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(54) FLEXIBLE CONTAINER AND METHOD FOR MANUFACTURING THE SAME

FLEXIBLER BEHÄLTER UND VERFAHREN ZU SEINER HERSTELLUNG

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Description

Field of the Invention

[0001] The present invention relates generally to a container of a collapsible type.for liquid or pulverulent contents and more specifically such a container, comprising a compartment which is defined by flexible walls and whose volume depends on the relative position of the walls, said walls comprising two opposite side walls with edge portions which engage each other and along which the side walls are joined in a common connecting portion, the compartment being sealed in the empty state of the container before filling.

[0002] The present invention also relates to a method for manufacturing such a container.

Background Art

[0003] A large number of different types of containers are available on the market.

[0004] Containers of a first type described by way of introduction are usually available in a flat and sealed state before filling. The side walls of the container lie flat against each other, whereby the volume of the compartment defined by the walls is essentially zero.

[0005] In filling, a container is opened and liquid contents are supplied to the compartment. As the liquid contents are being supplied to the compartment, the side walls will be moved from each other, thereby increasing the volume of the compartment defined by the walls and adjusting it to the volume of the contents. After completion of the filling, the container is sealed again.

[0006] The above type of container is particularly advantageous in that it can be sterilised in connection with manufacture, after which it can be distributed with maintained sterility to a user for aseptic filling of the containers with liquid contents.

[0007] Such a type of container is known from WO9941155. A container described therein has a projecting duct means which is made of two interconnected projections of the side walls. The duct means is sealed in the empty state of the container before filling. The compartment defined by the walls of the container is thus completely closed and can therefore be sterilised, for example, by radiation.

[0008] In connection with filling, the container is opened in a sterile room by removing an outer end portion of the duct means, after which the container is filled under aseptic conditions by inserting a filling means into said duct means. The filling means usually has a tapering shape and is terminated with a tip. The filling means is inserted into the duct means with the tip facing the duct means, and as the filling means is being inserted into the duct means, the duct means is expanded. It is most important for air not to intrude into the container during the filling process, and therefore the filling means is designed so at to make it possible to sealingly insert the filling means into the duct means. The main purpose of the duct means thus is to prevent air from intruding into the compartment during the filling process. Any intrusion of air in fact causes powerful frothing of the liquid contents, which frothing makes satisfactory filling of the container impossible.

[0009] Although the type of container described above has several advantages, there is however one drawback. As mentioned above, the container must have a duct means which helps to prevent air from intruding during the filling process. However, this duct means constitutes a difficulty in the manufacture of the container. The reason for this is that the projections included in the duct means make efficient utilisation of the film material from which the container is made difficult. More precisely, said projections contribute to considerable amounts of waste being generated, which for obvious reasons causes undesirable additional expenses.

[0010] A second type of container is known from, for instance, US 6,244,747 and GB 2,180,214. The type of container described therein has a more material-saving configuration. To allow filling, the type of container has however an upper edge which is open in the empty state before filling and through which contents can be supplied to the compartment of the container. After completing the filling process, the upper edge is sealed. It will be appreciated that there may be problems with air intruding into the container. The intrusion of air causes an increased risk of frothing during the filling process. Moreover, the filled and sealed container will hold a small volume of air, which has a detrimental effect on the shelf-life of the contents. Besides the open edge results in the contents being exposed to the ambient air during the filling process, which means an increased risk of the contents being contaminated. Document DE-A-1 586 766, upon which the preamble of claim 1 is based, discloses a pouch having a duct-defining portion 6 which is closed by a sealing seam after it is being filled.

Summary of the Invention

[0011] In the light of that stated above, an object of the present invention is to provide an improved container of a first type described by way of introduction.

[0012] Another object is to provide such a container, which can be manufactured with a minimum of waste while the container can still be filled with liquid contents without any risk of air intrusion.

[0013] A further object is to provide a method for manufacturing a corresponding container.

[0014] To achieve these objects, the present invention provides a container having the features stated in claim 1 and a method having the features stated in claim 9. Preferred embodiments of the container are defined in claims 2-8.

[0015] More specifically, according to the present invention a container of a collapsible type for liquid or pulverulent contents is provided, comprising a compart-

ment which is defined by flexible walls and whose volume depends on the relative position of the walls. The walls comprise two opposite side walls with edge portions which engage each other and along which the side walls are joined in a common connecting portion. The compartment is sealed in the empty state of the container before filling. The container is characterised by a duct-defining portion, which is arranged inside said connecting portion and along which said side walls are joined with each other. The duct-defining portion comprises two mutually separated weld joints defining a duct which is extended between the side walls and which at a first end communicates with said compartment, and at a second end connects to and is sealed by a duct-sealing part of said connecting portion.

[0016] This results in a container having a duct which is openable to allow filling of the compartment of the container, for instance, with liquid contents. By adjusting the weld joints, the duct can be given such a configuration and longitudinal extent that a filling means can be sealingly inserted into the duct, whereby there is no risk of air intruding or the contents being exposed to the ambient air. It is important to note, however, that the weld joints, and thus also the duct, are arranged inside the connecting portion of the container. Thus the duct is not formed of any protruding projections of the container. This allows efficient utilisation of material in the manufacture of this type of container of a film material, which in turn means that the amount of waste can be minimized.

[0017] According to a preferred embodiment, the duct defined by the duct-defining portion has a shape tapering towards the compartment. As a result, a duct is provided, which in an extremely satisfactory manner allows sealing insertion of a filling means into the duct.

[0018] According to one more preferred embodiment, the duct-sealing part has a boundary line which faces the compartment and which relative to boundary lines of the connecting portion's parts connecting to said duct-sealing part is displaced away from the compartment. This allows easy opening of the duct by removing the duct-sealing part.

