



(11)

EP 3 196 138 A1

(12)

EUROPEAN PATENT APPLICATION

published in accordance with Art. 153(4) EPC

(43) Date of publication:
26.07.2017 Bulletin 2017/30

(51) Int Cl.: **B65D 5/64** ^(2006.01) **B65D 5/42** ^(2006.01)

(21) Application number: **15842364.0**

(86) International application number:
PCT/JP2015/004240

(22) Date of filing: 25.08.2015

(87) International publication number:
WO 2016/042708 (24.03.2016 Gazette 2016/12)

(84) Designated Contracting States:
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
 GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
 PL PT RO RS SE SI SK SM TR**
 Designated Extension States:
BA ME
 Designated Validation States:
MA

(30) Priority: **19.09.2014 JP 2014191899**

(71) Applicant: **Panasonic Intellectual Property
 Management Co., Ltd.
 Osaka-shi, Osaka 540-6207 (JP)**

(72) Inventors:

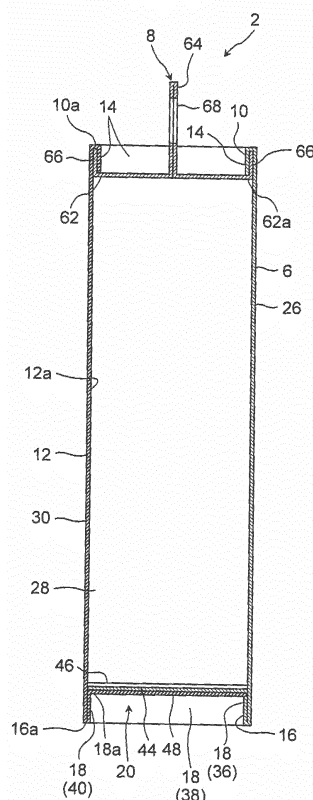
- **SHIROSAWA, Tomohisa**
Osaka 540-6207 (JP)
- **OKAMOTO, Yoshinari**
Osaka 540-6207 (JP)

(74) Representative: **Grünecker Patent- und
Rechtsanwälte
PartG mbB
Leopoldstraße 4
80802 München (DE)**

(54) **PACKAGING BOX AND OBJECT PACKAGED IN SAID PACKAGING BOX**

(57) The packaging box in the disclosure, which is a packaging box for packaging an object, includes a tubular box body having a first opening in an upper surface thereof, and a lid body detachably attached to the first opening to cover the first opening. The box body has a first turned-back section that is provided in at least one part of a peripheral edge of the first opening and turned back so as to be overlapped with an inner surface of the box body. The lid body has an insertion section that is provided in at least one part of a peripheral edge of the lid body and is to be inserted between the first turned-back section and the inner surface of the box body when the lid body is attached to the first opening.

FIG. 4



Description

TECHNICAL FIELD

[0001] The disclosure relates to a packaging box for packaging an object.

BACKGROUND ART

[0002] Patent Literature 1 discloses a package (packaging box) for packaging an object. The packaging box has a rectangular parallelepiped shape. On an upper surface side thereof, an opening is provided. An upper lid body (outer side flap) and right-and-left handle parts of the upper lid body (a pair of inner side flaps) are respectively provided in three sides of a peripheral edge of the opening. The outer side flap and the pair of inner side flaps function as a lid for openably and closably covering the above opening. Each of the pair of inner side flaps is folded inwardly at approximately a right angle to cover the above opening. The outer side flap is folded at approximately a right angle so as to be overlapped with each of the pair of inner side flaps from the outside. Further, an insertion part (tip end) of the outer side flap is inserted into a gap between each of the pair of inner side flaps and a peripheral edge of the above opening in the state where the insertion part is folded at approximately a right angle.

Citation List

Patent Literature

[0003] PTL 1: Unexamined Japanese Patent Publication No. 2007-209598

SUMMARY OF THE INVENTION

[0004] The lid (an upper lid body and right-and-left handle parts of the upper lid body) of the package disclosed in Patent Literature 1 cannot be detached from and attached to a package body. The disclosure provides a packaging box whose lid body can easily be detached from and attached to a box body.

[0005] The packaging box in the disclosure, which is a packaging box for packaging an object, includes a tubular box body having a first opening in an upper surface thereof, and a lid body detachably attached to the first opening to cover the first opening. The box body has a first turned-back section that is provided in at least one part of a peripheral edge of the first opening and turned back so as to be overlapped with an inner surface of the box body. The lid body has an insertion section that is provided in at least one part of a peripheral edge of the lid body and is to be inserted between the first turned-back section and the inner surface of the box body when the lid body is attached to the first opening.

[0006] According to the packaging box in the disclo-

sure, a lid body can easily be detached from and attached to a box body.

BRIEF DESCRIPTION OF DRAWINGS

[0007]

FIG. 1 is a perspective view showing appearance of a packaging box in accordance with a first exemplary embodiment.

FIG. 2 is a perspective view showing the state where the packaging box in accordance with the first exemplary embodiment is disassembled.

FIG. 3 is a view showing the packaging box in accordance with the first exemplary embodiment.

FIG. 4 is a cross-sectional view of the packaging box taken along line 4-4 in (a) of FIG. 3.

FIG. 5 is a developed view showing the state where a box body in accordance with the first exemplary embodiment is developed.

FIG. 6 is a developed view showing the state where a lid body in accordance with the first exemplary embodiment is developed.

FIG. 7A is a cross-sectional view for explaining a procedure of attaching the lid body to a first opening of the box body.

FIG. 7B is a cross-sectional view for explaining a procedure of attaching the lid body to the first opening of the box body.

FIG. 8A is a cross-sectional view for explaining a procedure of taking out an object to the outside of the packaging box.

FIG. 8B is a cross-sectional view for explaining a procedure of taking out an object to the outside of the packaging box.

FIG. 9 is a perspective view showing appearance of a packaging box in accordance with a second exemplary embodiment.

FIG. 10 is a view showing the packaging box in accordance with the second exemplary embodiment.

FIG. 11 is a cross-sectional view of the packaging box taken along line 11-11 in (a) of FIG. 10.

FIG. 12 is a developed view showing the state where a box body in accordance with the second exemplary embodiment is developed.

FIG. 13 is a developed view showing the state where a lid body in accordance with the second exemplary embodiment is developed.

FIG. 14 is a perspective view showing appearance of a packaging box in accordance with a third exemplary embodiment.

FIG. 15 is a view showing the packaging box in accordance with the third exemplary embodiment.

FIG. 16 is a cross-sectional view of the packaging box taken along line 16-16 in (a) of FIG. 15.

FIG. 17 is a developed view showing the state where a box body in accordance with the third exemplary embodiment is developed.

FIG. 18 is a developed view showing the state where a lid body in accordance with the third exemplary embodiment is developed.

FIG. 19 is a perspective view showing appearance of a packaging box in accordance with a fourth exemplary embodiment.

FIG. 20 is a view showing the packaging box in accordance with the fourth exemplary embodiment.

FIG. 21 is a cross-sectional view of the packaging box taken along line 21-21 in (a) of FIG. 20.

FIG. 22 is a developed view showing the state where a box body in accordance with the fourth exemplary embodiment is developed.

FIG. 23 is a developed view showing the state where a lid body in accordance with the fourth exemplary embodiment is developed.

FIG. 24 is a view showing a packaging box in accordance with a fifth exemplary embodiment.

FIG. 25 is a developed view showing the state where a box body in accordance with the fifth exemplary embodiment is developed.

FIG. 26 is a view for explaining an operation of opening and closing a bottom lid section in accordance with the fifth exemplary embodiment.

DESCRIPTION OF EMBODIMENTS

[0008] Hereinafter, an exemplary embodiment will be described in detail with reference to the drawings as necessary. However, description that is more detail than unnecessary may be omitted. For instance, detailed description about well-known matters and overlapped description about substantially the same configurations may be omitted. This is because the following description is avoided from being unnecessarily redundant, and a person skilled in the art is made to easily understand the disclosure.

[0009] Note that, the accompanying drawings and the following description are provided for a person skilled in the art to fully understand the disclosure by inventors, but do not intend to limit the subject matter described in claims.

FIRST EXEMPLARY EMBODIMENT

[0010] Hereinafter, a first exemplary embodiment will be described with reference to FIGS. 1 to 8B.

[1-1. Structure of a packaging box]

[1-1-1. The entire structure of a packaging box]

[0011] First, the entire structure of packaging box 2 will be described with reference to FIGS. 1 to 4. FIG. 1 is a perspective view showing appearance of packaging box 2 in accordance with a first exemplary embodiment. FIG. 2 is a perspective view showing the state where packaging box 2 in accordance with the first exemplary embodiment

is disassembled. FIG. 3 is a view showing packaging box 2 in accordance with the first exemplary embodiment. Specifically, (a) of FIG. 3 is a front view of packaging box 2, (b) of FIG. 3 is a rear view of packaging box 2, (c) of FIG. 3 is a plan view of packaging box 2, (d) of FIG. 3 is a bottom view of packaging box 2, (e) of FIG. 3 is a right side view of packaging box 2, and (f) of FIG. 3 is a left side view of packaging box 2. FIG. 4 is a cross-sectional view of packaging box 2 taken along line 4-4 in (a) of FIG. 3.

[0012] As shown in FIGS. 1 to 4, packaging box 2 is a box for packaging object 4 (see FIG. 8A described below), and includes box body 6 and lid body 8. Packaging box 2 is made of transparent resin such as polyethylene terephthalate (PET; PolyEthylene Terephthalate) or vinyl chloride, for example, and is a clear case through which object 4 can be seen from the outside. Note that, in the present description, the term "transparent" is defined to have transparency enough for a user to see object 4 visually from the outside of packaging box 2, but not necessary to be perfectly transparent.

[0013] Object 4 is configured by combining, for example, goods to be displayed at a shop and a rectangular parallelepiped package, which is made of paper, used for storing the goods. The goods, which are included in object 4, are various kinds of goods including audio accessories such as an earphone and a headphone, hair-dressing-and-cosmetic goods such as an electric toothbrush, small appliances such as a battery, daily necessities such as cosmetics and household goods, food-stuffs such as snacks, and the like. The package for storing goods has functions to advertise goods to be stored and protect the goods as a shock absorbing material.

[1-1-2. Structure of a box body]

[0014] Next, structure of box body 6 will be described with reference to FIGS. 1 to 5. FIG. 5 is a developed view showing the state where box body 6 in accordance with the first exemplary embodiment is developed.

[0015] As shown in FIGS. 1 to 4, box body 6 is, for example, a square shaped tube, and is simply extended from an upper surface (upper side surface in FIG. 4) to a lower surface (lower side surface in FIG. 4) like a stock pot. First opening 10 with a square shape is provided in the upper surface of box body 6. As shown in FIG. 2 and FIG. 4, peripheral edge 10a of first opening 10 is provided with first turned-back section 14 that is turned back so as to be overlapped with inner surface 12a of side 12 of box body 6. First turned-back section 14 is provided over the entire circumference of peripheral edge 10a of first opening 10.

[0016] On the other hand, as shown in (d) of FIG. 3 and FIG. 4, second opening 16 with a square shape is provided in the lower surface of box body 6. Peripheral edge 16a of second opening 16 is provided with second turned-back section 18 that is turned back so as to be overlapped with inner surface 12a of side 12 of box body

6. Second turned-back section 18 is provided over the entire circumference of peripheral edge 16a of second opening 16.

[0017] Bottom lid part 20 for openably and closably covering second opening 16 is provided in the lower surface of box body 6. Bottom lid part 20 is provided to extend from tip end 18a of second turned-back section 18.

[0018] Box body 6 is assembled by folding a piece of sheet 22 shown in FIG. 5 along a fold line (dashed line shown in FIG. 5). Sheet 22 is, for example, a sheet made of transparent resin with a thickness of 0.3 mm, and is obtained by cutting an original fabric (not shown) of sheet 22 with a pressing machine or the like. Sheet 22 has first turned-back piece 24, four side sections 26, 28, 30, and 32, connecting piece 34, four second turned-back pieces 36, 38, 40, and 42, outer side flap 44, inner side flap 46, outer side flap 48, and inner side flap 50, as an area.

[0019] Each of four side sections 26 to 32 is an area for constituting side 12 of box body 6, and folded into a square shaped tube when box body 6 is assembled by folding sheet 22. Four side sections 26 to 32 correspond to a rear face of box body 6 (see (b) of FIG. 3), a left side face of box body 6 (see (f) of FIG. 3), a front face of box body 6 (see (a) of FIG. 3), and a right side face of box body 6 (see (e) of FIG. 3E), respectively. Connecting piece 34 is connected to one side of side section 32. When box body 6 is assembled by folding sheet 22, connecting piece 34 is folded at approximately a right angle, and then bonded to an inner surface of side section 26 adjacent to side section 32 with adhesive or the like.

[0020] First turned-back piece 24 is an area for constituting first turned-back section 14 of box body 6, and connected to extend over respective upper sides of four side sections 26 to 32. When box body 6 is assembled by folding sheet 22, first turned-back piece 24 is turned back at an angle of approximately 180 degrees to be overlapped with inner surface 12a of side 12 of box body 6.

[0021] Each of four second turned-back pieces 36 to 42 is an area for constituting second turned-back section 18 of box body 6, and is connected to respective lower sides of four side sections 26 to 32. When box body 6 is assembled by folding sheet 22, each of four second turned-back pieces 36 to 42 is turned back at an angle of approximately 180 degrees to be overlapped with inner surface 12a of side 12 of box body 6. Note that, four second turned-back pieces from 36 may be formed as a single second turned-back piece, without being divided into four pieces, like first turned-back piece 24. In this case, the single second turned-back piece is divided into four portions by fold lines and formed to extend over respective lower sides of four side sections 26 to 32.

[0022] Outer side flap 44, inner side flap 46, outer side flap 48, and inner side flap 50 each are areas for constituting bottom lid section 20 of box body 6. Outer side flap 44, inner side flap 46, outer side flap 48, and inner side flap 50 each are connected to respective lower sides of second turned-back pieces 36 to 42. Semi-circular

shaped notch section 52 is formed in a lower side of outer side flap 44. Semi-circular shaped notch sections 54 and 56 are formed in both sides of outer side flap 48, respectively. Slit 58 is formed at a boundary part between outer side flap 44 and second turned-back piece 36. Protruding piece 60, to be inserted into slit 58, is formed in a lower side of outer side flap 48.

[0023] When box body 6 is assembled by folding sheet 22, outer side flap 44, inner side flap 46, outer side flap 48, and inner side flap 50 each are folded as follows. First, each of inner side flaps 46 and 50 is folded at approximately a right angle to cover second opening 16. Outer side flap 44 is folded at approximately a right angle to cover inner side flaps 46 and 50 from the outside. Further, outer side flap 48 is folded at approximately a right angle to cover outer side flap 44 from the outside. At this time, protruding piece 60 is inserted into slit 58. Thus, bottom lid section 20 is formed, and second opening 16 of box body 6 is closed by bottom lid section 20. Note that, as shown in FIG. 4, bottom lid section 20 is located at a position recessed from peripheral edge 16a of second opening 16 toward a first opening 10 side.

[0024] Note that, in the case where second opening 16 of box body 6 is opened, outer side flap 48 is firstly pulled out to the outside in the state where user's fingers are hooked on each of notch sections 54 and 56, and then protruding piece 60 is drawn out from slit 58. Secondly, after outer side flap 44 is pulled out to the outside in the state where user's fingers are hooked on notch section 52, each of inner side flaps 46 and 50 is pulled out to the outside. Thus, as shown in FIG. 8B described below, second opening 16 is opened.

[1-1-3. Structure of a lid body]

[0025] Next, structure of lid body 8 will be described with reference to FIGS. 1 to 4 and FIG. 6. FIG. 6 is a developed view showing the state where lid body 8 in accordance with the first exemplary embodiment is developed.

[0026] As shown in FIGS. 1 to 4, lid body 8 is provided to openably and closably cover first opening 10 of box body 6, and detachably attached to first opening 10. Lid body 8 has upper lid 62, suspending section 64, and insertion section 66.

[0027] Upper lid 62 has, for example, a square plate-like shape. In the case where lid body 8 is attached to first opening 10 of box body 6, upper lid 62 is disposed to cover first opening 10 of box body 6. At this time, peripheral edge 62a of upper lid 62 is disposed to be close to (or in contact with) inner surface 12a of side 12 of box body 6. Note that, as shown in FIGS. 1 and 4, upper lid 62 is disposed at a position recessed from peripheral edge 10a of first opening 10 toward a second opening 16 side.

[0028] Suspending section 64 extends upward from an upper surface of upper lid 62 in approximately a vertical direction. Suspending via hole 68 is formed in suspend-

ing section 64. For instance, a hook (not shown) for hanging packaging box 2 is inserted into suspending via hole 68 to hang packaging box 2, and thus packaging box 2 can be displayed in a storefront in the state where packaging box 2 is hung on the hook.

[0029] Insertion section 66 is provided over the entire circumference of peripheral edge 62a of upper lid 62, and extends upward from peripheral edge 62a of upper lid 62 in approximately a vertical direction. Insertion section 66 is inserted between first turned-back section 14 of box body 6 and inner surface 12a of side 12 of box body 6.

[0030] A piece of sheet 70 is folded along a fold line (dashed line shown in FIG. 6) shown in FIG. 6 to assembled lid body 8. Sheet 70 is, for example, a transparent resin sheet with a thickness of 0.3 mm, and obtained by cutting an original fabric (not shown) of sheet 70 with a pressing machine or the like. Sheet 70 has insertion pieces 72, 74, and 76, upper lid piece 78, suspending pieces 80 and 82, upper lid piece 84, and insertion pieces 86, 88, and 90, as an area.

