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(72) Inventor: **Hausen, Jens**
54455 Serrig (DE)

(74) Representative: **Weber-Bruls, Dorothee, Dr.**
Forrester & Boehmert,
Pettenkoferstrasse 20-22
80336 München (DE)

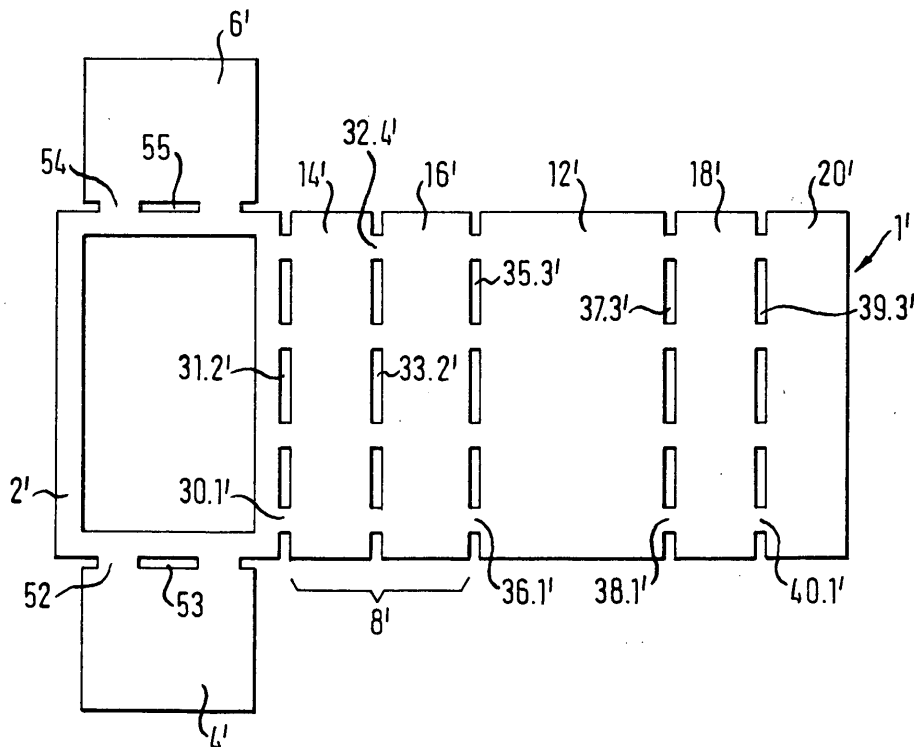
(71) Applicant: **Curver Rubbermaid France S.A.S.**
Paris Nord 2, 95948 Roissy CDG Cedex (FR)

(54) **Collapsible container**

(57) The present invention relates to a collapsible container (1) comprising a base (12), a first and a second pair of opposite side walls (4,6,8,10) and a rim wherein each wall of the first pair of opposite side walls comprises at least two adjacent horizontally aligned panels (14,16,18,20), wherein the connecting means which connect the, in particular circumferential, rim (2)

and those side walls which are attached to said rim, and which connect the base and those side walls which are attached to said base, and/or which connect two adjacent panels of a side wall comprise at least one film hinge (22,24,30,32,36,38,40), in particular at least two film hinges which are separated by a cut-out (26,28,31,33,35). The invention further relates to a method for preparing such a container.

Fig. 2



Description

[0001] The present invention relates to a collapsible container comprising a base, a first and a second pair of opposite side walls and a rim wherein each wall of the first pair of opposite side walls comprises at least two adjacent panels which are adapted to be horizontally aligned.

[0002] Collapsible containers especially when made from plastic have become common household articles. Such containers when collapsed can be conveniently stored. At present, a variety of collapsible containers is available on the market.

[0003] In DE 92 18 977 U1 a collapsible container made from plastic is disclosed which is especially suited for transporting and storing vegetables. This container is made in one piece and comprises four side walls which are joined to the edges of a rectangular base via film hinges. DE 92 18 977 U1 further focuses on a reliable engagement of the side walls with the base as well as with each other.

[0004] In DE 43 19 099 A1 a foldable container made from plastic is disclosed which comprises a base and lid which are both made from two panels which can be linked to the side walls via hinges. The side walls can be divided into two or more panels which can be joined by film hinges.

[0005] From DE 35 22 511 A1 a container which comprises a base and separately manufactured side walls can be derived whereby the side walls are attached to the base via film hinges which are glued onto the base. According to DE 35 22 511 A1 it is important to produce the base and the side walls separately.

[0006] In DE 201 20 563 U1 it is disclosed to produce a container having a base and two pairs of opposite side walls which are joined in one piece to said base via film hinges. Also, in WO 99/32362 a collapsible container is described having a base, a pair of side walls and a pair of end walls. The base has a pair of opposite upstanding end flanges integral thereto defining a corner line. Each end wall is securely held by a living hinge. The container according to WO 99/32362 is adapted to being nestable when in the collapsed position. The side walls are joined to the base by use of mechanical hinges. With such a design of a collapsible container more rigid corner portions which are resistant to stress shall be obtained.

[0007] As collapsible containers have become mass articles and are produced on a very large scale it would be desirable to reduce the production costs still ensuring a high quality product which can be safely, easily and reliably assembled and handled.

