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(54) COMPACT CONTAINER HAVING BUTTON **INTEGRALLY FORMED THEREON**

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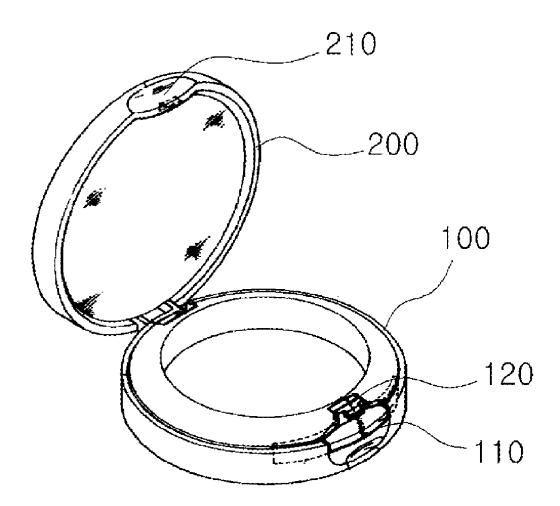
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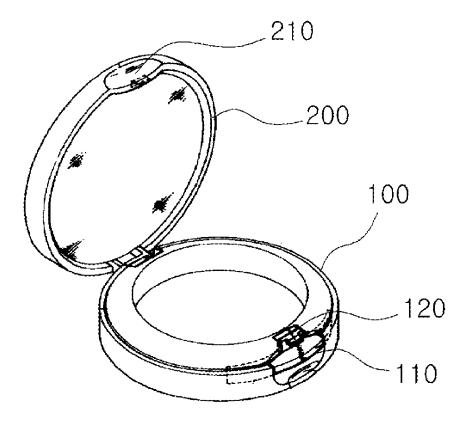
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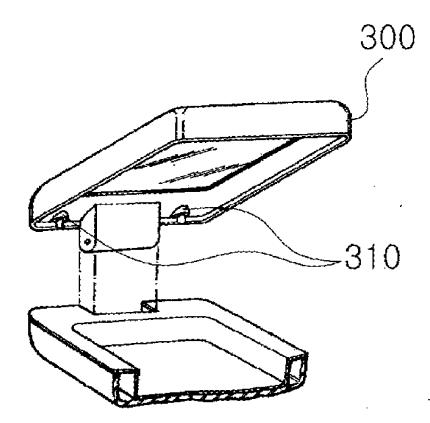
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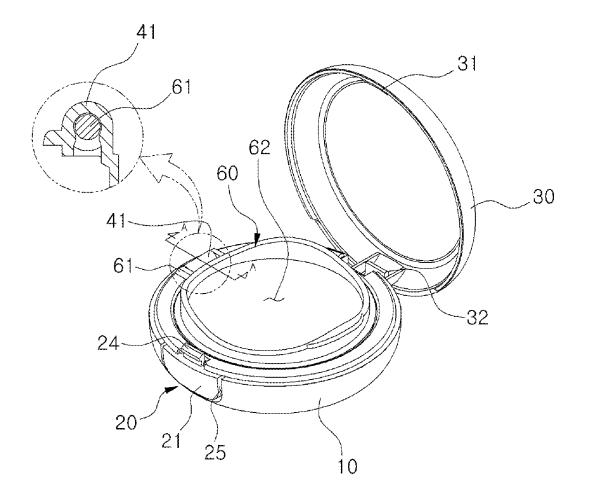
(57)ABSTRACT