[0031] Suspending pieces 80 and 82 are areas for constituting suspending section 64 of lid body 8. Suspending pieces 80 and 82 are folded so as to be overlapped with each other when lid body 8 is assembled by folding sheet 70. Via holes 92 and 94 are formed in suspending pieces 80 and 82, respectively. Via holes 92 and 94 are overlapped with each other to form suspending via hole 68.

[0032] Upper lid pieces 78 and 84 are areas for constituting upper lid 62 of lid body 8, and each are folded at approximately a right angle when lid body 8 is assembled by folding sheet 70.

[0033] Insertion pieces 72 to 76 and insertion pieces 86 to 90 each are areas for constituting insertion section 66 of lid body 8, and folded at approximately a right angle when lid body 8 is assembled by folding sheet 70.

[1-2. A procedure of attaching a lid body]

[0034] Next, a procedure of attaching lid body 8 to first opening 10 of box body 6 will be described with reference to FIG. 4 and FIGS. 7A and 7B. FIGS. 7A and 7B each are cross-sectional views for explaining the procedure of attaching lid body 8 to first opening 10 of box body 6.

[0035] First, in the state where a user picks suspending section 64 of lid body 8 with his or her fingers 96, upper lid 62 of lid body 8 is inserted inside box body 6 from first opening 10 of box body 6 in a direction shown by arrow P of FIG. 7A. At this time, as shown in FIG. 7B, insertion section 66 of lid body 8 is close to (or in contact with) inner surface 12a of side 12 of box body 6.

[0036] Subsequently, lid body 8 is pulled up toward the outside of box body 6 in a direction shown by arrow Q of FIG. 7B. Thus, as shown in FIG. 4, insertion section 66 of lid body 8 is inserted between first turned-back section 14 and inner surface 12a of side 12 of box body 6, so that lid body 8 is attached to first opening 10 of box body 6.

[1-3. A procedure of taking out an object]

[0037] Next, a procedure of taking out object 4 to the outside of packaging box 2 will be described with reference to FIGS. 8A and 8B. FIGS. 8A and 8B each are cross-sectional views for explaining the procedure of taking out object 4 to the outside of packaging box 2.

[0038] In the state where object 4 is accommodated inside box body 6, lid body 8 is attached to first opening 10 of box body 6 as mentioned above to package object 4 with packaging box 2. At this time, as shown in FIG. 8A, object 4 is disposed in a space surrounded by side 12, lid body 8, and bottom lid section 20 of box body 6.

[0039] In the case where object 4 is taken out to the outside of box body 6, as shown in FIG. 8A, a user firstly draws outer side flap 48, outer side flap 44, inner side flap 46, and inner side flap 50 to the outside in this order, so that second opening 16 of box body 6 is opened.

[0040] Secondly, in the state where the user picks suspending section 64 of lid body 8 with his or her finger 96, lid body 8 is pushed in toward object 4 (i.e., toward second opening 16) in a direction shown by arrow R of FIG. 8A. At this time, as shown in FIG. 8B, insertion section 66 of lid body 8 is drawn out from between first turned-back section 14 and inner surface 12a of side 12 of box body 6. Thus, lid body 8 is removed from first opening 10 of box body 6, and first opening 10 of box body 6 is opened.

[0041] Subsequently, in the state where a lower surface of upper lid 62 of lid body 8 is in contact with an upper surface of object 4, lid body 8 is further pushed in toward object 4 in a direction shown by arrow S of FIG. 8B. Thus, object 4 is taken out to the outside of packaging box 2 from the second opening 16 of box body 6 in a direction shown by arrow T of FIG. 8B.

[0042] Note that, in the present exemplary embodiment, lid body 8 is attached to first opening 10 of box body 6 in the state where object 4 is accommodated inside box body 6, but object 4 may be accommodated in packaging box 2 from second opening 16 in the state where lid body 8 is attached to first opening 10 of box body 6. In this case, object 4 has approximately the same shape as a space surrounded by side 12, lid body 8, and bottom lid section 20 of box body 6, and can be accommodated in packaging box 2.

[1-4. Effects]

[0043] Next, effects obtained by packaging box 2 of the exemplary embodiment will be described. As mentioned above, in the present exemplary embodiment, box body 6 has first turned-back section 14 that is provided in peripheral edge 10a of first opening 10 and turned back so as to be overlapped with inner surface 12a of side 12 of box body 6. Lid body 8 has insertion section 66 that is provided in peripheral edge 62a of upper lid 62 and is to be inserted between first turned-back section 14 and inner surface 12a of side 12 of box body 6.

[0044] Accordingly, after being inserted inside box

body 6 from first opening 10 of box body 6, lid body 8 can easily be attached to first opening 10 of box body 6 with such a relatively simple operation that lid body 8 is pulled up toward the outside of box body 6. Further, lid body 8 can easily be removed from first opening 10 of box body 6 with such a relatively simple operation that lid body 8 attached to first opening 10 is pushed in toward second opening 16. Thus, lid body 8 can easily be detached from and attached to box body 6.

[0045] Further, in association with the structure of box body 6 mentioned above, in sheet 22 shown in FIG. 5, first turned-back piece 24 is connected to extend over respective upper sides of four side sections 26 to 32. If sheet 22 has such a shape, the material, which is to be discarded when an original fabric of sheet 22 is cut with a pressing machine or the like, can be reduced by about 19% as compared with the conventional packaging box in which an outer side flap and an inner side flap for constituting an upper lid are formed in respective upper sides of four side sections 26 to 32, for example.

[0046] Further, in the present exemplary embodiment, first turned-back section 14 is provided over the entire circumference of peripheral edge 10a of first opening 10. This makes it possible to strengthen box body 6. Note that, even if a thickness of sheet 22 for forming box body 6 is reduced (e.g., approximately 0.2 mm to 0.3 mm), first turned-back section 14 mentioned above can maintain the intensity of box body 6.

[0047] Further, in the present exemplary embodiment, box body 6 further has second turned-back section 18 that is provided over the entire circumference of peripheral edge 16a of the second opening 16 and turned back so as to be overlapped with inner surface 12a of side 12 of box body 6. This makes it possible to strengthen box body 6. Note that, even if a thickness of sheet 22 for forming box body 6 is reduced (e.g., approximately 0.2 mm to 0.3 mm), second turned-back section 14 mentioned above can maintain the intensity of box body 6.

[0048] Further, since peripheral edge 16a of the second opening 16 forms an edge on a lower surface of box body 6, the edge allows packaging box 2 to be laid stably. This makes it possible to display packaging box 2 in a storefront in the state where packaging box 2 is laid in a showcase or the like, for example.

[0049] Further, in the present exemplary embodiment, object 4 is disposed such that, in the state where second opening 16 of bottom lid section 20 is opened, lid body 8 is pushed in toward second opening 16 to take out object 4 to the outside of packaging box 2 from the second opening 16. This makes it possible to take out object 4 easily to the outside of packaging box 2.

[0050] Further, in the present exemplary embodiment, box body 6 and lid body 8 each are made of transparent resin. Accordingly, a user can see object 4 from the outside of packaging box 2. Furthermore, first opening 10 of box body 6 is not provided with the conventional inner side flap or the like described in BACKGROUND ART. Therefore, the above-mentioned inner side flap or the

like is prevented from being visible through first opening 10 when packaging box 2 is viewed from above (from a lid body 8 side). This makes it easier to design packaging box 2.

SECOND EXEMPLARY EMBODIMENT

[0051] Hereinafter, a second exemplary embodiment 2 will be described with reference to FIGS. 9 to 13.

[2-1. Structure of a packaging box]

[2-1-1. Structure of a box body]

[0052] First, structure of box body 6A of packaging box 2A will be described with reference to FIGS. 9 to 12. FIG. 9 is a perspective view showing appearance of packaging box 2A in accordance with the second exemplary embodiment. FIG. 10 is a view showing packaging box 2A in accordance with the second exemplary embodiment. Specifically, (a) of FIG. 10 is a front view of packaging box 2A, (b) of FIG. 10 is a rear view of packaging box 2A, (c) of FIG. 10 is a plan view of packaging box 2A, (d) of FIG. 10 is a bottom view of packaging box 2A, (e) of FIG. 10 is a right side view of packaging box 2A, and (f) of FIG. 10 is a left side view of packaging box 2A. FIG. 11 is a cross-sectional view of packaging box 2A taken along line 11-11 in (a) of FIG. 10. FIG. 12 is a developed view showing the state where box body 6A in accordance with the second exemplary embodiment 2 is developed.

[0053] The present exemplary embodiment differs from the first exemplary embodiment mentioned above in a shape of box body 6A. That is, as shown in FIGS. 9 and 10, in the present exemplary embodiment, the shape of box body 6A is a rectangular shaped tube. Like the first exemplary embodiment mentioned above, first turned-back section 14A is provided in peripheral edge 10Aa of first opening 10A of box body 6A such that first turned-back section 14A is turned back so as to be overlapped with inner surface 12Aa of side 12A of box body 6A. Further, second turned-back section 18A is provided in peripheral edge 16Aa of second opening 16A of box body 6A such that second turned-back section 18A is turned back so as to be overlapped with inner surface 12Aa of side 12A of box body 6A.

[0054] A piece of sheet 22A shown in FIG. 12 is folded along a fold line (dashed line shown in FIG. 12) to assemble box body 6A. Sheet 22A has first turned-back piece 24A, four side sections 26A, 28A, 30A, and 32A, connecting piece 34, four second turned-back pieces 36A, 38A, 40A, and 42A, outer side flap 44A, inner side flap 46A, outer side flap 48A, and inner side flap 50A, as an area.

[0055] Like the first exemplary embodiment mentioned above, each of four side sections 26A to 32A is an area for constituting side 12A of box body 6A. First turned-back piece 24A is an area for constituting first turned-back section 14A of box body 6A. Each of four second

turned-back pieces 36A to 42A is an area for constituting second turned-back section 18A of box body 6A. Outer side flap 44A, inner side flap 46A, outer side flap 48A, and inner side flap 50A each are areas for constituting bottom lid section 20A of box body 6A.

[2-1-2. Structure of a lid body]

[0056] Next, structure of lid body 8A will be described with reference to FIGS. 9 to 11 and FIG. 13. FIG. 13 is a developed view showing the state where lid body 8A in accordance with the second exemplary embodiment is developed.

[0057] Lid body 8A has upper lid 62A, suspending section 64A, and insertion section 66A. The present exemplary embodiment differs from the first exemplary embodiment mentioned above in a shape of lid body 8A. That is, as shown in FIGS. 9 and 10, in the present exemplary embodiment, upper lid 62A has a rectangular plate-like shape.

[0058] A piece of sheet 70A shown in FIG. 13 is folded along a fold line (dashed line shown in FIG. 13) to assemble lid body 8A. Sheet 70A has insertion pieces 72A, 74A, and 76A, upper lid piece 78A, suspending pieces 80A and 82A, upper lid piece 84A, and insertion pieces 86A, 88A, and 90A, as an area.

[0059] Suspending pieces 80A and 82A are areas for constituting suspending section 64A of lid body 8A. Upper lid pieces 78A and 84A are areas for constituting upper lid 62A of lid body 8A. Insertion pieces 72A to 76A and insertion pieces 86A to 90A each are areas for constituting insertion section 66A of lid body 8A.

[0060] Note that, suspending via hole 68 that is formed by via holes 92 and 94 of suspending pieces 80A and 82A, a procedure of attaching lid body 8A, and a procedure of taking out an object are the same as in the first exemplary embodiment. Therefore, the description thereof is omitted.

[2-2. Effects]

[0061] The present exemplary embodiment can obtain the same effect as the first exemplary embodiment mentioned above.

THIRD EXEMPLARY EMBODIMENT

[0062] Hereinafter, a third exemplary embodiment will be described with reference to FIGS. 14 to 18.

[3-1. Structure of a packaging box]

[3-1-1. Structure of a box body]

[0063] First, structure of box body 6B of packaging box 2B will be described with reference to FIGS. 14 to 17. FIG. 14 is a perspective view showing appearance of packaging box 2B in accordance with the third exemplary

embodiment. FIG. 15 is a view showing packaging box 2B in accordance with the third exemplary embodiment. Specifically, (a) of FIG. 15 is a front view of packaging box 2B, (b) of FIG. 15 is a rear view of packaging box 2B, (c) of FIG. 15 is a plan view of packaging box 2B, (d) of FIG. 15 is a bottom view of packaging box 2B, (e) of FIG. 15 is a right side view of packaging box 2B, and (f) of FIG. 15 is a left side view of packaging box 2B. FIG. 16 is a cross-sectional view of packaging box 2B taken along line 16-16 in (a) of FIG. 15. FIG. 17 is a developed view showing the state where box body 6B in accordance with the third exemplary embodiment is developed.

[0064] The present exemplary embodiment differs from the first exemplary embodiment mentioned above in a shape of box body 6B. That is, as shown in FIGS. 14 and 15, in the present exemplary embodiment, the shape of box body 6B is a regular hexagonal tube. Like the first exemplary embodiment mentioned above, first turned-back section 14B is provided in peripheral edge 10Ba of first opening 10B of box body 6B such that first turned-back section 14B is turned back so as to be overlapped with inner surface 12Ba of side 12B of box body 6B. Further, second turned-back section 18B is provided in peripheral edge 16Ba of the second opening 16B of box body 6B such that second turned-back section 18B is turned back so as to be overlapped with inner surface 12Ba of side 12B of box body 6B.

[0065] A piece of sheet 22B shown in FIG. 17 is folded along a fold line (dashed line shown in FIG. 17) to assemble box body 6B. Sheet 22B has first turned-back piece 98, six side sections 100, 102, 104, 106, 108, and 110, connecting piece 34, six second turned-back pieces 112, 114, 116, 118, 120, and 122, outer side flap 124, inner side flaps 126 and 128, outer side flap 130, and inner side flaps 132 and 134, as an area.

[0066] Six side sections 100 to 110 each are areas for constituting side 12B of box body 6B, and folded into a regular hexagonal tube when box body 6B is assembled by folding sheet 22B.

[0067] First turned-back piece 98 is an area for constituting first turned-back section 14B of box body 6B, and connected to extend over respective upper sides of six side sections 100 to 110. When box body 6B is assembled by folding sheet 22B, first turned-back piece 98 is turned back at an angle of approximately 180 degrees to be overlapped with inner surface 12Ba of side 12B of box body 6B.

[0068] Six second turned-back pieces 112 to 122 each are areas for constituting second turned-back section 18B of box body 6B, and connected to respective lower sides of six side sections 100 to 110. When box body 6B is assembled by folding sheet 22B, each of six second turned-back pieces 112 to 122 is turned back at an angle of approximately 180 degrees to be overlapped with inner surface 12Ba of side 12B of box body 6B.

[0069] Outer side flap 124, inner side flaps 126 and 128, outer side flap 130, and inner side flaps 132 and 134 each are areas for constituting bottom lid section

20B of box body 6B. Outer side flap 124, inner side flaps 126 and 128, outer side flap 130, and inner side flaps 132 and 134 each are connected to respective lower sides of second turned-back pieces 112 to 122. Semi-circular shaped notch sections 136 and 138 are formed in both sides of outer side flap 124, respectively. Semi-circular shaped notch sections 140 and 142 are formed in both sides of outer side flap 130, respectively. Slit 144 is formed at a boundary part between outer side flap 124 and second turned-back piece 112. Protruding piece 146 to be inserted into slit 144 is formed in a lower side of outer side flap 130.

[0070] When box body 6B is assembled by folding sheet 22B, outer side flap 124, inner side flaps 126 and 128, outer side flap 130, and inner side flaps 132 and 134 each are folded as follows. First, each of inner side flaps 126, 128, 132, and 134 is folded at approximately a right angle to cover second opening 16B. Outer side flap 124 is folded at approximately a right angle to cover each of inner side flaps 126, 128, 132, and 134 from the outside. Further, outer side flap 130 is folded at approximately a right angle to cover outer side flap 124 from the outside. At this time, protruding piece 146 is inserted into slit 144.

[3-1-2. Structure of a lid body]

[0071] Next, structure of lid body 8B will be described with reference to FIGS. 14 to 16 and FIG. 18. FIG. 18 is a developed view showing the state where lid body 8B in accordance with the third exemplary embodiment is developed.

[0072] Lid body 8B has upper lid 62B, suspending section 64B, and insertion section 66B. As shown in FIGS. 14 and 15, the present exemplary embodiment differs from the first exemplary embodiment mentioned above in a shape of lid body 8B. That is, in the present exemplary embodiment, upper lid 62B has a regular hexagonal plate-like shape.

[0073] A piece of sheet 70B shown in FIG. 18 is folded along a fold line (dashed line shown in FIG. 18) to assemble lid body 8B. Sheet 70B has insertion pieces 148, 150, 152, and 154, upper lid piece 156, suspending pieces 158 and 160, upper lid piece 162, and insertion pieces 164, 166, 168, and 170, as an area.

[0074] Suspending pieces 158 and 160 are areas for constituting suspending section 64B of lid body 8B. Upper lid pieces 156 and 162 are areas for constituting upper lid 62B of lid body 8B. Insertion pieces 148 to 154 and insertion pieces 164 to 170 each are areas for constituting insertion section 66B of lid body 8B.

[0075] Note that, suspending via holes 68 that are formed by via holes 92 and 94 of suspending pieces 158 and 160, a procedure of attaching and lid body 8B, and a procedure of taking out an object are the same as in the first exemplary embodiment. Therefore, the description thereof is omitted.

[3-2. Effects]

[0076] The present exemplary embodiment can obtain the same effect as the first exemplary embodiment mentioned above.

FOURTH EXEMPLARY EMBODIMENT

[0077] Hereinafter, a fourth exemplary embodiment 4 will be described with reference to FIGS. 19 to 23.