[0019] The weld joints are advantageously symmetrically arranged one on each side of a longitudinal centre line of the container and connect to the connecting portion on an upper side of the container. In this way a duct-defining portion is provided, which can be made on the container in connection with the forming of the same.

[0020] According to yet another preferred embodiment, the duct-defining portion defines a second duct extended between the side walls. The duct-defining portion may comprise two further mutually separated weld joints, which have parallel boundary lines facing each other and which thus define the second duct. Said further weld joints are preferably arranged adjacent to a spout-forming portion of the container, said spout-forming portion being positioned in a corner portion between a first side of the container and an upper side of the container. Thus the second duct forms an openable outlet of the container, through which outlet contents held in the container can be poured. By the second duct being defined by parallel boundary lines facing each other, insertion of an opening means into the duct in the open state is also allowed, if required, the parallel boundary lines acting as a guide means for the opening means. The opening means can be integrated into the container at a suitable point in the handling line, for instance immediately after manufacture of the container, during/in connection with the filling of the container or at a later stage when the container is already filled and sealed.

[0021] According to one more preferred embodiment, a carrier means is made in said connecting portion on a second side of the container. The carrier means is particularly advantageous if the duct-defining portion defines a duct adjacent to the spout-forming portion of the container, which spout-forming portion is arranged on a first side of the container opposite to said second side.

[0022] Furthermore, according to the present invention, a method is provided for manufacturing a container of a collapsible type for liquid or pulverulent contents, said container comprising a compartment which is defined by flexible walls and whose volume depends on the relative position of the walls. The walls comprise two opposite side walls and the compartment is sealed in the empty state of the container before filling. The method comprises the step of connecting edge portions, engaging each other, of the side walls in a common connecting portion. The method is characterised by arranging a duct-defining portion inside said connecting portion, along which duct-defining portion said side walls are joined with each other, providing the duct-defining portion with two mutually separated weld joints which define a duct extended between the side walls. The weld joints are arranged so as to define a duct extended between the side walls, which at a first end communicates with said compartment and which at a second end connects to and is sealed by a duct-sealing part of said connecting portion.

[0023] Thus a method is provided which allows extremely material-efficient manufacture of containers of the above type. The duct necessary for the type of container, which allows filling of the container without any risk of air intrusion, is defined by a duct-defining portion which is arranged inside said connecting portion. This means that the container can be manufactured without any protruding components, which in turn minimizes the amount of waste produced in conjunction with the forming of containers of the above type side by side.

[0024] Preferred embodiments of the present invention will now be described by way of example and with reference to the accompanying drawings.

Brief Description of the Drawings

[0025]

Fig. 1 is a schematic top plan view of a first embodiment of an inventive container.

Fig. 2 is a schematic top plan view of a set of containers formed side by side of the type shown in Fig. 1, said containers being made of a film material.

Fig. 3 is schematic top plan view of a second embodiment of an inventive container.

Fig. 4 is a schematic top plan view of a third embodiment of an inventive container.

Fig. 5 is a schematic top plan view of a fourth embodiment of an inventive container.

Description of Embodiments

[0026] A number of embodiments of the inventive container will now be described, similar components and details being given the same reference numerals throughout the description.

[0027] The present invention is applicable to containers comprising a compartment defined by flexible walls. The containers may be configured in various ways and preferably comprise two opposite side walls and a bottom wall for making a container which can be arranged on a base and take an upright position. However, for increased clarity, the present invention will now be described with reference to containers comprising only two opposite side walls.

[0028] Fig. 1, to which reference is made, illustrates a first embodiment of an inventive container 1.

[0029] The container 1 has a compartment which is defined by two flexible side walls 2 (of which only one is shown in Fig. 1) and which is designated 3.

[0030] The side walls 2 have opposing edge portions 4, along which the side walls 2 are joined in a common connecting portion 5.

[0031] Moreover, the container 1 has a duct-defining portion 6 which is arranged inside said connecting portion 5 and which defines a duct 7 extended between the side walls 2. The duct 7 communicates at a first end with the compartment 3 and is at a second end sealed by a duct-sealing part 10 of the connecting portion 5.

[0032] The duct-defining portion 6 has for defining said duct 7 two mutually separated weld joints 11, along which the two side walls 2 are joined with each other. More specifically, the weld joints 11 are symmetrically arranged one on each side of a centre line 12 of the container 1 and connect to the connecting portion 5 on an upper side 13 of the container 1.

[0033] In the shown embodiment, the weld joints 11 are oriented in such manner that the duct 7 has a shape tapering towards the compartment 3. It will be appreciated, however, that the present invention also comprises ducts formed in other ways. By modifying the weld joints 11, a great freedom as regards the configuration of the duct 7 is achieved.

[0034] Said duct-sealing part 10 has a boundary line 14 which faces the compartment 3 and which relative to corresponding boundary lines 15 of the connecting portion's 5 parts 16, connecting to the duct-sealing part 10 is displaced away from the compartment 3.

[0035] The container 1 shown in Fig. 1 can be manufactured in a rational manner with a minimized amount of waste, which is evident from Fig. 2, to which reference is now also made.

[0036] Two film materials are conveniently applied against each other, after which a suitably designed tool welds the film material together to form the inventive container 1. Containers 1 can be formed side by side, which is obvious from Fig. 2, while at the same time the amount of waste is minimized. This is due to the fact that the duct 7 required for the type of container is formed inside the connecting portion 5 of the container 1 and not, like in conventional containers of the same type, designed so as to be formed of a projection protruding from the container.

[0037] The inventive container is preferably made of a film material comprising a filler of mineral material and a binder of a polyolefin material. Chalk has been found to be a particularly preferred filler.

