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(54) **STAND-UP PACKAGING**

AUFRECHTSTEHENDE VERPACKUNG

EMBALLAGE DEBOUT

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(56) References cited:
WO-A1-93/15968
CH-A- 303 860
DE-A1- 19 831 863
GB-A- 855 449

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Description

[0001] The present invention relates to a stand-up packaging for food products having at least one pouch for carrying a food product and an outer packaging at least partially sandwiching the at least one pouch.

[0002] Such stand-up packagings are well-known in the prior art. To fix the sleeve or pouch to the outer packaging, present packagings use stapler or other mechanical fixing means or ultrasonic sealing, heat sealing or sewing. These techniques either require costly apparatuses and manufacturing processes and/or use additional fixing means like stapler which might end up in the food stored within the sleeve or pouch (foreign body). In addition the outer packaging cannot be separated from the pouch without destroying the pouch.

[0003] WO 93/15968 A1, GB 855 449 A, DE 198 31 863 A1 and CH 303 860 A disclose packagings of the prior art.

[0004] It is thus an object of the present invention to provide a stand-up packaging for food products as initially described in a simple, cost efficient manner and a consumer friendly way to dismantle the packaging.

[0005] The object is to be accomplished by means of the independent claim. The dependent claims advantageously study further the central idea of the present invention.

[0006] According to an aspect of the present invention, there is provided a stand-up packaging for food products according to claim 1. The stand-up packaging comprises at least one pouch for carrying a food product. The stand-up packaging further comprises an outer packaging having two (i.e. a first and a second) cover elements at least partially sandwiching the at least one pouch. The at least one pouch is penetrated by a through hole. The two cover elements are glued to each other (i.e. directly glued to each other) via (i.e. through) the through hole. Hence, the outer packaging or two cover elements can carry the at least one pouch.

[0007] This is obtained by the glue which extends through the through hole thus acting as a kind of plug or bolt being fixedly attached or connected (i.e. directly glued) to the opposite cover elements.

[0008] According to the present invention, the term "stand-up packaging" covers any kind of packages, which are by themselves and in particular by their design able to stand alone when being placed on a preferably flat ground e.g. doypack, gusseted bottom bag and flow wrap, preferably a doypack.

[0009] According to the present invention, the term "food products" covers any kind of consumable products, particularly any kind of consumable products which are generally carried and sold in such stand-up packages. The food products can have any consistency and may, for instance, be fluid, flowable, pasty, jellylike, powdered, solid and the like.

[0010] According to the present invention, the term "pouch" can be any kind of preferably deformable or flexible packaging for carrying a food product; i.e. it is made of a food safe material. In particular, it can be made of a sealable material to thus provide a closed and preferably hermetically sealed (e.g. air-tight) pocket for receiving the food product.

[0011] According to the present invention, the term "outer packaging" covers all kind of packagings to carry and/or enclose pouches as described herein above. The outer packaging is preferably made of cardboard or plastics. It is preferably imprinted to carry information with respect to the content (e.g. food product; meal) of the stand-up packaging, like pictures, texts (cooking recipe; ingredients; nutrition facts; etc.), barcodes and the like.

[0012] According to the present invention, any kind of "glue" can be used which allows a direct gluing connection between the respective cover elements to be connected via (i.e. through) the through hole.

[0013] According to the present invention, "glued [...] via the through hole" is to be understood as "glued [...] through the through hole", i.e. that the glue extents through the through hole to thus directly connect the elements being positioned opposite with respect to the through hole.

[0014] According to the present invention, "glued to each other" is to be understood as being "directly glued to each other", i.e. that the glued elements are directly glued and thus connected to one another by means of glue irrespective of the glue extending between these elements via (i.e. though) the through hole.

[0015] With respect to the present invention, it is possible to easily provide fixing means (by simple use of glue) to the outer packaging and at the same time connect the outer packaging with the pouch(es) to thus obtain a ready stand-up packaging carrying the pouch(es) and without the use of additional fixing means; i.e. in an easy and cost efficient manner. This comes about since glue can be easily provided from one outer side of the stand-up packaging and easily reaches the elements intended to be glued to each other as the glue is applied in a region of the through holes; as glue extends through the respective through holes, it may function as a kind of plug or bolt carrying and fixing the pouch(es) and thus allowing the pouch(es) to be securely attached to the outer packaging.

[0016] The at least one pouch may comprise a sealing region. This sealing region is provided to close at least part of the at least one pouch to securely carry the food product within the pouch. In a preferred embodiment, it is the sealing region which is penetrated with the through hole penetrating the at least one pouch, preferably in an upper portion of the pouch or sealing region. In a most preferred embodiment, the sealing region circumferentially surrounds the at least one pouch to form a pocket to carry the food product; preferably in a (hermetically) sealed manner. If the sealing region is penetrated with the through hole, the pocket is not affected by the through holes and - if hermetically sealed - remains sealed irrespective of the through holes penetrating the at least one

pouch.

[0017] The outer packaging further comprises a third cover element being at least partially sandwiched between the at least one pouch and one of the two cover elements (in the following also referred to as "the one cover element"). The third cover element is penetrated by a through hole as well. The through hole of the third cover element is provided in a region being sandwiched between the at least one pouch and the one cover element. This through hole may be aligned with the through hole(s) of the pouch(es). The two cover elements can thus be glued to each other via the through holes either respectively or at once if the through holes are aligned with each other.

[0018] In a preferred embodiment, the stand-up packaging may comprise a plurality of pouches for carrying a food product, respectively. The different pouches may carry different ingredients of a particular recipe/meal. Each pouch can be penetrated by a through hole preferably in the sealing region, if present. The two cover elements are then glued to each other via at least one and preferably via each of the through holes of the pouches (and of the third cover element, if present). It is thus possible to connect the two cover elements by being glued to each other via at least one of the through holes. Dependent on the arrangement of the pouches and in particular of the corresponding through holes, the two cover elements are glued to each other via at least one, a plurality or all of the through holes. In the latter case, the through holes may be aligned to one another so that the glue extends through all of the through holes to connect the cover elements to each other. It is, however, also possible that the pouches are arranged such that they or their through holes are off set with respect to each other such that at least one of the through holes allows the two cover elements to be directly glued to each other via said through hole. The other through holes might be arranged in a similar way and may thus also allow direct connection of the two cover elements by glue extending through the respective through holes. They may thus allow at least one of the two cover elements to be glued to the other cover element or - alternatively - to one of the pouches via at least one of these other through holes.

[0019] At least one of the through holes and preferably all of the through holes may comprise at least two or more distant through holes. In fact, the number of distant through holes per pouch or third cover element is not limited by the present invention. However, at least two distant through holes are preferred to allow for a secure fixation of the at least one pouch at at least two points thus reducing the effect of torque acting upon the glued fixing regions. In a preferred embodiment, the distant through holes of at least two and preferably all of the through holes are aligned to each other, respectively. This allows for an easy connection of the pouches to the outer packaging and in particular a connection of the two cover elements to each other via the through holes preferably being aligned with one another. Through holes of the pouches and the sleeve can be taken as a centering element during production.

[0020] In general, at least two and preferably all of the through holes can be aligned to each other. This only requires a small amount of glue for securely fixing the pouches and closing the outer packaging to obtain a completed stand-up packaging.

[0021] The shape of the through hole(s) is not limited.

[0022] However, the through hole and preferably each of the distant through holes can have a rounded or polygonal shape, like a circular, oval or square shape. These kinds of shapes can be easily manufactured.

