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(54) **FREELY OPENED/CLOSED CONTAINER**

(57) An openable and closable container 10 includes a container body 11 having a take-out opening 24; an opening-closing lid 23 provided on the container body 11 swingably about a swing axis X-X on a base end 23a side, the opening-closing lid 23 opening/closing the take-out opening 24; and plate rubber (an elastic member) 50 provided between the container body 11 and the opening-closing lid 23. A spring body 34 is provided on the base end 23a side of the opening-closing lid 23 and a sloping portion (a braking portion) 43 with which the spring body 34 comes into contact is provided on the container body 11 side. The spring body 34 is gradually compressed from the state where the opening-closing lid 23 is closed toward the state where the opening-closing lid 23 is opened.

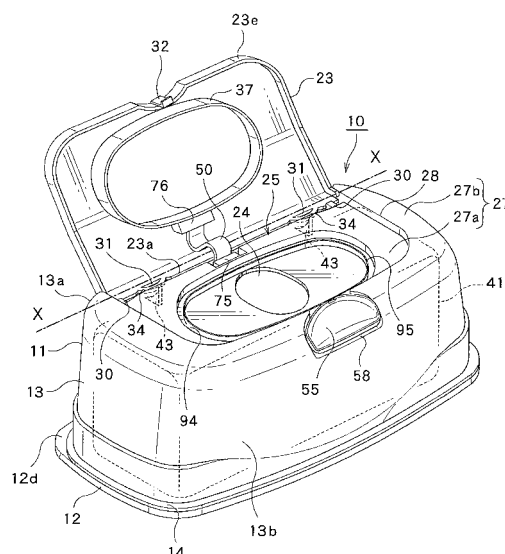


FIG.1

Description

Technical Field

[0001] The present invention relates to an openable and closable container including, for example, a main body having a take-out opening, and an opening-closing lid openable and closable with respect to the main body.

Background Art

[0002] For example, an openable and closable container for storing wet tissue paper or the like therein includes a container body and an opening-closing lid. The container body stores therein wet tissue paper or the like and has a take-out opening for taking out the wet tissue or the like. The opening-closing lid seals the take-out opening in an openable and closable manner.

[0003] To use wet tissue paper or the like, the opening-closing lid is opened with respect to the take-out opening of the container body and the wet tissue paper or the like is taken out one by one from the take-out opening of the container body.

Prior Art References

Patent Document

[0004] Patent Document 1: JP-A-2003-170950

[0005] As described above, the conventional openable and closable container includes the container body and the opening-closing lid swingably attached to the container body. To use the wet tissue paper or the like, the opening-closing lid is swung and the wet tissue paper or the like is taken out from the take-out opening of the container body.

[0006] Incidentally, as described in JP-A-2003-170950, biasing means for biasing the opening-closing lid in the opening direction is provided between the container body and the opening-closing lid. A push button used to open the opening-closing lid is provided on the front side of the container body. When the push button is operated, the opening-closing lid is opened by the biasing means.

[0007] However, in the conventional openable and closable container, after the push button is operated, the opening-closing lid is opened at once without deceleration until the opening-closing lid is fully opened and comes into contact with a stopper at a fully opened position for sudden stopping. In this case, after having come into contact with the stopper for stopping, the opening-closing lid unstably vibrates until it stops completely.

Disclosure of the Invention

[0008] The present invention has been made in view of such drawbacks and aims to provide an openable and closable container that can decelerate an opening-clos-

ing lid and moderately stop the same before the opening-closing lid is fully opened.

[0009] The present invention is an openable and closable container including: a main body having a take-out opening; an opening-closing lid provided on the main body swingably about a swing axis on a base end side of the lid, the opening-closing lid opening and closing the take-out opening; and an elastic member provided between the main body and the opening-closing lid, wherein a spring body is provided on the base end side of the opening-closing lid and a braking portion with which the spring body comes into contact is provided on a main body side; and wherein, as the opening-closing lid opens, the opening-closing lid pivots toward a fully opened position to bring the spring body into contact with the braking portion, thereby allowing the opening-closing lid to stand still at the fully opened position.

[0010] The present invention is the openable and closable container, wherein the opening-closing lid is formed with an opening portion on the base end side and the spring body is composed of an outer circumferential portion of the opening portion.

[0011] The present invention is the openable and closable container, wherein the spring body is composed of an arcuate member bending outward from a base end edge portion of the opening-closing lid.

[0012] The present invention is the openable and closable container, wherein the spring body is composed of a generally turned square U-shaped member projecting outward from a base end edge portion of the opening-closing lid.

[0013] The present invention is the openable and closable container, wherein the spring body is composed of a linear member extending horizontally along a base end edge portion of the opening-closing lid.

[0014] The present invention is the openable and closable container, wherein the spring body is partially cut away to form a cut-away portion, the cut-away portion communicating with the opening portion.

[0015] The present invention is the openable and closable container, wherein a cover is provided at part of base end edge portion of the opening-closing lid for covering a space between the opening-closing lid and the main body, wherein the spring body is not formed at the part of the base end edge portion.

[0016] The present invention is the openable and closable container, wherein the braking portion is composed of a rib having an arcuate inner surface bending inward, as viewed from the side.

[0017] The present invention is the openable and closable container, wherein the spring body is composed of a C-shaped member provided to encompass the swing axis in a lateral portion of the opening-closing lid, the C-shaped member being partially cut away on an opening-closing lid side; wherein the braking portion is composed of a tubular body encompassing an outer circumference of the spring body; and wherein, when the opening-closing lid is opened, the opening-closing lid is turned toward

the fully opened position to bring the spring body into contact with the braking portion, so that the opening-closing lid gets still at the fully opened position.

[0018] The present invention is the openable and closable container, wherein the spring body composed of the C-shaped member is provided, on an outer circumference of the spring body, with a plurality of projections in contact with an inner surface of the tubular body.

[0019] The present invention is the openable and closable container, wherein a pair of longitudinally extending slits is formed on the base end side of the opening-closing lid and the spring body is composed of a tongue piece formed between the pair of slits.

[0020] The present invention is the openable and closable container, wherein the spring body composed of the tongue piece is formed at each of both ends, on the base end side, of the opening-closing lid.

[0021] The present invention is an openable and closable container including: a main body having a take-out opening; an opening-closing lid provided on the main body swingably about a swing axis on a base end side, the opening-closing lid opening and closing the take-out opening; and an elastic member provided between the main body and the opening-closing lid, wherein a spring body is provided on the base end side of the opening-closing lid and a stopper portion for stopping opening of the opening-closing lid is provided on a main body side; and wherein, as the opening-closing lid opens, the opening-closing lid pivots toward a fully opened position to bring the spring body into elastic contact with the stopper portion, thereby allowing the opening-closing lid to stand still at the fully opened position.

[0022] The present invention is the openable and closable container, wherein the opening-closing lid has an L-shaped slit formed on the base end side of the opening-closing lid and the spring body is composed of a lateral piece extending in a lateral direction along the L-shaped slit.

[0023] According to the present invention, before the opening-closing lid is fully opened, the spring body of the opening-closing lid is gradually compressed along the inner surface of the braking portion of the main body. Therefore, the opening-closing lid can be decelerated little by little. Thus, the opening-closing lid can moderately be stopped at the fully opened position.

[0024] According to the present invention, the spring body comes into elastic contact with the stopper portion to absorb impact resulting from the collision of the opening-closing lid. Thus, the opening-closing lid can moderately be stopped at the fully opened position.

[0025] According to the present invention, the mechanism is simple for moderately stopping the opening-closing lid at the fully opened position. Therefore, such a mechanism can be realized at low cost.

Brief Description of the Drawings

[0026]

[Fig. 1] Fig. 1 is a perspective view illustrating an openable and closable container according to a first embodiment of the present invention.

[Fig. 2] Fig. 2 is a plan view illustrating the openable and closable container according to the first embodiment of the present invention.

[Fig. 3] Fig. 3 is a front view illustrating the openable and closable container according to the first embodiment of the present invention.

[Fig. 4] Fig. 4 is a rear view illustrating the openable and closable container according to the first embodiment of the present invention.

[Fig. 5] Fig. 5 is a lateral view illustrating the openable and closable container according to the first embodiment of the present invention.

[Fig. 6] Fig. 6 is an enlarged view illustrating a denting step portion.

[Fig. 7] Fig. 7 is a plan view illustrating an operating body (an operation button).

[Fig. 8] Fig. 8 is a bottom view illustrating the operating body (the operation button).

[Fig. 9] Fig. 9 is a front view illustrating the operating body (the operation button).

[Fig. 10] Fig. 10 is a lateral view illustrating the operating body (the operation button).

[Fig. 11] Fig. 11 is a partial perspective view of the openable and closable container according to the first embodiment of the present invention as viewed from the rear side.

[Fig. 12] Fig. 12 is a partial cross-sectional view of the openable and closable container in the case where the opening-closing lid is at a fully closed position.

[Fig. 13] Fig. 13 is a partial cross-sectional view of the openable and closable container in the case where the opening-closing lid is at a fully opened position.

[Fig. 14] Fig. 14 is a partial cross-sectional view illustrating a state where a spring body is moved along a sloping portion.

[Fig. 15] Fig. 15 illustrates a modified example of the sloping portion.

[Fig. 16] Figs. 16(a) to (d) illustrate modified examples of an opening-closing lid.

[Fig. 17] Figs. 17(a) and (b) illustrate modified examples of the opening-closing lid.

[Fig. 18] Fig. 18 illustrates a modified example of a take-out opening.

[Fig. 19] Fig. 19 is a partial perspective view of an openable and closable container according to a second embodiment of the present invention as viewed from the rear side.

[Fig. 20] Fig. 20 is a partial plan view of an opening-closing lid.

[Fig. 21] Fig. 21 is a partial cross-sectional view of the openable and closable container according to the second embodiment of the present invention (the cross-sectional view taken along line XI-XI of Fig.

20).

[Fig. 22] Fig. 22 illustrates a spring body (a C-shaped member) and a tubular body (a braking portion).

[Fig. 23] Figs. 23(a) and (b) illustrate the relationship between the spring body (the C-shaped member) and the tubular body (the braking portion) in the fully closed and opened states, respectively.

[Fig. 24] Fig. 24 is a rear view illustrating an openable and closable container according to a third embodiment of the present invention.

[Fig. 25] Fig. 25 is a partial cross-sectional perspective view illustrating the openable and closable container according to the third embodiment of the present invention.

[Fig. 26] Fig. 26 is a rear view illustrating an openable and closable container according to a fourth embodiment of the present invention.

[Fig. 27] Fig. 27 is a partial perspective view illustrating the openable and closable container according to the fourth embodiment of the present invention.

Mode for Carrying Out the Invention

First Embodiment

[0027] Embodiments of the present invention will hereinafter be described with reference to the drawings. Figs. 1 to 18 illustrate a first embodiment of the present invention.

[0028] The entire configuration of a wet tissue paper storing container 10 (an openable and closable container) is first described with reference to Figs. 1 to 5. As illustrated in Figs. 1 to 5, the opening and closing container 10 includes a downward opening container body (a main body) 11 for storing therein e.g. wet tissue paper 41 as contents; and a bottom lid 12 for sealing the downward opening of the container body 11.

[0029] Referring to Fig. 1, the container body 11 includes an upper plate 27 that is formed with a take-out opening 24 adapted to take out the wet tissue paper 41, and a lateral plate 13 extending downward from the upper plate 27. An opening-closing lid 23 sealing the take-out opening 24 of the upper plate 27 is attached to the lateral plate 13 of the container body 11 so as to be swingable around a swing axis X-X on a base end 23a side.

[0030] Further, the lateral plate 13 is formed with a flange 14 at its lower portion. The flange 14 is in contact with the bottom lid 12 and projects outward. Incidentally, the bottom lid 12 is provided with a finger-putting piece 12d which projects outward from the lateral plate 13 and on which a finger is put. A pair of opposite lateral plates 13a, 13b projects outward in an Rounded-shape.

[0031] The upper plate 27 of the container body 11 includes a first upper plate (a first thin plate) 27a and a second upper plate (a second thin plate) 27b. The first upper plate 27a is located at a generally central portion of the upper plate 27. The second upper plate 27b is provided on the outside of the first upper plate 27a via a

central step portion 28 and located at a position higher than the first upper plate 27a. The take-out opening 24 described above is provided in the first upper plate 27a.

[0032] The first upper plate 27a is formed with a recessed portion 94, in which an annular rib 95 is provided. The take-out opening 24 described above is disposed within the annular rib 95. The opening-closing lid 23 is provided with a frame 37 on the rear surface thereof. The frame 37 is set inside the recessed portion 94 and outside the annular rib 95 when the opening-closing lid 23 is closed.

[0033] As illustrated in Fig. 1, a retaining piece 32 is further provided at a free end 23e of the opening-closing lid 23. A denting step portion 58 denting from the upper plate 27 is formed in the container body 11 at a position on the free end 23e side of the opening-closing lid 23 and in the vicinity of the upper end of the lateral plate 13. An operating body (an operation button) 55 is provided in the denting step portion 58.

[0034] The operation button 55 is next described. The operation button 55 is attached to the denting step portion 58 of the container body 11. Fig. 6 is an enlarged plan view illustrating an attachment portion of the operation button 55 in the container body 11. Figs. 7 to 10 illustrate details of the operation button 55.

[0035] Referring to Figs. 7 to 10, the operation button 55 has a top plate portion 65. The top plate portion 65 is formed with an operation surface 65a on which a user's finger is put. The operation surface 65a is formed to draw a centrally dented curve. An outer circumference 65b, on a rear end side (on the upper side in Fig. 7), of the top plate portion 65 is curved arcuately. An outer circumference 65c, on a front end side, of the top plate portion 65 is formed linearly. As illustrated in Figs. 8 and 10, the top plate portion 65 is formed at the center of the rear end portion with a claw portion 66, which comes into engagement with the retaining piece 32 of the opening-closing lid 23.

[0036] A pair of attachment ribs 67, 67 is provided to project from the rear surface of the top plate portion 65. The attachment ribs 67, 67 are formed with respective hinge shafts 68, 68, which are coaxial with each other. Further, an arcuate spring portion 69 is formed on the front end side of the rear surface of the top plate portion 65.

[0037] As illustrated in Fig. 6, the denting step portion 58 of the container body 11 is surrounded by a bottom plate 71, a lateral plate 72 disposed between the bottom plate 71 and the recessed portion 94, and a lateral plate 73 disposed between the bottom plate 71 and the second upper plate 27b. A pair of step portions 74, 74 projecting inward is formed in the vicinity of both corresponding ends of the lateral plate 73. The step portions 74, 74 are formed with respective hinge-receiving holes 78, 78 adapted to receive the corresponding hinge shafts 68, 68 of the operation button 55. The bottom plate 71 is provided with a spring-receiving groove 79 adapted to receive the spring portion 69 of the operation button 55.

