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(54) ARRANGEMENT FOR CLOSING A CONTAINER

ANORDNUNG ZUM SCHLIESSEN EINES BEHÄLTERS

AGENCEMENT PERMETTANT DE FERMER UN CONTENANT

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Description

TECHNICAL FIELD

[0001] The present invention concerns a device for closing of a container comprising a closure, which device comprises a container made of a rigid material, wherein the container has side parts, a bottom part and an upper part with at least one gable folding for forming an opening, and at least one clamp.

BACKGROUND

[0002] Containers made of a rigid material, like for example paperboard, have been used in the packaging industry for a long time for packaging of products. Packages having an outer casing of paperboard and an inner lining in form of a bag are especially used in the food industry to package products. Examples of such products are for example dried baby food, milk powder, formula powder, porridge powder, cornflakes, muesli, juice, ready-made liquid sauces, wet vegetable products etc.

[0003] There are many different models of packages, and some can be opened by means of the user's fingers. These packages are often formed with a roof ridge, so called roof ridge packages, and are provided with a spout, which in the closed state of the package is fixed, but releasably arranged between a pair of opposite panel walls of the package. These panel walls join at the roof ridge, which is arranged at the top of the package. The panel walls are connected with side panels, which at their top end have gable foldings, from which at least one is unfolded during opening of the package to form the spout, where after the content of the package can be dispensed with via the unfolded spout.

[0004] The package can subsequently be closed by closing the spout by folding the gable foldings back to its original state between the opposite panel walls of the package, which panel walls form the ridge of the package. When the gable folding is infolded, the spout is however not completely compressed or closed, why the content of the package easily can leak during careless handling of the package. In the case the packaged content comprises food, which consistency is pulverised and dry, like for example formula powder, the content can very easily unintentionally leak out from the package when the user incautiously presses the sides of the package slightly too hard, for example during careless handling of the package. This is consequently not adapted to its purpose.

[0005] Several different closure devices with clamps have been suggested to solve this problem, like the closure device that is disclosed in the US patent 3 381 883. US 3 381 883 shows a closure device with a clamp, which is adapted for a roof ridge type package, like for example a milk package. The clamp shown has of an extruded U, and the clamp is provided with protrusions on its internal sides for clamping the top of the roof ridge, to keep the package in a closed and shut state, after the package

once has been opened.

[0006] The above described clamp according to US 3 381 883 is however not adapted to its purpose for a roof ridge type package, because the clamp easily slips of due to the towards each other leaning upper panels of the package, since neither the clamp nor the towards each other leaning upper panels have an element, which secures the position of the clamp, whereby the closure of the package does not take place. Furthermore, the clamp according to US 3 381 883 has no well-defined end positions, or outer positions, and therefore, the can easily slip off the roof ridge of the package during careless handling.

[0007] There is thus a need for an improved device for closing of packages.

[0008] EP-A-0 442 035, upon which the preamble of claim 1 is based, discloses a gable top container with a slidable reclosure device.

SUMMARY OF THE INVENTION

[0009] With the present invention, a device has been accomplished according to the type mentioned in the introduction, which device substantially removes the problem that has been related to the prior known devices.

[0010] A device accomplished according to the invention is defined in independent claim 1.

INVENTION DESCRIPTION

[0011] The present invention concerns a device according to claim 1 for closing of a container comprising a closure.

[0012] According to an embodiment of the invention, the recesses are arranged in the upper part of the closure, and the protrusions are arranged on the clamp.

[0013] According to an embodiment of the invention, the recesses in the upper part are arranged along the closure, and the recesses have a first and a second end position. The recesses in the upper part can be arranged in parallel with the longitudinal direction of the closure.

[0014] According to an embodiment of the invention, the clamp is further arranged on the upper part, which clamp is elongated and made of two panels joined with each other at an angle, which angle is selected to accomplish clamping between the inner sides of the clamp and outer surfaces of the first panel and flap.

[0015] According to an embodiment of the invention, the clamp has at least one protrusion arranged on each inner side of the panels, for guiding in a recess during setting of the container in a closed or entirely or partly opened state. The clamp is made of a flexible material to accomplish a snap-action between the protrusions and the recesses.

[0016] According to an embodiment of the invention, the protrusions of the clamp are preferably elongated, and extend along the longitudinal direction of the clamp.

[0017] According to another embodiment, the elongat-

ed protrusions of the clamp can be chamfered at their first and/or second ends.

[0018] According to another embodiment, there can be at least two protrusions of the clamp on each panel, and point formed, and arranged along the longitudinal direction of the clamp.

[0019] According to an embodiment of the invention, the clamp further has on at least one of its external sides means to provide an improved grip during sliding of the clamp, for putting the container in a completely or partly open state and a closed state respectively.

[0020] According to an embodiment of the invention, the measure A from one of the side edges of the panels of the clamp to a protrusion is less than the measure C from one of the side edges of the container to an end of the recesses. The measure A together with the measure B from the side edge of the clamp to the end of the protrusion arranged furthest away from the side edge, is larger than the measure D, which refers to the distance between outer ends of the recesses arranged furthest away from each other, for concealing the recesses in the open and closed state of the container respectively.

DESCRIPTION OF THE DRAWINGS

[0021] The invention will now be explained with reference to the attached drawings. On these:

- fig. 1 shows an isometric view of the device according to the invention in an opened and pulled off state;
- fig. 2 shows an isometric view of the device according to the invention in an opened and pulled off state;
- fig. 3 shows an isometric view of the device according to the invention in a closed and shut state;
- fig. 4 shows an isometric view of a part of the device according to the invention in an unopened state;
- fig. 5 shows an isometric view of a part of the device according to the invention; and
- fig. 6 shows an isometric view of a part of the device according to an alternative embodiment.

