but could be used to house any other object.

[0023] In this regard, the container 1 comprises a casing 2.

[0024] The casing 2 is substantially a box-like element defining at least one housing space. In particular, the casing 2 can have a conventional shape, for example a parallelepiped with a rectangular base, or it can have particular shapes, for example a parallelepiped with a polygonal base, or it can also be cylindrical and have a round base.

[0025] The casing 2, therefore, includes one or more faces 20.

[0026] For example, if the casing 2 is cylindrical, it substantially includes only one face 20, or if it is parallelepiped with a rectangular base, it comprises four faces 20.

[0027] The face or faces 20 define, in any case, a containment volume. In other words, the face or faces 20 delimit the containment volume.

[0028] The containment volume can therefore be closed or accessible from the outside. Preferably, the casing 2 comprises at least one opening 21.

[0029] The opening 21 is capable of allowing the access to the containment volume from the outside.

[0030] If the casing 20 defines, for example, a cylindrical or parallelepiped structure, the opening 21 can be included in a base and can also be extended as the whole of the base.

[0031] The casing 2, moreover, can include two openings 21.

[0032] If present, preferably, the two openings 21 are arranged in correspondence with opposite sides of the casing 2.

[0033] The casing 2 advantageously also includes at least one secondary face 22.

[0034] The secondary face 22 is preferably overlapping, within the containment volume, to a portion of the first face 20.

[0035] In this way, the secondary face 22 and the first face 20 define an overlapping area 23.

[0036] The overlapping area 23 is substantially the area on which the faces 22, 20 mutually face each other. Therefore, it extends, at least, as the less extended face between the first face 20 and the second face 22.

[0037] If the faces 20, 22 define areas of substantially identical extensions, the overlapping zone extends substantially as the extension area of the faces 20, 22. Furthermore, the secondary face 22 and the first face 20 define a slot 24.

[0038] The slot 24 is substantially the portion of space including the faces 20, 22. Therefore it is arranged between the faces 20, 22.

[0039] Furthermore, the faces 20, 22 are preferably, but not necessarily, facing each other in such a way as to be parallel between them. Therefore, in this configuration, the slot 24 also extends parallel to the faces 20, 22. The thickness of the slot 24 is therefore substantially

defined by the distance between the faces 20, 22.

[0040] The container 1 therefore comprises at least one lid 3.

[0041] The lid 3 is preferably configured to close the opening 21.

[0042] Naturally, when the container 1 includes a greater number of openings 21, for example two, the container preferably includes a number of lids 3 equal to the openings 21. In the case where there are two openings 21, the container 1 comprises two lids 3. If the openings 21 are arranged in correspondence of opposite sides of the casing 2, also the lids 3 are.

[0043] In any case, the lid 3 closes the opening 21 in at least one closing configuration. The lid 3, moreover, preferably includes a first portion 30 and a second portion 31. The first portion 30 is preferably constrained to the casing 2.

[0044] The first portion 30 can therefore be a flat element separated from the casing 2 by creases that allow the fold of the first portion 30 with respect to the casing 2 itself. Furthermore, the first portion 30 is capable of overlapping the opening 21. Therefore, substantially, the first portion 30 extends substantially like the opening 21.

[0045] The second portion 31 is, on the other hand, configured to be housed within the slot 24.

[0046] In particular, the second portion 31 is also capable of overlapping at least partially to the overlapping area 23, when the container 1 is in the closed configuration. Basically, the second portion 31 is capable of being situated between the faces 20, 22 in correspondence with the overlapping area 23.

[0047] Therefore, the slot 24 preferably defines a thickness capable of allowing the insertion of the second portion 31. The second portion 31 is preferably flat and also defines a thickness. In detail, preferably, the thickness of the slot 24 is greater than or equal to the thickness of the second portion 31, preferably close to, but not identical to the thickness of the second portion 31.

[0048] The first portion 30 and the second portion 31 are therefore constrained to each other by connection means 32.

[0049] The connection means 32 are preferably tear-off detachable. In particular, they are preferably the means that can be resolved manually by a user.

[0050] The connection means 32 therefore preferably comprise one or more first incision lines 32a.

[0051] The first incision lines 32a are, in particular, preferably dashed. Therefore, the first incision lines 32a have more yielding areas suitable for allowing the second portion 31 to be quickly and easily torn away from the first portion 30.