[4-1. Structure of a packaging box]

[4-1-1. Structure of a box body]

[0078] First, structure of box body 6C of packaging box 2C will be described with reference to FIGS. 19 to 22. FIG. 19 is a perspective view showing appearance of packaging box 2C in accordance with the fourth exemplary embodiment. FIG. 20 is a view showing packaging box 2C in accordance with the fourth exemplary embodiment. Specifically, (a) of FIG. 20 is a front view of packaging box 2C, (b) of FIG. 20 is a rear view of packaging box 2C, (c) of FIG. 20 is a plan view of packaging box 2C, (d) of FIG. 20 is a bottom view of packaging box 2C, (e) of FIG. 20 is a right side view of packaging box 2C, and (f) of FIG. 20 is a left side view of packaging box 2C. FIG. 21 is a cross-sectional view of packaging box 2C taken along line 21-21 in (a) of FIG. 20. FIG. 22 is a developed view showing the state where box body 6C in accordance with the fourth exemplary embodiment is developed.

[0079] The present exemplary embodiment differs from the first exemplary embodiment mentioned above in a shape of box body 6C. That is, as shown in FIGS. 19 and 20, in the present exemplary embodiment, the shape of box body 6C is a circular shaped tube. Like the first exemplary embodiment mentioned above, first turned-back section 14C is provided in peripheral edge 10Ca of first opening 10C of box body 6C such that first turned-back section 14C is turned back so as to be overlapped with inner surface 12Ca of side 12C of box body 6C. Further, second turned-back section 18C is provided in peripheral edge 16Ca of the second opening 16C of box body 6C such that second turned-back section 18C is turned back so as to be overlapped with inner surface 12Ca of side 12C of box body 6C.

[0080] A piece of sheet 22C shown in FIG. 22 is folded along a fold line (dashed line shown in FIG. 22) to assemble box body 6C. Sheet 22C has first turned-back piece 172, side section 174, connecting piece 34, second turned-back piece 176, inner side flap 178, and outer side flap 180, as an area.

[0081] Side section 174 is an area for constituting side 12C of box body 6C, and curved into a circular shaped tube when box body 6C is assembled by folding sheet 22C.

[0082] First turned-back piece 172 is an area for con-

stituting first turned-back section 14C of box body 6C, and connected to an upper side of side section 174. When box body 6C is assembled by folding sheet 22C, first turned-back piece 172 is turned back at an angle of approximately 180 degrees to be overlapped with inner surface 12Ca of side 12C of box body 6C.

[0083] Second turned-back piece 176 is an area for constituting second turned-back section 18C of box body 6C, and connected to a lower side of side section 174. When box body 6C is assembled by folding sheet 22C, second turned-back piece 176 is turned back at an angle of approximately 180 degrees to be overlapped with inner surface 12Ca of side 12C of box body 6C.

[0084] Each of inner side flap 178 and outer side flap 180 is an area for constituting bottom lid section 20C of box body 6C. Each of inner side flap 178 and outer side flap 180 is connected to a lower side of second turned-back piece 176. Semi-circular shaped notch sections 184 and 186 are formed in both sides of inner side flap 178, respectively. Semi-circular shaped notch sections 188 and 190 are formed in both sides of outer side flap 180, respectively. Slit 182 is formed in the vicinity of a boundary part between inner side flap 178 and second turned-back piece 176. Protruding piece 192 to be inserted into slit 182 is formed in a lower side of outer side flap 180.

[0085] First, inner side flap 178 is folded at approximately a right angle to cover second opening 16C when box body 6C is assembled by folding sheet 22C. Subsequently, outer side flap 180 is folded at approximately a right angle to cover inner side flap 178 from the outside. At this time, protruding piece 192 is inserted into slit 182.

[3-1-2. Structure of a lid body]

[0086] Next, structure of lid body 8C will be described with reference to FIGS. 19 to 21 and FIG. 23. FIG. 23 is a developed view showing the state where lid body 8C in accordance with the fourth exemplary embodiment is developed.

[0087] Lid body 8C has upper lid 62C, suspending section 64C, and insertion section 66C. The present exemplary embodiment differs from the first exemplary embodiment mentioned above in a shape of lid body 8C. That is, as shown in FIGS. 19 and 20, in the present exemplary embodiment, upper lid 62C has a circular plate-like shape.

[0088] A piece of sheet 70C shown in FIG. 23 is folded along a fold line (dashed line shown in FIG. 23) to assemble lid body 8C. Sheet 70C has insertion pieces 194, 196, and 198, upper lid piece 200, suspending pieces 202 and 204, upper lid piece 206, and insertion pieces 208, 210, and 212, as an area.

[0089] Suspending pieces 202 and 204 are areas for constituting suspending section 64C of lid body 8C. Upper lid pieces 200 and 206 are areas for constituting upper lid 62C of lid body 8C. Insertion pieces 194 to 198 and insertion pieces 208 to 212 each are areas for constituting insertion section 66C of lid body 8C.

[0090] Note that, suspending via holes 68 that are formed by via holes 92 and 94 of suspending pieces 202 and 204, a procedure of attaching lid body 8C, and a procedure of taking out an object are the same as in the first exemplary embodiment. Therefore, the description thereof is omitted.

[3-2. Effects]

[0091] The present exemplary embodiment can obtain the same effect as the first exemplary embodiment mentioned above.

FIFTH EXEMPLARY EMBODIMENT

[5-1. Structure of a packaging box]

[5-1-1. Structure of a box body]

[0092] Structure of box body 6D of packaging box 2D in accordance with a fifth exemplary embodiment will be described with reference to FIGS. 24 and 25. FIG. 24 is a view showing packaging box 2D. Specifically, (a) of FIG. 24 is a front view of packaging box 2D, (b) of FIG. 24 is a rear view of packaging box 2D, (c) of FIG. 24 is a plan view of packaging box 2D, (d) of FIG. 24 is a bottom view of packaging box 2D, (e) of FIG. 24 is a right side view of packaging box 2D, and (f) of FIG. 24 is a left side view of packaging box 2D. FIG. 25 is a developed view showing the state where box body 6D is developed.

[0093] According to the present exemplary embodiment, outer side flap 48D, which constitutes bottom lid section 20D of box body 6D, is different in shape from outer side flap 48 of the first exemplary embodiment. That is, as shown in FIG. 24 and 25, rectangular shaped tab 61, which is extended from protruding piece 60, is provided in a lower side of outer side flap 48D. On the other hand, semi-circular shaped notch sections 54 and 56, which are provided in both sides of outer side flap 48, are not formed. Since other structure is the same as that of box body 6 shown in the first exemplary embodiment, detailed description is omitted.

[5-1-2. An operation of opening and closing a bottom lid section]

[0094] Like box body 6 of the first exemplary embodiment, a piece of sheet 22D shown in FIG. 25 is folded along a fold line (dashed line shown in FIG. 25) to assemble box body 6D. As shown in FIG. 25, protruding piece 60 is extended downward to form tab 61. Tab 61 is folded outwardly at an angle of approximately 180 degrees along a fold line (dashed line shown in FIG. 25) between tab 61 and protruding piece 60. Then, a portion of tab 61 that is overlapped with protruding piece 60 is inserted into slit 58 together with protruding piece 60 when bottom lid section 20D of box body 6D is formed by folding outer side flap 48D. Subsequently, second

opening 16 of box body 6 is closed by bottom lid section 20.

[0095] FIG. 26 is a view for explaining an operation of opening bottom lid section 20D. In the case where second opening 16 of box body 6D is opened, a user firstly pulls and raises tab 61 in an external direction from the closed state of bottom lid section 20D (A in FIG. 26) (B: pull and raise a tab). By pulling and raising tab 61 in the external direction, protruding piece 60 is drawn out from slit 58 (C: opened state). Like the first exemplary embodiment, outer side flap 44 is pulled out in the state where user's fingers are hung on notch section 52 of outer side flap 44, and then each of inner side flaps 46 and 50 is pulled out. Thus, the second opening 16 is opened.

[5-2. Effects]

[0096] The present exemplary embodiment can obtain a packaging box capable of easily opening and closing a bottom lid section, in addition to the same effect as in the first exemplary embodiment mentioned above. Note that, tab 61 may be formed by extending each of protruding pieces 60, 146, and 192 in outer side flaps 48A, 130, and 180 of packaging boxes 2A to 2C shown in the second, third, and fourth exemplary embodiments. Further, the shape of tab 61 is not limited to a rectangular shape as shown in FIGS. 24 and 25, but may be a semi-circular shape or a trapezoid shape, for example.

OTHER EXEMPLARY EMBODIMENT

[0097] As mentioned above, the first to fifth exemplary embodiments are described as an example of the technique disclosed in this application. However, the technique in the disclosure is not limited to this, but can also be applied to exemplary embodiments in which modifications, substitutions, additions, omission, and the like are performed. Further, the respective components described in the first to fifth exemplary embodiments mentioned above may be combined to make a new exemplary embodiment.

[0098] Now, hereinafter, another exemplary embodiment will be described.

[0099] According to the first to fifth exemplary embodiments, box body 6 (6A to 6D) and lid body 8 (8A to 8D) each are made of transparent resin, but not limited to this. For instance, box body 6 (6A to 6D) may be made of transparent resin, and lid body 8 (8A to 8D) may be made of paper. In this way, if packaging box 2 (2A to 2D) is partially made of paper, packaging box 2 (2A to 2D) will be achieved to satisfy rigid plastic packaging container regulations of California in the United States. Note that, the above-mentioned regulation restricts that a recycled resin of 25% or more must be used as a material of a packaging box, or a resin material used for a packaging box must be reduced by 10% or more when goods are sold in California of the United States in the state where the entire circumference of an object is packaged

with a rigid plastic packaging box. According to the first to fifth exemplary embodiments, lid body 8 (8A to 8D) is made of paper. Therefore, the entire circumference of object 4 is not packaged with rigid plastic, so that the above-mentioned regulation can be satisfied.

[0100] Alternatively, both box body 6 (6A to 6D) and lid body 8 (8A to 8D) may be made of paper, or both box body 6 (6A to 6D) and lid body 8 (8A to 8D) may be made of opaque resin.

[0101] According to the first to fifth exemplary embodiments, as the shape of box body 6 (6A to 6D), a square, rectangular, regular hexagonal, and circular tubes are employed, but not limited to this. For instance, an elliptical tube, a trapezoidal tube, and the like may be employed, or any other shapes may be employed optionally.

[0102] In the first to fifth exemplary embodiments, the shape of box body 6 (6A to 6D) is a tube simply extended like a stock pot, but not limited to this. For instance, a trumpet-shaped tube, i.e., has second opening 16 (16A to 16C) larger than first opening 10 (10A to 10C), may be employed. In this case, box body 6 (6A to 6D) has a cross sectional area gradually increasing from first opening 10 (10A to 10C) to second opening 16 (16A to 16C), for example.

[0103] In the first to fifth exemplary embodiments, first turned-back section 14 (14A to 14C) is provided over the entire circumference of peripheral edge 10a (10Aa to 10Ca) of first opening 10 (10A to 10C), but not limited to this. First turned-back section 14 (14A-14C) may be disposed only in at least one part of peripheral edge 10a (10Aa to 10Ca). For instance, in the first exemplary embodiment mentioned above, first turned-back section 14 may be provided only in two sides of peripheral edge 10a, which are opposite to each other, among four sides thereof.

[0104] As mentioned above, the exemplary embodiments are described as the examples of technique in the disclosure. For achieving that purpose, the accompanying drawings and detailed description are provided.

[0105] Therefore, to illustrate the technique, the components described in the accompanying drawings and the detailed description may include not only components essential for solving the problem but also components that are not essential for solving the problem. For that reason, even when the unessential components are described in the accompanying drawings and the detailed description, they do not have to be construed as being essential.

[0106] Further, since the above-mentioned exemplary embodiments illustrate the technique in the disclosure as an example, various modifications, substitutions, additions, omission can be performed within the scope of claims and equivalent scope of claims.

INDUSTRIAL APPLICABILITY

[0107] The disclosure is applicable to a packaging box for packaging an object. Specifically, the disclosure is

applicable to, for example, a clear case for packaging audio accessories goods such as headphone, beauty products such as an electric toothbrush, small goods such as a battery, or the like.

REFERENCE MARKS IN THE DRAWINGS

[0108]

2, 2A, 2B, 2C, and 2D packaging box 10
 4 object
 6, 6A, 6B, 6C, and 6D box body
 8, 8A, 8B, and 8C lid body
 10, 10A, 10B, and 10C first opening
 10a, 10Aa, 10Ba, 10Ca, 16a, 16Aa, 16Ba, 16Ca, 15
 and 62a peripheral edge
 12, 12A, 12B, and 12C side
 12a, 12Aa, 12Ba, and 12Ca inner surface
 14, 14A, 14B, and 14C first turned-back section
 16, 16A, 16B, and 16C second opening 20
 18, 18A, 18B, and 18C second turned-back section
 18a tip end
 20, 20A, 20B, 20C, and 20D bottom lid section
 22, 22A, 22B, 22C, 22D, 70, 70A, and 70B and 70C
 sheet 25
 24, 24A, and 98,172 first turned-back piece
 26, 26A, 28, 28A, 30, 30A, 32, 32A, 100, 102, 104,
 and 106,108,110,174 side section
 34 connecting piece
 36, 36A, 38, 38A, 40, 40A, 42, 42A, 112, 114, 116, 30
 and 118,120,122,176 second turned-back piece
 44, 44A, 48, 48A, and 48D and 124, 130, 180 outer
 side flap
 46, 46A, 50, 50A, 126, and 128, 132, 134, 178 inner
 side flap 35
 52, 54, 56, 136, 138, 140, 142, 184, 186, 188, 190
 notch section
 58, 144, 182 slit
 60, 146, 192 protruding piece
 61 tab 40
 62, 62A, 62B, and 62C upper lid
 64, 64A, 64B, and 64C suspending section
 66, 66A, 66B, and 66C insertion section
 68 suspending via hole
 72, 72A, 74, 74A, 76, 76A, 86, 86A, 88, 88A, 90, 45
 90A, 148, 150, 152, 154, 164, 166, 168, 170, and
 194, 196, 198, 208, 210, 212 insertion piece
 78, 78A, 84, 84A, and 156, 162, 200, 206 upper lid
 piece
 80, 80A, 82, 82A, and 158, 160, 202, 204 suspending 50
 piece
 92 and 94 via hole
 96 finger 55

Claims

1. A packaging box for packaging an object, compris-

ing:

a tubular box body having a first opening in an upper surface; and
 a lid body detachably attached to the first opening to cover the first opening,
 wherein
 the box body has a first turned-back section that is provided in at least one part of a peripheral edge of the first opening and turned back so as to be overlapped with an inner surface of the box body, and
 the lid body has an insertion section that is provided in at least one part of a peripheral edge of the lid body and is to be inserted between the first turned-back section and the inner surface of the box body when the lid body is attached to the first opening.

2. The packaging box according to claim 1, wherein

the first turned-back section is provided over an entire circumference of the peripheral edge of the first opening.

3. The packaging box according to claim 1, wherein

the box body further has a second opening provided in a lower surface of the box body, and the lid body is configured to be pushed in toward the second opening to draw out the insertion section from between the first turned-back section and the inner surface of the box body and push the object toward the second opening.

4. The packaging box according to claim 3, wherein

the box body further has:

a second turned-back section that is provided over an entire circumference of a peripheral edge of the second opening and turned back so as to be overlapped with the inner surface of the box body; and
 a bottom lid section that is provided to extend from a tip end of the second turned-back section and covers the second opening openably and closably.

5. The packaging box according to claim 4, wherein

the bottom lid section comprises a first outer side flap and a second outer side flap that are extended from the tip end of the second turned-back section,
 wherein
 the bottom lid section has a slit between the first outer side flap and the second turned-back sec-

tion, and
the second outer side flap has a protruding piece
to be inserted into the slit.

6. The packaging box according to claim 5, wherein 5
- the second outer side flap further comprises a
tab extending from the protruding piece,
wherein 10
the tab is folded at a boundary between the pro-
truding piece and the tab, and
a portion of the tab that is overlapped with the
protruding piece is inserted into the slit.
7. The packaging box according to claim 1, wherein 15
- the box body and the lid body are made of trans-
parent resin.
8. The packaging box according to claim 1, wherein 20
- the box body is made of resin, and
the lid body is made of paper.
9. An object packaged in the packaging box according 25
to claim 1.