DESCRIPTION OF EMBODIMENTS

[0022] In the description below, direction terms like for example upper, lower, side etc. will be used. These direction statements refer to an upright standing package, when this is standing with its bottom on a support structure.

[0023] The invention concerns a device for closing of an opened container 1, that is, a container whose seal has been broken. The device will be described below with reference to fig. 1-6.

[0024] The container 1 is made of a rigid material like

for example paperboard, plastic etc., and is formed of side parts 2, a bottom part 3, and an upper part 4, wherein the upper part 4 is formed of the side parts 2, which are joined with each other to form a closure.

[0025] The ridge in the upper part 4 of the package is formed from a first upper part 5 on a first side panel 7, and a second upper part 6 on a second side panel 8 opposite each other. At least one of the first and second end panels 9, 10 comprises a gable folding with a foldable main panel 11, and a first and a second gable support panel 12, 13. In the closed state of the package, the first and second upper parts 5, 6 on the first and second side panels 7, 8 are leaning and angled toward each other, wherein the panels 11, 12, 13 of the gable folding are infolded in-between said first and second upper parts 5, 6 to form the ridge.

[0026] In the unopened state of the package, which is showed in fig. 4, the first and second side panels 7, 8 are mutually joined along the ridge, and to open the package, a part of the first and second side panels 7, 8 are torn off, in an upper corner 14 of the package. After the upper corner 14 has been torn off, which is showed in fig. 2, the gable folding can be unfolded from its infolded state to accomplish the opened state, which is shown in fig. 1, by unfolding of spout or opening of the package 1. The content of the package can subsequently be dispensed through the spout.

[0027] To accomplish the unfolding of the opening, fold lines 15, 16, 17, 18, 19, 20, 34 are arranged between the main panel 11, the first and second gable support panels 12, 13, the first and second end panels 9, 10, and the upper first and second parts 5, 6 of the first and second side panels 7, 8.

[0028] The package 1 can be provided with an internal lining (not shown) in shape of a bag for example. The external shape of the lining conforms mainly to the internal shape of the package, and an upper part of the lining is in the closed state of the package 1 closed and attached to the first and second side panels 7, 8.

[0029] To close the package 1 after it has been opened according to above, the gable part is infolded between the side panels 7, 8 to its original position, and at least one clamp 21 is arranged along the ridge of the container 1, for closing the package. Recesses 22 are arranged in the upper part 4 of the package along the ridge, to guide the clamp 21, which is slidably arranged along the ridge of the package. The clamp 21 is slidable in the recesses 22 between a first position and a second position. In the completely open position of the package, the clamp 21 is arranged in the first position, which is showed in fig. 1 and 2, and in the closed position of the package, the clamp 21 is arranged in the second position, which is showed in fig. 3.

[0030] The recesses 22 are elongated and arranged along the ridge, and the recesses 22 have a first end position 23, and a second end position 24, between which end positions 23, 24 the clamp 21 is slidable during opening and closing of the package 1 respectively. The re-

cesses 22 shown in fig. 4 are arranged parallel along the ridge.

[0031] Constrictions (not shown) can be arranged along the length of the recesses 22. These constrictions serve to provide a minor resistance for the protrusions 28 of the clamp 21, when the clamp 21 is pushed back and/or forth in the recesses 22 by the user. The constrictions can in this manner accomplish a state along the length of the recesses 22, in which the container can be in a partly opened state, between the completely opened and the closed state. This partly opened state can be used for limiting and controlling the dispensed product out of the container. The size of the constriction is selected such that the clamp 21 can be pushed past the constriction in case a partly opened state is not desired.

[0032] One of the first and second side panels 7, 8 has a projecting flap 25 on the upper part 4, forming part of the upper part 4 of the package. The projecting flap 25 is arranged for folding and attaching to the opposite side panel 7, 8 along an upper fold line 26, for closing of the package and attaching to the opposite side panel 7, 8. The recesses 22 extend through the package material, and are arranged in the projecting flap 25 and the opposite side panel 7 or 8, and alternatively also in the side panel 7 or 8, which is arranged to bear against the projecting flap 25.

[0033] The clamp 21 is arranged on the upper part 4 of the package. The clamp 21 is elongated and made of two panels 27, which are joined with each other at an angle α . The angle α is adapted to the shape of the ridge, to accomplish clamping between the inner sides 33 of the clamp 21 and the first upper panel 7, 8, and the projecting flap 25. The clamp 21 is formed to squeeze the gable folding together, as is showed in fig. 3, when its seal has been broken, to accomplish a sealed reclosure of the opened package.

[0034] The clamp 21 has at least one protrusions 28 arranged on the inner surface 33 of each panel. The protrusions 28 are arranged for engagement with the recesses 22, and for guided sliding therein when putting the container 1 between a closed or a completely or partly open state.

[0035] The clamp 21 is made of a flexible material to accomplish a snap-action between the protrusions 28 and the recesses 22. The clamp 21 and the protrusions 28 can advantageously be made in one piece. The flexible material can for example be paper board, which is laminated with several layers, or some kind of plastic like for example polyethylene, polypropylene etc.

[0036] The container 1 is made of a thick and rigid material and the clamp 21 can be made of a less rigid material to accomplish clamping action. The protrusions 28 on the clamp 21 are elongated, and extend parallel to the longitudinal extension of the clamp 21.

