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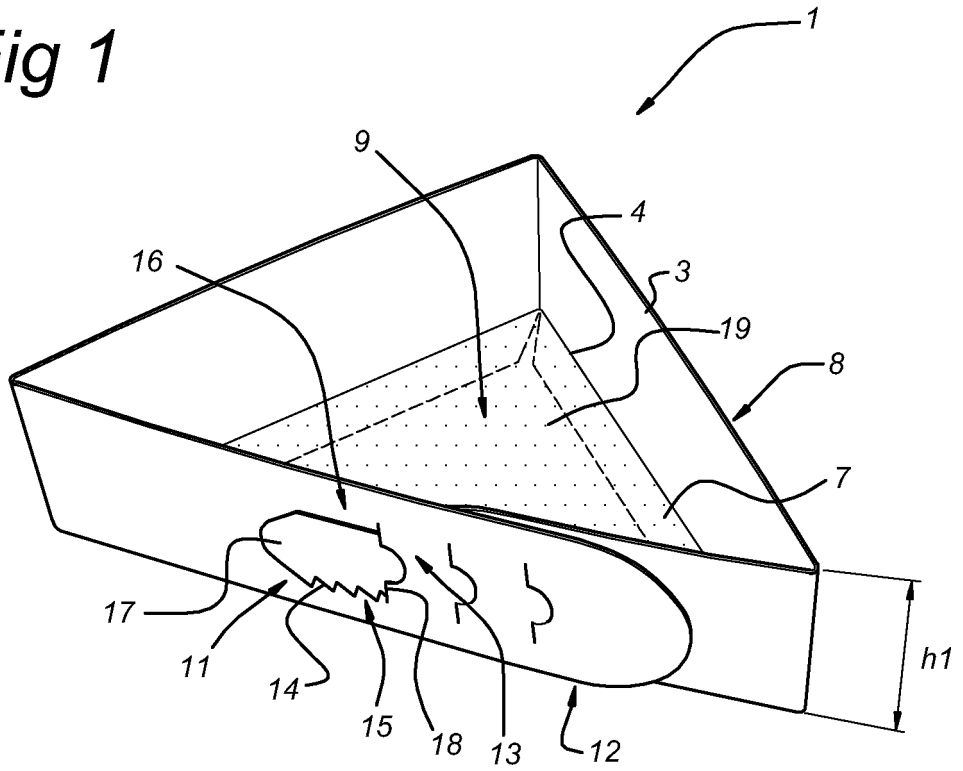
(54) Device for holding an edible product, such as a sandwich, and also a flat blank, an assembly and a method

(57) A device for holding an edible product, such as a sandwich, comprising a self-contained upright wall for surrounding the product, which wall has a first supporting edge and a second supporting edge for resting during use upon a first heated side and a second heated side respectively of a grill, and the device being made of heat-proof material, and during use the compressibility of the edible product being greater than that of the wall, and also a flat blank for producing such a device, an assembly of such a device and an edible product, and a method for heating such an assembly.

Fig 1



EP 1 862 394 A1

Description

[0001] The invention relates to edible products, such as filled bread products (for example a sandwich). These edible products are often heated by means of a grill with a first and a second heated side. The product is then placed between these two sides of the grill in such a way that the product makes contact with both sides. Through the weight of the side resting on the product, the product is greatly compressed. The result is that a product is obtained in which the texture differs greatly from the original texture. The high degree of compression in fact produces a densely packed texture. Many people find this texture not very appetizing. The shape of the highly compressed product differs greatly here from the original shape of the product prior to the heating. Many people find the flattened shape not very appealing. Furthermore, it often happens in the case of sandwich products that through the compression of the product the filling is squeezed out of the product. Apart from the disadvantage that this produces a filled product with less filling, it also means that the grill becomes soiled with residues of filling, which at a later stage often become caked on it.

[0002] One object of the present invention is to provide a device by means of which the edible product can be heated in the grill and a controlled compression of the product is achieved.

[0003] This object is achieved by the present invention by a device for holding an edible product, such as a sandwich, comprising a self-contained upright wall for surrounding the product, which wall has a first supporting edge and a second supporting edge for resting during use upon a first heated side and a second heated side respectively of a grill, and the device being made of heatproof material, and during use the compressibility of the edible product being greater than that of the wall.

[0004] The effect of the device is that an edible product can be held in the device in such a way that the wall surrounds the product. The edible product can then be heated with a grill having a first heated side and a second heated side by placing the second supporting edge of the device holding the edible product on the first heated side of the grill. After that, the second heated side of the grill can be placed on the first supporting edge. Owing to the fact that the compressibility of the product is greater than that of the wall, the second side of the grill will rest at least partially on the wall. This has the effect of relieving the pressure exerted upon the product by the second side of the grill. The result of this is that the product is subjected to less compression, or no compression at all. Controlled compression of the edible product is achieved in this way.

[0005] Furthermore, the device according to the invention has the advantage that owing to the fact that in use the wall of the device encloses the product, the original shape of the product in the peripheral direction is retained and the filling is prevented from being squeezed out. This is also advantageous if the device holding an edible product is being heated in an oven.

[0006] The wall can be designed so that it tapers from the second side towards the first side. This makes it easy to remove the edible product from the device.

[0007] In one embodiment of the device according to the invention the second supporting edge defines a bottom face, and the second supporting edge comprises a bottom edge extending transversely to the wall and partially overlapping the bottom face. The presence of the bottom edge greatly reduces the likelihood that during heating of the device containing an edible product liquids running out of the product will come into contact with the preparation equipment, such as the first side of the grill. This prevents soiling of the preparation equipment, such as the grill. Furthermore, the bottom edge improves the stability of the device. The bottom edge can have a width b of between 0.25 and 3 cm, and preferably 1 cm.

[0008] In a further embodiment of the device according to the invention the heatproof material can comprise cardboard. This is advantageous, since the device can then be mass-produced, and therefore produced cheaply. In the device according to the invention the wall can comprise in the peripheral direction a first and a second end, which ends are fixed to each other. This makes the device easy to place in such a way that the device encloses an edible product. The first and second ends can be fixed to each other by adjustable and removable fixing means. Furthermore, the fixing means can comprise barbs, for example a first side comprising barbs and a flat second side.