[0038] In conjunction with the removal of the completed container 1 from the film material, it is of course possible to adjust the connecting portion 5 along the upper side 13 of the container 1 by cutting away excessive portions of the connecting portion 5 by punching adjacent to the duct-sealing part 10 as shown in Fig. 3, in which a second embodiment of the inventive container 1 is illustrated and to which reference is now also made. A small amount of waste is produced, but owing to the duct-defining portion 6 and the duct 7 defined thereby being arranged inside the connecting portion 5, it is nevertheless ensured that the amount of waste is minimized.

[0039] The inventive container 1 can thus be made in a material-efficient manner and yet have a duct 7 which in the empty state of the container 1 before filling is sealed. This makes it possible in conjunction with the manufacture of the container 1 to sterilise its compartment 3 and with maintained sterility distribute the container 1 to a user for filling thereof under aseptic conditions.

[0040] In connection with filling of the container 1, the duct-sealing part 10 of the connecting portion 5 is removed. For the containers 1 illustrated in Figs 1 and 3, this can be provided by, for instance, cutting along the dash-double-dotted line indicated in the figures. It is also possible to provide along said dash-double-dotted line a tear initiation, thereby making the duct-sealing part 10 capable of being torn off. Such a tear initiation can be provided by local heat treatment, which results in material embrittlement along said tear initiation. The duct-sealing part's 10 boundary line 14 displaced away from the compartment 3 ensures that the duct 7 is opened

and forms a connection between the ambient air and the compartment 3, which otherwise remains sealed from the ambient air.

[0041] Then a filling means (not shown) is inserted into the thus opened duct 7. The duct 7 has, as mentioned above, advantageously a shape tapering towards the compartment 3, and the filling means is preferably formed correspondingly. This ensures that the filling means can be sealingly inserted into the duct 7, thereby eliminating the risk of air intruding during the filling process.

[0042] After completion of the filling process, the duct 7 is sealed once more in a suitable fashion.

[0043] Owing to the duct 7 being essentially perpendicularly extended relative to the connecting portion 5 of the upper side of the container 1, a duct 7 is obtained, through which filling of the compartment 3 of the container 1 is easily allowed.

[0044] Fig. 4, to which reference is now made, illustrates a third embodiment of an inventive container 1. The container 1 differs from the container 1 shown in Fig. 1 by the duct-defining portion 6 also being arranged to define a second duct 17 inside said connecting portion 5.

[0045] This second duct 17 is arranged adjacent to a spout-forming portion 18 of the container, which spout-forming portion 18 is located in an upper corner portion 19 of the container 1 between a first side 20 of the container 1 and the upper side 13 of the container 1.

[0046] The duct-defining portion 6 comprises, for defining of said second duct 17, two further weld joints 21, along which the side walls 2 are joined with each other. These further weld joints 21 are mutually separated and have parallel boundary lines 22 facing each other.

[0047] The second duct 17 is openable by separating the corner portion 19 of the container 1 along the dash-dotted line and thus forms an outlet, through which the contents held in the container 1 can be emptied. To open the second duct 17, it is of course possible to separate the corner portion 19 by cutting or like operation. However, it is preferred to provide a tear initiation of the type described above along the dash-dotted line, whereby the corner portion 19 will be capable of being manually torn off. It is advantageous to arrange a start initiation (not shown) in connection with the tear initiation in order to facilitate the tearing off of the corner portion 19.

[0048] It should be noted that the further weld joints 21 are designed so as to prevent the forming of internal pockets in the compartment, which pockets could make emptying of the entire contents held in the container impossible.

[0049] It is also possible to arrange an opening device (not shown) in the second duct 17. This opening device may be arranged so that the container 1 will be resealable and may comprise, for instance, a screwable cap.

[0050] The opening device can be integrated into the second duct 17 of the container 1 in connection with the manufacture of the container 1 or in connection with the filling of the container 1. The second duct's 17 parallel boundary lines 22 facing each other then act as a guide means which allows easy insertion of the opening device into the second duct 17.

[0051] Fig. 5, to which reference is now made, illustrates a fourth embodiment of an inventive container 1. The container 1 differs from the container shown in Fig. 4 by having a carrier means 23 which is formed in the connecting portion 5 on a second side 24 of the container 1 opposite to the first side 20 of the container 1.

[0052] The thus designed container 1 has excellent handling properties. A user grasps the carrier means 23 and performs a pouring motion, whereby the liquid contents can easily be poured out of the container through the outlet formed by opening of the second duct 17.

[0053] It will be appreciated that the present invention is not limited to the embodiments shown and described.

[0054] For instance, it is conceivable to provide the container shown in Fig. 1 with a carrier means.

[0055] Moreover the opening means described with reference to Fig. 4 may also be applied in the duct of a container according to that described with reference to Fig. 1. The opening means is then applied in the duct in a step after the duct has been used for filling of the container.

[0056] Several modifications and variants are thus feasible and the present invention is consequently defined exclusively by the appended claims.

Claims

1. A container blank of a collapsible type, adapted to be filled with liquid or pulverulent contents, comprising

a compartment (3) which is defined by flexible walls and whose volume depends on the relative position of the walls,

said walls comprising two opposite side walls (2) with edge portions (4) which engage each other and along which the side walls (2) are joined in a common connecting portion (5) defining said compartment (3),

the compartment (3) being sealed, the container comprising

a duct-defining portion (6), which is arranged inside said connecting portion (5) and along which said side walls (2) are joined with each other,

said duct-defining portion (6) comprising two mutually separated weld joints (11) defining a duct (7) extended between the side walls (2),

which at a first end communicates with said compartment (3), **characterised by** the duct-defining portion (6)

at a second end connects to and is sealed by a duct-sealing part (10) of said connecting portion (5),

wherein a filling means, after removal of said

duct-sealing part (10), is insertable into said duct (7) for filling the compartment (3) with said contents.