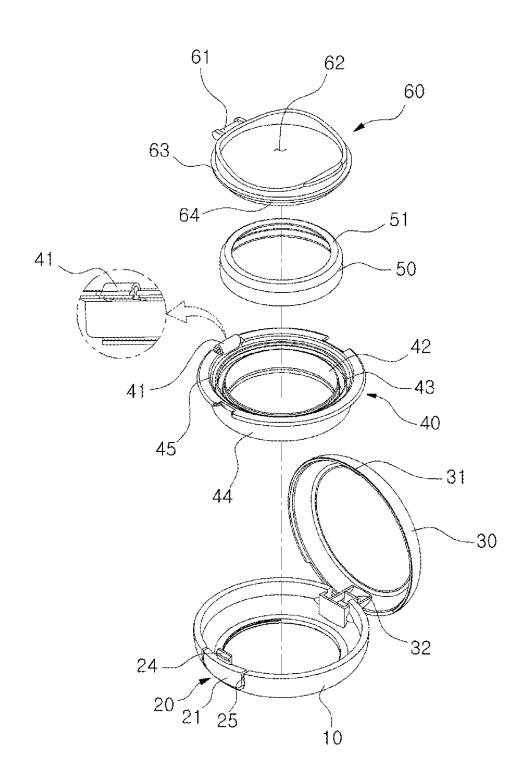
A compact container having a button integrally formed thereon includes: the button integrally formed on a main container body; gaps formed at either side of a pressing part; a groove formed in the outer side of a connecting part, which connects the pressing part and the main container body, so that the pressing part can elastically move back and forth so as to allow a lid to be opened by easily pressing the pressing part and not require the structure of separately assembling the button into the main container body; and a tension bar integrally formed at the upper hinge part of a container lid so that when the container lid is closed, the tension bar presses the upper end of the main container body so as to allow the container lid to be elastically opened, without forming a separate elastic member, thereby enhancing usability and reducing production costs.

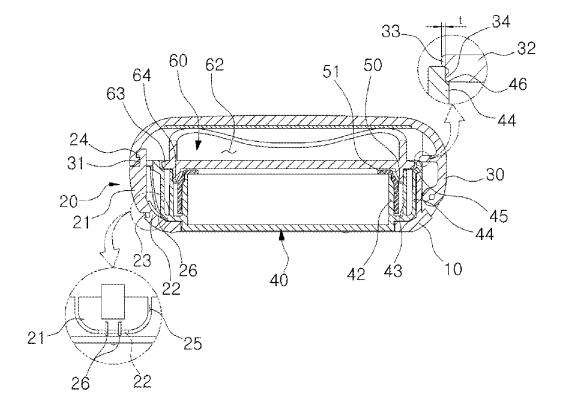




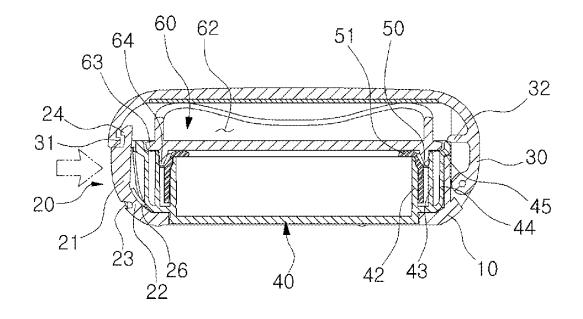




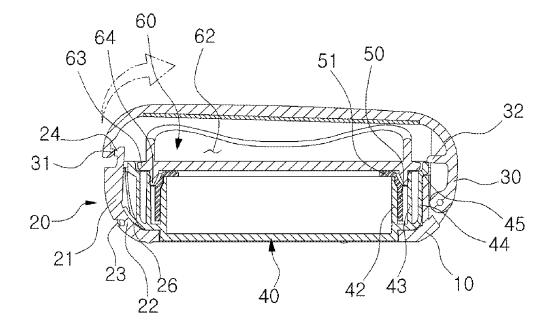


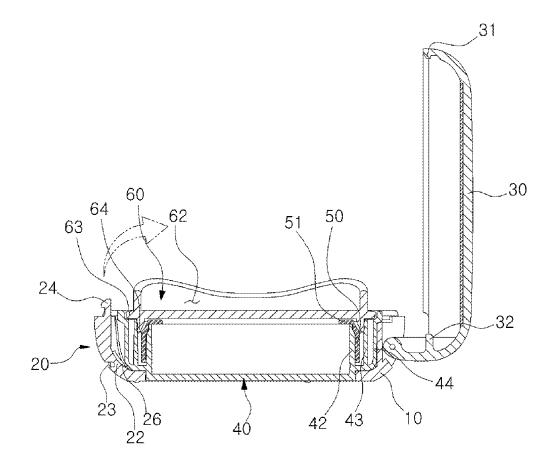












COMPACT CONTAINER HAVING BUTTON INTEGRALLY FORMED THEREON

TECHNICAL FIELD

[0001] The present invention relates to a compact container integrated with, a button, and more particularly, to a compact container integrated with a button which is capable of enhancing usability and reducing the manufacturing cost, where the button is integrally formed with a container body, gaps are formed at both sides of a push part, and a groove is formed on an outside of a connecting part connecting the push part and the container body to each other such that the push part is enabled to be elastically reciprocated, so the push part is easily pressed to open a cover without an additional structure for assembling a separated button in the container body. In addition, a tension bar is integrally formed on a hinge of the container cover to press an upper end of the container body when the container cover is closed, so that the container cover is elastically opened without forming an elastic member when the button is pushed to open the container cover.