[0009] In yet another embodiment of the device according to the invention the wall of the device comprises at least one first line of weakness for tearing said wall. By tearing said wall, it is easier to remove the edible product from the device.

[0010] In a further embodiment of the device according to the invention the wall of the device has corners and the wall is substantially in the form of a triangle. This embodiment is advantageous, inter alia, for use in combination with an edible product having the triangular shape of a sandwich. In an alternative embodiment said wall is substantially in the form of a rectangle. This is advantageous, inter alia, for use in combination with two edible products having the triangular shape of a sandwich. The first line of weakness can extend in a corner of the wall.

[0011] In one embodiment the wall of the device according to the invention can have a height h1 of between 1 and 8 cm, and preferably 3.5 cm.

[0012] In one embodiment of the device according to the invention, the wall can be covered with a covering, such as a heatproof film/paper, for the purpose of preventing the edible product from sticking to the wall during use. A silicone paper can be used as the covering.

[0013] In a further embodiment of the device according to the invention the second supporting edge defines a bottom face, and the device has a bottom covering which partially overlaps the bottom face. It is also possible for

the bottom covering to overlap the bottom face substantially fully. The overlapping of the bottom face achieved by the bottom covering ensures that in use the preparation equipment, such as the grill, is not soiled. This application is suitable in particular for edible products which release a large quantity of moisture during the heating, such as bread products with one or more types of vegetable as the filling. The device according to the invention is preferably suitable for use in a microwave oven. This means that the device with the edible product can be preheated in a microwave oven before being heated further in a grill or conventional oven. Preheating in a microwave oven leads to a large quantity of moisture running out of the product. The bottom covering prevents this moisture from coming into contact with the preparation equipment. The bottom covering can comprise at least a part made of heatproof film/paper extending at least from the second supporting edge. In the situation with a number of parts of film/paper, the latter can together cover the bottom face, and the various parts can fully or partially overlap one another. In the situation where the wall comprises a covering of heatproof film/paper the part made of heatproof film/paper extending from the second supporting edge can be integral with the covering of the wall. In another embodiment the bottom covering can comprise openings. Said openings can be slits of a size between 0.5 and 1.5 cm, and preferably 1 cm. This embodiment is advantageous for use with edible products in the case of which it is desirable for them to acquire a crisp outside layer when heated, as is the case with many farinaceous products, for example toasted sandwiches. This embodiment provides the possibility for obtaining a crisp outside layer and for preventing soiling of the preparation equipment.

[0014] In yet a further embodiment according to the invention the bottom covering comprises a second line of weakness for tearing and/or folding the second bottom covering. This is advantageous for removing the edible product from the device. Furthermore, this embodiment is advantageous in the situation where the edible product is divided into several parts by a partition. The different parts of the edible product can be accessed easily by tearing and/or folding the bottom covering by means of the second line of weakness. In use, the second line of weakness preferably extends in the plane through the partition separating the edible product. In this case the first lines of weakness present in the wall of the device preferably connect up with the second line of weakness. The second line of weakness can extend diagonally over the bottom covering. The first and second lines of weakness can comprise incisions in the device.

[0015] The invention furthermore relates to a flat blank for producing a device according to the invention. The flat blank is defined by a longitudinal direction and a transverse direction, and comprises main panels for forming wall parts, and at least two potential first fold lines extending in the transverse direction. After production of the device, all wall parts together form the wall here. The flat blank can comprise at least one auxiliary panel for forming a lower edge part, and a potential second fold line extending in the longitudinal direction. Where there are a number of bottom edge parts, they together form the bottom edge after production of the device. The auxiliary panels can be interrupted at the position of the potential fold lines running in the transverse direction. This creates space for folding the flat blank into the desired shape. The flat blank can comprise a covering, such as a heatproof film. Furthermore, the flat blank can comprise a covering part such as a heatproof film/paper. The covering parts form the bottom covering after production of the device.

[0016] The invention also relates to a flat blank for producing a device according to the invention. The flat blank is defined by a longitudinal direction and a transverse direction, and comprises a bottom panel for forming a bottom covering, main panels for forming wall parts, and potential first fold lines extending in the longitudinal direction and transverse direction. The bottom panel can comprise a second line of weakness for tearing and/or folding the bottom panel. The second line of weakness can extend diagonally over the bottom panel.

[0017] The main panels of a flat blank according to the invention can comprise at least a first line of weakness for tearing a main panel.

[0018] The invention furthermore relates to an assembly comprising a device according to the invention and an edible product, such as a sandwich, in which the wall encloses the product and the compressibility of the product is greater than that of the wall. In one embodiment of the assembly according to the invention the wall has a height h1, the product has a height h2, and h2 is greater than h1. In this case h2 - h1 can be between 0.5 and 2.5 cm, and is preferably equal to 1.0 cm.

[0019] In one embodiment according to the invention h2 is substantially equal to h1.

[0020] The invention also relates to a method for heating an edible product, such as a sandwich, comprising the steps of:

- providing a grill with a first heated side and a second heated side,
- placing on the first heated side of the grill the second supporting edge of an assembly according to the invention, and
- then placing the second heated side of the grill on the first supporting edge.

[0021] In one embodiment the method according to the invention comprises the step of:

- placing the second heated side of the grill on the first supporting edge in such a way that the grill compresses the edible product. The degree of compression of the edible product during the heating affects not only the texture (the degree of lightness) of the product, but also the preparation time. The prepara-

tion time is shorter with a higher degree of compression than it is with a low degree of compression.

[0022] Embodiments of the device, flat blank and assembly according to the invention will be described in detail with reference to the drawings, in which:

Fig. 1 shows a perspective view of a device according to the invention;
Fig. 2 shows a bottom view of the device of Fig. 1;
Fig. 3 shows a top view of a flat blank for producing the device of Fig. 1;
Fig. 4 shows a perspective view of an assembly of the device of Fig. 1 and a sandwich;
Fig. 5 shows a perspective view of a further embodiment of the device according to the invention;
Fig. 6 shows a perspective view of another embodiment of the device according to the invention;
Fig. 7 shows a perspective view of an assembly of the device of Fig. 6 and two sandwiches,
Fig. 8 shows a perspective view of the device of Fig. 6 in a folded situation; and
Fig. 9 shows a top view of a flat blank for producing the device of Fig. 6.