2. A container blank as claimed in claim 1, in which the duct (7) defined by the duct-defining portion (6) has a shape tapering towards the compartment (3).

3. A container blank as claimed in claim 1 or 2, in which the duct-sealing part (10) has a boundary line (14) which faces the compartment (3) and which relative to boundary lines (15) of the parts (16) of the connecting portion (5), which connect to said duct-sealing part (10), is displaced away from the compartment (3).

4. A container blank as claimed in any one of the preceding claims, in which said weld joints (11) are symmetrically arranged one on each side of a longitudinal centre line (12) of the container blank, the weld joints (11) connecting to the connecting portion (5) on an upper side (13) of the container blank.

5. A container blank as claimed in any one of the preceding claims, in which said duct-defining portion (6) defines a second duct (17) extended between the side walls (2), said second duct (7) being able to be opened for pouring out contents introduced into the compartment through the duct (6) defined by said weld joints (11).

6. A container blank as claimed in claim 5, in which said duct-defining portion (6) comprises two further mutually separated weld joints (21) which have parallel boundary lines (22) facing each other.

7. A container blank as claimed in claim 6, in which said further weld joints (21) are arranged in a spout-forming portion (18) of the container blank, said spout-forming portion (18) being positioned in a corner portion (19) between a first side (20) of the container blank and an upper side (13) of the container blank.

8. A container blank as claimed in any one of the preceding claims, in which a carrier means (23) is formed in said connecting portion (5) on a second side (24) of the container blank.

9. A method for manufacturing a container blank (1) of a collapsible type to be filled with liquid or pulverulent contents, said container blank (1) comprising a sealed compartment (3) which is defined by flexible walls and whose volume depends on the relative position of the walls, the walls comprising two opposite side walls (2), comprising the step of

connecting edge portions (4), engaging each other, of the side walls (2) in a common connecting portion (5) which defines said compartment (3),

arranging a duct-defining portion (6) inside said connecting portion (5) along which duct-defining portion (6) said side walls (2) are joined with each other,

providing the duct-defining portion (5) with two mutually separated weld joints (11) which define a duct (7) extended between the side walls (2),

said weld joints (11) being arranged so as to define a duct (7) extended between the side walls (2), which at a first end communicates with said compartment (3) and at a second end connects to and is sealed by a duct-sealing part (10) of said connecting portion (5),

said duct (7) being so formed as to allow insertion of a filling means, after removal of said duct-sealing part (10), into said duct (7) for filling the compartment (3) with said contents.

Patentansprüche

1. Behälterrohling eines zusammenklappbaren Typs, der zum Füllen mit flüssigen oder pulverförmigen Inhalten eingerichtet ist und umfasst:

eine Kammer (3), die durch flexible Wände gebildet wird und deren Volumen von der relativen Position der Wände abhängt,

wobei die Wände zwei einander gegenüberliegende Seitenwände (2) mit Kantenabschnitten (4) umfassen, die miteinander in Kontakt kommen, und an denen die Seitenwände (2) in einem gemeinsamen Verbindungsabschnitt (5) verbunden sind und so die Kammer (3) bilden,
wobei die Kammer (3) abgedichtet ist und der Behälter umfasst einen einen Kanal bildenden Abschnitt (6), der innerhalb des Verbindungsabschnitts (5) angeordnet ist und an dem die Seitenwände (2) miteinander verbunden sind,
wobei der einen Kanal bildende Abschnitt (6) zwei voneinander getrennte Schweißverbindungen (11) umfasst, die einen Kanal (7) bilden, der sich zwischen den Seitenwänden (2) erstreckt,
der an einem ersten Ende mit der Kammer (3) in Verbindung steht, **dadurch gekennzeichnet, dass** der einen Kanal bildende Abschnitt (6) an einem zweiten Ende mit einem den Kanal abdichtenden Teil (10) des Verbindungsabschnitts (5) verbunden ist und durch ihn abgedichtet wird,
wobei eine Fülleinrichtung nach Entfernen des den Kanal abdichtenden Teils (10) in den Kanal (7) eingeführt werden kann, um die Kammer (3) mit dem Inhalt zu füllen.

2. Behälterrohling nach Anspruch 1, wobei der Kanal (7), der durch den einen Kanal bildenden Abschnitt (6) gebildet wird, eine Form hat, die sich auf die

Kammer (3) zu verjüngt.

3. Behälterrohling nach Anspruch 1 oder 2, wobei der den Kanal abdichtende Teil (10) eine Grenzlinie (14) hat, die der Kammer (3) zugewandt ist und die relativ zu Grenzlinien (15) der Teile (16) des Verbindungsabschnitts (5), die mit dem den Kanal abdichtenden Teil (10) verbunden sind, von der Kammer (3) weg verschoben ist.

4. Behälterrohling nach einem der vorangehenden Ansprüche, wobei die Schweißverbindungen (11) jeweils symmetrisch auf jeder Seite einer Längsmittellinie (12) des Behälterrohlings angeordnet sind und die Schweißverbindungen (11) mit dem Verbindungsabschnitt (5) an einer Oberseite (13) des Behälterrohlings verbunden sind.

5. Behälterrohling nach einem der vorangehenden Ansprüche, wobei der einen Kanal bildende Abschnitt (6) einen zweiten Kanal (17) bildet, der sich zwischen den Seitenwänden (2) erstreckt, und der zweite Kanal (7) geöffnet werden kann, um über den Kanal (6), der durch die Schweißverbindungen (11) gebildet wird, in die Kammer eingeleiteten Inhalt auszugießen.

6. Behälterrohling nach Anspruch 5, wobei der einen Kanal bildende Abschnitt (6) zwei weitere voneinander getrennte Schweißverbindungen (21) umfasst, die parallele Grenzlinien (22) haben, die einander zugewandt sind.