[0008] It is therefore the object of the present invention to provide a collapsible container or rate which overcomes the drawbacks of the prior art and which in particular provides a collapsible container which allows for a highly economic production and which can be reliably handled and assembled over a very long period of time without experiencing any wear, especially of the hinge sections.

[0009] This object is achieved by use of connecting means which connect the container rim and those side walls which are attached to said container rim, the base and those side walls which are attached to the base and/or two adjacent panels of a side wall whereby said connecting means comprise at least one film hinge, in particular at least two film hinges which are separated by a cut-out. The connecting means is usually aligned along a folding axis between the rim and a side wall, the base and a side wall and two adjacent panels of a side wall. A cut-out can vary in size to a great extent, and can be a narrow cut, a slit or an even broader gap. The container of the present invention also comprise crates and other receptacles.

[0010] In one embodiment of the invention the container also comprises a lid which is joined to said rim via at least one film hinge, in particular at least two film hinges which are separated by a cut-out.

[0011] Preferably, said container, in particular the film hinges, is/are made from a plastic material or plastic materials, in particular from polypropylene. Suitable plastic materials also comprise for example other polyolefins such as polyethylene, polyesters such as PBT and PET, aliphatic polyketones, polyphenylene ether, polyamides, styrol-copolymers such as SAN, ASA or ABS, or mixtures thereof. Also impact modified variants of the aforementioned polymers are encompassed with the term plastic material. In one preferred embodiment in particular the film hinges are made from an aliphatic polyketone, in particular from alternating ethylene/carbon monoxide copolymers. Suitable aliphatic polyketones and their manufacture is for example disclosed in EP 0 322 018 A2.

[0012] It is particularly preferred that said container is in one piece, in particular made by injection molding. Further, the container of the invention can be made by injection molding, extrusion, coextrusion, compression molding, transfer molding, reaction injection molding or reinforced reaction injection molding, in particular in one piece. Preferably the wall system is made from polypropylene, in particular by injection molding.

[0013] Provisions may be made that the rim and the base have a rectangular or square-like shape which in particular correspond in size.

[0014] According to one aspect of the invention the walls of the second pair of opposite side walls, in particular the lateral side walls, are each joined to the rim via at least one film hinge, in particular at least two film hinges which are separated by a cut-out, slit or gap, the upper panel of a first side wall of the first pair of side walls, in particular a longitudinal side wall, is joined to the rim via at least one film hinge, in particular at least two film hinges which are

separated by a cut-out, slit or gap, said side wall comprises at least two adjacent panels which are adapted to be aligned horizontally and which are joined via at least one film hinge, in particular at least two film hinges which are separated by a cut-out, slit or gap, the lowest panel of said side wall being joined to the base via at least one film hinge, in particular at least two film hinges which are separated by a cut-out, slit or gap, and the opposite side of the base is joined to the lowest panel of the second side wall of the first pair of opposite side walls via at least one film hinge, in particular at least two film hinges which are separated by a cut-out, slit or gap, said second wall comprising at least two adjacent panels which are joined via at least one film hinge, in particular at least two film hinges which are separated by a cut-out, slit or gap. It is particularly preferred to join all components of the container of the invention such as the base, the circumferential rim, the side walls and the panels of a side wall with at least two film hinges which are separated by a cut-out, slit or gap.

[0015] According to another aspect of the invention the walls of a first pair of opposite side walls, in particular longitudinal side walls, which comprise at least two adjacent panels which are adapted to be aligned horizontally and which are joined to each other via at least one film hinge, in particular two film hinges which are separated by a cut-out, slit or gap, and the walls of a second pair of opposite side walls, in particular lateral side walls, are each joined to the, in particular circumferential, rim via at least one film hinge, in particular at least two film hinges which are each separated by a cut-out, slit or gap, and wherein the base is joined to the lowest panel of a first side wall of the first pair of opposite side walls or to a first wall of the second pair of opposite side walls via at least one film hinge, in particular at least two film hinges which are each separated by a cut-out, slit or gap.

[0016] It has been found to be advantageous to also provide for fastening means which reversibly or irreversibly join, in particular an edge of, the base or, in particular an edge of, the rim with the lowest panel of a side wall of the first pair of side walls or with the upper panel of a side wall of a first pair of side walls, respectively. Also when the container is made in one piece, e.g. by injection molding, at least one side wall is usually to be joined to either the circumferential rim or the base in order to arrive at a collapsible container. When all four side walls of a container are joined to the base there remains one edge of a side wall unattached which is opposite to an edge which is joined to the base or the rim. This edge can be joined to an edge of the circumferential rim, e.g. by mechanical means or by welding or glueing. Such a connection can also be adapted to be flexible as are the film hinges. However, when all four side walls are attached to the circumferential rim there remains one opposite edge unattached which then can be joined to one edge of the base, e.g. by mechanical means or by welding or glueing.

[0017] Accordingly, in one particular embodiment of the invention the fastening means comprises at least one locking device, in particular a snap-fit and/or hole, opening or cut-out, on the top surface or at the edge of the base and/or at the lower edge of the lowest panel of a side wall which is adapted to interact with a respective locking device, in particular an opening, hole or cut-out and/or snap-fit, in the base and/or in the lower edge of the lowest panel.

[0018] In another embodiment of the invention the fastening means comprises at least one locking device, in particular a snap-fit and/or a hole, opening or cut-out, at the upper edge of an upper panel of a side wall and/or on the circumferential rim which is adapted to interact with a respective locking device, in particular an opening, hole or cut-out and/or snap-fit, in the circumferential rim and/or in the upper edge of the upper panel.