A rib 80 is provided in the spring-receiving groove 79 in order to hold the center of the spring portion 69 at a predetermined position in a vertical direction.

[0038] The spring portion 69 of the operation button 55 is fitted to the spring-receiving groove 79 and the hinge shaft 68 is fitted to each of the hinge-receiving holes 78, 78. Thus, the operation button 55 is attached to the inside of the denting step portion 58 turnably around the hinge shaft 68. The claw portion 66 of the operation button 55 is biased, by the resilience of the spring portion 69, around the hinge shaft 68 in a direction (downward) in which the claw portion 66 approaches the recessed portion 94.

[0039] When the opening-closing lid 23 is closed, the operation button 55 turns in such a manner as to yield to the retaining piece 32 of the opening-closing lid 23. When the retaining piece 32 overrides the claw portion 66, the operation button 55 turns based on the force exerted by the spring portion 69. As a result, the retaining piece 32 and the claw portion 66 come into engagement with each other to keep the opening-closing lid 23 in the closed state.

[0040] In contrast, if a user depresses the operation surface 65a of the operation button 55 with the opening-closing lid 23 closed, the claw portion 66 of the operation button 55 turns about the hinge shaft 68 in a direction in which it is spaced apart from the recessed portion 94. As a result, the retaining piece 32 is disengaged with the claw portion 66.

[0041] Incidentally, as illustrated in Fig. 1, elongated plate rubber (an elastic member) 50 biasing the opening-closing lid 23 in the opening direction is provided between the container body 11 and the opening-closing lid 23. Specifically, the container body 11 is provided with a housing portion 75 horizontally and insertably housing one end of the plate rubber 50 and the opening-closing lid 23 is provided with a securing portion 76 horizontally securing the other end of the plate rubber 50.

[0042] Incidentally, the container body 11 and the opening-closing lid 23 described above are each obtained by injection molding by use of polypropylene (PP). However, they may be molded by use of another material, such as PE, PS, ABS, elastomer, PET, PVC, or polycarbonate. The bottom lid 12 preferably uses linear low-density polyethylene (LLDPE). Further, the plate rubber 50 uses silicon rubber. The securing portion 76 is made of polypropylene.

[0043] A description is next given of a configuration of the rear side of the openable and closable container 10 with reference to Fig. 11. Fig. 11 is a partial perspective view of the openable and closable container 10 as viewed from the rear side with the openable and closable lid 23 removed from the container body 11 for convenience.

[0044] As illustrated in Fig. 11, the opening-closing lid 23 is provided with a rear wall 23c on the base end 23a side thereof. A columnar projection 26 is provided to project from each of both lateral portions 23b, on the base end 23a side, of the opening-closing lid 23.

[0045] The rear wall 23c of the opening-closing lid 23 is formed with two opening portions 31 each having a long and thin shape. A spring body 34 is formed at a lower portion of each of the opening portions 31. The spring body 34 is composed of an arcuate member formed of an outer circumferential portion of the opening portion 31 and bending outwardly from a base end edge portion 23d of the opening-closing lid 23.

[0046] A cover 35 is provided between a pair of the spring bodies 34 and on the outside (on each of both the lateral portion 23b sides) of each of the spring bodies 34 so as to cover between the opening-closing lid 23 and the container body 11. The provision of the cover 35 described above can seal the gap between the opening-closing lid 23 and the container body 11 and make satisfactory the external appearance, on the rear side, of the openable and closable container 10.

[0047] On the other hand, the container body 11 is formed with a rear step portion 25 on the base end 23a side of the opening-closing lid 23. The rear step portion 25 houses the rear wall 23c of the opening-closing lid 23. The rear step portion 25 extends generally parallel to the swing axis X-X. Both the lateral surfaces of the rear step portion 25 are each provided with an insertion hole 29. Incidentally, the swing axis X-X corresponds to a straight line connecting the two insertion holes 29 together. The columnar projections 26 of the opening-closing lid 23 are inserted into the corresponding insertion holes 29, so that the opening-closing lid 23 is connected to the container body 11 swingably around the swing axis X-X.

[0048] A stopper 30 is provided in the vicinity of each of both ends of the rear step portion 25 so as to project upward from the bottom surface of the rear step portion 25. The stopper 30 is adapted to retain the base end edge portion 23d of the opening-closing lid 23 when the opening-closing lid 23 is brought into the fully opened state. With this, the opening-closing lid 23 biased by the plate rubber 50 is stopped at a given position.

[0049] A sloping portion (a braking portion) 43 is provided in the rear step portion 25 at a position corresponding to the spring body 34 of the opening-closing lid 23. The sloping portion 43 is such that the spring body 34 is slid thereon while being brought into contact with the sloping portion 43 when the opening-closing lid 23 is brought from the open position to the closed position.

[0050] The configuration of the sloping portion (the braking portion) 43 is next described with reference to Figs. 12 to 14. Fig. 12 is a partial cross-sectional view (a cross-sectional view vertical to the swing axis X-X) of the openable and closable container 10 encountered when the opening-closing lid 23 is at the fully closed position. Fig. 13 is a partial cross-sectional view (a cross-sectional view vertical to the swing axis X-X) of the openable and closable container 10 encountered when the opening-closing lid 23 is at the fully opened position. Fig. 14 illustrates a state where the spring body 34 moves along the sloping portion 43 (a cross-sectional view vertical to the swing axis X-X).

[0051] As illustrated in Figs. 12 and 13, the sloping portion 43 is composed of a rib having an arcuate inner surface 43a curved toward the inside (the left direction in Figs. 12 and 13) of the container body 11 as viewed from the lateral surface direction. In addition, the sloping portion 43 is formed such that the distance between the inner surface 43a and the swing axis X-X is gradually reduced from the state where the opening-closing lid 23 is closed toward the state where the opening-closing lid 23 is opened.

[0052] Specifically, as illustrated in Fig. 14, a distance between a lower end portion 43b of the sloping portion 43 and the swing axis X-X is assumed as d_1 . Reference numeral 43c denotes a position (hereinafter, also called the fully opened point 43c) where the sloping portion 43 comes into contact with the spring body 34 when the opening-closing lid 23 is in the fully opened state (see Fig. 13). A distance between the fully opened point 43c and the swing axis X-X is assumed as d_2 .

[0053] In this case, the distance between the inner surface 43a of the sloping portion 43 and the swing axis X-X is gradually reduced from the lower end portion 43b to the fully opened point 43c. In other words, if a distance between the position 43d located between the lower end portion 43b and the fully opened point 43c and the swing axis X-X is assumed as d_3 , the relationship of $d_1 > d_3 > d_2$ is established.

[0054] Incidentally, the sloping portion 43 may be shaped so that the spring body 34 does not come into contact with the inner surface 43a until immediately before the fully opened point 43c. With such a shape, when the opening-closing lid 23 is brought to the opened state from the closed state, the opening-closing lid 23 can be prevented from stopping in the middle of moving toward the fully opened position (the fully opened point 43c).

[0055] Alternatively, the inner surface 43a of the sloping portion 43 may be formed arcuately as illustrated in Fig. 15.

[0056] Incidentally, the shape of the take-out opening 24 (the mouth portion) is not limited to that illustrated in Fig. 1. For example, as illustrated in Fig. 18, flaps 39 may be provided around the take-out opening 24 in the recessed portion 94 provided in the first upper plate 27a.

[0057] A description is next given of the operation of the present embodiment configured as described above.

[0058] When using the wet tissue paper 41, a user first depresses the top plate portion 65 of the operation button 55. This releases the engagement between the retaining piece 32 and the claw portion 66. In this case, the resilience of the plate rubber 50 opens the opening-closing lid 23.

[0059] Specifically, the opening-closing lid 23 is biased by the plate rubber 50 and pivots about the swing axis X-X in the opening direction (in the clockwise direction in Fig. 12).

[0060] During this time, the operation of the spring body 34 and of the sloping portion 43 are as below. First, in the fully closed state illustrated in Fig. 12, the spring

body 34 is at a position away from the rear step portion 25 and sloping portion 43 of the container body 11.

[0061] The opening-closing lid 23 then pivots in the opening direction by the resilience of the plate rubber 50. Along with this turning, also the spring body 34 is shifted toward the sloping portion 43 side and brought into contact with the inner surface 43a of the sloping portion 43 (see Fig. 14).

[0062] Subsequently, the opening-closing lid 23 further pivots and thereby the spring body 34 is raised toward the fully opened point 43c along the inner surface 43a of the sloping portion 43.

[0063] In this case, the distance between the inner surface 43a of the sloping portion 43 and the swing axis X-X is gradually reduced from the lower end portion 43b to the fully opened point 43c as described above. Thus, the spring body 34 is gradually compressed as it is raised along the sloping portion 43 (see Fig. 14). Since the spring body 34 is compressed as described above, the turning speed of the opening-closing lid 23 can be suppressed against the biasing force of the plate rubber 50.

[0064] Thereafter, if the opening-closing lid 23 reaches the fully opened position, the base end edge portion 23d of the opening-closing lid 23 is retained by the stopper 30 to stop the opening-closing lid 23 (see Fig. 13).

[0065] In this case, as illustrated in Fig. 13, the actual shape (denoted with a solid line) of the spring body 34 is more compressed than the original shape (reference numeral 34X) of the spring body denoted with an imaginary line. In this way, the spring body 34 applies the resilience to the sloping portion 43. This can suppress the turning speed of the opening-closing lid 23, whereby the opening-closing lid 23 can moderately be stopped at the fully opened position.

[0066] Next, the wet tissue paper 41 is pinched with fingers and pulled upward out of the take-out opening 24 of the container body 11 for use.

[0067] According to the present embodiment described above, before the opening-closing lid 23 is fully opened, the spring body 34 of the opening-closing lid 23 is gradually compressed along the inner surface 43a of the sloping portion (the braking portion) 43 of the container body 11. This can decelerate the opening-closing lid 23 little by little and gradually stop it at the fully opened position. Thus, after the opening-closing lid 23 comes into contact with the stopper 30, the opening-closing lid 23 can stand still immediately without vibration.

[0068] According to the present embodiment, the mechanism is simple for allowing the opening-closing lid 23 to moderately stop at the fully opened position. Specifically, the spring body 34 can be formed integrally with the opening-closing lid 23 and the sloping portion 43 can be formed integrally with the container body 11. Thus, such a mechanism can be realized with ease and at low cost.

[0069] Modified examples of the present embodiment are next described with reference to Figs. 16(a) to (d) and 17(a) and (b). The modified examples illustrated in

Figs. 16(a) to (d) and 17(a) and (b) are each different from the present embodiment in a configuration, on the base end 23a side, of the opening-closing lid 23. The other configurations are the same as those of the embodiment illustrated in Figs. 1 to 15.

Modified Example 1

[0070] Modified example 1 of the opening-closing lid 23 is first described with reference to Fig. 16(a). In modified example 1 illustrated in Fig. 16(a), rectangular opening portions 31 are formed on the base end 23a side of the opening-closing lid 23. A spring body 34A is composed of the outer circumferential portion of the opening portion 31. In addition, the spring body 34A is composed of a generally turned square U-shaped member projecting outward from the base end edge portion 23d of the opening-closing lid 23. In other words, the spring body 34A includes a horizontal portion 34a₁ parallel to the swing axis X-X, and a pair of connecting portions 34a₂, 34a₃ vertically extending from both corresponding ends of the horizontal portion 34a₁.

Modified Example 2

[0071] Modified example 2 of the opening-closing lid 23 is next described with reference to Fig. 16(b). In modified example 2 illustrated in Fig. 16(b), rectangular opening portions 31 are formed on the base end 23a side of the opening-closing lid 23. A spring body 34B is composed of the outer circumferential portion of the opening portion 31. In addition, the spring body 34B is composed of a linear member extending horizontally along the base end edge portion 23d of the opening-closing lid 23. In other words, the linear spring body 34B is formed flush with the base end edge portion 23d of the opening-closing lid 23.

Modified Example 3

[0072] Modified example 3 of the opening-closing lid 23 is next described with reference to Fig. 16(c). In modified example 3 illustrated in Fig. 16(c), rectangular opening portions 31 are formed on the base end 23a side of the opening-closing lid 23. A spring body 34C is composed of the outer circumferential portion of the opening portion 31. In addition, the spring body 34C is composed of a linear member extending horizontally along the base end edge portion 23d of the opening-closing lid 23 and partially cut away to form cut-away portions 34c₁, which communicate with the corresponding opening portions 31.

Modified Example 4

[0073] Modified example 4 of the opening-closing lid 23 is next described with reference to Fig. 16(d). In modified example 4 illustrated in Fig. 16(d), rectangular open-

ing portions 31 are formed on the base end 23a side of the opening-closing lid 23. A spring body 34D is composed of the outer circumferential portion of the opening portion 31. In addition, the spring body 34D is composed of a generally L-shaped member projecting outward from the base end edge portion 23d of the opening-closing lid 23. In other words, the spring body 34D includes a horizontal portion 34d₁ parallel to the swing axis X-X, and connecting portion 34d₂ vertically extending from one end of the horizontal portion 34d₁. In contrast, the other end side of the horizontal portion 34d₁ is cut away to form a cut-away portion 34d₃, which communicates with the opening portion 31.

15 Modified Example 5

[0074] Modified example 5 of the opening-closing lid 23 is next described with reference to Fig. 17(a). In Fig. 17(a), generally leaf-shaped opening portions 31 are formed on the base end 23a side of the opening-closing lid 23. A spring body 34 is composed of the outer circumferential portion of the opening portion 31. In addition, the spring body 34 is composed of an arched member bending outward from the base end edge portion 23d of the opening-closing lid 23.

[0075] In modified example 5 illustrated in Fig. 17(a), a cover 35 that covers between the opening-closing lid 23 and the container body 11 is provided in the base end edge portion 23d of the opening-closing lid 23 at a portion not provided with the spring body 34, specifically, between a pair of the spring bodies 34. The provision of the cover 35 described above can seal the gap between the opening-closing lid 23 and the container body 11. This can make the external appearance of the rear side of the openable and closable container 10 satisfactory. Incidentally, the cover 35 may be provided on the outside (on each of both the lateral portion 23b sides) of each of the spring bodies 34.

40 Modified Example 6

[0076] Modified example 6 of the opening-closing lid 23 is next described with reference to Fig. 17(b). Referring to Fig. 17(b), similarly to the configuration of modified example 1 described above and illustrated in Fig. 16(a), rectangular opening portions 31 are formed on the base end 23a side of the opening-closing lid 23. A spring body 34A is composed of the outer circumferential portion of the opening portion 31. In addition, the spring body 34A is composed of a generally turned square U-shaped member projecting outward from the base end edge portion 23d of the opening-closing lid 23.

