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(71) Applicant: **Japan Tobacco, Inc.**
Tokyo 105-8422 (JP)

(72) Inventors:
- **KOKUBUN, Yasushi**
  Tokyo 130-8603 (JP)
- **HAYASHI, Hideo**
  Tokyo 135-0044 (JP)

(74) Representative: **Isarpatent**
Patent- und Rechtsanwälte
Friedrichstrasse 31
80801 München (DE)

(54) **PACKAGING CONTAINER**

(57) A packaging container (1) includes a storage (5) which stores a packaging target (T) and which is open at its top; a lid (6) which closes the opening of the storage (5); a hinge (7) which joins the storage (5) and the lid (6) so that the storage (5) and the lid (6) are integral with each other and so that the lid (6) is rotatable relative to the storage (5); and interfering portions (8) which are provided in the storage (5) and the lid (6) and which interfere with each other to regulate the movement of the lid (6) that has rotated around the hinge (7) in a direction to move away from the storage (5).

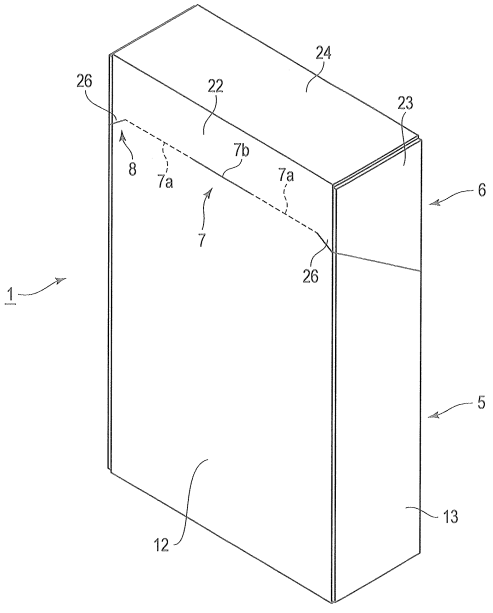

FIG. 1

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Description

Technical Field

[0001] The present invention relates to a packaging container to package a packaging target.

Background Art

[0002] At present, a packaging container to package a packaging target such as cigarettes is known. For example, packaging containers disclosed in Jpn. Pat. Appln. KOKAI Publication No. 2008-087775 and Jpn. Pat. Appln. KOKAI Publication No. 2002-96823 each comprises a storage to store a packaging target, and a lid which covers an opening end of the storage, wherein the lid is rotatable relative to the storage. In this packaging container, the storage and the lid are integrally formed. The packaging container allows the packaging target in the storage to be taken out when the opening end of the storage is opened by the rotation of the lid.

Citation List

Patent Literature

[0003]

Patent Literature 1: Jpn. Pat. Appln. KOKAI Publication No. 2008-087775
Patent Literature 2: Jpn. Pat. Appln. KOKAI Publication No. 2002-96823

Summary of Invention

Technical Problem

[0004] The packaging container described above has the following problems. That is, the packaging container described above is made of a paper material, and a continuous portion between the storage and the lid serves as a hinge by which the lid is rotated. This hinge is a fold formed by folding an indentation when the packaging container is opened. The indentation is formed by pressing the paper material when the packaging container is formed. Thus, if the lid is un-held after rotated around the hinge, the lid is rotated in a closing direction by the resilience of the hinge.

[0005] Therefore, it is preferable to hold the lid after the rotation to take out the packaging target in the storage. However, in a condition in which, for example, hands are full, it may be impossible to hold the lid. Thus, there are demands for a packaging container which can keep the lid rotated, that is, keep the opening of the storage open without holding the lid after the rotation of the lid.

[0006] Accordingly, an object of the present invention is to provide a packaging container which can easily keep an opening of a storage open.

Solution to Problem

[0007] To solve the above-mentioned problems and achieve the object, a packaging container according to the present invention is configured as below.

[0008] According to one aspect of the present invention, there is provided a packaging container including a storage which stores a packaging target and which is open at its top; a lid which closes the opening of the storage; and a hinge which joins the storage and the lid so that the storage and the lid are integral with each other and so that the lid is rotatable relative to the storage, wherein the storage and the lid include interfering portions which interfere with each other to regulate the movement of the lid that has rotated around the hinge in a direction to move away from the storage.

Advantageous Effects of Invention

[0009] According to the present invention, it is possible provide a packaging container which can easily keep an opening of a storage open.

Brief Description of Drawings

[0010]

FIG. 1 is a perspective view showing the configuration of a packaging container according to a first embodiment of the present invention;
FIG. 2 is a perspective view showing the configuration of the packaging container;
FIG. 3 is a plan view showing the configuration of a blank of the packaging container;
FIG. 4 is a plan view showing the configuration of a blank of the packaging container;
FIG. 5 is a perspective view showing the configuration of a packaging container according to a second embodiment of the present invention;
FIG. 6 is a perspective view showing the configuration of the packaging container;
FIG. 7 is a plan view showing the configuration of a blank of the packaging container;
FIG. 8 is a plan view showing the configuration of the blank of the packaging container;
FIG. 9 is a plan view showing the configuration of a blank of a packaging container according to a third embodiment of the present invention;
FIG. 10 is a plan view showing the configuration of a blank of the packaging container;
FIG. 11 is a plan view showing the configuration of a blank of a packaging container according to a fourth embodiment of the present invention;
FIG. 12 is a plan view showing the configuration of a blank of the packaging container;
FIG. 13 is a plan view showing the configuration of a modification of the blank of the packaging container according to the fourth embodiment of the present

invention;

FIG. 14 is a plan view showing the configuration of a blank of a packaging container according to a fifth embodiment of the present invention; and

FIG. 15 is a plan view showing the configuration of the blank of the packaging container.

Description of Embodiment

(First Embodiment)

[0011] A packaging container 1 according to a first embodiment of the present invention is described below with reference to FIG. 1 to FIG. 4.

[0012] FIG. 1 is a perspective view showing the configuration of the packaging container 1 according to the first embodiment of the present invention seen from the rear. FIG. 2 is a perspective view showing the configuration of the packaging container 1 seen from the front. FIG. 3 is a plan view showing the configuration of a first blank 3 used in the packaging container 1. FIG. 4 is a plan view showing the configuration of a second blank 4 used in the packaging container 1.

[0013] As shown in FIG. 1 to FIG. 4, the packaging container 1 comprises a storage 5, a lid 6, a hinge 7, and interfering portions 8. The packaging container 1 has the storage 5, the lid 6, the hinge 7, and the interfering portions 8 that are integrally formed. The packaging container 1 is substantially formed into a rectangular parallelepiped in outer shape when a packaging target is packaged therein.

[0014] The packaging container 1 also comprises an outer body 9 which forms an outer shell of the packaging container 1 when the packaging container 1 is closed, and an inner body 10 which is located inside the outer body 9 and forms a part of the inner shape of the packaging container 1 when the packaging container 1 is closed.

[0015] The outer body 9 constitutes one part of the storage 5, the lid 6, the hinge 7, and one part of the interfering portions 8. The inner body 10 constitutes the other part of the storage 5 and the other part of the interfering portions 8.

[0016] To explain in detail, the packaging container 1 is, for example, what is known as a cigarette case capable of packaging a cigarette T which is a packaging target, and the packaging container 1 has an inner package inside the storage 5. A paper material which can package the cigarette T is used as the material of the packaging container 1.

[0017] An example of such a paper material is a high-yield print coat (registered trademark) paper material having 221 g/m3 of grammage manufactured by Mead-Westvaco Corporation. The paper material is not limited to this paper material, and any suitable paper material can be used.

[0018] The inner package is formed to directly package a pack of cigarettes T until the opening of the packaging container 1, and can prevent the deterioration of the cigarettes T. The inner package has, for example, a moisture retention property and an aroma retention property. Paper on which a film of aluminum is vapor-deposited or stacked is mainly used as the inner package.

[0019] As shown in FIG. 3 and FIG. 4, the packaging container 1 is formed by assembling a blank 2 which is formed from a paper material by punching.

[0020] As shown in FIG. 1 to FIG. 4, the storage 5 is formed by a part of the outer body 9 and the inner body 10. The storage 5 is formed by the part of the outer body 9 and the inner body 10 into a square body having an opening end which opens the inside of the storage 5.

[0021] More specifically, the upper end of the storage 5 is obliquely open downward from the rear to the front because of the outer body 9. In the storage 5, a wall extending from the upper end of the opening of the outer body 9 is formed by the inner body 10 provided on the inner circumferential surface of the oblique opening of the outer body 9. The storage 5 is formed into a box shape by a part of the outer body 9 and the inner body 10 so that the top of the substantially square body is open. The storage 5 comprises a first front wall 11, a first rear wall 12, a pair of first side walls 13, and a bottom wall that are formed by parts of the outer body 9, and the inner body 10.

[0022] The first front wall 11 is formed into a rectangular shape, for example, an oblong shape which is shorter in the width direction than in the height direction when seen in plan. The first rear wall 12 is formed into an oblong shape higher than the first front wall 11 in the height direction. The first rear wall 12 has, on its upper end, the lid 6 integrally formed via the hinge 7. Both sides of the upper edge (hinge 7) of the first rear wall 12 are downwardly obliquely cut off. In other words, both sides of the upper edge of the first rear wall 12 are formed upwardly obliquely toward the central side, and the first rear wall 12 is provided with the hinge 7 continuous with the lid 6 at a predetermined height.

[0023] Each of the first side walls 13 joins the first front wall 11 and the first rear wall 12 together, and is formed into a trapezoidal shape having an inclined upper end. For example, the upper end of the first side wall 13 is inclined downward by two different inclination angles to increase in inclination angle from the first rear wall 12 to the first front wall 11. The bottom wall is formed into an oblong shape when seen in plan, and joins the first front wall 11, the first rear wall 12, and the pair of first side walls 13 together on the lower end side.

[0024] As shown in FIG. 2, the inner body 10 is provided along the inner surfaces of the first front wall 11, a part of the first rear wall 12, and the first side walls 13. More specifically, the inner body 10 comprises a front inner wall 15, a pair of side inner walls 16, and a rear inner wall 17.

[0025] The front inner wall 15 is provided on the inner surface of the first front wall 11, and projects from the top of the first front wall 11. The side inner walls 16 are re-

spectively provided on the inner surfaces of the pair of first side walls 13, and respectively project from the tops of the first side walls 13. The rear inner wall 17 is provided on the inner surface of the first rear wall 12 so that the rear inner wall 17 is located on at least a part of the first rear wall 12, specifically, on at least all of inclined portions on both ends of the upper edge of the first rear wall 12 and a part of the hinge 7.

[0026] The front inner wall 15, the side inner walls 16, and the rear inner wall 17 of the inner body 10 are adhesively bonded to the inner surfaces of the first front wall 11, the second rear wall 12, and the first side walls 13 by, for example, an adhesive agent. The inner body 10 forms a wall along the first front wall 11, the first rear wall 12, and the first side walls 13 of the outer body 9, and is formed to be able to guide the lid 6 and prevent the collapse of the lid 6.

[0027] The part of the inner body 10 located in the first rear wall 12 constitutes a part of the interfering portions 8. The inner body 10 is formed to be able to fix the lid 6 to the storage 5 by at least partly interfering with the inner surface of the lid 6 when the lid 6 closes the opening end of the storage 5.

[0028] The lid 6 is formed by the other part of the outer body 9. The lid 6 comprises a second front wall 21, a second rear wall 22, a pair of second side walls 23, and an upper wall 24. The lid 6 is formed to be able to close the opening of the storage 5 by covering the top of the storage 5.

[0029] The second front wall 21 is formed into an oblong shape which is longer in the width direction than in the height direction when seen in plan and which has a width substantially equal to that of the first front wall 11.

[0030] The second rear wall 22 is formed into an oblong shape higher than the first front wall 21 in the height direction. The storage 5 is formed integrally with the lower end of the second rear wall 22 via the hinge 7. Both sides of the lower edge (hinge 7) of the second rear wall 22 are downwardly obliquely cut off.

[0031] In other words, both sides of the lower edge of the second rear wall 22 are formed downwardly obliquely toward the outside, and the second rear wall 22 is provided with the hinge 7 continuous with the first rear wall 12. In other words, the second rear wall 22 is inclined on both ends, and thus has projections 26 downwardly projecting from the hinge 7 toward the first rear wall 12.

[0032] Each of the second side walls 23 joins the second front wall 21 and the second rear wall 22 together. The second side wall 23 is formed into a trapezoidal shape having an inclined lower end. The inclination angle of the lower end of the second side wall 23 is formed to be substantially equal to the inclination angle of the upper end of the first side wall 13. The upper wall 24 is formed into an oblong shape when seen in plan, and joins the second front wall 21, the second rear wall 22, and the pair of second side walls 23 together on the upper end side.

