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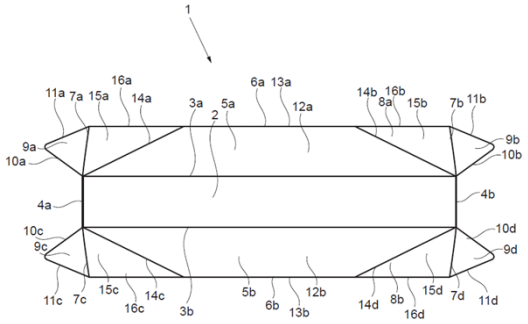
(54) Title **Foodstuff packaging**

(57) Abstract

The present invention relates to a packaging for foodstuff (1) comprising a bottom surface (2), wherein the bottom surface is rectangular with first and second bottom edges (3a, 3b) and first and second short edges (4a, 4b), and first and second sidewalls (5a, 5b). Each sidewall comprises a bottom edge (3a, 3b) shared with the bottom surface, a top edge (6a, 6b), and first and second side ends (7a, 7b, 7c, 7d) connecting the bottom edge and the top edge to form a first trapezoid (8a, 8b). At least one locking element couples the first and second sidewalls across an open top (18) having a width shorter than the first and second short edges. The first and second sidewalls define a height sufficient to cover the height of one piece of foodstuff.



FOODSTUFF PACKAGING

INTRODUCTION

[0001] The present invention concerns a foodstuff packaging.

BACKGROUND

[0002] A variety of foodstuff packaging exists. They help with containing foodstuff during transport and in grocery stores and markets. However, there are certain drawbacks with already existing foodstuff packaging. For instance, fruit or vegetable packaging can be divided into open and closed packaging. Open fruit or vegetable packaging, such as bags and baskets, have the drawback of the fruit or vegetable easily falling out from the packaging. Furthermore, open fruit or vegetable packaging makes it easy for customers to pick exactly the pieces of fruit or vegetable they want. This is unfortunate if the fruit or vegetable packaging is intended to offer a pre-selection of fruit or vegetables sold in one unit as the fruit or vegetable packaging. Closed fruit or vegetable packaging is better at preventing fruit or vegetables from falling out, but the fruit or vegetable is invisible, and it is difficult for customers to evaluate the product when buying the fruit or vegetable.

[0003] Egg packaging, often egg cartons, also have the drawback of customers picking exactly the eggs they want when the egg carton is sold as a unit with a set number of eggs. Egg cartons also require the entire carton to be opened in order for the eggs to be inspected.

[0004] There is some closed fruit or vegetable packaging that allow for the fruit to be viewed, such as baskets surrounded by a protective plastic casing. However, plastic can have a severely negative environmental impact, especially if not disposed correctly. Furthermore, there is an increased awareness of consumers concerning plastic packaging. There is an increased demand for reducing the usage of plastic packaging.

[0005] There is some fruit or vegetable packaging that is partially open such as baskets with closures going over the fruit or vegetables to contain the fruit or vegetables within the packaging. The packaging has still openings in order for the fruit or vegetables to be viewed. However, the openings are sufficiently large for small fruit or small vegetables to fall out of the packaging. The packaging does not

have a lot of structural integrity and the packaging is difficult to stack without damaging the contained fruit or vegetables. The fruit or vegetable is also exposed and have unprotected sections. The fruit or vegetable has a high risk of becoming bruised in the exposed sections.

[0006] Fruit or vegetable packaging is also difficult to stack without damaging the contained fruit or vegetable. Open fruit or vegetable packaging does not allow stacking unless a packaging is placed on top of the exposed fruit or vegetable. Closed packaging often does not have the required structural stability for stacking. The load of the upper fruit or vegetable packaging is often placed directly onto the fruit or vegetable in the lower fruit or vegetable packaging because the packaging is not sufficiently stable to not bend when weight is placed on the packaging.

[0007] A drawback of the different types of foodstuff packaging described above is that the foodstuff often is unstable within the packaging. Movement during transport and stacking can harm the foodstuff. This can for instance reduce the shelf life of fruit or vegetables. The fruit or vegetables can for instance become bruised and damaged. Eggs can break, thereby spilling egg whites and egg yolks. Broken eggs have a reduced food safety and are not attractive to the customer. In addition to negatively impacting the shelf life, damaged fruit or vegetable is less attractive to the consumer. The foodstuff is less likely to be bought and it must be thrown away in the end. This increases the unnecessary food waste.

[0008] These issues are particularly important if the fruit is a soft fruit or vegetable, meaning fruit or vegetable with soft exteriors and/or interiors. Such fruit or vegetable becomes easier damaged than harder types of fruit or vegetable, such as apples.

[0009] It is an object of the present invention to overcome the problems of foodstuff removal, stacking, bruising, and fruit accidentally falling out of the packaging and non-environmental packaging.

SUMMARY OF THE INVENTION

[0010] The present invention concerns a packaging for foodstuff. The packaging comprises a bottom surface, wherein the bottom surface is rectangular with first and second bottom edges and first and second short edges, first and second sidewalls, and at least one locking element. Each sidewall comprises a bottom edge shared with the bottom surface, a top edge, and first and second side ends connecting the

bottom edge and the top edge to form a first trapezoid. The at least one locking element couples the first and second sidewalls across an open top having a width shorter than the first and second short edges. The first and second sidewalls define a height sufficient to cover the height of one piece of foodstuff.

[0011] The first and second short edges of the bottom surface can define a width of the bottom surface sufficient to fit one piece of foodstuff.

[0012] The first and second bottom edges of the bottom surface can define a length of the bottom surface sufficient to fit more than one piece of foodstuff.

[0013] The bottom edge can be longer than the top edge.

[0014] The first and second sidewalls can each further comprise first and second triangular flaps. Each triangular flap can comprise a lower end edge, an upper end edge, and can share the side end with the first trapezoid.

[0015] The first triangular flap of the first sidewall and the first triangular flap of the second sidewall can be bent at their side ends so that their lower end edges align with the first short edge of the bottom surface and form a first triangular end wall. The second triangular flap of the first sidewall and the second triangular flap of the second sidewall can be bent at their side ends so that their lower end edges align with the second short edge of the bottom surface and form a second triangular end wall.

[0016] The first triangular flap of the first sidewall and the first triangular flap of the second sidewall can be fastened together. The second triangular flap of the first sidewall and the second triangular flap of the second sidewall can be fastened together.

[0017] The first trapezoid of the first sidewall and the first trapezoid of the second sidewall can each comprise a second trapezoid and first and second triangles. The second trapezoids can comprise the bottom edge, an inner top edge, which is an inner part of the top edge, and first and second diagonal lines connecting the inner top edge and the bottom edge. The first and second triangles can each comprise the side end, an outer top edge, which is an outer part of the top edge, and the diagonal line shared with the second trapezoid.

[0018] The first and second sidewalls can be bent along their diagonal lines.

[0019] The packaging can be formed from one continuous piece of material.

[0020] The packaging can be made from moulded pulp, paperboard or cardboard. The packaging can be made from paperboard.

[0021] The packaging for foodstuff can be for fruit, vegetables or eggs. The packaging can be for fruit.

BRIEF DESCRIPTIONS OF THE DRAWINGS

[0022] In the following, example embodiments of the invention will be explained with reference to the following drawings:

[0023] Fig. 1 illustrates the flat, unassembled form of a foodstuff packaging.

[0024] Fig. 2 illustrates a top view the flat, half-assembled form of the foodstuff packaging.

[0025] Fig. 3 illustrates the backside of the flat, half-assembled form of the foodstuff packaging. The bottom surface and second trapezoids of the first and second sidewalls are visible.

[0026] Fig. 4 illustrates a top view the assembled form of the foodstuff packaging.

[0027] Fig. 5 illustrates a side view of the assembled form of the foodstuff packaging. The first trapezoid of the second sidewall is visible, and the first trapezoid of the first sidewall is partly visible.

[0028] Fig. 6 illustrates an angular view of the assembled form of the foodstuff packaging. The first and second triangular flaps of the first and second sidewalls form the first and second triangular end walls.

[0029] Fig. 7 illustrates a top view the assembled form of the foodstuff packaging having two locking elements.

