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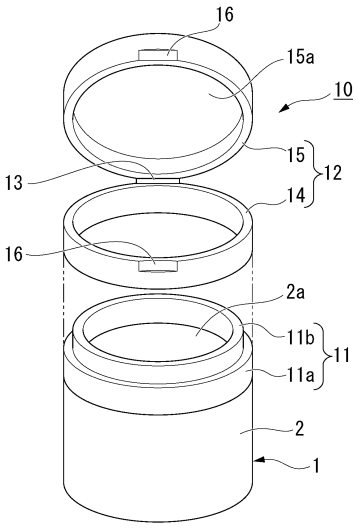
(54) CONTAINER

(57) A self-standing packaging container capable of achieving both strength and disposability even if the container has a wide mouth is provided. A container according to the present invention includes: a container body (1) that has an opening part (2a) at an upper end of a tubular member (2); an annular member(11) that is bonded to the upper end of the tubular member (2); and a lid member (12) that seals the opening part (2a) to be openable and closable. The container body (1) has a bottom surface member that is bonded to the tubular member (2) at a bottom surface part of the tubular member (2). The tubular member (2) is constituted by a flexible laminated body of three or more layers including a barrier layer and a resin layer. The lid member (12) is coupled to the annular member (11) by any of a hinge, fitting, and a screw to be openable and closable.

FIG. 1B



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Description

[Technical Field]

[0001] The present invention relates to a self-standing container.

[0002] Priority is claimed on Japanese Patent Application No. 2019-123825, filed July 2, 2019, the content of which is incorporated herein by reference.

[Related Arts]

[0003] Patent Literature 1 describes a pouch container obtained by forming annular body side end joints bent inward at upper and lower ends of a body member, respectively, bonding outer circumferential parts of upper and lower closing members to the upper and lower body side end joint, respectively, and closing the upper and lower ends of the body member with the upper and lower closing members.

[Citation List]

[Patent Literature]

[Patent Literature 1]

[0004] Japanese Unexamined Patent Application, First Publication No. 2015-20787

[Summary of Invention]

[Problems to be Solved]

[0005] The pouch container described in Patent Literature 1 can have excellent self-standing stability and shape retention, excellent design, volume reduction, and sufficiently-secured liquid-tightness between a body member and closing member. Here, since the upper closing member is made of a flexible film material and a spout is narrow, even if the contents have high fluidity such as liquids, the contents are easily taken out. However, utilization of such a container, in particular for contents having low fluidity such as creams and solids, has been difficult.

[0006] Also, although flexible packaging containers mainly formed of laminated films are lightweight and have excellent disposability, the loading efficiency of the containers filled with the contents is poor and the container strength such as drop strength or bag breaking strength is low. Furthermore, although containers such as paper cartons and brick pack (registered trademark) which are often seen today have a stable shape and excellent loading efficiency and are lightweight, since the strength of the container, particularly the interlayer strength of a base material used for a paper container is inferior, there is a problem that the container is vulnerable to impacts such as dropping, depending on the shape of the container. In addition, paper containers are inferior in piercing resistance and the appearance design such as the gloss may be inferior to that of film containers. Meanwhile, molded containers such as blow bottles, aluminum cans, and the like have high strength, but are bulky when discarded.

[0007] The present invention has been made in view of the above circumstances, and an object of the present invention is to provide a self-standing packaging container capable of achieving both strength and disposability even if the container has a wide mouth.

[Means for Solving the Problems]

[0008] In order to achieve the above object, a container according to an aspect of the present invention includes: a container body that has an opening part at an upper end of a tubular member; an annular member that is bonded to the upper end of the tubular member; and a lid member that seals the opening part to be openable and closable. The container body has a bottom surface member that is bonded to the tubular member at a bottom surface part of the tubular member. The tubular member is constituted by a flexible laminated body of three or more layers including a sealant layer. The lid member is coupled to the annular member by any of a hinge, fitting, and a screw to be openable and closable.

[0009] The lid member may be constituted to be coupled to the annular member by a hinge.

[0010] The container may be a jar container.

[0011] The tubular member may be constituted by a first laminated body having a total thickness of 100 to 500 μm. An outer diameter of the tubular member may be 30 to 150 mm.

[0012] The bottom surface member may be constituted by a second laminated body having a total thickness of 70 to 350 μm. The second laminated body may be a laminated body of three or more layers including at least one resin layer on each of both sides of aluminum foil having a thickness of 40 μm or more in a thickness direction thereof.

[0013] A circumferential edge of the bottom surface member may be bent with respect to the bottom surface part and be bonded to a lower end of the tubular member.

[0014] The bottom surface member may be formed of a resin or aluminum molded piece.

[0015] The lid member may be formed of a resin or aluminum molded piece.

[Effects of the Invention]

[0016] According to the present invention, since an annular member is bonded between a flexible tubular member and a lid member and a container is constituted to open and close between the lid member and the annular member, it is possible to achieve both strength and disposability even if the container has a wide mouth.

[Brief Description of Drawings]

[0017]

Fig. 1A is a perspective view of an example of a container according to a first embodiment.
Fig. 1B is an exploded perspective view of an example of the container according to the first embodiment.
Fig. 2A is a perspective view of an example of a container according to a second embodiment.
Fig. 2B is an exploded perspective view of an example of the container according to the second embodiment.
Fig. 3A is a perspective view of an example of a container according to a third embodiment.
Fig. 3B is an exploded perspective view of an example of the container according to the third embodiment.
Fig. 4A is a cross-sectional view of an example of a joint between a tubular member and a bottom surface member.
Fig. 4B is a cross-sectional view of an example of the joint between the tubular member and the bottom surface member.
Fig. 4C is a cross-sectional view of an example of the joint between the tubular member and the bottom surface member.
Fig. 5A is a cross-sectional view of an example of a joint between a tubular member and an annular member.
Fig. 5B is a cross-sectional view of an example of the joint between the tubular member and the annular member.
Fig. 5C is a cross-sectional view of an example of the joint between the tubular member and the annular member.
Fig. 6 is a cross-sectional view of another example of the joint between the tubular member and the annular member.
Fig. 7 is a cross-sectional view of still another example of the joint between the tubular member and the annular member.

[Embodiments for Carrying out the Invention]

[0018] The present invention will be described below with reference to the drawings on the basis of preferred embodiments.

[0019] Figs. 1A and 1B show a container 10 according to a first embodiment. The container 10 includes a container body 1 having an opening part 2a at an upper end of a tubular member 2, an annular member 11 that is bonded to the upper end of the tubular member 2, and a lid member 12 that seals the opening part 2a to be openable and closable. The lid member 12 has a base part 14 that can be bonded to the annular member 11 and a top part 15 that is coupled to the base part 14 via a hinge 13 to be openable and closable. The base part 14 has a ring shape and the top part 15 has a closed top surface part 15a. When sealing the contents is not required, a hole may be provided in the top surface part 15a or a mesh, a grid, or the like may be provided thereon.