30

35

40

45

50

55

FIG. 1

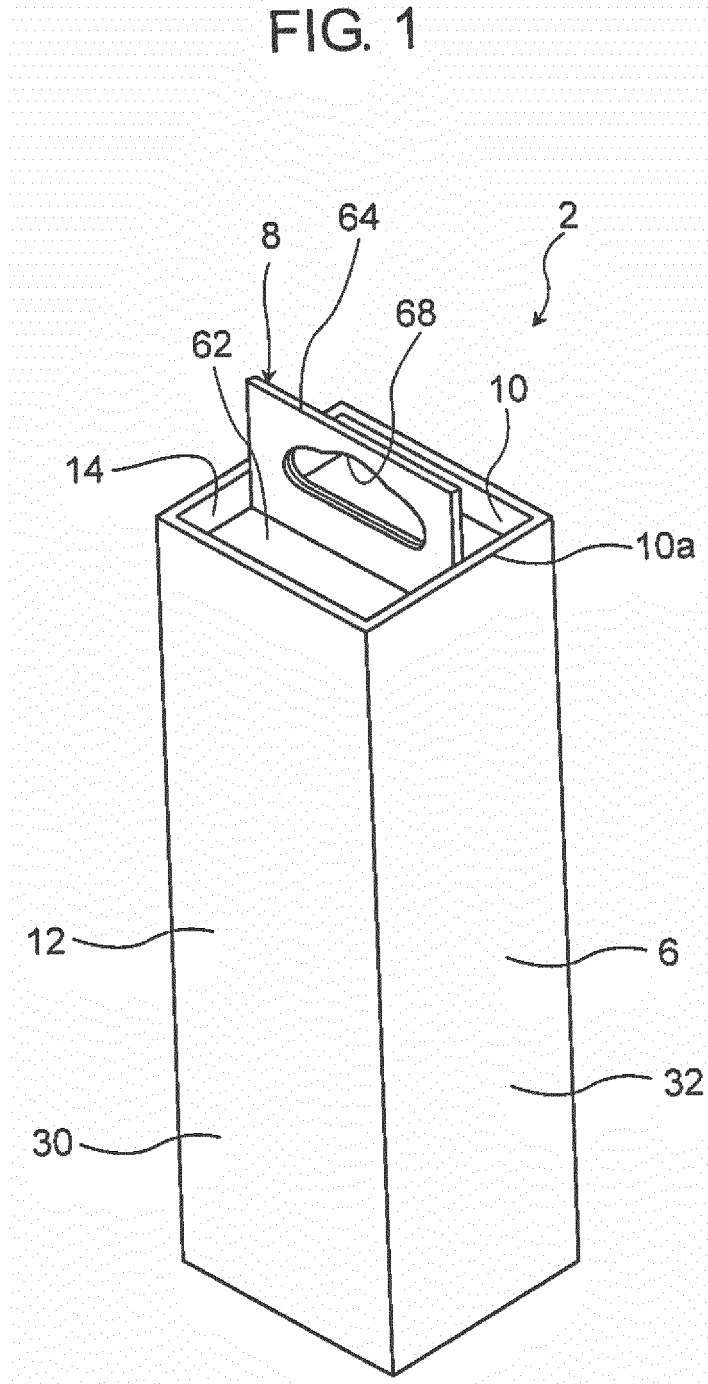


FIG. 2

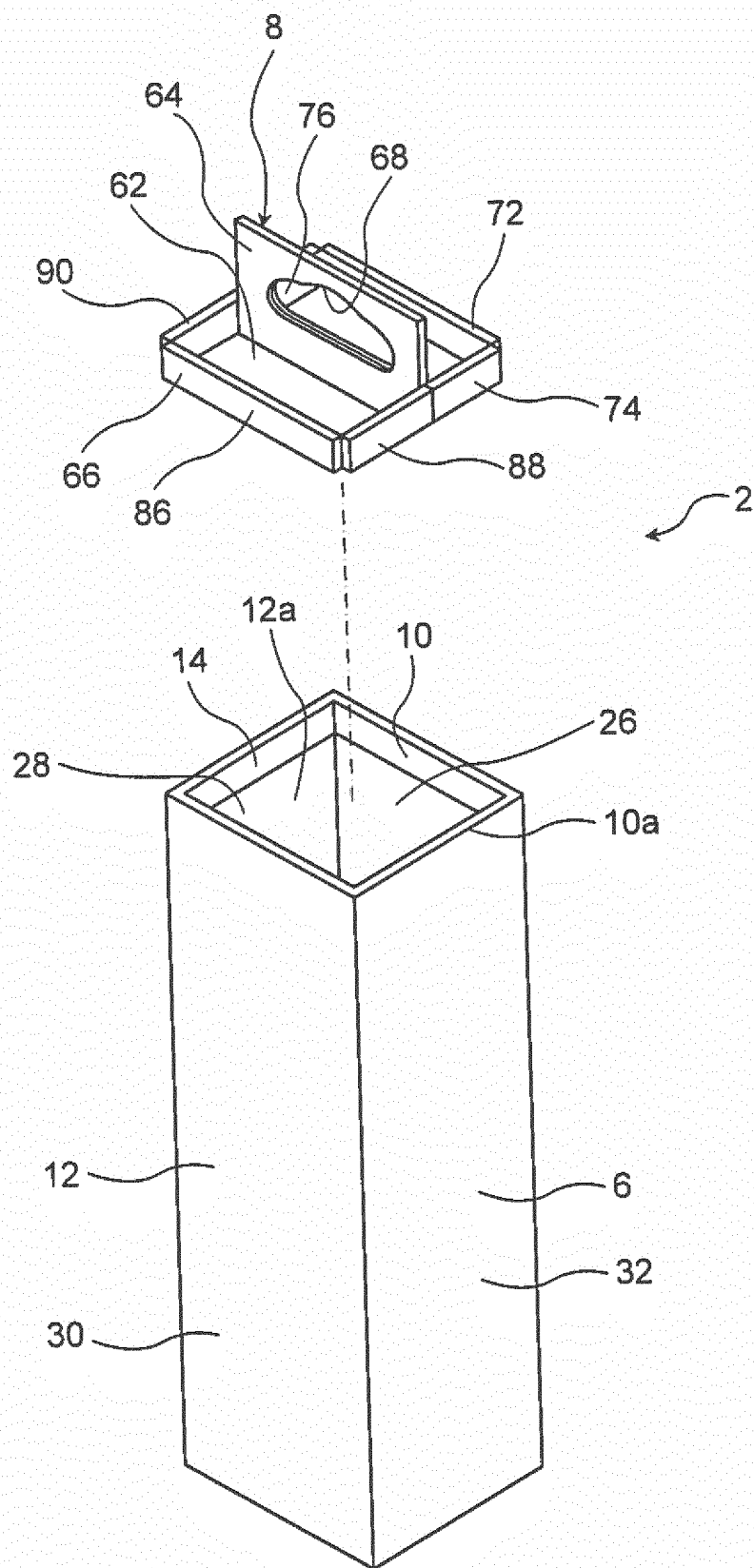


FIG. 3

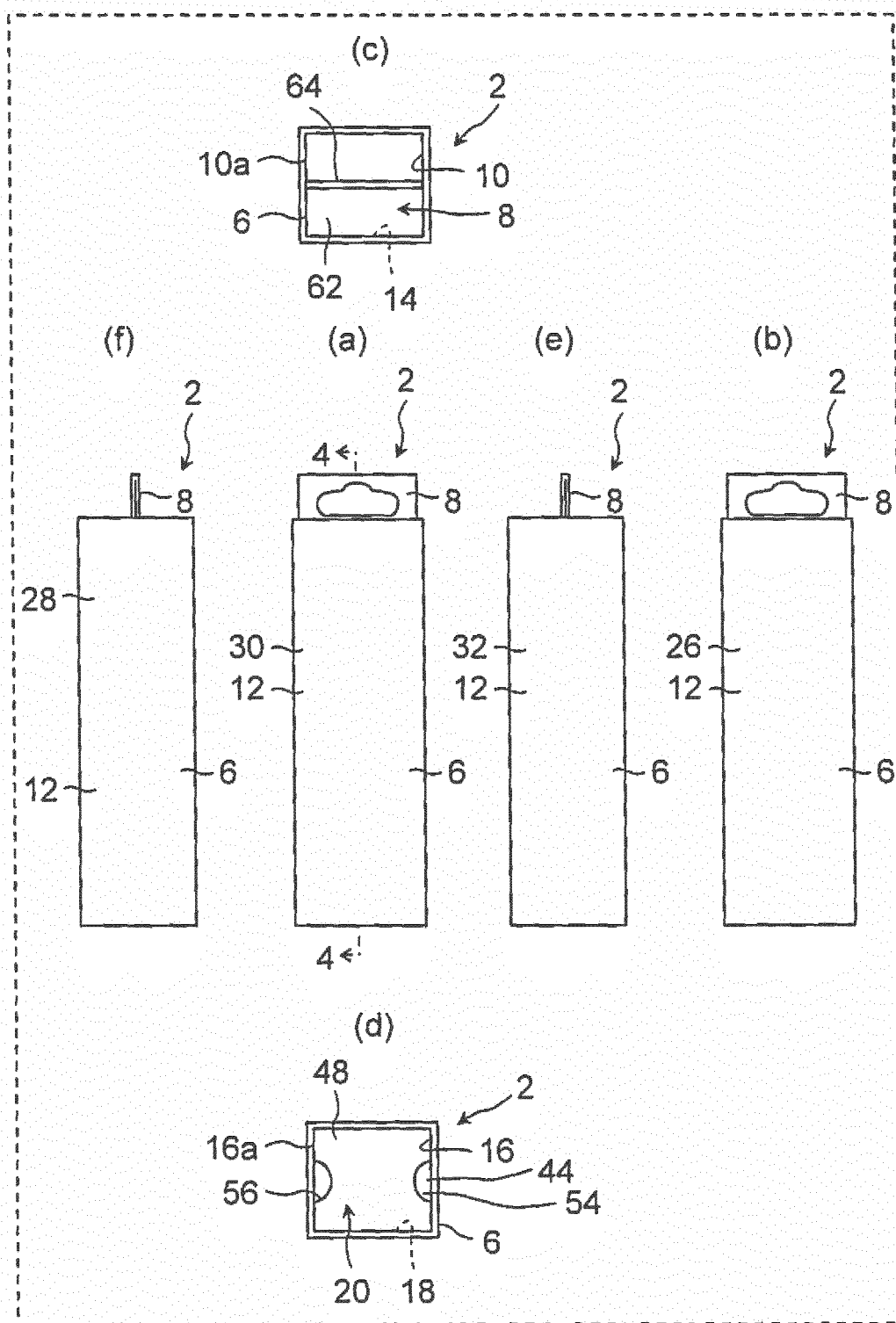


FIG. 4

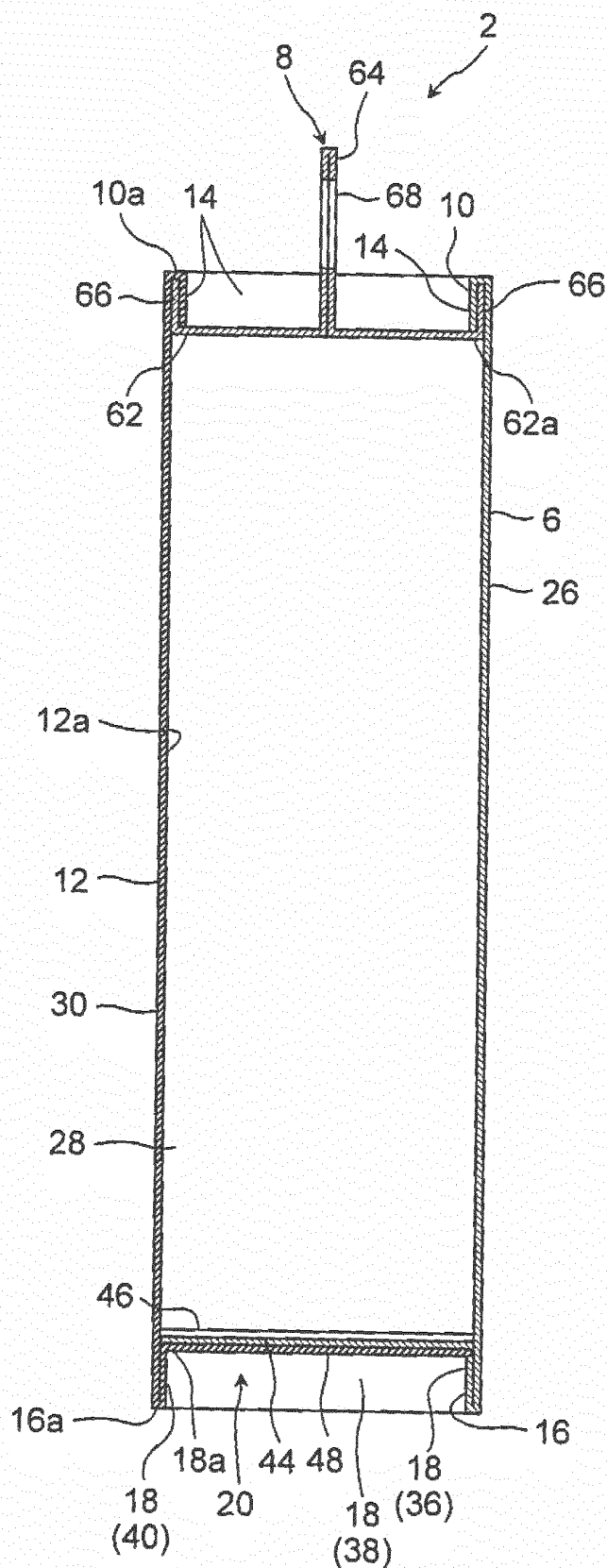


FIG. 5

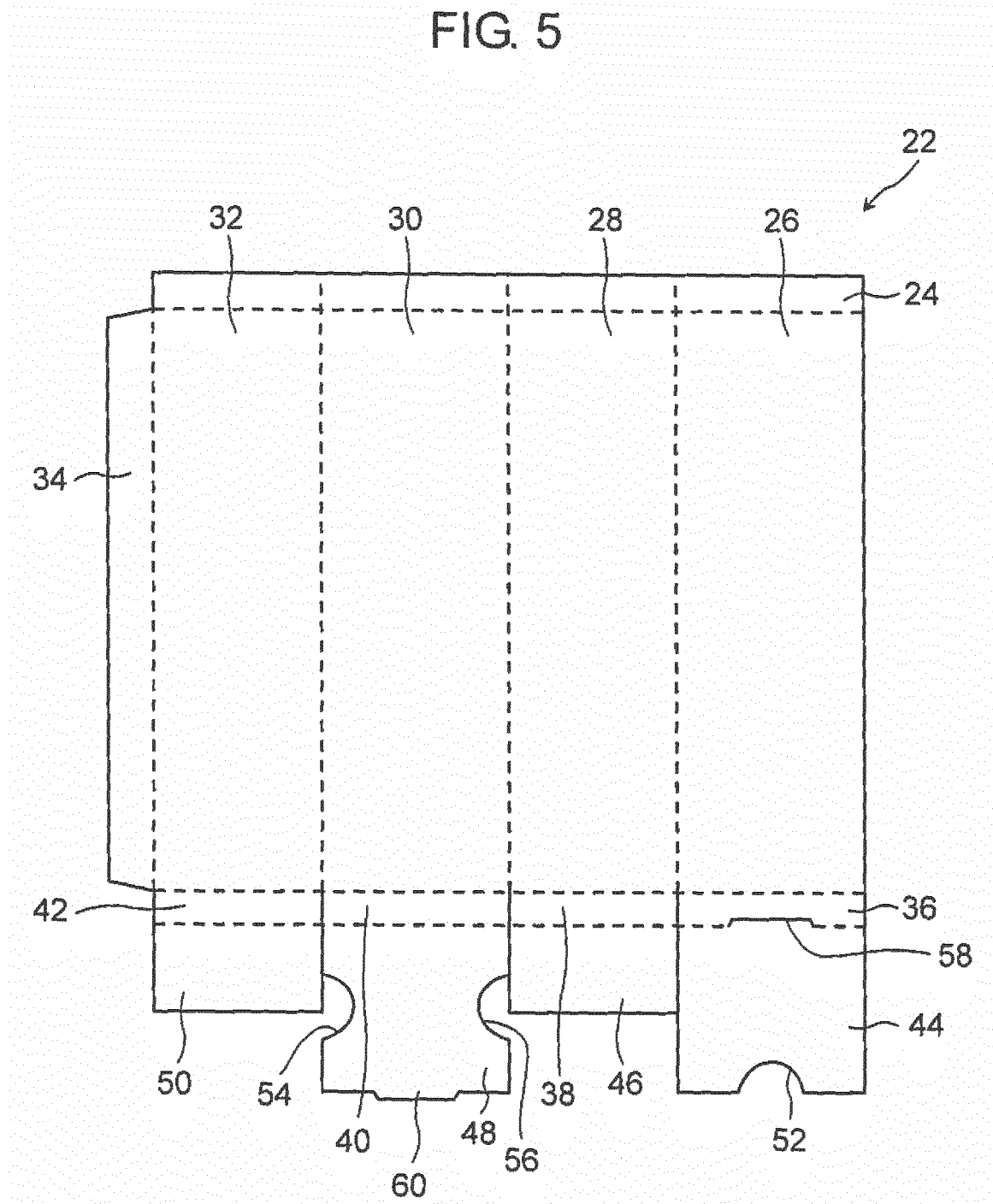


FIG. 6

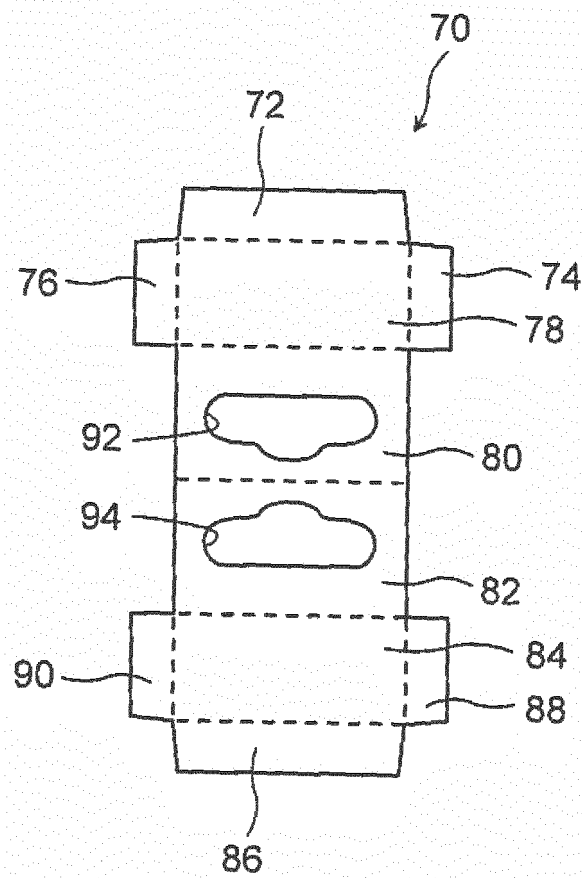


FIG. 7A

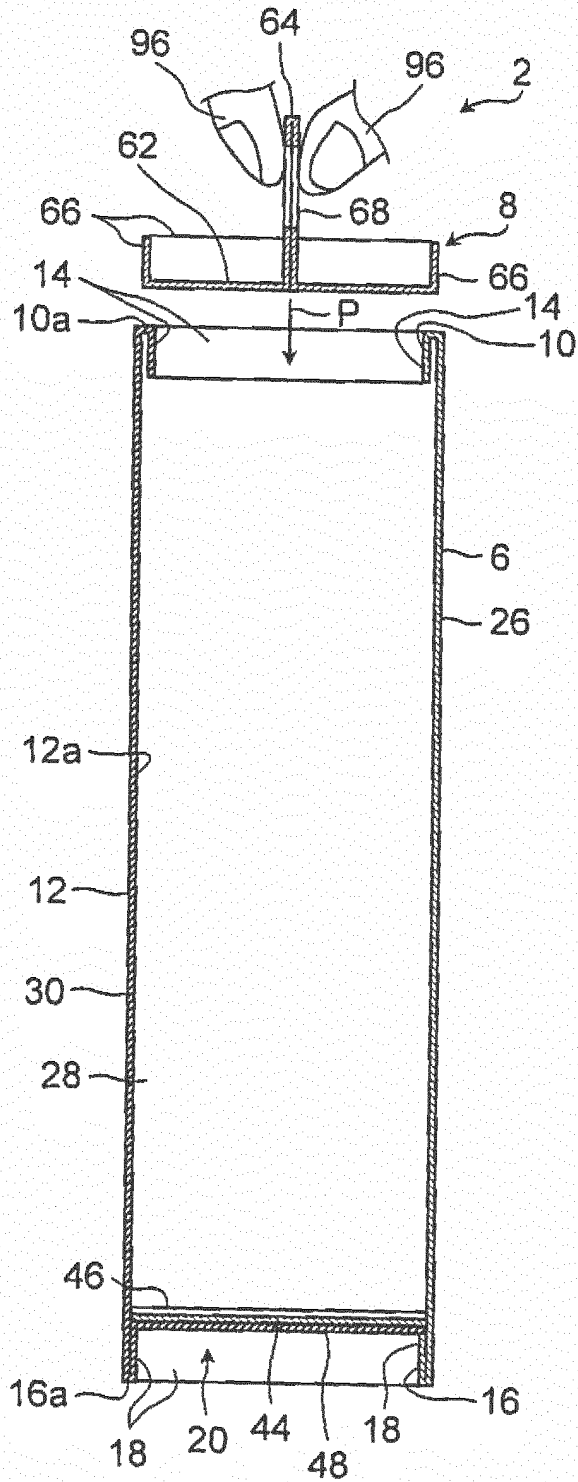


FIG. 7B

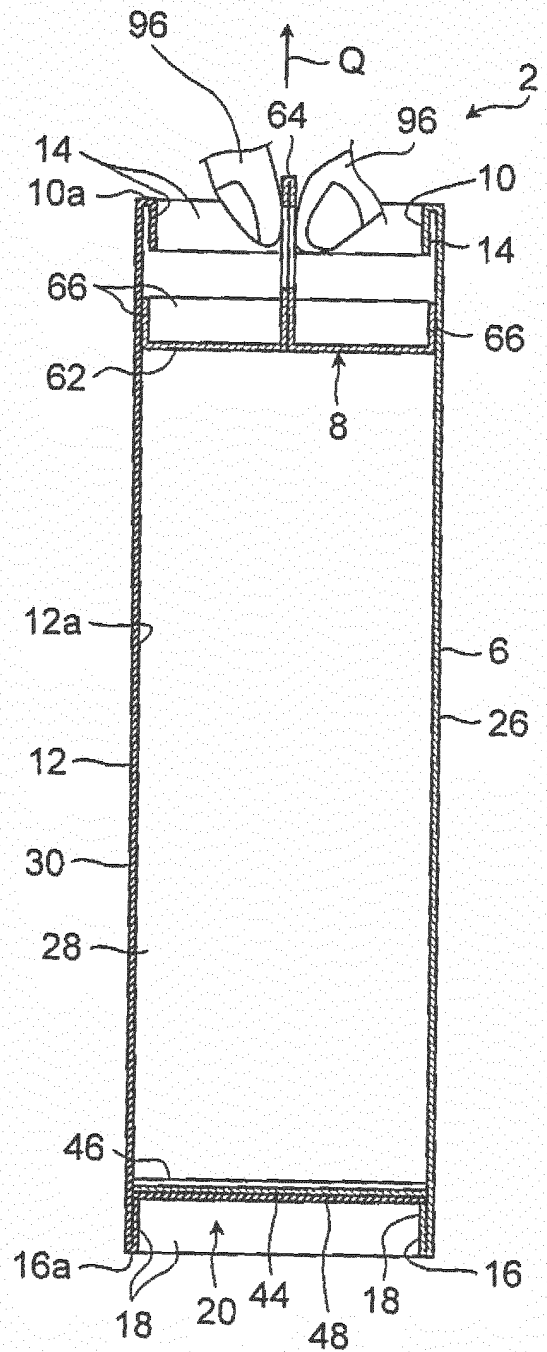


FIG. 8A

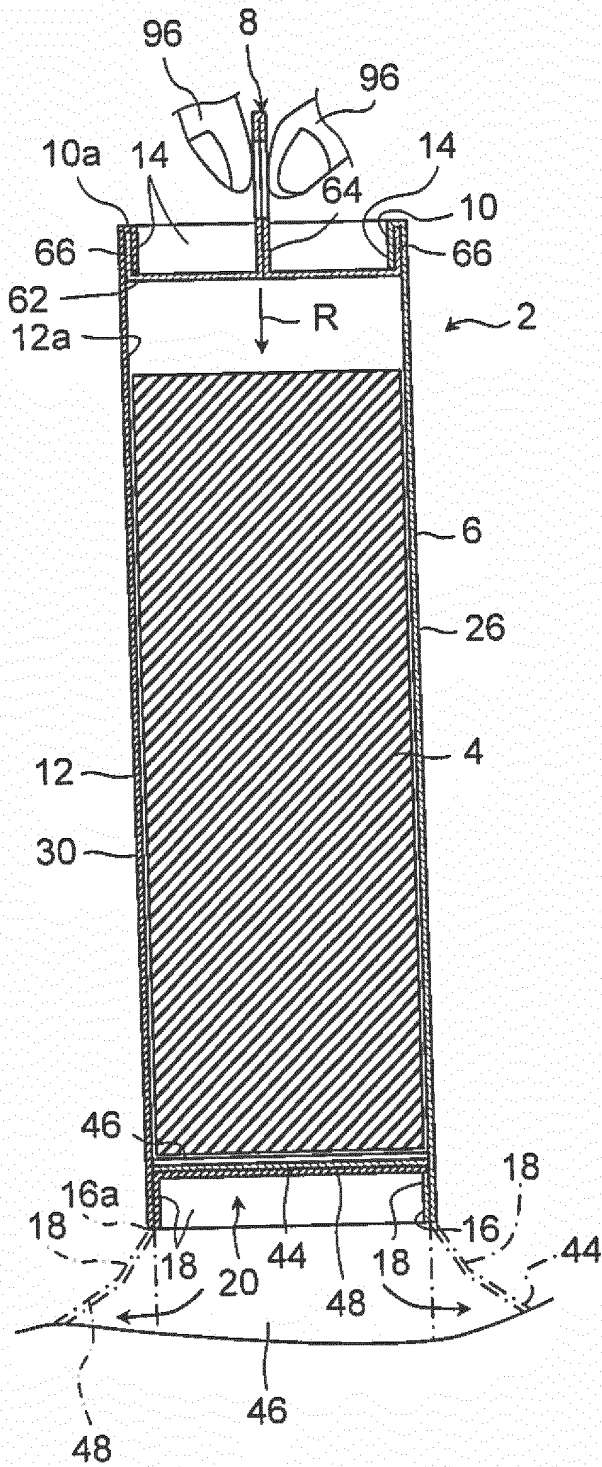


FIG. 8B

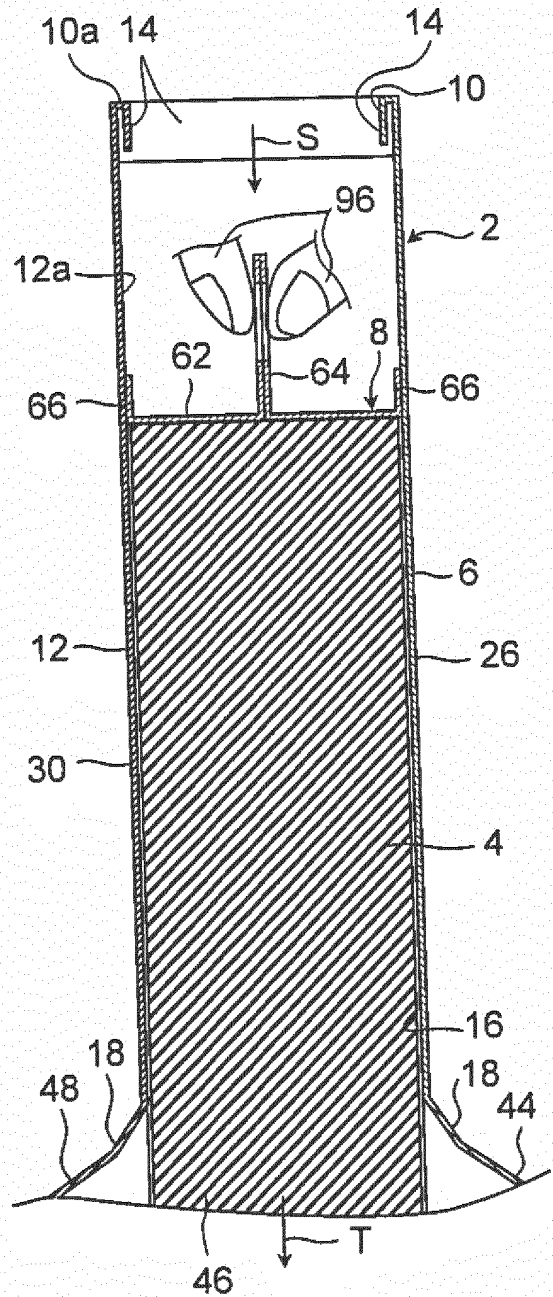


FIG. 9

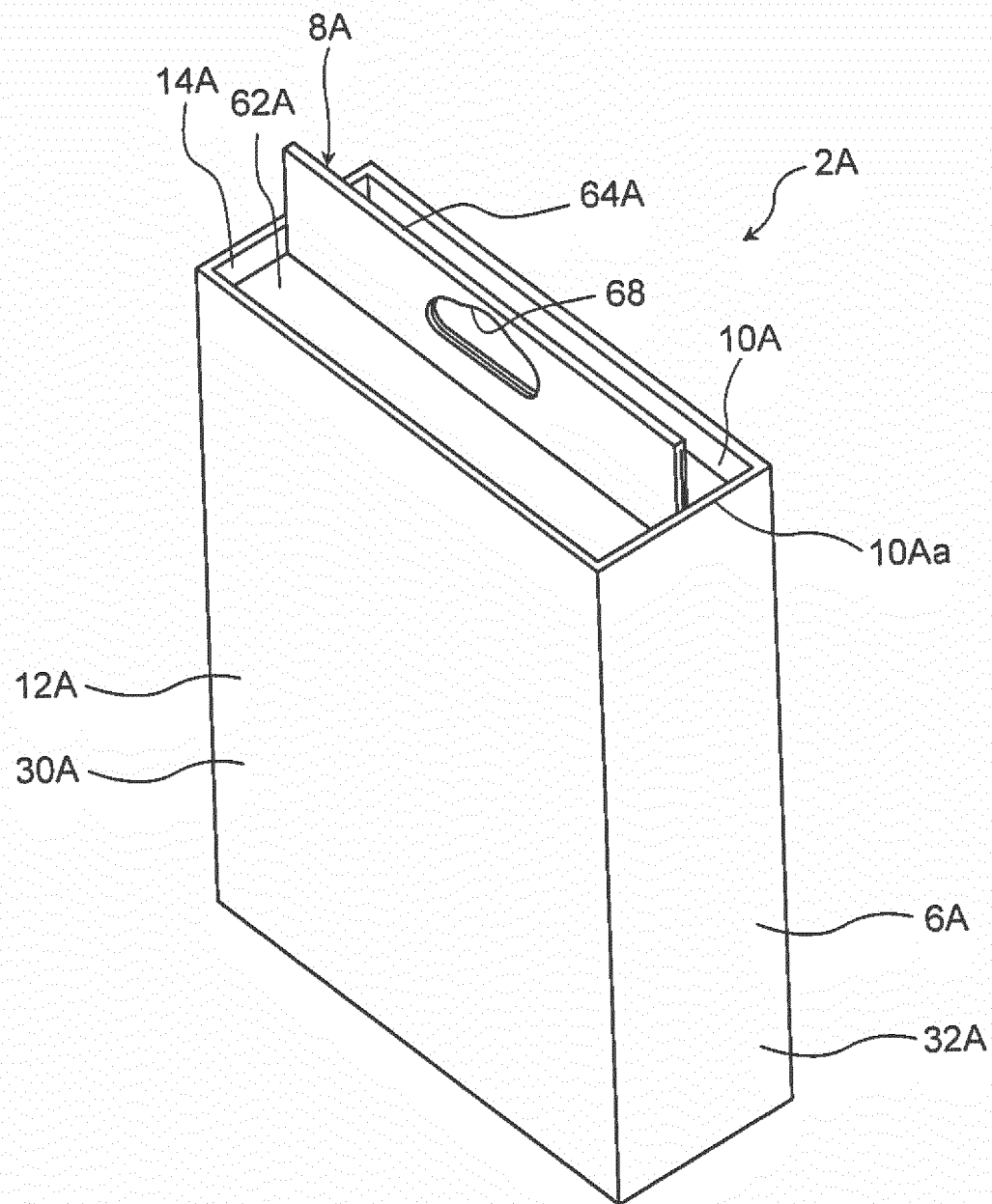


FIG. 10

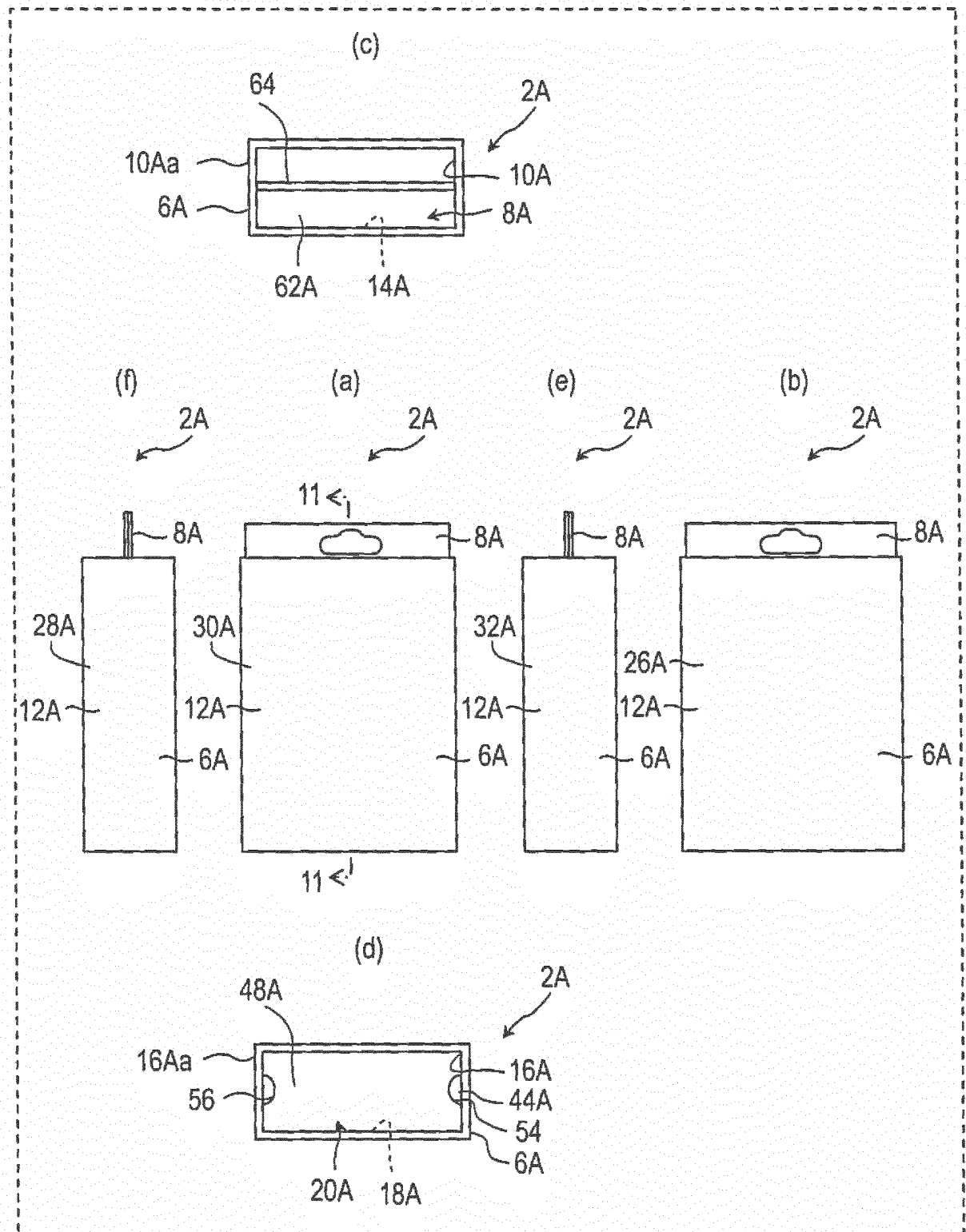


FIG. 11

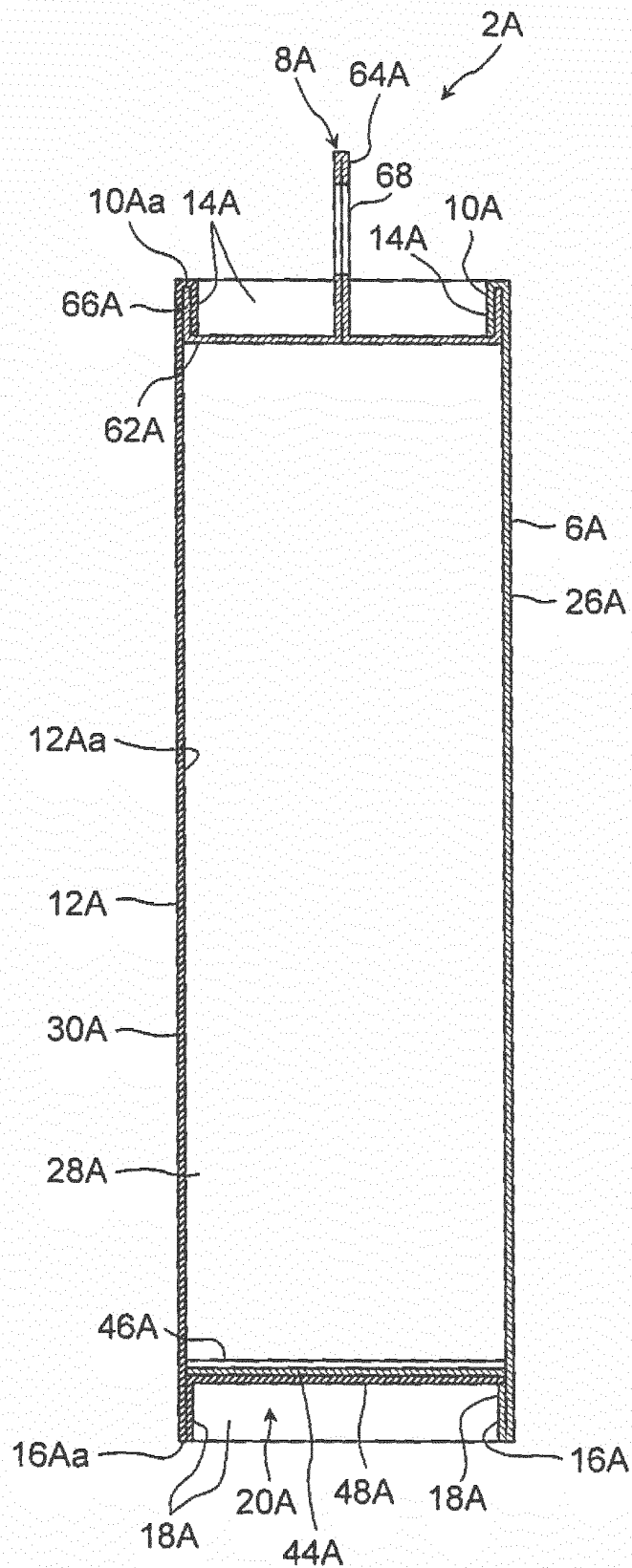