[0030] Fig. 8 illustrates a side view of the assembled form of the foodstuff packaging. The first trapezoid of the second sidewall is visible, and the first trapezoid of the first sidewall is partly visible. The foodstuff packaging has two locking elements.

[0031] Fig. 9 illustrates an angular view of the assembled form of the foodstuff packaging. The first and second triangular flaps of the first and second sidewalls form the first and second triangular end walls. The foodstuff packaging has two locking elements.

[0032] Fig. 10 illustrates a side view of the assembled form of the foodstuff packaging. The first trapezoid of the second sidewall is visible, and the first trapezoid of the first sidewall is partly visible.

[0033] Fig. 11 illustrates a top view the assembled form of the foodstuff packaging having one locking element.

[0034] Fig. 12 illustrates a side view of the assembled form of the foodstuff packaging. The first trapezoid of the second sidewall is visible, and the first trapezoid of the first sidewall is partly visible. The foodstuff packaging has one locking element.

[0035] Fig. 13 illustrates an angular view of the assembled form of the foodstuff packaging. The first and second triangular flaps of the first and second sidewalls form the first and second triangular end walls. The foodstuff packaging has one locking element.

DETAILED DESCRIPTION

[0036] The present invention concerns a packaging for foodstuff. In particular the packaging can be for containing several pieces of foodstuff, preferably the same type of foodstuff. The foodstuff can be fruit, vegetables and eggs. The foodstuff can be items needing a packaging providing protection and stable conditions during transport. The vegetables can be any type of vegetables. Preferably, the vegetable is a soft vegetable. Soft vegetable means a vegetable with soft exterior and/or interiors. Such vegetables become easier damaged than harder types of vegetables. The fruit can be any type of fruit. Preferably, the fruit is soft fruit. Soft fruit means fruit with soft exteriors and/or interiors. Such fruit becomes easier damaged than harder types of fruit, such as apples. Examples of soft fruit are plums, peaches, nectarines, apricots, tomatoes, avocadoes, bell peppers, kiwis, mangoes. The eggs can be any type of eggs. The eggs can for instance be chicken eggs, duck eggs and quail eggs.

[0037] Fig. 1 illustrates a packaging 1 for foodstuff. The packaging is in an unassembled form. The packaging comprises a bottom surface 2. The bottom surface 2 constitutes the bottom of the assembled packaging upon which foodstuff can rest. The bottom surface 2 comprises a first bottom edge 3a, a second bottom edge 3b, a first short edge 4a and a second short edge 4b. The first short edge 4a joins the ends of the first bottom edge 3a and the second bottom edge 3b. The second short edge 4b joins the opposite ends of the first bottom edge 3a and the

second bottom edge 3b. The bottom surface 2 is rectangular. The first and second bottom edges 3a, 3b are longer than the first and second short edges 4a, 4b.

[0038] The packaging 1 further comprises first sidewall 5a and second sidewall 5b. The first sidewall 5a comprises the first bottom edge 3a. The first sidewall 5a shares the first bottom edge 3a with the bottom surface 2. The first 5a can be elongated. The first sidewall 5a further comprises a top edge 6a. The top edge 6a can have the same length as the first bottom edge 3a or the first bottom edge 3a can be longer than the top edge 6a. Preferably, the first bottom edge 3a is longer than the top edge 6a. A first side end 7a connects an end of the first bottom edge 3a with an end of the top edge 6a. A second side end 7b connects the opposite end of the first bottom edge 3a with the opposite end of the top edge. When the first bottom edge 3a is longer than the top edge 6a, the first bottom edge 3a, top edge 6a and the first and second side ends 7a, 7b form a first trapezoid 12a. A trapezoid is defined as a quadrilateral having one pair of parallel sides.

[0039] The first and second sidewalls 5a, 5b can comprise side flaps to provide walls along the first and second short edges 4a, 4b of the bottom surface 2. The side flaps can be of any shape suitable to provide walls along the first and second short edges 4a, 4b.

[0040] The first sidewall 5a can comprise a first triangular flap 9a and a second triangular flap 9b. Each triangular flap 9a, 9b can comprise a lower end edge 10a, 10b, an upper end edge 11a, 11b and the side ends 7a, 7b. The first triangular flap 9a of the first sidewall 5a shares the side end 7a with the first trapezoid 8a. The second triangular flap 9b of the first sidewall 5a shares the side end 7b with the first trapezoid 8a. The first trapezoid 8a, the first triangular flap 9a and the second triangular flap 9b provide the first sidewall 5a with a hexagonal shape.

[0041] The second sidewall 5b comprises the second bottom edge 3b. The second sidewall 5b shares the second bottom edge 3b with the bottom surface 2. The second sidewall 5b can be elongated. The second sidewall 5b further comprises a top edge 6b. The top edge 6b can have the same length as the second bottom edge 3b or the second bottom edge 3b can be longer than the top edge 6b. Preferably, the first bottom edge 3a is longer than the top edge 6a. A first side end 7c connects an end of the second bottom edge 3b with an end of the top edge 6b. A second side end 7d connects the opposite end of the second bottom edge 3b with the opposite

end of the top edge 6b. When the second bottom edge 3b is longer than the top edge 6b, the second bottom edge 3b, top edge 6b and the first and second side ends 7c, 7d form a first trapezoid 12b.

[0042] The trapezoid shape of the first trapezoid 12a of the first sidewall 5a and the first trapezoid 12b of the second sidewall 5b ensures that the foodstuff packaging 1 in a fully assembled form has an open top 18 allowing contained foodstuff to be viewed. The foodstuff packaging 1 would therefore not be a fully enclosed packaging.

[0043] The second sidewall 5b can comprise a first triangular flap 9c and a second triangular flap 9d. Each triangular flap 9c, 9d comprises a lower end edge 10c, 10d, an upper end edge 11c, 11d and the first and second side ends 7c, 7d. The first triangular flap 9c of the second sidewall 5b shares the first side end 7c with the first trapezoid 8b. The second triangular flap 9d of the second sidewall 5b shares the second side end 7d with the first trapezoid 8b. The first trapezoid 8b, the first triangular flap 9c and the second triangular flap 9d provide the second sidewall 5b with a hexagonal shape.

[0044] Preferably, the first and second sidewalls 5a, 5b have the same dimensions. If a centre line were drawn through the centre of the bottom surface 2, either along the length of the bottom surface 2 or across the width of the bottom surface 2, the packaging 1 would be symmetrical about the centre line.

[0045] Preferably, the first and second sidewalls 5a, 5b do not contain any openings, thereby providing whole sidewalls. This improves the structural integrity of the first and second sidewalls 5a, 5b and protects the foodstuff.

[0046] The first and second short edges 4a, 4b of the bottom surface 2 define a width of the bottom surface 2. This width is sufficient to fit one piece of foodstuff. The fit is sized to restrict movement of the foodstuff across the bottom surface 2 when the packaging 1 contains at least one piece of foodstuff. The foodstuff is secured from moving back and forth between the first sidewall 5a and the second sidewall 5b. This reduces the bruising of the fruit or vegetables, in particular during transport. This prevents the eggs from breaking. The integrity of the foodstuff is maintained. The shelf-life of the fruit, vegetables or eggs is extended compared to fruit, vegetables and eggs that moves within their packaging. Non-bruised fruit and

vegetables are also more aesthetically appealing than bruised fruit and vegetables. Whole eggs are more aesthetically appealing and safer than broken eggs.

[0047] The first and second bottom edges 3a, 3b of the bottom surface 2 define a length of the bottom surface 2. This length is sufficient to fit more than one piece of foodstuff. For example, the length allows the fit of up to 2, 3, 4, 5, 6, 7, 8, 9, 10 pieces of foodstuff. The fit is sized to restrict movement of the foodstuffs along the bottom surface 2 when the packaging 1 is filled with foodstuff. The length is sized according to the size of the foodstuff to be packed and the number of foodstuffs to be packed. The bottom surface 2 is longer when the packaging 1 is to contain 7 pieces of a foodstuff compared to when the packaging is to contain 3 pieces of the same type of foodstuff. The foodstuffs can be placed next to each other along the bottom surface forming a row of foodstuff. The bottom surface is lengthwise delimited between the first short edge 4a and the second short edge 4b. The foodstuff is secured by the foodstuff lengthwise filling up the bottom surface 2. This reduces the bruising of the fruit or vegetables, in particular during transport. This prevents the eggs from breaking. The integrity of the foodstuff is maintained. The shelf-life of the fruit, vegetables or eggs is extended compared to fruit, vegetables and eggs that moves within their packaging. Non-bruised fruit and vegetables are also more aesthetically appealing than bruised fruit and vegetables. Whole eggs are more aesthetically appealing and safer than broken eggs.