BACKGROUND ART

[0002] Color cosmetics, which are used for the purpose of making outer appearance or skin beautiful, are classified into a base makeup used for unifying a skin color or covering a defect and a point makeup used for partially enhancing a cubic effect of lips, eyes or nails, where the base makeup, includes makeup base, foundation and powder, and the point makeup includes lipstick, eye liner and mascara.

[0003] The foundation is classified into solid foundation, liquid foundation and gel foundation according to a type of cosmetics. Although the solid foundation has a good cover effect, the solid foundation lumps in fixing makeup. Although the liquid foundation has good adhesion, the durability is weak. Thus, the consumers preferring gel foundation, which has high durability and good adhesion when it is covered on skin, have been recently increased.

[0004] Thus, there is a need to develop a container for gel foundation. Generally, when the gel foundation filled in a glass container or tub container is used, after taking out the gel foundation front the container to his hand, or squeezing the container, a user coats it on his skin by using a puff.

[0005] However, according to the related art, since cosmetics stick to user's hand for use, the user must wash his hand every time when the user uses cosmetics. In addition, since the cosmetics sticking to user's hand are washed, the cosmetics are wasted.

[0006] In order to solve the above problem, a compact container provided therein with a buff has been developed to prevent cosmetics from sticking to hands and to improve the portability of the compact container.

[0007] However, the compact container according to the related art has a structure in which a cover is forcibly assembled with or disassembled from a container body, so, when a user may feel inconvenience when the user opens or closes the cover to use the cosmetics. In addition, the coupling structure of the compact container may be damaged due to the repetition of the forcible assembling and disassembling action, so that the coupling structure may not be used for a long period of time due to the abrasion or breakage.

[0008] In order to solve the above problem, as shown in FIG. 1, Korean Utility Model Registration No. 20-0171448 has been suggested. Korean Utility Model Registration No. 20-0171448 discloses a compact container having a button, in which a hook **210** is integrally formed with a cover **200** and a button **110** is provided in a container body **100** to open or close the cover **200**. When a user presses a push part of the button **110**, which protrudes out of the container body **100**, a hook **120** of the button **110** is released from the hook **210** of the cover **200** so that the cover **200** is open.

[0009] However, according to the above related art, the button **110** is provided separately from the container body **100**, so that the manufacturing cost and the assembling steps may be increased, thereby lowering the productivity.

[0010] Further, as another related art, Korean Utility Model Application No. 91-14993 has been suggested. Korean Utility Model Application No. 91-14993 discloses a compact container, in which elastic members **310** are provided at both sides of a hinge, as shown in FIG. **2**, in order to allow a cover **300** to be elastically opened when a user opens the cover **300**.

[0011] However, according to the above related art, the elastic members **310** are separately manufactured and bonded to both sides of the hinge, so that the manufacturing cost and the assembling steps may be increased, thereby lowering the productivity. In addition, the elastic members **310** have the material property different, from the material property of the compact container, so the elastic members **310** have to be collected separately from, the compact container in order to recycle the compact container.

DISCLOSURE

Technical Problem

[0012] To solve the problems described above, an object of the present invention is to provide a compact container integrated with a button which is capable of enhancing usability and reducing the manufacturing cost, where the button is integrally formed with a container body, gaps are formed at both sides of a push part, and a groove is formed on an outside of a connecting part connecting the push part and the container body to each other such that the push part is enabled to be elastically reciprocated, so the push part is easily pressed to open a cover without an additional structure for assembling a button in the container body. In addition, a tension bar is integrally formed on a hinge of the container cover to press aft upper end of the container body when the container cover is closed, so that the container cover is elastically opened without forming an elastic member when the button is pushed to open the container cover.

[0013] In addition, another object of the present invention is to provide a compact container integrated with a button, in which a reinforcement rib for preventing a crack is integrally molded to protrude from an inner surface on which the groove of a connecting part is formed, so that any cracks are prevented from occurring in a push part due to the repeatedly pushing operations of the push part.