FIG. 12

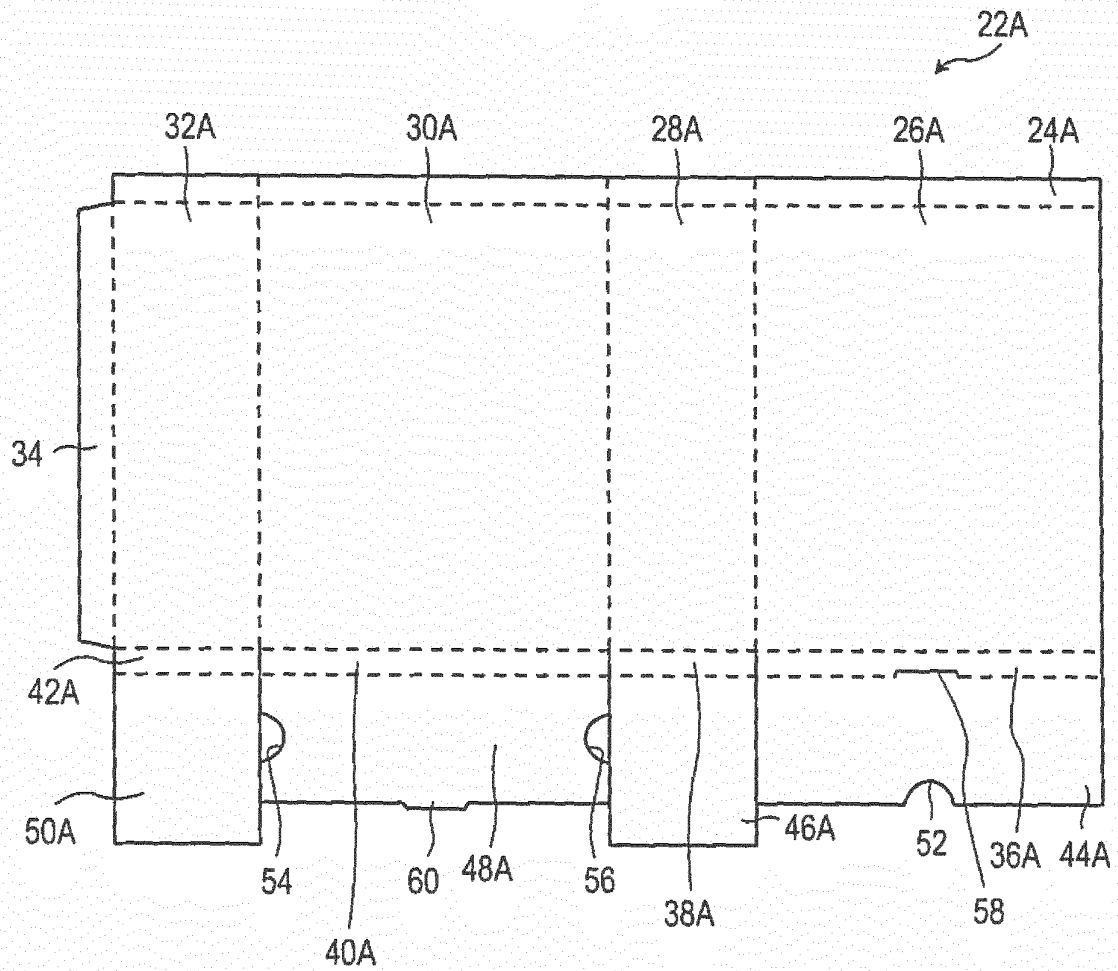


FIG. 13

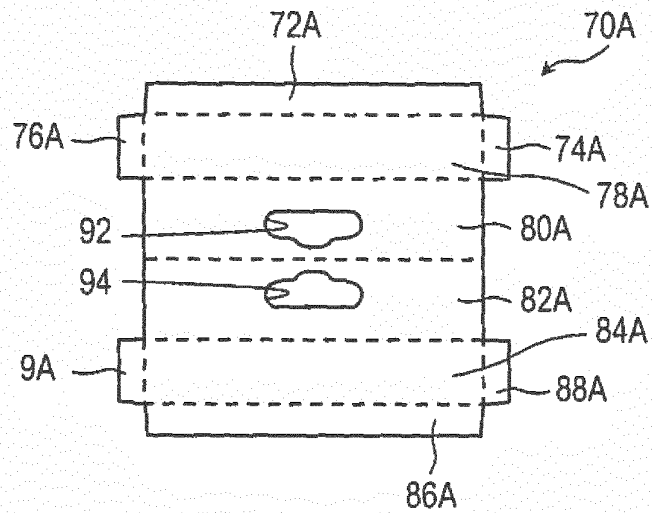


FIG. 14

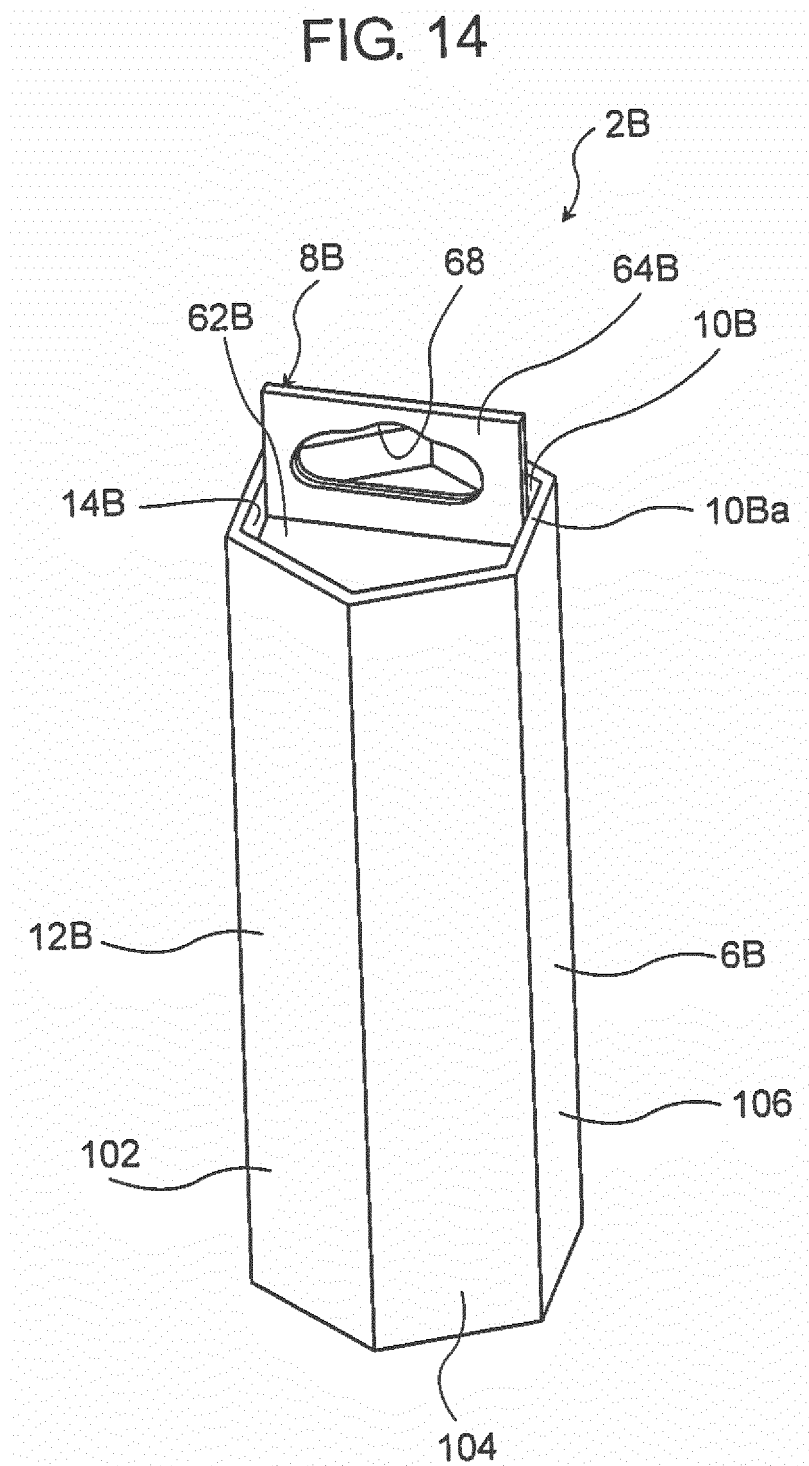


FIG. 15

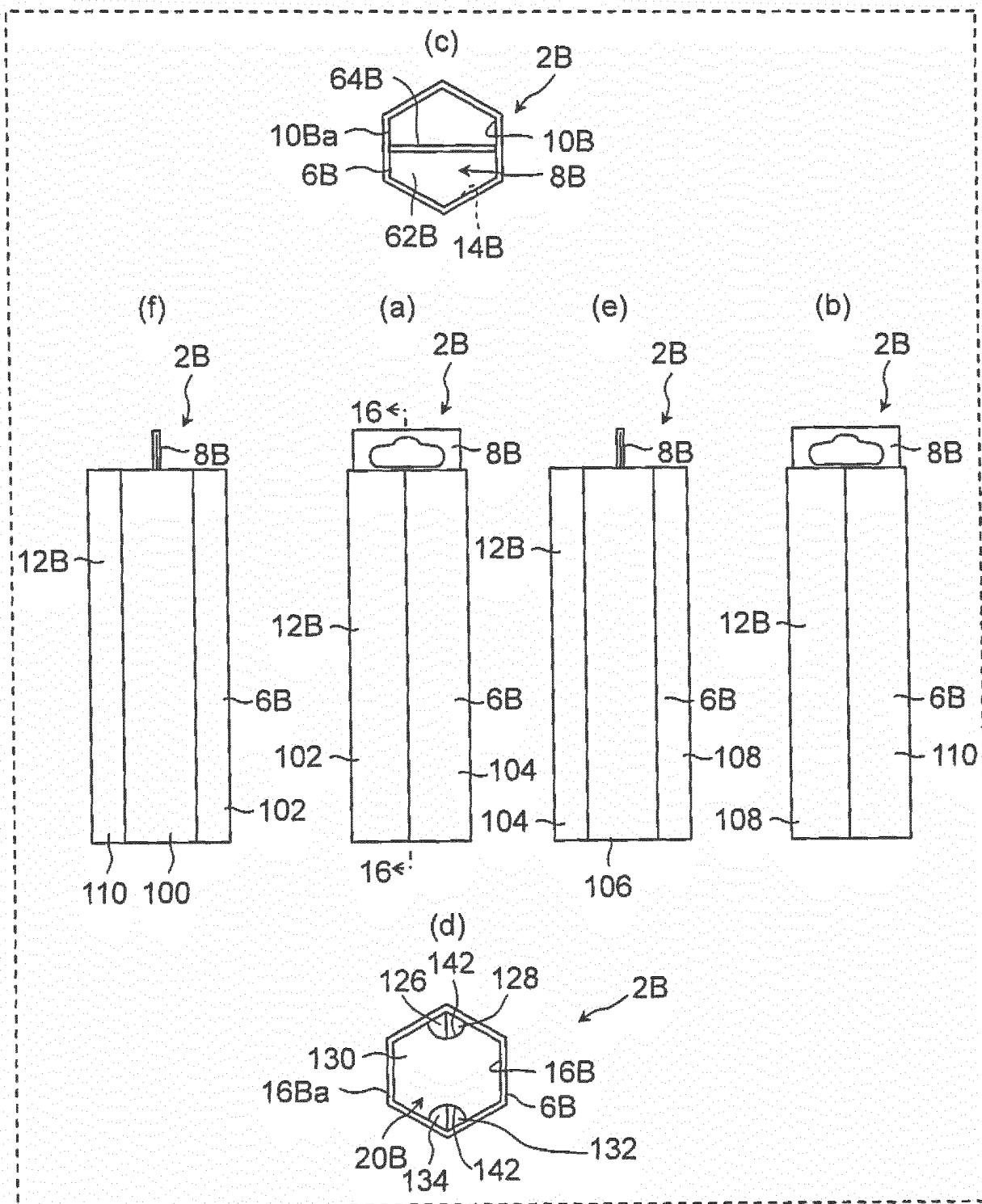


FIG. 16

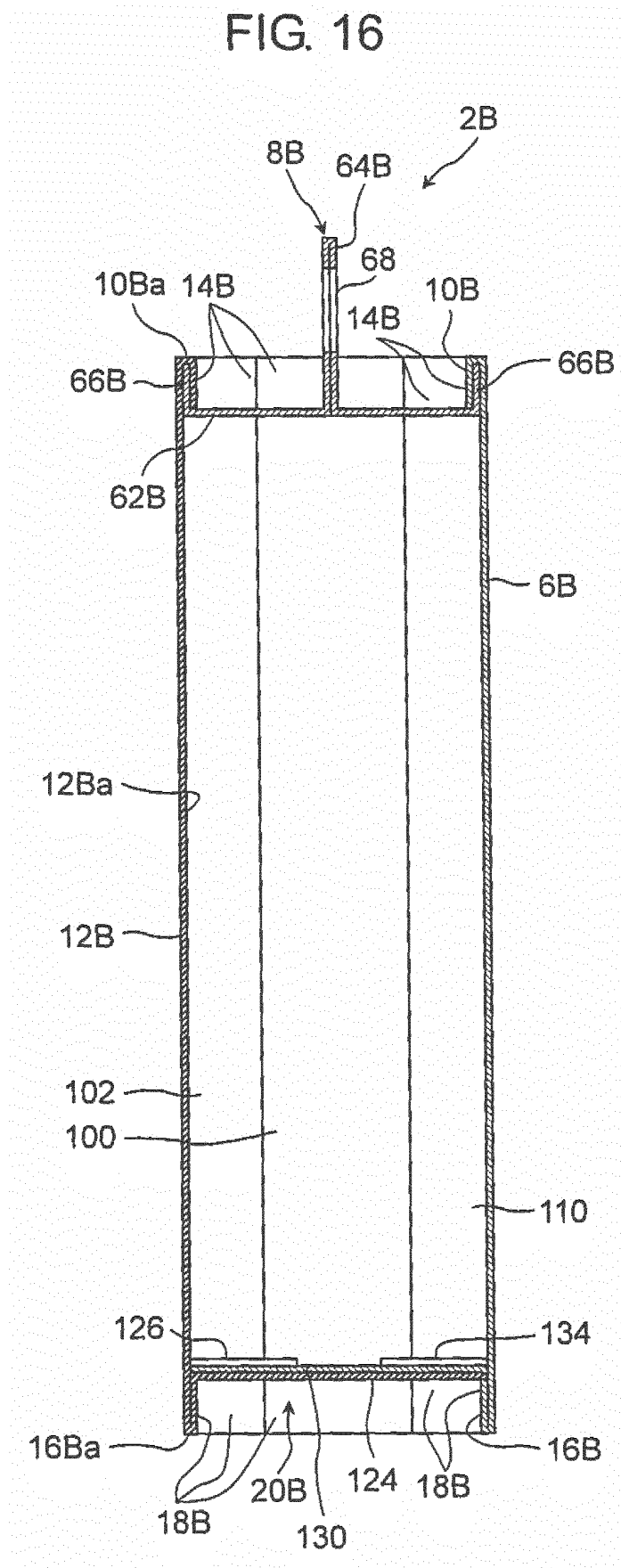


FIG. 17

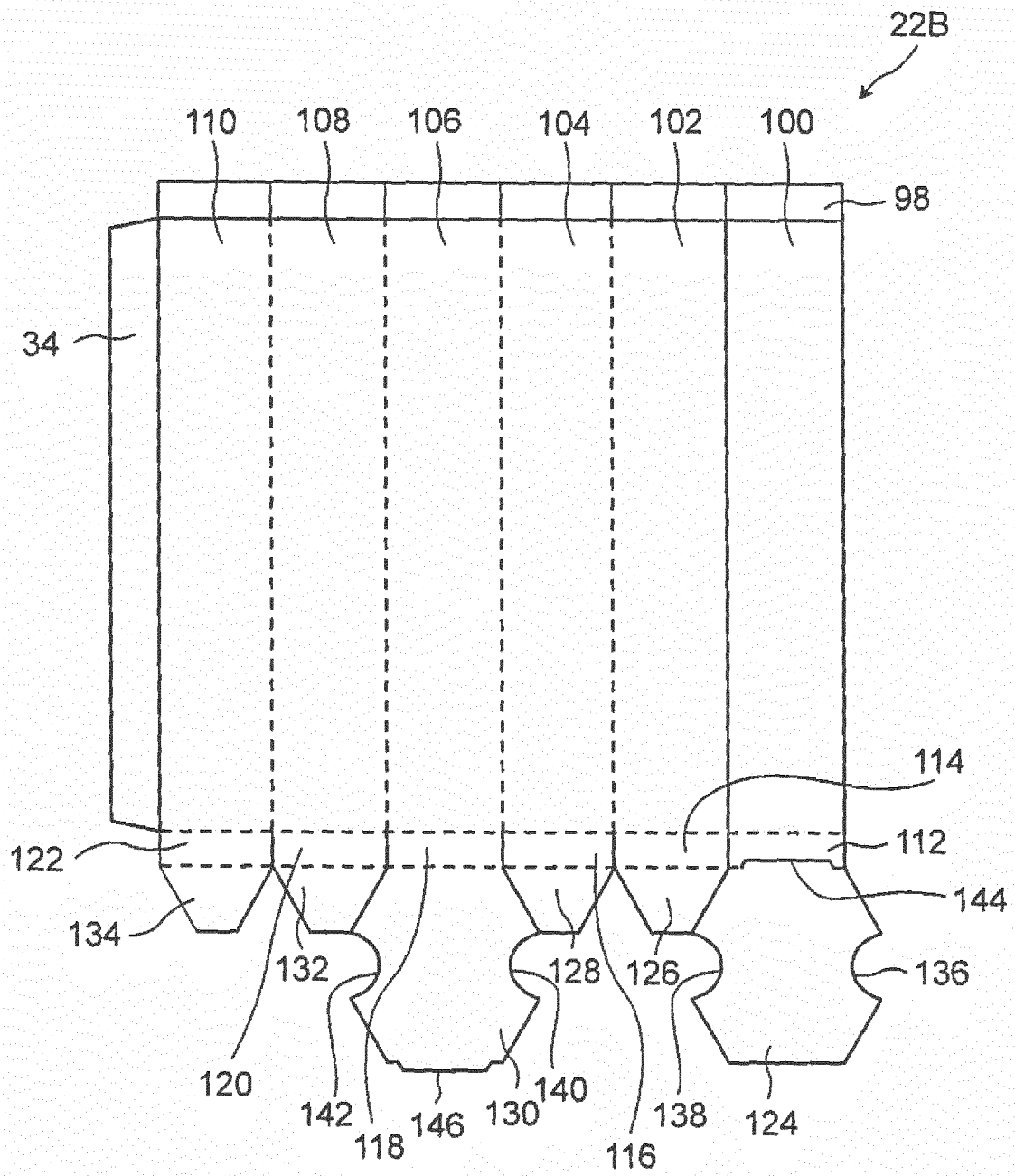


FIG. 18

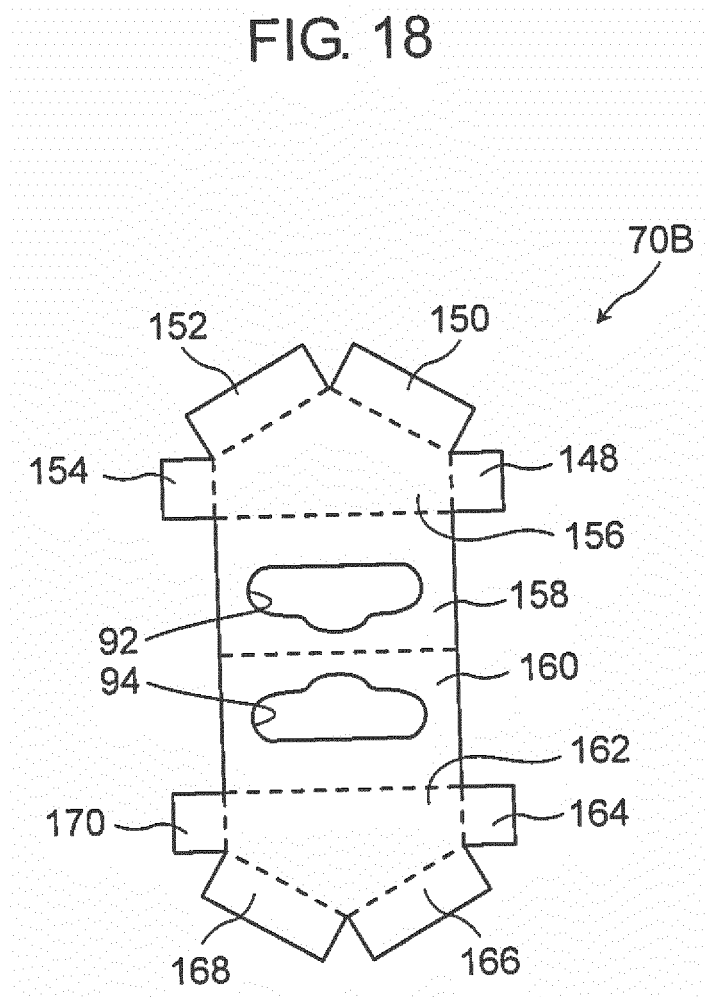


FIG. 19

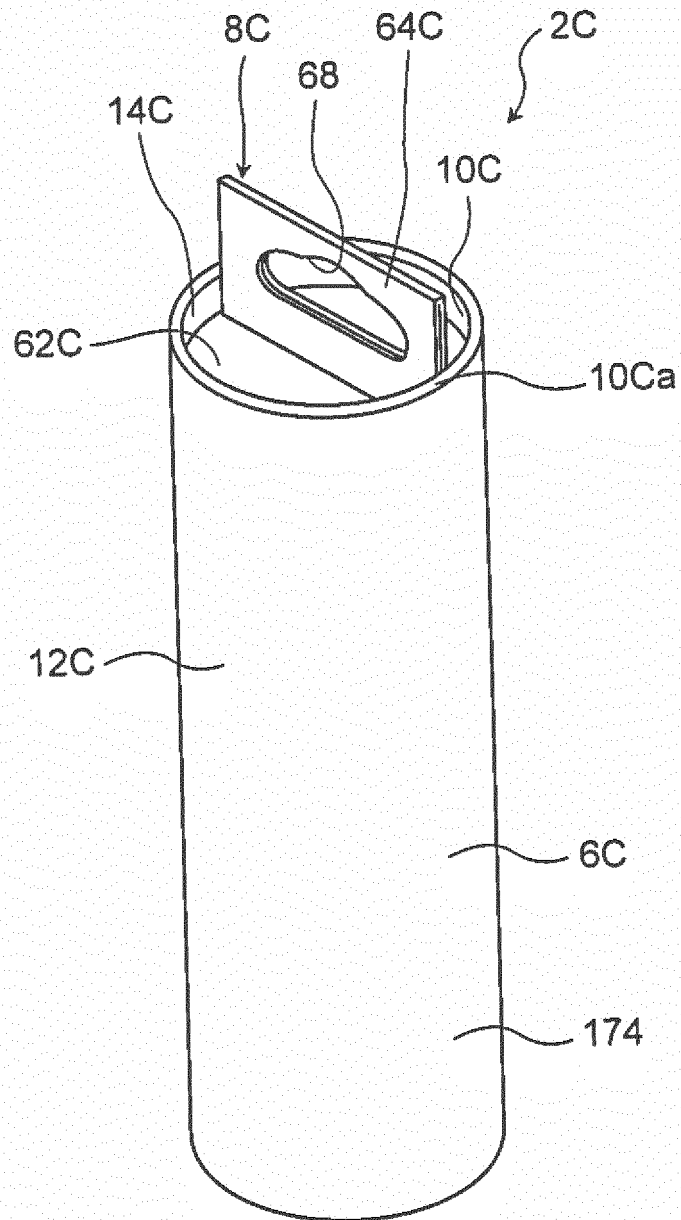


FIG. 20

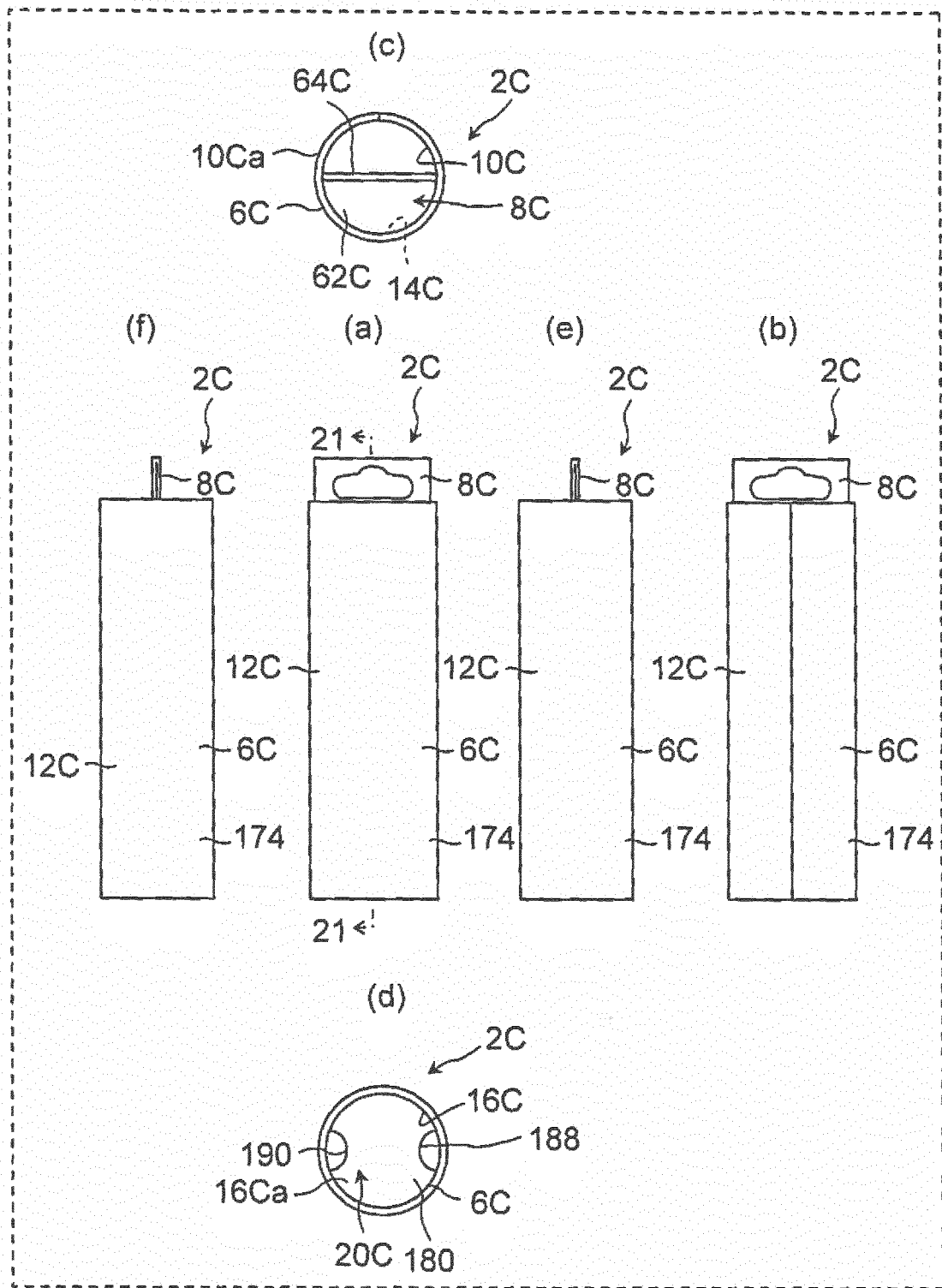


FIG. 21

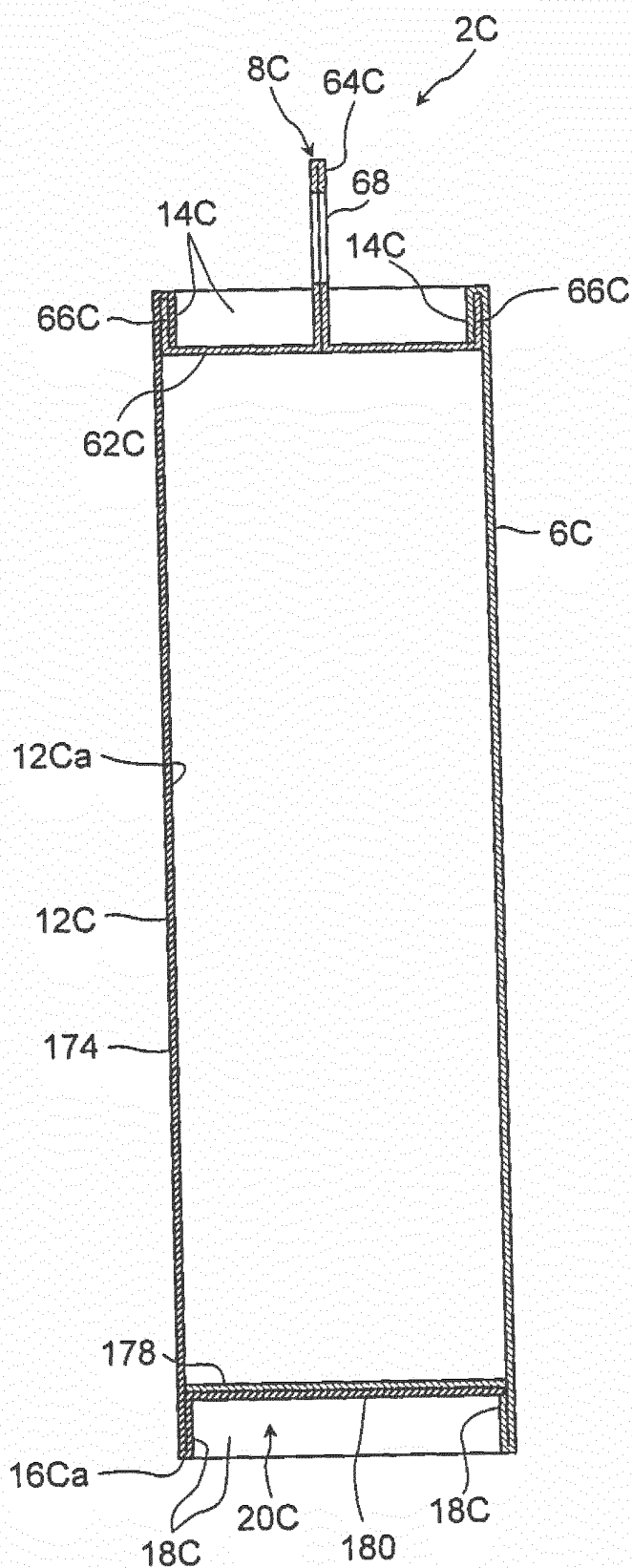


FIG. 22

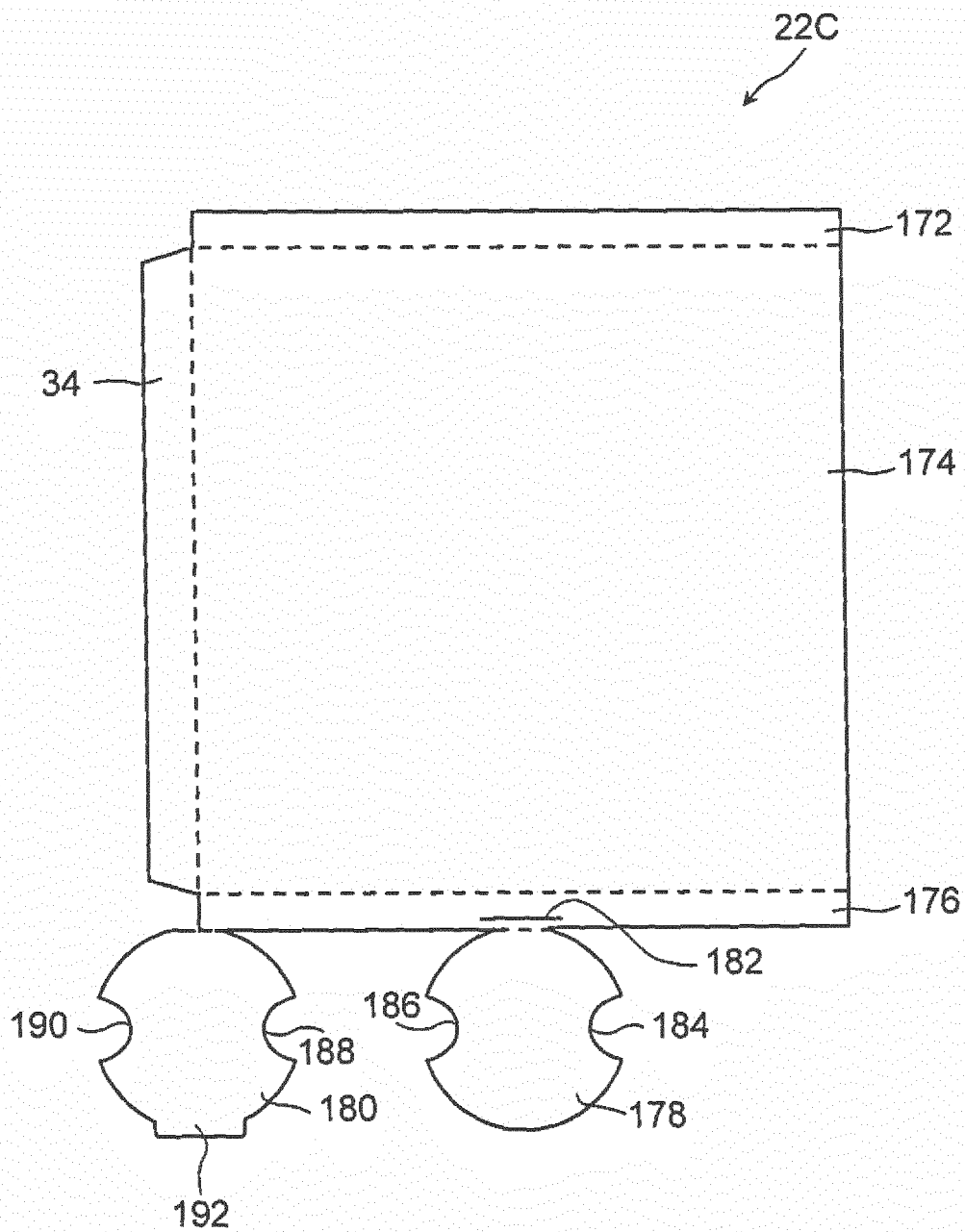


FIG. 23

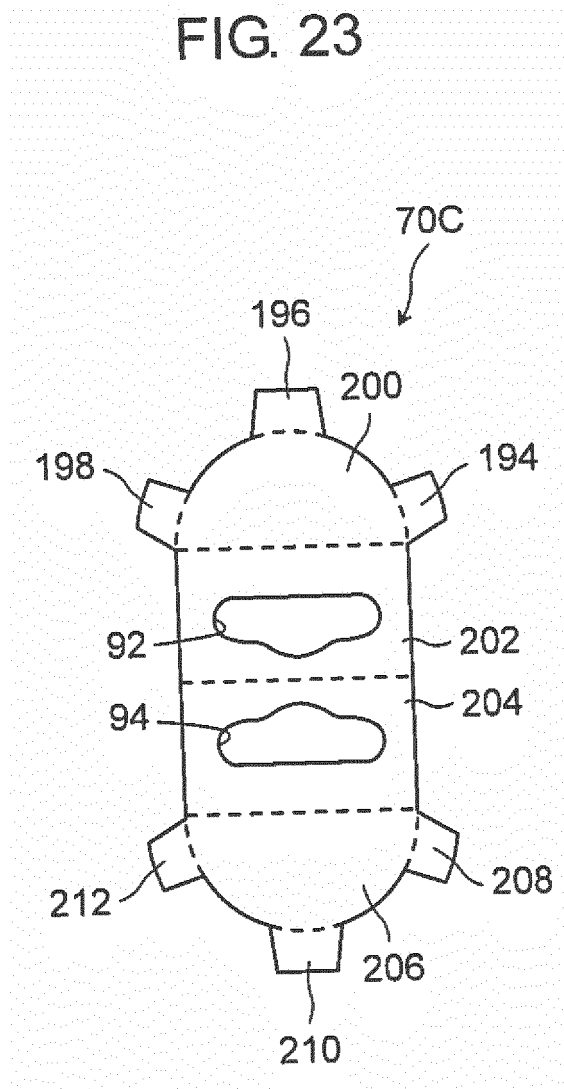


FIG. 24

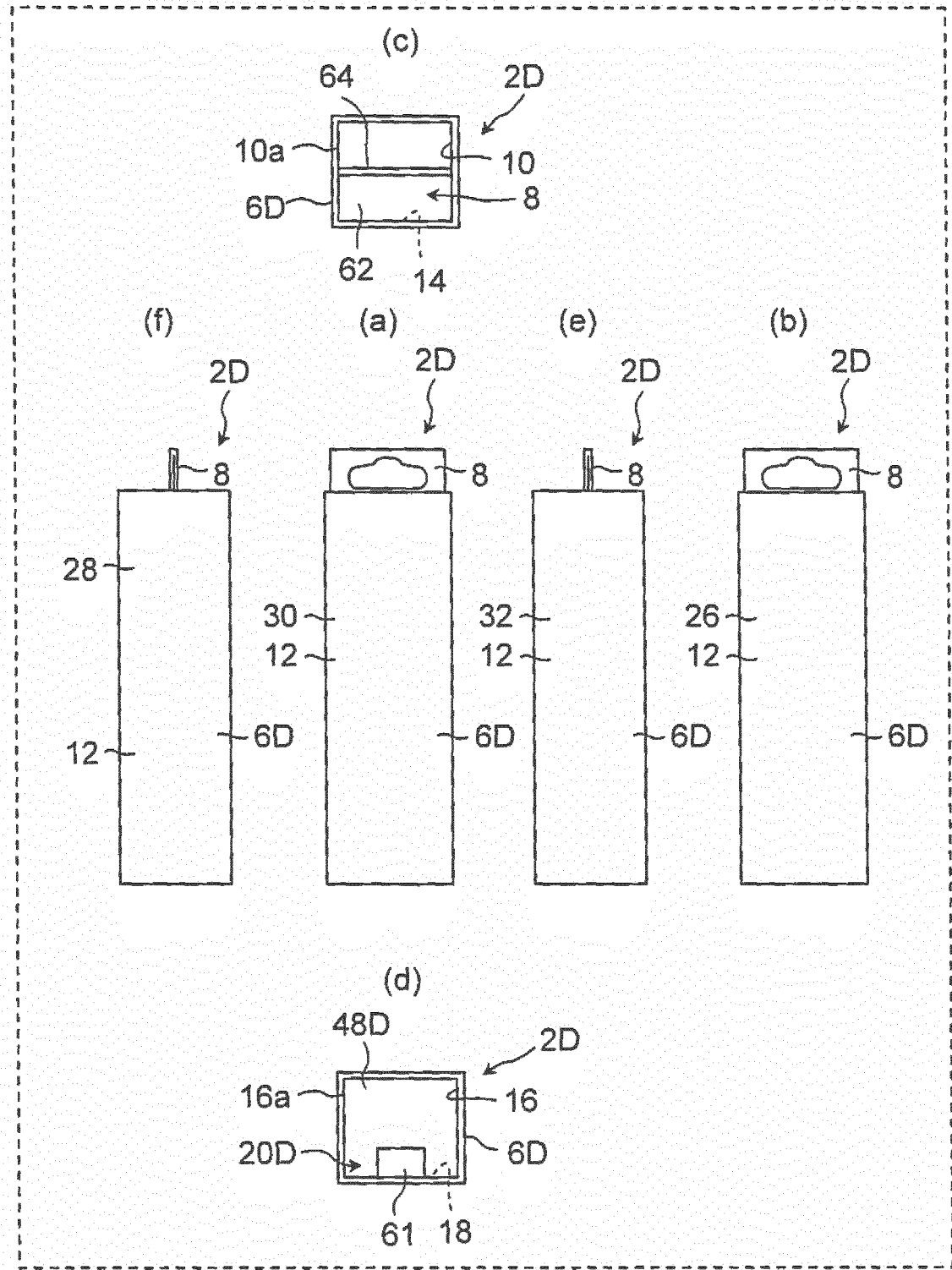