[0048] The length of the foodstuff packaging 1, as defined by the bottom surface 2, can be designed to fit a number of pieces of foodstuff and to fit within standard transport boxes. Standard transport boxes can contain a number of foodstuff packagings 1 stacked in the height and arranged next to each other. The length of the foodstuff packaging 1 makes it possible to fit a whole number of foodstuff packagings 1 to fill the standard transport box lengthwise or in the width. It is therefore easy to transport a large number of foodstuff packagings 1 safely and efficiently.

[0049] The first and second sidewalls 5a, 5b define a height sufficient to cover the height of one piece of foodstuff. The fit is sized to restrict movement of the foodstuff when the packaging 1 is filled with at least one piece of foodstuff. The height of the first and second sidewalls 5a, 5b is slightly higher than the height of the piece of foodstuff. The sides of the foodstuff are fully covered by the first and second

sidewalls 5a, 5b. This protects the foodstuff from lateral impacts. This reduces the bruising of the fruit or the vegetables compared to packaging that does not fully cover the side of the fruit. This prevents the eggs from breaking. The integrity of the foodstuff is maintained. The shelf-life of the fruit, vegetables or eggs is extended compared to fruit, vegetables and eggs that moves within their packaging. Non-bruised fruit and vegetables are also more aesthetically appealing than bruised fruit and vegetables. Whole eggs are more aesthetically appealing and safer than broken eggs. Due to the first and second sidewalls 5a, 5b being slightly higher than the height of the piece of foodstuff, several pieces of packaging 1 can be stacked on top of each other without damaging the contained foodstuff. The structural integrity of the packaging 1 allows stacking.

[0050] The packaging 1 is flat in unassembled form. To assemble the packaging 1, the first and second bottom edges 3a, 3b are bent so that the first and second sidewalls 5a, 5b are bent toward each other over the bottom surface 2.

[0051] The first triangular flap 9a of the first sidewall 5a and the first triangular flap 9c of the second sidewall 5b are bent at their side edges 7a, 7c so that their lower end edges 10a, 10c align with the first short edge 4a of the bottom surface 2 and form a first triangular end wall 17a. The first triangular flap 9a of the first sidewall 5a and the first triangular flap 9c of the second sidewall 5b can fully overlap. The second triangular flap 9b of the first sidewall 5a and the second triangular flap 9d of the second sidewall 5b are bent at their side edges so that their lower end edges 10b, 10d align with the second short edge 4b of the bottom surface 2 and form a second triangular end wall 17b. The second triangular flap 9b of the first sidewall 5a and the second triangular flap 9d of the second sidewall 5b can fully overlap. The first and second triangular end walls 17a, 17b are illustrated in fig. 6.

[0052] The first triangular flap 9a of the first sidewall 5a and the first triangular flap 9c of the second sidewall 5b can be fastened together. The fastening improves the maintenance of the configuration as the first triangular end wall 17a. The second triangular flap 9b of the first sidewall 5a and the second triangular flap 9d of the second sidewall 5b can be fastened together. The fastening improves the maintenance of the configuration as the second triangular end wall 17b.

[0053] The first triangular flap 9a of the first sidewall 5a and the first triangular flap 9c of the second sidewall 5b can be fastened together and the triangular flap 9b of

the first sidewall 5a and the second triangular flap 9d of the second sidewall 5b can be fastened together using glue, tape, stitches, staples. Preferably, the fastening is made using glue.

[0054] The foodstuff packaging 1 seen from a side-view will appear to be triangular due to the first and second triangular end walls 17a, 17b.

[0055] The first trapezoid 8a of the first sidewall 5a can comprise a second trapezoid 12a, a first triangle 15a and a second triangle 15b. The second trapezoid 12a of the first sidewall 5a is defined by the first bottom edge 3a, an inner top edge 13a, a first diagonal line 14a and a second diagonal line 14b. The second trapezoid 12a shares the first bottom edge 3a with the first sidewall 5a, the first trapezoid 8a and the bottom surface 2. The inner top edge 13a is an inner part of the top edge 6a. The first diagonal line 14a connects an end of the inner top edge 13a and an end of the first bottom edge 3a. The second diagonal line 14b connects the other end of the inner top edge 13a and the other end of the first bottom edge 3a.

[0056] The first and second diagonal lines 14a, 14b of the first sidewall 5a can be perforated. The perforation can improve the definition of the first and second diagonal lines 14a, 14b of the first sidewall 5a making it easier to bend the first sidewall 5a along the first and second diagonal lines 14a, 14b.

[0057] The first triangle 15a of the first sidewall 5a is defined by the first side end 7a, an outer top edge 16a and the first diagonal line 14a. The first triangle 15a shares the first side end 7a with the first triangular flap 9a of the first sidewall 5a.

[0058] The second triangle 15b of the first sidewall 5a is defined by the second side end 7b, an outer top edge 16b and the second diagonal line 14b. The second triangle 15b shares the second side end 7b with the second triangular flap 9b of the first sidewall 5a.

[0059] The top edge 6a of the first sidewall 5a is constituted by the outer top edge 16a, which is the first outer top edge 16a of the first sidewall 5a, the inner top edge 13a of the first sidewall 5a and the outer top edge 16b, which is the second outer top edge 16b of the first sidewall 5a.

[0060] The first triangle 15a of the first sidewall 5a, the second triangle 15b of the first sidewall 5a and the second trapezoid 12a of the first sidewall 5a constitute the first trapezoid 8a of the first sidewall 5a.

[0061] The first trapezoid 8b of the second sidewall 5b can comprise a second trapezoid 12b, a first triangle 15c and a second triangle 15d. The second trapezoid 12b of the second sidewall 5b is defined by the second bottom edge 3b, an inner top edge 13b, a first diagonal line 14c and a second diagonal line 14d. The second trapezoid 12b shares the second bottom edge 3d with the second sidewall 5b, the first trapezoid 8b and the bottom surface 2. The inner top edge 13b is an inner part of the top edge 6b. The first diagonal line 14c connects an end of the inner top edge 13b and an end of the second bottom edge 3b. The second diagonal line 14d connects the other end of the inner top edge 13b and the other end of the second bottom edge 3b.

[0062] The first and second diagonal lines 14c, 14d of the second sidewall 5b can be perforated. The perforation can improve the definition of the first and second diagonal lines 14c, 14d of the second sidewall 5b making it easier to bend the second sidewall 5b along the first and second diagonal lines 14c, 14d.

[0063] The first triangle 15c of the second sidewall 5b is defined by the first side end 7c, an outer top edge 16c and the first diagonal line 14c. The first triangle 15c shares the first side end 7c with the first triangular flap 9c of the second sidewall 5b.

[0064] The second triangle 15d of the second sidewall 5b is defined by the second side end 7d, an outer top edge 16d and the second diagonal line 14d. The second triangle 15d shares the second side end 7d with the second triangular flap 9d of the second sidewall 5d.

[0065] The top edge 6b of the second sidewall 5b is constituted by the outer top edge 16c, which is the first outer top edge 16c of the second sidewall 5b, the inner top edge 13b of the second sidewall 5b and the outer top edge 16d, which is the second outer top edge 16d of the second sidewall 5b.

[0066] The first triangle 15c of the second sidewall 5b, the second triangle 15d of the second sidewall 5b and the second trapezoid 12b of the second sidewall 5b constitute the first trapezoid 8b of the second sidewall 5b.

[0067] The first sidewall 5a can be bent along its first and second diagonal lines 14a, 14b. The first triangle 15a and the second triangle 15b of the first sidewall 5a can then be bent toward the bottom surface 2. The second sidewall 5b can be bent along its first and second diagonal 14c, 14d. The first triangle 15c and the second triangle 15d of the second sidewall 5b can then be bent toward the bottom surface 2.