[0033] The hinge 7 is provided between the first rear wall 12 and the second rear wall 22, and integrally joins the first rear wall 12 and the second rear wall 22. The hinge 7 is formed to be able to rotate the second rear wall 22 relative to the first rear wall 12. The hinge 7 is formed, for example, by an indentation 7a which is formed by pressing on the paper material or by a discontinuous cut portion 7b.

[0034] The interfering portions 8 comprise the projections 26 provided in the second rear wall 22, and contact portions 27 which contact the projections 26 when the lid 6 is rotated in a direction to move away from the storage 5. The projections 26 are provided in the second rear wall 22 of the lid 6, and project from the second rear wall 22 on the side opposite to the lid 6 via the hinge 7, that is, project toward the first rear wall 12 of the storage 5.

[0035] More specifically, the projections 26 are protrusions which are provided over the peaks of the second rear wall 22 and the second side walls on both ends of the lower edges of the second rear wall 22 downwardly at a predetermined angle, preferably, at an angle of 45 degrees from the ends of the hinge 7.

[0036] The contact portions 27 are formed to be able to contact the projections 26 projecting from the hinge 7 into the storage 5 when the lid 6 is rotated. The contact portions 27 are the rear inner wall 17 of the inner body 10 extending on the inner wall of the storage 5 to positions to face the projections 26.

[0037] Now, the blank 2 to form this packaging container 1 and how to form the packaging container 1 by the blank 2 are described with reference to FIG. 3 and FIG. 4. In FIG. 3 and FIG. 4, chain lines indicate folding lines of the blank 2, and solid lines indicate cut portions. The folding lines are parts where the blank 2 is folded during the assembly of the blank 2. For example, indentations to guide the folding lines are formed during the manufacture of the blank 2. The folding lines are hereinafter described as "indentations". The cut portions are what are called cutting edges, which are parts cut during the formation of the blank 2.

[0038] The blank 2 comprises the first blank 3 and the second blank 4.

[0039] The first blank 3 is a material piece cut by punching the paper material into a shape such that the outer body 9 comprising a part of the storage 5 and the lid 6 is expanded. The first blank 3 comprises a rear surface 31, a bottom surface 32, a first front surface 33, an upper surface 34, a pair of first side surfaces 35, a second front surface 36, a pair of second side surfaces 37, and first adhesive surfaces 38.

[0040] The rear surface 31 forms the first and second rear walls 12 and 22, and the hinge 7. The rear surface 31 is formed into a square shape in which the first and second rear walls 12 and 22 are combined. The rear surface 31 is shaped integrally with the bottom surface 32, the upper surface 34, and the first adhesive surfaces 38 via indentations 50, 51, 52, and 53.

[0041] The rear surface 31 has an indentation 54 and cut portions 55 and 56. The indentation 54 and the cut

portion 55 form the hinge 7, and the cut portions 56 form the projections 26. One side, in other words, the lower part of the rear surface 31 from the hinge 7 and the projection 26 forms a first rear surface 41. The other side, in other words, the upper part of the rear surface 31 from the hinge 7 and the projection 26 forms a second rear surface 42.

[0042] When the indentations 50, 51, 52, and 53 are folded, the rear surface 31 forms the first rear wall 12 and the second rear wall 22 that intersect at right angles with the bottom surface 32 (bottom wall) and the upper surface 34 (upper wall 24) by the first rear surface 41 and the second rear surface 42.

[0043] The indentation 54 extends between the indentations 52 and 53 on the lateral sides of the rear surface 31 up to the position located close to the indentations 52 and 53, in other words, at a distance from the indentations 52 and 53. The cut portions 56 are formed to be inclined up to the indentations 52 and 53 from both ends of the indentation 54 toward the first rear surface 41.

[0044] The bottom surface 32 forms the bottom wall. The bottom surface 32 is formed into a square shape, and shaped integrally with the rear surface 31 and the first front surface 33 via the indentations 50 and 57. The bottom surface 32 forms the bottom wall that intersects at right angles with the rear surface 31 (the first rear wall 12 and the second rear wall 22) when the indentations 50 and 57 are folded.

[0045] The first front surface 33 forms the first front wall 11. The first front surface 33 is formed into a square shape, and shaped integrally with the bottom surface 32 and a pair of first side surfaces 35 via the indentations 57, 58 and 59. The first front surface 33 forms the first front wall 11 that intersects at right angles with the bottom surface 32 (bottom wall) when the indentations 57, 58 and 59 are folded.

[0046] The upper surface 34 forms the upper wall 24. The upper surface 34 is formed into a square shape, and shaped integrally with the rear surface 31 and the second front surface 36 via the indentations 51 and 60. The upper surface 34 forms the upper wall 24 that intersects at right angles with the rear surface 31 (the first rear wall 12 and the second rear wall 22) and the second front surface 36 (the second front wall 21) when the indentations 51 and 60 are folded.

[0047] The pair of first side surfaces 35 form the first side walls 13. Each of the first side surfaces 35 is formed into a trapezoidal shape in which one side, in FIG. 3, a lower side is inclined at the same angle as the upper side of the first side wall 13. The pair of first side surfaces 35 are shaped integrally with the first front surface 33 via indentations 58 and 59, respectively. The pair of first side surfaces 35 form the first side walls 13 that intersect at right angles with the first front surface 33 (the first front wall 11) when the indentations 58 and 59 are folded.

[0048] The second front surface 36 forms the second front wall 21. The second front surface 36 is formed into a square shape, and shaped integrally with the upper surface 34, the pair of second side surfaces 37, and the first adhesive surfaces 38 via indentations 60, 61, 62 and 63. The second front surface 36 forms the second front wall 21 that intersects at right angles with the upper surface 34 (the upper wall 24) when the indentations 60, 61, 62 and 63 are folded.

[0049] The pair of second side surfaces 37 form the second side walls 23. Each of the second side surfaces 37 is formed into a trapezoidal shape in which one side, in FIG. 3, an upper side is inclined at the same angle as the lower sides of the second side walls 23. The pair of second side surfaces 37 are shaped integrally with the second front surface 36 via indentations 61 and 62, respectively.

[0050] The inclined side of the second side surface 37 is formed to be engageable with the inclined side of the first side surface 35. The first side surface 35 and the second side surface 37 are formed into a square shape when their inclined sides are engaged with each other. The second side surfaces 37 constitute the second side walls 23 that intersect at right angles with the second front surface 36 (the second front wall 21) when the indentations 61 and 62 are folded.

[0051] The first adhesive surfaces 38 comprise a pair of side adhesive surfaces 44, a pair of bottom adhesive surfaces 45, a pair of upper adhesive surfaces 46, and a front adhesive surface 47.

[0052] The pair of side adhesive surfaces 44 form first side adhesive surfaces 48 which are adhesively bonded to the first side surfaces 35, and second side adhesive surfaces 49 which are adhesively bonded to the second side surfaces 37. The pair of side adhesive surfaces 44 constitute the inner surfaces of the first side wall 13 and the second side walls 23. The pair of side adhesive surfaces 44 are formed into a square shape in which the first side wall 13 and the second side walls 23 are combined. The pair of side adhesive surfaces 44 are shaped integrally with the rear surface 31, the pair of bottom adhesive surfaces 45, and the pair of upper adhesive surfaces 46 via the indentations 52, 53, 64, 65, 66, and 67.

[0053] The pair of side adhesive surfaces 44 have cut portions 56a continuous with the cut portion 56 of the rear surface 31. One side, in other words, the lower part of the pair of side adhesive surfaces 44 from the cut portions 56a, forms the first side adhesive surfaces 48. The other side, in other words, the upper part of the pair of side adhesive surfaces 44, forms the second side adhesive surfaces 49. The cut portions 56a are inclined at substantially the same angle as the first side surfaces 35 and the second side surfaces 37. When the indentations 52 and 53 are folded, the first side adhesive surfaces 48 and the second side adhesive surfaces 49 intersect at right angles with the rear surface 31 (the first rear surface 41 and the second rear surface 42), and the pair of side adhesive surfaces 44 face the first side surfaces 35 and the second side surfaces 37, respectively.

[0054] The pair of bottom adhesive surfaces 45 are shaped integrally with the pair of first side adhesive sur-

faces 48 via the indentations 64 and 65. When the indentations 64 and 65 are folded, the pair of bottom adhesive surfaces 45 intersect at right angles with the side adhesive surfaces 44 (the first side wall 13 and the second side walls 23), face the bottom surface 32, and are adhesively bonded to the bottom surface 32.

[0055] The pair of upper adhesive surfaces 46 are shaped integrally with the second side adhesive surfaces 49 of the pair of side adhesive surfaces 44 via the indentations 66 and 67. When the indentations 66 and 67 are folded, the pair of upper adhesive surfaces 46 intersect at right angles with the side adhesive surfaces 44 (the first side wall 13 and the second side walls 23), face the upper surface 34, and are adhesively bonded to the upper surface 34.

[0056] The second front adhesive surface 47 is shaped integrally with the second front surface 36 via the indentation 63. When folded via the indentation 63, the second front adhesive surface 47 faces the second front surface 36, and is adhesively bonded to the second front surface 36. The second front adhesive surface 47 forms a part of the inner surface of the second front wall 21.

[0057] The second blank 4 is a material piece cut by punching the paper material into a shape in which the inner body 10 is expanded. The second blank 4 comprises a front surface 74, a pair of side surfaces 75, and a pair of rear surfaces 76. The front surface 74, the pair of side surfaces 75, and the pair of rear surfaces 76 are integrally shaped via a pair of indentations 71 and 72.

[0058] The front surface 74 forms the front inner wall 15. The front surface 74 is formed to have substantially the same width as the first front wall 11, and is connected to the pair of side surfaces 75 via the indentations 71, 71. The front surface 74 has protrusions 74a. The protrusions 74a are formed by cutting the front surface 74 from its lateral side to parts of the side surfaces 75 over the indentations 71, 71, and interfere with the inner surface of the lid 6. The front surface 74 is formed so that a part of its upper part is cut off. The lower part of the front surface 74 is adhesively bonded to the inner surface of the first front wall 11.

[0059] The side surfaces 75 form the side inner walls 16. The side surfaces 75 are formed to have substantially the same width as the first side walls 13, and shaped integrally with the front surface 74 and the rear surfaces 76 via the indentations 71 and 72. The lower parts of the side surfaces 75 are adhesively bonded to the inner surfaces of the first side walls 13.

[0060] The rear surfaces 76 form the rear inner wall 17. The rear surfaces 76 are formed with a width such that they can be disposed up to the positions to face the projections 26 provided in at least the second rear wall 22. The rear surfaces 76 are connected to the side surfaces 75 via the indentation 72. The lower parts of the rear surfaces 76 are adhesively bonded to the inner surface of the first rear wall 12.

[0061] The first blank 3 and the second blank 4 configured as described above have the indentations folded in the same direction, and are adhesively bonded to the corresponding surfaces by coating the first adhesive surfaces 38 with the adhesive agent. Thus, the first blank 3 forms the outer body 9 having the storage 5 and the lid 6, and the second blank 4 forms the inner body 10. The inner body 10 is then adhesively bonded to the corresponding position of the outer body 9, so that the packaging container 1 is assembled. How the outer body 9 and the inner body 10 of the packaging container 1 are adhesively bonded to each other is not described in detail here.

[0062] The packaging container 1 formed as described above packages the cigarettes T when a pack of cigarettes packaged in the inner package are provided in the packaging container 1 during the formation of the packaging container 1 from the blank 2. The outer periphery of the packaging container 1 in which the pack of cigarettes are packaged is wrapped in a wrapping film such as a transparent film. As a result, a cigarette product is made.

[0063] Now, how to unseal the packaging container 1 configured as described above and how to open and close the lid 6 are described. First, the packaging container 1 wrapped in the wrapping film is unsealed by removing the wrapping film. After the removal of the wrapping film, the lid 6 is moved away from the storage 5. As a result of the movement of the lid 6, the hinge 7 is folded, and the lid 6 can rotate around the hinge 7.

[0064] When the lid 6 rotates around the hinge 7, the projections 26 provided in the second rear wall 22 of the lid 6 also rotate around the hinge 7. At the same time, the projections 26 project in a direction opposite to the second rear wall 22 via the hinge 7, so that the projections 26 move into the storage 5 if the lid 6 is rotated in the opening direction as shown in FIG. 2. Thus, the projections 26 abut on and interfere with the rear inner wall 17 of the inner body 10. This interference resists the movement of the lid 6 in the rotational direction, and the rotation of the lid 6 resulting from the resilience of the hinge 7 can be regulated.