7. Behälterrohling nach Anspruch 6, wobei die weiteren.Schweißverbindungen (21) in einem einen Ausguss bildenden Abschnitt (18) des Behälterrohlings angeordnet sind und der einen Ausguss bildende Abschnitt (18) sich an einem Eckenabschnitt (19) zwischen einer ersten Seite (20) des Behälterrohlings und einer Oberseite (13) des Behälterrohlings befindet.

8. Behälterrohling nach einem der vorangehenden Ansprüche, wobei eine Trägereinrichtung (23) in dem Verbindungsabschnitt (5) an einer zweiten Seite (24) des Behälterrohlings ausgebildet ist.

9. Verfahren zum Herstellen eines Behälterrohlings (1) eines zusammenklappbaren Typs, der mit flüssigen oder pulverförmigen Inhalten zu füllen ist, wobei der Behälterrohling (1) eine abgedichtete Kammer (3) umfasst, die durch flexible Wände gebildet wird und deren Volumen von der relativen Position der Wände abhängt, wobei die Wände zwei einander gegenüberliegende Seitenwände (2) umfassen, und das die folgenden Schritte umfasst:

Verbinden miteinander in Eingriff befindlicher Kantenabschnitte (4) der Seitenwände (2) in einem gemeinsamen Verbindungsabschnitt (5), wodurch die Kammer (3) gebildet wird,

Anordnen eines einen Kanal bildenden Abschnitts (6) im Inneren des Verbindungsabschnitts (5), wobei an dem einen Kanal bildenden Abschnitt (6) die Seitenwände (2) miteinander verbunden sind,

Versehen des einen Kanal bildenden Abschnitts (5) mit zwei voneinander getrennten Schweißverbindungen (11), die einen Kanal (7) bilden, der sich zwischen den Seitenwänden (2) erstreckt,

wobei die Schweißverbindungen (11) so angeordnet sind, dass sie einen Kanal (7) bilden, der sich zwischen den Seitenwänden (2) erstreckt und der an einem ersten Ende mit der Kammer (3) in Verbindung steht und an einem zweiten Ende mit einem den Kanal abdichtenden Teil (10) des Verbindungsabschnitts (5) verbunden ist und durch ihn abgedichtet wird,
wobei der Kanal (7) so ausgebildet ist, dass er nach Entfemen des den Kanal abdichtenden Teils (10) Einführen einer Fülleinrichtung in den Kanal (7) zulässt, um die Kammer (3) mit dem Inhalt zu füllen.

Revendications

1. Récipient de type pliant, adapté pour être rempli de liquide ou d'un contenu pulvérulent, comprenant

un compartiment (3) qui est défini par des parois souples et dont le volume dépend de la position relative des parois,

lesdites parois comprenant deux parois latérales opposées (2) avec des parties de bordure (4) qui s'engagent l'une avec l'autre et le long desquelles les parois latérales (2) sont jointes en une partie de connexion commune (5) définissant ledit compartiment (3),

le compartiment (3) étant étanche, le récipient comprenant

une partie définissant un conduit (6), qui est agencée dans ladite partie de connexion (5) et le long de laquelle lesdites parois latérales (2) sont jointes l'une avec l'autre,

ladite partie définissant un conduit (6) comprenant deux joints soudés mutuellement séparés (11) définissant un conduit (7) s'étendant entre les parois latérales (2),

qui à une première extrémité communique avec ledit compartiment (3), **caractérisé en ce que** la partie définissant un conduit (6) à une deuxième extrémité se connecte de manière étanche à une partie d'étanchéité du conduit (10) de ladite partie

de connexion (5),

dans lequel un moyen de remplissage, après retrait de ladite partie d'étanchéité du conduit (10), peut être inséré dans ledit conduit (7) pour remplir le compartiment (3) avec ledit contenu.

2. Récipient selon la revendication 1, dans lequel le conduit (7) défini par la partie définissant un conduit (6) a une forme s'évasant vers le compartiment (3).

3. Récipient selon la revendication 1 ou 2, dans lequel la partie d'étanchéité du conduit (10) a une ligne de frontière (14) qui fait face au compartiment (3) et qui par rapport aux lignes de frontière (15) des parties (16) de la partie de connexion (5), qui se connecte à ladite partie d'étanchéité du conduit (10), est éloignée du compartiment (3).

4. Récipient selon l'une quelconque des revendications précédentes, dans lequel lesdits joints soudés (11) sont agencés symétriquement un de chaque côté d'une ligne centrale longitudinale (12) du récipient, les joints soudés (11) se connectant à la partie de connexion (5) sur un côté supérieur (13) du récipient.

5. Récipient selon l'une quelconque des revendications précédentes, dans lequel ladite partie définissant un conduit (6) définit un deuxième conduit (17) s'étendant entre les parois latérales (2), ledit deuxième conduit (17) pouvant être ouvert pour verser le contenu introduit dans le compartiment à travers le conduit (6) défini par lesdits joints soudés (11).

6. Récipient selon la revendication 5, dans lequel ladite partie définissant un conduit (6) comprend deux autres joints soudés mutuellement séparés (21) qui ont des lignes de frontière parallèles (22) se faisant face.

7. Récipient selon la revendication 6, dans lequel lesdits autres joints soudés (21) sont agencés dans une partie formant un bec (18) du récipient, ladite partie formant un bec (18) étant positionnée dans un coin (19) entre un premier côté (20) du récipient et un côté supérieur (13) du récipient.

8. Récipient selon l'une quelconque des revendications précédentes, dans lequel un moyen de transport (23) est formé dans ladite partie de connexion (5) sur un deuxième côté (24) du récipient.