[0077] In modified example 6 illustrated in Fig. 17(b), a cover 35 that covers between the opening-closing lid 23 and the container body 11 is provided in the base end edge portion 23d of the opening-closing lid 23 at a portion not provided with the spring body 34A, specifically, between a pair of the spring bodies 34A. The provision of

the cover 35 as described above can seal the gap between the opening-closing lid 23 and the container body 11. This can make the external appearance of the rear side of the openable and closable container 10 satisfactory. Incidentally, the cover 35 may be provided on the outside (on each of both the lateral portion 23b sides) of each of the spring bodies 34A.

[0078] Incidentally, in each of the embodiments described above, the two spring bodies 34 are provided along the base end edge portion 23d of the opening-closing lid 23. However, the present invention is not limited to this. One or three or more spring bodies 34 may be provided.

[0079] In the meantime, in the present embodiment, the openable and closable container 10 includes the container body (the main body) 11 having the take-out opening 24 and the opening-closing lid 23 opening/closing the take-out opening 24. However, the present invention is not limited to this. For example, the openable and closable container may include a container body, a lid body (a main body) attached to the container body and having a take-out opening, and an opening-closing lid swingably provided on the lid body to open and close the take-out opening of the lid body.

Second Embodiment

[0080] A second embodiment of the present invention will hereinafter be described with reference to the drawings. Figs. 19 to 23 illustrate the second embodiment of the present invention. The second embodiment illustrated in Figs. 19 to 23 is different from the first embodiment in the configurations of the spring body and of the braking portion. The other configurations are almost the same as those of the first embodiment. In Figs. 19 to 23, the same portions as those in the first embodiment illustrated in Figs. 1 to 18 are denoted with like reference numerals and their detailed descriptions are omitted.

[0081] Referring to Fig. 21, the openable and closable container 10 includes a container body 11; an opening-closing lid 23 provided on the container body 11 swingably around a swing axis X-X; and plate rubber (an elastic member) 50 provided between the container body 11 and the opening-closing lid 23. The basic configurations of the container body 11 and of the opening-closing lid 23 are almost the same as those described above and illustrated in Figs. 1 to 5. Their descriptions are here omitted.

[0082] Referring to Figs. 19 to 21, a spring body 45 is formed on each of both lateral portions 23b, on a base end 23a side, of the opening-closing lid 23. The spring body 45 is provided on each of the lateral portions 23b of the opening-closing lid 23 and composed of a member shaped like "C" as viewed from the side. Each of the spring bodies 45 is disposed to encompass the swing axis X-X.

[0083] As illustrated in Figs. 19 and 20, the C-shaped member (hereinafter, also called the C-shaped member 45) constituting the spring body 45 is partially cut away.

Specifically, a portion, of the C-shaped member 45, adjacent to the lateral portion 23b of the opening-closing lid 23 is cut away to form a space portion 46 thereat.

[0084] More specifically, as illustrated in Fig. 22, the C-shaped member 45 has, on its upper side, a securing portion 45a directly connected to the opening-closing lid 23. In contrast, the lower portion of the C-shaped member 45 forms an elastic portion 45b away from the opening-closing lid 23 via the cut-away space portion 46.

[0085] In the present embodiment, the angle of the securing portion 45a is about 180° with the swing axis X-X centered. The angle of the elastic portion 45b is about 140°. However, the present invention is not limited to this.

[0086] A plurality of (three in the embodiment) projections 48a to 48c in contact with an inner surface 47c of a tubular body 47 to be described later are provided on an outer circumference 45c of the C-shaped member 45. Each of the projections 48a to 48c extends parallel to the swing axis X-X and has a generally semicircular shape in cross-section. Incidentally, of the three projections 48a to 48c the projection 48a is provided on the elastic portion 45b. The other projections 48b, 48c are provided on the securing portion 45a. However, the number and positions of the projections 48a to 48c are not limited to this.

[0087] The projections 48a to 48c are provided on the outer circumference 45c of the C-shaped member 45 as described above. Therefore, it is possible to prevent the C-shaped member 45 from loosely moving in the tubular body 47 when the opening-closing lid 23 is operatively opened or closed. Thus, the opening-closing lid 23 can be opened or closed stably.

[0088] On the other hand, as illustrated in Figs. 19 and 21, a tubular body (a braking portion) 47 encompassing an outer circumference of the C-shaped member 45 is provided on the container body 11 side. The tubular body 47 extends parallel to the swing axis X-X and is designed to internally receive the C-shaped member 45 of the opening-closing lid 23 inserted thereto. The tubular body 47 has an inner surface 47c in contact with the above-mentioned projections 48a to 48c.

[0089] As illustrated in Fig. 22, the tubular body 47 consists of an isometric portion 47a having a uniform radius R_1 with the swing axis X-X centered and a diameter-reducing portion 47b whose radius is gradually reduced from R_1 to R_2 ($< R_1$) with the swing axis X-X centered. Specifically, in the diameter-reducing portion 47b, a distance between the inner surface 47c and the swing axis X-X is gradually reduced from the state where the opening-closing lid 23 is closed to the state where the opening-closing lid 23 is opened.

[0090] In the present embodiment, if the swing axis X-X is assumed as a center, the isometric portion 47a has an angle of approximately 260° and the diameter-reducing portion 47b has an angle of approximately 100°. However, the present invention is not limited to this.

[0091] A description is next given of the operation of the present embodiment configured as described above.

[0092] If a user first depresses the operation button

55, the engagement between the retaining piece 32 and the claw portion 66 is released (see Fig. 1). In this case, the resilience of the plate rubber 50 opens the opening-closing lid 23.

[0093] In this case, the opening-closing lid 23 is biased by the plate rubber 50 and pivots about the swing axis X-X in the opening direction (in the counterclockwise direction in Figs. 23(a) and (b)). Incidentally, Fig. 23(a) illustrates the relationship between the C-shaped member 45 and the tubular body 47 in the fully closed state. Fig. 23(b) illustrates the relationship between the C-shaped member 45 and the tubular body 47 in the fully opened state.

[0094] In this period, the operation of the C-shaped member 45 and of the tubular body 47 are as below. In the fully-closed state illustrated in Fig. 23(a), the elastic portion 45b of the C-shaped member 45 does not get distorted.

[0095] The opening-closing lid 23 then pivots in the opening direction by the resilience of the plate rubber 50. Along with this, also the C-shaped member 45 turns in the tubular body 47 in the opening direction (in the direction denoted with an arrow in Fig. 23(a)). That is, the projections 48a to 48c provided on the outer circumference 45c of the C-shaped member 45 are slid along the inner surface 47c of the tubular body 47.

[0096] Subsequently, the opening-closing lid 23 further pivots and thereby the projection 48a provided on the elastic portion 45b of the C-shaped member 45 reaches the diameter-reducing portion 47b. Further, the projection 48a of the elastic portion 45b is slid on the inner surface 47c of the tubular body 47 along the diameter-reducing portion 47b.

[0097] In this case, the distance between the inner surface 47c and the swing axis X-X in the diameter-reducing portion 47b of the tubular body 47 is gradually reduced from the state where the opening-closing lid 23 is closed toward the state where the opening-closing lid 23 is opened, as described above. Thus, the elastic portion 45b of the C-shaped member 45 is gradually distorted inwardly as the projection 48a on the elastic portion 45b is moved along the inner surface 47c of the diameter-reducing portion 47b (see Fig. 23(b)). Since the C-shaped member 45 is distorted as described above, the turning speed of the opening-closing lid 23 can be suppressed against the biasing force of the plate rubber 50.

[0098] Thereafter, when the opening-closing lid 23 reaches the fully opened position, the base end edge portion 23d of the opening-closing lid 23 comes into contact with the stopper 30 to stop the opening-closing lid 23.

[0099] In this case, as illustrated in Fig. 23(b), the actual shape (denoted with a solid line) of the elastic portion 45b is more distorted than the original shape of the elastic portion 45b denoted with an imaginary line. In this way, the elastic portion 45b of the C-shaped member 45 applies the resilience to the tubular body 47. This can suppress the turning speed of the opening-closing lid 23, whereby the opening-closing lid 23 can moderately be

stopped at the fully opened position.

[0100] Next, the wet tissue paper 41 is pinched with fingers and pulled upward out of the take-out opening 24 of the container body 11 for use.

[0101] As described above, according to the present embodiment, before the opening-closing lid 23 is fully opened, the elastic portion 45b of the C-shaped member 45 of the opening-closing lid 23 is gradually distorted inwardly while moving along the inner surface 47c of the tubular body 47 of the container body 11. This can decelerate the opening-closing lid 23 little by little and moderately stop it at the fully opened position. Thus, after the opening-closing lid 23 comes into contact with the stopper 30, the opening-closing lid 23 can stand still immediately without vibration.

[0102] According to the present embodiment, the mechanism is simple for allowing the opening-closing lid 23 to moderately stop at the fully opened position. Specifically, the C-shaped member 45 can be formed integrally with the opening-closing lid 23 and the tubular body 47 can be formed integrally with the container body 11. Thus, such a mechanism can be realized with ease and at low cost.

[0103] Incidentally, in the present embodiment, the tubular body 47 projects from the lateral surface of the rear step portion 25 of the container body 11 toward the inside. However, the present invention is not limited to this. The tubular body 47 may be formed of a tubular recessed portion formed in the lateral surface of the rear step portion 25.

[0104] Incidentally, in the present embodiment, the C-shaped member 45 and the tubular body 47 are provided on each of both the lateral portion 23b sides of the opening-closing lid 23. However, the present invention is not limited to this. The C-shaped member 45 and the tubular body 47 may be provided on only one of both the lateral portion 23b sides.

Third Embodiment

[0105] A third embodiment of the present invention will hereinafter be described with reference to the drawings. Figs. 24 and 25 illustrate the third embodiment of the present invention. The third embodiment illustrated in Figs. 24 and 25 are different from the first embodiment in the configurations of the spring body and of the braking portion. The other configurations of the third embodiment are almost the same as those in the first embodiment. In Figs. 24 and 25, the same portions as those in the first embodiment illustrated in Figs. 1 to 18 are denoted with like reference numerals and their explanations are here omitted.

[0106] Referring to Fig. 24, the openable and closable container 10 includes a container body 11; an opening-closing lid 23 provided on the container body 11 swingably around a swing axis X-X; and plate rubber (an elastic member) 50 provided between the container body 11 and the opening-closing lid 23. The basic configurations of

the container body 11 and of the opening-closing lid 23 are almost the same as those described above and illustrated in Figs. 1 to 5. Their detailed descriptions are omitted.

[0107] As illustrated in Figs. 24 and 25, a pair of slits 52a, 52b extending longitudinally (in a direction vertical to the swing axis X-X) is formed at each of both ends, on a base end 23a side, of the opening-closing lid 23. A spring body 53 composed of a tongue piece (hereinafter, also called the tongue piece 53) is formed between the pair of slits 52a, 52b. In short, the tongue pieces 53 are formed at both the respective ends, on the base end 23a side, of the opening-closing lid 23.

[0108] A columnar projection 26 projecting outward is provided at each of both lateral portions 23b, on the base end 23a side, of the opening-closing lid 23. In contrast, a circular insertion hole 29 is formed in each of both the lateral surfaces of a rear step portion 25 of the container body 11 so as to correspond to the associated columnar projection 26. The opening-closing lid 23 is connected to the container body 11 swingably around the swing axis X-X by inserting the columnar projections 26 of the opening-closing lid 23 into the corresponding insertion holes 29 of the container body 11.

[0109] Although not illustrated in Figs. 24 and 25, a stopper 30 is provided on the rear step portion 25. The stopper 30 is adapted to stop the opening-closing lid 23 at a predetermined position when the opening-closing lid 23 is brought into the fully opened state.

[0110] As illustrated in Fig. 25, a sloping portion (a braking portion) 54 is further provided at a position, in the rear step portion 25, corresponding to at least the tongue piece 53 of the opening-closing lid 23. The sloping portion 54 is adapted to allow the tongue piece 53 to come into contact therewith and slide thereon when the opening-closing lid 23 is brought from the open position to the closed position.

[0111] The sloping portion 54 has an arcuate inner surface 54a bending inwardly as viewed from the lateral surface direction. In addition, the sloping portion 54 is formed such that the distance between the inner surface 54a and the swing axis X-X is gradually reduced from the state where the opening-closing lid 23 is closed toward the state where the opening-closing lid 23 is opened.

[0112] Incidentally, Fig. 25 is a partial cross-sectional perspective view of the openable and closable container 10 as viewed from the front side with the opening-closing lid 23 removed from the container body 11 for convenience.

[0113] A description is next given of the operation of the present embodiment configured as described above.

[0114] If a user first depresses the operation button 55, the engagement between the retaining piece 32 and the claw portion 66 is released (see Fig. 1). In this case, the resilience of the plate rubber 50 opens the opening-closing lid 23.

[0115] In this case, the opening-closing lid 23 is biased by the plate rubber 50 and pivots about the swing axis

X-X in the opening direction (in the clockwise direction indicated with an arrow in Fig. 25).

[0116] In this period, the operation of the tongue piece 53 and of the sloping portion 54 are as below. In the state where the opening-closing lid 23 is fully closed, first, the tongue piece 53 is at a position away from the rear step portion 25 and sloping portion 54 of the container body 11.

[0117] The opening-closing lid 23 then pivots in the opening direction by the resilience of the plate rubber 50. Along with this, also the tongue piece 53 is shifted toward the sloping portion 54 side and brought into contact with the inner surface 54a of the sloping portion 54.

[0118] Subsequently, the opening-closing lid 23 further pivots and thereby the tongue piece 53 is raised toward a fully opened point 54c along the inner surface 54a of the sloping portion 54.

[0119] In this case, the distance between the inner surface 54a of the sloping portion 54 and the swing axis X-X is gradually reduced from the lower end portion 54b to the fully opened point 54c. In this way, the tongue piece 53 is gradually distorted as it is raised along the sloping portion 54. As described above, the distortion of the tongue piece 53 suppresses the turning speed of the opening-closing lid 23 against the biasing force of the plate rubber 50.

[0120] Thereafter, when the opening-closing lid 23 reaches the fully opened position, the base end edge portion 23d of the opening-closing lid 23 is retained by the stopper 30 not illustrated to stop the opening-closing lid 23. In this case, the tongue piece 53 is being distorted by the sloping portion 54. In this way, the tongue piece 53 applies the resilience to the sloping portion 54 to suppress the turning speed of the opening-closing lid 23, whereby the opening-closing lid 23 can moderately be stopped at the fully opened position.

[0121] Next, the wet tissue paper 41 is pinched with fingers and pulled upward out of the take-out opening 24 of the container body 11 for use.