[0065] Thus, the packaging container 1 can keep the opening of the storage 5 opened by the projection 26 and the inner body 10 without holding the lid 6 by hand, so that the cigarettes T stored in the storage 5 can be easily taken out.

[0066] To keep the opening of the storage 5 closed by the lid 6 in the packaging container 1, the lid 6 is rotated around the hinge 7 in a direction to move the lid 6 closer to the storage 5. The interference of the projections 26 with the rear inner wall 17 is released by the rotation. If the rotation is continued, the inner body 10 comes into abutment with the inner surface of the lid 6, and the lid 6 interferes with the protrusions 74a of the inner body 10, so that the lid 6 is fixed to the storage 5. As a result, the packaging container 1 is closed.

[0067] According to the packaging container 1 configured as described above, if the lid 6 is rotated around the hinge 7 so that the lid 6 moves away from the storage 5,

the projections 26 projecting from the hinge 7 rotate toward the inner body 10, and come into abutment with the inner body 10. As a result of this abutment, the projections 26 and the inner body 10 interfere with each other. The interference of the projections 26 and the inner body 10 serves as resistance in the rotational direction around the hinge 7, and the lid 6 is fixed by the resistance in the open state of the storage 5. Thus, the lid 6 is kept rotated without being held in a rotated state by hand, so that the storage 5 is kept open, and the cigarettes T can be easily taken out from the storage 5.

[0068] As described above, according to the packaging container 1 in the first embodiment of the invention of the present application, it is possible to easily keep the opening of the storage 5 open by rotating the projections 26 provided in the lid 6 so that the projections 26 interfere with the inner body 10.

(Second Embodiment)

[0069] Now, the configurations of a storage 5A and a lid 6A in a packaging container 1A according to a second embodiment of the present invention are described with reference to FIG. 5 to FIG. 8.

[0070] FIG. 5 is a perspective view showing the configuration of the packaging container 1A according to the second embodiment of the present invention seen from the rear. FIG. 6 is a perspective view showing the configuration of the packaging container 1A seen from the front. FIG. 7 is a plan view showing the configuration of a first blank 3A used in the packaging container 1A. FIG. 8 is a plan view showing the configuration of a second blank 4A used in the packaging container 1A. Components in the packaging container 1A in FIG. 5 to FIG. 8 similar to the components in the packaging container 1 according to the first embodiment described with reference to FIG. 1 to FIG. 4 are provided with the same reference numerals, and are not described in detail.

[0071] As shown in FIG. 5 to FIG. 8, the packaging container 1A comprises the storage 5A, the lid 6A, a hinge 7A, and an interfering portion 8A. The packaging container 1 has the storage 5A, the lid 6A, the hinge 7A, and the interfering portion 8A that are integrally formed.

[0072] The packaging container 1A also comprises an outer body 9A which forms an outer shell of the packaging container 1A when the packaging container 1A is closed, and an inner body 10A which is located inside the outer body 9A and forms a part of the inner shape of the packaging container 1A when the packaging container 1A is closed.

[0073] The outer body 9A constitutes one part of the storage 5A, the lid 6A, the hinge 7A, and one part of the interfering portion 8A. The inner body 10A constitutes the other part of the storage 5A and the other part of the interfering portion 8A. The packaging container 1A is a cigarette case which is substantially formed into a rectangular parallelepiped in outer shape when a packaging target is packaged therein.

[0074] As shown in FIG. 5 to FIG. 9, the storage 5A is formed by a part of the outer body 9A and the inner body 10A. The storage 5A is formed by the part of the outer body 9A and the inner body 10A into a square body having an opening end which opens the inside of the storage 5A.

[0075] More specifically, the upper end of the storage 5A is obliquely open downward from the rear to the front because of the outer body 9A. The storage 5A has the inner body 10A provided on the inner circumferential surface of the oblique opening of the outer body 9A. In the storage 5A, a wall extending from the upper end of the opening of the outer body 9A is formed by the inner body 10A. The storage 5 is formed into a box shape by a part of the outer body 9A and the inner body 10A so that the top of the substantially square body is open. The storage 5A comprises a first front wall 11, a first rear wall 12A, a pair of first side walls 13, and a bottom wall that are formed by parts of the outer body 9A, and the inner body 10A.

[0076] The first rear wall 12A is formed into an oblong shape higher than the first front wall 11 in the height direction. The first rear wall 12A has, on its upper end, the lid 6A integrally formed via the hinge 7A. The center of the upper edge (hinge 7A) of the first rear wall 12A is downwardly cut off into an arc shape, and the hinge 7A is formed from both ends of the cut-off portion. In other words, the first rear wall 12A has the hinge 7A which is provided at its upper edge to extend up to the first side walls 13, and the center of the hinge 7A is cut off into the arc shape.

[0077] The upper edges of the first side walls 13 are inclined at the same inclination angle from the first rear wall 12A toward the first front wall 11.

[0078] As shown in FIG. 6, the inner body 10A is provided over the inner circumference of the storage 5 along the inner surfaces of the first front wall 11, a part of the first rear wall 12A, and the first side walls 13. More specifically, the inner body 10A comprises a front inner wall 15, side inner walls 16, and a rear inner wall 17A. The rear inner wall 17A is provided on the inner surface of the first rear wall 12A over the whole first rear wall 12A. The rear inner wall 17A is provided with a depression (indentation) 17a depressed into the storage 5 substantially in the center facing the hinge 7A.

[0079] The inner body 10A is adhesively bonded to the inner surface of the storage 5A by, for example, an adhesive agent. The inner body 10A forms a wall along the outer body 9A, and is formed to be able to guide the lid 6A and prevent the collapse of the lid 6A. The inner body 10A constitutes a part located in the first rear wall 12A, and moreover, the depression 17a constitutes a part of the interfering portion 8A. The inner body 10A at least partly interferes with the inner surface of the lid 6 when the lid 6A closes the opening end of the storage 5A.

[0080] The lid 6A is formed by the other part of the outer body 9. The lid 6A comprises a second front wall 21, a second rear wall 22A, a pair of second side walls

23, and an upper wall 24. The lid 6A is formed to be able to close the opening of the storage 5A by covering the top of the storage 5A.

[0081] The second rear wall 22A is formed into an oblong shape lower than the first front wall 21 in the height direction. The storage 5A is formed integrally with the lower end of the second rear wall 22A via the hinge 7A. The center of the lower edge (the hinge 7A) of the second rear wall 22A downwardly projects into an arc shape from the hinge 7A. In other words, the second rear wall 22A has an arc-shaped projection 26A which is provided on the central side of the hinge 7A and which downwardly projects toward the first rear wall 12A from the hinge 7A.

[0082] Each of the second side walls 23 joins the second front wall 21 and the second rear wall 22A together, and is formed into a trapezoidal shape having its lower end inclined at substantially the same angle as the inclination angle of the upper end of the first side wall 13.

[0083] The hinge 7A is provided between the first rear wall 12A and the second rear wall 22A, and integrally joins the first rear wall 12A and the second rear wall 22A. The center of the hinge 7A is formed to be discontinuous by the projection 26A. The hinge 7A is formed to be able to rotate the second rear wall 22A relative to the first rear wall 12A. The hinge 7A is formed, for example, by an indentation which is formed by pressing on a paper material or by a discontinuous cut portion.

[0084] The interfering portion 8A comprises the projection 26A provided in the second rear wall 22A, and a contact portion 27A which contacts the projection 26A when the lid 6A is rotated in a direction to move away from the storage 5A and which is formed by the rear inner wall 17A of the inner body 10A. Moreover, the contact portion 27A is the depression 17a of the rear inner wall 17A.

[0085] Now, a blank 2A to form this packaging container 1, and how to form the packaging container 1A by the blank 2A are described with reference to FIG. 7 and FIG. 8. In FIG. 7 and FIG. 8, chain lines indicate folding lines of the blank 2A, and solid lines indicate cut portions.

[0086] The blank 2A comprises the first blank 3A and the second blank 4A.

[0087] The first blank 3A is a material piece cut by punching the paper material into a shape in which the outer body 9A comprising the storage 5A and the lid 6A is expanded. The first blank 3A comprises a rear surface 31A, a bottom surface 32, a first front surface 33, an upper surface 34, a pair of first side surfaces 35, a second front surface 36, a pair of second side surfaces 37, and first adhesive surfaces 38.

[0088] The rear surface 31A forms the first and second rear walls 12A and 22A, and the hinge 7A. The rear surface 31A is formed into a square shape in which the first and second rear walls 12A and 22A are combined. The rear surface 31A is shaped integrally with the bottom surface 32, the upper surface 34, and the first adhesive surfaces 38 via indentations 50, 51, 52, and 53. The rear surface 31A has an indentation 54 and an arc-shaped cut portion 55A provided in the center of the indentation 54. The indentation 54 and the cut portion 55A form the hinge 7A and the projection 26A.

[0089] When the indentations 50, 51, 52, and 53 are folded, the rear surface 31A forms the first rear wall 12A and the second rear wall 22A that intersect at right angles with the bottom surface 32 (bottom wall) and the upper surface 34 (upper wall 24) by a first rear surface 41A and a second rear surface 42A.

[0090] The second blank 4A is a material piece cut by punching the paper material into a shape in which the inner body 10A is expanded. The second blank 4A comprises a front surface 74, a pair of side surfaces 75, and a pair of rear surfaces 76A that are integrally shaped via indentations 71 and 72.

[0091] The pair of rear surfaces 76A form the rear inner wall 17A. More specifically, one of the pair of rear surfaces 76 forms a part of the rear inner wall 17A, and the other forms the other part of the rear inner wall 17A. For example, as shown in FIG. 8, one of the pair of rear surfaces 76A is formed to be longer in width than the other, and the indentation 17a is formed in one of the pair of rear surfaces 76A. The lower parts of the rear surfaces 76A are adhesively bonded to the inner surface of the first rear wall 12.

[0092] The first blank 3A and the second blank 4A configured as described above have the indentations folded in the same direction, and are adhesively bonded to the corresponding surfaces by coating the first adhesive surfaces 38 with the adhesive agent. Thus, the first blank 3A forms the outer body 9A having the storage 5A and the lid 6A, and the second blank 4A forms the inner body 10A. The inner body 10A is then adhesively bonded to the entire inner surface of the outer body 9A, so that the packaging container 1A is assembled.

[0093] Now, how the lid 6A of the packaging container 1A configured as described above is held is described. If the lid 6A is rotated around the hinge 7A, the projection 26A provided in the second rear wall 22A of the lid 6A also rotates around the hinge 7A. The projection 26A is configured to project from the hinge 7A in a direction opposite to the second rear wall 22A, so that the projection 26A moves into the storage 5A if the lid 6A is rotated in the opening direction. Thus, the projection 26A abuts on and interferes with the indentation 17a of the rear inner wall 17A of the inner body 10A. This interference resists the movement of the lid 6A in the rotational direction, and can regulate the rotation of the rotated lid 6A resulting from the resilience of the hinge 7A even if the resilience occurs.

[0094] Thus, the packaging container 1A can keep the opening of the storage 5A opened without holding the lid 6 by hand, so that the cigarettes T stored in the storage 5A can be easily taken out. Accordingly, the packaging container 1A can provide advantageous effects similar to those according to the packaging container 1 described above.

[0095] As described above, according to the packag-

ing container 1A in the second embodiment of the invention of the present application, it is possible to easily keep the storage 5A open by rotating the projection 26A provided in the lid 6A so that the projection 26A interferes with the inner body 10A.

[0096] The present invention is not limited to the first embodiment and the second embodiment described above. For example, instead of being formed into a rectangular parallelepiped in its outer shape, the packaging container 1 and the packaging container 1A may be configured so that the peaks are inclined or shaped into curved surfaces.

(Third Embodiment)

[0097] A first blank 3B and a second blank 4B of an outer body 9 and an inner body 10 which serve a packaging container 1B according to a third embodiment of the present invention and in which peaks are formed to be inclined is described below with reference to FIG. 9 and FIG. 10. Components in the first blank 3B and the second blank 4B of the packaging container 1 in FIG. 9 and FIG. 10 similar to the components in the packaging container 1 according to the first embodiment described with reference to FIG. 1 to FIG. 4 are provided with the same reference numerals, and are not described in detail.