[0023] At least one of the (e.g. first and second) cover elements may directly be glued to at least one of the (neighboring) at least one pouch and/or third cover element. This can preferably be obtained via at least one of the through holes. In other words, glue can also be provided in a region other than regions being aligned with (some of) the through holes to also allow for a secure fixation of a corresponding cover element with the corresponding (neighboring) element preferably having a through hole (e.g. the neighboring pouch or third cover element).

[0024] The glue being used for the stand-up packaging can be provided as glue dots or a line of glue at least partially covering the through holes. "At least partially covering" means that the glue must at least partially extend over the corresponding through holes to allow the two cover elements being glued to each other via said through holes. The glue, however, can also cover regions surrounding or between the through holes to allow for neighbouring elements to be glued to each other directly to thus provide a firm connection of these elements of the outer packaging and/or the outer packaging and the corresponding pouches.

[0025] According to the invention, at least one of the cover elements has a gluing region and a flap region being divided by a weakened tear-opening region. The tear-opening region is configured (in any desired manner) to allow separation of the gluing region and the flap region so that the flap region is released to allow access to the at least one pouch. The weakened tear-opening region can thus be provided as weakened (e.g. thinned) material region in the respective cover element. The weakened tear-opening region is removable to thus release the flap region to access the at least one pouch. Hence, a simple opening means can be integrally provided with the stand-up packaging. According to the invention, the outer packaging further comprises a flat base element for supporting the stand-up packaging. The base element can be integrally formed with at least one of the cover elements and may further preferred cover bottom regions (e.g. bottom rim portions or edges) of the pouches. The stand-up packaging thus provides a stable supporting region to carry the stand-up packaging, which preferably covers bottom regions of the pouches to protect the same.

[0026] The cover elements may be integrally provided

with each other to form an outer packaging having any desired layout. Preferred layouts of the outer packaging may be a U-shape, a loop-shape or a box-shape.

[0027] A U-shaped outer packaging can be obtained if the first and second cover elements are connected by a bending portion which extends over a lateral region (e.g. upper edge or rim portions) of the pouches.

[0028] A loop-shaped outer packaging may be obtained if the first and second cover elements are connected by a bending portion, preferably in an upper region of the outer packaging, as described for the U-shaped layout, and the second and third cover elements are connected to one another by a further bending portion, preferably in a bottom region of the outer packaging which extends over another lateral region (e.g. bottom edge or rim portions) of the pouches. Preferably, the first and third cover element overlap with one another, so that the third cover element is at least partially sandwiched between the (neighboring) pouch and the first cover element. This sandwiched region of the third cover element may function as a gluing region having the through hole(s). The bottom bending region connecting the second and third cover elements may be provided by or may comprise the base element of the outer packaging.

[0029] A box-shaped outer packaging may be obtained similar to the loop-shaped outer packaging but further comprising lateral cover elements, which may extend from one of the cover elements (e.g. the second or third cover elements) and are bent to extend to the opposite cover element (e.g. the other of the second or third cover elements) to which the lateral cover elements are preferably glued.

[0030] The invention, however, is not limited to a particular shape, but the outer packaging can have any possible shape as long as it allows preferably for its two outer cover elements to be glued to each other via through holes penetrating at least one of the at least one pouch being sandwiched by these cover elements.

[0031] The outer packaging and preferably at least one of the cover elements may comprise a cut-out region to expose at least one of the pouches. In other words, this cut-out region may function as an inspection window. In a preferred embodiment, the cut-out region is provided such that all of the contained pouches are visible through said cut-out region. Therefore, the pouches can have different lengths or can be provided in an offset manner, accordingly.

[0032] The pouches may be made of any food safe material suitable to carry food products.

[0033] They may be made of plastics. They are preferably at least partially and more preferred circumferentially sealed by the mentioned sealing region to thus (hermetically) seal the carried food products. In a preferred embodiment, the pouches are made of a deformable or flexible material. They can also be made of a transparent material so that the content can be easily inspected by a user. The outer packaging can be made of any material used for outer packagings for food products. In a most preferred embodiment, the outer packaging is made of cardboard or plastics.

[0034] Further, features, advantages and objects of the present invention would come apparent for the skilled person when reading the following detailed description of embodiments of the present invention, when taking in conjunction with the Figures of the enclosed drawings.

Figure 1 shows perspective views of two embodiments of a stand-up packaging according to the present invention with a loop-shaped outer packaging and without (figure 1a) and with a cut-out region (figure 1b),

Figure 2 shows perspective views of two further embodiments of a stand-up packaging according to the present invention with a U-shaped outer packaging and with similar (figure 2a) or different pouches (figure 2b),

Figure 3 shows perspective views of two further embodiments of a stand-up packaging according to the present invention with a box-shaped outer packaging and without (figure 3a) or with a cut-out region (figure 3b),

Figure 4 shows three steps of manufacturing a stand-up packaging according to figure 1a,

Figure 5 shows a plan view of an outer packaging of a stand-up packaging according to another embodiment of the present invention in an unfolded state,

Figure 6 shows three steps of manufacturing a stand-up packaging according to another embodiment of the present invention having an outer packaging according to figure 5,

Figure 7 shows a detail of two embodiments of a stand-up packaging based on figure 6 and comprising a line of glue (figure 7a) or glue dots (figure 7b).

[0035] In the figures there are shown different embodiments of a stand-up packaging 1 for food products according to the present invention. Food products can be any consumable products in any given state like a fluid, flowable, pasty, jellylike, powdered or solid state.

[0036] The stand-up packaging 1 comprises at least one or more pouches 2 for carrying a food product. These pouches 2 can, for instance, be made of a food safe material, preferably plastics. They can have any desired flexibility and tear strength commonly provided for such pouches 2. The pouches 2 are preferably made of a transparent material so that the user can inspect the contents thereof. The pouches 2 may have a sealing region 20. The sealing region 20 may circumferentially surround the

pouch 2 to form a pocket 21 to preferably sealingly carry the food product.

[0037] The stand-up packaging 1 further comprises an outer packaging 3 having two cover elements 31, 32 (here a first cover element 31 and a second cover element 32) at least partially sandwiching the pouch 2. The outer packaging 3 can be made of any material commonly used for outer packagings, like cardboard or plastics. The outer packaging 3 may carry an imprint to provide information about the stand-up packaging 1 and its content.

[0038] The outer packaging 3 further comprises a third cover element 33 being at least partially sandwiched between the pouch 2 and one of the two cover elements (here the first cover element 31).

[0039] With respect to figures 1 to 3, 5 and 6, the cover elements 31, 32, 33 can be integrally provided with each other to form the outer packaging 3. With respect to figure 2, the two cover elements 31, 32 are integrally provided with each other to form a U-shaped outer packaging 3.

[0040] Figure 1,4 and 6 show embodiments in which the three mentioned cover elements 31, 32, 33 are preferably integrally provided with each other to form a loop-shaped outer packaging 3. By overlap of the first cover element 31 and the third cover element 33, the overlapping regions can be secured to each other to provide a closed loop-shaped outer packaging 3 securely surrounding the pouches 2.

[0041] The embodiment of figure 3 shows a further layout of the outer packaging 3 having a box-shape. This can, for instance, be obtained by the outer packaging 3 having the three mentioned cover elements 31, 32, 33 and further having lateral cover elements 34 to at least partially cover the lateral sides of the stand-up packaging 1 to thus provide a stable stand-up packaging 1 securely housing the pouches 2. Preferably, these cover elements 31 to 34 are all integrally formed.

[0042] According to the invention, the outer packaging 3 further comprises a flat base element 35 for supporting the stand-up packaging 1. This base element 35 may also be integrally formed with at least one and preferably all of the cover elements (here with all of the other cover elements 31 to 34). As can be clearly seen in figures 1 and 3, the base element 35 preferably covers bottom regions of the pouches 2.