[0122] According to the present embodiment as described above, before the opening-closing lid 23 is fully opened, the tongue piece 53 of the opening-closing lid 23 is gradually distorted along the inner surface 54a of the sloping portion (the braking portion) 54 of the container body 11. This can decelerate the opening-closing lid 23 little by little and moderately stop it at the fully opened position. Thus, after the opening-closing lid 23 is retained by the stopper 30, the opening-closing lid 23 can stand still immediately without vibration.

[0123] According to the present embodiment, the mechanism is simple for allowing the opening-closing lid 23 to moderately stop at the fully opened position. Specifically, the tongue piece 53 can be formed integrally with the opening-closing lid 23 and the sloping portion 54 can be formed integrally with the container body 11. Thus, such a mechanism can be realized with ease and at low cost.

[0124] Incidentally, in the present embodiment de-

scribed above, the tongue piece 53 is provided on both sides of the opening-closing lid 23. However, the present invention is not limited to this. The tongue piece 53 may be provided at only one position of the opening-closing lid 23.

Fourth Embodiment

[0125] A fourth embodiment of the present invention will hereinafter be described with reference to the drawings. Figs. 26 and 27 illustrate the fourth embodiment of the present invention. The fourth embodiment illustrated in Figs. 26 and 27 is different from the first embodiment in the configurations of the spring body and of the stopper portion. The other configurations of the fourth embodiment are almost the same as those in the first embodiment. In Figs. 26 and 27, the same portions as those in the first embodiment illustrated in Figs. 1 to 18 are denoted with like reference numerals and their detailed descriptions are here omitted.

[0126] Referring to Fig. 26, the openable and closable container 10 includes a container body 11; an opening-closing lid 23 provided on the container body 11 swingably around a swing axis X-X; and plate rubber (an elastic member) 50 provided between the container body 11 and the opening-closing lid 23. The basic configurations of the container body 11 and of the opening-closing lid 23 are almost the same as those described above and illustrated in Figs. 1 to 5. Their explanations are omitted.

[0127] Referring to Figs. 26 and 27, the opening-closing lid 23 has an L-shaped slit 61 formed at each of opposite ends, on the base end 23a side, of the opening-closing lid 23. A spring body 62 (hereinafter, also called a lateral piece 62) composed of a lateral piece that extends in a lateral direction (in a direction parallel to the swing axis X-X) is formed along the L-shaped slit 61. Specifically, each of the lateral pieces 62 extends horizontally along the base end edge portion 23d of the opening-closing lid 23, projects toward both lateral portion 23b sides of the opening-closing lid 23, and has elasticity (springiness).

[0128] Referring to Fig. 27, a columnar projection 26 projecting outward is provided at each of both lateral portions 23b, on the base end 23a side, of the opening-closing lid 23. In contrast, a circular insertion hole 29 is formed in each of both the lateral surfaces of a rear step portion 25 of the container body 11 so as to correspond to the associated columnar projection 26. The opening-closing lid 23 is connected to the container body 11 swingably around the swing axis X-X by inserting the circular projections 26 of the opening-closing lid 23 into the corresponding insertion holes 29 of the container body 11.

[0129] As illustrated in Fig. 27, a stopper portion 63 having an inverse-L shape in cross-section is provided on the rear step portion 25 of the container body 11 at a position corresponding to the associated lateral piece 62. The stopper portion 63 comes into elastic contact with

the lateral piece 62 to stop the opening of the opening-closing lid 23 when the opening-closing lid 23 is brought into the fully opened state.

[0130] A description is next given of the operation of the present embodiment configured as described above.

[0131] If a user depresses the operation button 55, the engagement between the retaining piece 32 and the claw portion 66 is released (see Fig. 1). In this case, the resilience of the plate rubber 50 opens the opening-closing lid 23.

[0132] In this case, the opening-closing lid 23 is biased by the plate rubber 50 and pivots about the swing axis X-X in the opening direction (in the direction indicated with an arrow in Fig. 27).

[0133] Thereafter, when the opening-closing lid 23 reaches the fully opened position, the lateral piece 62 of the opening-closing lid 23 comes into contact with the stopper portion 63 to stop the opening-closing lid 23. In this case, since the lateral piece 62 has springiness, the lateral piece 62 comes into elastic contact with the stopper portion 63.

[0134] Because of coming into elastic contact with the stopper portion 63 as described above, the lateral piece 62 plays a role of a shock absorber. In this way, the opening-closing lid 23 can moderately be stopped at the fully opened position.

[0135] Next, the wet tissue paper 41 is pinched with fingers and pulled upward out of the take-out opening 24 of the container body 11 for use.

[0136] According to the present embodiment as described above, the spring body (the lateral piece) 62 comes into elastic contact with the stopper portion 63 to absorb an impact resulting from the collision of the opening-closing lid 23. This can allow the opening-closing lid 23 to moderately stop at the fully opened position. Thus, after the opening-closing lid 23 is retained by the stopper portion 63, the opening-closing lid 23 can stand still immediately without vibration.

[0137] According to the present embodiment, the mechanism is simple for allowing the opening-closing lid 23 to moderately stop at the fully opened position. Specifically, the lateral piece 62 can be formed integrally with the opening-closing lid 23 and the stopper portion 63 can be formed integrally with the container body 11. Thus, such a mechanism can be realized with ease and at low cost.

[0138] Incidentally, in the present embodiment, the lateral piece 62 and the stopper portion 63 are provided on both the sides of the opening-closing lid 23. However, the present invention is not limited to this. The lateral piece 62 and the stopper portion 63 may be provided on only one side of the opening-closing lid 23.

Claims

1. An openable and closable container comprising:

- a main body having a take-out opening;
 an opening-closing lid provided on the main
 body swingably about a swing axis on a base
 end side of the lid, the opening-closing lid open-
 ing and closing the take-out opening; and
 an elastic member provided between the main
 body and the opening-closing lid;
 wherein a spring body is provided on the base
 end side of the opening-closing lid and a braking
 portion with which the spring body comes into
 contact is provided on a main body side; and
 wherein, as the opening-closing lid opens, the
 opening-closing lid pivots toward a fully opened
 position to bring the spring body into contact with
 the braking portion, thereby allowing the open-
 ing-closing lid to stand still at the fully opened
 position.
2. The openable and closable container according to
 claim 1,
 wherein the opening-closing lid is formed with an
 opening portion on the base end side and the spring
 body is composed of an outer circumferential portion
 of the opening portion.
 3. The openable and closable container according to
 claim 2,
 wherein the spring body is composed of an arcuate
 member bending outward from a base end edge por-
 tion of the opening-closing lid.
 4. The openable and closable container according to
 claim 2,
 wherein the spring body is composed of a generally
 turned square U-shaped member projecting outward
 from a base end edge portion of the opening-closing
 lid.
 5. The openable and closable container according to
 claim 2,
 wherein the spring body is composed of a linear
 member extending horizontally along a base end
 edge portion of the opening-closing lid.
 6. The openable and closable container according to
 claim 4,
 wherein the spring body is partially cut away to form
 a cut-away portion, the cut-away portion communi-
 cating with the opening portion.
 7. The openable and closable container according to
 claim 3,
 wherein a cover is provided at part of the base end
 edge portion of the opening-closing lid for covering
 a space between the opening-closing lid and the
 main body, wherein the spring body is not formed at
 the part of the base end edge portion.
 8. The openable and closable container according to
 claim 2,
 wherein the braking portion is composed of a rib hav-
 ing an arcuate inner surface bending inward, as
 viewed from the side.
 9. The openable and closable container according to
 claim 1,
 wherein the spring body is composed of a C-shaped
 member provided to encompass the swing axis in a
 lateral portion of the opening-closing lid, the C-
 shaped member being partially cut away on an open-
 ing-closing lid side;
 wherein the braking portion is composed of a tubular
 body encompassing an outer circumference of the
 spring body; and
 wherein, as the opening-closing lid opens, the open-
 ing-closing lid pivots toward the fully opened position
 to bring the spring body into contact with the braking
 portion, thereby allowing the opening-closing lid to
 stand still at the fully opened position.
 10. The openable and closable container according to
 claim 9,
 wherein the spring body composed of the C-shaped
 member is provided, on an outer circumference of
 the spring body, with a plurality of projections in con-
 tact with an inner surface of the tubular body.
 11. The openable and closable container according to
 claim 1,
 wherein a pair of longitudinally extending slits is
 formed on the base end side of the opening-closing
 lid and the spring body is composed of a tongue piece
 formed between the pair of slits.
 12. The openable and closable container according to
 claim 11,
 wherein the spring body composed of the tongue
 piece is formed at each of both ends, on the base
 end side, of the opening-closing lid.
 13. An openable and closable container comprising:
 a main body having a take-out opening;
 an opening-closing lid provided on the main
 body swingably about a swing axis on a base
 end side, the opening-closing lid opening and
 closing the take-out opening; and
 an elastic member provided between the main
 body and the opening-closing lid,
 wherein a spring body is provided on the base
 end side of the opening-closing lid and a stopper
 portion for stopping opening of the opening-clos-
 ing lid is provided on a main body side; and
 wherein, as the opening-closing lid opens, the
 opening-closing lid pivots toward a fully opened
 position to bring the spring body into elastic con-

tact with the stopper portion, thereby allowing the opening-closing lid to stand still at the fully opened position.

14. The openable and closable container according to claim 13,
wherein the opening-closing lid has an L-shaped slit formed on the base end side of the opening-closing lid and the spring body is composed of a lateral piece extending in a lateral direction along the L-shaped slit.

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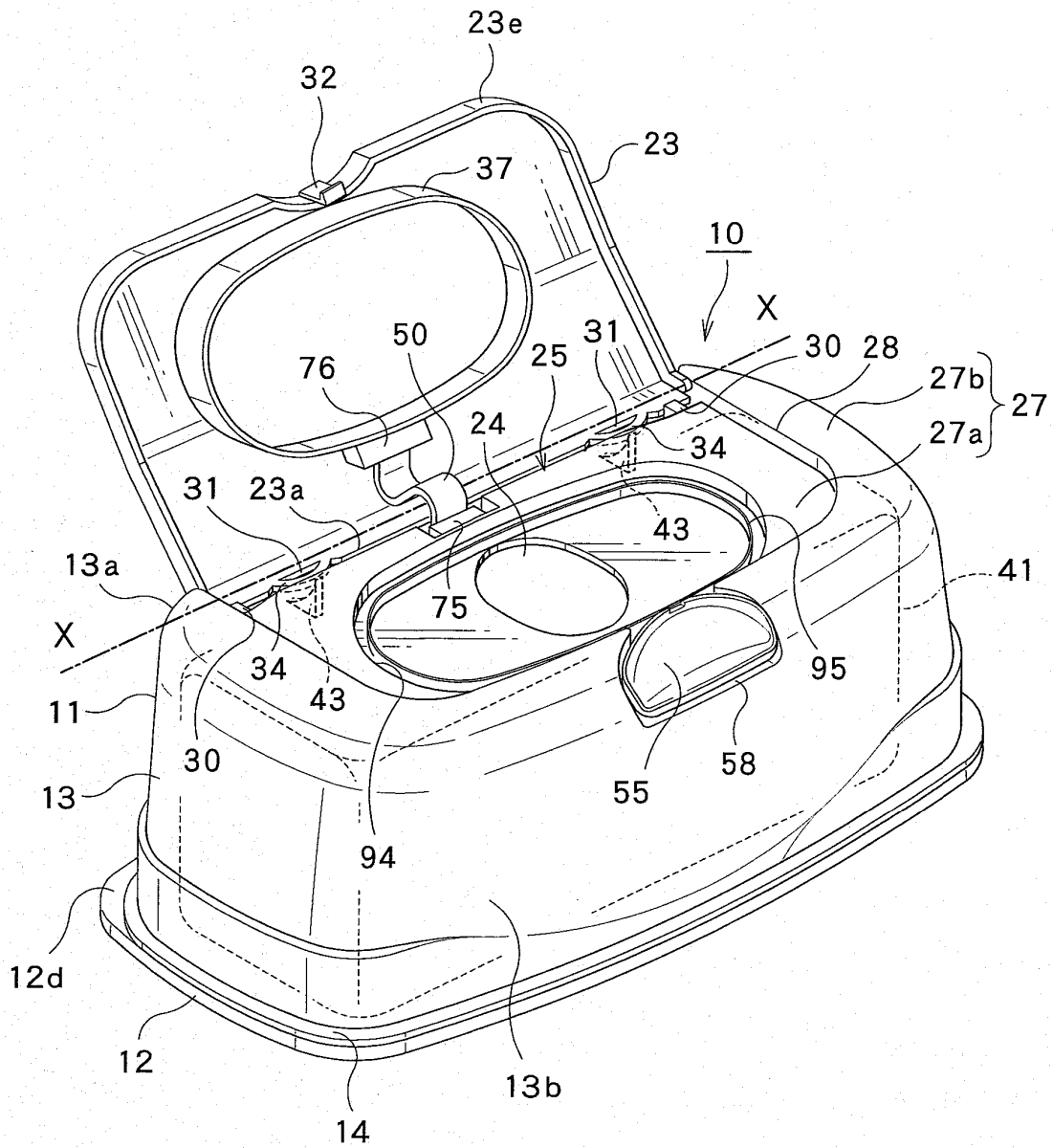