[0098] The packaging container 1B is formed into what is known as a chamfered box shape in which peaks of first and second front walls 11 and 21, first and second rear walls 12 and 22, and first and second side walls 13 and 23 are inclined. The outer body 9 and the inner body 10 of this packaging container 1B are formed by the first blank 3B and the second blank 4B.

[0099] The first blank 3B is a material piece cut by punching the paper material into a shape in which the outer body 9 having a storage 5 and a lid 6 is expanded. The first blank 3B comprises a rear surface 31B, a bottom surface 32B, a first front surface 33, an upper surface 34B, a pair of first side surfaces 35, a second front surface 36, a pair of second side surfaces 37, and first adhesive surfaces 38.

[0100] The rear surface 31B forms the first and second rear walls 12 and 22, and a hinge 7. The rear surface 31B is shaped integrally with the bottom surface 32B, the upper surface 34B, and the first adhesive surfaces 38 via indentations 50, 51, 52B, and 53B. The rear surface 31B has an indentation 54 and a cut portion 55 that form the hinge 7. One side (lower part) of the rear surface 31B from the hinge 7 forms a first rear surface 41. The other side (upper part) of the rear surface 31B from the hinge 7 forms a second rear surface 42. That is, the rear surface 31B has the same shape as the rear surface 31 according to the first embodiment, and is configured to be provided with no projection 26A. The first rear surface 41 and the second rear surface 42 are formed to be smaller in width than the bottom surface 32B by the width of the chamfer.

[0101] When the indentations 50, 51, 52B, and 53B are folded, the rear surface 31B forms the first rear wall 12 and the second rear wall 22 that intersect at right angles with the bottom surface 32B (bottom wall) and the upper surface 34B (upper wall 24) by the first rear surface 41 and the second rear surface 42.

[0102] Each of the indentations 52B and 53B is doubly formed. The space of each of the indentations 52B and 53B is formed to be the chamfer width of the peak of the packaging container 1B. Each of the doubly formed indentations 52B and 53B has a cut portion 56 therein which projects toward the first rear surface 41 from the hinge 7. This cut portion 56 constitutes a projection 26 of the lid 6.

[0103] The indentation 54 extends up to indentations inside the double indentations 52B and 53B. The cut portions 56 are formed to be inclined toward first side adhesive surfaces 48 from both ends of the indentation 54 inside the double indentations 52B and 53B.

[0104] The bottom surface 32B forms the square bottom wall having chamfered corners. The bottom surface 32B is shaped integrally with the rear surface 31B and the first front surface 33 via the indentations 50 and 57. The bottom surface 32B is formed to be greater in width than the rear surface 31B and the first and second front surfaces 33 and 36. The bottom surface 32B forms the bottom wall that intersects at right angles with the rear surface 31B (the first rear wall 12 and the second rear wall 22) when the indentations 50 and 57 are folded.

[0105] The first front surface 33 is shaped integrally with the bottom surface 32B and a pair of first side surfaces 35, 35 via the indentations 57, 58B and 59B. Each of the indentations 58B and 59B is doubly formed. The space of each of the indentations 58B and 59B is formed to be the chamfer width of the peak of the packaging container 1B. The first front surface 33 forms the first front wall 11 that intersects at right angles with the bottom surface 32B (bottom wall) when the indentations 58B and 59B are folded.

[0106] The upper surface 34B forms the square upper wall 24 having chamfered corners. The upper surface 34B is shaped integrally with the rear surface 31B and the second front surface 36 via the indentations 51 and 60. The upper surface 34B is formed to be greater in width than the rear surface 31B and the first and second front surfaces 33 and 36. The upper surface 34B forms the upper wall 24 that intersects at right angles with the rear surface 31B (the first rear wall 12 and the second rear wall 22) when the indentations 51 and 60 are folded.

[0107] The second front surface 36 is formed into a square shape, and shaped integrally with the upper surface 34B, the pair of second side surfaces 37, and a second front adhesive surface 47 via indentations 60, 61B, 62B and 63. Each of the indentations 61B and 62B is doubly formed. The space of each of the indentations 61B and 62B is formed to be the chamfer width of the peak of the packaging container 1B.

[0108] The first adhesive surfaces 38 are formed to be smaller than the bottom surface 32B, the upper surface

34B, the first and second side surfaces 35 and 37, and the second front surface 36 that are adhesively bonded to the first adhesive surfaces 38, respectively.

[0109] The second blank 4B is a material piece cut by punching the paper material into a shape in which the inner body 10 is expanded. The second blank 4B comprises a front surface 74, a pair of side surfaces 75, and a pair of rear surfaces 76 that are integrally shaped via indentations 71B and 72. Each of the indentations 71B is doubly formed. The space of each of the indentations 71B is formed to be the chamfer width of the peak of the packaging container 1B.

[0110] The packaging container 1B configured as described above has advantageous effects similar to those according to the packaging container 1 described above because of the projection 26 and the inner body 10, and can be formed into a square shape in which its peaks are chamfered.

(Fourth Embodiment)

[0111] A first blank 3C and a second blank 4C of an outer body 9 and an inner body 10 which serve a packaging container 1C according to a fourth embodiment of the present invention and in which peaks are formed to be curved is described below with reference to FIG. 11 and FIG. 12. Components in the first blank 3C and the second blank 4C of the packaging container 1 in FIG. 11 and FIG. 12 similar to the components in the packaging container 1 according to the first to third embodiments described with reference to FIG. 1 to FIG. 4, FIG. 9, and FIG. 10 are provided with the same reference numerals, and are not described in detail.

[0112] The packaging container 1C is formed into what is known as a curved-surface chamfered box shape in which peaks of first and second front walls 11 and 21, first and second rear walls 12 and 22, and first and second side walls 13 and 23 are curved. The outer body 9 and the inner body 10 of the packaging container 1 are formed by the first blank 3C and the second blank 4C.

[0113] The first blank 3C is a material piece cut by punching the paper material into a shape in which the outer body 9 having a storage 5 and a lid 6 is expanded. The first blank 3C comprises a rear surface 31C, a bottom surface 32C, a first front surface 33, an upper surface 34C, a pair of first side surfaces 35, a second front surface 36, a pair of second side surfaces 37, and first adhesive surfaces 38.

[0114] The rear surface 31C forms the first and second rear walls 12 and 22, and a hinge 7. The rear surface 31C is shaped integrally with the bottom surface 32C, the upper surface 34C, and the first adhesive surfaces 38 via indentations 50, 51, 52C, and 53C. The rear surface 31C has an indentation 54 that forms the hinge 7. One side (lower part) of the rear surface 31C from the hinge 7 forms a first rear surface 41. The other side (upper part) of the rear surface 31C from the hinge 7 forms a second rear surface 42. That is, the rear surface 31C has the same shape as the rear surface 31B according to the third embodiment, and the first rear surface 41 and the second rear surface 42 are formed to be smaller in width than the bottom surface 32C by the width of the curved-surface chamfer.

[0115] When the indentations 50, 51, 52C, and 53C are folded, the rear surface 31C forms the first rear wall 12 and the second rear wall 22 that intersect at right angles with the bottom surface 32C (bottom wall) and the upper surface 34C (upper wall 24) by the first rear surface 41 and the second rear surface 42.

[0116] Each of the indentations 52C and 53C is formed by groups of indentations. More specifically, each of the indentations 52C and 53C is formed by seven groups which are indentation groups. The space of each of the indentations 52C and 53C is formed to be the chamfer width of the peaks of the packaging container 1C. Between the indentation groups, each of the indentations 52C and 53C has a cut portion 56 which projects toward the first rear surface 41 from the hinge 7. This cut portion 56 constitutes a projection 26 of the lid 6.

[0117] The indentation 54 extends up to indentations inside the indentations 52C and 53C formed by the indentation groups. The cut portions 56 are inclined toward first side adhesive surfaces 48 from both ends of the indentation 54 inside the indentations 52C and 53C formed by the indentation groups, and are substantially V-shaped. This cut portion 56 constitutes the projection 26 of the lid 6. The projection 26 is shaped to obliquely project in a substantially V-shaped form, as shown in FIG. 11.

[0118] The bottom surface 32C forms the square bottom wall having chamfered corners. The bottom surface 32C is shaped integrally with the rear surface 31C and the first front surface 33 via the indentations 50 and 57. The bottom surface 32C is formed to be greater in width than the rear surface 31C and the first and second front surfaces 33 and 36. The bottom surface 32C forms the bottom wall that intersects at right angles with the rear surface 31C (the first rear wall 12 and the second rear wall 22) when the indentations 50 and 57 are folded.

[0119] The first front surface 33 is shaped integrally with the bottom surface 32C and a pair of first side surfaces 35, 35 via indentations 58C and 59C. Each of the indentations 58C and 59C is formed by groups of indentations. The space of each of the indentations 58C and 59C is formed to be the chamfer width of the peak of the packaging container 1C. The first front surface 33 forms the first front wall 11 that intersects at right angles with the bottom surface 32C (bottom wall) when the indentations 58C and 59C are folded.

[0120] The upper surface 34C forms the square upper wall 24 having curved-surface chamfered corners. The upper surface 34C is shaped integrally with the rear surface 31C and the second front surface 36 via the indentations 51 and 60. The upper surface 34C is formed to be greater in width than the rear surface 31C and the first and second front surfaces 33 and 36. The upper surface

34C forms the upper wall 24 that intersects at right angles with the rear surface 31C (the first rear wall 12 and the second rear wall 22) when the indentations 51 and 60 are folded.

[0121] The second front surface 36 is formed into a square shape, and shaped integrally with the upper surface 34C, the pair of second side surfaces 37, and a second front adhesive surface 47 via indentations 60, 61C, 62C and 63. The indentations 61C and 62C are formed by groups of indentations. More specifically, each of the indentations 61C and 62C is formed by seven groups which are indentation groups. The space of each of the indentations 61C and 62C is formed to be the chamfer width of the peak of the packaging container 1C.

[0122] The first adhesive surfaces 38 are formed to be smaller than the bottom surface 32C, the first and second side surfaces 35 and 37, the upper surface 34C, and the second front surface 36 that are adhesively bonded to the first adhesive surfaces 38, respectively.

[0123] The second blank 4C is a material piece cut by punching the paper material into a shape in which the inner body 10 is expanded. The second blank 4C comprises a front surface 74, a pair of side surfaces 75, and a pair of rear surfaces 76 that are integrally shaped via indentations 71C and 72C. Each of the indentations 71C is formed by seven groups which are indentation groups. The space of each of the indentations 71C and 72C is formed to be the chamfer width of the peak of the packaging container 1C.

[0124] The packaging container 1C configured as described above has advantageous effects similar to those according to the packaging container 1 described above because of the projection 26 and the inner body 10, and can be formed into a square shape in which its peaks are chamfered by curved surfaces.

[0125] Although the projection 26 (the cut portion 56) described according to the fourth embodiment is shaped to obliquely project in the substantially V-shaped form, the present invention is not limited to this. For example, as shown in FIG. 13, as long as the projection 26 (the cut portion 56) is shaped to downwardly project from the indentation 54 (the hinge 7), the lower end of the projection 26 (the cut portion 56) may be flat.

(Fifth Embodiment)

[0126] A first blank 3D and a second blank 4D of an outer body 9A and an inner body 10A which serve as a packaging container 1D according to a fifth embodiment of the present invention and in which peaks are formed to be curved is described below with reference to FIG. 14 and FIG. 15. Components in the first blank 3D and the second blank 4D of the packaging container 1 in FIG. 14 and FIG. 15 similar to the components in the packaging container 1A according to the second embodiment described with reference to FIG. 5 to FIG. 8, and the packaging container 1C according to the fourth embodiment described with reference to FIG. 11 to FIG. 13 are provided with the same reference numerals, and are not described in detail.

[0127] The packaging container 1D is formed into what is known as a curved-surface chamfered box shape in which peaks of first and second front walls 11 and 21, first and second rear walls 12 and 22, and first and second side walls 13 and 23 are curved. The outer body 9 and the inner body 10 of the packaging container 1 are formed by the first blank 3D and the second blank 4D.

[0128] The first blank 3D is a material piece cut by punching the paper material into a shape in which the outer body 9A having a storage 5A and a lid 6A is expanded. The first blank 3D comprises a rear surface 31D, a bottom surface 32C, a first front surface 33, an upper surface 34C, a pair of first side surfaces 35, a second front surface 36, a pair of second side surfaces 37, and first adhesive surfaces 38.

[0129] The rear surface 31D forms the first and second rear walls 12A and 22A, a hinge 7A, and a projection 26A. The rear surface 31D is shaped integrally with the bottom surface 32C, the upper surface 34C, and the first adhesive surfaces 38 via indentations 50, 51, 52C, and 53C. The rear surface 31D has an indentation 54 that forms the hinge 7A. One side (lower part) of the rear surface 31D from the hinge 7A forms a first rear surface 41A. The other side (upper part) of the rear surface 31D from the hinge 7A forms a second rear surface 42A.