[0023] Figure 1 shows a device 1 for holding an edible product, such as a sandwich, comprising a self-contained upright wall 8 for surrounding the product, which wall comprises a first supporting edge 3 and a second supporting edge 4. The device 1 is made of heatproof material. The second supporting edge 4 defines a bottom face 9 and comprises a bottom edge 7 extending transversely to the wall 8 and partially overlapping the bottom face 9. A bottom covering 19 is fixed on the bottom edge 7, which bottom covering 19 fully overlaps the bottom face 9. The bottom covering 19 is composed of two parts, as will be explained in greater detail with reference to Fig. 3. The device 1 is made of heatproof cardboard and comprises a first end 11 and a second end 12. These ends 11 and 12 are interconnected by fixing means 13. The fixing means 13 are composed of a connecting strip 17 and a connecting opening 18. The connecting strip 17 has a first side 15 with barbs 14 and a flat second side 16. The connecting strip 17 is inserted through the connecting opening 18 in such a way that the barbs 14 engage in the connecting opening 18 in order to secure the connection. By means of the flat second side 16, the connecting strip 17 is easy to place in a position not engaging with the connecting opening 18, in order to move the connecting strip 17 through the connecting opening 18. An adjustable and removable connection between the ends 11 and 12 is achieved in this way. In order to adjust the connection between the two ends 11 and 12, the device 1 comprises a number of connection openings 18 lying a distance apart. The wall 8 has a height h1.

[0024] Figure 2 shows a bottom view of the device according to Fig. 1. The bottom face 9 defined by the second supporting edge 4 is fully visible in this view. The bottom edge 7, which is interrupted at various points, partially overlaps the bottom face 9. The bottom covering 19 fully overlaps the bottom face 9. The bottom edge 7 has a width b.

[0025] Figure 3 shows a top view of a flat blank for producing the device of Fig. 1. The flat blank 20 is defined by a longitudinal direction 27 and a transverse direction 28. The flat blank 20 comprises main panels 23 for forming wall parts, and three potential first fold lines 24 extending in the transverse direction 28. Furthermore, the flat blank 20 comprises four auxiliary panels 26 for forming bottom edge parts, and four potential second fold lines 25 extending in the longitudinal direction. The auxiliary panels 26 are interrupted at the position of the potential first fold lines 24 running in the transverse direction. Furthermore, the flat blank comprises triangular covering parts 29 which are fixed on auxiliary parts 26.

[0026] Figure 4 shows a perspective view of an assembly of the device of Fig. 1 and an edible product. The assembly 10 is defined by a vertical direction 30 and comprises a device 1 and an edible product 2 (a sandwich). The wall 8 surrounds the product 2. The wall 8 is shaped in such a way and made of such material that the compressibility of the product 2 is greater than the compressibility of the wall 8. Reference to the compressibility means the compressibility in the vertical direction 30. The wall 8 has a height h1, and the product 2 has a height h2. In this case height h2 is greater than height h1.

[0027] Figure 5 shows a perspective view of a further embodiment of the device according to the invention. The device 1' comprises wall parts 31 which together form the wall 8'. The wall parts 31 can be connected to each other in any way known in the prior art. Each wall part 31 comprises a first supporting edge part 32 and a second supporting edge part 33. The first supporting edge parts 32 of the wall parts 31 together form the first supporting edge 3'. The second supporting edge parts 33 of the wall parts 31 together form the second supporting edge 4'. The first supporting edge part 32 has a length z1, and the second supporting edge part 33 has a length z2. In this case z1 is greater than z2, so that the device has a tapered shape in the vertical direction 30'. The wall 8' is covered with a wall covering 34 on the inside. The bottom face 9' is covered by a bottom covering 19', which contains openings 35, in this case perforated slits. The bottom covering 19' can be fixed to the bottom edge 7'. The tapered shape of the device 1' means that when it is in use the edible products are easier to remove from the device 1'.

[0028] Figure 6 shows a perspective view of another embodiment of the device according to the invention. The device 1" has a self-contained upright wall 8" for surrounding an edible product. The wall 8" has a first supporting edge 3" and a second supporting edge 4" for resting upon a first heated side and a second heated side of a grill respectively when in use. The wall 8" is formed by wall parts 31 " which have a first supporting edge part 32" and a second supporting edge part 33". The first sup-

porting edge parts 32" have a greater length than the second supporting edge parts 33", so that the device 1" has a tapered shape. The wall 8" is covered with a covering 34" and surrounds a rectangular bottom face 9". A bottom covering 19" with openings 35" extends over the bottom face 9". A first line of weakness 40 extends in two corners 42 of the wall 8". The first line of weakness 40 serves to tear open the wall 8". A second line of weakness 41 extends diagonally over the bottom covering 19" in such a way that it connects up with the two first lines of weakness 40.

[0029] Figure 7 shows a perspective view of an assembly 10" of the device 1" of Fig. 6 and two sandwiches. The two sandwiches 2" are an edible product which is divided into two parts by a partition 46. The first lines of weakness 40 and second lines of weakness 41 extend in a plane (not shown) extending through the partition 46.

[0030] Figure 8 shows a perspective view of the device of Fig. 6 in a folded situation. In the device 1'' the wall parts 31 " are separated from each other along the first lines of weakness 40. The bottom covering 19" is then folded over along the second line of weakness 41 " in such a way that parts of the bottom covering 19" are positioned resting against each other. This means that when the device is in use the sandwiches 2" can easily be removed from it.

[0031] Figure 9 shows a top view of a flat blank for producing the device of Fig. 6. The flat blank 20" is defined by a longitudinal direction 27" and a transverse direction 28". The flat blank 20" has a bottom panel 44 for forming a bottom covering, main panels 23" for forming wall parts, and potential first fold lines 24"extending in the longitudinal direction 27" and transverse direction 28". Two main panels 23" have fixing lips 43 for fixing the main panels 23" to each other. The fixing lips 43 are bounded by a third potential fold line 45. The main panels 23" have first lines of weakness 43 for tearing open the main panels 23". Furthermore, the main panels 23" have fourth fold lines 47 for folding together a device that has been produced, as shown in Figure 6. The bottom panel 44 has a second line of weakness 41 for tearing and/or folding the bottom panel 44. The second line of weakness 41 extends diagonally over the bottom panel 44.