[0037] Means 29 for providing an improved grip during sliding of the clamp 21, during opening and closing of the package respectively, are provided on the external sides 35 of the clamp 21. The means 29 for improved grip can

for example be formed of depressions, projecting parts, etc., which increases the friction between the user's fingers and the clamp 21.

[0038] In the first position of the clamp 21, the first end 31 of the protrusion 28 can coincide with the first end position 23 of the recess 22, and in the second position of the clamp 21, the second end 32 of the protrusion 28 can coincide with the second end position 24 of the recess 22.

[0039] The measure A refers to the distance from one of the side edges 30 of the panels 27 of the clamp 21 to an end 31, 32 of a protrusion 28. The measure A is somewhat less than, or equal to, the measure C, which refers to the distance from one of the end panels 9, 10 of the package to an end of a recess 22.

[0040] Furthermore, the measure A together with the measure B from the side edge 30 of the clamp 21 to the end 31, 32 of the protrusion arranged furthest away from the side edge 30, is larger than the measure D, which refers to the distance between outer ends 23, 24 of the recesses 22 arranged furthest away from each other, for concealing of the recesses 22 in the open and closed state of the container respectively.

[0041] In fig. 6, an isometric view of an alternative embodiment of the clamp 21 according to the invention is shown. Contrary to fig. 5, the clamp 21 in fig. 6 has elongated protrusions 28, which are chamfered at one end 31, 32. The chamfering can be arranged in the first or second end 31, 32. According to fig. 6, the chamfering extends over the entire length of the protrusions 28. According to an embodiment different from the showed, the chamfering can extend over only a part of the length of the protrusions 28. According to yet another embodiment different from the showed, the protrusions can be chamfered at the ends 31, 32 of the protrusion 28, whereby the chamfered areas can join with each other at the centre area of the protrusion 28. A clamp shape according to any of these types can for example be suitable when the clamp 21 should be easy to remove from a container 1, which has an opening that extends over the entire upper part 4 of the container 1, which is the case when the container contains products what must be scooped out of the container 1.

Claims

1. Device for closing of a container comprising a closure, which device comprises:

- a container (1) made of a rigid material, wherein the container (1) has side parts (2), a bottom part (3) and an upper part (4) with at least one gable folding for forming an opening, and
- at least one clamp (21),
- wherein the clamp is slidably arranged on the closure of the container (1),
- wherein at least one recess (22) and at least

one protrusion (28) are arranged along the closure and on the clamp respectively, for guiding the clamp (21) between a first position and a second position between a completely or partly opened state and a closed state of the container (1) respectively, during infolding and unfolding of the gable folding respectively, and

- wherein the closure is formed by the upper part (4), which has first and second upper panels (5, 6), which are opposite and leaning toward each other,

characterized in that the first of the upper panels (5, 6) has a projecting flap (25) at the upper part (4) arranged for folding and attaching to the opposite second upper panel for forming a ridge, wherein the recesses (22) extend through and are arranged in the projecting flap (25).

2. Device according to claim 1, **characterized in that** the recesses (22) are arranged in the upper part (4) of the closure, and the protrusions (28) are arranged on the clamp (21). 20
3. Device according to claim 2, **characterized in that** the recesses (22) in the upper part (4) are arranged along the closure, and the recesses (22) have a first and a second end position. 25
4. Device according to claim 2 or 3, **characterized in that** the recesses (22) in the upper part (4) are arranged in parallel with the longitudinal direction of the closure. 30
5. Device according to any of claims 1-4, **characterized in that** the clamp (21) is arranged on the upper part (4), which clamp (21) is elongated and made of two panels (27) joined with each other at an angle, which angle is selected to accomplish clamping between the inner sides (33) of the clamp (21) and outer surfaces (35) of the first panel and the flap (25). 35
6. Device according to claim 5, **characterized in that** the clamp (21) has at least one protrusion (28) arranged on each inner side (33) of the panels (27), for guiding in a recess (22). 40
7. Device according to claim 5 or 6, **characterized in that** the clamp (21) is made of a flexible material to accomplish a snap-action between the protrusions (28) and the recesses (22). 45
8. Device according to claim 6 or 7, **characterized in that** the protrusions (28) of the clamp are elongated, and extend along the longitudinal direction of the clamp (21). 50
9. Device according to claim 8, **characterized in that**

the elongated protrusions (28) on the clamp (21) are chamfered at their first ends (31), and/or their second ends (32).

10. Device according to claims 6-7, **characterized in that** the protrusions of the clamp are point formed. 5
11. Device according to claim 6 or 7, **characterized in that** there are at least two protrusions (28) of the clamp on each panel (27), and point formed, and arranged along the longitudinal direction of the clamp (21). 10
12. Device according to any of claims 5-11, **characterized in that** the clamp (21) has on at least one of its external sides (35) means to provide an improved grip during sliding of the clamp (21), for putting the container (1) in a completely or partly open state and a closed state respectively. 15
13. Device according to any of claims 5-12, **characterized in that** the measure A from one of the side edges (30) of the panels (27) of the clamp to a protrusion (28), is less than the measure C from one of the side edges (7, 8) of the container to an end of the recess (22). 20
14. Device according to any of claims 5-13, **characterized in that** the measure A together with the measure B from the side edge (30) of the clamp (21) to the end (31, 32) of the protrusion arranged furthest away from the side edge (30), is larger than the measure D, which refers to the distance between the outer ends (23, 24) of the recesses (22) arranged furthest away from each other, for concealing the recesses (22) in the open and closed state of the container respectively. 25