[0130] When the indentations 50, 51, 52C, and 53C are folded, the rear surface 31D forms the first rear wall 12A and the second rear wall 22A that intersect at right angles with the bottom surface 32C (bottom wall) and the upper surface 34C (upper wall 24) by the first rear surface 41A and the second rear surface 42A.

[0131] The second blank 4D is a material piece cut by punching the paper material into a shape in which the inner body 10A is expanded. The second blank 4D comprises a front surface 74, a pair of side surfaces 75, and a pair of rear surfaces 76A that are integrally shaped via indentations 71C and 72C.

[0132] The packaging container 1A that uses the first blank 3D and the second blank 4D configured as described above has advantageous effects similar to those according to the packaging container 1A in the second embodiment described above because of the projection 26A and the inner body 10A, and can be formed into a square shape in which its peaks are chamfered by curved surfaces as in the packaging container 1C according to the fourth embodiment described above.

[0133] The present invention is not limited to the embodiments described above. For example, according to the configurations in the examples described above, the projections 26 are provided on both ends of the storage 5 in the packaging containers 1, 1B, and 1C, and the projection 26A is provided in the center of the storage 5A in the packaging containers 1A and 1D. However, the present invention is not limited thereto. For example, the packaging container may be configured to have both the projections 26 and the projection 26A. In this configura-

tion, the lid 6 can be more firmly held. In the examples described above, the packaging containers 1, 1A, 1B, 1C, and 1D are configured to package the cigarettes T as the packaging target, but are not limited thereto and may package other packaging targets. Various other modifications can be made without departing from the spirit of the present invention.

Reference Signs List

[0134] 1: packaging container, 3: first blank, 4: second blank, 5: storage, 6: lid, 7: hinge, 8: interfering portion, 9: outer body, 10: inner body, 11: first front wall, 12: first rear wall, 13: first side wall, 15: front inner wall, 16: side inner wall, 17: rear inner wall, 21: second front wall, 22: second rear wall, 23: second side wall, 24: upper wall, 26: projection, 27: contact portion.

Claims

1. A packaging container **characterized by** comprising:

   a storage which stores a packaging target and which is open at its top;
   a lid which closes the opening of the storage; and
   a hinge which joins the storage and the lid so that the storage and the lid are integral with each other and so that the lid is rotatable relative to the storage,
   wherein the storage and the lid comprise interfering portions which interfere with each other to regulate the movement of the lid that has rotated around the hinge in a direction to move away from the storage.

2. The packaging container according to claim 1, **characterized in that** the interfering portions comprise
   a projection which is provided integrally with the lid and which projects toward the storage from the hinge and which is formed to be rotatable around the hinge in response to the rotation of the lid, the projection projecting into the storage when the lid rotates around the hinge, and
   an inner body which is provided on the inner circumferential surface of the storage and which interferes with the projection projecting into the storage.

3. The packaging container according to claim 2, **characterized in that** the projections are provided on both ends of the hinge.

4. The packaging container according to claim 2, **characterized in that** the projection is provided on the central side of the hinge.

5. The packaging container according to claim 2, **characterized in that** the projections are provided on both ends and the central side of the hinge.

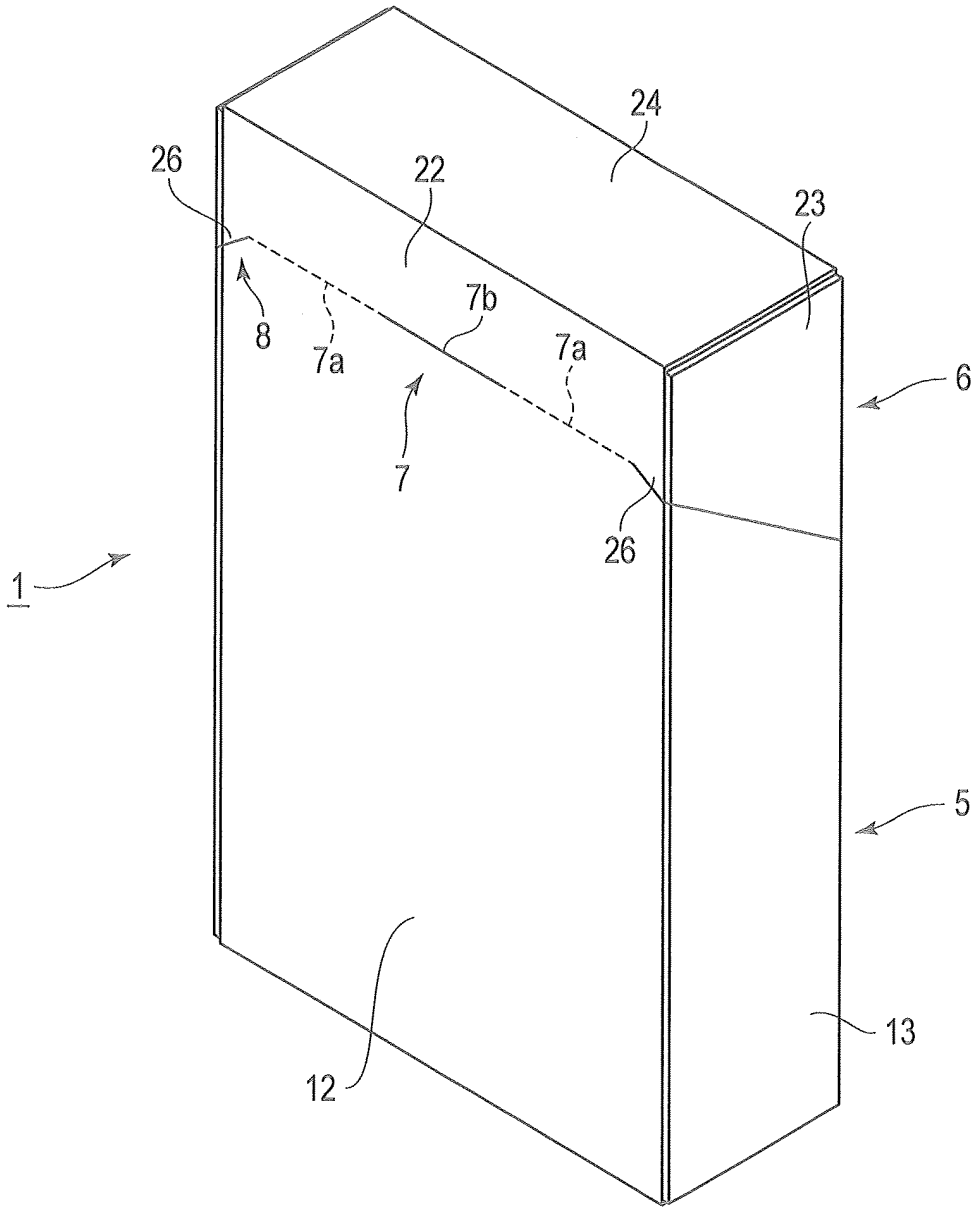


FIG. 1

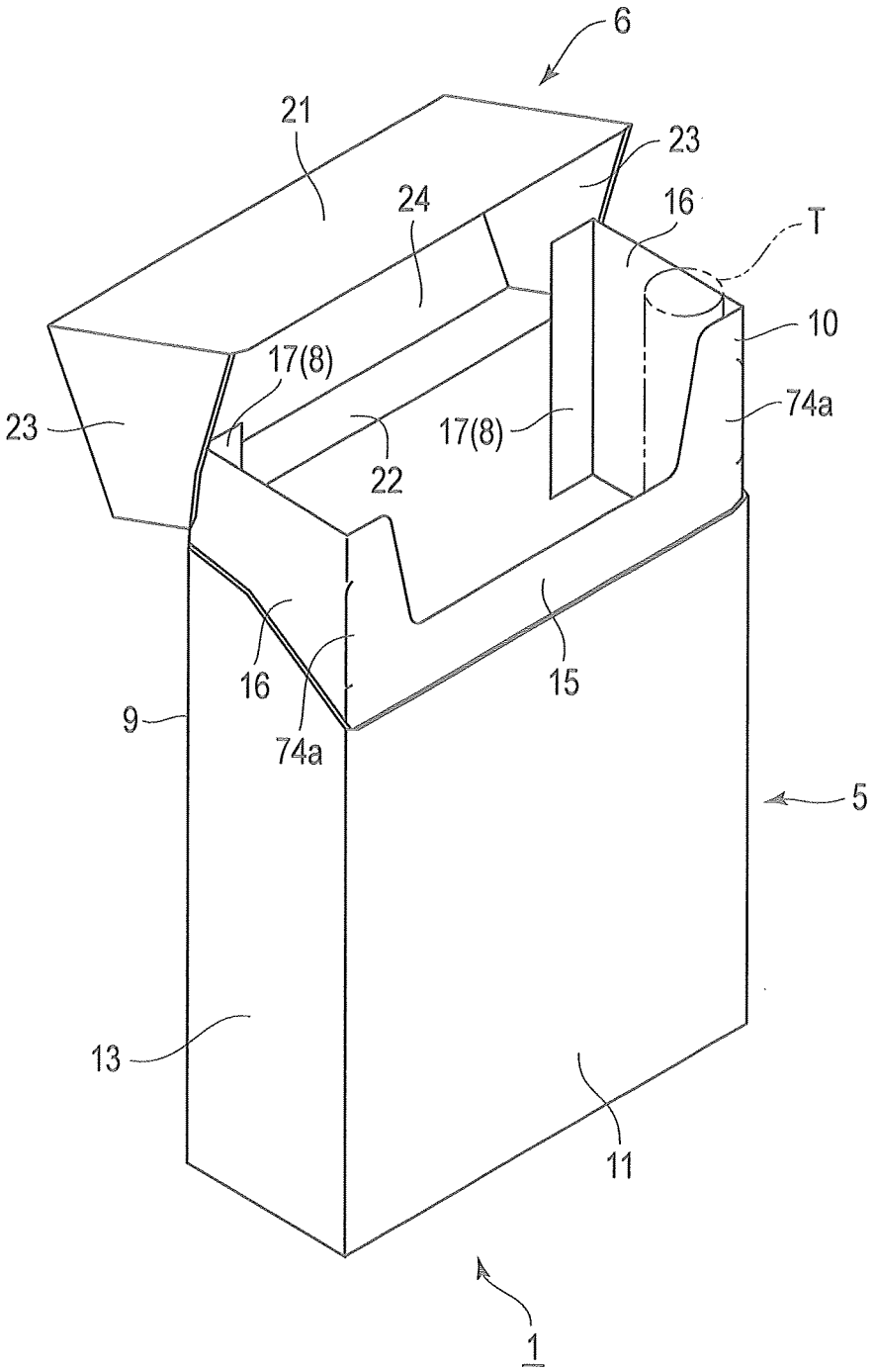
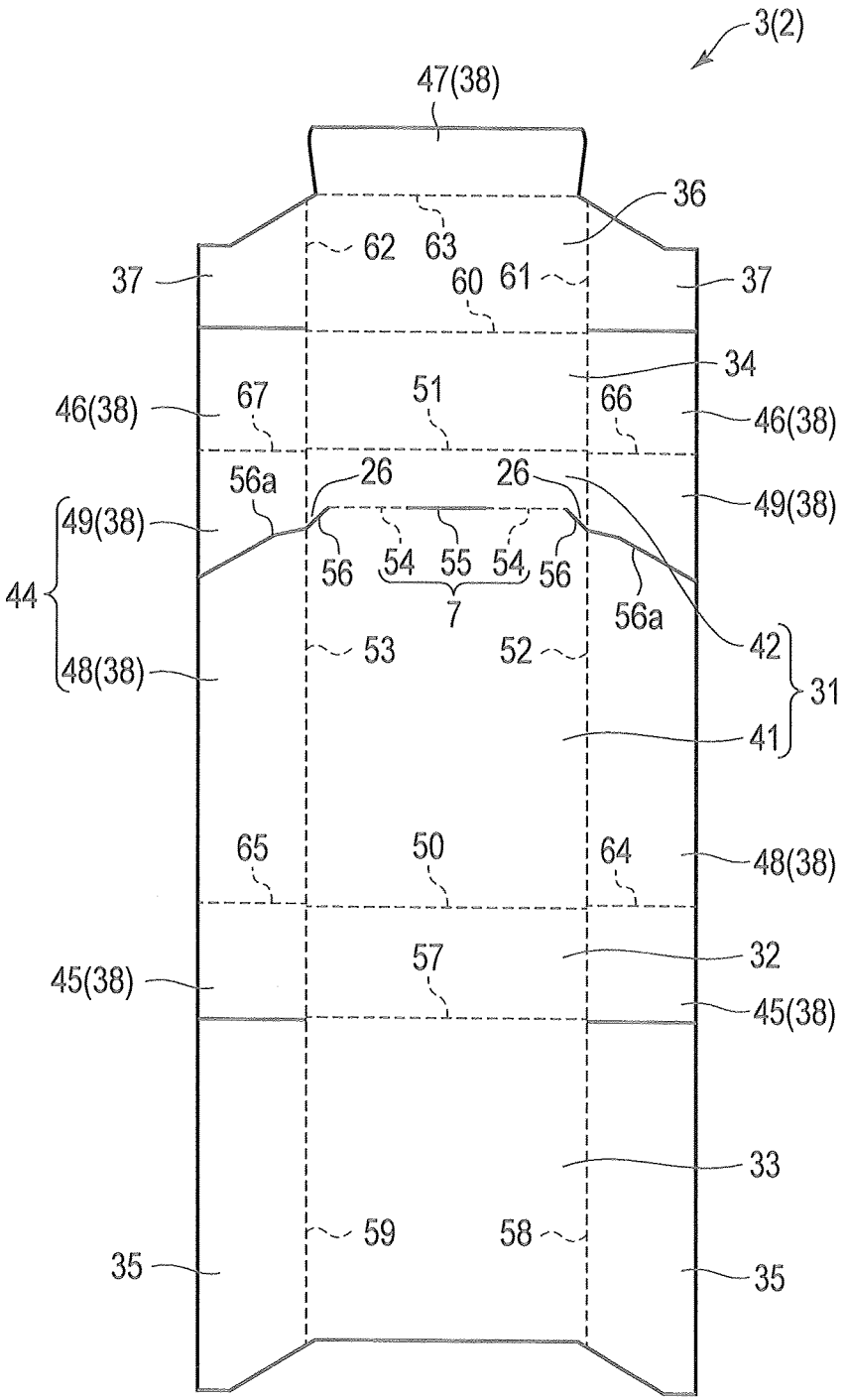