[0043] To easily manufacture the stand-up packaging 1, the cover elements 31 to 35 can be connected by bending regions 37 for facilitating folding of the outer packaging 3 into its final shape to obtain the stand-up packaging 1.

[0044] In a preferred embodiment, the bending region 37 connecting the base element 35 with the neighbouring cover elements 32, 33 may comprise contoured cut-out regions 38 which are outwardly exposed in the folded state of the outer packaging 3 constituting supporting feet 39 of the stand-up packaging 1 (see figure 6).

[0045] As can be clearly seen in figure 4a, the pouch 2 or the pouches 2 is/are penetrated by through hole(s) 22, respectively. The through hole 22 can have any shape, e.g. a rounded or polygonal shape. In the shown embodiment of figures 4, 6 and 7, the through hole 22 has an oval shape. However, the shape can also be circular or can be square or of any other shape.

[0046] As can be derived from figure 4b, the two cover elements (i.e. the first cover element 31 and the second cover element 32) are glued (G) to each other by glue G via the through hole(s) 22. The glue G thus forms kind of bolt or plug to allow the outer packaging 3 to carry the pouch(es) 2.

[0047] As can be clearly seen in figure 4a, it is preferably the sealing region 20 of the pouches 2 which is penetrated with the through hole(s) 22. Hence, the food product will not be affected by fixing of the pouches 2 to the outer packaging 3 and in particular by the glue G used therefore.

[0048] According to the invention, the third cover element 33 is penetrated by a through hole 36 in a region 331 being sandwiched between the at least one pouch 2 and one of the two cover elements (here the first cover element 31).

[0049] If a plurality of pouches 2 is present, each pouch 2 may be penetrated by at least one through hole 22; preferably in its sealing region 20.

[0050] The two cover elements 31, 32 are glued to each other via at least one and preferably via each of the through holes 22 of the pouches 2 and also via the through hole 36 of the third cover element 33 as can be seen, for instance, in figure 4.

[0051] At least two and preferably all of the through holes 22, 36 can be aligned to each other.

[0052] This applies for the through holes 22 of the pouches 2 and also for the through hole(s) 36 of the third cover element 33 with respect to at least one of the through holes 22 of the pouch(es) 2. In the shown embodiments and particularly with respect to figure 4a and 4b, all of the through holes 22, 36 are aligned to each other. The cover elements 31, 32 are then glued to each other via each of the through holes 22, 36 at once. However, it is also possible that the through holes 22, 36 or the respective elements carrying the through holes 22, 36 (i.e. the pouches 2 and/or the third cover element 33) are offset with respect to one another. If so, at least one of the pouches is provided with its through hole 22 such that the two cover elements 31, 32 are directly glued to each other via this through hole 22. According to the invention, even with an offset layout, the through holes 22, 36 are provided such that the two cover elements 31, 32 are glued to each other via at least some and preferably all of these through holes 22, 36. It might also be possible that some of the through holes 22, 36 are provided such that at least one of the cover elements (preferably the first cover element 31) is glued via said through hole 22, 36 to one of the pouches with which an intermediate pouch 2 carrying said offset through hole 22, 36 is sandwiched.

[0053] As can be gathered from figures 5 to 7, at least one of the through holes 22, 36 and preferably all through

holes 22, 36 comprise at least two or even more of distant through holes 361, 362. The distant through holes 361, 362 of at least two through holes 22, 36 and preferably of all of the through holes 22, 36 are aligned to each other, respectively, so that the two cover elements 31, 31 are directly glued to each other via each of an aligned group of distant through holes 361, 362, respectively. The provision of at least two distant through holes 361, 362 allows for a stable fixation of the pouches 2 to the outer packaging 3 and may reduce the risk of twisting moments acting upon the glued fixation of the two cover elements 31, 32 via the through hole(s) 22 of the pouch(es) 2.

[0054] As can be exemplarily seen in Figure 7, glue G can be provided in different ways. For instance, glue G can be provided as glue dots (Figure 7b) or as a line of glue (Figure 7a). In any case, the glue G at least partially covers the through holes 22, 36. With the provision of glue dots as shown in figure 7b, a reduced amount of glue G can be provided to allow for a secure fixation and closing of the stand-up packaging 1. The use of a line of glue as shown in Figure 7a allows for a quick and easy application of glue G on the stand-up packaging 1.

[0055] As can be seen in the embodiments of figure 7, there is provided glue G in and via (i.e. through) the through holes 22, 36. In addition, there can also be provided glue G directly on one of the elements neighboring one of the two cover elements 31 (here on the third cover element 33; alternatively or additionally on the pouch(es) 2). In this regard, at least one of the two cover elements 31, 32 - here preferably the first cover element 31 - can be directly glued to at least one of the (neighboring) elements (here to the third cover element 33; alternatively or additionally to the pouch(es) 2. This either directly by flat contact and glue G being provided between these elements as shown in figure 7 or via a through hole 22, 36 provided in an intermediate element (e.g. pouch 2 and/or third cover element 33) being sandwiched by the corresponding cover element 31 and the respective element.

[0056] As can be seen in Figure 5 and 6, at least one of the cover elements - here the first cover element 31 - may comprise different functional regions. In particular, the cover element 31 may comprise a gluing region 310 forming the region being glued to the opposite cover element 32 via the through holes 22, 36. The first cover element 31 may further have a flap region 311, which is divided from the gluing region 310 by a weakened tear-opening region 312. The tear-opening region 312 can be configured in any desired manner to allow separation of the gluing region 310 and the flap region 311. In a preferred embodiment, the tear-opening region 312 is provided such that it is removable from the stand-up packaging 1 in a destructive or non-destructive manner to thus release the flap region 311 to access the pouches 2 in the stand-up packaging 1.

[0057] As can be further seen in Figures 1b and 3b, the outer packaging, preferably at least one of the cover elements - here the third cover element 33 -, may comprise a cut-out region 330 to expose at least one of the pouches 2. The cut-out region 330 may thus form an inspection window to allow the user inspection of the content of the corresponding pouches 2. The cut-out region 330 is here shown as a circular window. However, neither the shape nor the position nor the dimension of the cut-out region 330 is limited by the present invention. Inspection of the pouches 2 may alternatively or additionally be enhanced if the pouches 2 are provided such that they do only partially overlap with one another as can, for instance, be seen in Figure 2b. Here, the partial overlap is obtained by the pouches 2 having different dimension and/or shapes to thus allow at least part of the respective pouches 2 being outwardly exposed. Alternatively or additionally, the pouches 2 may also be offset with respect to one another.