9. Procédé de fabrication d'un récipient (1) de type pliant destiné à être rempli de liquide ou de contenus pulvérulents, ledit récipient (1) comprenant un compartiment étanche (3) qui est défini par des parois flexibles et dont le volume dépend de la position relative des parois, les parois comprenant deux parois latérales opposées (2), comprenant l'étape consistant à

connecter les parties de bordure (4), en les engageant l'une avec l'autre, des parois latérales (2) dans une partie commune de connexion (5) qui définit ledit compartiment (3),

agencer une partie définissant un conduit (6) dans ladite partie de connexion (5), partie définissant un conduit (6) le long de laquelle lesdites parois latérales (2) sont jointes l'une avec l'autre,

doter la partie définissant un conduit (5) de deux joints soudés mutuellement séparés (11) qui définissent un conduit (7) s'étendant entre les parois latérales (2),

lesdits joints soudés (11) étant agencés de telle sorte qu'ils définissent un conduit (7) s'étendant entre les parois latérales (2) qui, à une première extrémité communique avec ledit compartiment (3) et à une deuxième extrémité se connecte de manière étanche à une partie d'étanchéité du conduit (10) de ladite partie de connexion (5),

ledit conduit (7) étant formé de telle sorte qu'il permet l'insertion d'un moyen de remplissage, après le retrait de ladite partie d'étanchéité (10), dans ledit conduit (7) pour remplir le compartiment (3) avec lesdits contenus.