[0014] In addition, still another object of the present invention is to provide a compact container integrated with a button, in which a tension bar is integrally formed on a hinge of the container cover to press an upper end of the container body when the container cover is closed, so that the container cover is elastically opened without forming any elastic members when the button is pushed to open the container cover, thereby enhancing the usability and reducing the manufacturing cost.

[0015] In addition, still another object of the present invention, is to provide a compact container integrated with a button, in which a hinge protrusion formed on a part of a hinge of an inner container is coupled to a hinge ring formed on a part of the hinge, such that an inner container cover is coupled to the inner container as if a ring clasp, thereby reducing the number of components necessary to manufacture the compact container to reduce the manufacturing cost, and in addition, which is formed in a structure suitable to form the components used to manufacture the compact container of which all the contents filled therein are used up for the purpose of waste recycling.

Technical Solution

[0016] The present invention provides a compact container which is integrated with a button and includes a container body (10) and a container cover (30) coupled to one side of the container body (10) to be opened or closed. The compact container includes:

[0017] a button (20) integrally formed on one side of the container body (10);

[0018] the container cover (**30**) coupled to the container body (**10**) and having a tension bar (**32**) integrally formed on an upper portion of a hinge;

[0019] an inner container (40) installed in the container body (10); and

[0020] an inner container cover (60) coupled to the inner container (40) to open or close the inner container (40),

[0021] wherein the button (20) includes a push part (21) formed at two sides thereof with gaps (25) to be elastically movable forward or rearward, a connecting part (22) for integrally connecting the push part (21) and the container body (10) to each other, and a groove (23) formed at an outside of the connecting part (22) to allow the push part (21) to easily move forward or rearward, and

[0022] the inner container (40) includes a hinge ring (41) formed on an upper portion of one side of the inner container (40) and a hinge protrusion (61) formed on one side of an outer periphery surface of the inner container cover (60) and fitted into the hinge ring (41) in a ring clasp type.

[0023] The compact container further includes one to three reinforcement ribs (26) integrally formed on an inner surface of the connecting part (22) of the button (20).

[0024] The compact container further includes a first protrusion (33) and a second protrusion (34) formed oh an end of the tension bar (32), wherein the first protrusion (33) is longer than the second protrusion (34) by 0.1 mm to 0.5 mm. [0025] The inner container (40) includes an outer wall (44), an intermediate wall (43) spaced inwardly from the outer wall (44) by a predetermined distance, an inner wall (42) spaced inwardly from the intermediate wall (43) by a predetermined distance, a receiving sill (45) formed on an upper end of the outer wall (44), and a receiving protrusion wheel (63) formed on the inner container covet (60) to be safely placed on the receiving sill (45).

[0026] The inner container cover (60) includes a sealing protrusion wheel (64) formed at a lower side thereof, and the sealing protrusion wheel (64) is tightly closed to an inside of the intermediate wall (43) of the inner container (40) to seal the inner container (40).

Advantageous Effects

[0027] According to the present invention, there is provided a compact container integrated with, a button which is capable of enhancing usability and reducing the manufacturing cost, where the button is integrally formed with a container body, gaps are formed at both sides of a push part, and a groove is formed on an outside of a connecting part connecting the push part and the container body to each other such that the push part is enabled to be elastically reciprocated, so the push part is easily pressed to open a cover without an additional structure for assembling a button in the container body. In addition, a tension bar is integrally formed on a hinge of the container cover to press an upper end of the container body when the container cover is closed, so that the container cover is elastically opened without forming an elastic member when the button is pushed to open the container cover.

[0028] According to the present invention, there is provided a compact container integrated with a button, in which the reinforcement rib for preventing a crack is integrally molded to protrude from the inner surface on which the groove of the connecting part, so that any cracks are prevented from occurring in the push part due to the repeatedly pushing operations of the push part.

[0029] According to the present invention, there is provided a compact container integrated with a button, in which the tension bar is integrally formed on the hinge of the container cover to press an upper end of the container body when the container cover is closed, so that the container cover is elastically opened without forming any elastic members when the button is pushed to open the container cover, thereby enhancing the usability and reducing the manufacturing cost.