40 Patentansprüche

1. Anordnung zum Schließen eines Behälters umfassend einen Verschluss, welche Anordnung umfasst:
 - einen aus einem steifen Material hergestellten Behälter (1), wobei der Behälter (1) Seitenteile (2), ein unteres Teil (3) und ein oberes Teil (4) mit zumindest einer Giebefaltung zur Bildung einer Öffnung aufweist, und
 - zumindest eine Klemme (21),
 - wobei die Klemme auf dem Verschluss des Behälters (1) gleitbar angeordnet ist (1),
 - wobei zumindest ein Schlitz (22) und zumindest ein Vorsprung (28) entlang dem Verschluss bzw. auf der Klemme vorgesehen sind, um während des Einfaltens bzw. Entfaltens der Giebefaltung die Klemme (21) zwischen einer ersten Position und einer zweiten Position zwischen ei-

nem völlig oder teilweise geöffneten Zustand bzw. einem geschlossenen Zustand des Behälters (1) zu führen, und

- wobei der Verschluss durch das obere Teil (4) gebildet ist, welches eine erste und eine zweite obere Platte (5, 6) aufweist, welche einander entgegengesetzt angeordnet sind und aneinander neigen,

dadurch gekennzeichnet, dass die erste der oberen Platten (5, 6) eine vorspringende Klappe (25) an dem oberen Teil (4) aufweist, welche zum Falten und Haften an der entgegengesetzten zweiten oberen Platte zur Bildung eines Grats vorgesehen ist, wobei sich die Schlitz (22) durch die vorspringende Klappe (25) hindurch erstrecken und in dieser angeordnet sind.

2. Anordnung nach Anspruch 1, **dadurch gekennzeichnet, dass** die Schlitz (22) in dem oberen Teil (4) des Verschlusses angeordnet sind, und die Vorsprünge (28) auf der Klemme (21) angeordnet sind.

3. Anordnung nach Anspruch 2, **dadurch gekennzeichnet, dass** die Schlitz (22) in dem oberen Teil (4) entlang dem Verschluss angeordnet sind, und die Schlitz (22) eine erste und eine zweite Endposition aufweisen.

4. Anordnung nach Anspruch 2 oder 3, **dadurch gekennzeichnet, dass** die Schlitz (22) in dem oberen Teil (4) parallel zur Längsrichtung des Verschlusses angeordnet sind.

5. Anordnung nach einem der Ansprüche 1 bis 4, **dadurch gekennzeichnet, dass** die Klemme (21) auf dem oberen Teil (4) angeordnet ist, welche Klemme (21) länglich und aus unter einem Winkel miteinander verbundenen zwei Platten (27) gebildet ist, welcher Winkel derart ausgewählt ist, dass ein Festspannen zwischen den Innenseiten (33) der Klemme (21) und den Außenseiten (35) der ersten Platte und der Klappe (25) bewerkstelligt wird.

6. Anordnung nach Anspruch 5, **dadurch gekennzeichnet, dass** die Klemme (21) zumindest einen Vorsprung (28) aufweist, welcher auf jeder Innenseite (33) der Platten (27) zum Führen in einen Schlitz (22) angeordnet ist.

7. Anordnung nach Anspruch 5 oder 6, **dadurch gekennzeichnet, dass** die Klemme (21) aus einem flexiblen Material gebildet ist, um eine Schnappverbindung zwischen den Vorsprüngen (28) und den Schlitz (22) zu bewerkstelligen.

8. Anordnung nach Anspruch 6 oder 7, **dadurch gekennzeichnet, dass** die Vorsprünge (28) der Klem-

me länglich sind und sich entlang der Längsrichtung der Klemme (21) erstrecken.

9. Anordnung nach Anspruch 8, **dadurch gekennzeichnet, dass** die länglichen Vorsprünge (28) auf der Klemme (21) an ihren ersten Enden (31) und/oder an ihren zweiten Enden (32) angeschragt sind.

10. Anordnung nach den Ansprüchen 6 bis 7, **dadurch gekennzeichnet, dass** die Vorsprünge der Klemme punktförmig sind.

11. Anordnung nach Anspruch 6 oder 7, **dadurch gekennzeichnet, dass** zumindest zwei Vorsprünge (28) der Klemme an jeder Platte (27) vorgesehen sind, welche punktförmig sind und entlang der Längsrichtung der Klemme (21) angeordnet sind.

12. Anordnung nach einem der Ansprüche 5 bis 11, **dadurch gekennzeichnet, dass** die Klemme (21) an zumindest einer ihrer Außenseiten (35) Mittel zum Vorsehen eines während des Gleitens der Klemme (21) verbesserten Griffs aufweist, um den Behälter (1) in einen völlig oder teilweise geöffneten Zustand bzw. einen geschlossenen Zustand zu bringen.

13. Anordnung nach einem der Ansprüche 5 bis 12, **dadurch gekennzeichnet, dass** das Maß A von einer der Seitenkanten (30) der Platten (27) der Klemme bis zu einem Vorsprung (28) kleiner als das Maß C von einer der Seitenkanten (7, 8) des Behälters bis zu einem Ende des Schlitz (22) ist.