[0032] It will be clear to the person skilled in the art that many variants of the device, flat blank, assembly and method according to the invention are conceivable, without going beyond the scope of protection.

Claims

1. Device (1) for holding an edible product (2), such as a sandwich, comprising a self-contained upright wall (8) for surrounding the product (2), which wall (8) has a first supporting edge (3) and a second supporting edge (4) for resting during use upon a first heated side and a second heated side of a grill respectively, and the device being made of heatproof material and during use the compressibility of the edible product (2) being greater than that of the wall (8).

2. Device according to Claim 1, in which the second supporting edge (4) defines a bottom face (9) and comprises a bottom edge (7) extending transversely to the wall (8) and partially overlapping the bottom face (9).

3. Device according to one of the preceding claims, in which the bottom edge (7) has a width b of between 0.25 and 3 cm, and preferably 1 cm.

4. Device according to one of the preceding claims, in which the heatproof material comprises cardboard.

5. Device according to one of the preceding claims, in which the wall (8) in the peripheral direction comprises a first and second end (11 and 12), which ends are fixed to each other.

6. Device according to Claim 5, in which the first and second ends (11 and 12) are fixed to each other by adjustable and removable fixing means (13).

7. Device according to Claim 6, in which the fixing means comprise barbs (14).

8. Device according to Claim 7, in which the fixing means comprise a first side (15) comprising barbs (14) and a flat second side (16).

9. Device according to one of the preceding claims, in which the wall (8) comprises at least one first line of weakness (40) for tearing said wall (8).

10. Device according to one of the preceding claims, in which the wall (8) comprises corners (42) and is substantially in the form of a triangle.

11. Device according to one of Claims 1 - 9, in which the wall (8) comprises corners (42) and is substantially in the form of a rectangle.

12. Device according to Claim 10 or 11 and in conjunction with Claim 9, in which the first line of weakness (40) extends in a corner (42) of the wall (8).

13. Device according to one of the preceding claims, in which the wall (8) has a height h1 of between 1 and 8 cm, and preferably 3.5 cm.

14. Device according to one of the preceding claims, in which the wall (8) is covered with a covering, such as a heatproof film/paper, for the purpose of preventing the edible product (2) from sticking to the wall (8) during use.

15. Device according to one of the preceding claims, in which the second supporting edge (4) defines a bottom face (9) and the device (1) comprises a bottom covering (19) which partially overlaps the bottom face (9).

16. Device according to one of Claims 1 - 14, in which the second supporting edge (4) defines a bottom face (9) and the device (1) comprises a bottom covering (19) which substantially fully overlaps the bottom face (9).

17. Device according to Claim 15 or 16, in which the bottom covering (19) comprises openings (35).

18. Device according to one of Claims 15 - 17, in which the bottom covering (19) comprises at least one part made of heatproof film/paper extending from the second supporting edge (4).

19. Device according to one of Claims 15 - 18, in which the bottom covering (19) comprises a second line of weakness (41) for tearing and/or folding the second bottom covering (19).

20. Device according to Claim 19, in which the second line of weakness (41) extends diagonally over the bottom covering (19).

21. Device according to Claim 19 or 20 and in conjunction with one of Claims 9 - 14, in which the first line of weakness (40) connects to the second line of weakness (41).

22. Flat blank (20) for producing a device according to one of the preceding claims, which is defined by a longitudinal direction (27) and a transverse direction (28), and comprises main panels (23) for forming wall parts, and at least two potential first fold lines (24) extending in the transverse direction (28).

23. Flat blank according to Claim 22, which comprises at least one auxiliary panel (26) for forming a bottom edge part, and at least one potential second fold line (25) extending in the longitudinal direction.

24. Flat blank according to Claim 23, in which the auxiliary panel (26) is interrupted at the position of the potential first fold lines (24) running in the transverse direction.

25. Flat blank according to one of Claims 22 - 25, which comprises at least one covering part (29), such as a heatproof film/paper.

26. Flat blank (20) for producing a device according to one of Claims 1-21, which is defined by a longitudinal direction (27) and a transverse direction (28), and comprises a bottom panel (44) for forming a bottom covering, main panels (23) for forming wall parts, and potential first fold lines (24) extending in the longitudinal direction (27) and transverse direction (28).

27. Flat blank according to one of Claims 22 - 26, in which the main panels (23) comprise at least one first line of weakness (40) for tearing a main panel (23).

28. Flat blank according to Claim 26, in which the base panel (44) comprises a second line of weakness (41) for tearing and/or folding the bottom panel(44).

29. Flat blank according to Claim 28, in which the second line of weakness (41) extends diagonally over the bottom panel (44).

30. Assembly (10) comprising a device (1) according to one of Claims 1-21 and an edible product (2), such as a sandwich, in which the wall (8) surrounds the product (2) and the compressibility of the product (2) is greater than that of the wall (8).

31. Assembly according to Claim 30, in which the wall (8) has a height h1, the product (2) has a height h2, and h2 is greater than h1.

32. Assembly according to Claim 31, in which h2 - h1 are between 0.5 and 2.5 cm, and are preferably equal to 1.0 cm.

33. Method for heating an edible product (2), such as a sandwich, comprising the steps of:

- providing a grill with a first heated side and a second heated side,
- placing on the first heated side of the grill the second supporting edge (4) of an assembly according to one of Claims 18 - 20, and
- then placing the second heated side of the grill on the first supporting edge (3).

34. Method according to Claim 33, which comprises the step of:

- placing the second heated side of the grill on the first supporting edge (3) in such a way that the grill compresses the edible product.