[0052] Furthermore, the connecting means 32 can also include a second incision 32b. The second incision 32b is preferably a continuous cut capable of defining a separation zone between the first portion 30 and the second portion 31. Preferably, the second incision 32b is arranged between two first incision lines 32a. The second incision 32b, if present, is in particular preferably config-

ured to form a gripping portion **34**.

[0053] The gripping portion **34** is a small protuberance, defined by the second incision **32b**, capable of facilitating the gripping for a user. Therefore, it is capable of allowing the connection means **32** to be quickly resolved.

[0054] The container **1** also comprises other additional elements.

[0055] In particular, the first wall **20** preferably comprises a flap **25**.

[0056] The flap **25** is preferably overlapping, also itself, apart from the overlapping area **23**. In particular, preferably, the flap **25** protrudes skew with respect to the first face **20**. Furthermore, the flap **25** protrudes away from the opening **21**.

[0057] Essentially, the flap **25** is oriented in such a way that the free end is facing the inside of the casing **2**.

[0058] The flap **25**, therefore, can substantially protrude from the first face **20** toward the secondary face **21** and can also go to contact with the secondary face **21**.

[0059] Therefore, the secondary face **21** can block the free end of the flap **25**, or the secondary face **22** can comprise a second hole **22a**.

[0060] If present, the second hole **22a** overlaps at least part of the flap **25**. Furthermore, the second hole **22a** is configured to allow the flap **25** to protrude at least partially through the second hole **22a**.

[0061] The presence of the second hole **22a**, therefore, is not strictly necessary, but it can increase the efficiency of the flap **25**.

[0062] The second portion **31**, on the other hand, preferably comprises a first hole **33**. The first hole **33** is configured to interlock the flap **25** when the lid **3** is in the closed configuration.

[0063] In particular, the second portion **31** is irreversibly blocked by means of the first hole **33** and the flap **25**. Even more in detail, the second portion **31** is blocked in correspondence with the overlapping area **23**.

[0064] Therefore, once the lid **3** has been arranged in the configuration of closure a first time, access to the containment volume is allowed exclusively by resolving the connection means **32**.

[0065] In this way, the container **1** provides an anti-tampering closure.

[0066] The container **1**, in a preferred embodiment, defines a conventional external form. Therefore, it preferably defines a rectangular parallelepiped shape wherein the lids **3**, preferably two in number, define the bases of the parallelepiped and the first faces **20**, preferably four in number, define the lateral surface of the parallelepiped.

[0067] In this regard, advantageously, the container **1** is made starting from a outline **4**. The outline **4**, shown in Fig. 3, is preferably in one piece.

[0068] It substantially defines a main axis **1a** and a longitudinal axis **1b**.

[0069] The main axis **1a** is the axis around which the first faces **20** develop, as clearly shown in Fig. 2.

[0070] The longitudinal axis **1b** is preferably perpendicular to the main axis **1a**.

[0071] The outline **4** preferably comprises at least four flat elements **40**.

[0072] The flat elements **40** preferably have a substantially rectangular shape.

[0073] The flat elements **40** are preferably constrained in succession along the longitudinal axis **1b**. With the term "succession" it is intended that each flat element **40** can be exclusively adjacent to only one or a maximum of two flat elements **40**. If a flat element **40** is adjacent to two flat elements **40**, it is substantially arranged between the two flat elements **40**.

[0074] The flat elements **40**, therefore, are configured to achieve the casing **2** when reclosed, during assembly, around the main axis **1a**.

[0075] In this regard, the flat elements **40** can be separated from each other by creases which simplify the folding of the various flat elements **40**.

[0076] The flat elements **40** therefore substantially define the first faces **21**.

[0077] The outline **4** also comprises two fins **41**.

[0078] The fins **41** are preferably constrained to one of the flat elements **40**. In particular, the fins **41** are constrained on opposite sides, with respect to the main axis **1a**, of the flat element **40** on which they are constrained.

[0079] Furthermore, the fins **41** substantially define the lids **3** when the outline **4** is in the assembly phase.

[0080] Naturally, the outline **4** also comprises, in correspondence of a free end along the longitudinal axis **1a**, a second flat element **42**.

[0081] The second flat element **42** is preferably configured to form the secondary face **22** when in the assembly configuration.

[0082] Of course, the second flat element **42** could be separated from the rest of the outline **4**, however, preferably, the second flat element **42** is preferably connected to the first flat elements **40**.

[0083] However, the second flat element **42** is not directly connected to a first flat element **40**, but is connected by means of an intermediate element.