[0058] Figure 6 shows a most preferred embodiment of the present invention. Here, the stand-up packaging 1 for food products comprises a (one) pouch 2 for carrying a food product. Further, the stand-up packaging 1 comprises an outer packaging 3 having a generally loop-shaped layout. Therefore, different cover elements 31, 32, 33, 35 are integrally formed with each other and bend 37 to obtain the loop-shape. The packaging 3 comprises two cover elements 31, 32 at least partially sandwiching the pouch 2. Moreover, the packaging 3 comprises a further element being a third cover element 33 of the packaging 3 which is at least partially sandwiched between the pouch 2 and the first cover element 31. Second cover element 32 and third cover element 33 are connected by a further cover element being a flat base element 35 for supporting/carrying the stand-up packaging 1. First cover element 31 and the third cover element 33 overlap with each other in an overlapping region. In this overlapping region, these cover elements 31, 33 can be connected (e.g. glued) to each other to form a closed loop-shape packaging 3. The pouch 2 and - in the shown embodiment - also the third cover element 33 are each penetrated by a through hole 22, 36 comprising two distant through holes 361, 362, respectively (only the distant through holes 361, 362 of the third cover element 36 are shown). The two outer cover elements 31, 32 at least partially sandwiching the third cover element 33 and the pouch 2, i.e. the first cover element 31 and the second cover element 32, are glued (via glue G in form of glue dots or a line of glue or the like) to each other via (i.e. through) the through holes 22, 36 of the third cover element 33 and of the pouch 2. The glue G provided to glue the first cover element 31 and the second cover element 32 directly to one another via (i.e. through) said through holes 22, 36 of the third cover element 33 and the pouch 2 can be provided such that it also covers regions of the third cover element 33 facing the first cover element 31 surrounding or between the through holes 36 of the third cover element 33. The glue G used for connecting the first cover element 31 with the second cover element 32 can thus also be used to fix the first cover element 31 to

the third cover element 33 thus obtaining the closed loop-shaped packaging 3. The first cover element 31 can comprise a gluing region 310 forming part of the overlapping region. The gluing region 310 is the region overlapping with the through holes 22, 36 of the third cover element 33 and the pouch 2 to be directly glued G to the second cover element 32 via said through holes 22, 36. The first cover element 31 may then further comprise a flap region 311 being connected to the gluing region 310 by a weakened tear-opening region 312 being removable to thus release the flap region 311 to access the pouch 2. The flap region 311 is therefore connected to the second cover element 32 via a bending region 37 to allow optional opening of the packaging 3 by bending the flap region 311 with respect to the second cover element 32 to thus access the pouch 2.

[0059] Figures 4 and 6 show examples of manufacturing the stand-up packaging 1 according to the present invention. In a first step, the pouches 2 and the outer packaging 3 (here having the first to third cover elements 31, 32, 33) are positioned with respect to each other. In particular, the through holes 22, 36 of the respective elements (pouches 2 and third cover element 33) are provided such that at least via one of the through holes 22, 36 the second cover element 32 is accessible/visible. In the shown embodiment, all of the through holes 22, 36 are aligned to one another so that the second cover element 32 is accessible/visible through the whole group of aligned through holes 22, 36. In a next step, glue G is provided such that it at least partially covers the through holes 22, 36 and extends through the through holes 22, 36. As such, glue G is applied to the second cover element 32. This can be done either by a glue nozzle N, which is inserted through the through holes 22, 36 to be positioned on or close to the second cover element 32, where glue G can be applied onto the second cover element 32. When retracting the glue nozzle N out of the through holes 22, 36, glue can be further applied to thus provide glue G from the second cover element 32 through the through holes 22, 36. In another embodiment, glue G can also be applied as a line of glue G. Therefore, a glue nozzle can be moved in a direction in parallel with a plane of at least one of the cover elements 31, 32, 33 or pouches 2 such that glue G is applied to cover at least one and preferably all of the through holes 22, 36. In a preferred embodiment, also regions surrounding the through holes 22, 36 or therebetween can be applied with glue G either by the defined line of glue (see figure 7a) or by glue dots (see figure 7b) or the like. This allows for additional fixation of neighboring elements (here first and third cover elements 31, 33) as described in the following. After having applied the glue G to the stand-up packaging 1, the opposing cover element - here the first cover element 31 - is positioned or moved into its final position to form the completed stand-up packaging 1. In the shown embodiments, the outer packaging 3 is integrally formed so that the outer packaging 3 is "closed" by simply bending the first cover element 31 via a bending region 37 over the upper rim portions of the pouches 2 to be thus positioned opposite to the second cover element 32. In a preferred embodiment, a gluing region 310 of the first cover element 31 is thus placed in a region where glue G extends from the second cover element 32 through the through holes 22, 36 to thus glue these two cover elements 31, 32 to each other via the respective through holes 22, 36.

[0060] The present invention is not limited by the embodiments as described hereinabove, as long as being covered by the appended claims. All the features of the embodiments described herein above can be combined in any possible way and can be interchangeably provided. If the singular form for the features like "through hole" or "pouch" or "cover element" is used in the present invention, it also covers its plural form like "through holes" or "pouches" or "cover elements", respectively.

Claims

1. Stand-up packaging (1) for food products comprising:

   at least one pouch (2) for carrying a food product, and
   an outer packaging (3) having two cover elements (31, 32) at least partially sandwiching the at least one pouch (2),
   wherein the at least one pouch (2) is penetrated by a through hole (22), wherein the outer packaging (3) further comprises a third cover element (33) being at least partially sandwiched between the at least one pouch (2) and one of the two cover elements (31).
   said stand-up packaging (1) being **characterised in that**:

      the third cover element (33) is penetrated by a through hole (36) in a region (331) being sandwiched between the at least one pouch (2) and the one cover element (31), and
      the two cover elements (31, 32) are glued (G) to each other via the through holes (22, 36) , and
      at least one of the cover elements (31) has a gluing region (310) and a flap region (311) being divided by a weakened tear-opening region (312), the tear-opening region (312) being configured , by being removable, to allow separation of the gluing region (310) and the flap region (311), to thus release the flap region (311) to access the at least one pouch (2), and
      the outer packaging (3) further comprises a flat base element (35) for supporting the stand-up packaging (1), wherein the base

element (35) is preferably integrally formed with at least one of the cover elements (32, 33) and further preferably covers bottom regions of all of the at least one pouch (2).

2. Stand-up packaging (1) according to claim 1, wherein the at least one pouch (2) comprises a sealing region (20), wherein preferably the sealing region (20) is penetrated with the through hole (22) penetrating the at least one pouch (2).

3. Stand-up packaging (1) according to claim 2, wherein the sealing region (20) circumferentially surrounds the at least one pouch (2) to form a pocket (21) to preferably sealingly carry the food product.

4. Stand-up packaging (1) according to any one of the preceding claims, comprising a plurality of pouches (2) for carrying a food product, respectively,

wherein each pouch (2) is penetrated by a through hole (22) preferably in a sealing region (20),
wherein the two cover elements (31, 32) are glued to each other via at least one and preferably via each of the through holes (22) of the pouches (2).

5. Stand-up packaging (1) according to claim 4, wherein at least two and preferably all of the through holes (22, 36) are aligned to each other.

6. Stand-up packaging (1) according to any one of the preceding claims, wherein at least one of the through holes (22, 36) comprises at least two or more of distant through holes (361, 362),
wherein preferably the distant through holes (361, 362) of at least two through holes (22, 36) are aligned to each other, respectively.

7. Stand-up packaging (1) according to any one of the preceding claims, wherein the through holes (22, 36) have, and preferably said stand-up packaging is according to claim 6 and each distant through hole (361, 362) has , a rounded or polygonal shape, like a circular, oval or square shape.

8. Stand-up packaging (1) according to any one of the preceding claims, wherein at least one of the two cover elements (31, 32) is directly glued (G) to at least one of the at least one pouch (2) and/or third cover element (33), preferably via at least one of the through holes (22, 36).

9. Stand-up packaging (1) according to any one of the preceding claims, wherein glue (G) is provided as glue dots or a line of glue at least partially covering the through holes (22, 36).

10. Stand-up packaging (1) according to any one of the preceding claims, wherein the cover elements (31, 32, 33) are integrally provided with each other, and/or wherein the outer packaging (3) has a U-shape, loop-shape or box-shape.

11. Stand-up packaging (1) according to any one of the preceding claims, wherein the outer packaging (3), preferably at least one of the cover elements (33) , comprises a cut-out region (330) to expose at least one of the at least one pouch (2).