[0019] Further, it is also preferred when the collapsible container according to the invention further comprises at least two rim portions as part of the base and/or on the top surface and essentially at opposite, in particular lateral, edges of the base adapted to form a, in particular uniform, plain with a respective side wall when the container is uncollapsed. Such upper portions which project in particular vertically from the base are well suited to interact with the lowest panel of those side walls which are adjacent to the side wall which forms a plain surface with said rim portion.

[0020] Therefore, provisions may be made that the lowest panel of a, in particular longitudinal, side wall is adapted to interact with at least one, in particular vertical edges of said, rim element of the base via at least one, in particular two, lateral guiding devices which is/are adapted to lockably interact with at least one rim element, in particular with a vertical edge of said rim element. In one embodiment the lateral guiding devices are located at the lower vertical edge of the lowest panel and have a tongue-like shape. The vertical edges of the rim portion of the base then comprises a notch into which the tongue-like guiding device of the lowest panel can be introduced.

[0021] In another aspect of the invention the fastening means and/or the lateral guiding device is/are joined to the base or the rim via ultrasonic welding, glueing, or vibrational welding furnishing a non-detachable attachment.

[0022] Also, the invention comprises embodiments wherein the base comprises an essentially circumferential rim. With such a circumferential rim the mechanical stability of the base can be increased, in particular with regard to torsional movements. In order to be able to still apply vertical guiding means to the rim it can be provided for opposite, in particular lateral, rim portions of the base which have a greater elevation than those rim portions between those elevated rim portions.

[0023] Finally, in another embodiment at least one panel, wall and/or base comprises at least one opening, hole and/or cut-out, in particular a pattern of openings, holes and/or cut-outs.

[0024] Further objects of the present invention have been solved by a method for preparing a collapsible container which comprises a rim, a first and a second pair of opposite side walls and a base, in particular a collapsible container

according to the invention, wherein said container is manufactured via injection molding, extrusion, coextrusion, compression molding, transfer molding, reaction injection molding or reinforced reaction injection molding, in particular in one piece. Preferably, the wall system is made from polypropylene, in particular by injection molding.

[0025] According to a preferred aspect of method of the invention the injection molded product is removed by a robot and/or assembled by a robot.

[0026] Thus, it has been surprisingly found that when a collapsible container can entirely make use of film hinges for essentially all movable parts a very cost effective mass production is feasible. Also, by providing flexible axes which comprise at least two separate film hinges which are separated by a cut-out a very reliable handling is guaranteed ensuring a very long lifetime of the container. As the number of container components to be assembled can be minimized to one piece the production steps can be minimized which also facilitates the assembling process. By providing a collapsible container which can be made from one single piece the assembly of such a container can be easily adapted to be run automatically, e.g. by use of a, in particular only one, robot.

[0027] The invention, together with further objects and advantages, may be best understood with reference to the following description taken together with the accompanying drawings, in which

- Fig. 1 is a top view of a collapsible container according to the invention when completely unfolded;
- Fig. 2 is a top view of another embodiment of a collapsible container according to the invention;
- Fig. 3 is a top view of another collapsible container according to the invention when unfolded;
- Fig. 4 is another top view of a collapsible container according to the invention when completely unfolded;
- Fig. 5 is a collapsible container according to the invention when assembled; and
- Fig. 6 is an exploded view of a section of the base and a section of a side panel to be engaged therewith.

[0028] In Fig. 1 a collapsible container 1 according to a first embodiment of the present invention is illustrated when completely unfolded. The entire container 1 is made in one piece as can be derived from Fig. 1, and comprises a rim 2, a pair of opposite lateral side walls 4 and 6, a pair of opposite longitudinal side walls 8 and 10 and a base 12. The longitudinal side walls 8 and 10 each comprise a pair of adjacent panels 14, 16 and 18, 20, respectively. To the rim 2 which is of rectangular shape two oppositely located lateral side walls 4, 6 are attached via film hinges 22 and 24. The film hinges 22 and 24 each comprise two distinct film hinges 22.1, 22.2 and 24.1, 24.2. These film hinges are separated by cut-outs 26 and 28, respectively. One of the longitudinal sides of rim 2 is connected to panel 14 of side wall 8 via a sequence of film hinges 30.1, 30.2, 30.3 and 30.4, each separated by a cut-outs 31.1 to 31.3. In a similar way the two side panels 14 and 16 are joined via film hinges 32.1 to 32.4. Also, the base 12 is joined to the lower panels 16 and 18 by use of film hinges 36.1 to 36.4 and 38.1 to 38.4. As with side panels 14 and 16 also side panels 18 and 20 are joined via film hinges 40.1 to 40.4. The rim 2, the base 12 and the longitudinal side walls 8 and 10 can be easily folded in such away that the upper side panel 20 is adjacent to that edge of rim 2 which so far has been left unoccupied. By folding lateral walls 4 and 6 towards the base the final form of the container 1 is already stabilized. The panels or walls can also comprise holes (not shown) to save material and to furnish a light-weight article.

[0029] In Fig. 2 an alternative a collapsible container 1' is depicted which differs from the container 1 of Fig. 1 in that the lateral side walls 4' and 6' are connected to the exterior of the rim 2' and not to the interior part of said rim. In another embodiment the film hinges which connect the lateral side walls of the container to the rim can also be located centrally at the bottom of said rim (not shown).