[0084] The outline **4** in fact also comprises a bonding portion **43**. The bonding portion **43** is the aforementioned intermediate element.

[0085] Therefore, the bonding portion **43** is arranged between the second flat element **42** and one of the first flat elements **40**. Furthermore, the bonding portion **43** is configured to be glued to one of the first flat elements **40** defining a constraint area. Basically, the bonding portion **43** is the portion which allows the first flat elements **40** to be closed in a stable manner, making the casing **2**.

[0086] The bonding portion **43**, in detail, is substantially capable of adhering in whole or in part with all or part of a first flat element **40**.

[0087] Preferably, the bonding portion **43** has a smaller extension than the first flat element **40** on which it is constrained in such a way that the first flat elements **40**, the bonding portion **43** and the second flat element **42** define, when assembled, a substantially spiral section perpendicular to the main axis **1a**.

[0088] The spiral section is shown, in particular, in Fig. 2.

[0089] The outline 4 can, therefore, also include a fixing portion 44.

[0090] If present, the fixing portion 44 is disposed adjacent to the free end of the second flat element 42. 5

[0091] Furthermore, the fixing portion 44 is configured to be glued to a first flat element 40 on a side opposite the bonding portion 43 in such a way that forms the slot 24. 10

[0092] In conclusion, the shape 4 can include auxiliary fins 45.

[0093] The auxiliary fins 45 are substantially similar to the lateral closing fins present in any container of the known art. 15

[0094] The operation of the container for pharmaceutical product according to the invention 1 previously described in structural terms is as follows.

[0095] A user can fold the outline 4, during the assembly phase, by gluing the bonding portion 43 and the fixing portion 44 to the respective first flat elements 40 in such a way as to define, in the first instance, a container in an open configuration. 20

[0096] After, for example, the introduction of pharmaceutical products or other objects, the fins 41, or rather the lids 3, can be folded over the opening 21 and the first portions 31 of the lids 3 can be inserted into the respective slots 24. 25

[0097] When the first portions 31 are pushed inside the slots 24 in such a way as to overlap the overlapping area 23 and in such a way that the flaps 25 are trapped in the respective first holes 33, the lids 3 and the container 1 generally provide the closing configuration. 30

[0098] In order to open the container 1 and access the containment volume, it is therefore necessary to break the lids, or to resolve the connection means 32. 35

[0099] The container for pharmaceutical product 1 according to the invention achieves important advantages.

[0100] In fact, the container 1 responds to the new anti-tampering regulations and makes it possible to clearly indicate whether the container 1 has already been opened or not. 40

[0101] Furthermore, the preceding advantage is obtained thanks to a outline wherein there is substantially only one main gluing point or, at most, two gluing points. 45

[0102] Therefore, the container 1 maintains a significant manufacturing simplicity and consequent cheapness.

[0103] The invention is susceptible of variants falling within the scope of the inventive concept defined by the claims. 50

Claims

1. Container (1) for pharmaceutical product comprising:

- a casing (2) including:

- one or more first faces (20) defining a containment volume,
- at least one opening (21) capable of allowing access to said volume containment from the outside,
- at least one secondary face (22) overlapped, within said containment volume, to a portion of said first face (20) in such a way as to define an overlapping area (23) and a slot (24) arranged between said secondary face (22) and said first face (20), and

- at least one lid (3) configured to close said opening (21), in at least one closing configuration, and including at least a first portion (30) constrained to said casing (2) capable of overlapping said opening (21) and a second portion (31) configured to be housed within said slot (24) and to at least partially overlap said overlapping area (23) in said closing configuration,

and characterized by that

- said portions (30, 31) are mutually constrained by connection means (32) which can be tear-off detachable,
- said first face (20) comprises at least one flap (25) overlapped on part of said overlapping area (23) and protruding in skewed manner with respect to said first face (20) away from said opening (21), and
- said second portion (31) comprises a first hole (33) configured to house interlocked said flap (25) when said lid (3) is in a closing configuration in such a way as to irreversibly block said second portion (31) in said overlapping area (23) and allow access to said containment volume exclusively by detaching said connection means (32).

2. Container (1) according to claim 1, wherein said secondary face (22) comprises a second hole (22a) overlapped on at least part of said flap (25) and configured to allow said flap (25) to protrude at least partially through said second hole (22a).

3. Container (1) according to any one of the preceding claims, wherein said connection means (32) comprise one or more first dashed incision lines (32a).