FIG.1

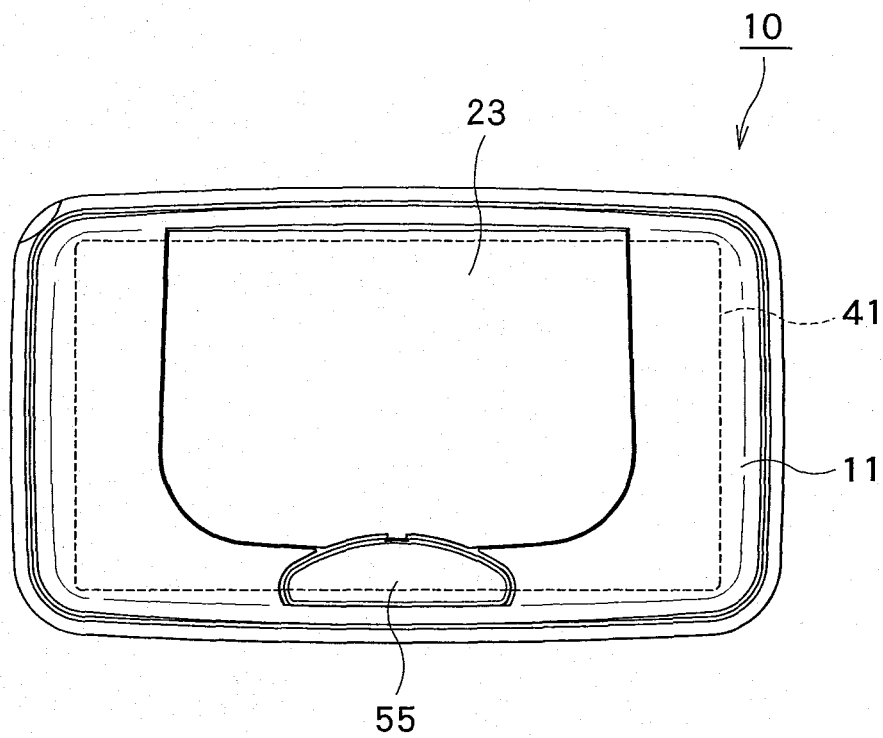


FIG. 2

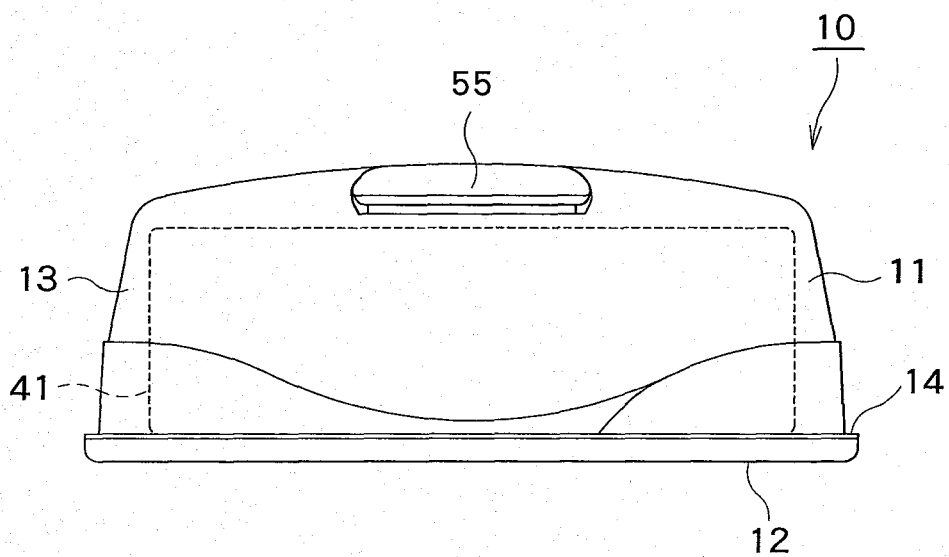


FIG. 3

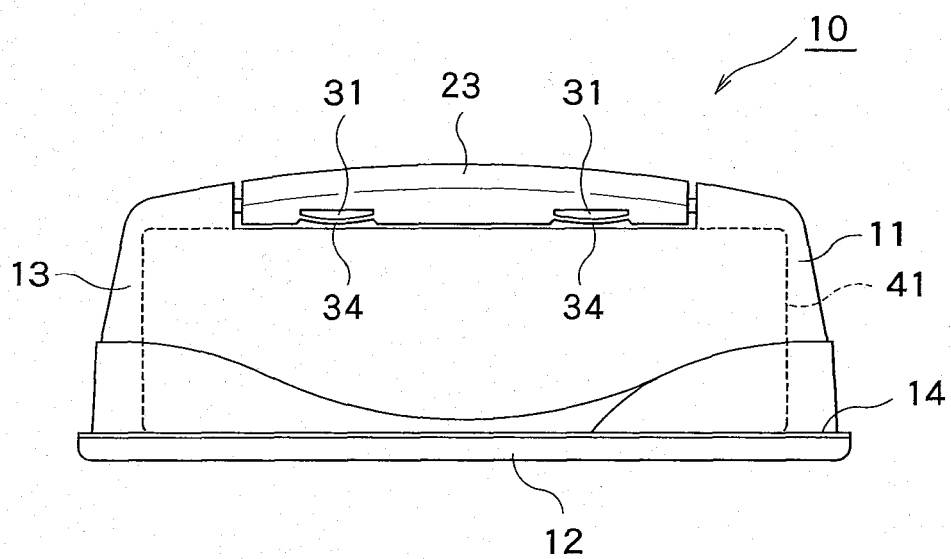


FIG. 4

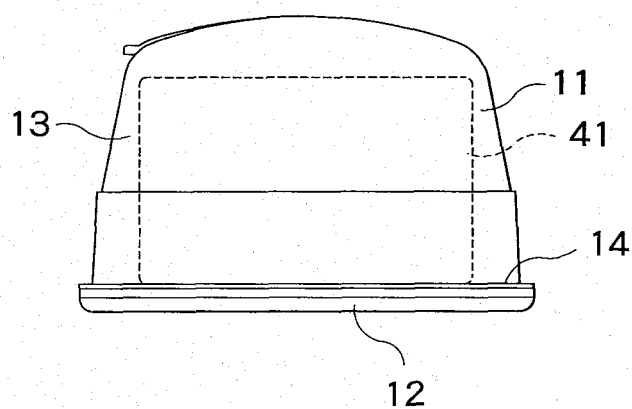


FIG. 5

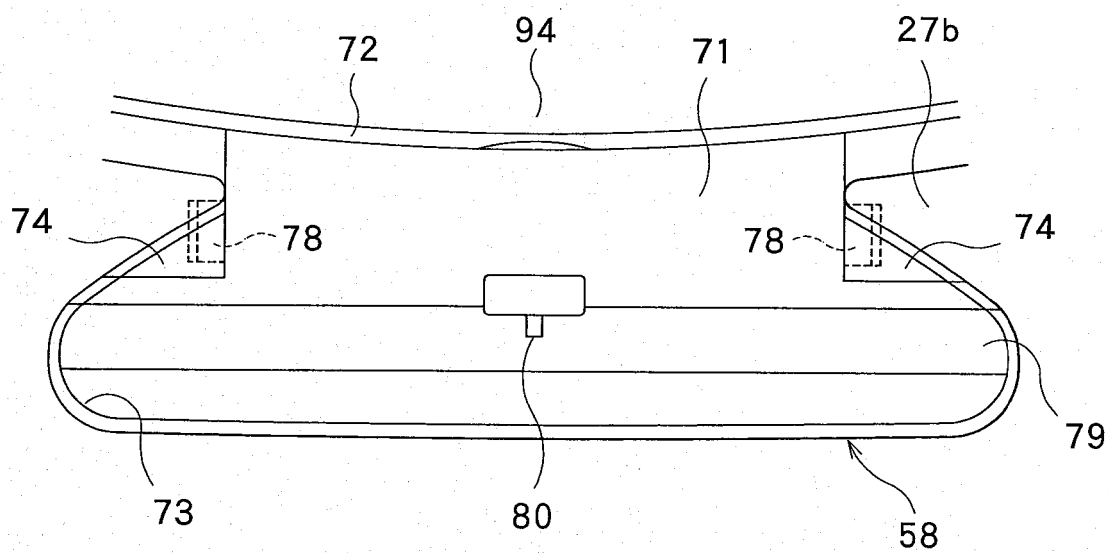


FIG. 6

FIG.7

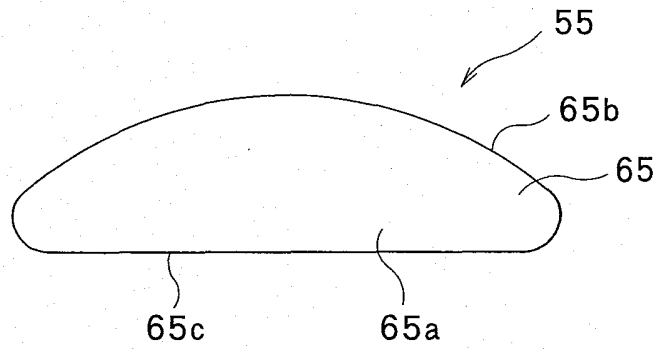


FIG.8

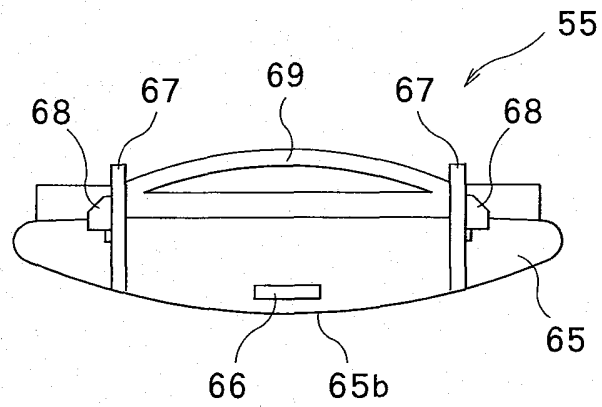


FIG.9

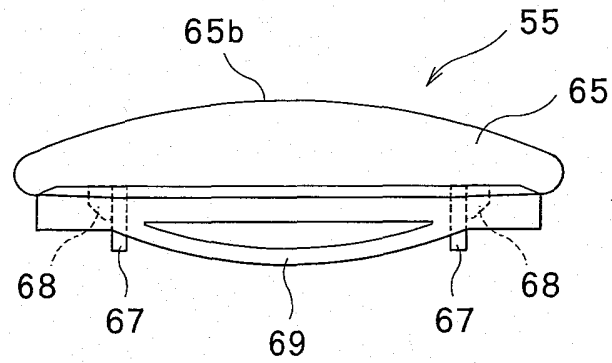
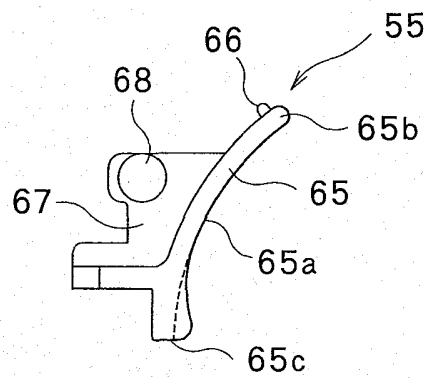


