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(54) **Kettős falú edény**

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(54) **Double-walled container**

Doppelwandiger Behälter

Récipient à double parois

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(56) References cited:
EP-A1- 1 921 023
DE-U1-202009 011 702
GB-A- 2 261 592
GB-A- 2 420 267

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Description

[0001] The present invention relates to a container comprising a bottom at the lower end of an inner sidewall and an outer side wall, which is attached to the outer circumference of the inner side wall, wherein the outer sidewall comprises a multitude of embossed shapings, which extend radially out of the outer surface of the second sidewall and wherein the lower end of the shaping is distant from the lower end of the outer side wall.

[0002] Such containers are for example known from the state of the art for example WO 2011/023401 A1 or WO 2011/023400 A1. The containers described in these publications have however the deficiency that there is a gap between the outer sidewall and the inner sidewall and/or that additional means is needed to stack the containers properly.

[0003] It is therefore the objective of the present invention to provide a container which does not comprise the deficiencies according to the state of the art.

[0004] The problem is attained by a container according to claim 1.

[0005] The container according to the invention, has the advantage that it is very hygienic, because there is no gap between the outer- and the inner side wall. Additionally, the inventive container is stackable without providing additional stacking means.

[0006] Particularly the container of the invention is a cup, in which beverages, especially hot beverages such as coffee or tea or food, especially soup, mash or the like can be served. Although not a part of the invention, the container is preferably made from paper, thick paper, cardboard, fiber material, plastic material, PLA materials and/or made from renewable and/or biodegradable raw materials or a combination thereof. More preferably, the material, particularly the material from which the side walls are made, is plastically deformable, for example embossable. All parts of the inventive containers are made from this material, whereas the individual parts of the container can be made from different materials. Especially the surface of the parts of the container that are subjected to a liquid and/or vapour are preferably provided with means, especially a coating, an impregnation, a film or the like, which makes these parts at least temporarily resistant against for example humidity, water, aqueous solutions, oil and/or fat or a combination thereof. Preferably the above-mentioned means are also heat-sealable.

[0007] The container according to the present invention comprises an inner side wall, which is preferably conically shaped and which more preferably has at its upper end a bended or rolled rim. The sidewall is preferably made from a flat segment, which is subsequently formed, preferably rolled, into its, for example conical, shape. At its lower end, the sidewall comprises a bottom in order to close the container at the base. The bottom is preferably a separate part which is attached, more preferably glued and/or heat-sealed to the lower end of the sidewall of the container. The sidewall and the base define the filling volume which can be filled with a product. According to the present invention, the inner sidewall comprises stacking means to assure that the containers are easily separated from each other when being stacked. Preferably, this stacking means extends around the entire inner circumference of the inner sidewall. The stacking means extends into the container and is more preferably embossed into the inner sidewall.

[0008] According to the present invention, the container comprises an outer side wall, which is attached to the outer circumference of the inner side wall. This outer sidewall preferably extends around the entire circumference of the inner sidewall and more preferably extends essentially along the entire height of the inner side wall, particularly from the upper rim until the bottom. According to the present invention, the outer sidewall comprises a multitude of embossed shapings, which extend radially out of the outer surface of the second side walls. These embossments, together with the outer circumferential surface of the inner side wall, define channels in which gas is entrapped. Thus, no debris or the like can accumulate in the channels. The entrapped air in the channels is an insulation, so that the surface of the container that comes into contact with the hand of a user is neither too hot nor too cold.

[0009] Furthermore, the outsidewall is designed such that the lower end of the shaping does not extend to the lower end of the outer side wall, but is distant from the lower end of the outer side wall. Thus, at its lower end, the outer sidewall comprises a flat portion, preferably a flat ring, which extends around the entire circumference of the inner sidewall and which can be partially or entirely attached to the outer surface of the inner side wall.

[0010] According to the present invention, the lower end of the shaping is utilized as a stacking means, which, when two cups are stacked together, rests on the stacking means on the inner sidewall of another cup.

[0011] Since the shapings in the outer sidewall are completely closed the inventive container is very hygienic. Due to the utilization of the lower end of the embossments as stacking means, no additional stacking means have to be provided. Thus, the inventive cup is easily produced.