4. Container (1) according to any one of the preceding claims, wherein said connection means (32) comprise a second incision (32b) configured to perform a gripping portion (34) capable of allowing to quickly resolve said connection means (32). 55

5. Container (1) according to any one of the preceding

claims, comprising two of said openings (21) and two of said lids (3) respectively configured to cover each of said openings (21), said openings (21) being arranged in correspondence of opposite sides of said casing (2).

6. Container (1) according to any one of the preceding claims, defining the shape of a rectangular parallelepiped wherein said lids (3) define the bases of said parallelepiped and said first faces (20) define the lateral surface of said parallelepiped. 5
7. Container (1) according to any one of the preceding claims, made from a outline (4) defining a main axis (1a) and including, in one piece, at least four first flat elements (40) constrained in succession along a longitudinal axis (1b) perpendicular to said main axis (1a) and configured to form said casing (2) when closed, during assembly, around said main axis (1a) defining said first walls (21), and two fins (41) constrained to one of said first flat elements (40) on opposite sides of said flat element (40) with respect to said main axis (1a) and defining, during assembly phase, said lids (3). 10 15 20 25
8. Container (1) according to any one of the preceding claims, wherein said outline (4) comprises, in correspondence with a free end along said longitudinal axis (1a), a second flat element (42) configured to realize said secondary wall (22) when in assembly configuration and a bonding portion (43) arranged between said second flat element (42) and one of said first flat elements (40) and configured to be glued to one of said first flat elements (40). 30 35
9. Container (1) according to any one of the preceding claims, wherein said bonding portion (43) has a lower extension with respect to said first flat element (40) on which is constrained in such a manner that said first flat elements (40), said gluing portion (43) and said second flat element (42) define, when assembled, a substantially spiral section perpendicular to said main axis (1a). 40
10. Container (1) according to any one of the preceding claims, wherein said outline (4) comprises a fixing portion (44) disposed adjacent to free end of said second flat element (42) and configured to be glued to a said first flat element (40) on a side opposite to said bonding portion (43) in such a way as to realize said slot (24). 45 50

Patentansprüche

1. Behälter (1) für pharmazeutische Produkte, umfassend:

- ein Gehäuse (2) umfassend:

- einer oder mehreren ersten Flächen (20), die einen Aufnahmeraum definieren,
- mindestens eine Öffnung (21), die in der Lage ist, den Zugang zu diesem Aufnahmeraum von außen zu ermöglichen,
- mindestens eine sekundäre Fläche (22), die innerhalb dieses Aufnahmeraums mit einem Abschnitt der ersten Fläche (20) überlappt, um einen Überlappungsbereich (23) zu definieren und einen Schlitz (24), der zwischen der sekundären Fläche (22) und der ersten Fläche (20) angeordnet ist, und

- mindestens einen Deckel (3), der konfiguriert ist, um die Öffnung (21) in mindestens einer Schließkonfiguration zu verschließen und umfassend mindestens einen ersten Abschnitt (30), der auf das Gehäuse (2) befestigt ist und die Öffnung (21) überlappen kann, und einen zweiten Abschnitt (31), der konfiguriert ist, um in einen Schlitz (24) aufgenommen zu werden und in der Schließkonfiguration zumindest teilweise den Überlappungsbereich (23) zu überlappen,

und dadurch gekennzeichnet, dass

- die Abschnitte (30, 31) durch Verbindungsmittel (32), die durch Abreißen trennbar sind, miteinander befestigt sind,
- die erste Fläche (20) mindestens eine Lasche (25) umfasst, die auf einem Teil des Überlappungsbereichs (23) überlappt und schräg in Bezug auf die erste Fläche (20) weg von der Öffnung (21) vorsteht, und
- der zweite Abschnitt (31) eine erste Bohrung (33) umfasst, die konfiguriert ist, um die Lasche (25) im verriegelten Zustand aufzunehmen, wenn der Deckel (3) sich in einer Schließkonfiguration befindet, um den zweiten Abschnitt (31) irreversibel in dem Überlappungsbereich (23) zu blockieren und den Zugang zu dem Aufnahmeraum ausschließlich durch Trennen der Verbindungsmittel (32) zu ermöglichen.

2. Behälter (1) nach Anspruch 1, wobei die sekundäre Fläche (22) eine zweite Bohrung (22a) umfasst, die mindestens einen Teil der Lasche (25) überlappt und konfiguriert ist, um der Lasche (25) zu ermöglichen, mindestens teilweise durch die zweite Bohrung (22a) vorzustehen.