FIG.10



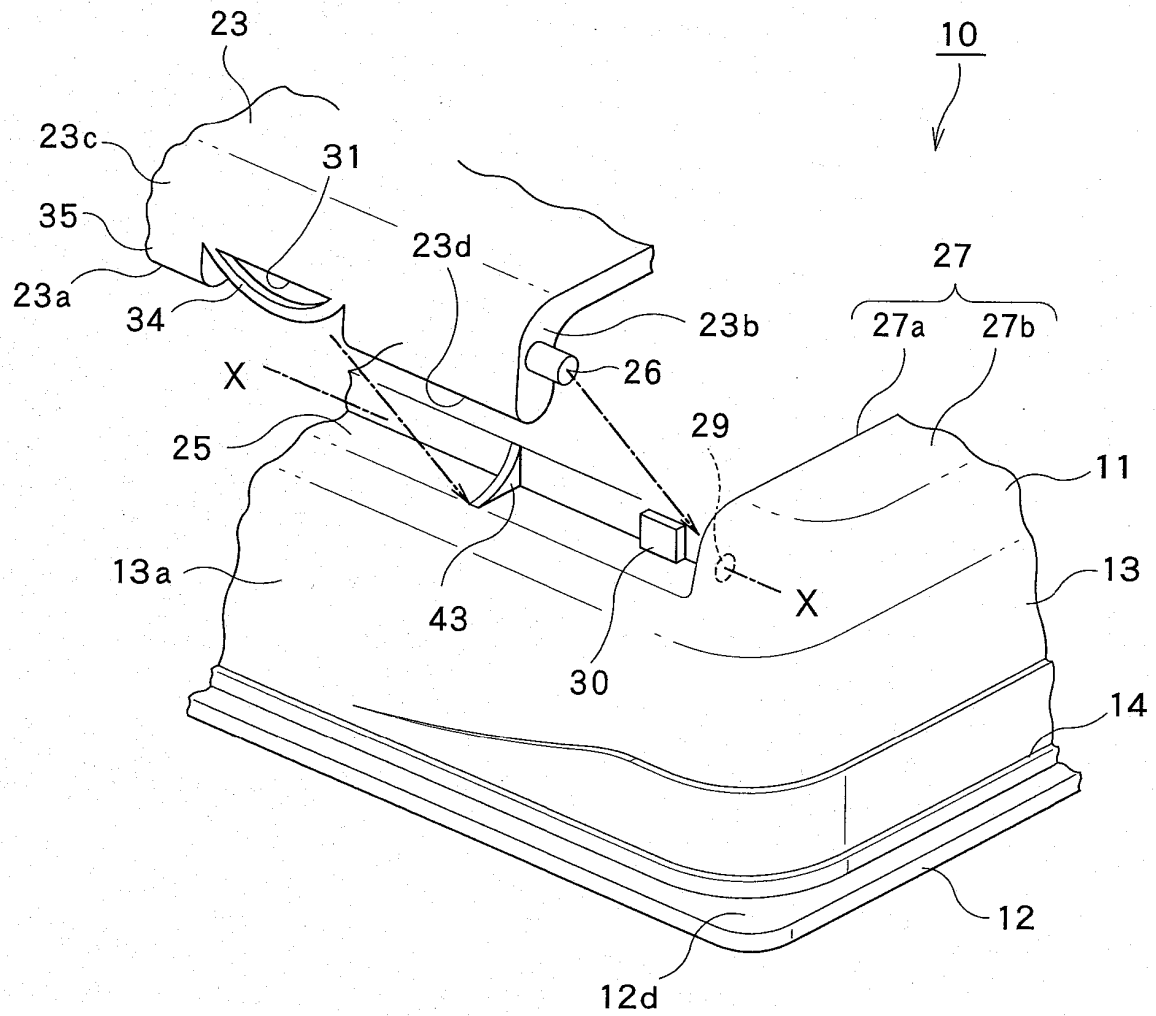


FIG.11

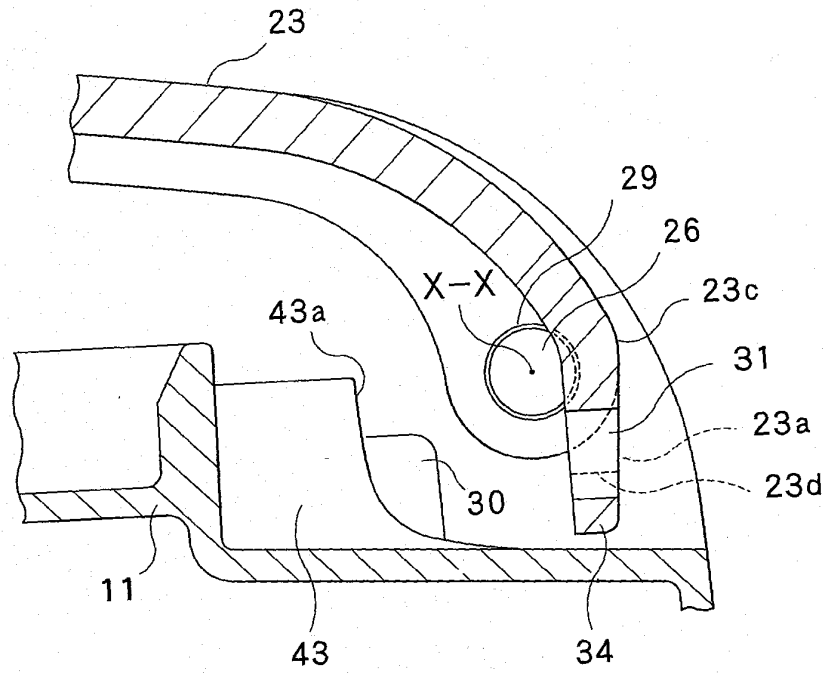


FIG.12

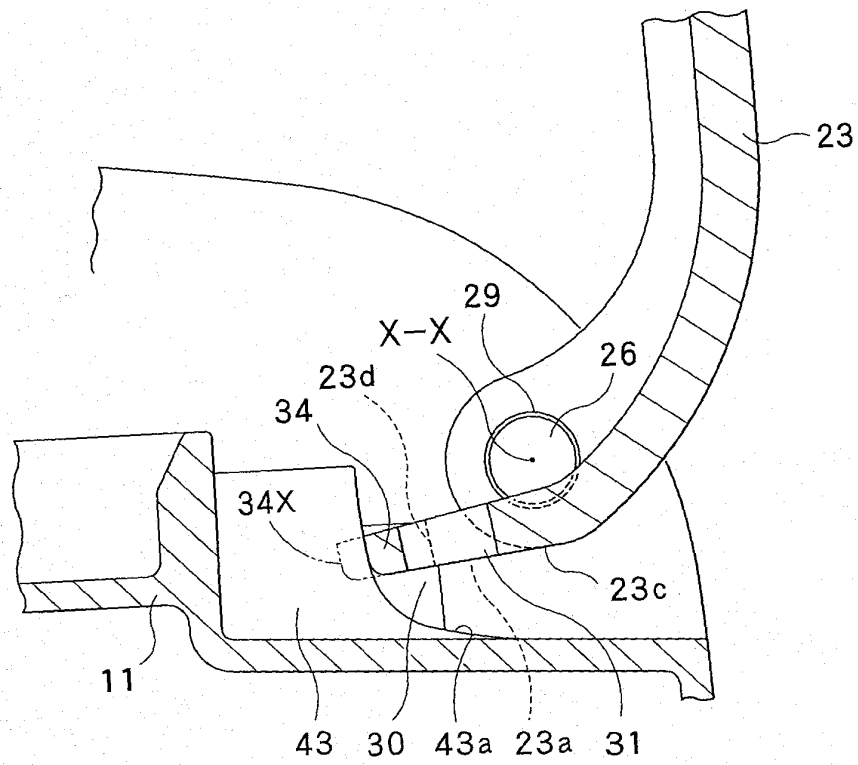


FIG.13

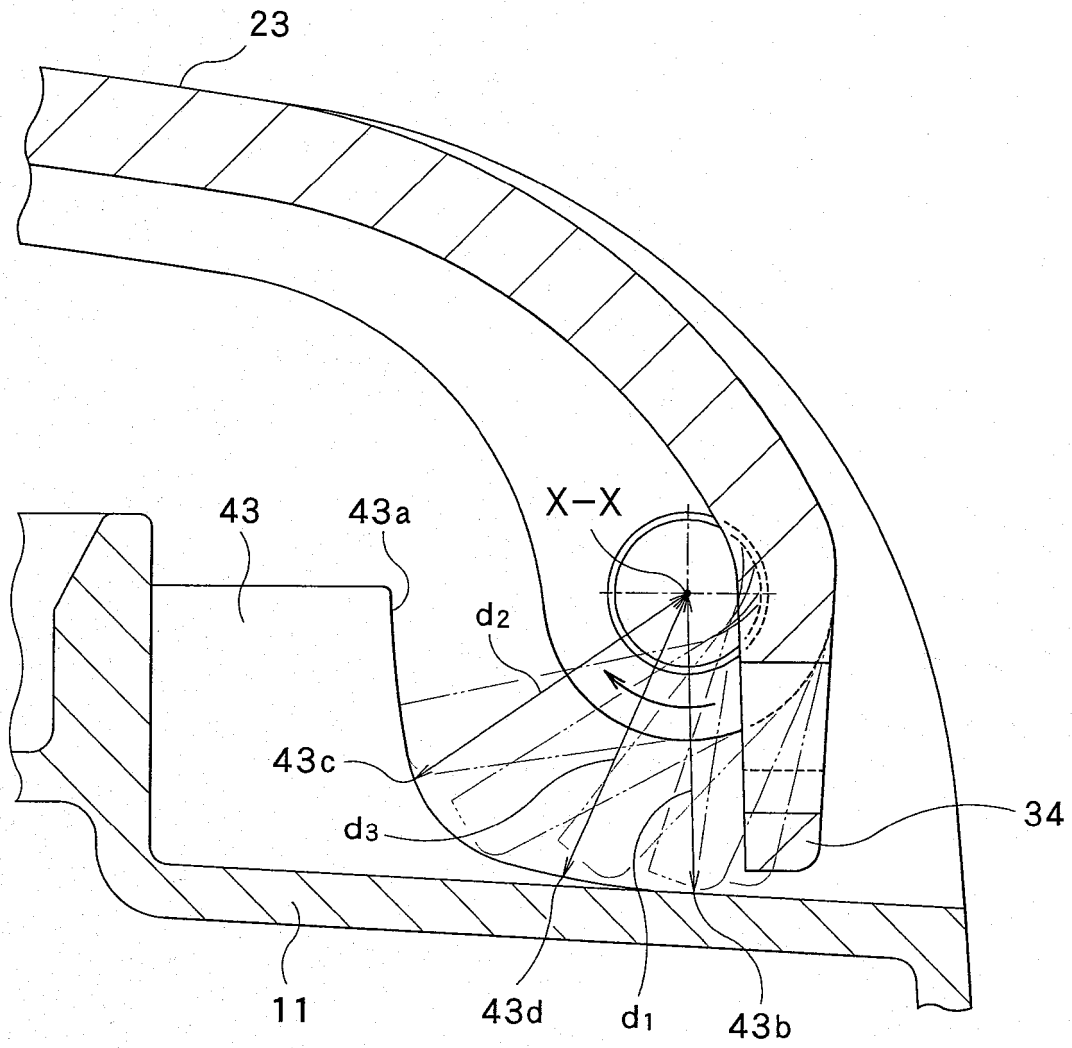


FIG.14

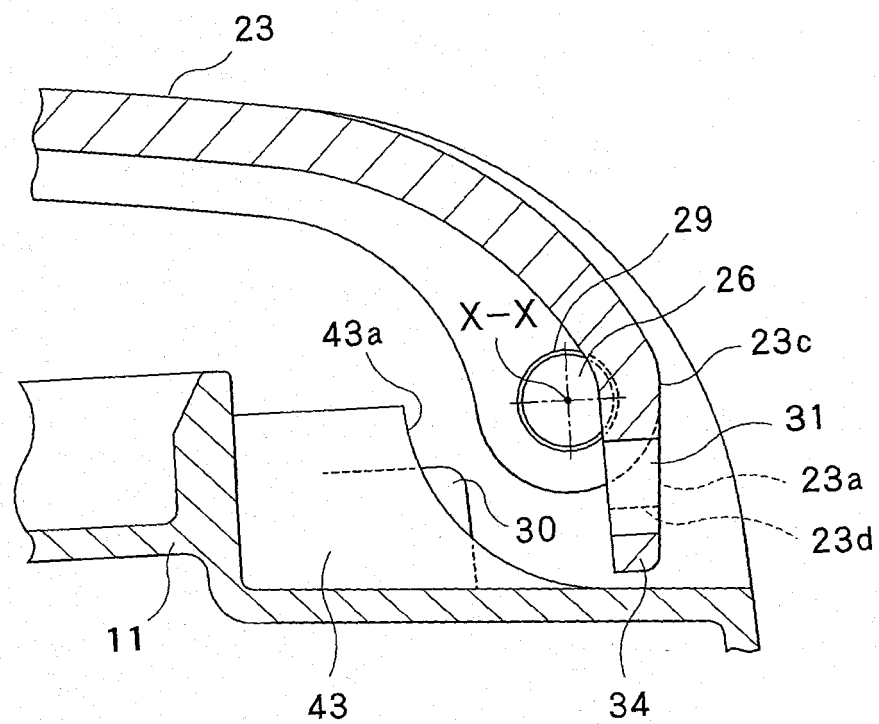


FIG.15

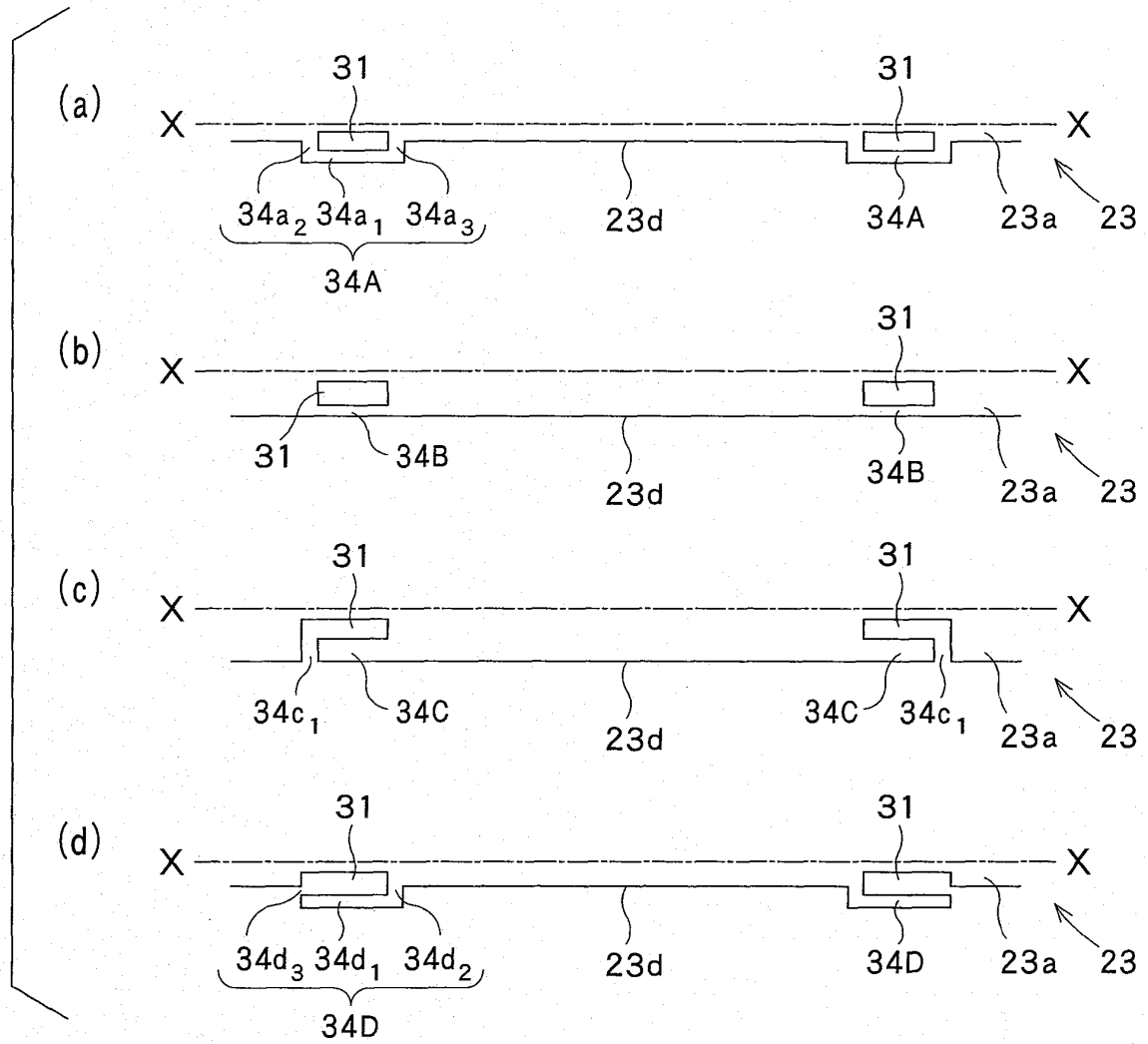


FIG. 16

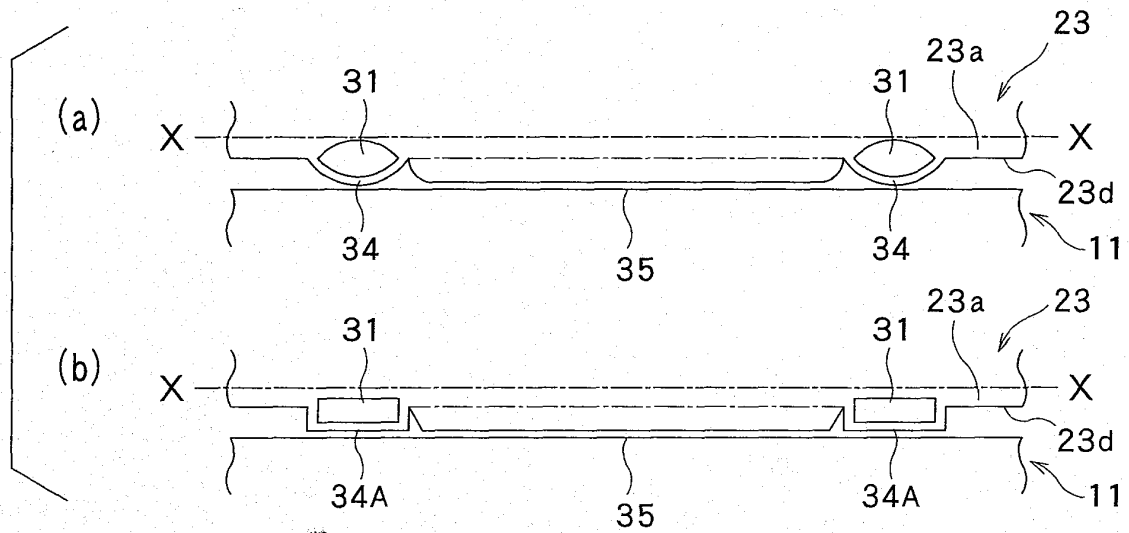


FIG. 17

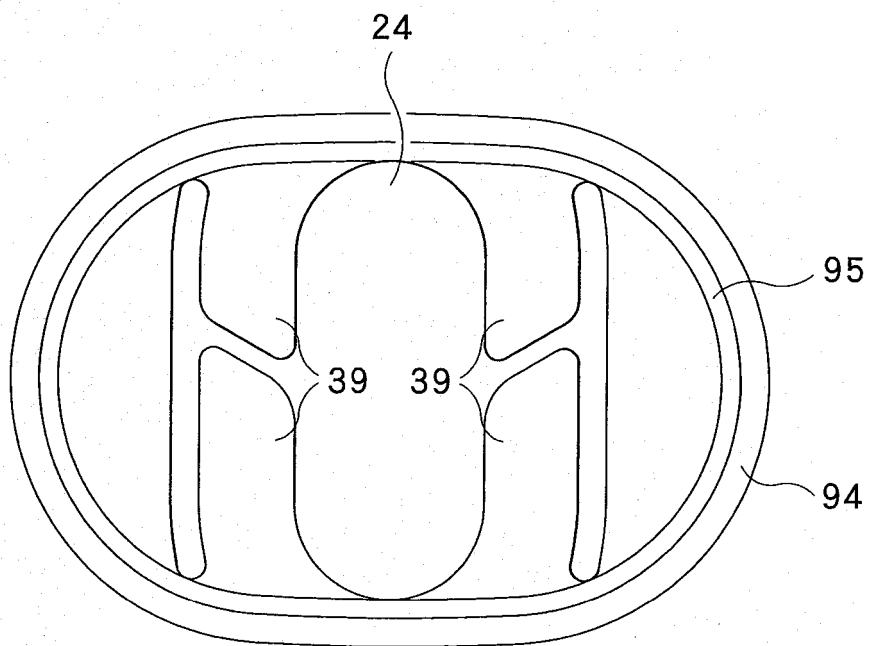


FIG.18

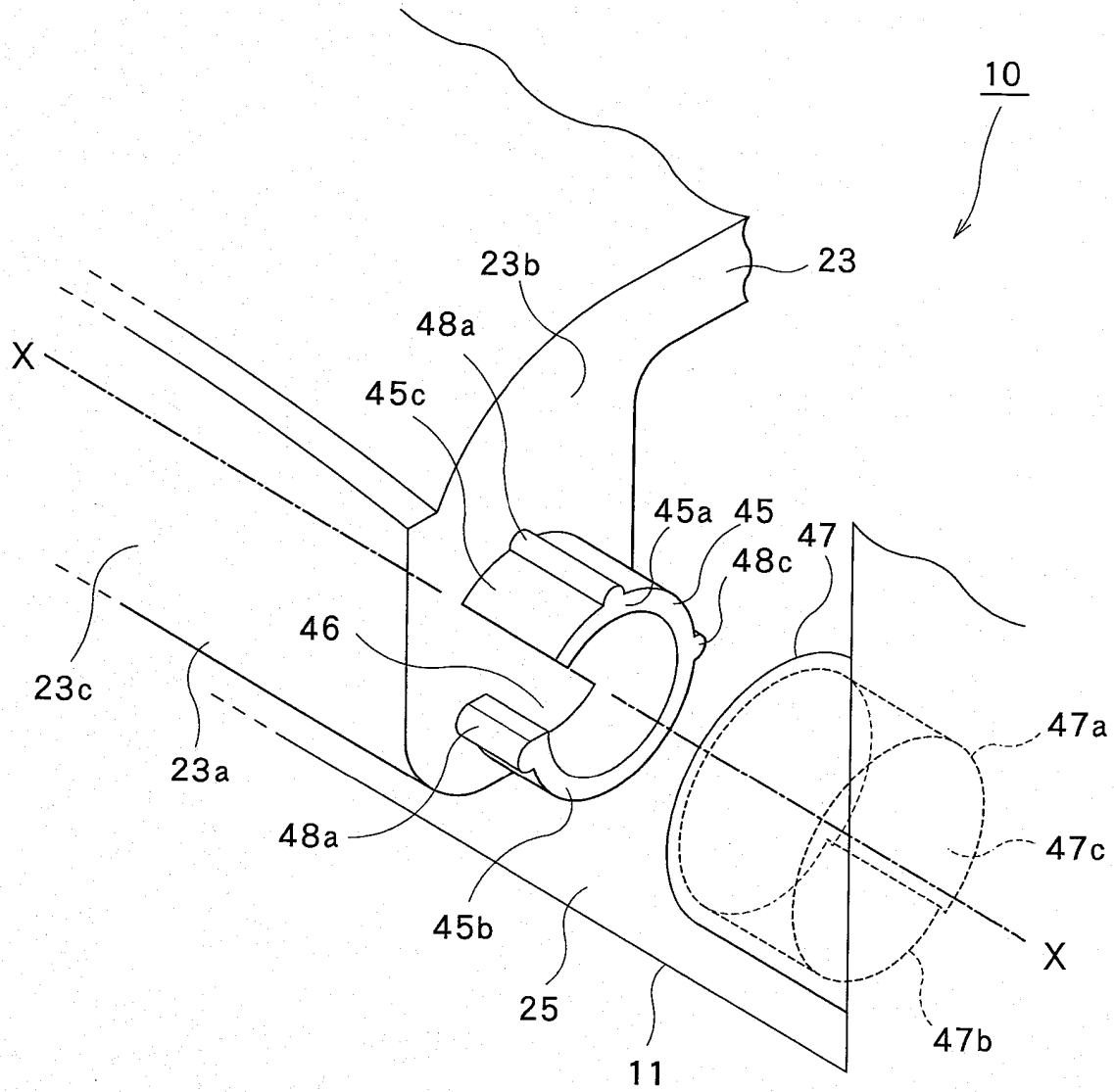


FIG. 19

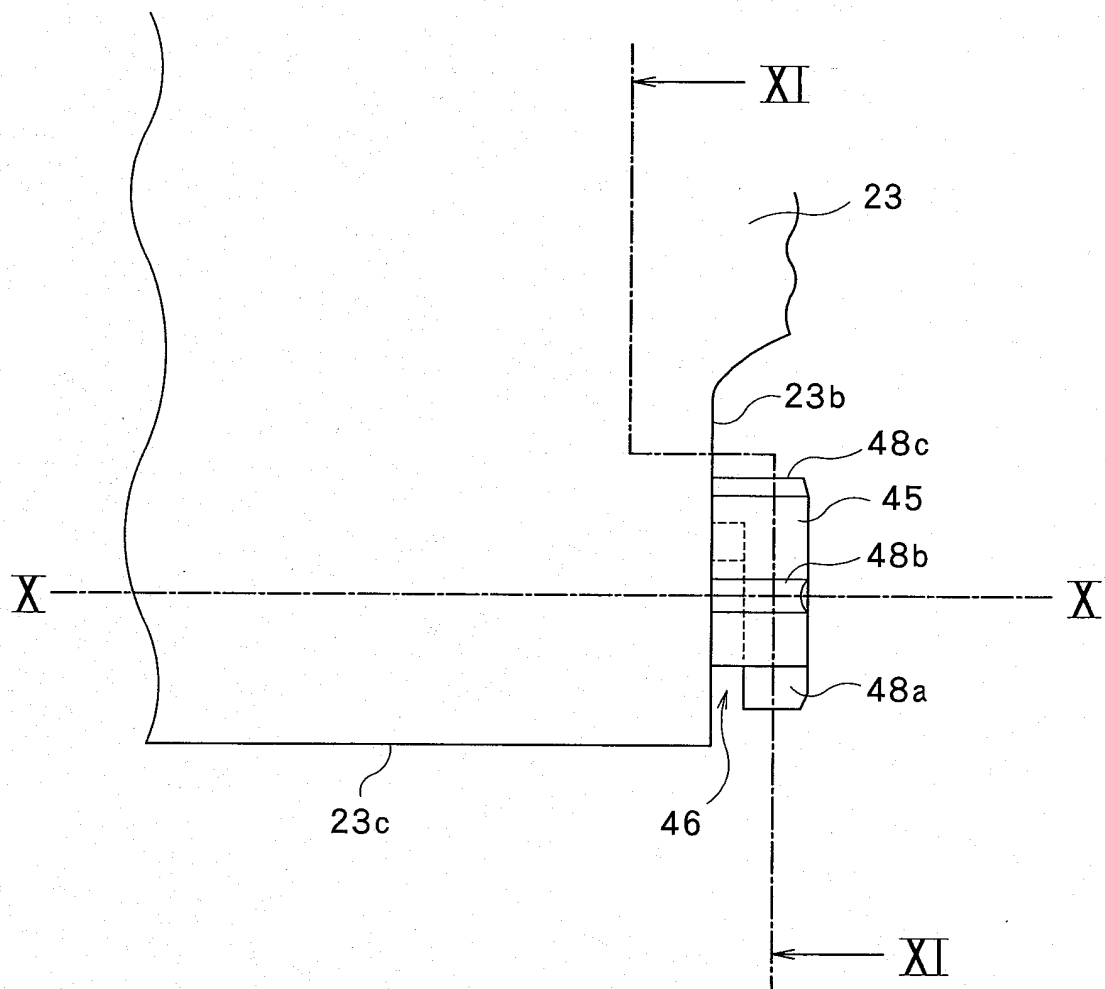


FIG.20

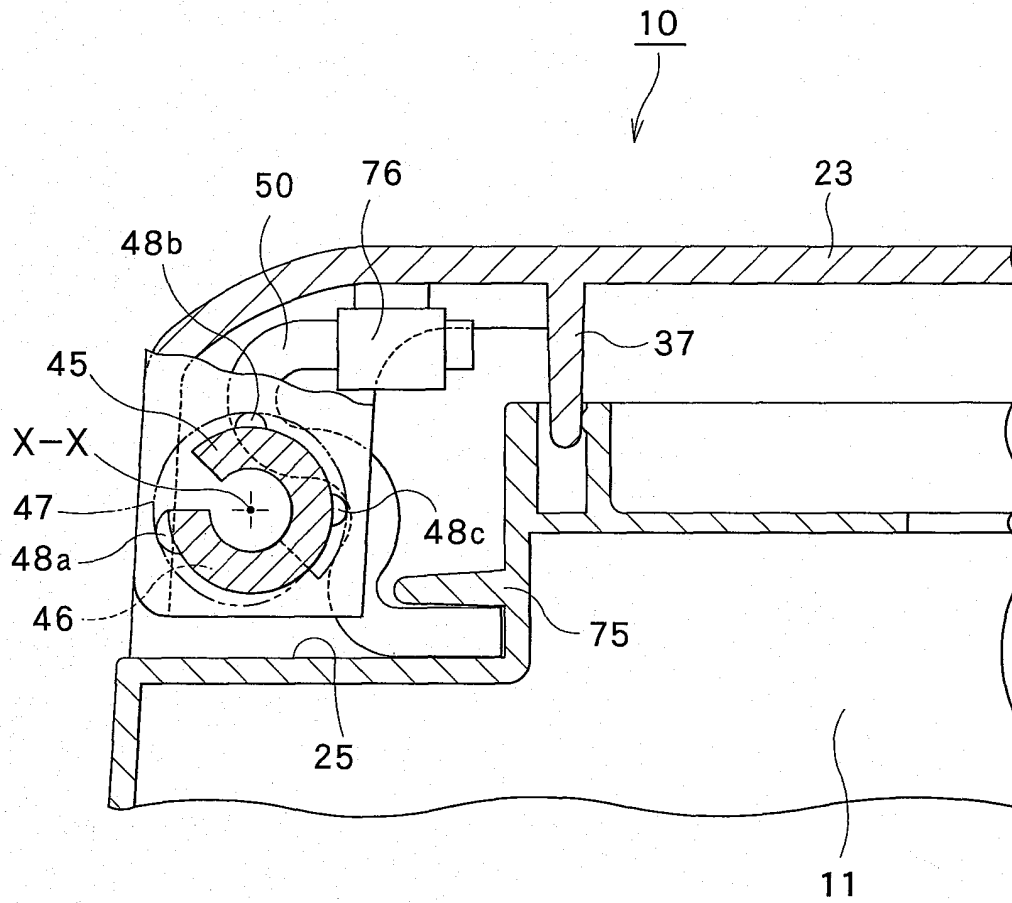


FIG.21

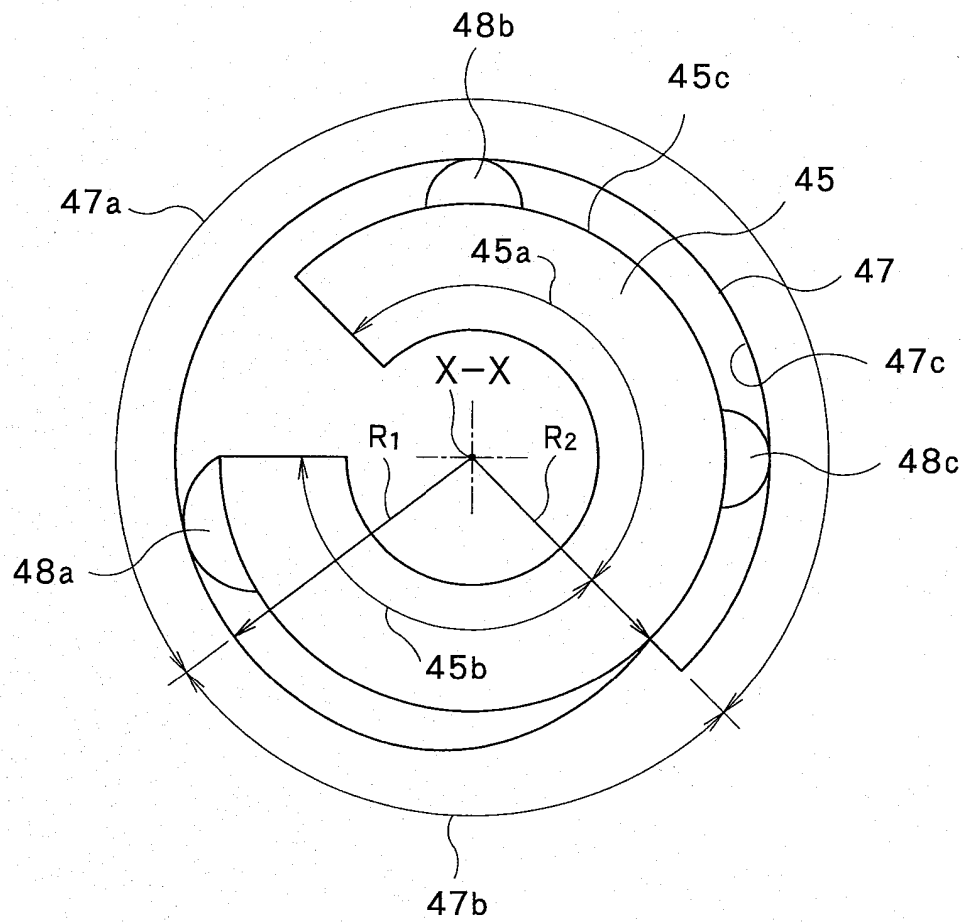
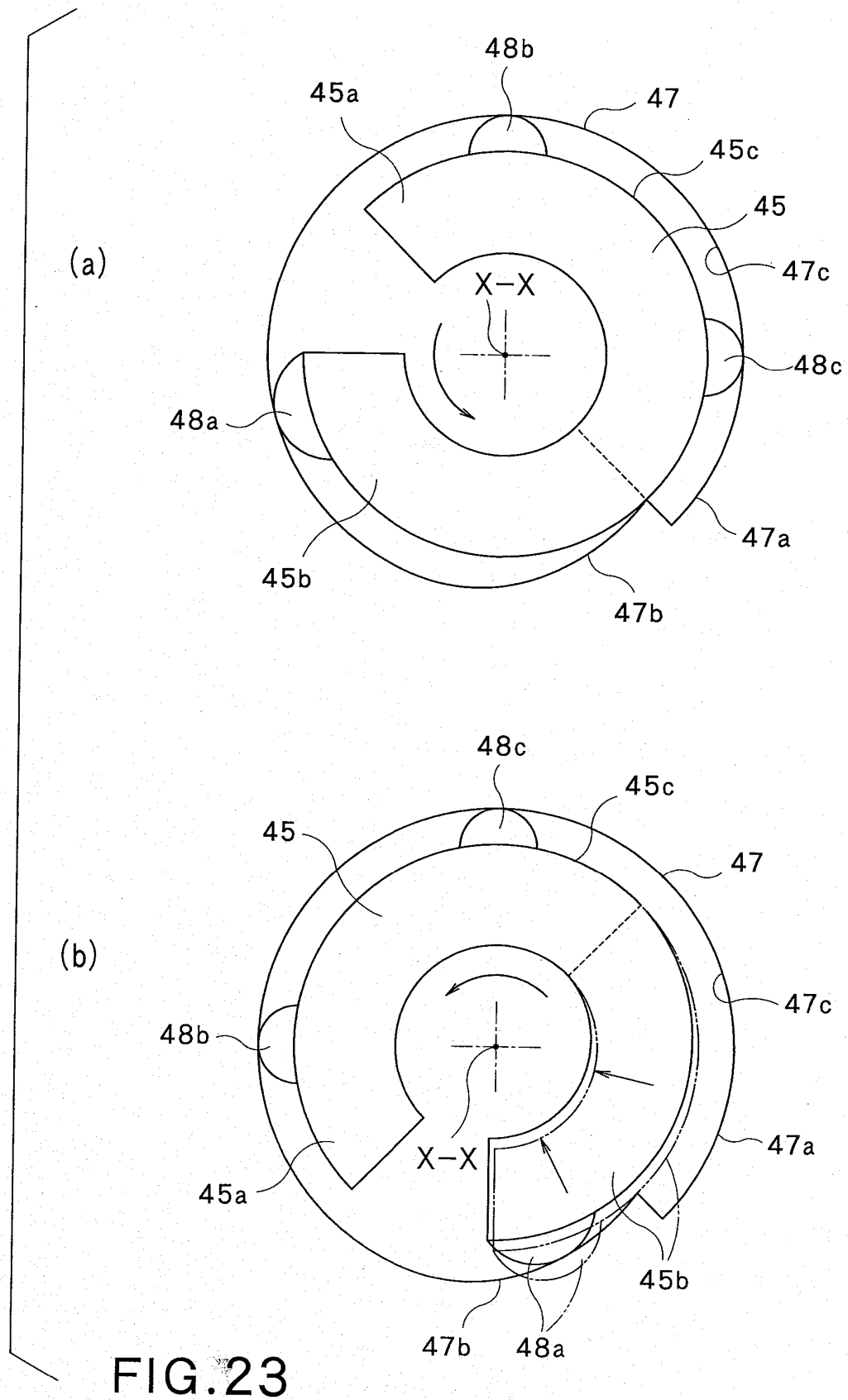


FIG. 22



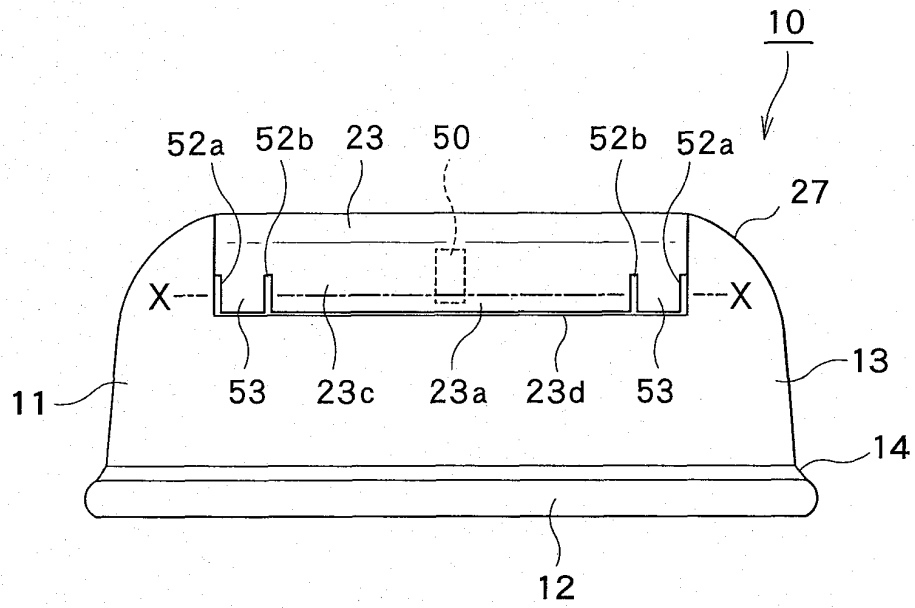


FIG. 24

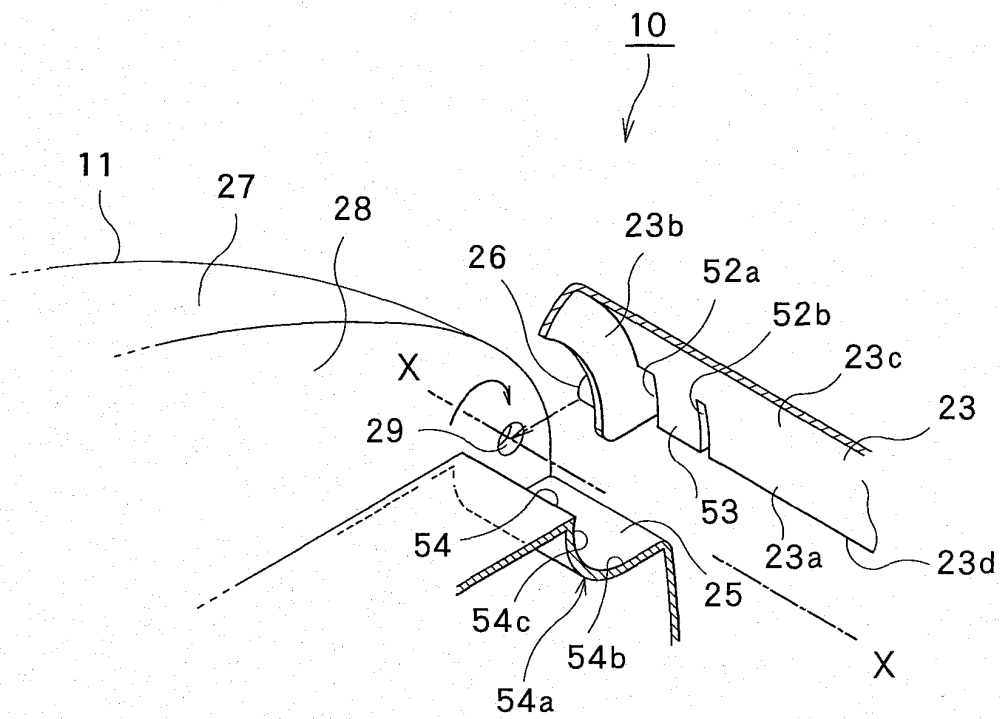


FIG. 25