Fig 1

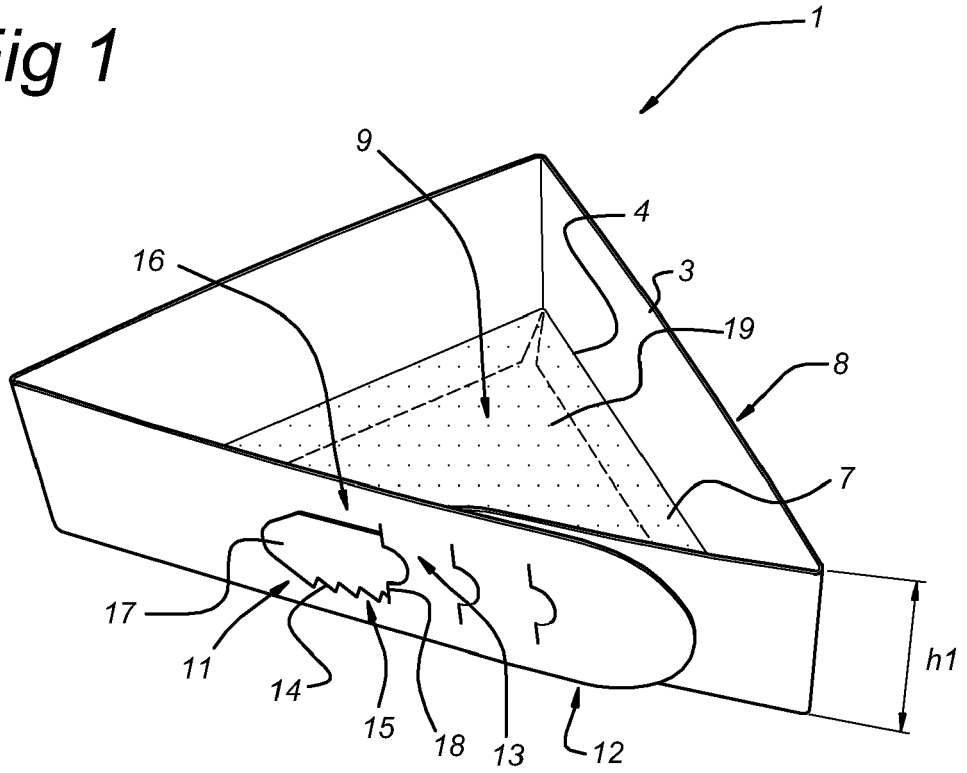


Fig 2

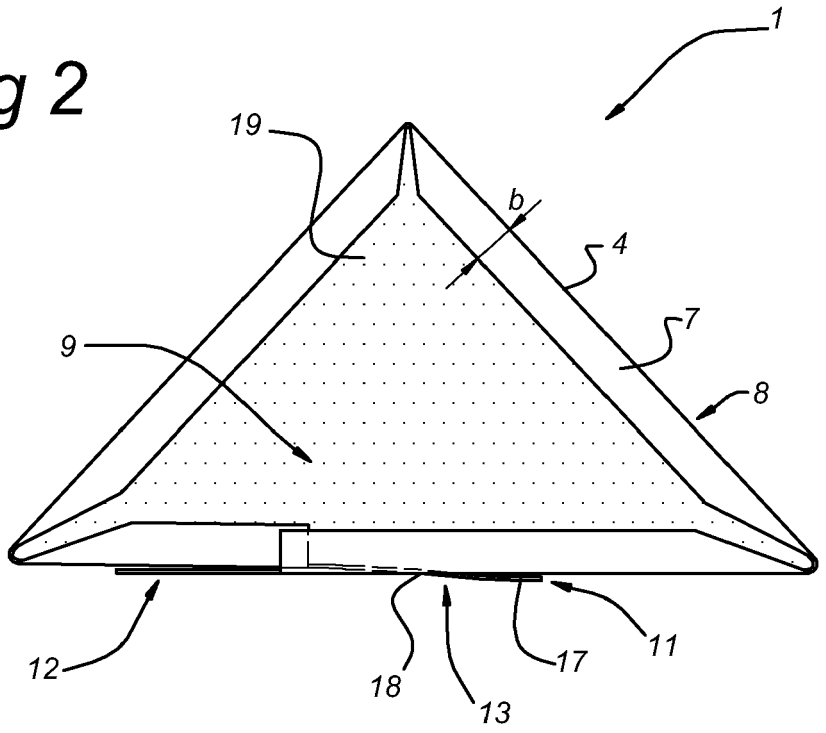


Fig 3

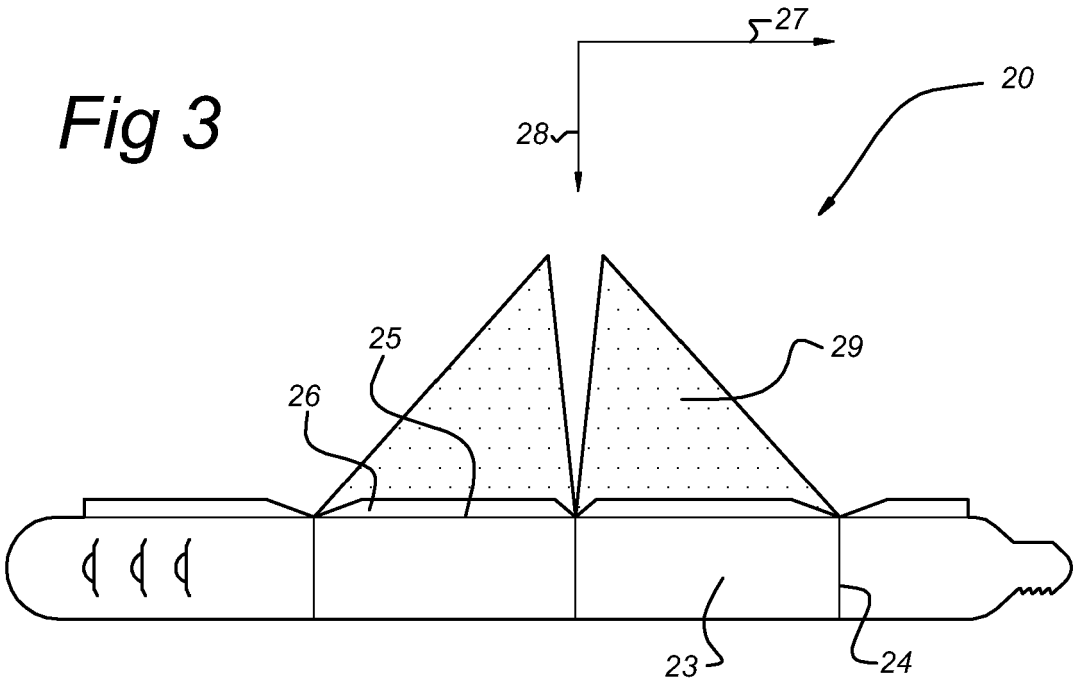


Fig 4