12. Stand-up packaging (1) according to any one of the preceding claims, wherein the at least one pouch (2) is made of a food safe material, preferably plastics, more preferred a flexible material and even more preferred a transparent material, and/or wherein the outer packaging (3) is made of cardboard or plastics.

Patentansprüche

1. Aufrechtstehende Verpackung (1) für Lebensmittelprodukte, umfassend:

mindestens einen Beutel (2) zum Tragen eines Lebensmittelprodukts und
eine Umverpackung (3), die zwei Abdeckelemente (31, 32) aufweist, die mindestens teilweise zwischen dem mindestens einen Beutel (2) sandwichartig angeordnet sind, wobei der mindestens eine Beutel (2) von einem Durchgangsloch (22) durchdrungen ist, wobei die Umverpackung (3) ferner ein drittes Abdeckelement (33) umfasst, das mindestens teilweise sandwichartig zwischen dem mindestens einen Beutel (2) und einem der beiden Abdeckelemente (31) angeordnet ist, wobei die aufrechtstehende Verpackung (1) **dadurch gekennzeichnet ist, dass**:

das dritte Abdeckungselement (33) von einem Durchgangsloch (36) in einem Bereich (331) durchdrungen ist, der sandwichartig zwischen dem mindestens einen Beutel (2) und dem einen Abdeckelement (31) angeordnet ist, und
wobei die beiden Abdeckelemente (31, 32) über die Durchgangslöcher (22, 36) miteinander verklebt sind (G) und mindestens eines der Abdeckelemente (31) einen Klebebereich (310) und einen Laschenbereich (311) aufweist, die durch einen geschwächten Aufreißbereich (312) geteilt sind, wobei der Aufreißbereich (312) so konfiguriert ist, dass er entfernbar ist, um eine Trennung des Klebebereichs (310) und des Laschenbereichs (311) zu ermöglichen, um somit

den Laschenbereich (311) freizugeben, um auf mindestens einen Beutel (2) zuzugreifen, und
die Umverpackung (3) ferner ein flaches Bodenelement (35) zum Abstützen der aufrechtstehenden Verpackung (1) umfasst, wobei das Bodenelement (35) vorzugsweise einteilig mit mindestens einem der Abdeckelemente (32, 33) ausgebildet ist und ferner vorzugsweise Bodenbereiche aller des mindestens einen Beutels (2) abdeckt.

2. Aufrechtstehende Verpackung (1) nach Anspruch 1, wobei der mindestens eine Beutel (2) einen Dichtungsbereich (20) umfasst, wobei vorzugsweise der Dichtungsbereich (20) mit dem Durchgangsloch (22) durchdrungen ist, das den mindestens einen Beutel (2) durchdringt.

3. Aufrechtstehende Verpackung (1) nach Anspruch 2, wobei der Dichtungsbereich (20) den jeweiligen Beutel (2) in Umfangsrichtung umgibt, um eine Tasche (21) zum vorzugsweise abgedichteten Tragen des Lebensmittelprodukts zu bilden.

4. Aufrechtstehende Verpackung (1) nach einem der vorstehenden Ansprüche, umfassend eine Vielzahl von Beuteln (2) zum Tragen eines Lebensmittelprodukts, wobei jeder Beutel (2) von einem Durchgangsloch (22) vorzugsweise in einem Dichtungsbereich (20) durchdrungen ist, wobei die beiden Abdeckelemente (31, 32) über mindestens eines und vorzugsweise über jedes der Durchgangslöcher (22) der Beutel (2) miteinander verklebt sind.

5. Aufrechtstehende Verpackung (1) nach Anspruch 4, wobei mindestens zwei und vorzugsweise alle Durchgangslöcher (22, 36) zueinander ausgerichtet sind.

6. Aufrechtstehende Verpackung (1) nach einem der vorstehenden Ansprüche, wobei mindestens eines der Durchgangslöcher (22, 36) mindestens zwei oder mehr von entfernten Durchgangslöchern (361, 362) umfasst, wobei vorzugsweise die entfernten Durchgangslöcher (361, 362) von jeweils mindestens zwei Durchgangslöchern (22, 36) zueinander ausgerichtet sind.

7. Aufrechtstehende Verpackung (1) nach einem der vorstehenden Ansprüche, wobei die Durchgangslöcher (22, 36) eine abgerundete oder polygonale Form wie z. B. eine kreisförmige, ovale oder quadratische Form, aufweisen und wobei die aufrechtstehende Verpackung vorzugsweise nach Anspruch 6 ausgeführt ist und jedes entfernte Durchgangsloch (361, 362) eine abgerundete oder polygonale Form wie z. B. eine kreisförmige, eine ovale oder eine quadratische Form aufweist.

8. Aufrechtstehende Verpackung (1) nach einem der vorstehenden Ansprüche, wobei mindestens eines der beiden Abdeckelemente (31, 32) mit mindestens einem des mindestens einen Beutels (2) direkt und/oder mit dem dritten Abdeckelement (33) vorzugsweise über mindestens eines der Durchgangslöcher (22, 36) verklebt (G) ist.

9. Aufrechtstehende Verpackung (1) nach einem der vorstehenden Ansprüche, wobei Klebstoff (G) als Klebstoffpunkte oder eine Klebstofflinie bereitgestellt ist, die die Durchgangslöcher (22, 36) mindestens teilweise bedecken/bedeckt.

10. Aufrechtstehende Verpackung (1) nach einem der vorstehenden Ansprüche, wobei die Abdeckelemente (31, 32, 33) einteilig miteinander bereitgestellt sind und/oder wobei die Umverpackung (3) eine U-Form, eine Schlaufenform oder eine Kastenform aufweist.

11. Aufrechtstehende Verpackung (1) nach einem der vorstehenden Ansprüche, wobei die Umverpackung (3), vorzugsweise mindestens eines der Abdeckelemente (33), einen ausgeschnittenen Bereich (330) zum Freilegen mindestens eines der Beutel (2) aufweist.

12. Aufrechtstehende Verpackung (1) nach einem der vorstehenden Ansprüche, wobei der mindestens eine Beutel (2) aus einem lebensmittelechten Material, vorzugsweise Kunststoff, mehr bevorzugt einem flexiblen Material und noch mehr bevorzugt einem transparenten Material, hergestellt ist und/oder wobei die Umverpackung (3) aus Karton oder Kunststoff hergestellt ist.

Revendications

1. Emballage vertical (1) pour produits alimentaires comprenant :

au moins une poche (2) destinée à contenir un produit alimentaire, et
un emballage externe (3) ayant deux éléments de couverture (31, 32) prenant en sandwich au moins partiellement l'au moins une poche (2),
dans lequel l'au moins une poche (2) est pénétrée par un trou traversant (22), dans lequel l'emballage externe (3) comprend en outre un troisième élément de couverture (33) étant au moins partiellement pris en sandwich entre l'au moins une poche (2) et l'un des deux éléments de couverture (31),
ledit emballage vertical (1) étant **caractérisé en**

ce que :

le troisième élément de couverture (33) est pénétré par un trou traversant (36) dans une région (331) prise en sandwich entre l'au moins une poche (2) et ledit élément de couverture (31), et
les deux éléments de couverture (31, 32) sont collés (G) l'un à l'autre par l'intermédiaire des trous traversants (22, 36), et au moins l'un des éléments de couverture (31) dispose d'une région d'encollage (310) et d'une région de rabat (311) étant divisées par une région affaiblie d'ouverture par déchirement (312), la région d'ouverture par déchirement (312) étant configurée, en étant amovible, pour permettre la séparation de la région d'encollage (310) et de la région de rabat (311), pour libérer ainsi la région de rabat (311) pour accéder à l'au moins une poche (2) ; et
l'emballage extérieur (3) comprend en outre un élément de base plat (35) destiné à supporter l'emballage vertical (1), dans lequel l'élément de base (35) est de préférence formé d'un seul tenant avec au moins l'un des éléments de couverture (32, 33) et recouvre en outre de préférence des régions inférieures de toutes de l'au moins une poche (2).