[0068] The packaging 1 can be in a half-assembled form, which is illustrated in fig. 2. In the half-assembled form, the first and second bottom edges 3a, 3b are not bent. The first and second diagonal lines 14a, 14b of the first sidewall 5a are bent. The first and second side ends 7a, 7b of the first sidewall 5a are not bent. The first and second triangular flaps 9a, 9b and the first and second triangles 15a, 15b of the first sidewall 5a are therefore bent over the first and second diagonal lines 14a, 14b of the first sidewall 5a toward the bottom surface 2.

[0069] The first and second diagonal lines 14c, 14b of the second sidewall 5b are bent. The first and second side ends 7c, 7d of the second sidewall 5b are not bent. The first and second triangular flaps 9c, 9d and the first and second triangles 15c, 15d of the second sidewall 5b are therefore bent over the first and second diagonal lines 14c, 14d of the second sidewall 5b toward the bottom surface 2.

[0070] The first triangular flap 9a of the first sidewall 5a and the first triangular flap 9c of the second sidewall 5b overlap and form the first triangular end wall 17a. The first triangular flaps 9a and 9c can be fastened together.

[0071] The second triangular flap 9b of the first sidewall 5a and the second triangular flap 9d of the second sidewall 5b overlap and form the second triangular end wall 17b. The first triangular flaps 9b and 9d can be fastened together.

[0072] As illustrated in fig. 3, the foodstuff packaging 1 in half-assembled form as viewed from the back display the bottom surface 2, the second trapezoid 12a of the first sidewall 5a and the second trapezoid 12b of the second sidewall 5b.

[0073] The packaging 1 forms an open top 18. The elongated, hexagonal, open top 18 can be called the open top 18. The open top 18 is delimited by the top edge 6a of the first sidewall 5a and by the top edge 6b of the second sidewall 5b. This open top 18 is illustrated in fig. 4.

[0074] The open top 18 can be elongated. The open top 18 can be hexagonal. The open top 18 can be delimited by the first outer top edge 16a, the inner top edge 13a, and the second outer top edge 16b of the first sidewall 5a and by the first outer top edge 16c, the inner top edge 13b, and the second outer top edge 16d of the second sidewall 5b.

[0075] The first and second diagonal lines 14a, 14b of the first sidewall 5a and the first and second diagonal lines 14c, 14d of the second sidewall 5b cause the

hexagonal shape of the open top 18. The diagonal lines 14a, 14b, 14c, 14d provide structural integrity and control of the shape of the open top 18.

[0076] The first and second bottom edges 3a, 3b can be bent to raise the first and second sidewalls 5a, 5b. The distance between the top edge 6a of the first sidewall 5a and the top edge 6b of the second sidewall 5b is reduced when the first and second sidewalls 5a, 5b are raised. The point where the ends of the upper end edge 11a, 11c and the first side ends 7a, 7b meet moves in an outward motion from the centre of the bottom surface 2 toward the first short edge 4a. The point where the ends of the upper end edge 11b, 11d and the second side ends 7c, 7d meet moves in an outward motion from the centre of the bottom surface 2 toward the second short edge 4b. The packaging 1 is then in the assembled form. The shape of the open top 18 when the first and second bottom edges 3a, 3b are not bent, when the packaging 1 is in the half-assembled form, is illustrated in fig. 2. The shape of the open top 18 when the first and second bottom edges 3a, 3b are bent, when the packaging 1 is in the assembled form, is illustrated in figs. 4, 6, 7, 9, 11 and 13. A side-view of the assembled foodstuff packaging 1 is illustrated in fig. 5.

[0077] The foodstuff packaging 1 in an unassembled or half-assembled form has the advantage of being easy to transport from the manufacturing location of the foodstuff packaging 1 to the location where the foodstuff is to be packaged into the foodstuff packaging 1. The foodstuff packaging 1 can then be shipped flat-packed, allowing more packagings to be transported per transport vessel than other types of packaging. The foodstuff packaging 1 would only need to be fully assembled when filled with foodstuff.

[0078] In the half-assembled form illustrated in fig. 2, the only required assembly is to bend first and second bottom edges 3a, 3b in order to fill the foodstuff packaging 1 with foodstuff. This simplifies the assembly process when filling the foodstuff packaging 1 with foodstuff.

[0079] The packaging 1 can be filled with foodstuff before it is fully assembled. When fully assembled, the open top 18 is sufficiently elongated so that the distance between the top edges 6a, 6b is sufficiently narrow for the foodstuff to not fall out of the packaging 1. It is therefore also difficult to remove pieces of foodstuff without opening the packaging 1 by moving the first and second sidewalls 5a, 5b from an assembled form toward the half-assembled form. However, the foodstuff can still be

viewed through the open top 18. Due to the height of the first and second sidewalls 5a, 5b sufficiently covering the height of the foodstuff, the packaging 1 can be stacked even though the open top 18 does not fully cover the foodstuff. A second packaging 1 can be placed on top of a first packaging 1. The bottom surface 2 of the second packaging 1 will not touch the foodstuff contained within the first packaging 1. The foodstuff is therefore protected all around by the bottom surface 2, the first sidewall 5a and the second sidewall 5b whilst still being observable. The shelf-life of the fruit, vegetables or eggs is extended compared to fruit, vegetables and eggs that moves within their packaging. At the same time, it is possible to visually inspect the foodstuff. The fruit or vegetables can be identified and checked for bruising or other imperfections. Non-bruised fruit and vegetables are also more aesthetically appealing than bruised fruit and vegetables. The eggs can be checked whether they are whole. Whole eggs are more aesthetically appealing and safer than broken eggs.

[0080] At least one locking element 19a, 19b, 19c couple the first and second sidewalls 5a, 5b across the open top 18, which is illustrated in figs. 7, 8, 9, 10, 11, 12 and 13. The locking elements 19a, 19b, 19c can be placed anywhere along the foodstuff packaging 1. Preferably, two locking elements 19b, 19c couple the first and second sidewalls 5a, 5b across the open top 18. Figs. 8 and 9 illustrates the use of two locking elements 19a, 19b. The locking elements 19a, 19b are placed where the inner top edges 13a, 13b meet their respective first and second outer top edges 16a, 16b, 16c, 16d. The locking elements 19a, 19b are not limited to this particular placement. The locking elements 19a, 19b can be placed closer to each other or further afar. The at least one locking element 19a, 19b, 19c lock the packaging 1 by ensuring that the open top 18 has a width shorter than the first and second short edges 4a, 4b. This creates a food packaging that is narrower at the top than at the bottom. The bottom surface 2 provides a stable surface. The at least one locking element 19a, 19b, 19c provides a safe configuration of the foodstuff packaging 1.

[0081] Fig. 10 illustrates a side-view of the foodstuff packaging 1 when at least one locking elements 19a, 19b, 19c is used. Figs. 11, 12 and 13 illustrate the use of one locking element 19c. The at least one locking element 19a, 19b, 19c further stabilises the packaging 1 in its assembled form. In order to open the packaging 1

by moving the first and second sidewalls 5a, 5b toward a half-assembled form, the at least one locking element 19a, 19b, 19c would have to be removed. The packaging 1 is further protected from accidentally opening or from forced opening remove the foodstuff. This would for instance prevent customers in a grocery store or at a market from picking individual pieces of foodstuff when the foodstuff is sold as units where one packaging 1 is one unit. Accidental loss of foodstuff of transport would also be reduced.

[0082] The locking elements 19a, 19b, 19c can be any type of locking element suitable to 19c couple the first and second sidewalls 5a, 5b. The locking elements 19a, 19b, 19c can be tape, plastic tape, paper tape, flap and slit, string, elastic band, paper band, and sleeve. Preferably, the locking elements 19a, 19b, 19c are tape. More preferably, the locking elements 19a, 19b, 9c are paper tape.

[0083] The packaging 1 can be formed from one continuous piece of material. This improves the structural integrity of the packaging 1. The packaging 1 is also easy to manufacture. The packaging 1 can be formed from one continuous piece of material.