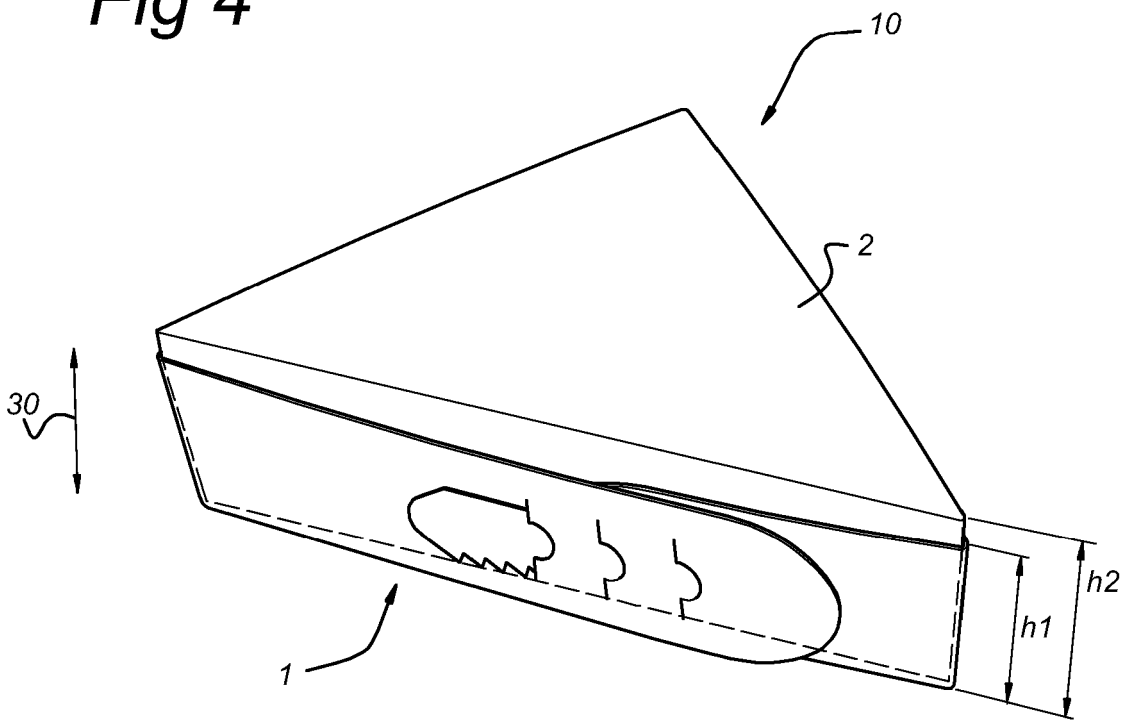


Fig 5

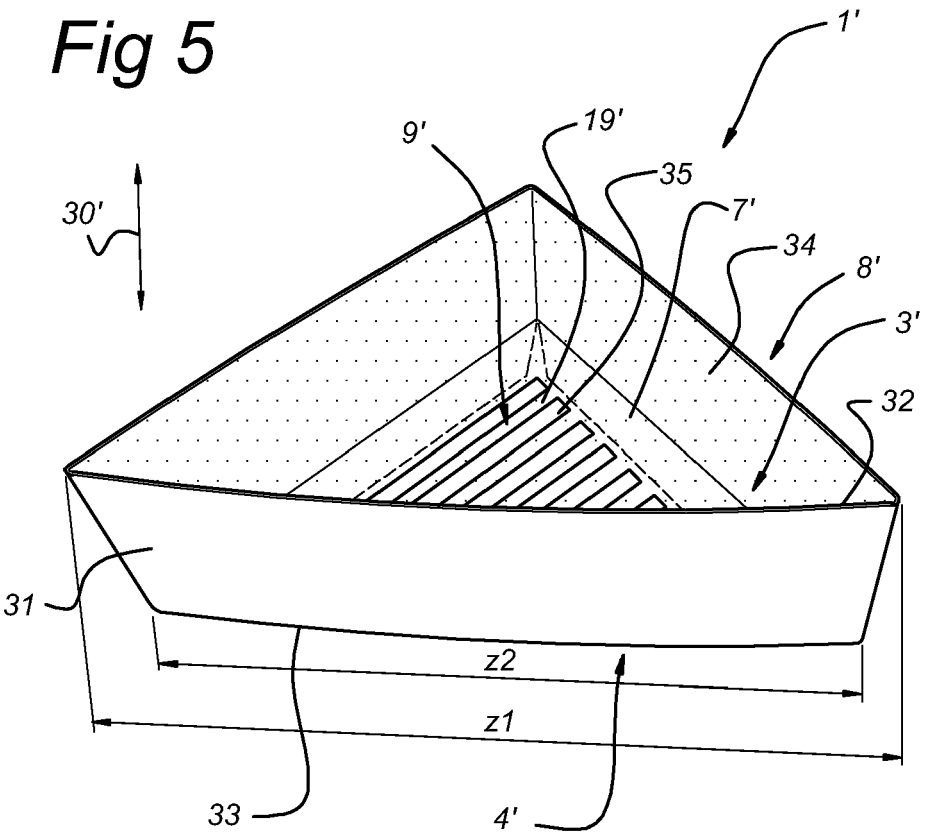


Fig 6

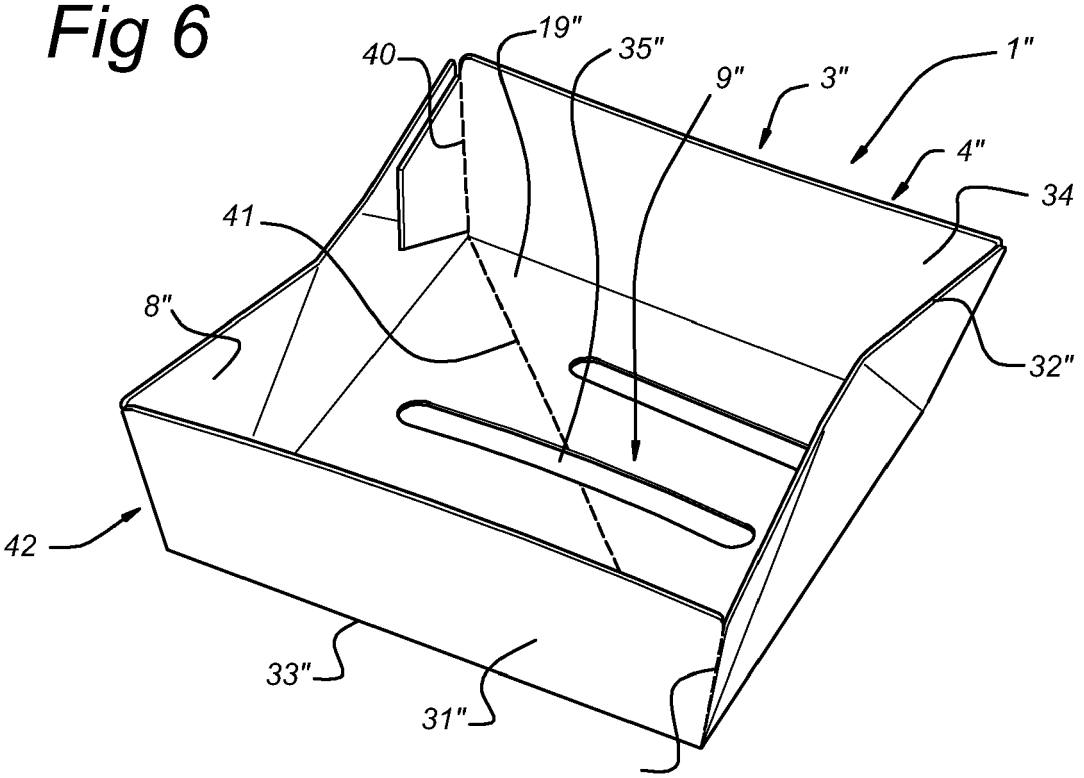


Fig 7

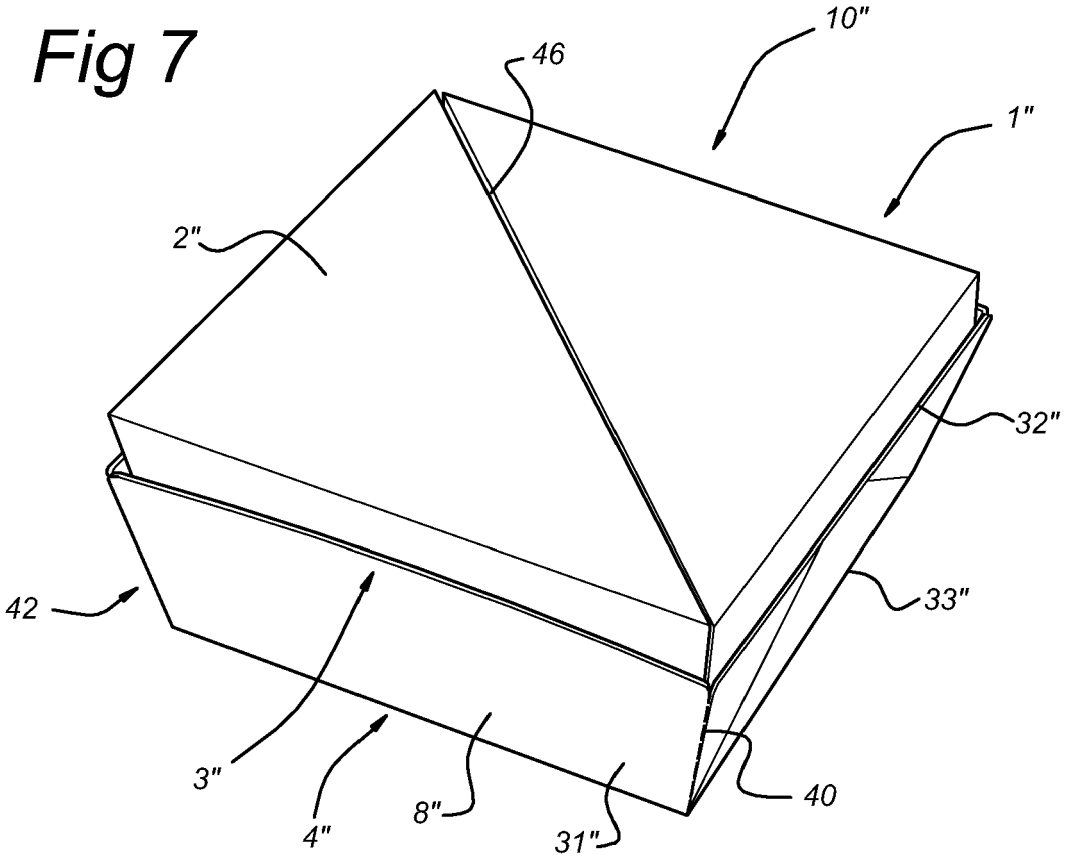