2. Emballage vertical (1) selon la revendication 1, dans lequel l'au moins une poche (2) comprend une région d'étanchéité (20), dans lequel de préférence la région d'étanchéité (20) est pénétrée par le trou traversant (22) pénétrant l'au moins une poche (2).

3. Emballage vertical (1) selon la revendication 2, dans lequel la région d'étanchéité (20) entoure de manière circonférentielle l'au moins une poche (2) pour former une pochette (21) pour contenir de préférence de manière étanche le produit alimentaire.

4. Emballage vertical (1) selon l'une quelconque des revendications précédentes, comprenant une pluralité de poches (2) destinées à contenir un produit alimentaire, respectivement, dans lequel chaque poche (2) est pénétrée par un trou traversant (22) de préférence dans une région d'étanchéité (20),
dans lequel les deux éléments de couverture (31, 32) sont collés l'un à l'autre par l'intermédiaire d'au moins un et de préférence par l'intermédiaire de chacun des trous traversants (22) des poches (2).

5. Emballage vertical (1) selon la revendication 4, dans lequel au moins deux et de préférence tous les trous traversants (22, 36) sont alignés les uns par rapport aux autres.

6. Emballage vertical (1) selon l'une quelconque des revendications précédentes, dans lequel au moins l'un des trous traversants (22, 36) comprend au moins deux trous traversants distants (361, 362) ou plus,
dans lequel de préférence les trous traversants distants (361, 362) d'au moins deux trous traversants (22, 36) sont alignés les uns par rapport aux autres, respectivement.

7. Emballage vertical (1) selon l'une quelconque des revendications précédentes, dans lequel les trous traversants (22, 36) présentent, et de préférence ledit emballage vertical est selon la revendication 6 et chaque trou traversant distant (361, 362) présente, une forme arrondie ou polygonale, telle qu'une forme circulaire, ovale ou carrée.

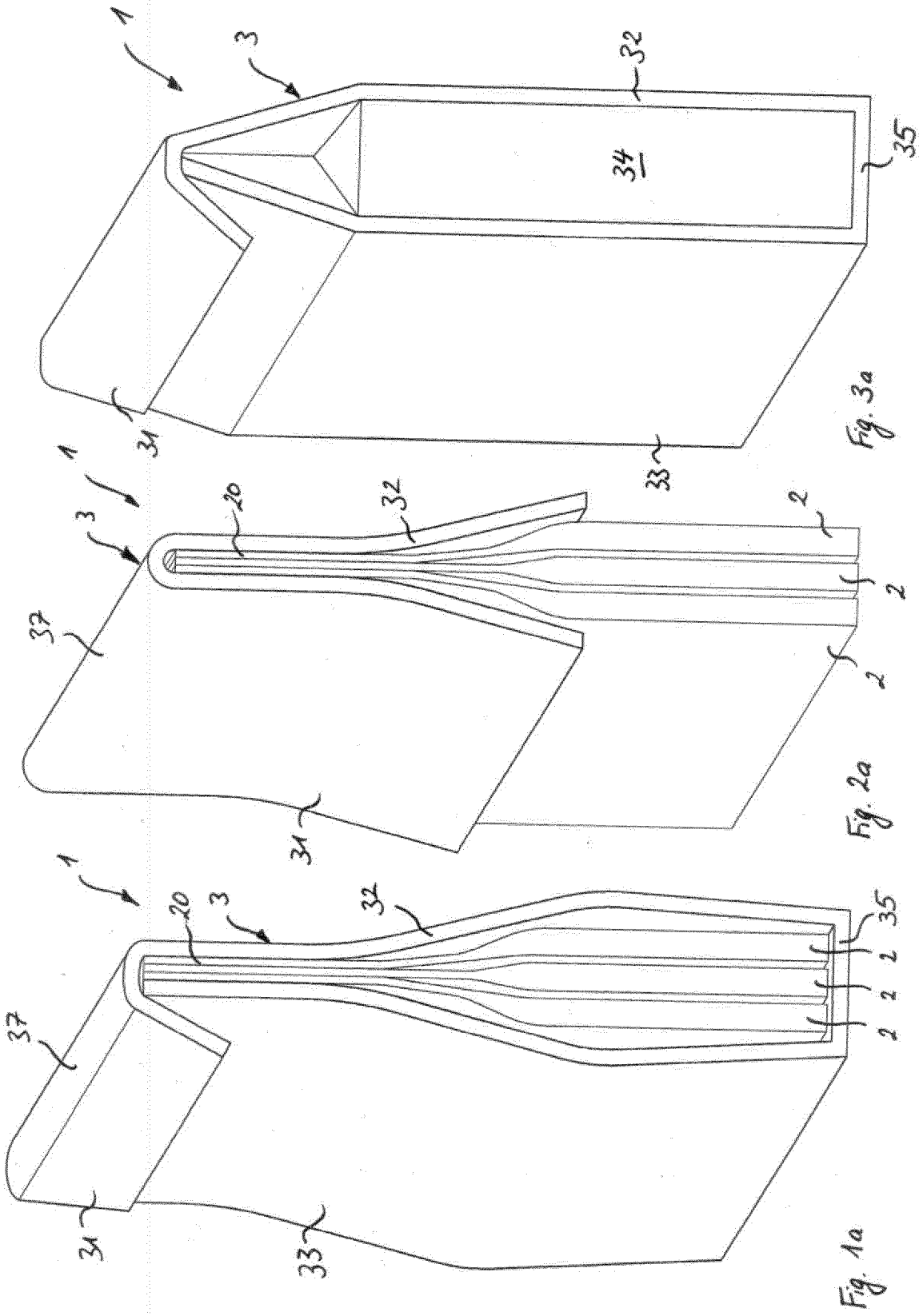
8. Emballage vertical (1) selon l'une quelconque des revendications précédentes, dans lequel au moins l'un des deux éléments de couverture (31, 32) est directement collé (G) à au moins l'un de l'au moins une poche (2) et/ou du troisième élément de couverture (33), de préférence par l'intermédiaire d'au moins un des trous traversants (22, 36).