[0084] The packaging 1 can be formed from various types of materials, such as plastic or paper-based materials. The material can also be a combination of plastic and paper-based materials. The material can be layered with different types of materials, such as layers of plastic and paper-based materials. The material can be adjusted according to the type of foodstuff to be contained. Preferably, the packaging 1 is formed from paper-based materials such as moulded pulp, paperboard or cardboard. Preferably, the packaging 1 is made from paperboard. The packaging being made from paper-based materials removes the need of plastic packaging. The cardboard can be recycled and poses less of an environmental threat than plastic if not properly disposed of after use. There is also an emerging trend of consumers wanting to reduce the use of plastic packaging. The use of paper-based materials satisfies the demand of the consumers of having a more environmentally friendly packaging.

[0085] The size of the foodstuff packaging 1 can be adjusted according to the size of the foodstuff to be packed. The height of the foodstuff packaging 1 should be dimensioned so that it is slightly higher than the foodstuff. Larger foodstuffs require larger foodstuff packaging than smaller foodstuffs. The width of the bottom surface and the height of the foodstuff packaging 1, which is defined by the height of the first

and second sidewalls 5a, 5b, are dimensioned according to the size of the foodstuff. The length of the bottom surface 2 defines the number of pieces of foodstuff that can fit into the foodstuff packaging 1.

[0086] In a specific embodiment, the foodstuff packaging 1 is a fruit packaging 1 and can have the following dimensions. The length of the bottom surface 2 from the first short edge 4a to the second short edge 4b can be 372 mm. The width of the bottom surface 2 from the first bottom edge 3a to the second bottom edge 3b can be 50 mm. The height of the first sidewall 5a from the first bottom edge 3a to the top edge 6a can be 50 mm. The length of the first sidewall 5a from the corner of the first triangular flap 9a where the lower end edge 10a and the upper end edge 11a meet to the corner of the second triangular flap 9b where the lower end edge 10b and the upper end edge 11b meet can be 448 mm. The height of the second sidewall 5b from the second bottom edge 3b to the top edge 6b can be 50 mm. The length of the second sidewall 5b from the corner of the first triangular flap 9c where the lower end edge 10c and the upper end edge 11c meet to the corner of the second triangular flap 9d where the lower end edge 10d and the upper end edge 11d meet can be 448 mm.

[0087] In particular for this specific embodiment, the packaging 1 can contain plums. More specifically, the packaging 1 can contain 7 plums. The plums are locked within the packaging 1. The plums are then placed in a line along the bottom surface 2. Their movement is restricted due to the dimensioning of the bottom surface, and the first and second sidewalls 5a, 5b. The plums can be viewed through the open top 18, but the open top 18 is sufficiently narrow so that the plums do not fall out of the packaging 1 and the plums cannot be removed from the packaging 1 without the packaging 1 being opened. This provides a protective environment reducing the chance of loss of plums and improves the shelf-life of the plums. Furthermore, the height of the first and second sidewalls 5a, 5b cover the height of the plums. The structural integrity of the fruit packaging 1 allows stacking of the packaging 1 without damaging the plums.

[0088] In another embodiment, the foodstuff packaging 1 can contain eggs. The eggs are locked within the packaging 1. The eggs are placed in a line along the bottom surface 2. Their movement is restricted due to the dimensioning of the bottom surface, and the first and second sidewalls 5a, 5b. The eggs can be viewed

through the open top 18, but the open top 18 is sufficiently narrow so that the eggs do not fall out of the packaging 1 and the eggs cannot be removed from the packaging 1 without the packaging 1 being opened. This provides a protective environment reducing the chance of the eggs breaking or falling out. Furthermore, the height of the first and second sidewalls 5a, 5b cover the height of the eggs. The structural integrity of the foodstuff packaging 1 allows stacking of the packaging 1 without damaging the eggs. The foodstuff packaging 1 in this embodiment can be made from moulded pulp.

[0089] Note that the embodiments described above are only examples. Persons skilled in the art will be able to carry out a numerous other modifications and variants within the framework of the present invention as defined in the enclosed patent claims.

CLAIMS

1. Packaging for foodstuff (1) comprising:
   - a bottom surface (2), wherein the bottom surface (2) is rectangular with first and second bottom edges (3a, 3b) and first and second short edges (4a, 4b);
   - first and second sidewalls (5a, 5b), each sidewall (5a, 5b) comprises:
     - a bottom edge (3a, 3b) shared with the bottom surface (2);
     - a top edge (6a, 6b);
     - first and second side ends (7a, 7b, 7c, 7d) connecting the bottom edge (3a, 3b) and the top edge (6a, 6b) to form a first trapezoid (8a, 8b); and
   - at least one locking element (19a, 19b, 19c) coupling the first and second sidewalls (5a, 5b) across an open top (18) having a width shorter than the first and second short edges (4a, 4b),

   wherein the first and second sidewalls (5a, 5b) define a height sufficient to cover the height of one piece of foodstuff.

2. Packaging (1) according to claim 1, wherein the first and second short edges (4a, 4b) of the bottom surface (2) define a width of the bottom surface (2) sufficient to fit one piece of foodstuff.

3. Packaging (1) according to any of claims 1-2, wherein the first and second bottom edges (3a, 3b) of the bottom surface (2) define a length of the bottom surface (2) sufficient to fit more than one piece of foodstuff.

4. Packaging (1) according to any of claims 1-3, wherein the bottom edge (3a, 3b) is longer than the top edge (6a, 6b).

5. Packaging (1) according to any of claims 1-4, wherein the first and second sidewalls (5a, 5b) each further comprises first and second

triangular flaps (9a, 9b, 9c, 9d), each triangular flap (9a, 9b, 9c, 9d) comprises a lower end edge (10a, 10b, 10c, 10d), an upper end edge (11a, 11b, 11c, 11d), and shares the side end (7a, 7b, 7c, 7d) with the first trapezoid (8a, 8b).

6. Packaging (1) according to claim 5, wherein the first triangular flap (9a) of the first sidewall (5a) and the first triangular flap (9c) of the second sidewall (5b) are bent at their side ends (7a, 7c) so that their lower end edges (10a, 10c) align with the first short edge (4a) of the bottom surface (2) and form a first triangular end wall (17a) and the second triangular flap (9b) of the first sidewall (5a) and the second triangular flap (9d) of the second sidewall (5b) are bent at their side ends (7b, 7d) so that their lower end edges (10b, 10d) align with the second short edge (4b) of the bottom surface (2) and form a second triangular end wall (17b).

7. Packaging (1) according to any of claims 5-6, wherein the first triangular flap (9a) of the first sidewall (5a) and the first triangular flap (9c) of the second sidewall (5b) are fastened together and the second triangular flap (9b) of the first sidewall (5a) and the second triangular flap (9d) of the second sidewall (5b) are fastened together.

8. Packaging (1) according to any of claims 1-7, wherein the first trapezoid (8a) of the first sidewall (5a) and the first trapezoid (8b) of the second sidewall (5b) each comprises:

- a second trapezoid (12a, 12b) comprising:
    - the bottom edge (3a, 3b);
    - an inner top edge (13a, 13b), which is an inner part of the top edge (6a, 6b); and
    - first and second diagonal lines (14a, 14b, 14c, 14d) connecting the inner top edge (13a, 13b) and the bottom edge (3a, 3b); and