Fig 8

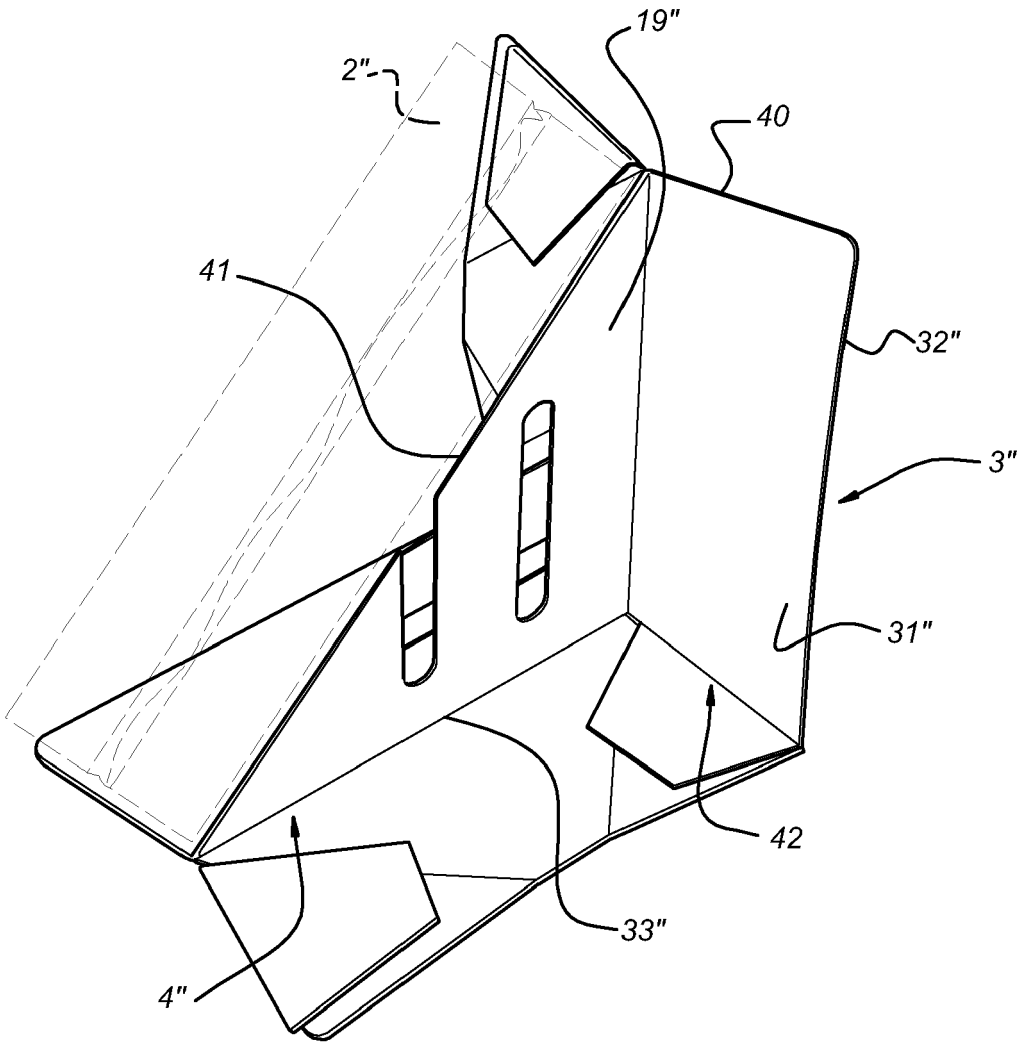
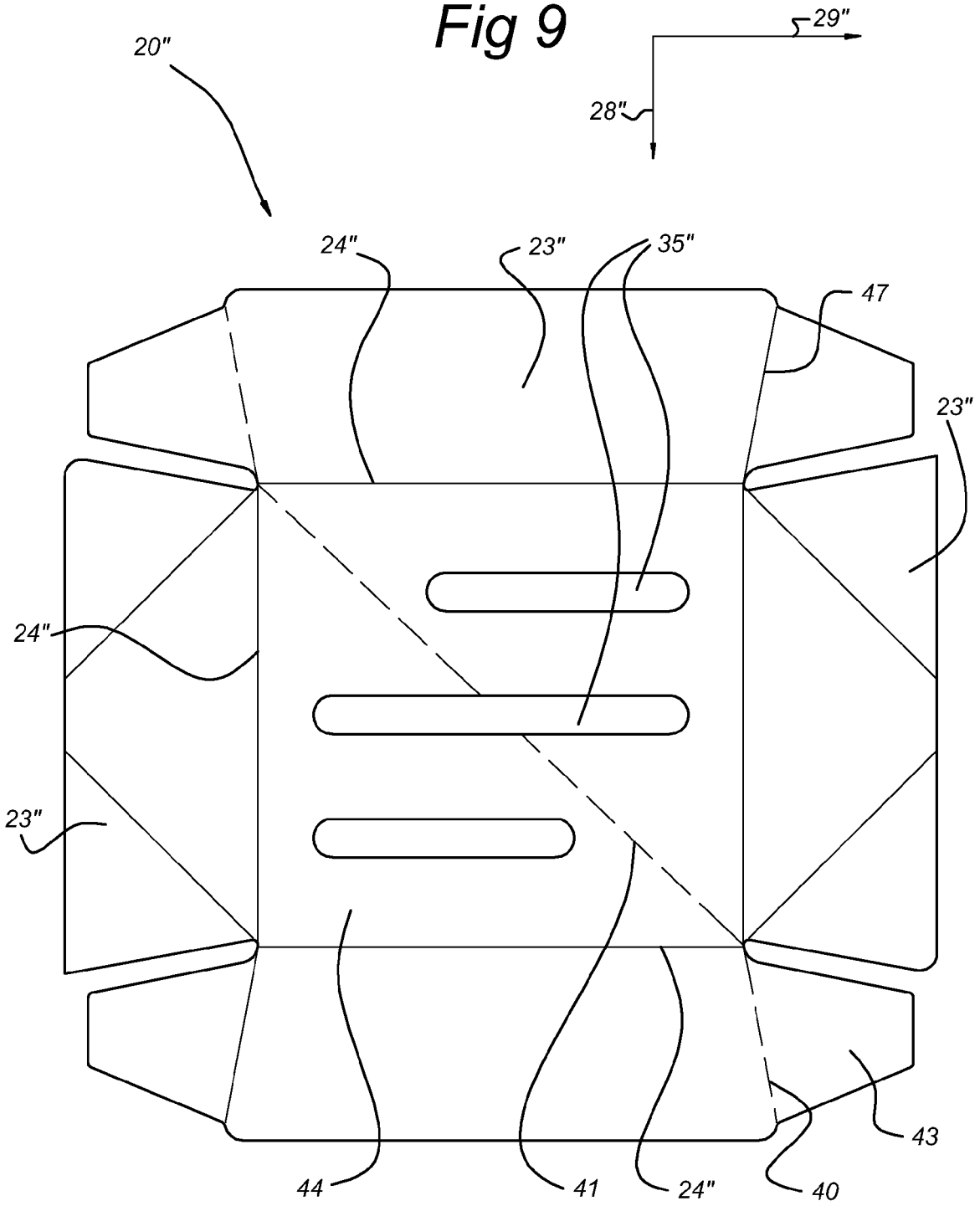


Fig 9



European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 07 10 9182

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	24 September 2007	Jervelund, Niels

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