3. Behälter (1) nach einem der vorhergehenden Ansprüche, wobei die Verbindungsmittel (32) eine oder mehrere erste gestrichelte Einschnittlinien (32a) um-

fassen.

4. Behälter (1) nach einem der vorhergehenden Ansprüche, wobei die Verbindungsmittel (32) einen zweiten Einschnitt (32b) umfassen, die konfiguriert ist, um einen Greifabschnitt (34) zu bilden, der in der Lage ist, die Verbindungsmittel (32) schnell zu trennen. 5
5. Behälter (1) nach einem der vorhergehenden Ansprüche, umfassend zwei der Öffnungen (21) und zwei der Deckel (3), die jeweils konfiguriert sind, um jede der Öffnungen (21) abzudecken, wobei die Öffnungen (21) an gegenüberliegenden Seiten des Gehäuses (2) angeordnet sind. 10
6. Behälter (1) nach einem der vorhergehenden Ansprüche, der die Form eines rechteckigen Quaders definiert, wobei die Deckel (3) die Böden des Quaders definieren und die ersten Flächen (20) die Seitenfläche des Quaders definieren. 20
7. Behälter (1) nach einem der vorhergehenden Ansprüche, aus einem Umriss (4) erstellt, der eine Hauptachse (1a) definiert und umfassend, in einem Stück, mindestens vier erste Flachelemente (40), die entlang einer Längsachse (1b), die sich senkrecht zur Hauptachse (1a) erstreckt, nacheinander angeordnet sind und konfiguriert sind, um das Gehäuse (2) zu bilden, wenn sie bei der Montage um die Hauptachse (1a) geschlossen werden und die ersten Wände (21) definieren, und zwei Flügel (41), die an einem der ersten Flachelemente (40) auf gegenüberliegenden Seiten des Flachelements (40) in Bezug auf die Hauptachse (1a) befestigt sind und die bei der Montage die Deckel (3) definieren. 25
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8. Behälter (1) nach einem der vorhergehenden Ansprüche, wobei der Umriss (4) an einem freien Ende entlang der Längsachse (1a) ein zweites Flachelement (42) umfasst, das konfiguriert ist, um die sekundäre Wand (22) in der Montagekonfiguration zu bilden, und einen Verbindungsabschnitt (43), der zwischen dem zweiten Flachelement (42) und einem der ersten Flachelemente (40) angeordnet ist und konfiguriert ist, um an eines der ersten Flachelemente (40) geklebt zu werden. 40
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9. Behälter (1) nach einem der vorhergehenden Ansprüche, wobei der Verbindungsabschnitt (43) eine geringere Ausdehnung in Bezug auf das erste Flachelement (40) aufweist, an das er befestigt ist, so dass die ersten Flachelemente (40), der Klebeabschnitt (43) und das zweite Flachelement (42) bei der Montage einen im Wesentlichen spiralförmigen Abschnitt senkrecht zur Hauptachse (1a) definieren. 50
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10. Behälter (1) nach einem der vorhergehenden An-

sprüche, wobei der Umriss (4) einen Befestigungsabschnitt (44) umfasst, der angrenzend an dem freien Ende des zweiten Flachelements (42) angeordnet ist und konfiguriert ist, um an ein erstes Flachelement (40) auf einer gegenüberliegenden Seite des Verbindungsabschnitts (43) geklebt zu werden, um den Schlitz (24) zu bilden.

10 Revendications

1. Conteneur (1) pour produit pharmaceutique comprenant :

- un boîtier (2) comprenant :

- une ou plusieurs premières faces (20) définissant un volume de confinement,
- au moins une ouverture (21) capable de permettre l'accès à ce volume de confinement depuis l'extérieur,
- au moins une face secondaire (22) chevauchant, à l'intérieur de ce volume de confinement, une portion de ladite première face (20) de manière à définir une zone de chevauchement (23) et une fente (24) disposée entre ladite face secondaire (22) et ladite première face (20), et