FIG. 2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56a
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FIG. 3

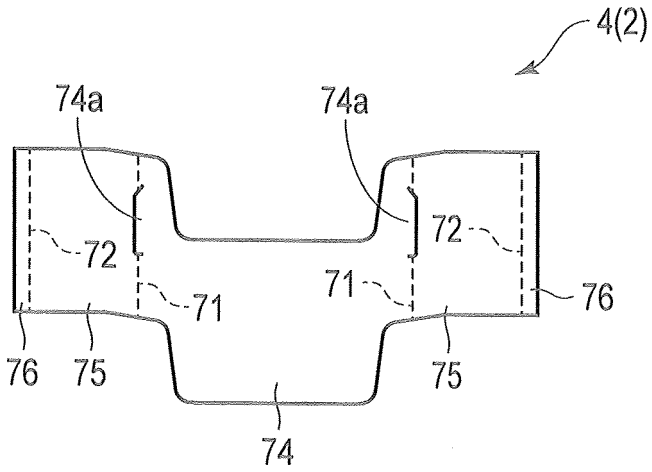


FIG. 4

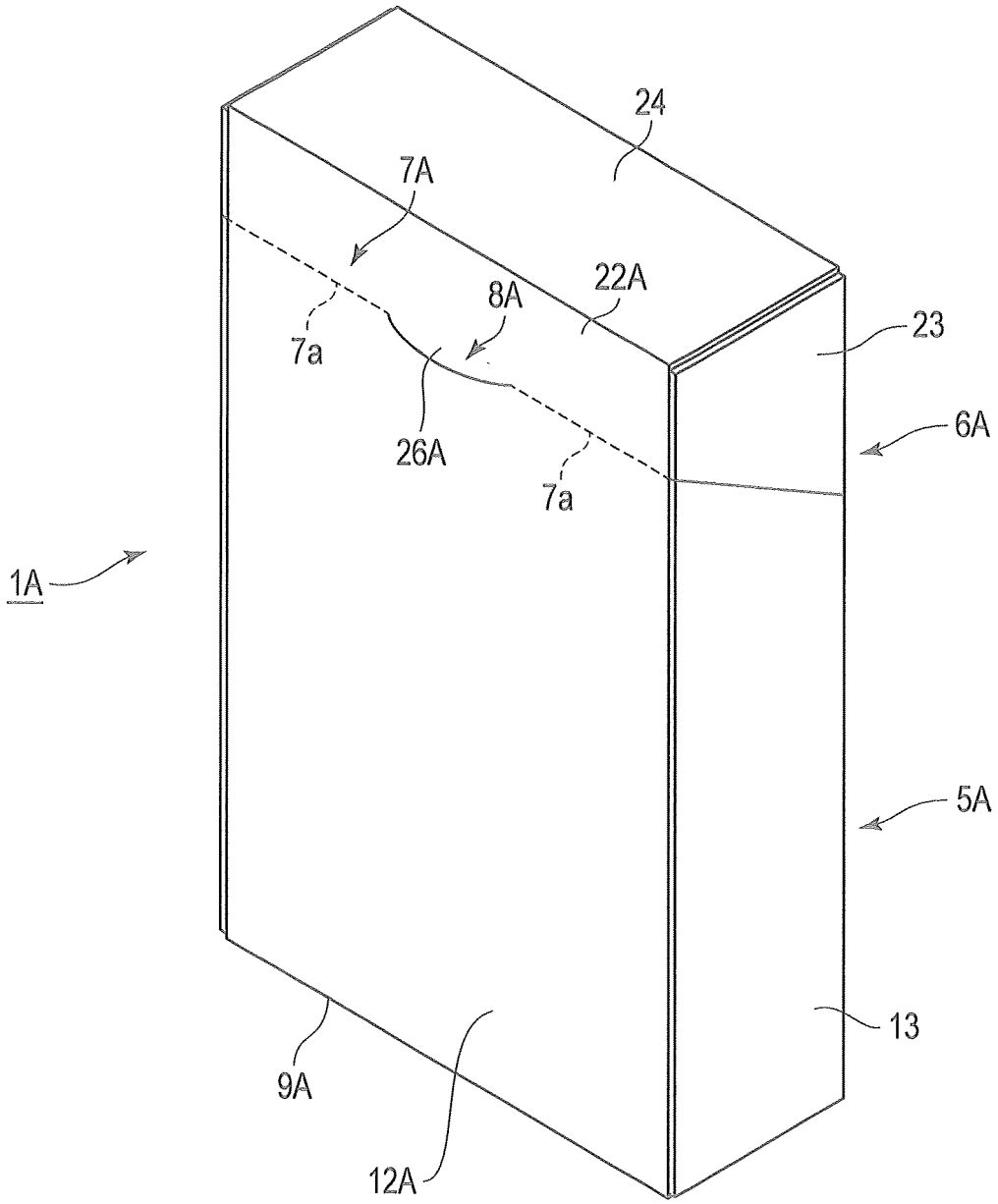


FIG. 5

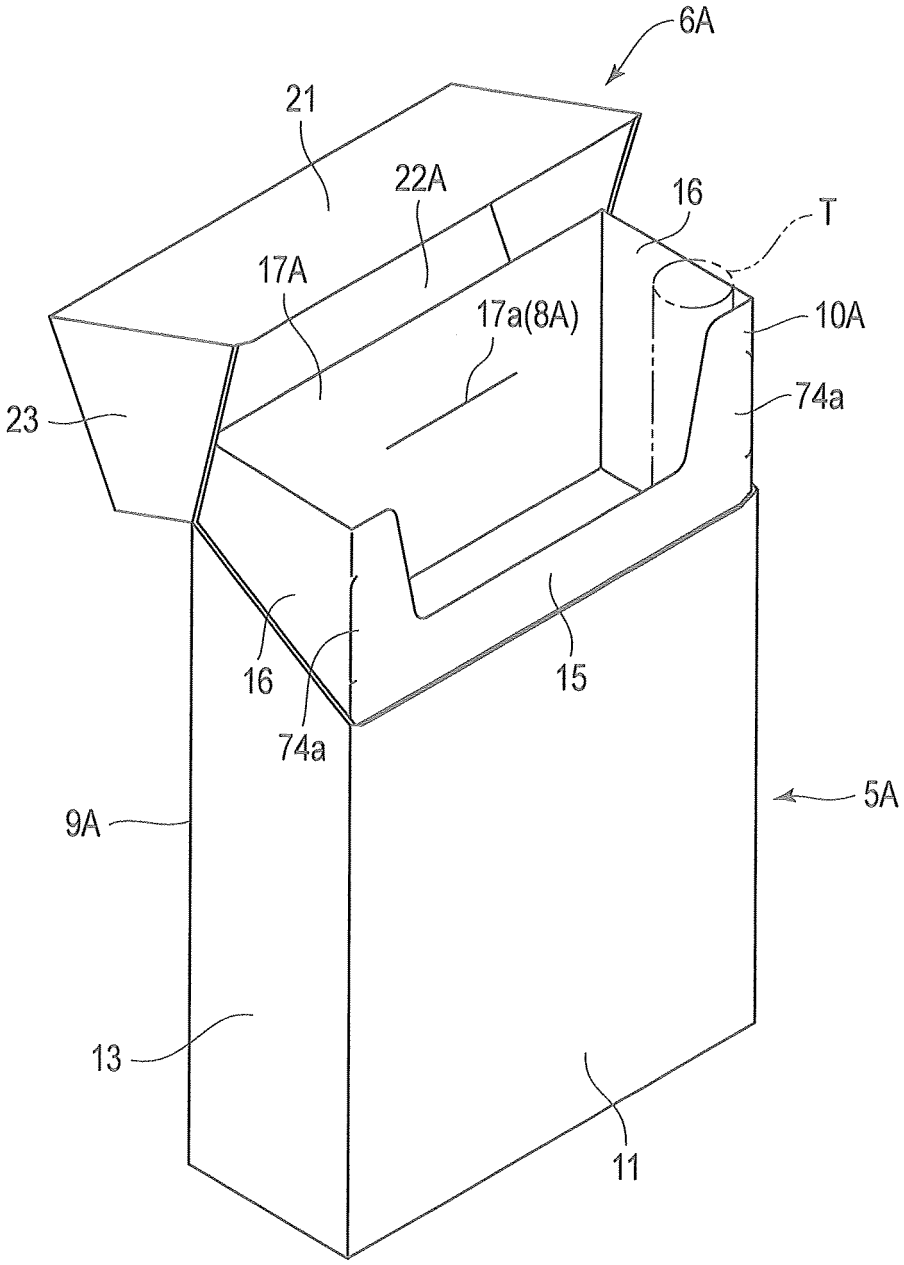
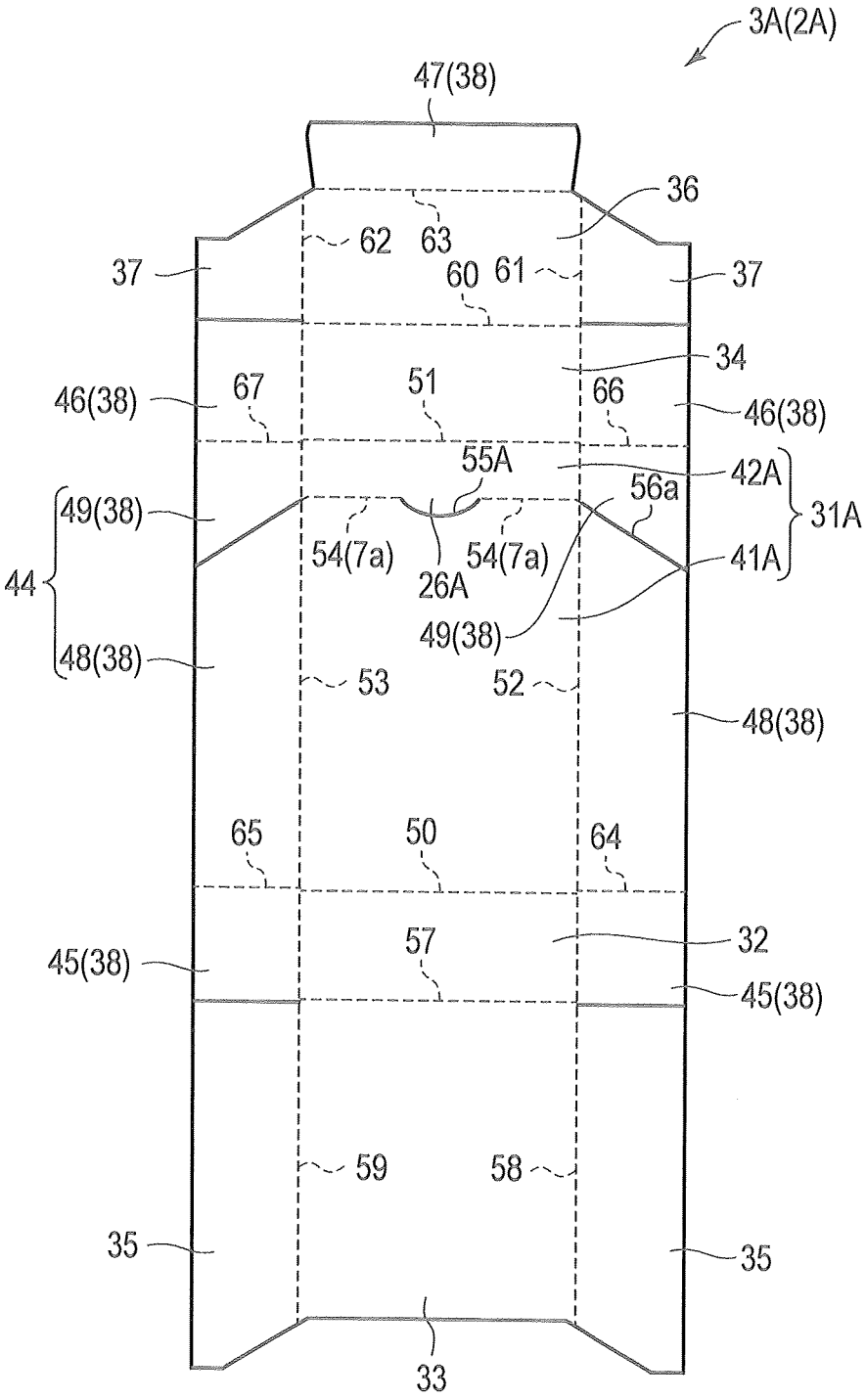