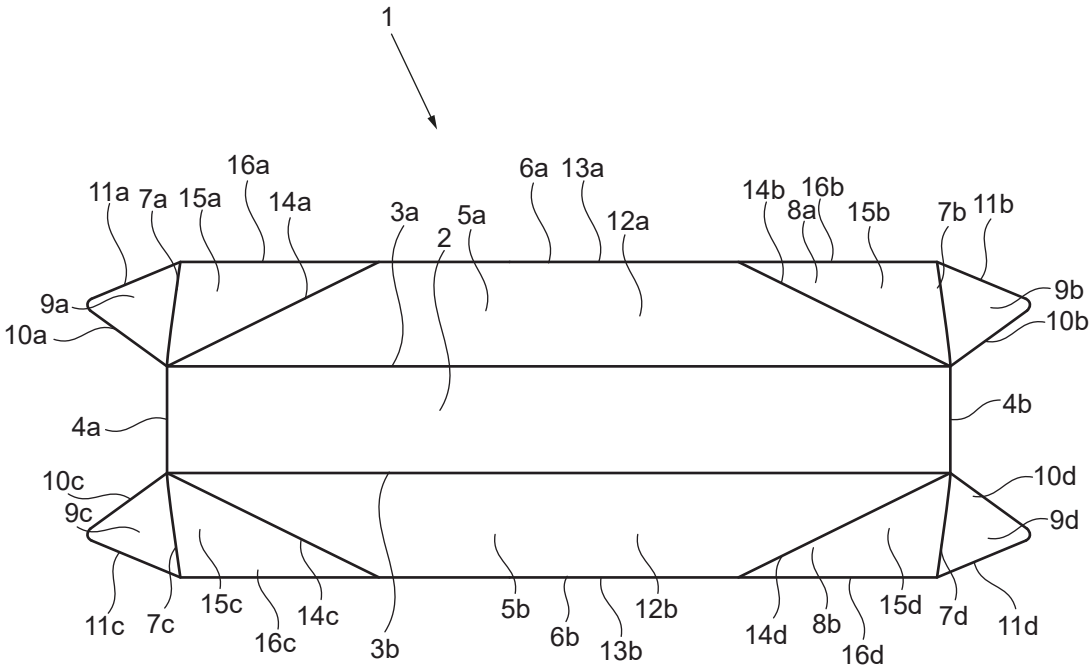
- first and second triangles (15a, 15b, 15c, 15d), each triangle comprises:
    - the side end (7a, 7b, 7c, 7d);
    - an outer top edge (16a, 16b, 16c, 16d), which is an outer part of the top edge (6a, 6b); and
    - the diagonal line shared with the second trapezoid (12a, 12b).

9. Packaging (1) according to claim 8, wherein the first and second sidewalls (5a, 5b) are bent along their diagonal lines (14a, 14b, 14c, 14d).

10. Packaging (1) according to any of claims 1-9, wherein the packaging (1) is formed from one continuous piece of material.

11. Packaging (1) according to any of claims 1-10, wherein the packaging (1) is made from moulded pulp, paperboard or cardboard, preferably from paperboard.

12. Packaging (1) according to any of claims 1-11, wherein the packaging for foodstuff (1) is for fruit, vegetables or eggs, preferably fruit.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14a
3a
5a
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6a
13a
12a
14b
16b
8a
15b
7b
11b
9a
10a
9b
10b
4a
4b
10c
9c
10d
9d
11c
7c
15c
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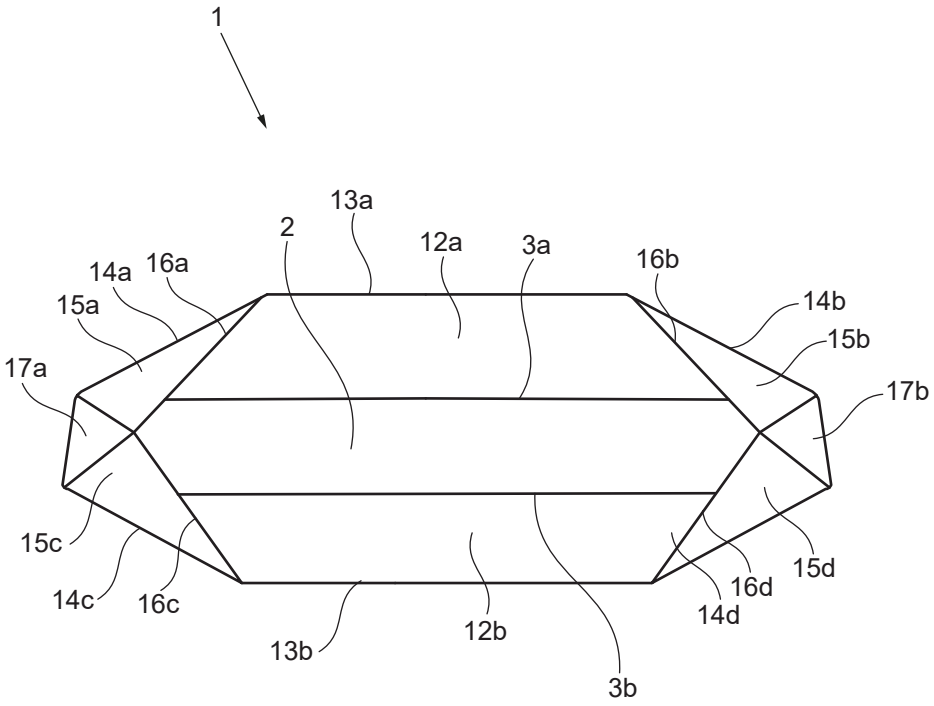
11d

FIG. 1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14a
16a
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16d
15d