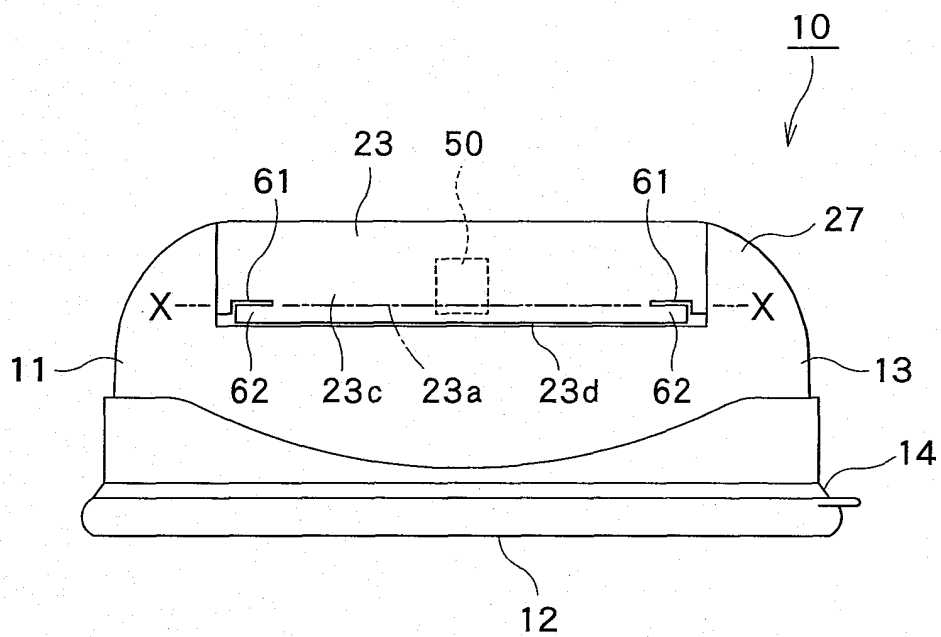


FIG.26

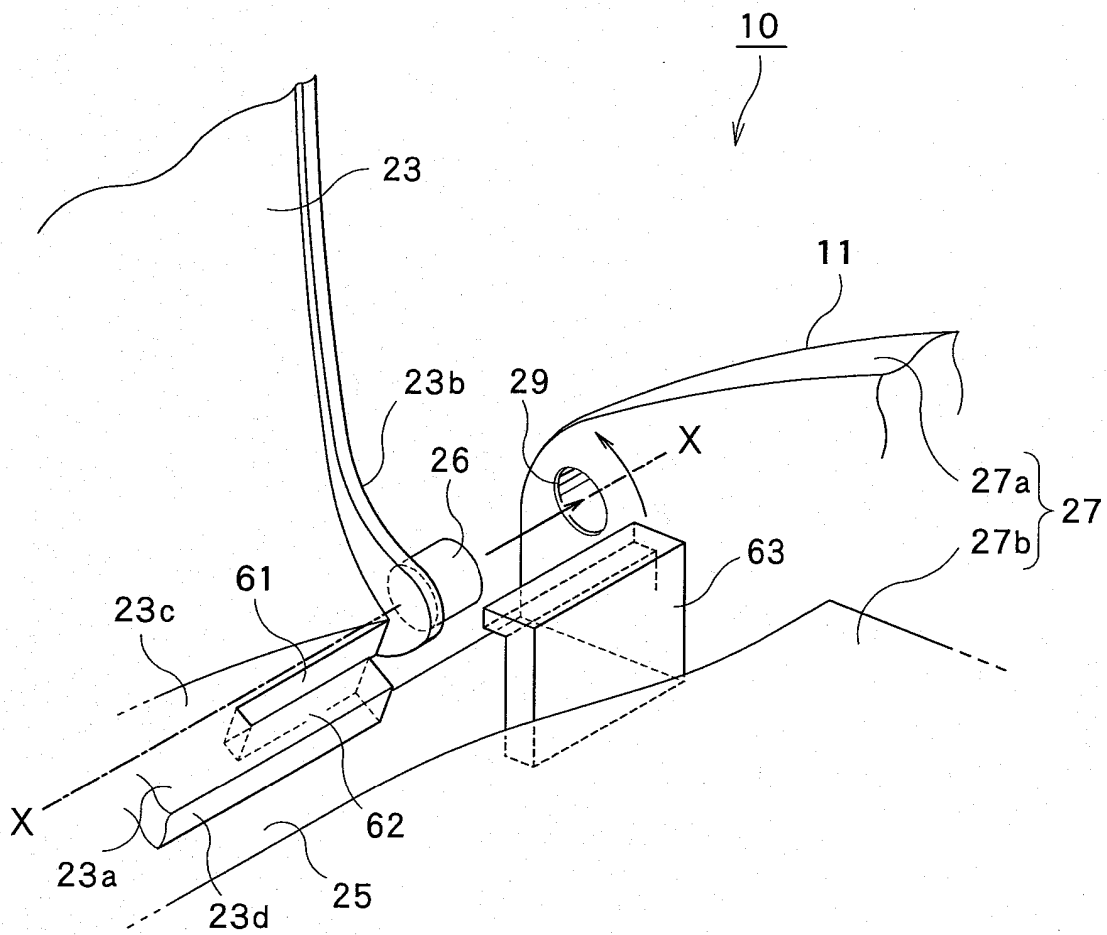


FIG. 27

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2009/068594

A. CLASSIFICATION OF SUBJECT MATTER

B65D43/16(2006.01)i, B65D43/22(2006.01)i, B65D43/24(2006.01)i, B65D83/08(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)

B65D43/16, B65D43/22, B65D43/24, B65D83/08

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	1996-2010
Kokai Jitsuyo Shinan Koho	1971-2010	Toroku Jitsuyo Shinan Koho	1994-2010

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 62920/1990 (Laid-open No. 21322/1992) (Zojirushi Corp.), 24 February 1992 (24.02.1992), page 2, lines 3 to 17; fig. 8 (Family: none)	1, 13 2-12, 14
X A	JP 2003-339428 A (Kose Corp.), 02 December 2003 (02.12.2003), paragraphs [0023] to [0025]; fig. 1 to 6 (Family: none)	1, 13 2-12, 14

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

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Date of the actual completion of the international search
25 January, 2010 (25.01.10)Date of mailing of the international search report
09 February, 2010 (09.02.10)Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2009/068594

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2003-341801 A (Soyu Hayashi), 03 December 2003 (03.12.2003), claims; fig. 1 to 8 (Family: none)	1-14
A	JP 2003-170950 A (Uni-Charm Corp.), 17 June 2003 (17.06.2003), claims; fig. 1 to 31 (Family: none)	1-14

Form PCT/ISA/210 (continuation of second sheet) (April 2007)

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- JP 2003170950 A [0004] [0006]