FIG. 6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33

FIG. 7

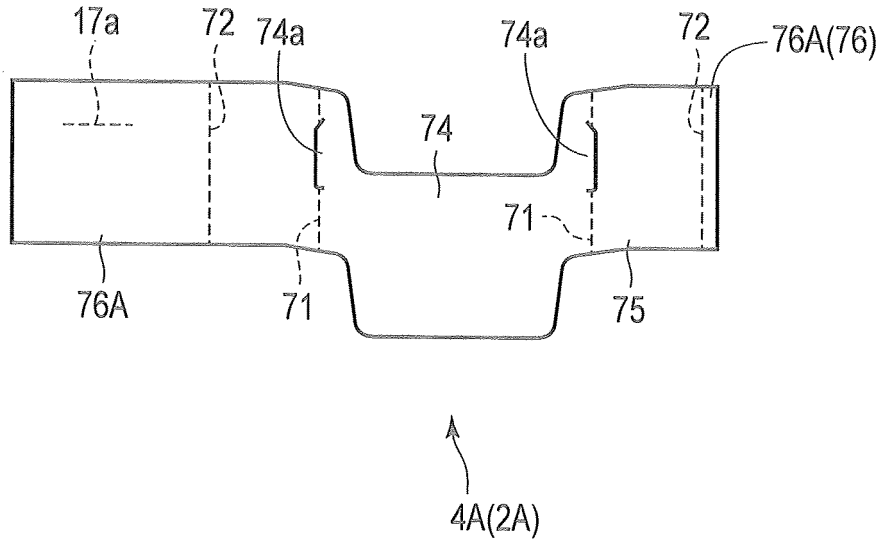
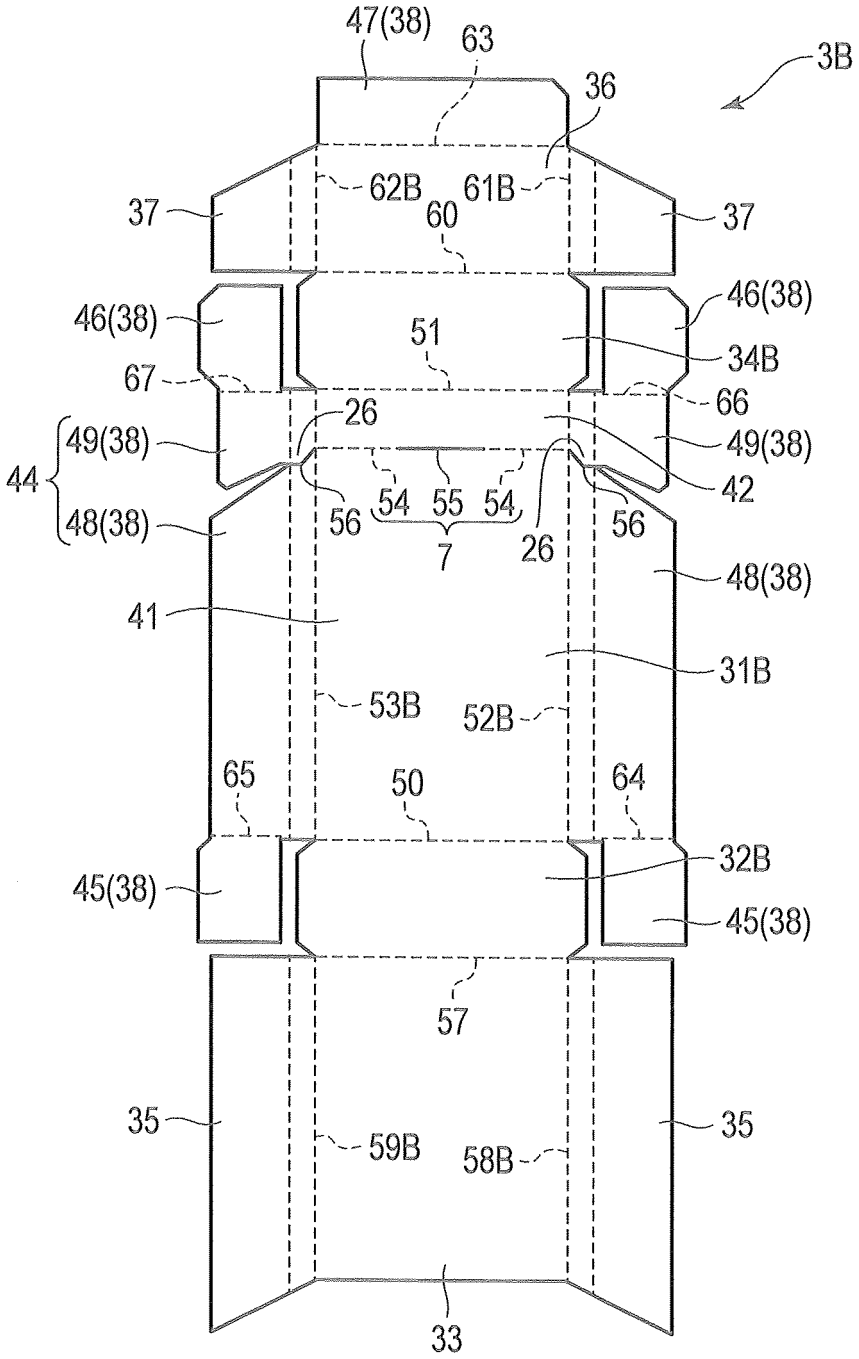


FIG. 8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61B
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46(38)
46(38)
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34B
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49(38)
49(38)
44
42
54
55
54
48(38)
56
56
7
26
48(38)
41
31B
53B
52B
65
50
64
32B
45(38)
45(38)
57
35
59B
58B
35
33

FIG. 9

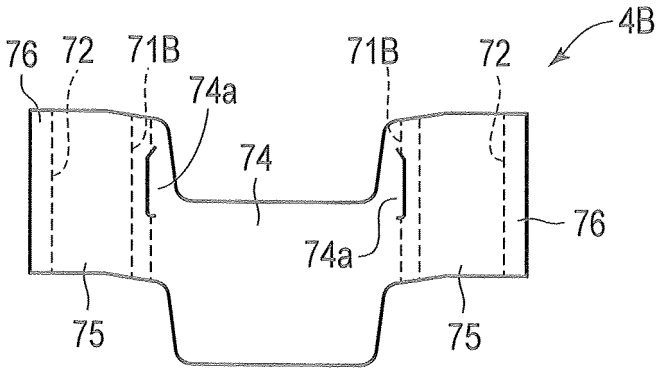
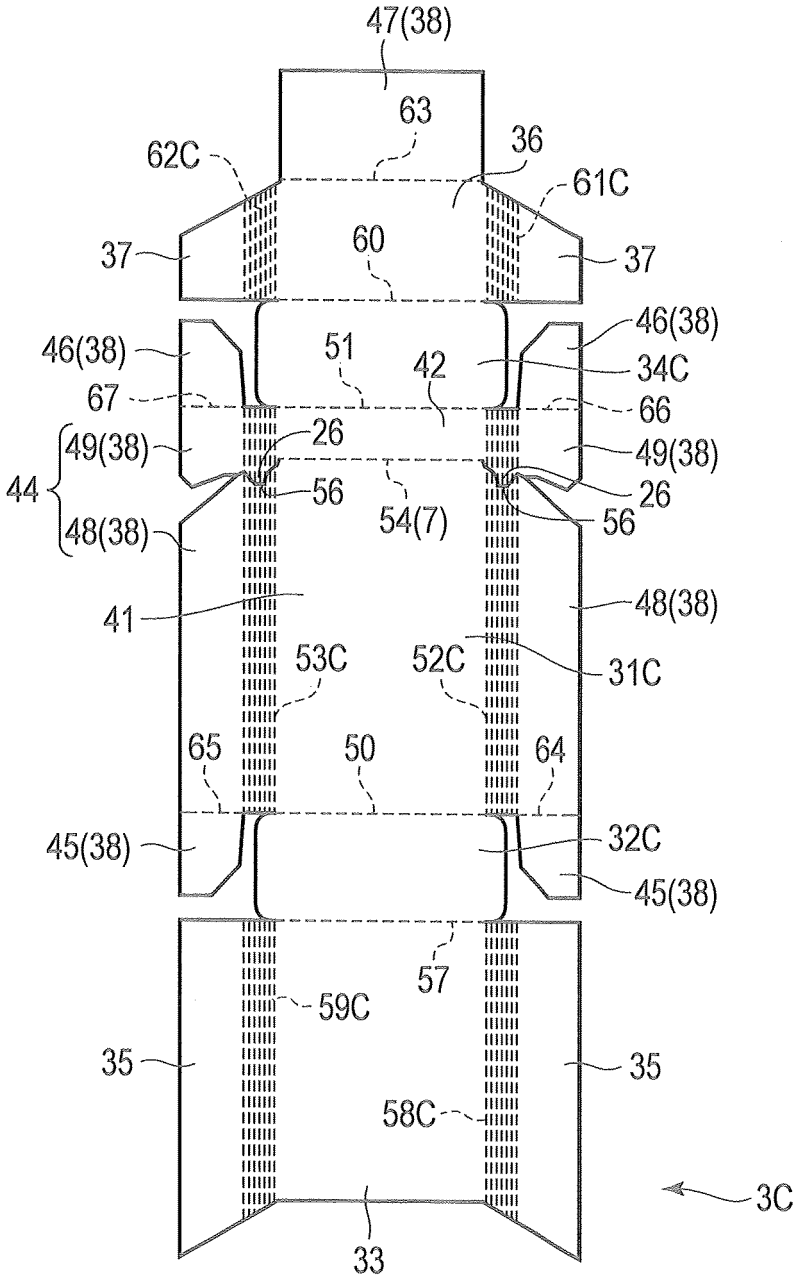


FIG. 10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46(38)
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49(38)
44
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54(7)
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48(38)
56
41
48(38)
53C
52C
31C
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64
45(38)
32C
45(38)
57
59C
35
35
58C
3C
33