[0030] In Fig. 3 an alternative embodiment of a container 1" is illustrated which essentially comprises the same components as depicted in Fig. 1. Different from Fig. 1 side wall 42 is no longer attached via film hinges to base 12" but to the rim 2" via film hinges 46.1 to 46.4.

[0031] When the collapsible container 1" is assembled it is the side panel 68 which is fastened to base 12" along adjacent edges.

[0032] In Fig. 4 an alternative embodiment of a collapsible container 1''' is shown which different from the container 1" of Fig. 3 has lateral side walls 48' and 50' which are joined to rim 2''' via film hinges 22' and 24' inwards rim 2'''.

[0033] Fig. 5 shows a collapsible container 1 when folded. The side walls 4, 6 and 8 are connected via film hinges 22, 24 and 30 to rim 2, whereas panel 20 of side wall 10 is fixed to rim 2 by engaging (not shown) as described for a container according to Figs. 3 and 4 in the following. The container when unfolded is very stable and is designed in such a way that the lateral side walls neatly fit between both opposite longitudinal side walls.

[0034] Fig. 6 shows how according to one embodiment of the invention the lower panel 94 of a container 1'''' can be affixed to base 92 by use of snap-fits 60 and 62 which fit into corresponding holes 64 and 66 of the base 92. Snap-fits 60 and 62 are part of the lowest panel 94 which is joined to the adjacent panel 96 via a sequence of separated film hinges 98. The engagement between the base 92 and the panel 94 is increased by lateral guiding devices 84 which comprise a tongue-like element 88. These guiding device 84 can be introduced into a notch 86 which is part of a rim element 82 which is an extension of one side edge of base 92. This locking device can be adapted for reversible and irreversible assembly of the container of the invention. In case of irreversible fastening the lateral guiding device and/

or the engaged snap-fits can be welded or glued to each other.

[0035] Although modifications and changes may be suggested by those skilled in the art, it is the intention of the application to embody within the patent warranted hereon all changes and modifications as reasonably and probably come within the scope of this contribution to the art. The features of the present invention which are believed to be novel are set forth in detail in the appended claims. The features disclosed in the description, the figures as well as the claims could be essential alone or in every combination for the realization of the invention in the different embodiment.

Reference list

[0036]

1, 1', 1", 1"', 1'''	collapsible container
2, 2', 2", 2'''	rim
4, 4'	lateral side wall
6, 6'	lateral side wall
8, 8'	longitudinal side wall
10, 10'	longitudinal side wall
12, 12', 12"	base
14, 14'	panel of side wall 8, 8'
16, 16'	panel of side wall 8, 8'
18, 18'	panel of side wall 10, 10'
20, 20'	panel of side wall 10, 10'
22.1, 22.2; 22'	film hinges
24.1, 24.2; 24'	film hinges
26, 26'	cut-out
28, 28'	cut-out
30.1 to 30.4; 30'; 30"	film hinges
3.1 to 31.3; 31'	cut-out
32.1 to 32.3; 32'	film hinges
33.1 to 33.3; 33'	cut-out
35.1 to 35.3; 35'	cut-out
36.1 to 36.4; 36'	film hinges
37.1 to 37.3	cut-out
38.1 to 38.4; 38'	film hinges
39.1 to 39.3; 39'	cut-out
40.1 to 40.4; 40'	film hinges
42, 42'	longitudinal side wall
44, 44'	longitudinal side wall
46.1 to 46.3	film hinges
48, 48', 48"	lateral side wall
50, 50'	lateral side wall
51	film hinges
52, 52'	film hinges
53, 53'	cut-out
54, 54'	film hinges
55, 55'	cut-out
60	snap-fit
62	snap-fit
64	hole
66	hole
68, 68'	panel of side wall 42, 42'
70, 70'	panel of side wall 42, 42'
72, 72'	panel of side wall 44, 44'
74, 74'	panel of side wall 44, 44'
76, 76'	film hinges
77, 77'	cut-out
78, 78'	film hinges

	79, 79'	cut-out
	80, 80'	film hinges
	81, 81'	cut-out
	82	rim element
5	84	lateral guiding device
	86	notch
	88	tongue
	90	side wall
	92	base
10	94	lowest panel of side wall 90
	96	panel
	98	film hinges