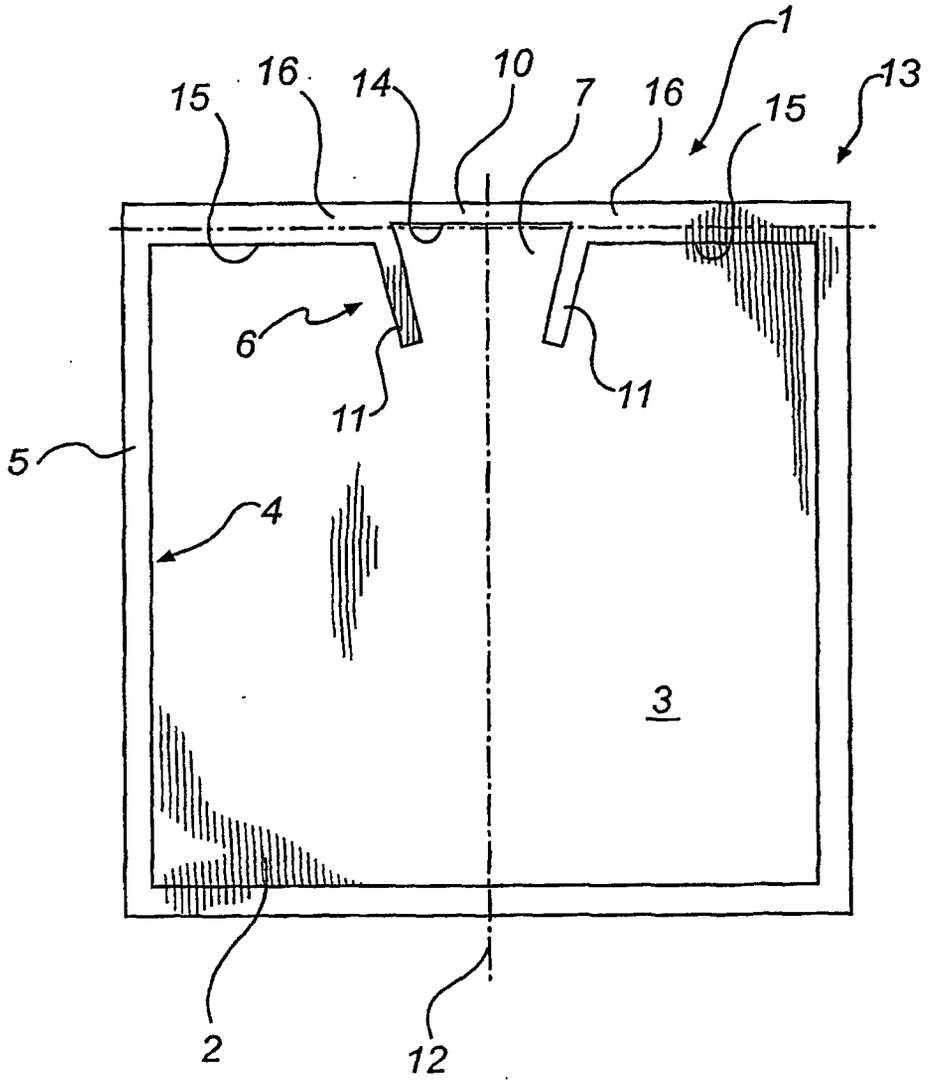

Fig. 1

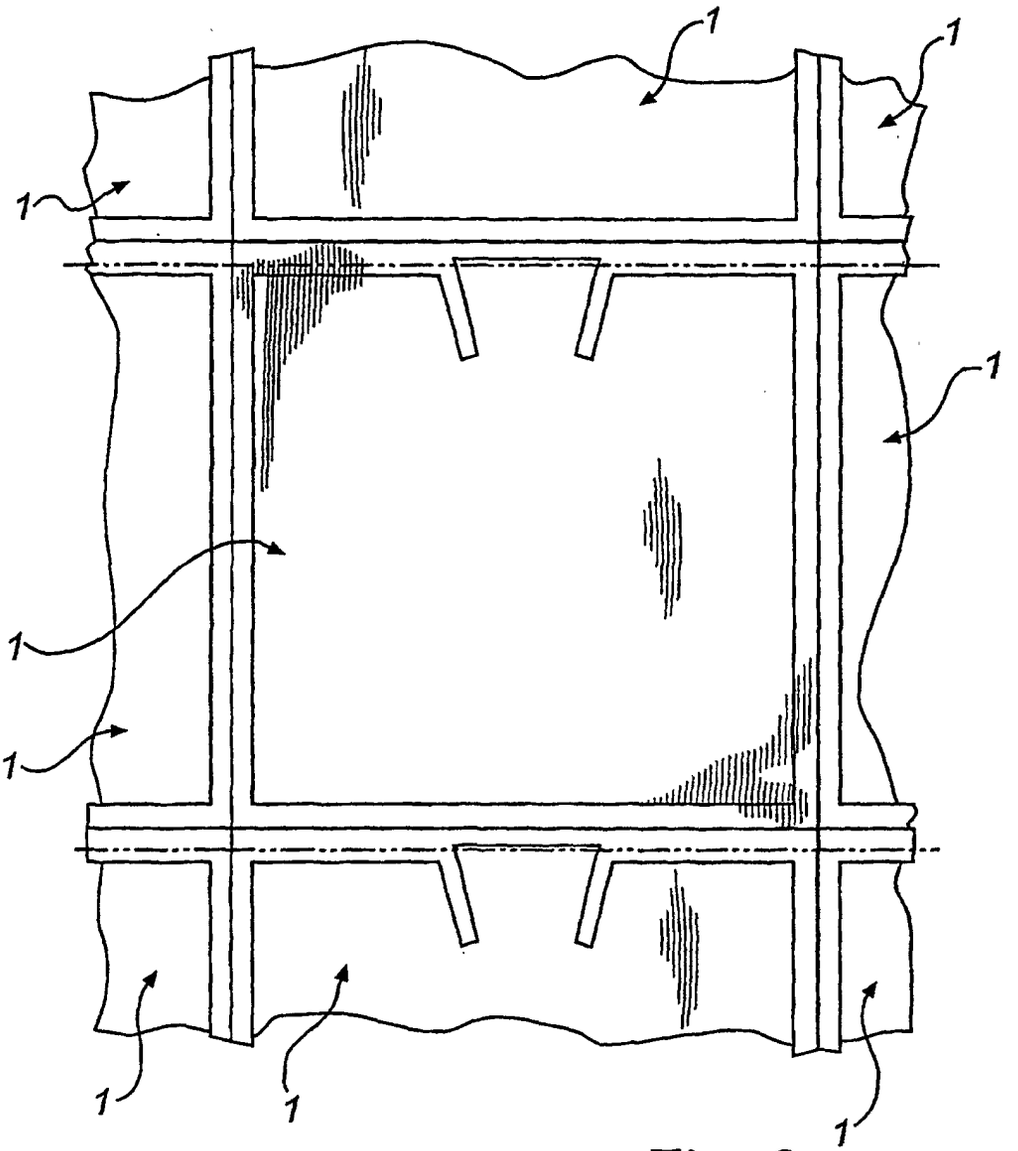

Fig. 2

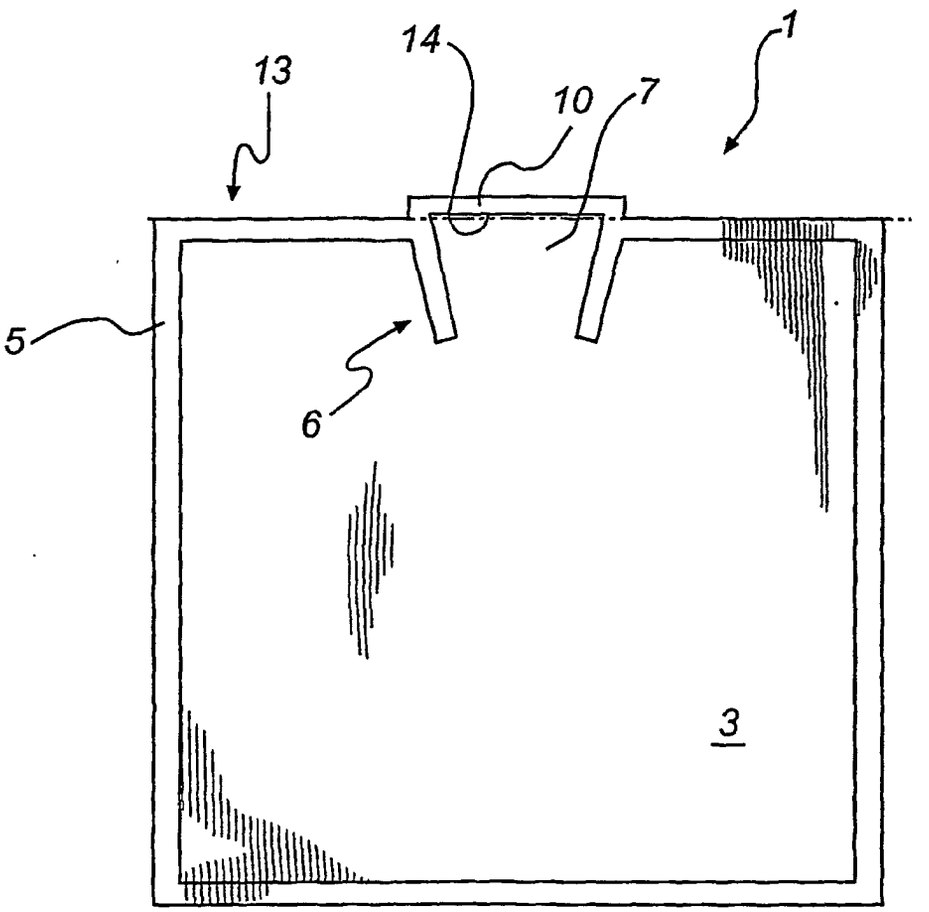