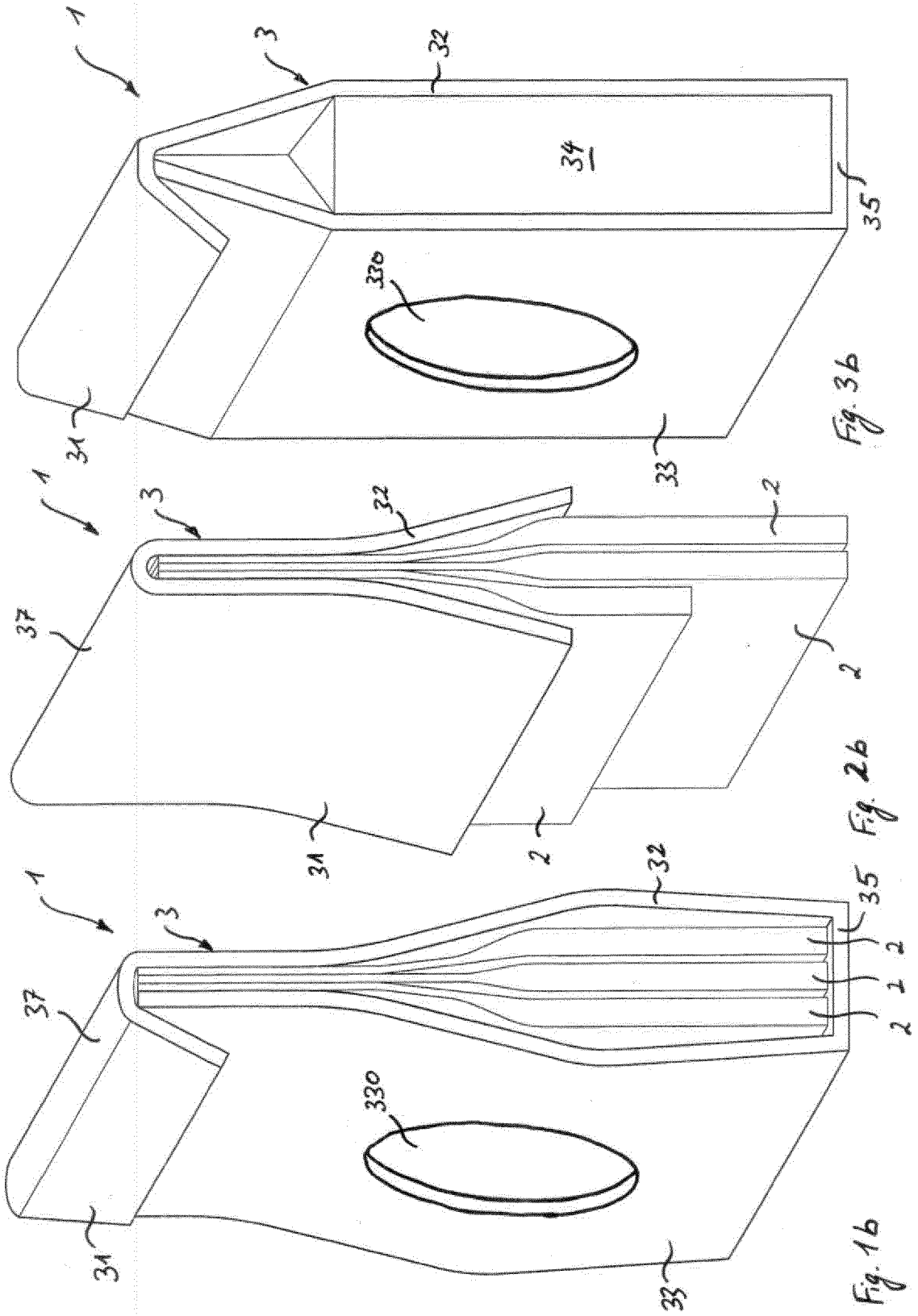
9. Emballage vertical (1) selon l'une quelconque des revendications précédentes, dans lequel la colle (G) se présente sous forme de points de colle ou d'une ligne de colle recouvrant au moins partiellement les trous traversants (22, 36).

10. Emballage vertical (1) selon l'une quelconque des revendications précédentes, dans lequel les éléments de couverture (31, 32, 33) sont solidaires les uns des autres, et/ou dans lequel l'emballage extérieur (3) présente une forme de U, une forme de boucle ou une forme de boîte.

11. Emballage vertical (1) selon l'une quelconque des revendications précédentes, dans lequel l'emballage extérieur (3), de préférence au moins l'un des éléments de couverture (33), comprend une région découpée (330) pour exposer au moins l'une de l'au moins une poche (2).

12. Emballage vertical (1) selon l'une quelconque des revendications précédentes, dans lequel l'au moins une poche (2) est réalisée en un matériau adapté à un usage alimentaire, de préférence en une matière plastique, plus préférentiellement en une matière souple et encore plus préférentiellement en un matériau transparent, et/ou dans lequel l'emballage extérieur (3) est réalisé en carton ou en une matière plastique.


1
3
32
34
35
31
33
Fig. 3a
1
3
20
32
2
2
2
2
37
31
Fig. 2a
1
20
3
32
35
2
2
2
37
31
33
Fig. 1a


1
3
32
34
35
330
31
33
Fig. 3b
1
3
32
2
37
31
2
Fig. 2b
1
3
32
35
37
330
31
33
Fig. 1b