15 **Claims**

1. A collapsible container (1, 1', 1", 1"', 1''') comprising a base (12, 12'), a first and a second pair of opposite side walls (4, 4', 6, 6', 8, 8', 10, 10', 42, 42', 44, 44', 48, 48', 50, 50') and a rim wherein each wall of the first pair of opposite side walls comprises at least two adjacent panels (14, 14', 16, 16', 18, 18', 20, 20') which are adapted to be horizontally aligned, wherein
 20 the connecting means which connect the, in particular circumferential, rim (2, 2', 2", 2"', 2''') and those side walls (4, 4', 6, 6', 8, 8', 42, 42', 44, 44', 48, 48', 50, 50') which are attached to said rim, which connect the base (12, 12') and those side walls (8, 8', 10, 10', 44, 44') which are attached to said base, and/or which connect two adjacent panels (14, 14', 16, 16', 18, 18', 20, 20', 68, 68', 70, 70', 72, 72', 74, 74') of a side wall comprise at least one film hinge
 25 (22, 24, 30, 32, 36, 38, 40, 46, 52, 54), in particular at least two film hinges which are separated by a cut-out, slit or gap (26, 28, 31, 33, 35, 37, 39).
2. The collapsible container (1, 1', 1", 1"', 1''') according to claim 1, further comprising a lid which is joined to said rim via at least one film hinge, in particular at least two film hinges which are separated by a cut-out, slit or gap.
3. The collapsible container (1, 1', 1", 1"', 1''') according to claim 1 or 2, wherein
 30 said container is made from a plastic material or plastic materials, in particular from polypropylene.
4. The collapsible container (1, 1', 1", 1"', 1''') according to one of the preceding claims, wherein
 35 said container is made in one piece, in particular by injection molding.
5. The collapsible container (1, 1', 1", 1"', 1''') according to one of the preceding claims, wherein
 the rim and the base have a rectangular or square-like shape.
6. The collapsible container (1, 1') according to one of the preceding claims, wherein
 40 the walls of the second pair of opposite side walls, in particular the lateral side walls (4, 4', 6, 6'), are each joined to the rim (2, 2') via at least one film hinge, in particular at least two film hinges (22, 24, 52, 54) which are each separated by a cut-out, slit or gap (26, 53, 28, 55), the upper panel (14, 14') of a first side wall (8, 8') of the first pair of side walls, in particular a longitudinal side wall, is joined to the rim via at least one film hinge, in particular
 45 at least two film hinges (30, 30') which are each separated by a cut-out, slit or gap (31, 31'), said side wall comprises at least two adjacent panels (14, 16; 14', 16') which are adapted to be aligned horizontally and which are joined via at least one film hinge, in particular at least two film hinges (32, 32') which are each separated by a cut-out, slit or gap (33, 33'), the lowest panel (16, 16') of said side wall being joined to the base (12, 12') via at least one film hinge, in particular at least two film hinges (36, 36') which are each separated by a cut-out, slit or gap (35, 35'), and the opposite side of the base is joined to the lowest panel (18, 18') of the second side wall (10, 10') of the first pair of opposite side walls via at least one film hinge, in particular at least two film hinges (38, 38') which are each separated by a cut-out, slit or gap (37, 37'), said second wall comprising at least two adjacent panels (18, 20; 18', 20') which are joined via at least one film hinge, in particular at least two film hinges (40, 40') which are each separated by a cut-out, slit or gap (39, 39').
7. The collapsible container (1, 1', 1", 1"', 1''') according to one of claims 1 to 5, wherein
 55 the walls of a first pair of opposite side walls, in particular longitudinal side walls (42, 42', 44, 44'), which comprise at least two adjacent panels (68, 70, 68', 70', 72, 74, 72', 74') which are adapted to be aligned horizontally and

which are joined to each other via at least one film hinge, in particular two film hinges (76, 76', 78, 78') which are each separated by a cut-out, slit or gap (77, 77', 79, 79'), and the walls of a second pair of opposite side walls, in particular lateral side walls (48, 48', 50, 50'), are each joined to the, in particular circumferential, rim (2'', 2''') via at least one film hinge, in particular at least two film hinges (22', 24', 30'', 46, 52', 54') which are each separated by a cut-out, slit or gap (26', 28', 53', 55'), and wherein the base (12'', 12''') is joined to the lowest panel (74, 74') of a first side wall of the first pair of opposite side walls or to a first wall of the second pair of opposite side walls via at least one film hinge (80, 80'), in particular at least two film hinges which are each separated by a cut-out, slit or gap (81,81').

8. The collapsible container (1, 1', 1'', 1''', 1''''') according one of the preceding claims, further comprising fastening means (60, 62, 64, 66) which reversibly or irreversibly join, in particular an edge of, the base (12'', 12''') or, in particular an edge of, the rim (2, 2') with the lowest panel (68, 68') of a side wall of the first pair of side walls or with the upper panel (20, 20') of a side wall of a first pair of side walls, respectively.

9. The collapsible container (1'', 1''', 1''''') according to claim 8, wherein the fastening means comprises at least one locking device, in particular a snap-fit (60, 62) and/or hole, opening or cut-out (64, 66), on the top surface or at the edge of the base (12'', 12''') and/or at the lower edge of the lowest panel (68, 68') of a side wall which is adapted to interact with a respective locking device, in particular a hole, opening or cut-out and/or snap-fit, in the base and/or in the lower edge of the lowest panel.

10. The collapsible container (1, 1') according to claim 8, wherein the fastening means comprises at least one locking device, in particular a snap-fit and/or a hole, opening or cut-out, at the upper edge of an upper panel of a side wall and/or on the circumferential rim which is adapted to interact with a respective locking device, in particular a hole, an opening or cut-out and/or snap-fit, in the circumferential rim and/or in the upper edge of the upper panel.

11. The collapsible container (1''''') according to one of the preceding claims, further comprising at least two rim elements (82) as part of and/or on the top surface and essentially at opposite, in particular lateral, edges of the base (92) adapted to form a, in particular uniform, plain with a respective side wall when the container is uncollapsed.

12. The collapsible container (1''''') according to claim 11, wherein the lowest panel (94) of a, in particular longitudinal, side wall is adapted to interact with at least one, in particular vertical edges of said, rim element (82) of the base (92) via at least one, in particular two, lateral guiding devices (84) which is/are adapted to lockably interact with at least one rim element (82), in particular with a vertical edge of said rim element (82).