[0020] In the first embodiment, the top part 15 may be constituted to be coupled to the annular member 11 via the hinge 13 (without the base part 14). In this case, the tubular member 2 may be inserted into a mold and the annular member 11 and the top part 15 may be integrally molded.

[0021] Although the details will be described later, the container body 1 is a flexible container having a bottom part and has a self-standing property. The self-standing property of the container body 1 is at least a property in which the container body 1 can be self-standing in a state in which the container is filled with contents and is sealed. Furthermore, the container body 1 of the container that is empty, *i.e.*, not filled with contents, can be self-standing even if the container is empty. In addition, it is preferable that the tubular member 2 can be self-standing in a single state without a bottom surface.

[0022] The annular member 11 has a joint 11a with respect to the upper end of the tubular member 2 and a mouth edge part 11b extending upward from the joint 11a. The base part 14 is bonded to the mouth edge part 11b by, fitting, bonding, or the like. When the hinge 13 is directly bonded to the container body 1, it is difficult for the container body 1 to withstand the opening and closing of the lid member 12. When the annular member 11 is provided at an upper end of the container body 1, the upper end of the container body 1 is reinforced. For this reason, even if the top part 15 is bonded via the hinge 13, the container body 1 can withstand the opening and closing of the lid member 12.

[0023] In the examples shown in Figs. 1A and 1B, the lid member 12 having the hinge 13 is separated from the annular member 11. In this case, although the details will be described later, when the annular member 11 is bonded to the container body 1 or the upper end of the tubular member 2, the work becomes easy because the work can be performed in a state in which the lid member 12 having the hinge 13 is not attached. As a method for bonding the annular member 11 and the base part 14, for example, fitting, bonding, or the like can be adopted. When the annular member 11 is constituted to also serve as the base part 14, the top part 15 of the lid member 12 can be directly bonded to the annular member 11 via the hinge 13 (without the base part 14) or the annular member 11 formed in a shape of the base part 14 as shown in Figs. 1A and 1B can directly bonded to the tubular member 2. Although the hinge 13 may have a constitution in which the annular member 11 or the base part 14 is coupled to the top part 15 formed separately therefrom to be openable and closable via a pin, a shaft, or the like made of a metal or the like, it is preferable to form the hinge 13 made of a resin or the like that is thin and bendable and integrally mold the annular member 11 or the

base part 14 and the top part 15 from the viewpoint of reducing the number of parts. When the top part 15 is opened, it is possible to take out the contents of the container body 1 via the annular member 11 or the base part 14. After the container body 1 is filled with the contents, in order to protect the contents before the top part 15 is opened, a sealing material such as an aluminum foil or a resin film may be attached to the mouth edge part 11b or the base part 14. In this case, it is possible to remove the sealing material and the take out the contents. To be specific, although a height H of a joint 45a which will be described later is shown in Fig. 7, a height of a joint configured to bond the annular member 11 to the upper end of the tubular member 2 in an upward/downward direction is preferably, for example, about 5 mm or about 3 to 15 mm, and more preferably about 5 to 12 mm.

[0024] In order to facilitate opening and closing of the hinge 13, a non-slip device 16 such as a concave part or a convex part with which a claw or the like comes into contact may be provided in the lid member 12. In the examples shown in Figs. 1A and 1B, the non-slip device 16 is provided in the base part 14 and the top part 15. The non-slip device 16 may be provided in at least one of the base part 14 and the top part 15. When the hinge 13 bonds the annular member 11 and the lid member 12, the non-slip device 16 may be provided in at least one of the annular member 11 and the lid member 12. It is preferable that the non-slip device 16 be disposed at a position in which the non-slip device 16 faces the hinge 13 at an angle of about 180° in a circumferential direction of the annular member 11. The lid member 12 may be formed of a molded item made of a resin, a metal (for example, aluminum), wood, paper, ceramic, or the like. The lid member 12 may be formed to be rigid and inflexible. Furthermore, the lid member 12 may be formed to be flexible and deformable.

[0025] Figs. 2A and 2B show a container 20 according to a second embodiment. The container 20 includes a container body 1 having an opening part 2a at an upper end of a tubular member 2, an annular member 21 that is bonded to the upper end of the tubular member 2, and a lid member 22 that seals the opening part 2a to be openable and closable. A constitution of the container body 1 is the same as that of the first embodiment. Furthermore, a top surface part 22a of the lid member 22 can be constituted in the same manner as the top surface part 15a in the first embodiment.

[0026] The annular member 21 has a joint 21a with respect to the upper end of the tubular member 2 and a mouth edge part 21b extending upward from the joint 21a. The lid member 22 is bonded to the mouth edge part 21b through fitting. When the lid member 22 is directly fitted to the container body 1, it is difficult for the container body 1 to withstand the opening and closing of the lid member 22. When the annular member 21 is provided at the upper end of the container body 1, the upper end of the container body 1 is reinforced. For this reason, even if the lid member 22 is bonded through fitting, the container body 1 can withstand the opening and closing of the lid member 22.

[0027] In the examples shown in Figs. 2A and 2B, in order to facilitate opening and closing of the lid member 22 with respect to fitting, a non-slip device 23 such as a concave part or a convex part with which a claw or the like comes into contact is provided in the annular member 21 and the lid member 22. The non-slip device 23 may be provided in at least one of the annular member 21 and the lid member 22. The non-slip device 23 can be disposed at one place or two or more places at an arbitrary position in the circumferential direction of the annular member 21. The lid member 22 may be formed of a molded item made of a resin, a metal (for example, aluminum), wood, paper, ceramics, or the like. The lid member 22 may be formed to be rigid and inflexible. Furthermore, the lid member 22 may be formed to be flexible and deformable.

[0028] Figs. 3A and 3B show a container 30 according to a third embodiment. The container 30 includes a container body 1 having an opening part 2a at an upper end of a tubular member 2, an annular member 31 that is bonded to the upper end of the tubular member 2, and a lid member 32 that seals the opening part 2a to be openable and closable. A constitution of the container body 1 is the same as that of the first embodiment. Furthermore, a top surface part 32a of the lid member 32 can be constituted in the same manner as the top surface part 15a in the first embodiment.

[0029] The annular member 31 has a joint 31a with respect to the upper end of the tubular member 2 and a mouth edge part 31b extending upward from the joint 31a. The lid member 32 is bonded to the mouth edge part 31b by a screw 33. When the lid member 32 is directly bonded to the container body 1 by the screw 33, it is difficult for the container body 1 to withstand opening and closing of the lid member 32. When the annular member 31 is provided at the upper end of the container body 1, the upper end of the container body 1 is reinforced. For this reason, even if the lid member 32 is bonded by the screw 33, the container body 1 can withstand the opening and closing of the lid member 32. To be specific, although the height H of the joint 45a which will be described later is shown in Fig. 7, a height of a joint configured to bond the annular member 31 to the upper end of the tubular member 2 in an upward/downward direction is preferably, for example, about 5 mm or about 3 to 15 mm, and more preferably about 5 to 12 mm.