14. Anordnung nach einem der Ansprüche 5 bis 13, **dadurch gekennzeichnet, dass** das Maß A zusammen mit dem Maß B von der Seitenkante (30) der Klemme (21) bis zum Ende (31, 32) des von der Seitenkante (30) am weitesten entfernt angeordneten Vorsprungs größer als das Maß D ist, welches sich auf den Abstand zwischen den äußeren Enden (23, 24) der am weitesten entfernt voneinander angeordneten Schlitz (22) bezieht, um die Schlitz (22) im geöffneten bzw. geschlossenen Zustand des Behälters zu verbergen.

Revendications

1. Dispositif pour la fermeture d'un récipient comprenant une fermeture, dispositif qui comprend:

- un récipient (1) réalisé en un matériau rigide, le récipient (1) présentant des parties latérales (2), une partie inférieure (3) et une partie supérieure (4) avec au moins un pignon de pliage pour former une ouverture, et
- au moins une pince (21),

- la pince étant agencée de manière coulissante sur la fermeture du récipient (1),
 - au moins un évidement (22) et au moins une saillie (28) étant disposés respectivement le long de la fermeture et sur la pince, pour le guidage de la pince (21) entre une première position et une deuxième position entre respectivement un état complètement ou partiellement ouvert et un état fermé du récipient (1) au cours respectivement du pliage et du dépliage du pignon de pliage, et
 - la fermeture étant formée par la partie supérieure (4), qui comporte des premier et deuxième panneaux supérieurs (5, 6), qui sont opposés l'un à l'autre et se penchent l'un vers l'autre,
- caractérisé en ce que** le premier des panneaux supérieurs (5, 6) comporte un rabat en saillie (25) à la partie supérieure (4) agencé pour plier et fixer au deuxième panneau supérieur opposé pour former une arête, les évidements (22) s'étendant à travers le rabat en saillie (25) et étant disposés dans celui-ci.
2. Dispositif selon la revendication 1, **caractérisé en ce que** les évidements (22) sont disposés dans la partie supérieure (4) de la fermeture, et les saillies (28) sont disposées sur la pince (21).
 3. Dispositif selon la revendication 2, **caractérisé en ce que** les évidements (22) dans la partie supérieure (4) sont disposés le long de la fermeture, et les évidements (22) présentent une première et une deuxième position d'extrémité.
 4. Dispositif selon la revendication 2 ou 3, **caractérisé en ce que** les évidements (22) dans la partie supérieure (4) sont disposés parallèlement à la direction longitudinale de la fermeture.
 5. Dispositif selon l'une quelconque des revendications 1 à 4, **caractérisé en ce que** la pince (21) est disposée sur la partie supérieure (4), ladite pince (21) étant allongé et composée de deux panneaux (27) réunis l'un avec l'autre à un angle, ledit angle étant choisi pour accomplir le serrage entre les côtés intérieurs (33) de la pince (21) et des surfaces extérieures (35) du premier panneau et du rabat (25).
 6. Dispositif selon la revendication 5, **caractérisé en ce que** la pince (21) présente au moins une saillie (28) disposée sur chaque côté intérieur (33) des panneaux (27), pour le guidage dans un évidement (22).
 7. Dispositif selon la revendication 5 ou 6, **caractérisé en ce que** la pince (21) est réalisée en un matériau souple pour accomplir une action brusque entre les saillies (28) et les évidements (22).
 8. Dispositif selon la revendication 6 ou 7, **caractérisé en ce que** les saillies (28) de la pince sont allongées, et s'étendent le long de la direction longitudinale de la pince (21).
 9. Dispositif selon la revendication 8, **caractérisé en ce que** les saillies allongées (28) sur la pince (21) sont chanfreinées au niveau de leurs premières extrémités (31), et/ou de leurs deuxième extrémités (32).
 10. Dispositif selon les revendications 6 à 7, **caractérisé en ce que** les saillies de la pince sont formées en pointe.
 11. Dispositif selon la revendication 6 ou 7, **caractérisé en ce qu'il y a** au moins deux saillies (28) de la pince sur chaque panneau (27), et formées en pointe, et disposées le long de la direction longitudinale de la pince (21).
 12. Dispositif selon l'une quelconque des revendications 5 à 11, **caractérisé en ce que** la pince (21) sur au moins l'un de ses côtés extérieurs (35) présente des moyens pour fournir une adhérence améliorée au cours du coulisement de la pince (21), pour mettre le récipient (1) respectivement dans un état totalement ou partiellement ouvert et dans un état fermé.
 13. Dispositif selon l'une quelconque des revendications 5 à 12, **caractérisé en ce que** la mesure d'A à partir d'un des bords latéraux (30) des panneaux (27) de la pince à une saillie (28), est inférieure à la mesure de C à partir de l'un des bords latéraux (7, 8) du récipient à une extrémité de l'évidement (22).
 14. Dispositif selon l'une quelconque des revendications 5 à 13, **caractérisé en ce que** la mesure d'A conjointement avec la mesure de B à partir du bord latéral (30) de la pince (21) à l'extrémité (31, 32) de la saillie disposée le plus éloigné du bord latéral (30), est supérieure à la mesure de D, qui se réfère à la distance entre les extrémités extérieures (23, 24) des évidements (22) disposés le plus loin l'un de l'autre, pour masquer les évidements (22) dans l'état respectivement ouvert et fermé du récipient.