[0012] Preferably, the upper end of the shaping is also distant from the upper end of the outer side wall. Consequently, preferably a flat ring, which extends around the entire outer surface of the inner sidewall, is also provided at the upper end of the outer side wall. This flat ring can be connected, for example glued and/or sealed to the outer circumference of the inner side wall.

[0013] The lower end of the shaping, particularly the surface that is in contact with the stacking means at the inner sidewall of a second container is preferably provided in an angle of less than 120° and preferably more than 80°. This assures that the cups can be denested easily.

[0014] The invention is now explained according to figures 1-4. These explanations do not limit the scope of

protection.

Figure 1 shows two cups according to the invention stacked together.

Figure 2 shows a cut through the cups according to figure 1.

Figures 3 and 4 show details of the shapings and the stacking means.

[0015] Figures 1-4 show the container according to the invention, here a paper- or cardboard-cup. This container 1 comprises a conical inner sidewall 3, which has at its lower end a bottom 2. This bottom 2 is preferably attached, particularly glued or sealed to the inner sidewall 3 of container 1. The inner sidewall and the bottom define the filling volume of the container. The inner sidewall further comprises a shaping 7, here an embossment 7, which extends out of the inner surface of the inner sidewall 1 and which is a stacking means. The embossment 7 preferably extends around the entire inner circumference of the inner sidewall 2. At its upper end 3.3, the inner sidewall preferably comprises a rim 8, which is more preferably bended or rolled.

[0016] The cup, according to the invention, furthermore comprises an outer side wall 4, which is also conical and which extends around the entire circumference of the outer circumference 3.1 of the inner side wall 3. The length L of the outer sidewall is preferably chosen such that it extends from the upper end 3.3 of the inner side wall, preferably from rim 8, until essentially the bottom 2 of the container 1. The outer sidewall comprises a multitude of embossed shapings (5), which each extend radially out of the outer surface (4.4) of the outer sidewall 4. Additionally, the shapings 5 each do not extend over the entire length L of the outer side wall. Particularly, the lower end 5.1 of the shaping 5 is distant from the lower end 4.1 of the outer side wall. Thus, the outer sidewall comprises at its lower end a flat ring, which extends around the entire circumference of the inner side wall 3. This ring is preferably used to connect, preferably glue and/or seal the outer sidewall 4 to the inner sidewall 3. The embossments 5 together with the outer circumferential surface of the inner sidewall 3 each define a channel 6, in which a gas, preferably air, is entrapped. These channels are closed, preferably hermetically closed. The gas inside the channels 6 is a heat/cold-insulation. According to the present invention, the lower end 5.1 of each embossment 5 serves as a stacking means, which cooperates with stacking means 7 of another container, when two containers are stacked. This assures that the stacked cups can be denested easily. Since the flat lower end 4.1 of the outer sidewall extends below the lower end 5.1 of each shaping 5, the lower end 4.1 is also a guidance for the cup during the stacking. The upper end 5.2 of each shaping is preferably also distant from the upper end 4.2. The flat ring of the outer sidewall can be attached to the inner sidewall.

List of reference signs:

[0017]

1	container
2	bottom
3	inner sidewall
3.1	outer circumference of the inner sidewall
3.2	lower end of the inner sidewall
3.3	upper end of the inner sidewall
4	outer sidewall
4.1	lower end of the outer sidewall, flat lower end of the sidewall
4.2	upper end of the outer sidewall, flat upper end of the sidewall
4.3	inner surface of outer sidewall
4.4	outer surface of outer sidewall
5	shaping in the outer sidewall
5.1	lower end of the shaping
5.2	upper end of the shaping
5.3	inner surface of the shaping
6	channel
7	stacking means
8	rim
L	Length/height of the outer sidewall

Claims

1. Container (1) comprising a bottom (2) at the lower end (3.2) of an inner sidewall (3) and an outer sidewall (4), which is attached to the outer circumference (3.1) of the inner sidewall (3), wherein the inner sidewall (3) comprises a stacking means (7) which extends out of the inner surface of the inner sidewall (3), wherein the outer sidewall (4) comprises a multitude of embossed shapings (5), which extend radially out of the outer surface (4.4) of the outer sidewall (4) and wherein the lower ends (5.1) of the shapings (5) are distant from the lower end (4.1) of the outer sidewall (4), wherein the lower ends (5.1) of the shapings (5) are utilized as stacking means, which, when two containers (1) are stacked together, rest on the stacking means (7) on the inner sidewall (3) of another container (1) and the shapings (5) together with the outer circumferential surface of the inner sidewall (3), define channels (6) in which gas is entrapped.