[0030] In the screw 33, for example, a male screw 33a is formed on an outer circumferential surface of the mouth edge part 31b, a female screw 33b is formed in an inner surface of the lid member 32, and the male screw 33a and the female screw 33b are combined so that the inner surface of the lid member 32 faces an outer circumference of the mouth edge part 3 1b. On the other hand, for example, a female screw may be formed in an inner surface of the mouth edge part 3 1b and a male screw may be formed on an outer circumferential surface of the lid

member 32. The lid member 32 may be formed of a molded item made of a resin, a metal (for example, aluminum), wood, paper, ceramics, or the like. The lid member 32 may be formed to be rigid and inflexible. Furthermore, although the lid member 32 may be formed to be flexible and deformable, it is preferable that a place at which the female screw 33b is formed be strong enough to withstand the connection and release of a screw.

[0031] The container body 1 will be described in detail below. As shown in Figs. 4A, 4B, and 4C, the container body 1 has the bottom surface members 3 and 4 that are bonded to the tubular member 2 at the bottom surface part of the tubular member 2. An accommodating part 2b for the contents is formed in an inner part surrounded by the tubular member 2. The tubular member 2 is bonded to the bottom surface members 3 and 4 through a bottom surface joint 2c.

[0032] For example, when a bottom surface member 3 is constituted by a flat laminated body or the like, as shown in Figs. 4A and 4B, the bottom surface joint 2c is formed by bending a circumferential edge 3b of the bottom surface member 3 with respect to a bottom surface part 3a and causing the circumferential edge 3b to face one surface of the tubular member 2. Here, a surface of the tubular member 2 that is bonded to the circumferential edge 3b may be an inner surface or an outer surface. Furthermore, a surface of the circumferential edge 3b that is bonded to the tubular member 2 may be an inner surface or an outer surface. The inner surface is a surface on a side in contact with the accommodating part 2b and the outer surface is a surface on an opposite side to the accommodating part 2b.

[0033] The circumferential edge 3b of the bottom surface member 3 may be bent in a direction in which the circumferential edge 3b approaches a lower end of the tubular member 2 or in a direction in which the circumferential edge 3b goes away from the lower end of the tubular member 2. In the examples shown in Figs. 4A and 4B, the bottom surface part 3a is provided at an upper position away from the lower end of the tubular member 2. Furthermore, in Fig. 4A, the circumferential edge 3b is bent downward from the bottom surface part 3a, and in Fig. 4B, the circumferential edge 3b is bent upward from the bottom surface part 3a. In both cases of Figs. 4A and 4B, since the bottom surface part 3a is formed not to come into contact with an installation surface, it is possible to minimize rubbing of the bottom surface part 3a due to the installation surface. When the installation surface partially comes into contact with the bottom surface part 3a, the bottom surface part 3a may be reinforced by providing ribs or steps (height difference) on the bottom surface part 3a.

[0034] The bottom surface part 3a of the bottom surface member 3 is a substantially flat surface. In the example shown in Fig. 4A, the circumferential edge 3b of the bottom surface member 3 is bonded to the lower end of the tubular member 2 so that an inner surface of the bottom surface member 3 that is inside the bottom surface part 3a faces an inner surface of the tubular member 2. In the example shown in Fig. 4B, the circumferential edge 3b of the bottom surface member 3 is bonded to the lower end of the tubular member 2 so that an outer surface of the bottom surface member 3 faces the inner surface of the tubular member 2. The bottom surface member 3 may be formed to be flexible and deformable.

[0035] As shown in Fig. 4C, a bottom surface member 4 may be formed of a molded item made of a resin, a metal (for example, aluminum), wood, paper, ceramics, or the like. In this case, although a shape of the bottom surface member 4 is not particularly limited, the bottom surface member 4 may have an installation part 4a that can come into contact with the installation surface, a circumferential edge 4b that is bonded to the bottom surface joint 2c, and a central part 4c that is bent above the installation surface. The bottom surface member 4 may be formed to be rigid and inflexible or may be formed to be flexible and defonnable.

[0036] It is preferable that the tubular member 2 be constituted by a first laminated body having a total thickness of 50 to 600 μm. The total thickness of the first laminated body is more preferably 100 to 500 μm. It is preferable that the tubular member 2 be constituted by a flexible laminated body of three or more layers including a barrier layer and a resin layer. The tubular member 2 can be formed by, for example, a flat first laminated body having a length corresponding to an outer circumference in a tubular shape, bonding different surfaces in a thickness direction (one inner surface and the other outer surface) to face each other at both ends in the circumferential direction (envelope-pasting), or bonding inner surfaces to face each other so that both ends in the circumferential direction protrude outward in a radial direction (butt-seaming) or forming the inner surfaces in a seamless tube shape in the circumferential direction. Although there is one seam in the circumferential direction in the case of envelope-pasting or butt-seaming, there may be two or more seams in the circumferential direction.

[0037] When the annular member 11, 21, or 31 or the bottom surface member 4 is rigid and inflexible, if a difference in strength between these and the tubular member 2 is large, there is a concern concerning a reduction in durability of the joint. Thus, it is preferable that the tubular member 2 have elasticity and be not easily deformed. Also in this case, from the viewpoint of disposability, it is preferable that the tubular member 2 can be bent or crushed. When the annular members 11, 21, or 31 or the bottom surface members 3 and 4 are flexible and deformable, it is preferable that the tubular member 2 be flexible or highly flexible so that it can be easily bent or crushed.

[0038] The tubular member 2 has, for example, a cylindrical shape and has an outer diameter of the tubular member 2 of 30 to 150 mm. The tubular member 2 may have an angular tubular shape such as a triangular cylinder, a quadrangular cylinder, and a pentagonal cylinder, an elliptic tubular shape, or the like. An outer diam-

eter of the tubular member 2 when the tubular member 2 has an angular tubular shape is a distance between vertices, sides, or a vertex and a side that face each other. In addition, when there are two or more tubular members 2, it is preferable that a minimum value and a maximum value be within the above ranges. Although a specific example of the outer diameter of the tubular member 2 is not particularly limited, examples of the outer diameter thereof include 30 mm, 50 mm, 100 mm, 150 mm, and the like.

[0039] The first laminated body constituting the tubular member 2 can be constituted by, for example, a laminated body including an inner sealant layer having a resin layer, a barrier layer having an aluminum foil or an aluminum deposition layer, and an outer sealant layer having a resin layer. The barrier layer of the first laminated body may be constituted by an aluminum deposition film. Furthermore, the first laminated body may be constituted by a laminated body of three or more layers having at least one resin layer on each of both sides of an aluminum foil in a thickness direction thereof. A thickness of the aluminum foil included in the first laminated body may be thinner than a thickness of the aluminum foil included in the bottom surface member 3. Examples of the thickness include 6 μm or more. A thickness of an aluminum deposition film included in the aluminum deposition film may be thinner than the thickness of the aluminum foil.