- au moins un couvercle (3) configuré pour fermer ladite ouverture (21), dans au moins une configuration de fermeture, et comprenant au moins une première portion (30) contrainte audit boîtier (2) capable de chevaucher ladite ouverture (21) et une deuxième portion (31) configurée pour être logée dans ladite fente (24) et pour chevaucher au moins partiellement ladite zone de chevauchement (23) dans ladite configuration de fermeture,

et caractérisé en ce que

- lesdites portions (30, 31) sont mutuellement contraintes par des moyens de connexion (32) pouvant être détachés par déchirure,
- ladite première face (20) comprend au moins un rabat (25) chevauchant une partie de ladite zone de chevauchement (23) et dépassant de manière oblique par rapport à ladite première face (20) en s'éloignant de ladite ouverture (21), et
- ladite deuxième portion (31) comprend un premier trou (33) configuré pour loger verrouillé ledit rabat (25) lorsque ledit couvercle (3) est dans une configuration de fermeture de manière à bloquer irréversiblement ladite deuxième portion (31) dans ladite zone de chevauchement (23) et permettre l'accès audit volume de confi-

nement exclusivement en détachant lesdits moyens de connexion (32).

2. Conteneur (1) selon la revendication 1, dans lequel ladite face secondaire (22) comprend un deuxième trou (22a) chevauchant au moins une partie dudit rabat (25) et configuré pour permettre à ce rabat (25) de dépasser au moins partiellement à travers ledit deuxième trou (22a). 5
3. Conteneur (1) selon l'une quelconque des revendications précédentes, dans lequel lesdits moyens de connexion (32) comprennent une ou plusieurs premières lignes d'incision en pointillé (32a). 10
4. Conteneur (1) selon l'une quelconque des revendications précédentes, dans lequel lesdits moyens de connexion (32) comprennent une deuxième incision (32b) configurée pour former une portion de préhension (34) capable de permettre de défaire rapidement lesdits moyens de connexion (32). 20
5. Conteneur (1) selon l'une quelconque des revendications précédentes, comprenant deux desdites ouvertures (21) et deux desdits couvercles (3) configurés respectivement pour couvrir chacune desdites ouvertures (21), lesdites ouvertures (21) étant disposées en correspondance avec des côtés opposés dudit boîtier (2). 25
6. Conteneur (1) selon l'une quelconque des revendications précédentes, définissant la forme d'un parallélépipède rectangle dans lequel lesdits couvercles (3) définissent les bases dudit parallélépipède et lesdites premières faces (20) définissent la surface latérale dudit parallélépipède. 30
7. Conteneur (1) selon l'une quelconque des revendications précédentes, réalisé à partir d'un contour (4) définissant un axe principal (1a) et comprenant, en une seule pièce, au moins quatre premiers éléments plats (40) contraints successivement le long d'un axe longitudinal (1b) perpendiculaire audit axe principal (1a) et configurés pour former ledit boîtier (2) lorsqu'ils sont fermés, lors de l'assemblage, autour dudit axe principal (1a) définissant lesdites premières parois (21), et deux ailettes (41) contraintes à l'un desdits premiers éléments plats (40) sur des côtés opposés dudit élément plat (40) par rapport audit axe principal (1a) et définissant, lors de la phase d'assemblage, lesdits couvercles (3). 40
8. Conteneur (1) selon l'une quelconque des revendications précédentes, dans lequel ledit contour (4) comprend, en correspondance d'une extrémité libre le long dudit axe longitudinal (1a), un deuxième élément plat (42) configuré pour réaliser ladite paroi secondaire (22) lorsqu'il est en configuration d'assem- 45

blage et une portion de liaison (43) disposée entre ledit deuxième élément plat (42) et l'un desdits premiers éléments plats (40) et configurée pour être collée à l'un desdits premiers éléments plats (40).

9. Conteneur (1) selon l'une quelconque des revendications précédentes, dans lequel ladite portion de liaison (43) a une extension inférieure par rapport audit premier élément plat (40) sur lequel elle est contrainte de telle manière que lesdits premiers éléments plats (40), ladite portion de collage (43) et ledit deuxième élément plat (42) définissent, lorsqu'ils sont assemblés, une section sensiblement en spirale perpendiculaire audit axe principal (1a). 50
10. Conteneur (1) selon l'une quelconque des revendications précédentes, dans lequel ledit contour (4) comprend une portion de fixation (44) disposée adjacente à l'extrémité libre dudit deuxième élément plat (42) et configurée pour être collée à un dudit premier élément plat (40) sur un côté opposé à ladite portion de liaison (43) de manière à réaliser ladite fente (24). 55