2. Container (1) according to claim 1, **characterized in, that** the upper end (5.1) of the shaping (5) is distant from the upper end (4.1) of the outer sidewall (4).

3. Container (1) according to one of the preceding claims, **characterized in** a tight connection between the flat lower end (4.1) of the outer sidewall and the outer circumference (3.1) of inner sidewall (3).

4. Container (1) according to one of the preceding claims, **characterized in, that** the flat lower end (4.1) and/or the flat upper end (4.2) of the outer sidewall (4) are/is glued or sealed to the inner sidewall (3).

5. Container (1) according to one of the preceding claims, **characterized in, that** there is a tight connection between the flat upper end (4.2) of the outer sidewall and the outer circumference (3.1) of inner sidewall (3).

6. Container (1) according to one of the preceding claims, **characterized in, that** the lower end (5.1) of each shaping (5) is, at least partially, provided at an angle (γ) of less than 120° and preferably more than 80°.

7. Container (1) **characterized in, that** the stacking means (7) is embossed into the inner sidewall (3).

Patentansprüche

1. Behälter (1), umfassend eine Unterseite (2) an dem unteren Ende (3.2) einer inneren Seitenwand (3) und eine äußere Seitenwand (4), die an dem äußeren Umfang (3.1) der inneren Seitenwand (3) befestigt ist, wobei die innere Seitenwand (3) Stapelmittel (7) umfasst, die sich aus der inneren Oberfläche der inneren Seitenwand (3) erstrecken, wobei die äußere Seitenwand (4) eine Vielzahl von geprägten Ausformungen (5) umfasst, die sich radial aus der äußeren Oberfläche (4.4) der äußeren Seitenwand (4) erstrecken, und wobei die unteren Enden (5.1) der Ausformungen (5) von dem unteren Ende (4.1) der äußeren Seitenwand (4) entfernt sind, wobei die unteren Enden (5.1) der Ausformungen (5) als Stapelmittel benutzt werden, die, wenn zwei Behälter (1) gestapelt sind, auf den Stapelmitteln (7) auf der inneren Seitenwand (3) eines anderen Behälters (1) aufliegen, und die Ausformungen (5) zusammen mit der äußeren Umfangsoberfläche der inneren Seitenwand (3) Kanäle (6) definieren, in denen Gas eingeschlossen ist.

2. Behälter (1) nach Anspruch 1, **dadurch gekennzeichnet, dass** das obere Ende (5.1) der Ausformung (5) von dem oberen Ende (4.1) der äußeren Seitenwand (4) entfernt ist.

3. Behälter (1) nach einem der vorhergehenden Ansprüche, **gekennzeichnet durch** eine dichte Verbindung zwischen dem flachen unteren Ende (4.1) der äußeren Seitenwand und dem äußeren Umfang (3.1) der inneren Seitenwand (3).

4. Behälter (1) nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** das flache untere Ende (4.1) und/oder das flache obere Ende (4.2) der äußeren Seitenwand (4) an die innere Seitenwand (3) geklebt oder gesiegelt sind/ist.

5. Behälter (1) nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** eine dichte Verbindung zwischen dem flachen oberen Ende (4.2) der äußeren Seitenwand und dem äußeren Umfang (3.1) der inneren Seitenwand (3) vorhanden ist.

6. Behälter (1) nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** das untere Ende (5.1) jeder Ausformung (5) mindestens teilweise in einem Winkel (γ) von weniger als 120° und vorzugsweise mehr als 80° bereitgestellt ist.