[0040] The bottom surface member 3 may be constituted by a second laminated body having a total thickness of 70 to 350 μm. The second laminated body may be constituted by, for example, a laminated body of three or more layers having at least one resin layer on each of both sides of an aluminum foil having a thickness of 40 μm or more in a thickness direction thereof. The second laminated body can be constituted by, for example, a laminated body including a sealant layer having a resin layer, a barrier layer having an aluminum foil, and a base material layer having a resin layer. The second laminated body may be a film-shaped laminated body in a developed state or may be a laminated molded body having a three-dimensional molded part. It is preferable that an outer diameter of the bottom surface member 3 be substantially the same as a dimension (hereinafter referred to as a "set dimension A") obtained by subtracting a value that is twice a total thickness of the first laminated body constituting the tubular member 2 from the outer diameter of the tubular member 2. That is to say, it is preferable that the outer diameter of the bottom surface member 3 be substantially the same as an inner diameter of the tubular member 2. The outer diameter of the bottom surface member 3 is preferably within the range of 90 % to 110 % of the above set dimension A, and more preferably within the range of 95 % to 105 %.

[0041] When the constitutions of the first laminated body and the second laminated body are within the above ranges, it is possible to secure the flexibility of the container body 1 and to crush or make the container body 1 have a small size by folding the container body 1 at the time of discarding the container 10, 20, or 30. Furthermore, even if the structure of the bottom surface joint 2c is not complicated, it is possible to secure the self-standing property of the container 10 due to the thickness of the aluminum foil included in the second laminated body. An upper limit of the thickness of the aluminum foil included in the second laminated body is not particularly limited, but may be, for example, 200 μm or less. Specific examples of the thickness of the aluminum foil included in the second laminated body include 40 μm, 50 μm, 70 μm, 80 μm, 100 μm, 120 μm, 150 μm, 180 μm, 200 μm, intermediate values between these values, or values near these values. Since the circumferential edge 3b of the bottom surface member 3 or the tubular member 2 has a tubular shape having a central axis in an upward/downward direction, when a sufficient thickness of the laminated body is secured, it is possible to obtain rigidity of the laminated body in which the laminated body can withstand a load of the contents. When a resin layer is utilized for constituting the first laminated body and the second laminated body, it is possible to improve the piercing resistance.

[0042] Examples of the material constituting the sealant layer in the first laminated body and the second laminated body include thermoplastic resins. Specific examples of the sealant material include at least one of polyolefin-based resins such as polyethylene (PE) and polypropylene (PP); polyester-based resins such as polyethylene terephthalate (PET); cyclic olefin-based resins such as cycloolefin polymers (COPs) and cycloolefin copolymers (COCs); adhesive resins, coating agents, and the like.

[0043] Examples of the material constituting the base material layer in the second laminated body include nylon (aliphatic polyamide), polyester, and the like. The thickness of the base material layer is, for example, 5 to 50 μm, and more preferably 10 to 30 μm. A thermoplastic resin such as polyethylene may be further laminated on the outer side of the base material layer.

[0044] The properties of the contents accommodated in the container body 1 are arbitrary such as liquids, solids, powders, granules, and mixtures of two or more of these. Types of the contents are not particularly limited and examples thereof include beverages, food, seasonings, cosmetics, pharmaceuticals, detergents, adhesives, household items, and industrial items. One or more functions such as an oxygen absorption function, an odor absorption function, and a non-adsorption function may be provided to members constituting the container. Each of the tubular member 2 and the bottom surface members 3 and 4 may have at least one or more printed patterns. Each of the members constituting the container body 1 is not limited to a resin and may be formed by laminating or mixing different materials such as paper, cloth, nonwoven fabric, and fibers.

[0045] Paper materials may be visually disposed or a design derived from nature such as a wood grain and a stone grain may be provided on an outer surface of the

container 10, 20, or 30. When the paper material is disposed on the outer surface, in order to minimize moisture absorption of the paper material, it is preferable to coat the paper material with a water-resistant material such as a resin. Examples of the constitutions of the first laminated body and the second laminated body include three layers of polyethylene/aluminum/polyethylene and four layers of polyethylene/paper/aluminum/polyethylene (the paper layer is further outside than the aluminum layer). An appropriate resin layer, an adhesive layer, or the like may be added to any of these locations. Since the container 10, 20, or 30 is a wide mouth container having a self-standing property, even if the container 10, 20, or 30 is filled with a viscous substance such as a cream and a wax, the contents are easily taken out. When the annular member 11, 21, or 31 is bonded to the tubular member 2, even if the tubular member 2 is flexible, it is possible to form a jar container.

[0046] A constitution in which the above-described annular member 11, 21, or 31 is bonded to the tubular member 2 will be described below. The annular member 11, 21, or 31 can be formed of, for example, a material including a thermoplastic resin. Examples of the method for molding the annular member 11, 21, or 31 includes injection molding, compression molding, blow molding, extrusion molding, pressure molding, draw molding, and the like. Examples of the method bonding the annular member 11, 21, or 31 and the tubular member 2 include heat welding, adhesion, and hot melt. It is also possible to bond the annular member 11, 21, or 31 and the tubular member 2 through insert molding of the annular member 11, 21, or 31 to the tubular member 2.

[0047] Fig. 5A shows an example in which an annular member 41 is bonded to the inner surface and the outer surface of the tubular member 2 in the upper end of the tubular member 2. The annular member 41 may have a groove part 41a into which the upper end of the tubular member 2 is inserted. Fig. 5B shows an example in which an annular member 42 is bonded to the inner surface of the tubular member 2 in the upper end of the tubular member 2. Fig. 5C shows an example in which an annular member 43 is bonded to the outer surface of the tubular member 2 in the upper end of the tubular member 2.

[0048] As shown in Fig. 6, an annular member 44 may have a protrusion part 44a disposed in the upper end of the tubular member 2 disposed in at least one of the outer circumference of the opening part 2a of the tubular member 2. In this case, the annular member 44 may be bonded to only one of the outer surface and the inner surface of the tubular member 2 except for the part having the protrusion part 44a. The protrusion part 44a may have a groove part 44b into which the upper end of the tubular member 2 is inserted. Furthermore, as shown in Fig. 7, an annular member 45 may have the joint 45a with respect to the upper end of the tubular member 2 and a mouth edge part 45b extending upward from the joint 45a.