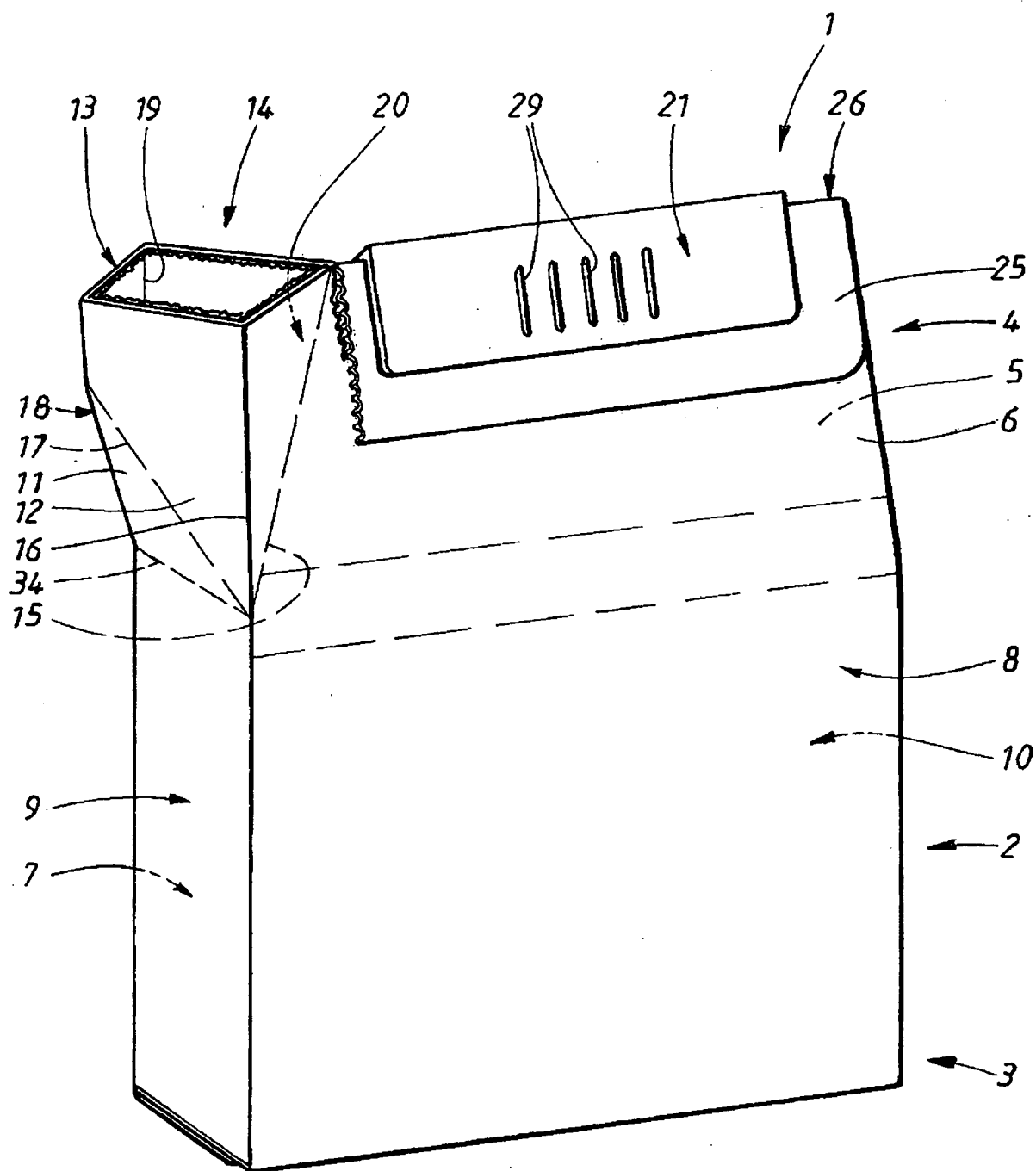
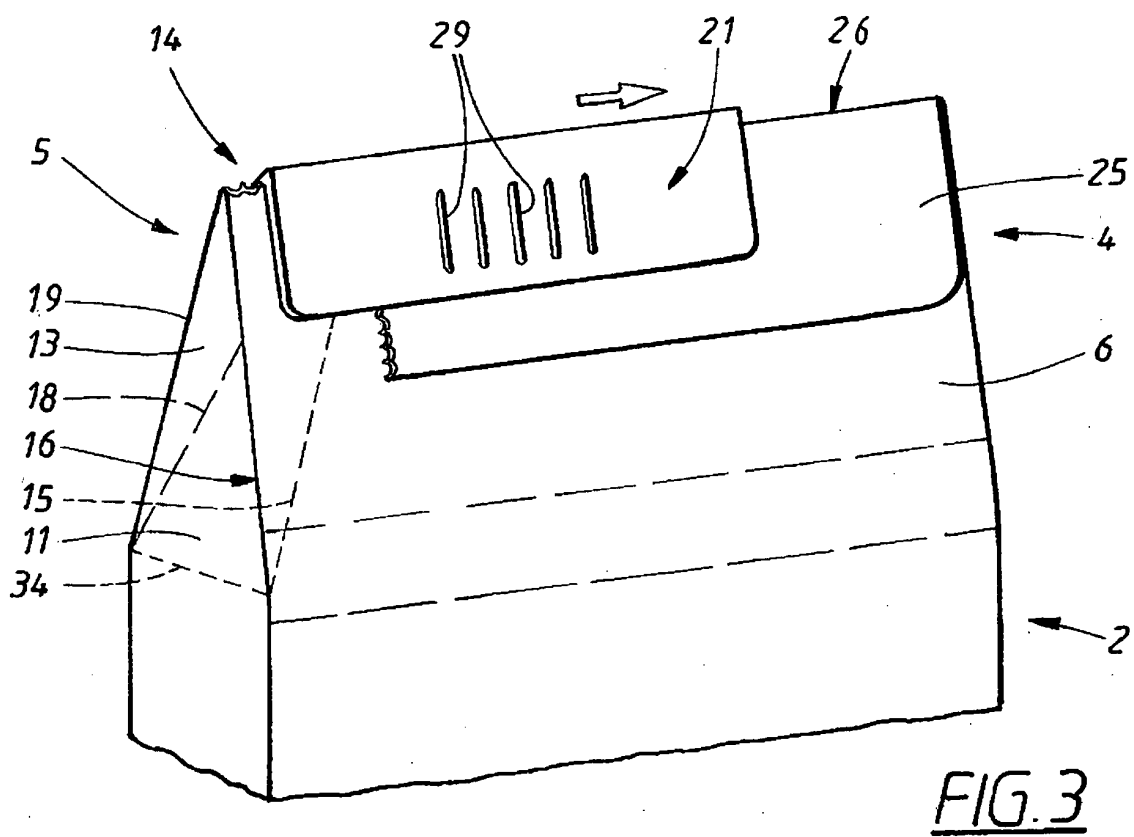
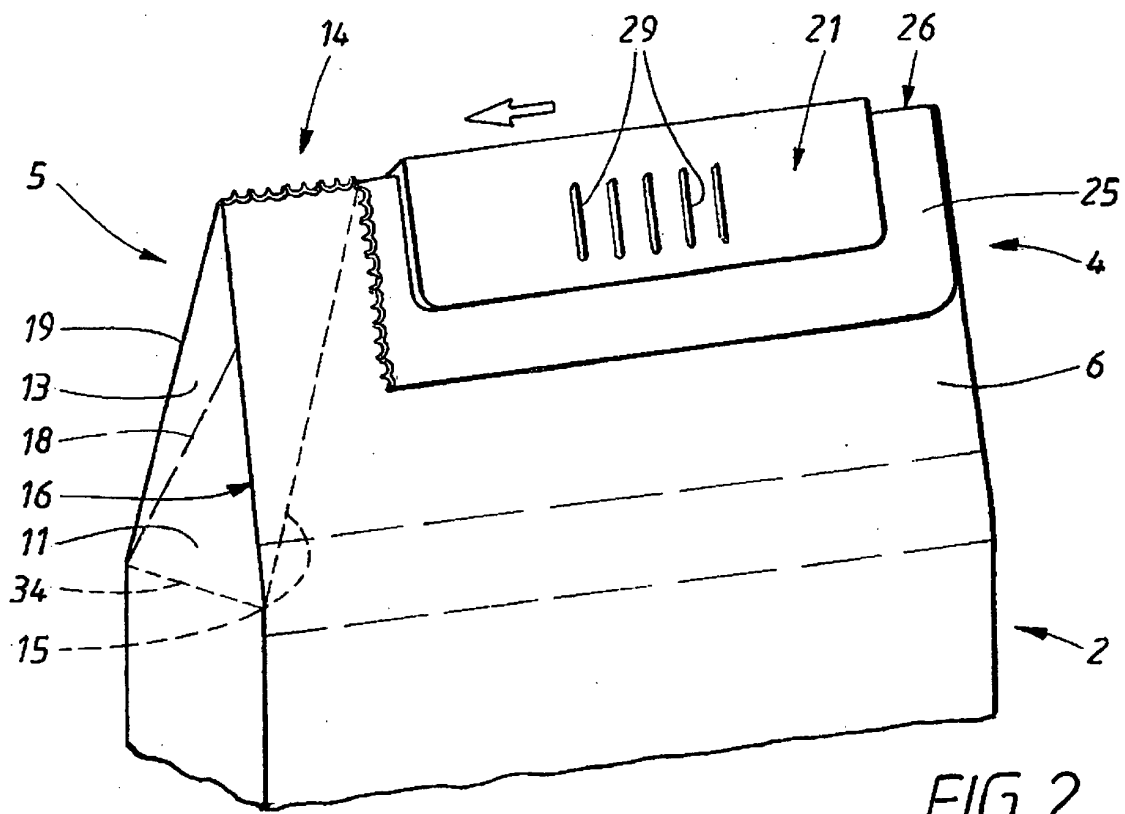