7. Behälter (1), **dadurch gekennzeichnet, dass** die Stapelmittel (7) in die innere Seitenwand (3) geprägt sind.

Revendications

1. Récipient (1) comprenant un fond (2) à l'extrémité inférieure (3.2) d'une paroi latérale interne (3) et une paroi latérale externe (4) qui est attachée à la circonférence externe (3.1) de la paroi latérale interne (3), la paroi latérale interne (3) comprenant un moyen d'empilement (7) qui s'étend hors de la surface interne de la paroi latérale interne (3), la paroi latérale externe (4) comprenant une pluralité de formations en relief (5) qui s'étendent radialement hors de la surface externe (4.4) de la paroi latérale externe (4) et les extrémités inférieures (5.1) des formations (5) étant espacées de l'extrémité inférieure (4.1) de la paroi latérale externe (4), les extrémités inférieures (5.1) des formations (5) étant utilisées comme moyens d'empilement, qui, lorsque deux récipients (1) sont empilés l'un sur l'autre, reposent sur les moyens d'empilement (7) sur la paroi latérale interne (3) d'un autre récipient (1) et les formations (5), conjointement avec la surface circonférentielle externe de la paroi latérale interne (3), définissant des canaux (6) dans lesquels du gaz est piégé.

2. Récipient (1) selon la revendication 1, **caractérisé en ce que** l'extrémité supérieure (5.1) de la formation (5) est espacée de l'extrémité supérieure (4.1) de la paroi latérale externe (4).

3. Récipient (1) selon l'une quelconque des revendications précédentes, **caractérisé par** une connexion serrée entre l'extrémité inférieure plate (4.1) de la paroi latérale externe et la circonférence externe (3.1) de la paroi latérale interne (3).

4. Récipient (1) selon l'une quelconque des revendica-

tions précédentes, **caractérisé en ce que** l'extrémité inférieure plate (4.1) et/ou l'extrémité supérieure plate (4.2) de la paroi latérale externe (4) sont collées ou scellées à la paroi latérale interne (3).

5. Récipient (1) selon l'une quelconque des revendications précédentes, **caractérisé en ce qu'**il existe une connexion serrée entre l'extrémité supérieure plate (4.2) de la paroi latérale externe et la circonférence externe (3.1) de la paroi latérale interne (3).

6. Récipient (1) selon l'une quelconque des revendications précédentes, **caractérisé en ce que** l'extrémité inférieure (5.1) de chaque formation (5) est, au moins en partie, prévue suivant un angle (γ) inférieur à 120° et de préférence supérieur à 80°.

7. Récipient (1), **caractérisé en ce que** les moyens d'empilement (7) sont formés en relief dans la paroi latérale interne (3).