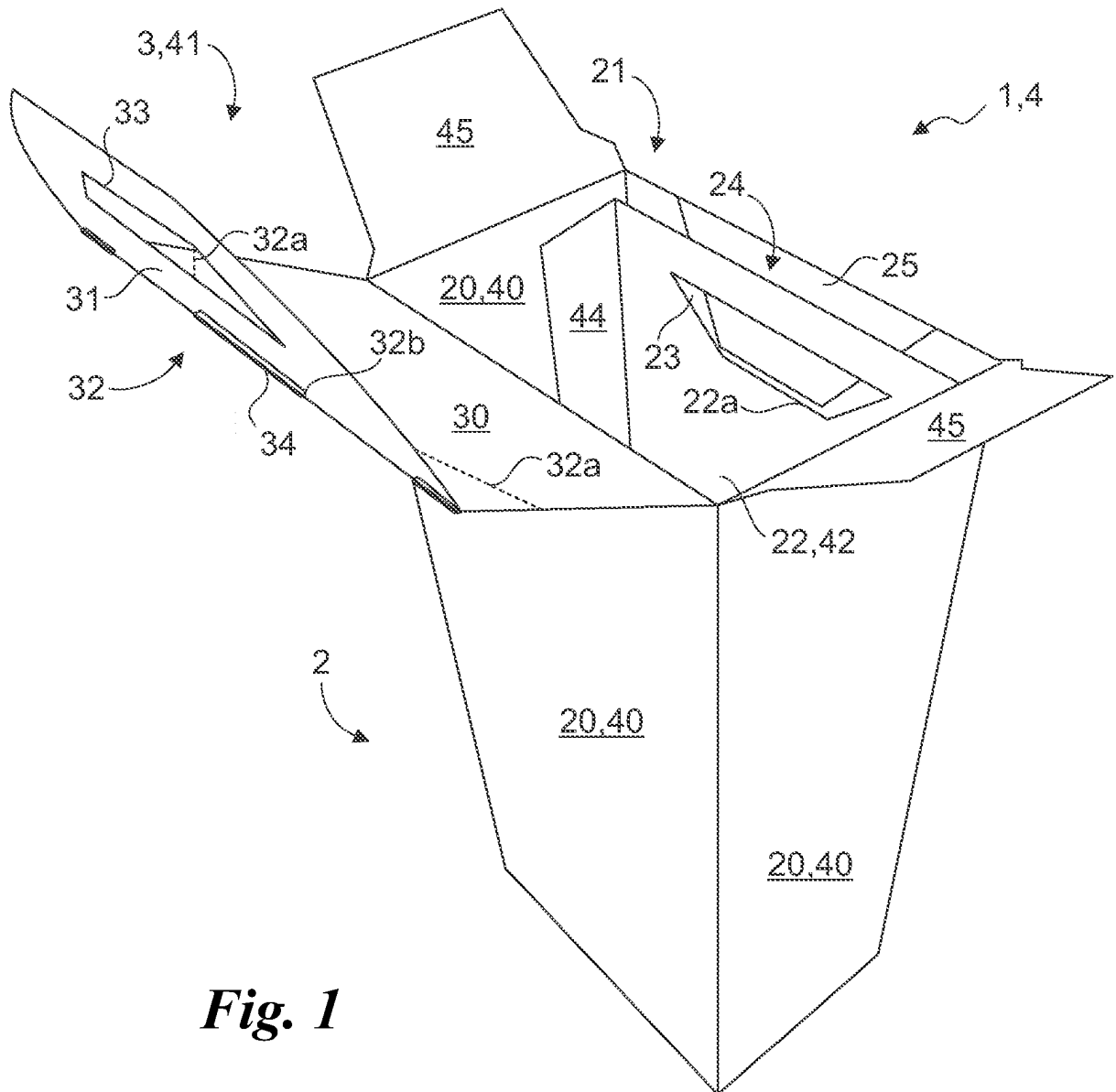


Fig. 1

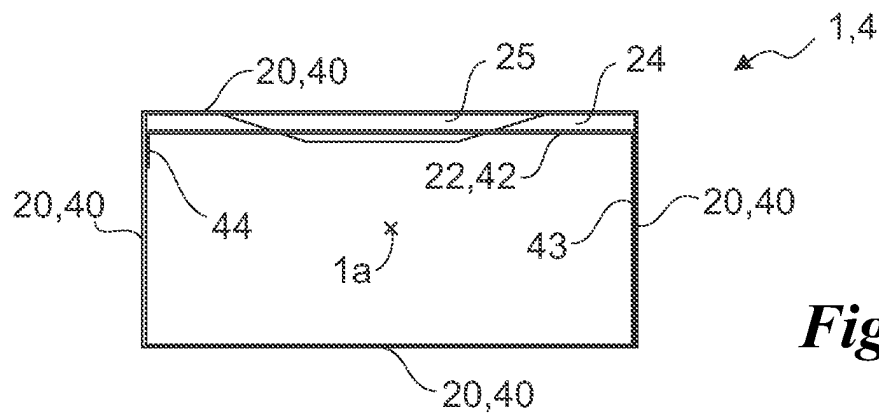


Fig. 2