FIG. 25

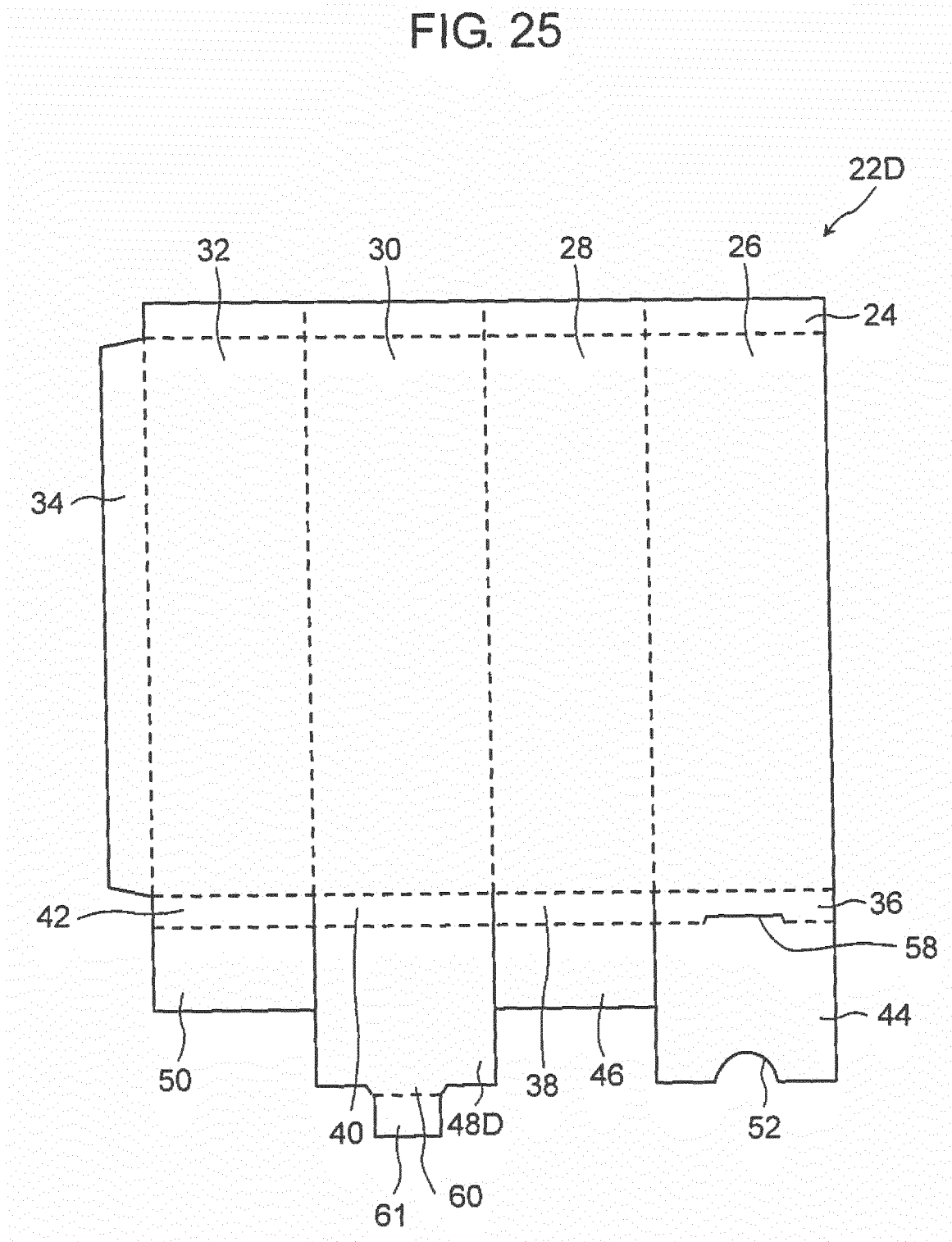
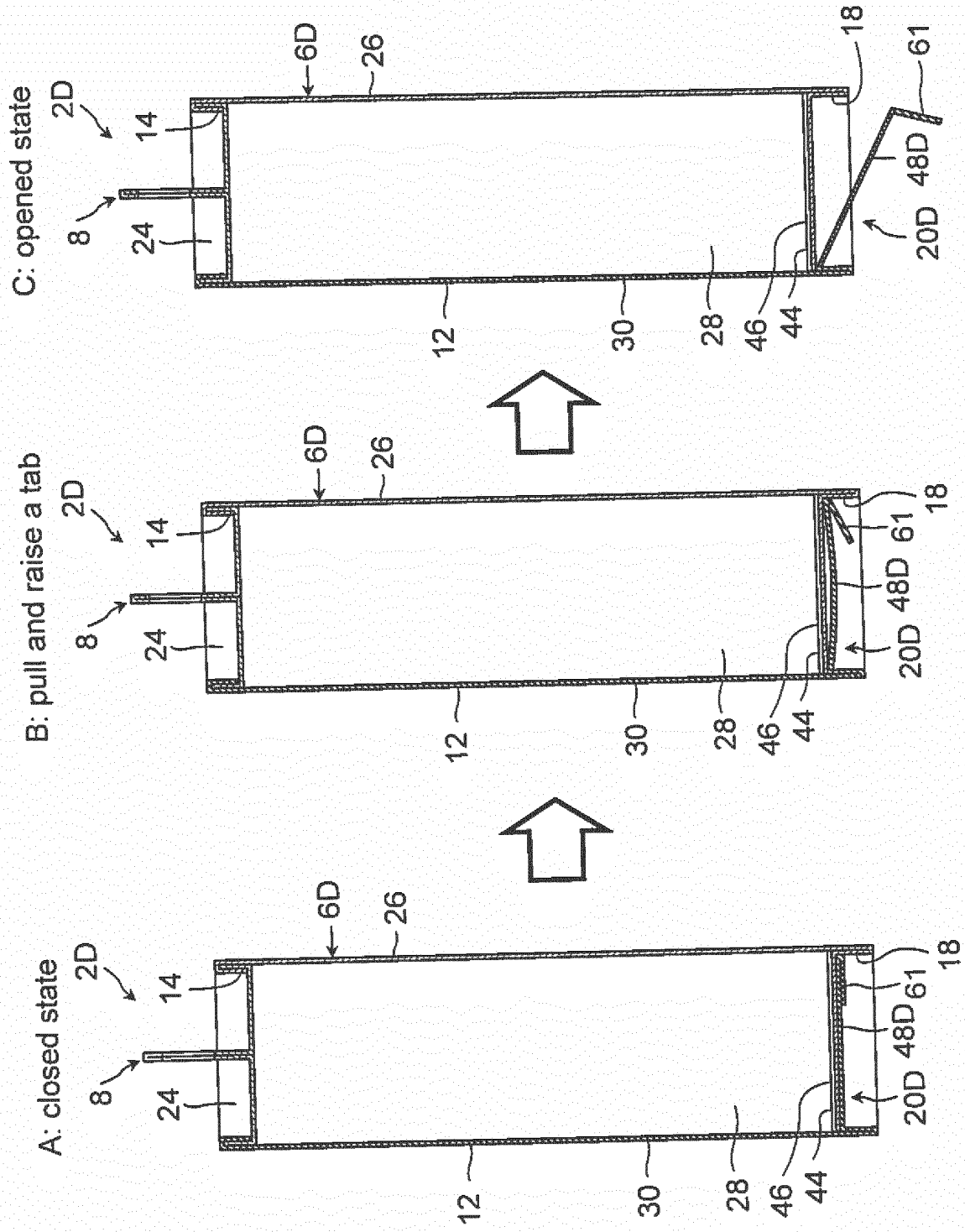


FIG. 26



INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2015/004240

A. CLASSIFICATION OF SUBJECT MATTER

B65D5/64(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)

B65D5/64, 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 1996-2015

Kokai Jitsuyo Shinan Koho 1971-2015 Toroku Jitsuyo Shinan Koho 1994-2015

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.
Y A	JP 3-502439 A (BOUCHE, Alain), 06 June 1991 (06.06.1991), page 2, upper left column, line 5 to page 4, upper left column, line 13; fig. 1 to 2, 4 & US 5005759 A column 1, line 5 to column 4, line 33; fig. 1 to 2, 4 & WO 1990/006886 A1 & FR 2624100 A1	1-2, 7-9 3-6