[0030] According to the present invention, there is provided a compact container integrated with a button, in which a hinge protrusion formed on a part of a hinge of an inner container is coupled to a hinge ring formed on a part of the hinge, such that an inner container cover is Coupled to the inner container as if a ring clasp, thereby reducing the number of components necessary to manufacture the compact container to reduce the manufacturing cost, and in addition, which is formed in a structure suitable to form the components used to manufacture the compact container of the same material, so that there is no need to disassemble the compact container of which all the content's filled therein are used up for the purpose of waste recycling.

DESCRIPTION OF DRAWINGS

[0031] FIG. 1 is a perspective view showing a compact container according to the related art.

[0032] FIG. **2** is an exploded perspective view showing another compact container according to the related art.

[0033] FIG. **3** is a perspective view showing a compact container integrated with a button according to an embodiment of the present invention.

[0034] FIG. **4** is an exploded perspective view showing a compact container integrated with a button according to an embodiment of the present invention.

[0035] FIG. **5** is a sectional view showing a compact container integrated with a button according to an embodiment of the present invention.

[0036] FIG. **6** is a sectional view showing a state of pushing a button of a compact container integrated with the button according to an embodiment of the present invention. **[0037]** FIG. **7** is a sectional view showing a state of opening or closing a container cover of a compact container integrated with a button according to an embodiment of the present invention.

[0038] FIG. 8 is a sectional view showing a state of opening or closing a container cover of a compact container integrated with a button according to an embodiment of the present invention.

BEST MODE

Mode for Invention

[0039] A compact container integrated with a button according to an embodiment of the present invention will be described with reference to accompanying drawings.

[0040] FIG. 3 is a perspective view showing a compact container integrated with a button according to an embodiment of the present invention. FIG. 4 is an exploded perspective view showing a compact container integrated with a button according to an embodiment of the present invention. FIG. 5 is a sectional view showing a compact container integrated with a button according to an embodiment of the present invention, FIG. 6 is a sectional view showing a state of pushing a button of a compact container integrated with the button according to an embodiment of the present invention. FIG. 7 is a sectional view showing a state of opening or closing a container cover of a compact container integrated with a button according to an embodiment of the present invention. FIG. 8 is a sectional view showing a state of opening or closing a container cover of a compact container integrated with a button according to an embodiment of the present invention.

[0041] According to the present invention, there is provided a compact container which is integrated with a button and includes a container body 10 and a container cover 30 coupled to one side of the container body 10 to be opened or closed. The compact container includes a button 20 integrally formed on one side of the container body 10, the container cover 30 coupled to the container body 10 and having a tension bar 32 integrally formed on an upper portion of a hinge, an inner container 40 installed in the container body 10, and an inner container cover 60 coupled to the inner container 40 to open or close the inner container 40.

[0042] The inner container 40 is provided at a central portion in the inside of the container body 10 and the button 20 is integrally formed on one side of the container body 10. A hinge is formed at a side facing the button 20 such that the button 20 is hinge-coupled to the container cover 30.

[0043] The button 20 includes a push part (21) formed at one side of the container body 10 and provided with a gap 25 to be elastically movable, a connecting part 22 formed below the push part 21, a groove 23 formed at an outside of the connecting part 22.

[0044] The push part **21** may allow a locking sill **24** extending on an upper portion to be easily moved rearward through the pushing operation of a user such that the locking sill may easily escape from a locking protrusion **31** of the container cover **30**.

[0045] As shown in FIG. 5, the push part 21 are provided at both sides thereof with the gaps 25 by which the side

surface of the push part 21 is separated from the container body 10 such that the push part 21 is elastically movable forward or rearward.

[0046] The connecting part 22 is integrally connected to the push part 21 and the container body 10 and is provided at an outside thereof with the groove 23 to allow the push part 21 to easily move forward or rearward, such that the push part 21 may be elastically movable forward or rearward.

[0047] The container cover 30 may be opened by pushing the push part 21 and thus, an additional structure for assembling the button 20 is not necessary in the container body 10 so that the manufacturing cost and the number of assembling processes are reduced, thereby improving the productivity.

[0048] As shown in FIGS. 5 to 8, the groove 23 formed on the connecting part 22 below the push part 21 allows the connecting part 22 to have a thin thickness, such that the push part 21 may elastically move.