[0049] The tubular member 2 and the annular member 41, 42, 43, 44, or 45 are bonded by causing the tubular member 2 and the annular member 41, 42, 43, 44, or 45 disposed in a jig or the like (not shown) and applying heating, ultrasonic waves, or the like to these. When the tubular member 2 is bonded to the annular member 41, 42, 43, 44, or 45, the bottom surface members 3 and 4 described above may be bonded to the tubular member 2. Alternatively, the bottom surface members 3 and 4 may be bonded to the tubular member 2 after the tubular member 2 is bonded to the annular member 41, 42, 43, 44, or 45. A width of a welded part in the circumferential direction (dimension in a direction intersecting the circumferential direction) when the annular member 41, 42, 43, 44, or 45 is bonded to the tubular member 2 through the welded part is, for example, about 5 mm, and alternatively preferably about 3 to 20 mm. The welded part between the annular member 41, 42, 43, 44, or 45 and the tubular member 2 may be a welded part continuous in the circumferential direction or may be welded parts having a dot shape, a linear shape, or the like that is shorter than a circumferential length formed at appropriate intervals in the circumferential direction. A thickness of the annular member 41, 42, 43, 44, or 45 at a position in which the tubular member 2 is bonded to the annular member 41, 42, 43, 44, or 45 is, for example, preferably about 0.4 to 20 mm. The constitutions of these annular members 41, 42, 43, 44, and 45 can be applied to the annular member 11, 21, or 31 of the container 10, 20, or 30 described above.

[0050] As shown in Fig. 7, when an inner diameter of the mouth edge part 45b of the annular member 45 is significantly smaller than the inner diameter of the tubular member 2, before the bottom surface members 3 and 4 are bonded to the tubular member 2, the tubular member 2 may be bonded to the annular member 45. Thus, it is possible to bring the jig for bonding closer to the joint 45a by inserting the jig for bonding into the accommodating part 2b from the bottom surface side of the tubular member 2. When an outer surface of the mouth edge part 45b of the annular member 45 is bent further inward in the radial direction than an outer surface of the joint 45a, the height H of the joint 45a in the upward/downward direction is, for example, preferably about 5 mm, alternatively preferably about 3 to 15 mm, and more preferably about 5 to 12 mm. In an intermediate region 45c between the joint 45a and the mouth edge part 45b, there may be a part thinner than the joint 45a or the mouth edge part 45b. A thickness of the intermediate region 45c may be, for example, about 1 mm. The joint 45a of the annular member 45 may be formed so that a thickness thereof gradually decreases toward a lower end of the bonding part. Furthermore, a bonding surface between the joint 45a and the tubular member 2 may be bonded not only on a flat surface, a cylindrical surface, or the like, but also on a curved surface, a hemispherical surface, or the like. When the bonding surface is curved, the bonding surface may be curved in any of the upward/downward direction, the circumferential direction, or the like. In addition, a width of the welded part with respect to the tubular mem-

ber 2 may be larger than the height H of the joint 45a along the curve.

[0051] Although the present invention has been described above on the basis of the preferred embodiments, the present invention is not limited to the above-described embodiments and various modifications are possible without departing from the gist of the present invention. Modifications include additions, replacements, omissions, other changes of constituent elements in each of the embodiments. Furthermore, it is also possible to appropriately combine the constituent elements utilized in the two or more embodiments.

[Industrial Applicability]

[0052] A self-standing packaging container according to the present invention can achieve both strength and disposability even if the container has a wide mouth.

[Reference Signs]

[0053]

1 Container body
2 Tubular member
2a Opening part
2b Accommodating part
2c Bottom surface joint
3, 4 Bottom surface member
3a Bottom surface part
3b, 4b Circumferential edge of bottom surface member
4a Installation part
4c Central part
10, 20, 30 Container
11, 21, 31, 41, 42, 43, 44, 45 Annular member
11a, 21a, 31a, 45a Joint
11b, 21b, 31b, 45b Mouth edge part
12, 22, 32 Lid member
13 Hinge
14 Base part
15 Top part
15a, 22a, 32a Top surface part
16, 23 Non-slip device
33 Screw
33a Male screw
33b Female screw
41a, 44b Groove part
44a Protrusion part
45c Intermediate region

Claims

1. A container, comprising:

a container body that has an opening part at an upper end of a tubular member;
an annular member that is bonded to the upper end of the tubular member; and
a lid member that seals the opening part to be openable and closable,
wherein the container body has a bottom surface member that is bonded to the tubular member at a bottom surface part of the tubular member,
the tubular member is constituted by a flexible laminated body of three or more layers including a sealant layer, and
the lid member is coupled to the annular member by any of a hinge, fitting, and a screw to be openable and closable.

2. The container according to claim 1, wherein the lid member is constituted to be coupled to the annular member by a hinge.

3. The container according to claim 1 or 2, wherein the container is a jar container.

4. The container according to any one of claims 1 to 3, wherein the tubular member is constituted by a first laminated body having a total thickness of 100 to 500 μm and an outer diameter of the tubular member is 30 to 150 mm.

5. The container according to any one of claims 1 to 4, wherein the bottom surface member is constituted by a second laminated body having a total thickness of 70 to 350 μm, and the second laminated body is a laminated body of three or more layers including at least one resin layer on each of both sides of aluminum foil having a thickness of 40 μm or more in a thickness direction thereof.

6. The container according to any one of claims 1 to 5, wherein a circumferential edge of the bottom surface member is bent with respect to the bottom surface part and is bonded to a lower end of the tubular member.

7. The container according to any one of claims 1 to 4, wherein the bottom surface member is formed of a resin or aluminum molded item.

8. The container according to any one of claims 1 to 7, wherein the lid member is formed of a resin or aluminum molded item.