FIG. 11

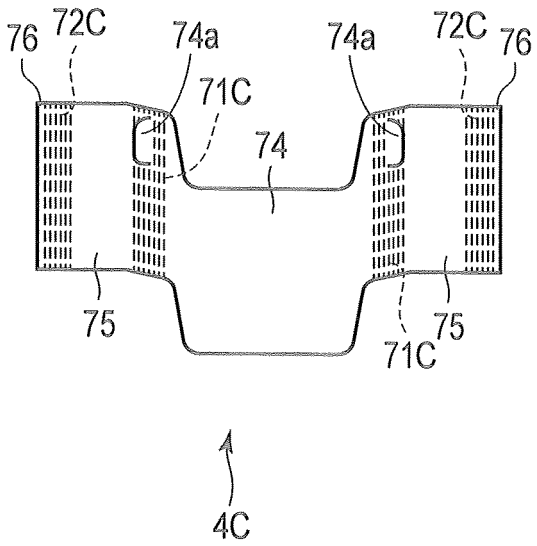
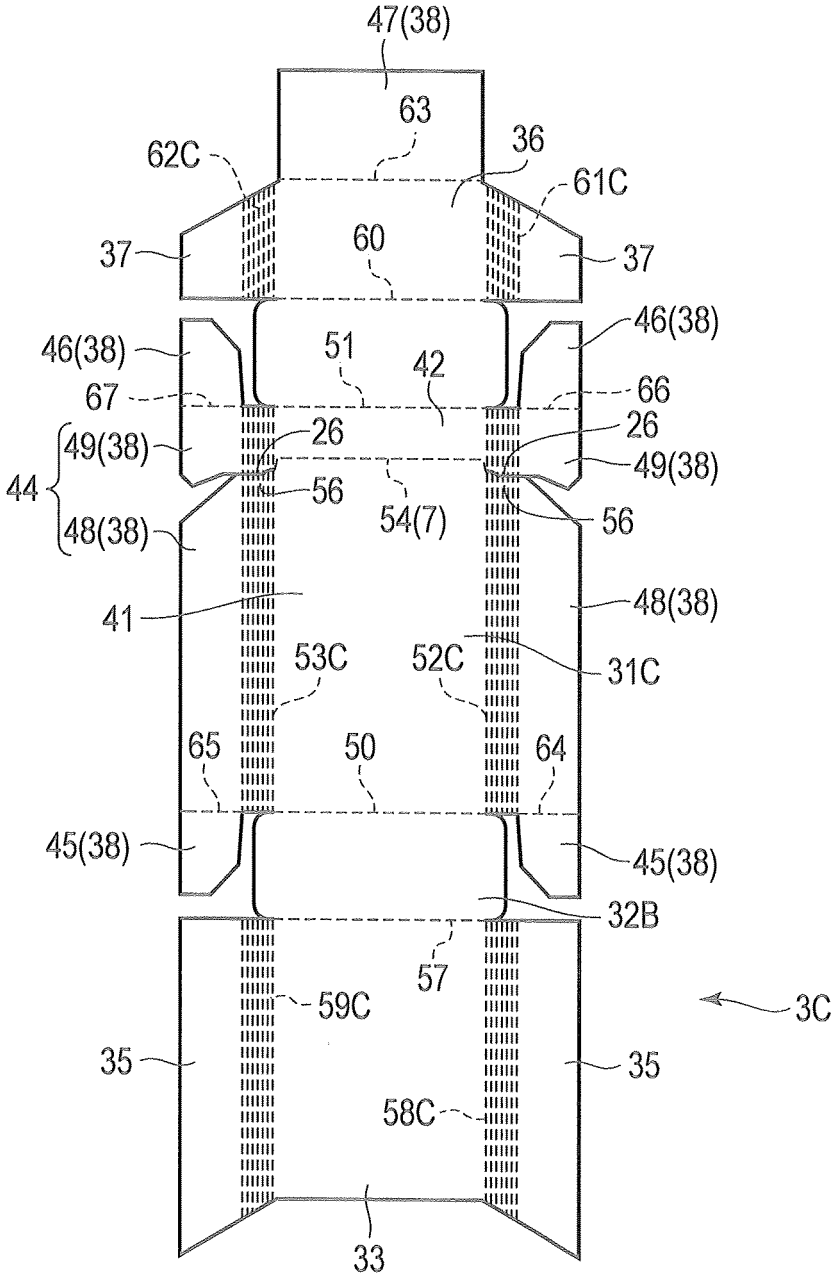


FIG. 12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46(38)
46(38)
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49(38)
49(38)
44
56
54(7)
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48(38)
41
48(38)
53C
52C
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45(38)
45(38)
32B
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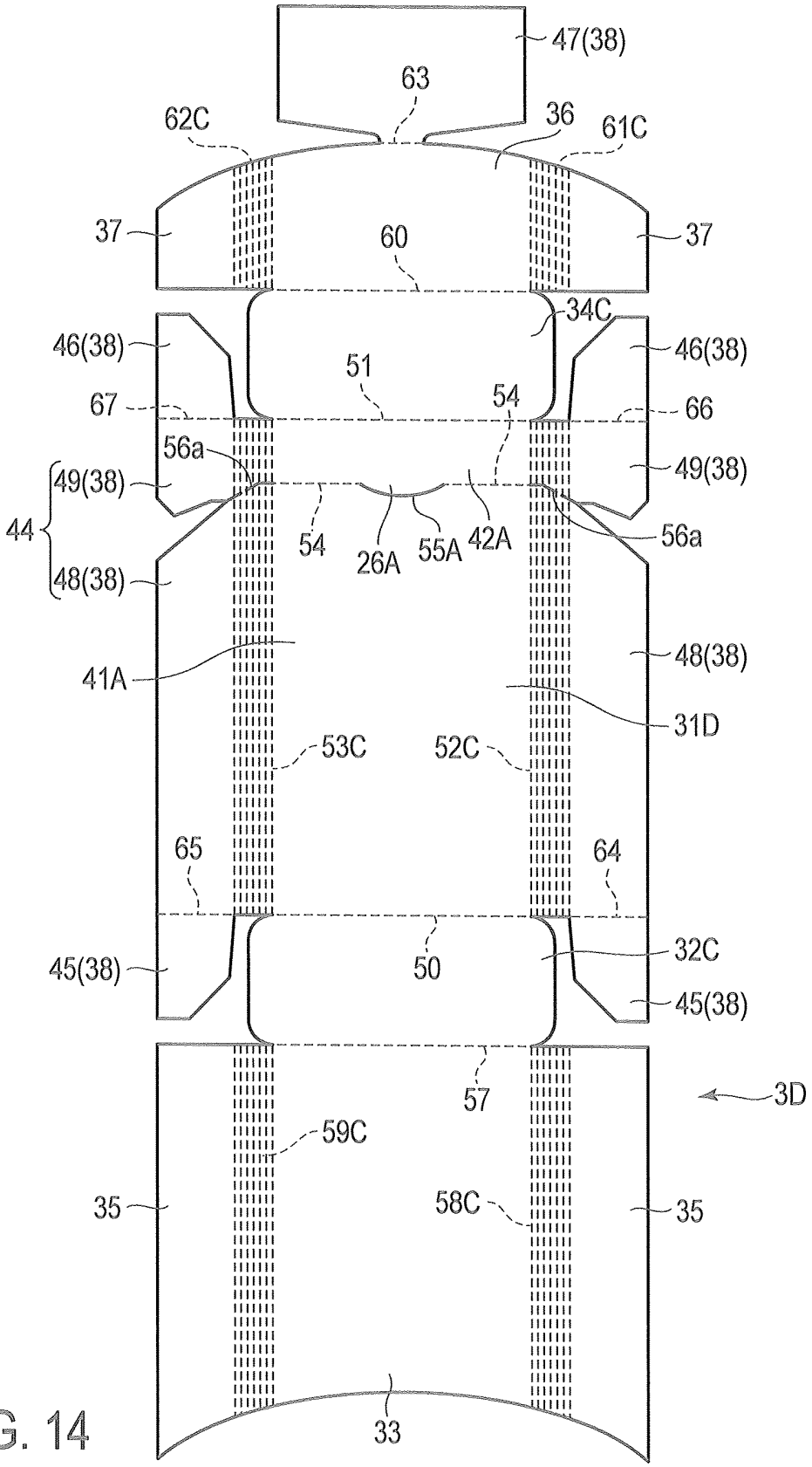
59C
3C
35
35
58C
33

FIG. 13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49(38)
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26A
55A
42A
56a
48(38)
48(38)
41A
31D
53C
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3D
59C
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58C
35
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FIG. 14

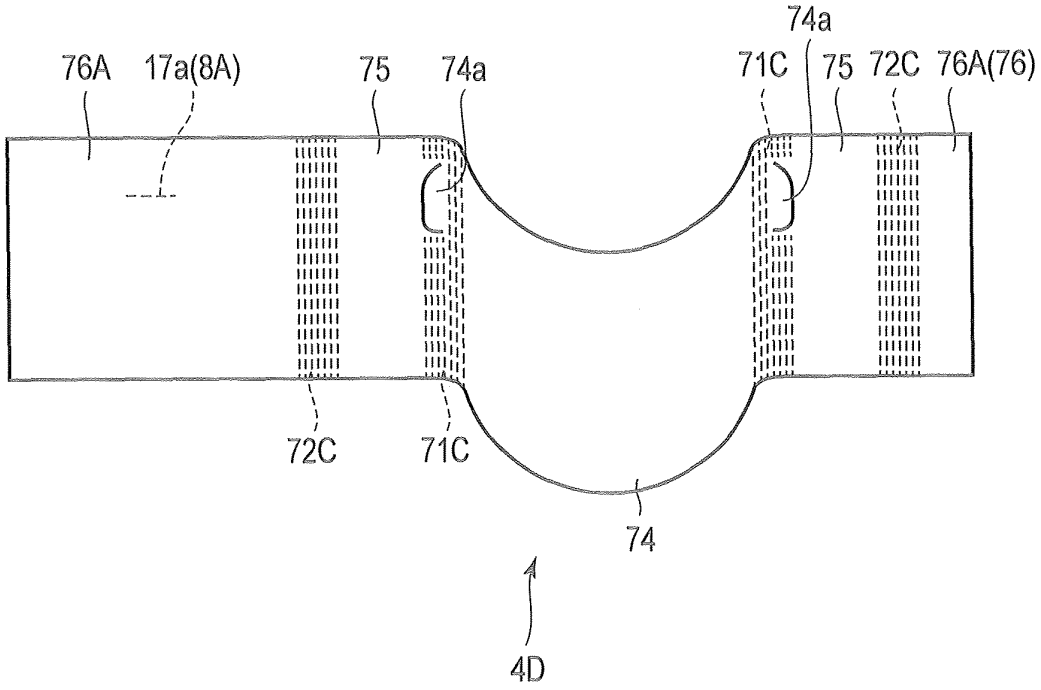

FIG. 15

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2012/078718

A. CLASSIFICATION OF SUBJECT MATTER
B65D5/66(2006.01)i, *B65D5/42*(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
B65D5/66, B65D5/42

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Jitsuyo Shinan Toroku Koho	1996-2013
Kokai Jitsuyo Shinan Koho	1971-2013	Toroku Jitsuyo Shinan Koho	1994-2013

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	JP 2000-159223 A (Toppan Printing Co., Ltd.), 13 June 2000 (13.06.2000), paragraph [0022]; column 7, line 10 (Family: none)	1 2-5
X Y	JP 2006-225007 A (Ezaki Glico Co., Ltd.), 31 August 2006 (31.08.2006), paragraphs [0002] to [0004] (Family: none)	1 2-5
X Y	JP 9-249222 A (Toppan Printing Co., Ltd.), 22 September 1997 (22.09.1997), paragraph [0011] (Family: none)	1 2-5

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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"O" document referring to an oral disclosure, use, exhibition or other means
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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
05 February, 2013 (05.02.13)	19 February, 2013 (19.02.13)
Name and mailing address of the ISA/ Japanese Patent Office Facsimile No.	Authorized officer Telephone No.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2012/078718

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	JP 2010-275009 A (Asahi Printing Co., Ltd.), 09 December 2010 (09.12.2010), paragraph [0025] (Family: none)	1 2-5
X Y	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 039052/1977(Laid-open No. 135222/1978) (Shin'ichi KUWAHARA), 26 October 1978 (26.10.1978), page 4, line 14 to page 5, line 6; page 8, lines 4 to 19 (Family: none)	1 2-5
Y A	WO 2007/138861 A1 (Japan Tobacco Inc.), 06 December 2007 (06.12.2007), paragraph [0049] & US 2009/0078599 A1 & EP 2022729 A1 & CN 101460377 A	2-5 1
Y A	JP 2004-526637 A (Philip Morris Products S.A.), 02 September 2004 (02.09.2004), paragraph [0027] & US 2004/0144661 A1 & EP 1361986 A & WO 2002/064450 A1 & DE 10106549 A	2-5 1

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Patent documents cited in the description

- JP 2008087775 A **[0002] [0003]**
- JP 2002096823 A **[0002] [0003]**