Fig. 3

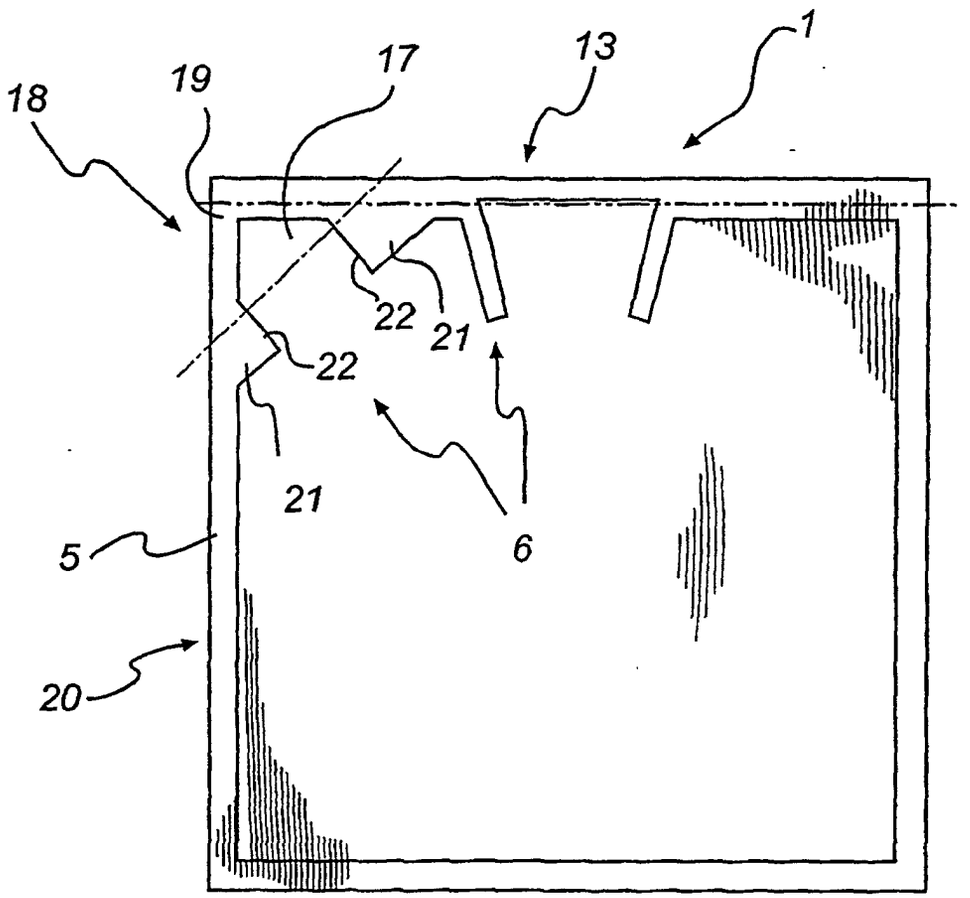

Fig. 4

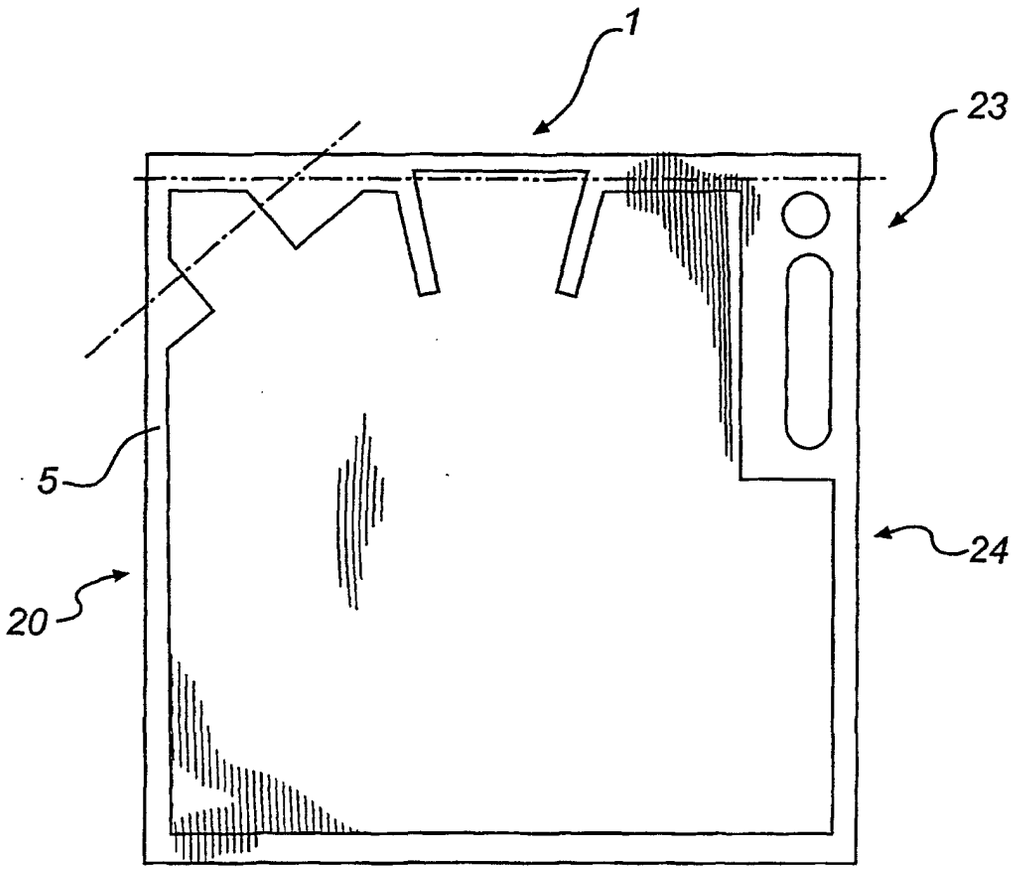

Fig. 5