Y A	DE 3216718 A1 (SCHWRTZ, GUNTER), 02 December 1982 (02.12.1982), page 8, lines 3 to 29; fig. 6 to 7 (Family: none)	1-2, 7-9 3-6

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

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"I"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search
04 November 2015 (04.11.15)Date of mailing of the international search report
24 November 2015 (24.11.15)Name and mailing address of the ISA/
Japan Patent Office
3-4-3, Kasumigaseki, Chiyoda-ku,
Tokyo 100-8915, Japan

Authorized officer

Telephone No.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2015/004240

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	DE 2205085 A1 (KLOECKNER-WERKE AG), 16 August 1973 (16.08.1973), entire text; fig. 10 (Family: none)	1-2, 7-9 3-6
A	JP 2003-40249 A (Matsushita Electric Works, Ltd.), 13 February 2003 (13.02.2003), entire text; all drawings (Family: none)	3-6
A	JP 61-26216 Y2 (Matsushita Electric Industrial Co., Ltd.), 06 August 1986 (06.08.1986), entire text; all drawings (Family: none)	3-6
A	JP 11-124126 A (Yugen Kaisha R Kyapa), 11 May 1999 (11.05.1999), entire text; all drawings (Family: none)	3-6

Form PCT/ISA/210 (continuation of second sheet) (July 2009)

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- JP 2007209598 A [0003]