[0049] A reinforcement rib 26 for preventing a crack is integrally molded to protrude from an inner surface on which the groove 23 of the connecting part 22 is formed, so that any cracks are prevented front occurring in the push part 21 due to the repeatedly pushing operations of the push part 21.

[0050] One to three reinforcement ribs **26** are formed to maintain the elasticity of the push part **21** and preferably, two reinforcement ribs **26** are formed.

[0051] The container cover 30, which covers the upper portion of the container body 10, is hinge-coupled to the container body 10 and opens or closes the container body 10.

[0052] A locking protrusion 31 is formed on one side of the container cover 30 and has a protrusion shape corresponding to the locking sill 24 of the button 20.

[0053] In addition, the tension bar 32 is integrally formed, on an upper portion of the hinge of the container cover 30, and as shown in FIG. 5, the first and second protrusions 33 and 34 are formed on the end of the tension bar 32.

[0054] The tension bar 32 is integrally formed with the container coyer 30. Since the upper end of the outer wall 44 of the inner container 40 contained in the container body 10 is pressed when the container cover 30 is closed, the container cover 30 is elastically opened when the push cover 30 is opened, so that the container cover 30 may be elastically opened, thereby enhancing the usability and reducing the manufacturing cost.

[0055] The length of the first protrusion **33** of the tension bar **32** is longer than that of the second protrusion **34** by 0.1 mm to 0.5 mm, preferably, 0.2 mm.

[0056] In addition, a push sill 46 pressed by the second protrusion 34 of the tension bar 32 is formed on an upper outer periphery surface of an outer wall 44 of the inner container 40, so that the first protrusion 33 of the tension bar 32 presses an upper end of the outer wall 44 of the inner container 40 and the second protrusion 34 presses the push sill 46.

[0057] The inner container 40 is installed in the container body 10 and a hinge ring 41 is integrally formed on one upper side of the inner container 40. An intermediate wall 43 is spaced inwardly from an inside of the outer wall 44, and an inner wall 42 is spaced inwardly from the intermediate wall 43.

[0058] Contents may be contained in the inner container **40** or a containing sponge impregnated with the contents may be installed in the inner container **40**.

[0059] The hinge ring **41** is fitted into a hinge protrusion **61** formed on one side of an outer periphery surface of the inner container cover **60** as if a ring clasp.

[0060] A fixing member 50 is further coupled to an outer periphery surface of the inner wall 42, where the fixing member 50 is provided on an upper portion thereof with a fixing protrusion wheel 51 which extends inwardly and is under-cut, or screw or forcibly coupled to an outer periphery surface of the inner wall 42 of the inner container 40.

[0061] A sealing protrusion wheel 64 formed on the inner container cover 60 is inserted into an inside of the intermediate wall 43 so that the air-tightness of the inner container 40 is improved.

[0062] Preferably, an outer diameter of the sealing protrusion wheel 64 of the inner container cover 60 is greater than that of the intermediate wall 43 of the inner container 40 by 0.01 mm to 0.3 mm, so that the sealing protrusion wheel 64 is pressed and coupled to the intermediate wall 40 of the inner container 40 to be sealed when the inner container 40 is covered with the inner container cover 60.

[0063] A receiving sill 45 is formed on an upper end of the outer wall 44 and a receiving protrusion wheel 63 formed on the inner container cover 60 is placed on the receiving sill 45.

[0064] The inner container cover 60 is coupled to the inner container 40 to open the inner container 40.

[0065] The hinge protrusion **61** is formed on one side of the outer periphery surface of the inner container cover **60** and a puff receiving part **62** capable of receiving a puff is formed at an upper side of the inner container cover **60**.

[0066] As shown in a sectional view taken along line A-A of FIG. 3, the hinge protrusion 61 is fitted info the hinge ring 41, which is formed at one side of an upper portion of the inner container 40, as if a ring clasp, so that the inner container cover 60 can be fitted into the inner container 40 as if a ring clasp without fixing them, using pins. Thus, the number of components necessary to manufacture the compact container may be reduced so that the manufacturing cost may be reduced.

[0067] In addition, the components used to manufacture the compact container are formed of the same material, so that there is no need to disassemble the compact container of which all the contents filled therein are used up for the purpose of waste recycling.

[0068] The receiving protrusion wheel **63** is formed on the outer periphery surface of the inner container cover **60** and the sealing protrusion wheel **64** is formed below the receiving protrusion wheel **63**.