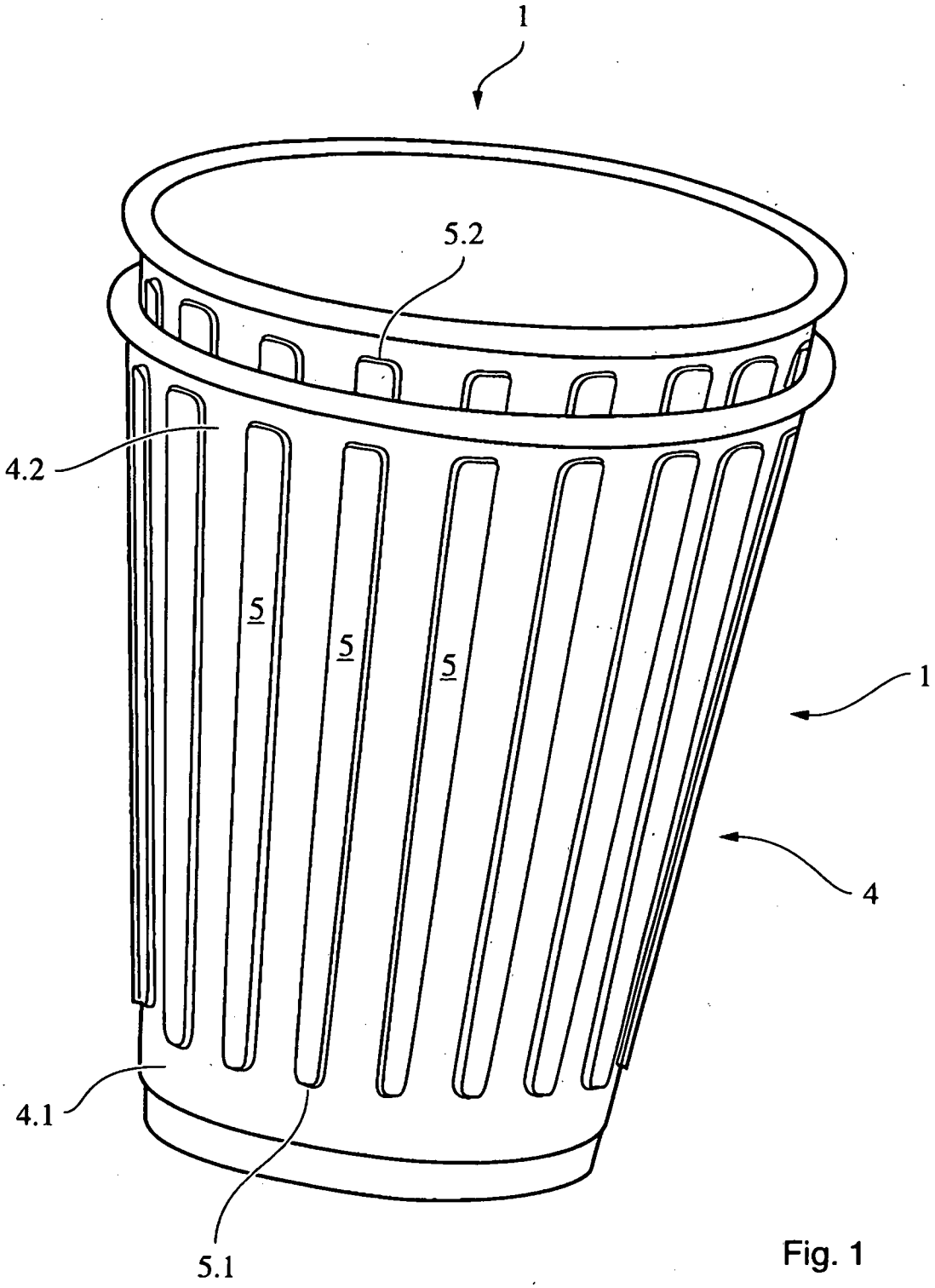


Fig. 1

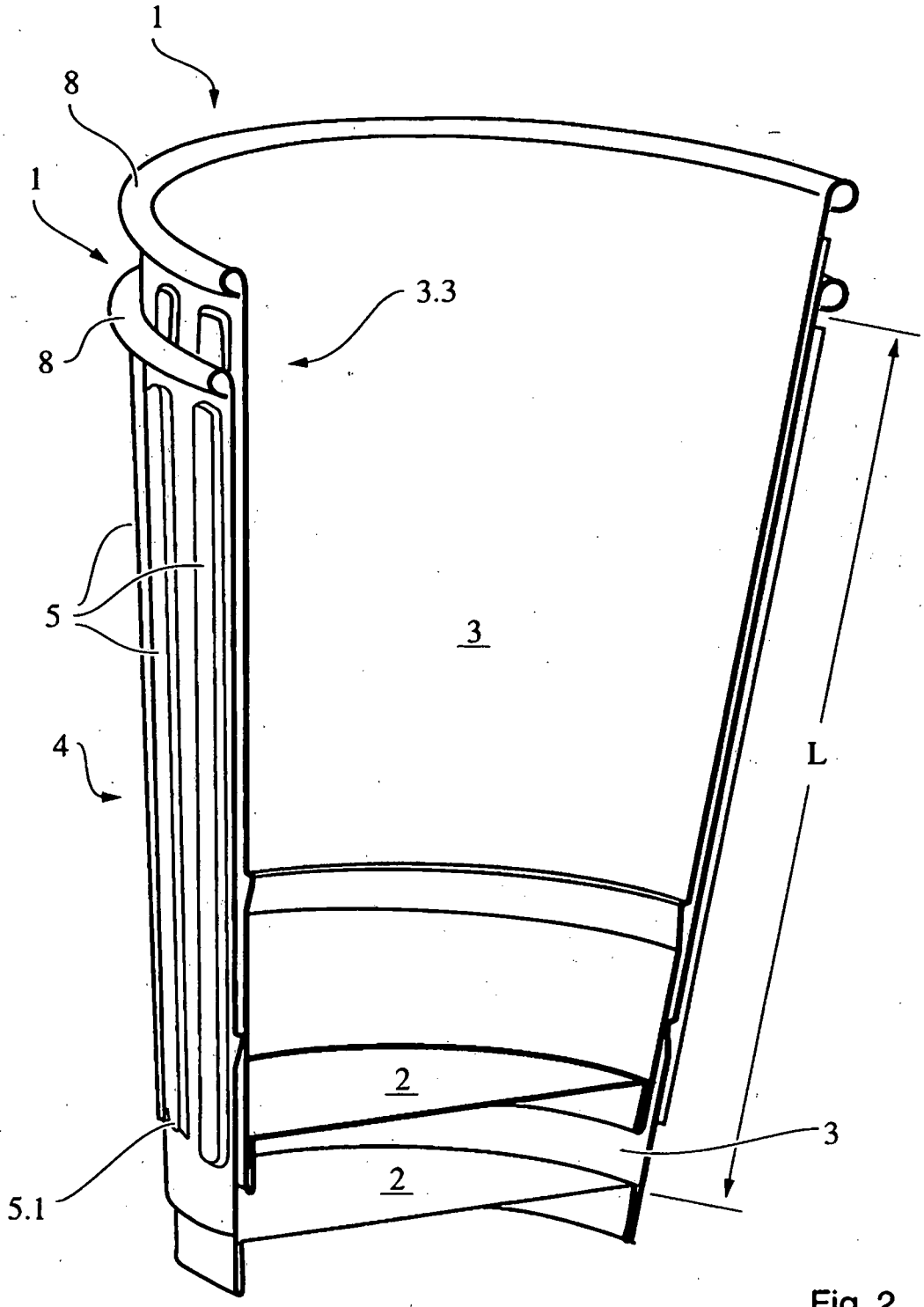


Fig. 2

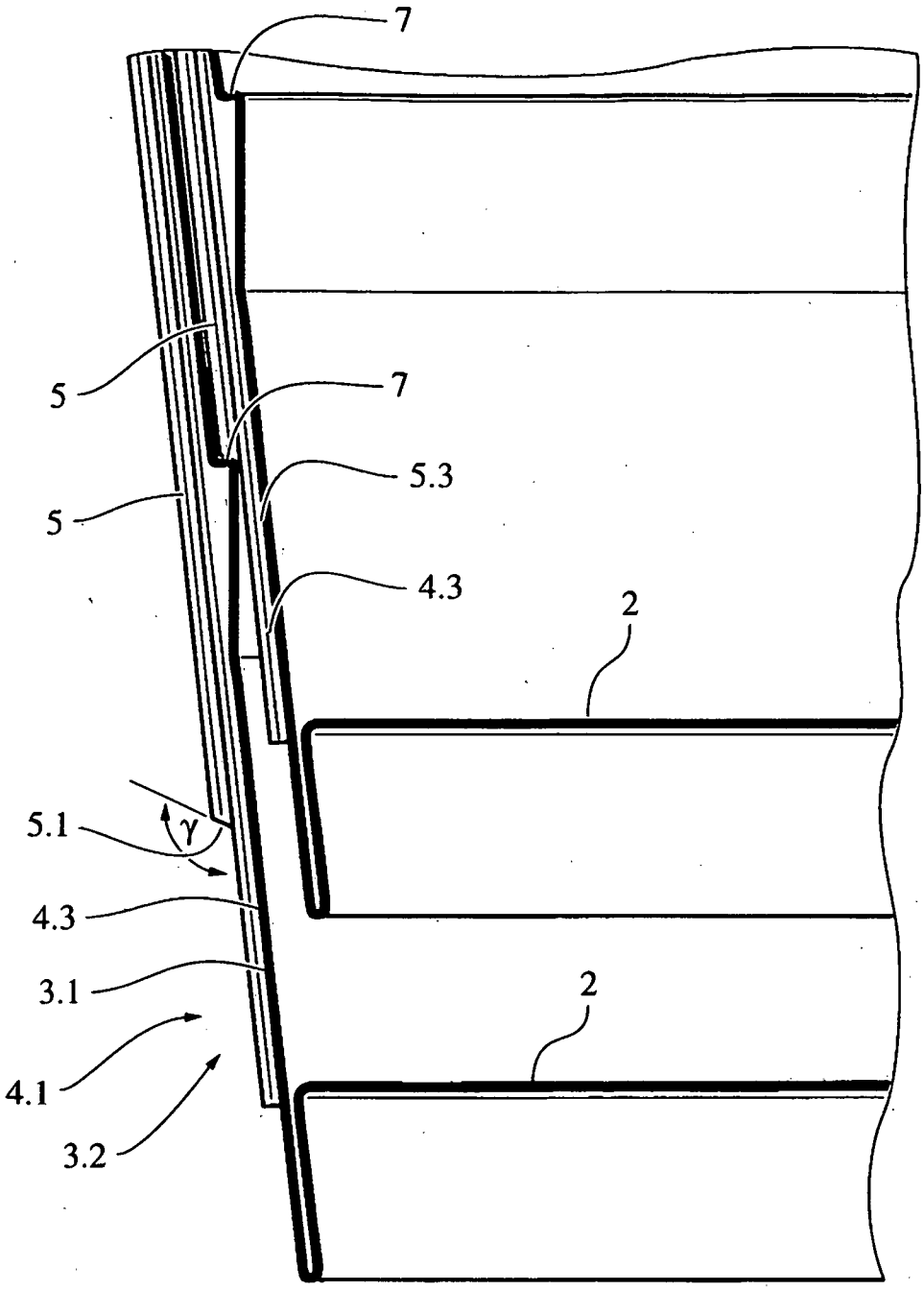


Fig. 3

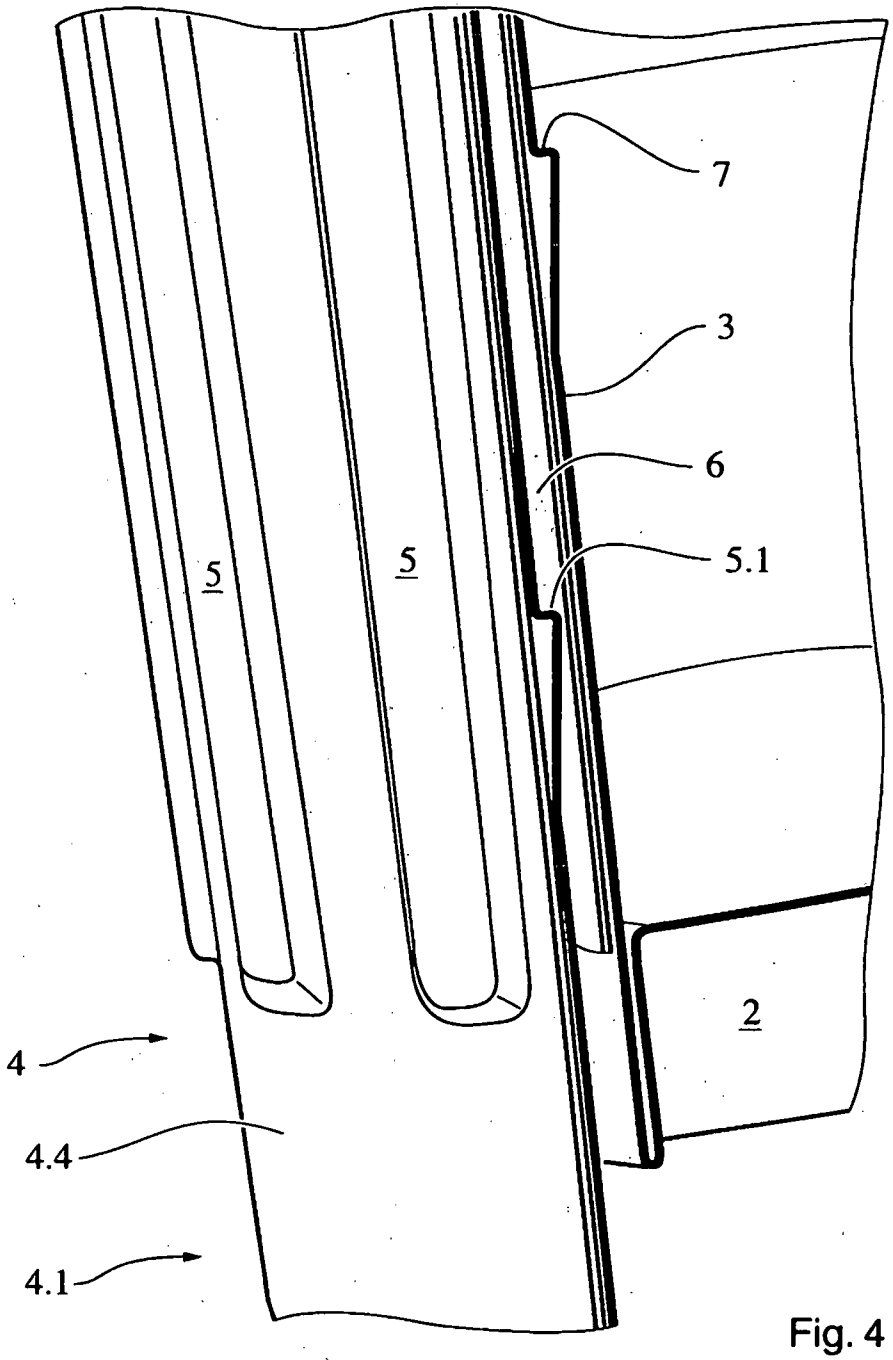


Fig. 4

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- WO 2011023401 A1 **[0002]**
- WO 2011023400 A1 **[0002]**

SZTNH-100030580

Az EP 2 540 643 lajstromszámú európai szabadalom igénypontjainak magyar fordítása:

KETTŐS FALÚ EDÉNY

1. Edény (1), amelynek egy belső oldalfal (3) alsó végén (3.2) fenékrésze (2), valamint egy külső oldalfala (4) van, amely a belső oldalfal (3) külső kerületéhez (3.1) van erősítve, a belső oldalfalon (3) rakásolóelem (7) van kialakítva, amely kiemelkedik a belső oldalfal (3) belső felületéből, a külső oldalfalon (4) sok domborított alakzat (5) van kialakítva, amelyek sugárirányban kiemelkednek a külső oldalfal (4) külső felületéből (4.4), továbbá az alakzatok (5) alsó vége (5.1) és a külső oldalfal (4) alsó vége (4.1) között térköz van, az alakzatok (5) alsó vége (5.1) rakásolóelemként szolgál, amely, amikor két edény (1) egymásba van rakva, a másik edény (1) belső oldalfalának (3) rakásolóelemére (7) támaszkodik, és az alakzatok (5) a belső oldalfal (3) külső kerületi felületével együtt csatornákat (6) alkotnak, amelyekben gáz van bezárva.

2. Az 1. igénypont szerinti edény (1), **azzal jellemezve, hogy** az alakzat (5) felső vége (5.1) és a külső oldalfal (4) felső vége (4.1) között térköz van.

3. Az előző igénypontok egyike szerinti edény (1), **azzal jellemezve, hogy** szoros kapcsolat van a külső oldalfal sima alsó vége (4.1) és a belső oldalfal (3) külső kerülete (3.1) között.

4. Az előző igénypontok egyike szerinti edény (1), **azzal jellemezve, hogy** a külső oldalfal (4) sima alsó vége (4.1) és/vagy sima felső vége (4.2) a belső oldalfalhoz (3) van ragasztva vagy tömítve.

5. Az előző igénypontok egyike szerinti edény (1), **azzal jellemezve, hogy** szoros kapcsolat van a külső oldalfal sima felső vége (4.2) és a belső oldalfal (3) külső kerülete (3.1) között.

6. Az előző igénypontok egyike szerinti edény (1), **azzal jellemezve, hogy** mindegyik alakzat (5) alsó vége (5.1) legalább részben 120°-nál kisebb, és előnyösen 80°-nál nagyobb szögben (γ) van kialakítva.

7. Edény (1), **azzal jellemezve, hogy** a rakásolóelem (7) bele van nyomva a belső oldalfalba (3).

A meghatalmazott:

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