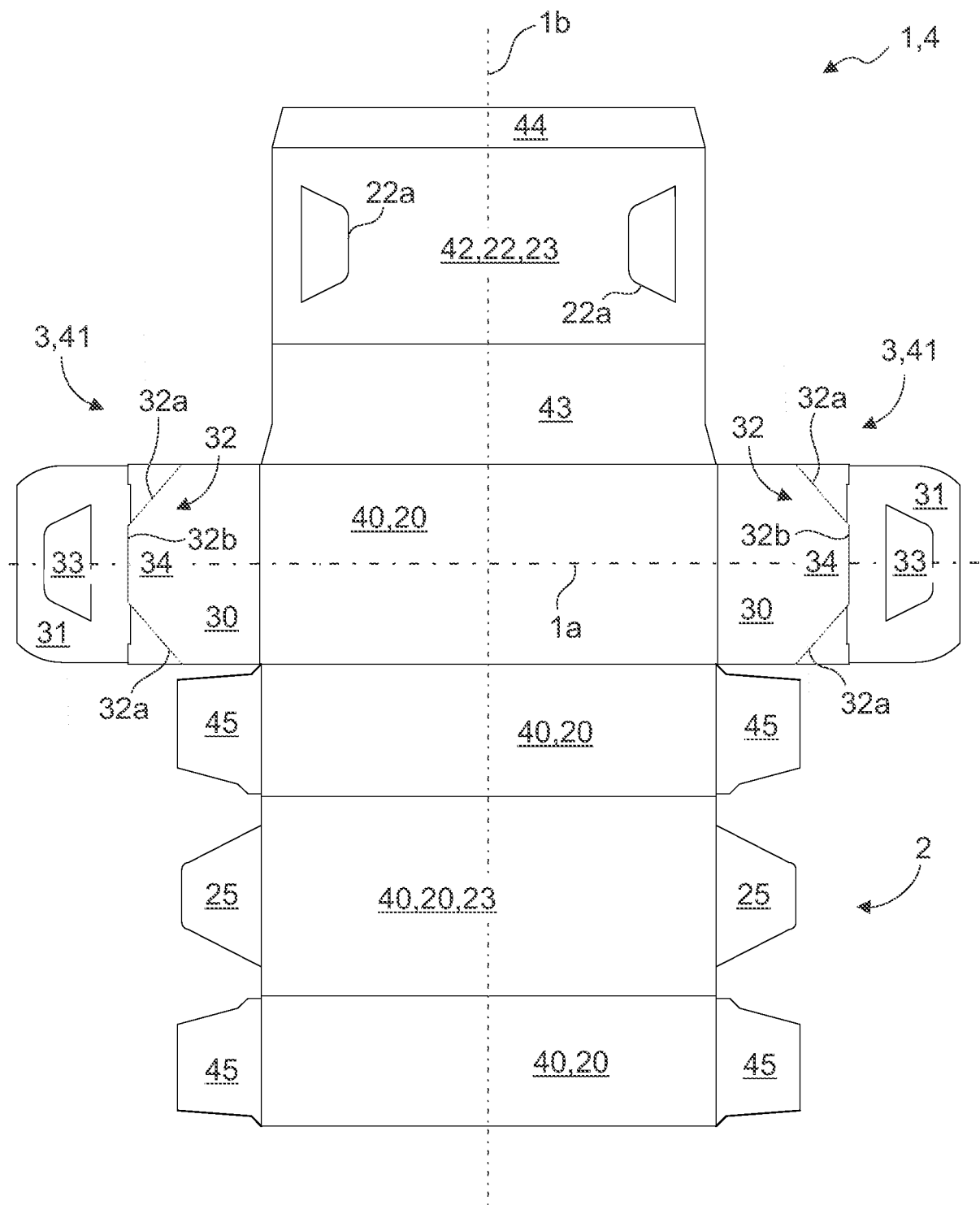


Fig. 3

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- EP 2036821 A [0002]