FIG. 1A

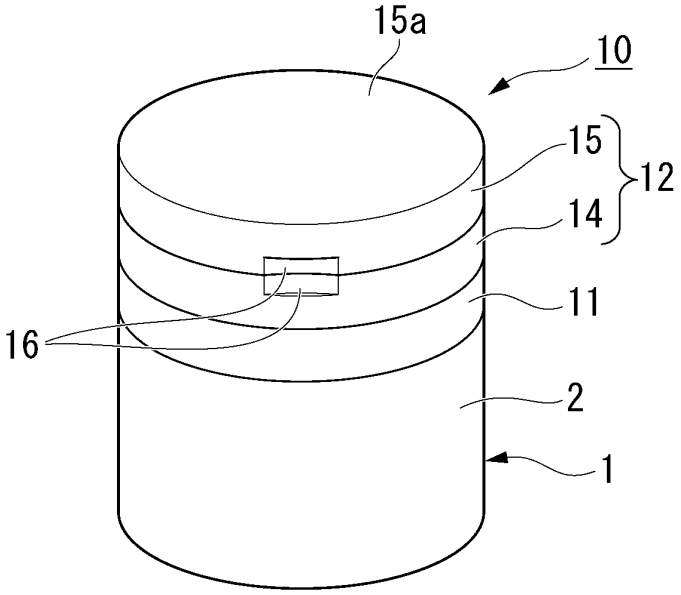


FIG. 1B

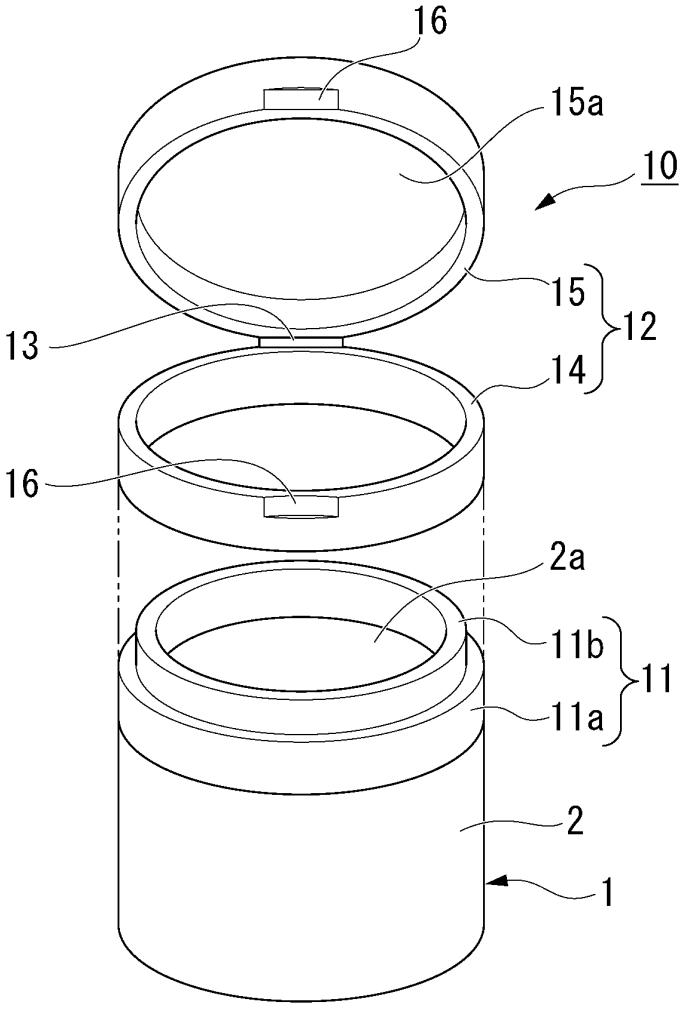


FIG. 2A

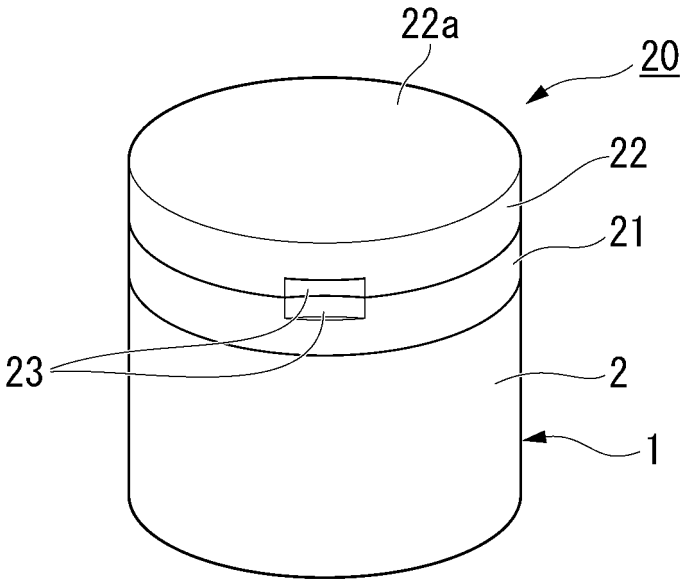


FIG. 2B

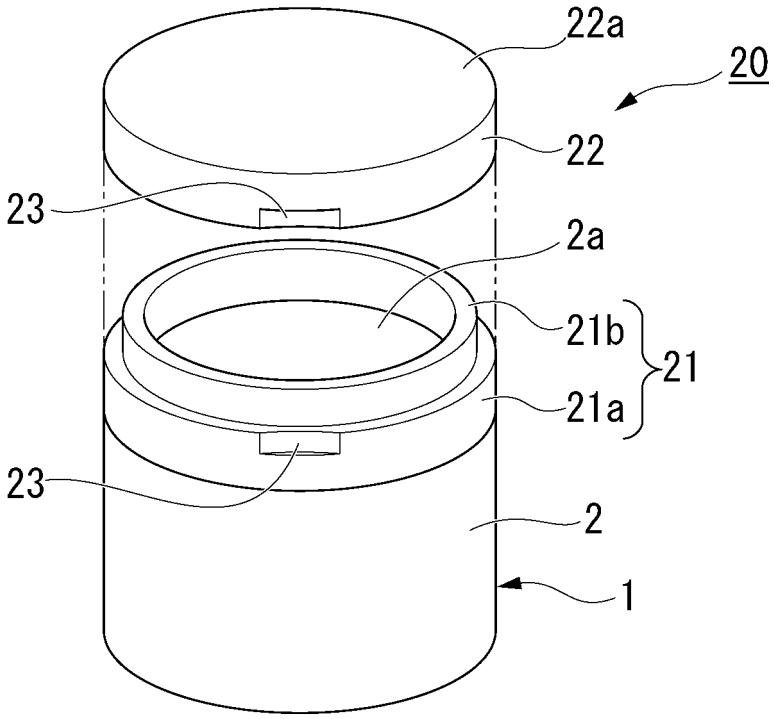


FIG. 3A

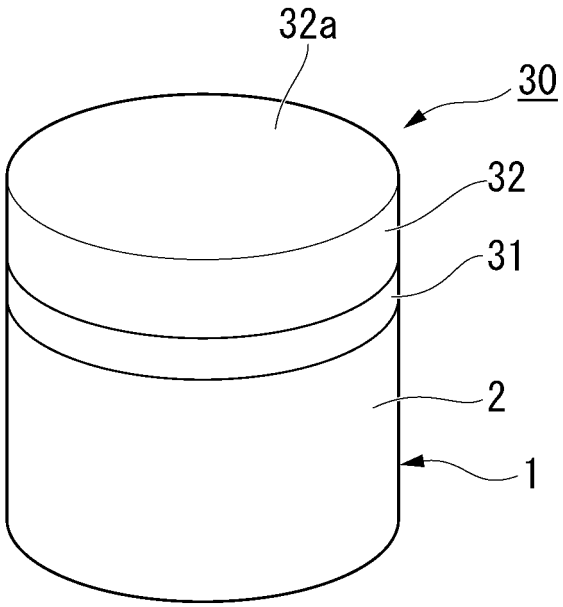


FIG. 3B

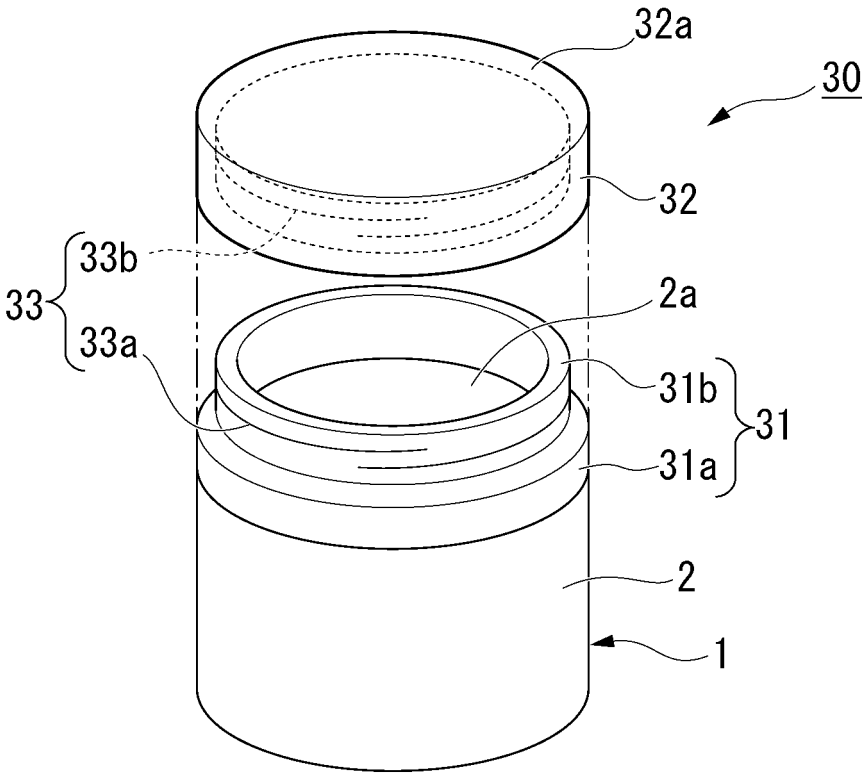


FIG. 4A

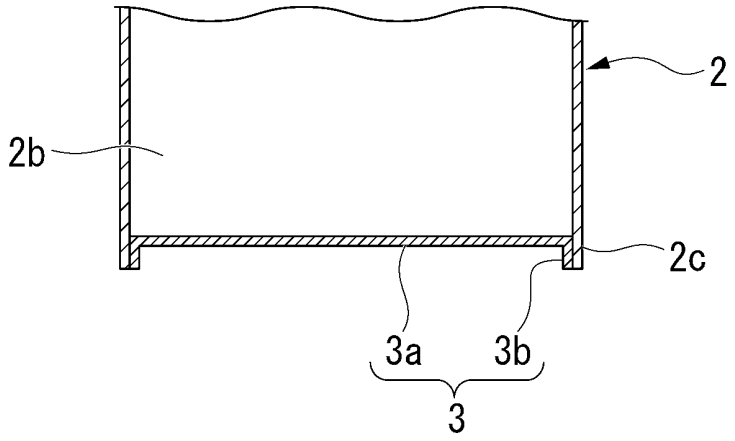


FIG. 4B

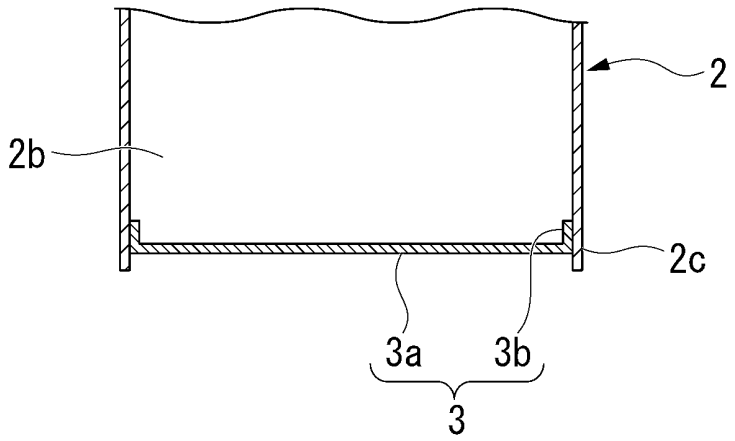


FIG. 4C

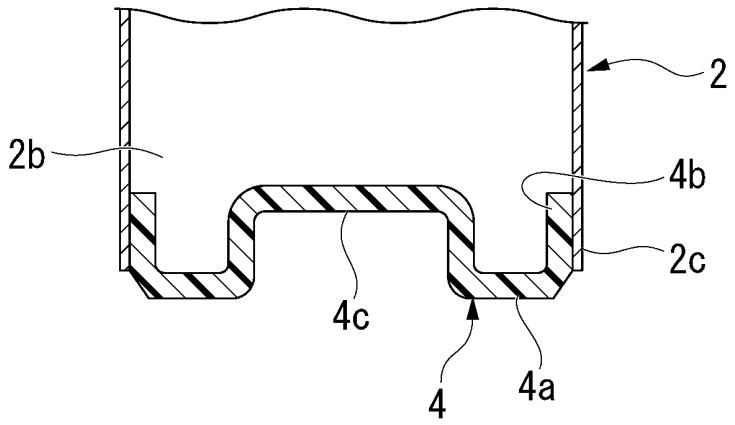


FIG. 5A

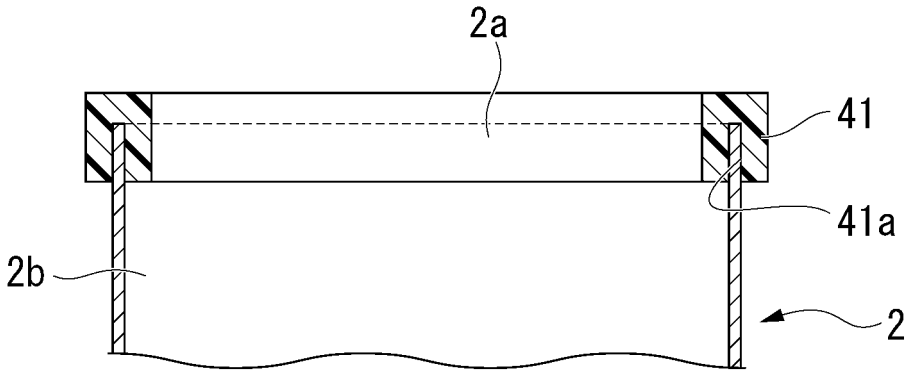


FIG. 5B

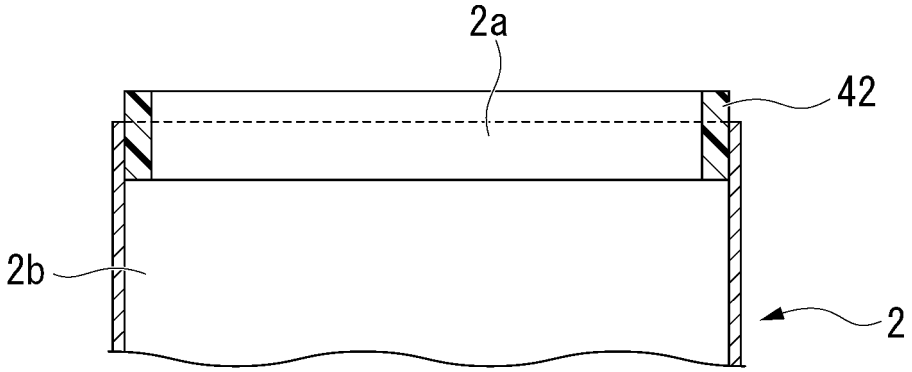


FIG. 5C

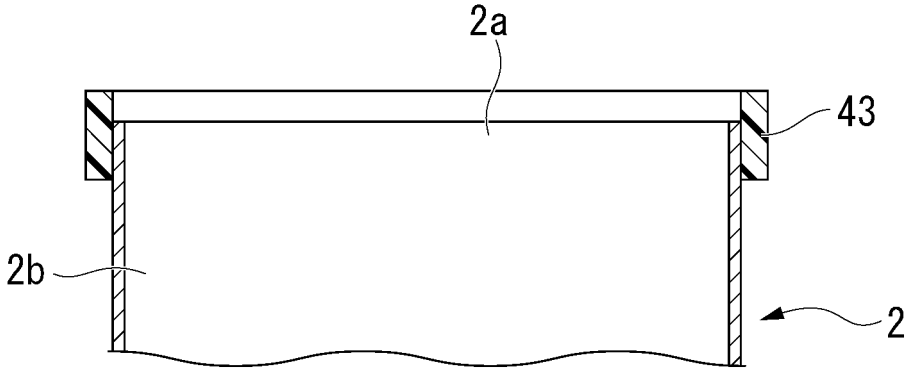


FIG. 6

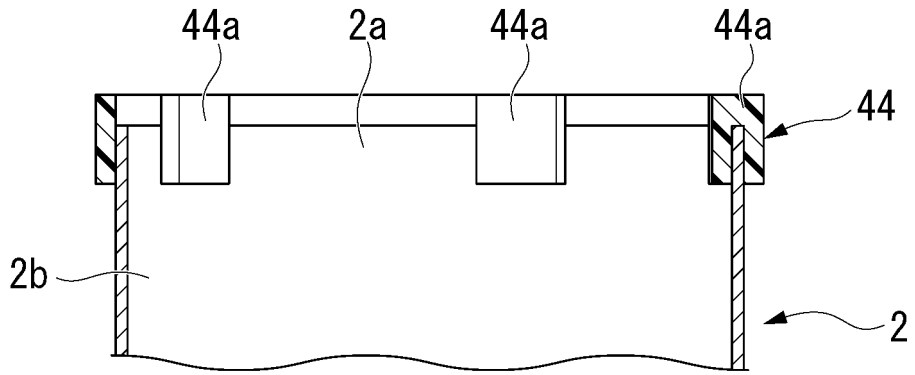
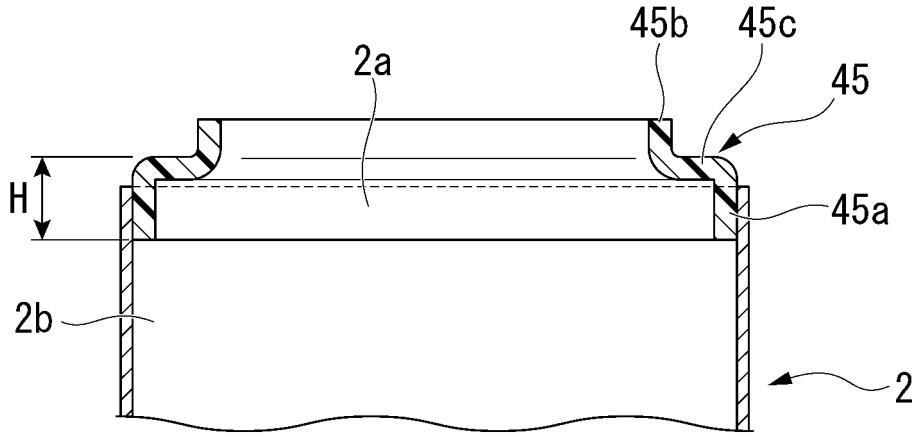


FIG. 7



INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2020/025486

A. CLASSIFICATION OF SUBJECT MATTER
B65D 30/16(2006.01)i; B65D 33/36(2006.01)i; B65D 43/02(2006.01)i
FI: B65D33/36; B65D43/02 200; B65D30/16 G
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)
B65D30/16; B65D33/36; B65D43/02

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

Published examined utility model applications of Japan	1922-1996