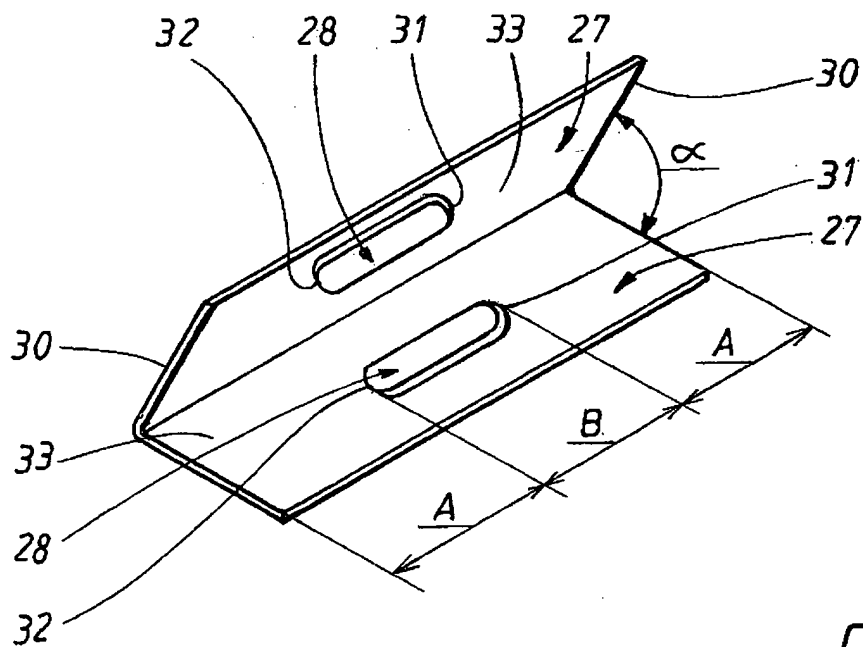
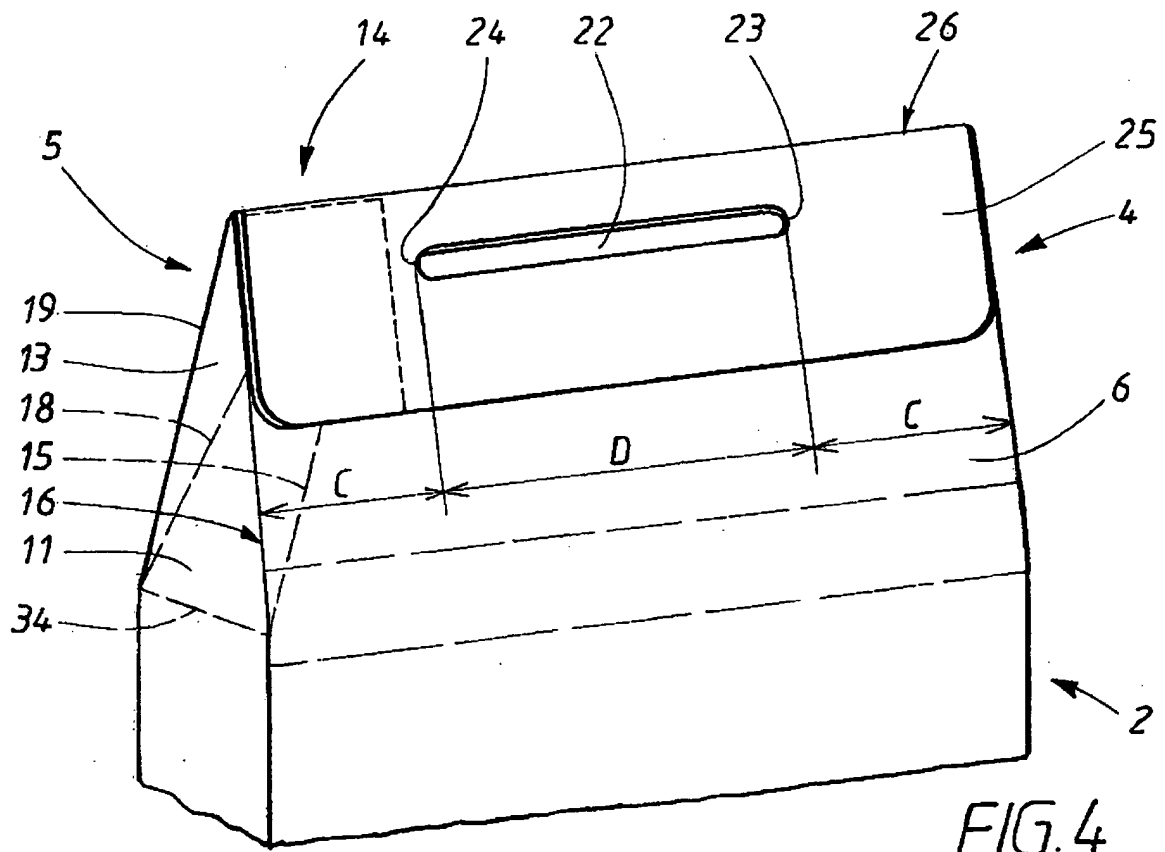