13. The collapsible container according to one of claims 8 or 12, wherein the fastening means (60, 62, 64, 66) and/or the lateral guiding device (84) is/are joined to the base and/or the rim elements (82) via ultrasonic welding, glueing, or vibrational welding.

14. The collapsible container according to one of the preceding claims, wherein the base comprises an essentially circumferential rim element, in particular at or around its edges.

15. The collapsible container according to one of the preceding claims, wherein at least one panel, wall and/or base comprises at least one opening, hole and/or cut-out, in particular a pattern of openings, holes and/or cut-outs.

16. A method for preparing a collapsible container which comprises a rim, a first and a second pair of opposite side walls and a base, in particular a collapsible container according to one of claims 1 to 15, **characterized in that** said container is manufactured via injection molding in one piece.

17. The method according to claim 16, **characterized in that** the injection molded product is removed by a robot and/or assembled by a robot.

Fig. 1

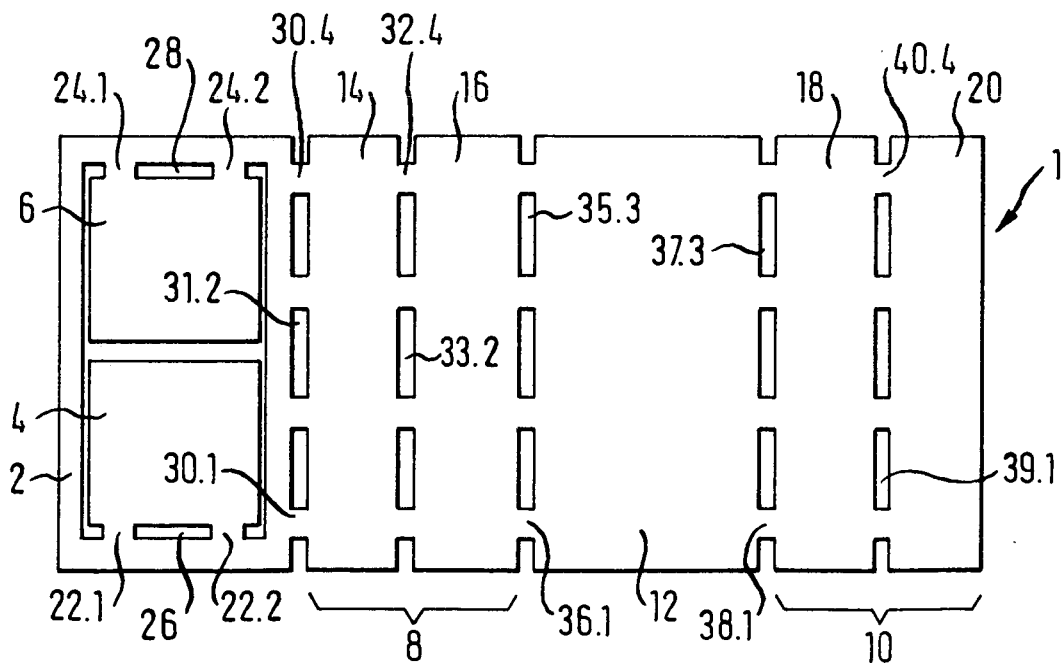


Fig. 2

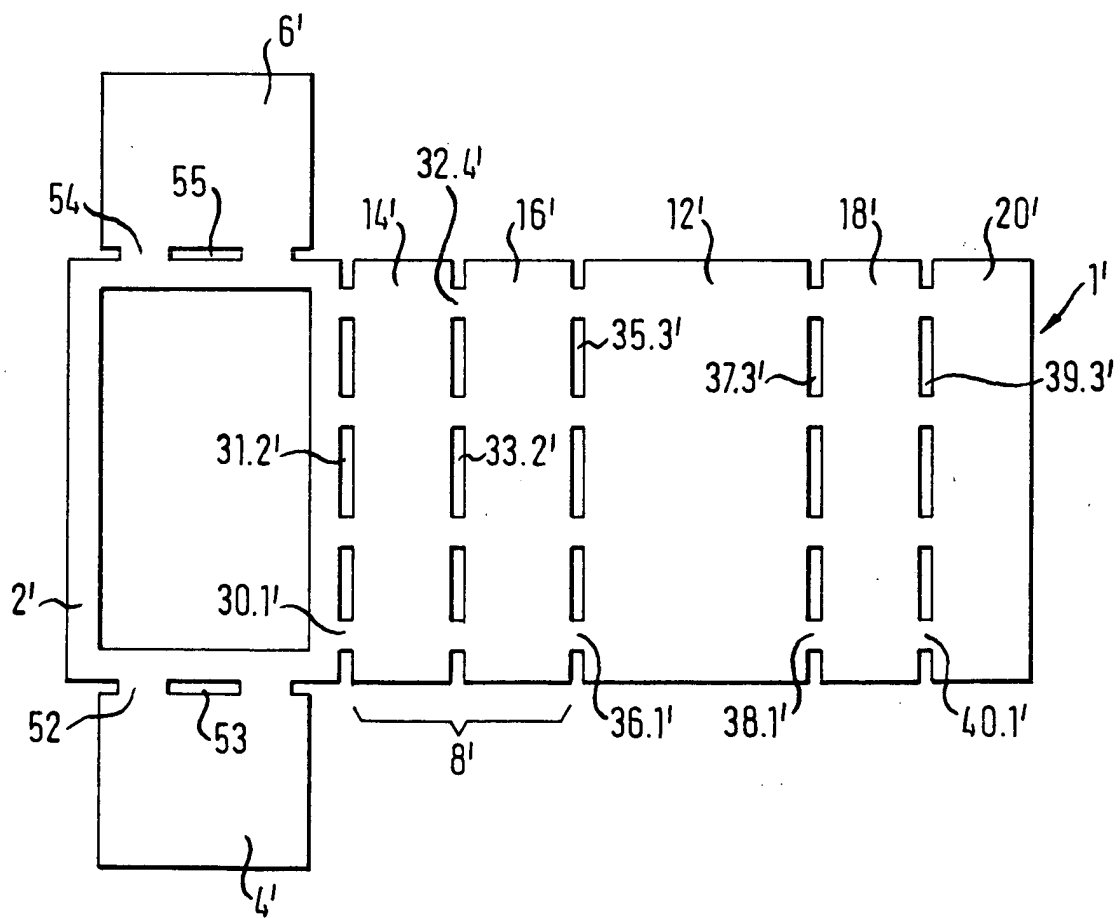


Fig. 3

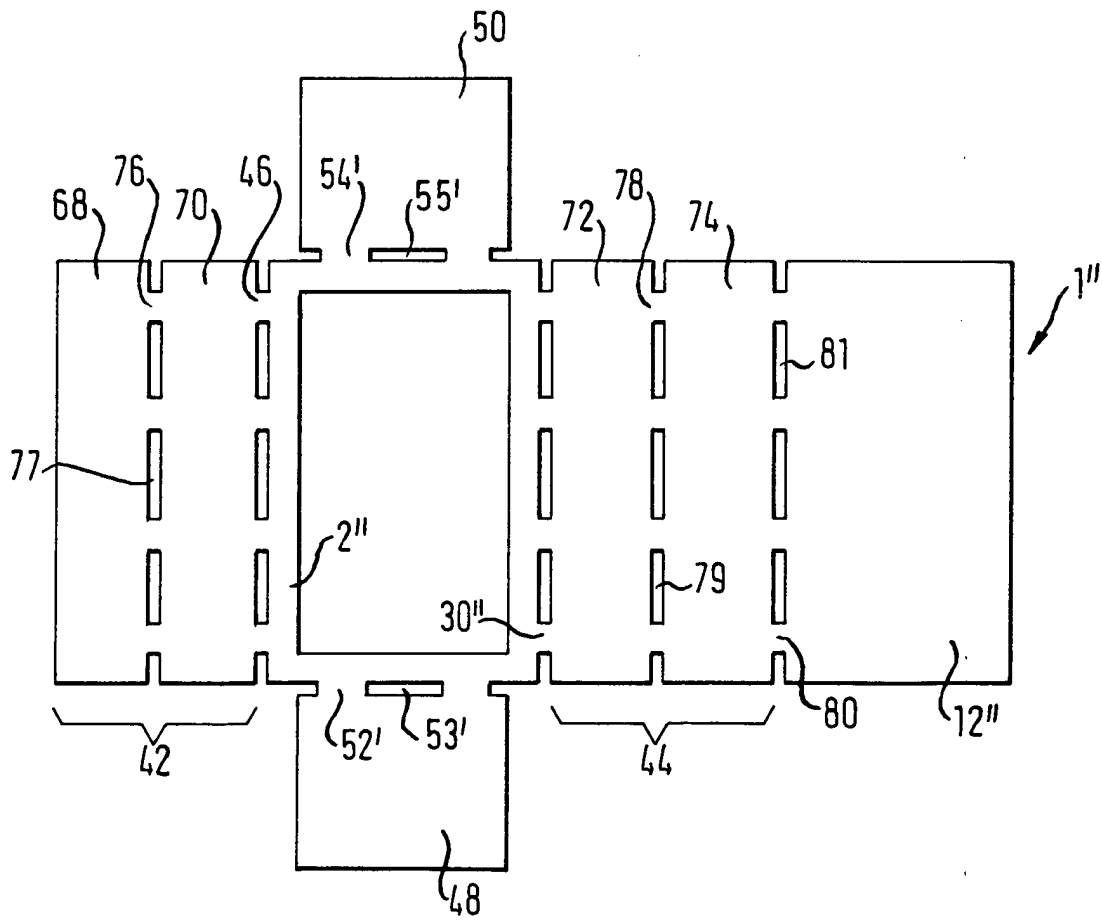
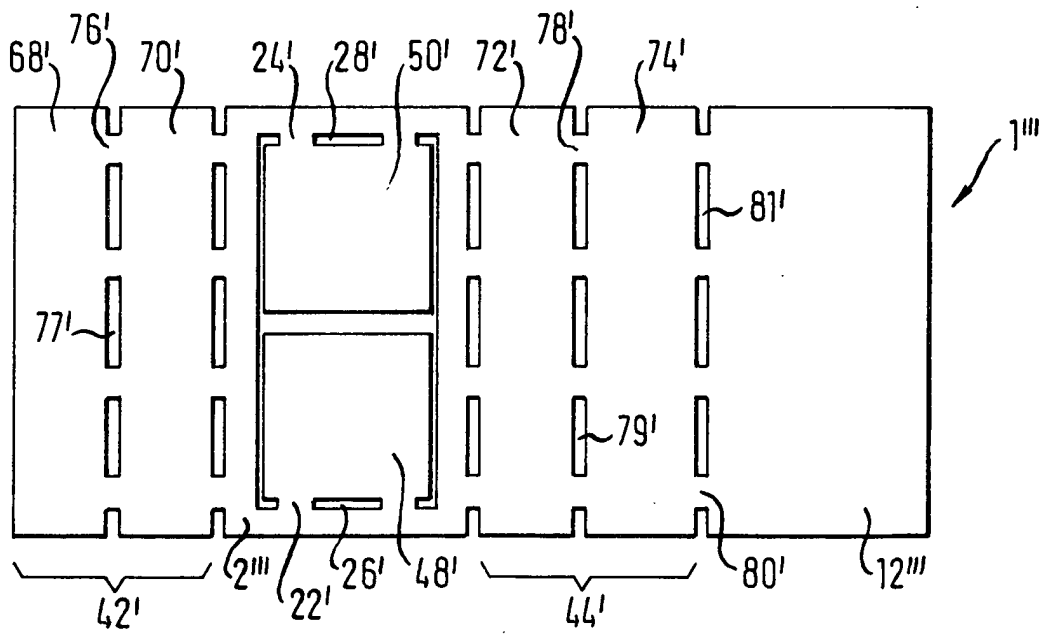
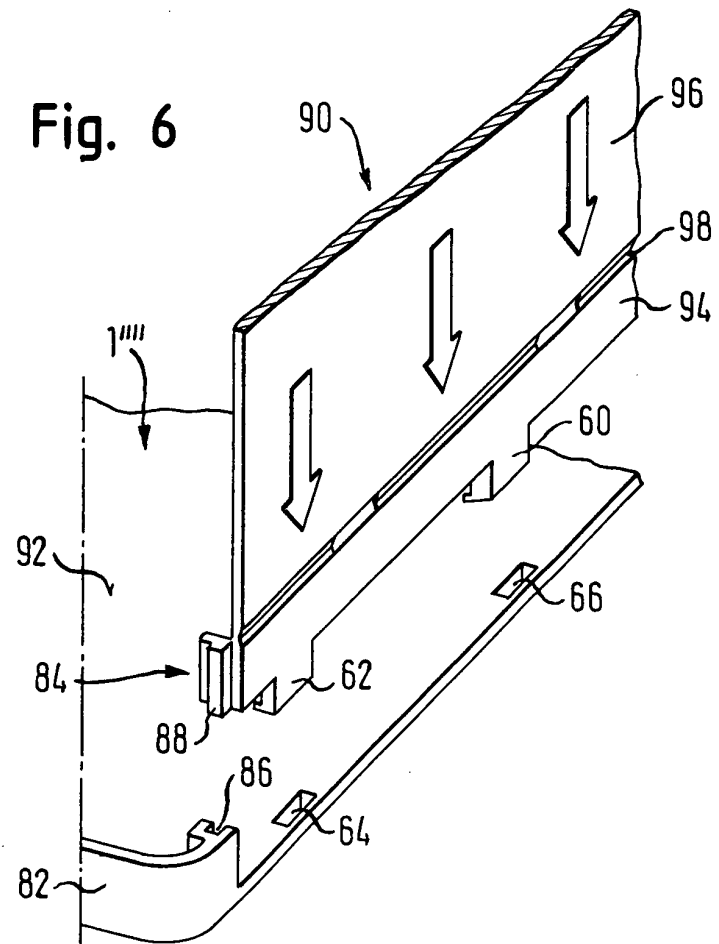
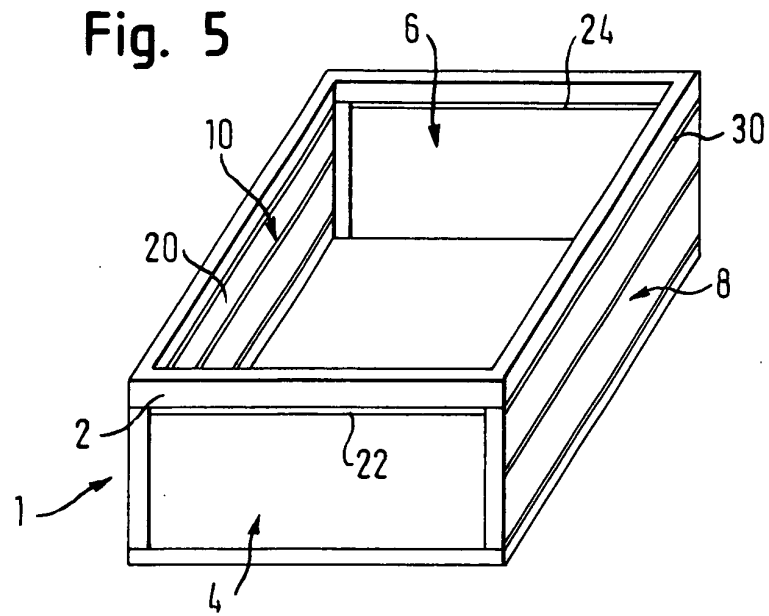


Fig. 4







European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 03 00 8987

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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