Published unexamined utility model applications of Japan	1971-2020
Registered utility model specifications of Japan	1996-2020
Published registered utility model applications of Japan	1994-2020

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	JP 2010-76792 A (DAINIPPON PRINTING CO., LTD.) 08.04.2010 (2010-04-08) paragraphs [0028]-[0061], fig. 1-4, 8-10, 13	1-8
Y	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 177871/1982 (Laid-open No. 83751/1984) (FUJIMORI KOGYO CO., LTD.) 06.06.1984 (1984-06-06) page 3, line 7 to page 4, line 14, fig. 1-3	1-8
Y	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 45194/1977 (Laid-open No. 2320/1978) (HONSHU PAPER CO., LTD.) 11.01.1978 (1978-01-11) page 1, lines 15-18, fig. 1-2	5-8

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

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"&" document member of the same patent family

Date of the actual completion of the international search 31 August 2020 (31.08.2020)	Date of mailing of the international search report 08 September 2020 (08.09.2020)
Name and mailing address of the ISA/ Japan Patent Office 3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan	Authorized officer Telephone No.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2020/025486

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 70515/1982 (Laid-open No. 171845/1983) (FUJIMORI KOGYO CO., LTD.) 16.11.1983 (1983-11-16) fig. 2	6-8
Y	JP 2004-26251 A (FUJIMORI KOGYO CO., LTD.) 29.01.2004 (2004-01-29) fig. 4	6-8
Y	JP 2001-151249 A (FUJI SEAL INC.) 05.06.2001 (2001-06-05) paragraph [0018]	7-8

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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/JP2020/025486

Patent Documents referred in the Report	Publication Date	Patent Family	Publication Date
JP 2010-76792 A	08 Apr. 2010	(Family: none)	
JP 59-83751 U1	06 Jun. 1984	(Family: none)	
JP 53-2320 U1	11 Jan. 1978	(Family: none)	
JP 58-171845 U1	16 Nov. 1983	(Family: none)	
JP 2004-26251 A	29 Jan. 2004	(Family: none)	
JP 2001-151249 A	05 Jun. 2001	(Family: none)	

Form PCT/ISA/210 (patent family annex) (January 2015)

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- JP 2019123825 A **[0002]**
- JP 2015020787 A **[0004]**