FIG. 1





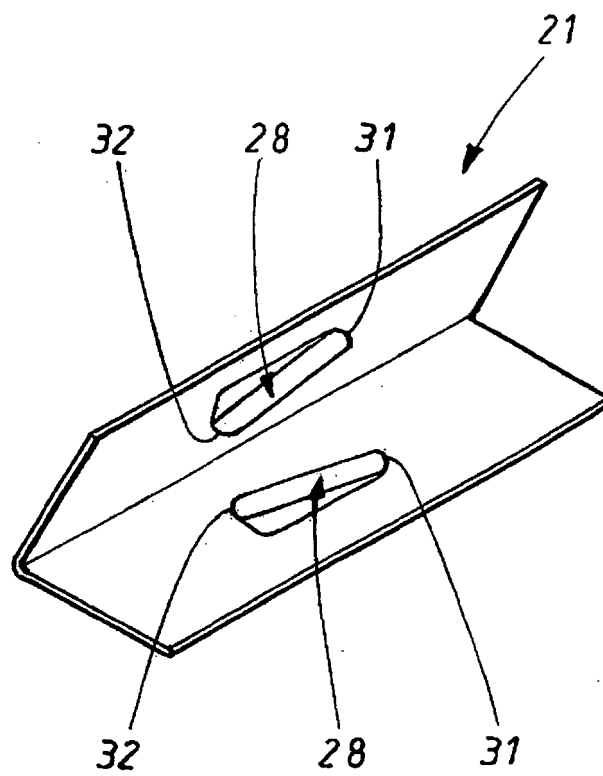


FIG. 6

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- US 3381883 A [0005] [0006]
- EP 0442035 A [0008]