FIG. 2

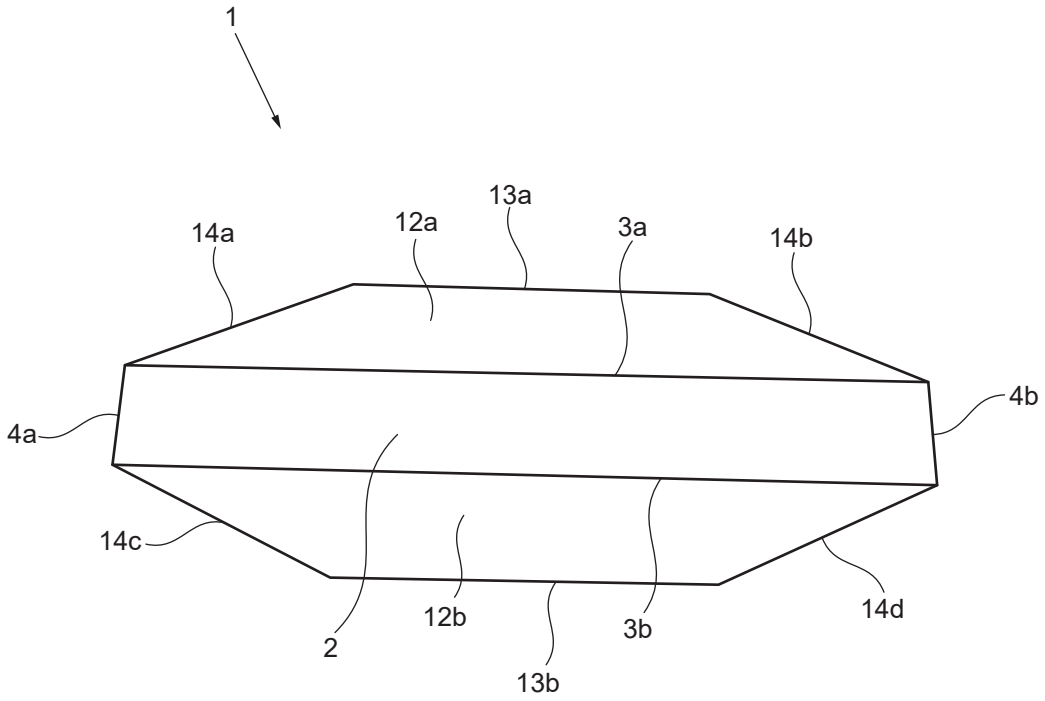

FIG. 3

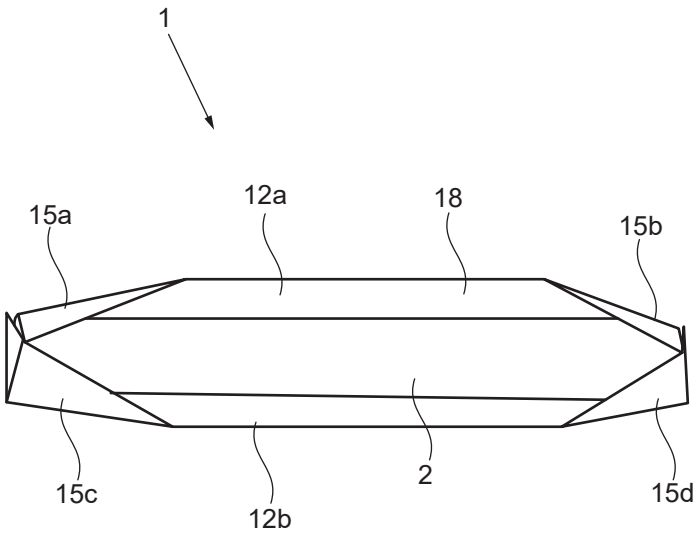

FIG. 4

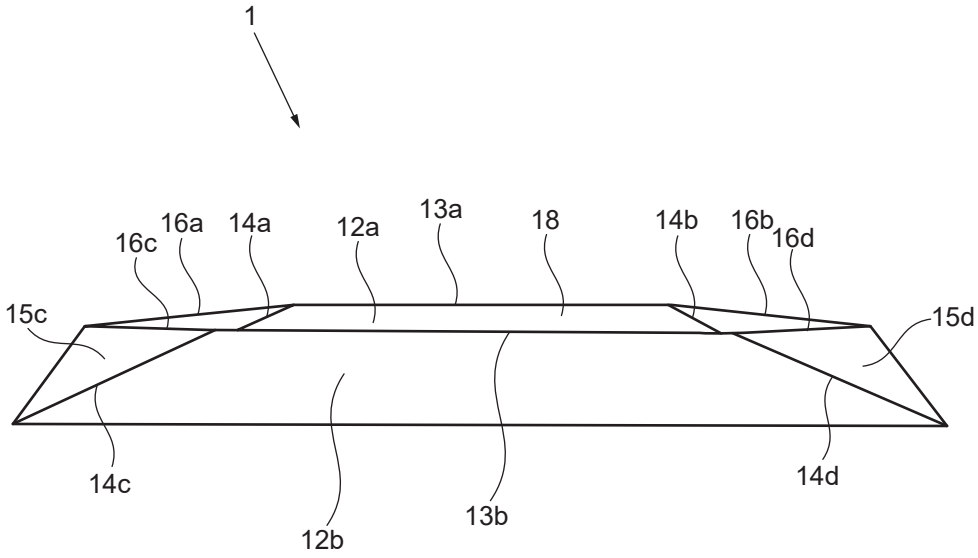

FIG. 5

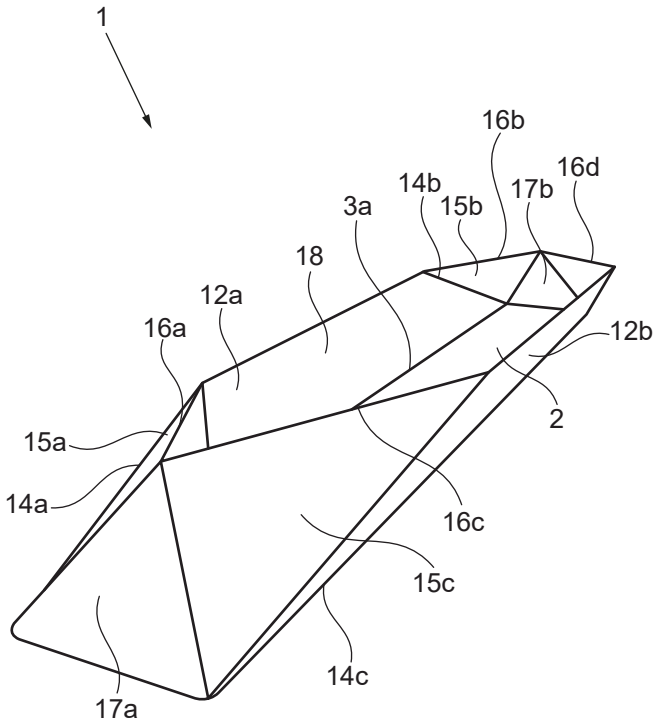

FIG. 6

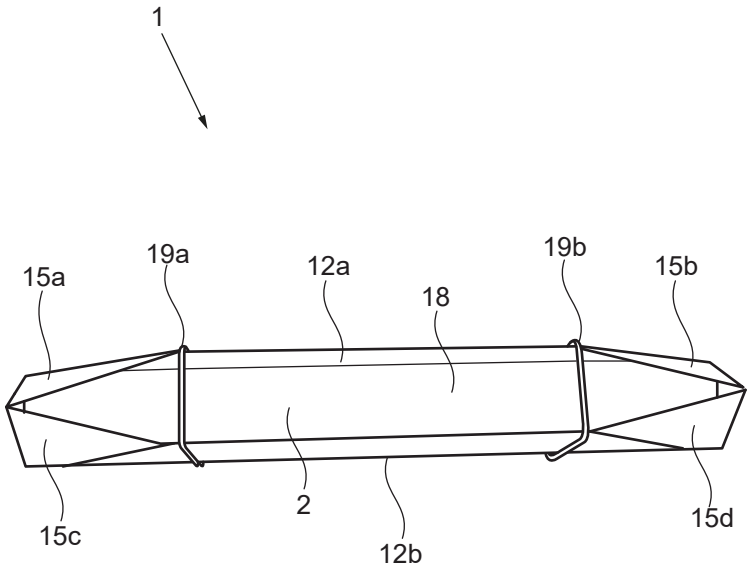

FIG. 7

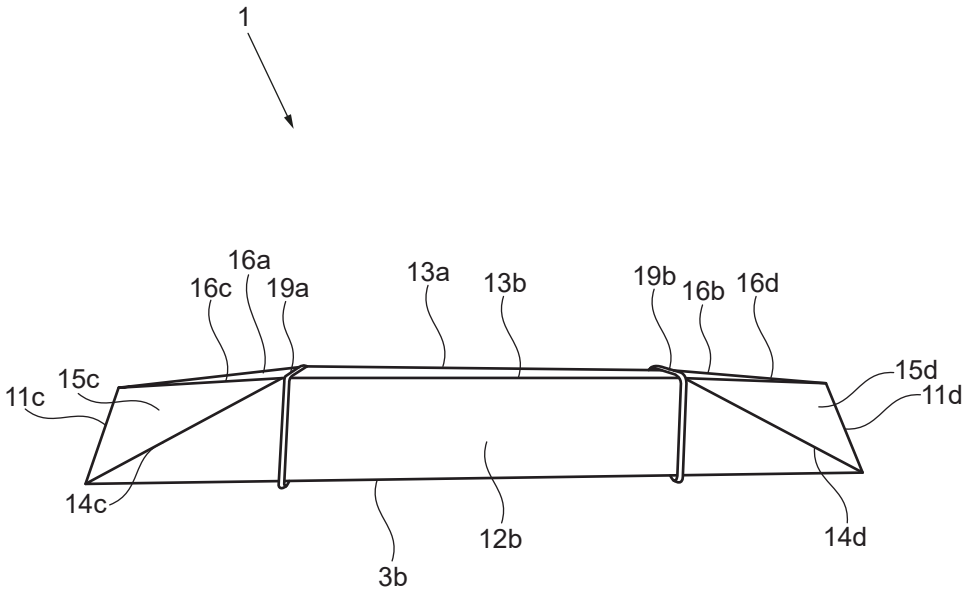