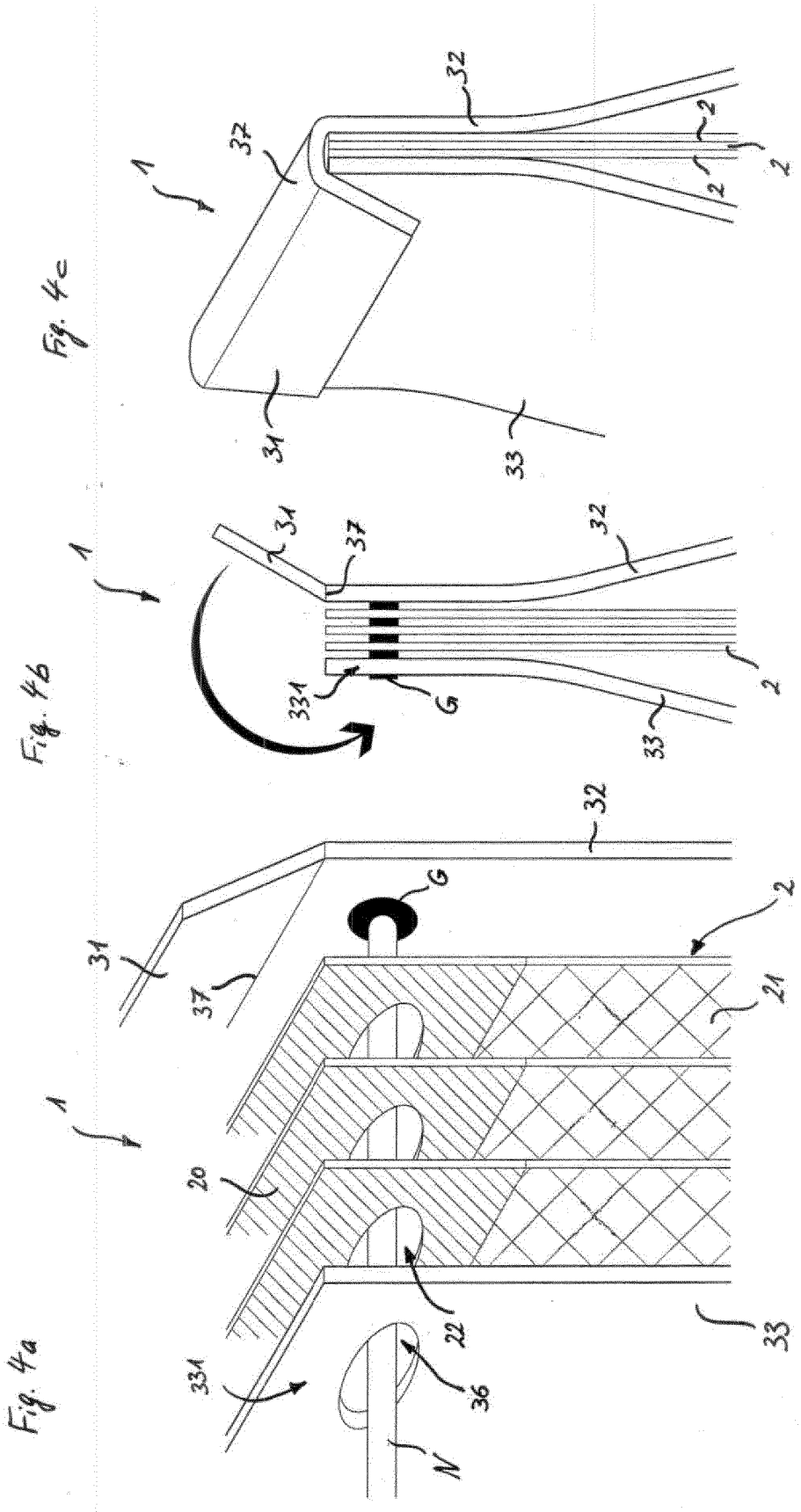


Fig. 4a
Fig. 4b
Fig. 4c
1
2
20
21
22
31
32
33
331
34
36
37
G
N

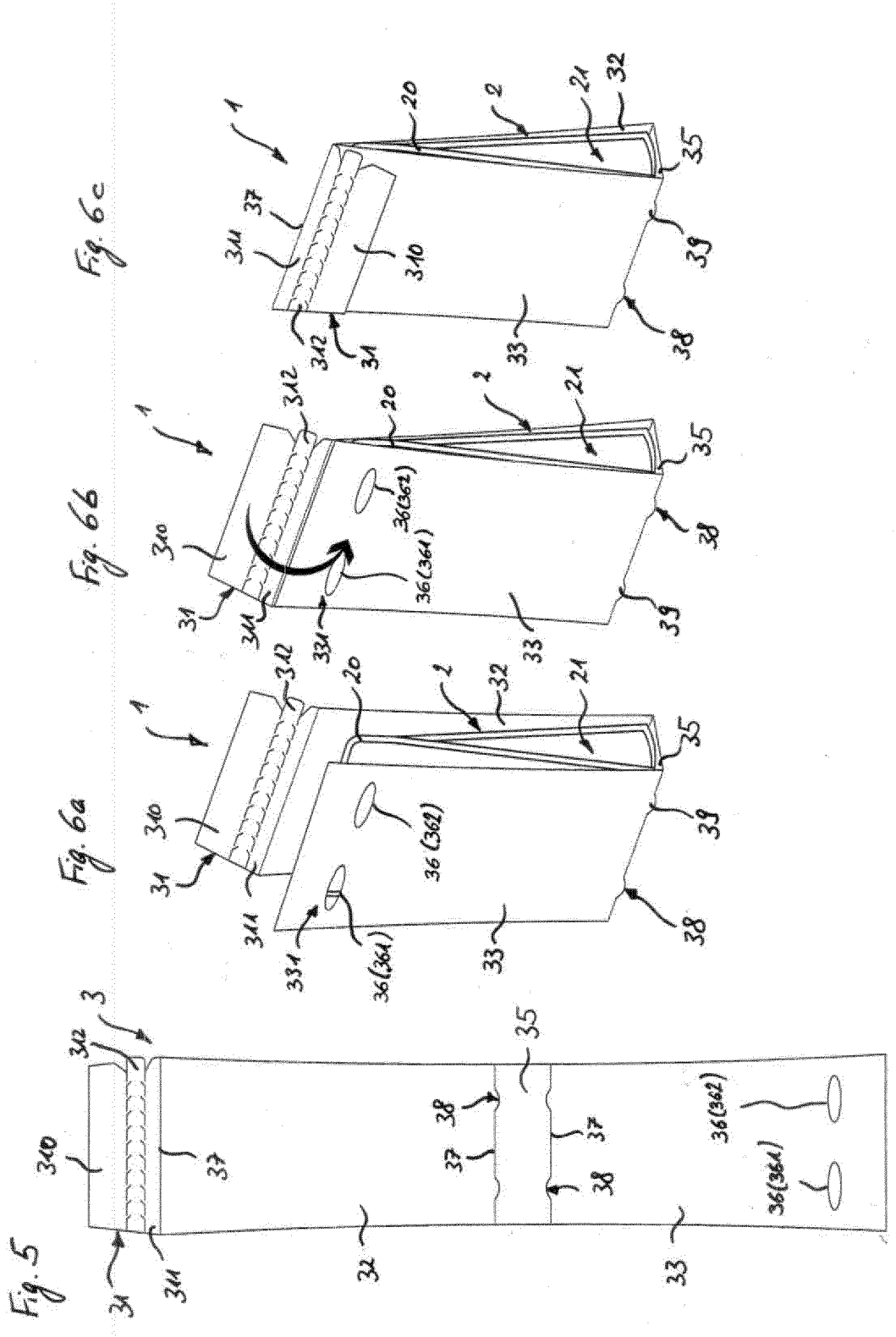


Fig. 5
Fig. 6a
Fig. 6b
Fig. 6c
3
340
341
342
31
32
33
34
35
36(361)
36(362)
37
38
39
1
2
20
21

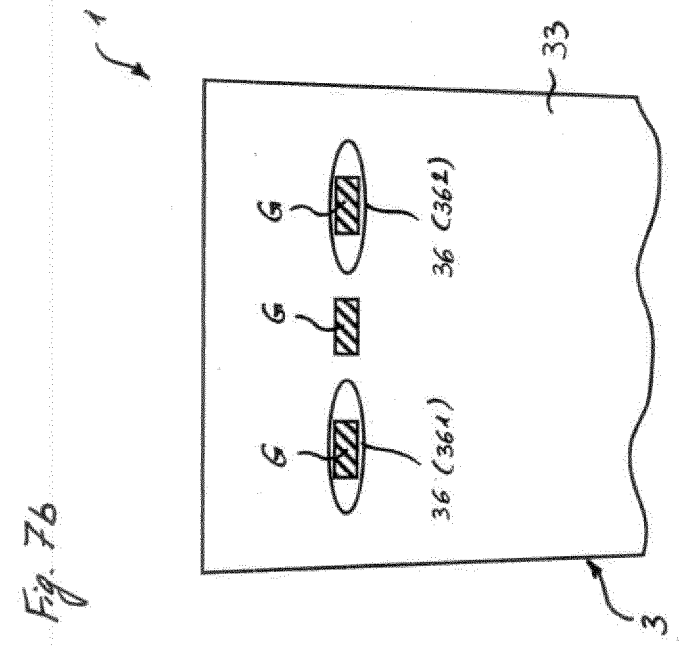


Fig. 7b

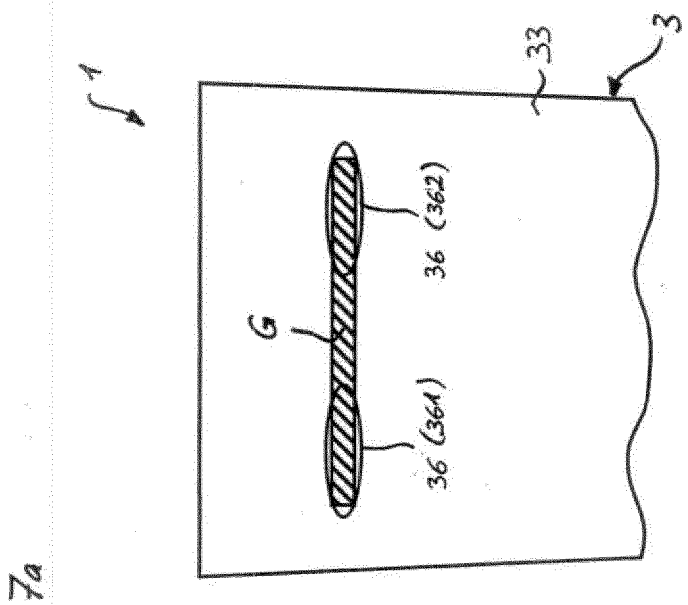


Fig. 7a

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- WO 9315968 A1 **[0003]**
- GB 855449 A **[0003]**
- DE 19831863 A1 **[0003]**
- CH 303860 A **[0003]**