FIG. 8

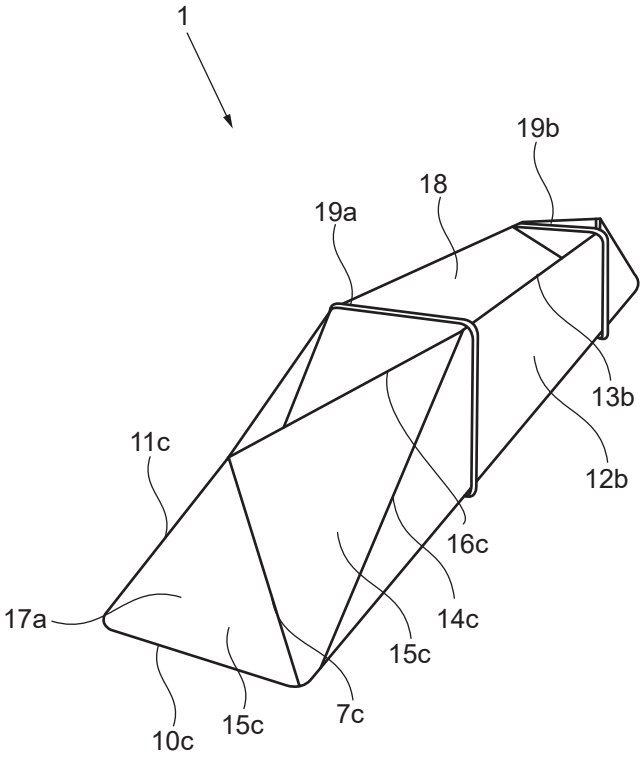

FIG. 9

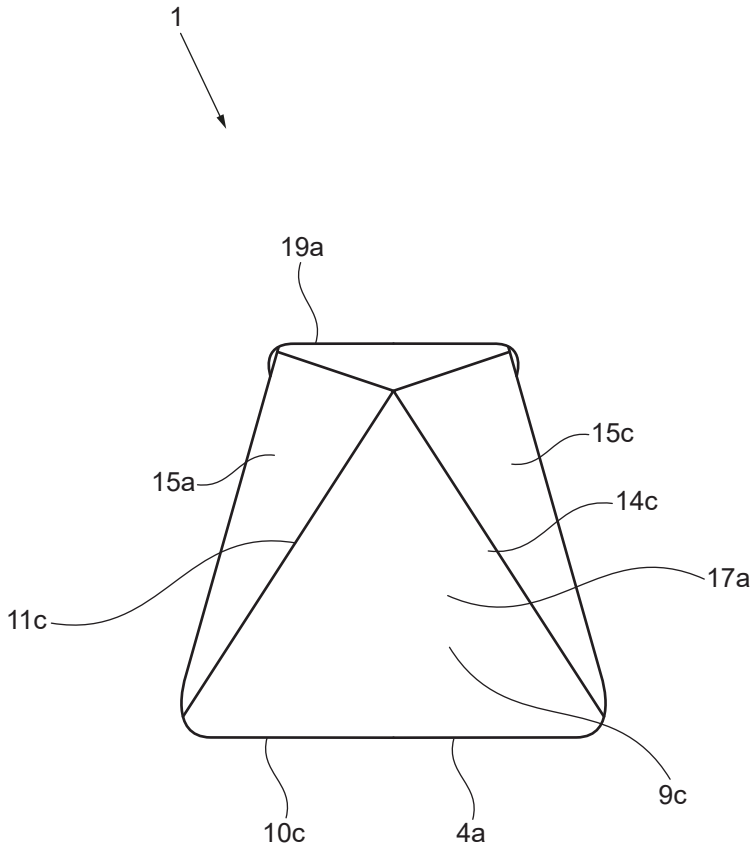

FIG. 10

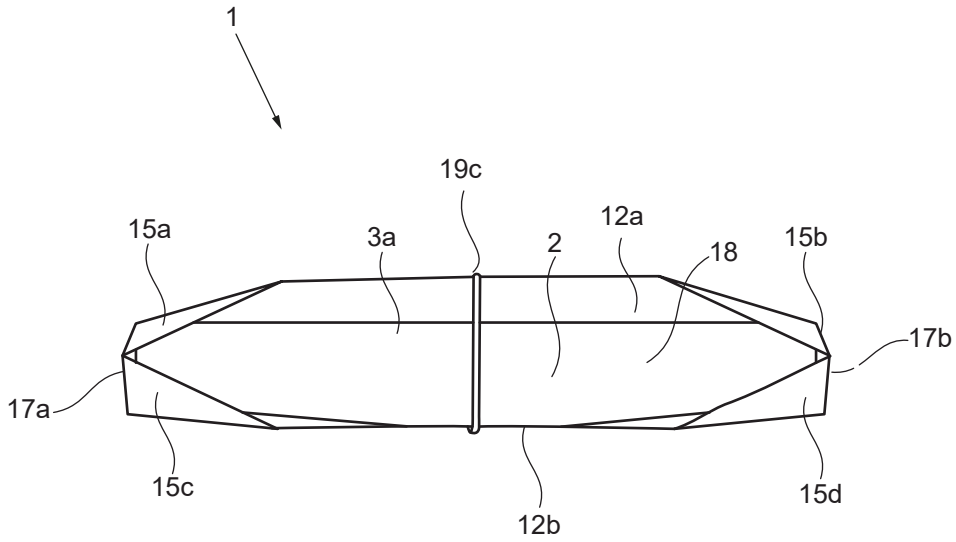

FIG. 11

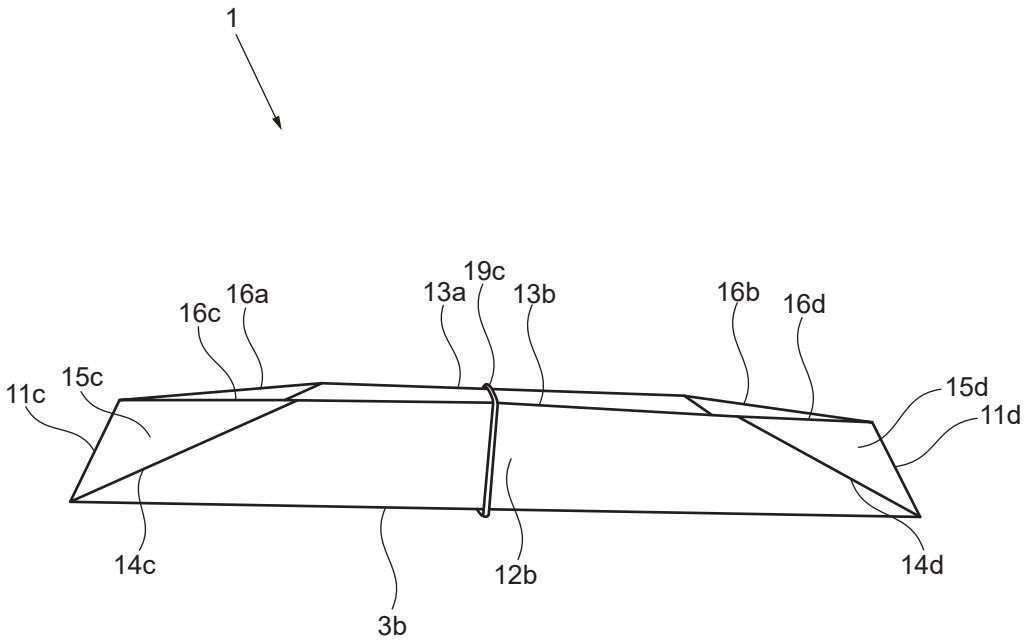

FIG. 12

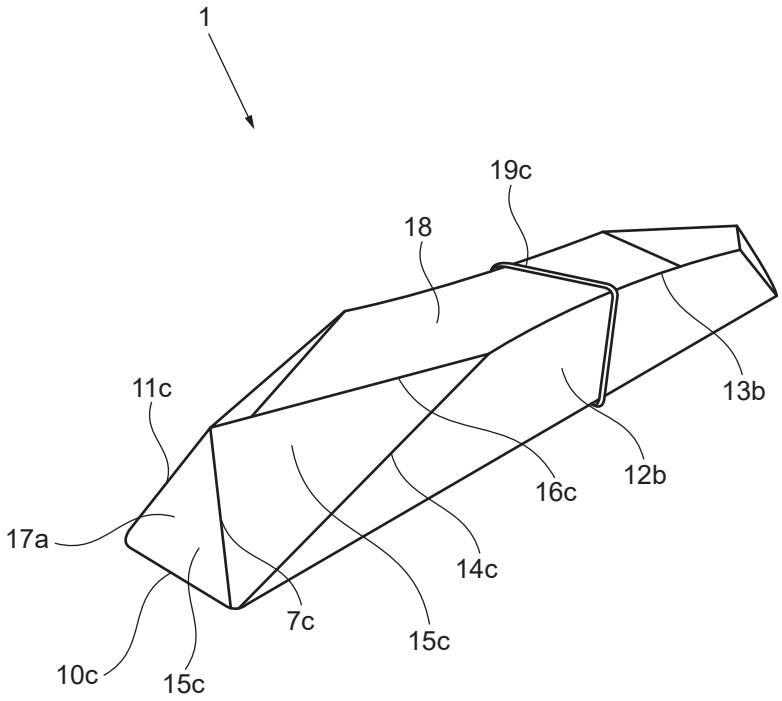

FIG. 13