[0069] The receiving protrusion wheel 63 is placed on the receiving sill 46 of the inner container 40 to allow the inner container cover 60 to be safely placed on the inner container 40.

[0070] The sealing protrusion wheel 64 is tightly close to the intermediate wall 43 of the inner container 40 to seal the inner container 40.

[0071] Hereinafter, a method of assembling a compact container integrated with a button according to an embodiment of the present invention and a using state thereof will be described in detail as follows.

[0072] In order to assemble the compact container integrated with a button according to the present invention, the container cover 30 is hinge-coupled to the container body 10.

[0073] In this case, the button 20 includes the push part 21 integrally formed at one side of the container body 10 to be elastically movable, the connecting part 22 formed below the push part 21, and the groove 23 formed at an outside of the connecting part 22. In addition, as shown in FIG. 5, the gaps 25 are formed at both sides of the button 20 and the connecting part 22 has a thin thickness due to the groove 23, so that the push part 21 is elastically movable forward or rearward.

[0074] To prevent a crack from being generated in the groove 23, one to three reinforcement ribs 26 are formed on the inner side surface of the groove 23. Preferably, two reinforcement ribs 26 are formed.

[0075] The tension bar 32 is integrally formed on an upper portion of the hinge of the container cover 30. Since the tension bar 32 presses the upper end of the outer wall 44 of the inner container 40 contained in the container body 10, the container cover 30 is enabled to be elastically opened without forming any additional elastic members when the button 20 is pushed to open the push cover 30, so that the usability may be enhanced and the manufacturing cost may be reduced.

[0076] Thereafter, the inner container 40 is installed in the container body 10 and the hinge ring 41 is formed at one side of the inner container 40. Then, by fitting the hinge protrusion 61 which is formed at one side of the outer periphery surface of the inner container cover 60 into the hinge ring 41, the inner container cover 60 and the inner container 40 are coupled to each other as if a ring clasp.

[0077] Next, the fixing member 50 is further coupled to the outer periphery surface of the inner wall 42 of the inner container 40 and the fixing protrusion wheel 51 extends inwardly on the fixing member 50. The fixing protrusion wheel 51 is under-cut or screw coupled to the outer periphery surface of the inner wall 42 of the inner container 40, so that the assembly of the compact container integrated with a button according to the present invention is completed.

[0078] In order to use the compact container integrated with the button assembled through the above-described scheme, as shown in FIG. 6, the button 20 integrally formed at one side of the container body 10 is pressed.

[0079] In this case, since the button **20** is integrally formed with the container body **10**, an additional structure for assembling the button **20** is not necessary in the container body **10** so that the manufacturing cost and the number of assembling processes may be reduced, thereby improving the productivity.

[0080] As shown in FIGS. 7 and 8, when the button 20 is pushed, the container cover 30 is elastically opened without any additional elastic members by the tension bar 32 integrally formed on the hinge of the container cover 30, so that the compact container may be conveniently used.

[0081] The compact container integrated with a button described in this disclosure is for an illustrative purpose only, and the present invention is not limited thereto. Thus, it should be understood that numerous other modifications and embodiments can be devised by those skilled in the art within the spirit and scope of the present invention and they will fall within the scope of the present invention.

DESCRIPTION OF REFERENCE NUMERAL

[0082] 10: Container body

- [0083] 20: Button
- 21: Push part [0084] [0085] 22: Connecting part
- [0086] 23: Groove
- [0087] 24: Locking sill
- [0088] 25: Gap
- [0089] 26: Reinforcement rib
- [0090] 30: Container cover
- [0091] 31: Locking protrusion
- [0092] 32: Tension bar
- [0093] 33: First protrusion
- [0094] 34: Second protrusion
- [0095] 40: Inner container
- [0096] 41: Hinge ring
- [0097] 42: Inner wall [0098]
- 43: Intermediate wall
- [0099] 44: Outer wall
- [0100] 45: Receiving sill
- [0101] **46**: Push sill
- [0102] 50: Fixing member
- [0103] 51: Fixing protrusion wheel
- [0104] 60: Inner container cover
- [0105] 61: Hinge protrusion
- [0106] 62: Puff receiving part
- [0107] 63: Receiving protrusion wheel
- [0108] 64: Sealing protrusion wheel

1. A compact container which is integrated with a button arid includes a container body (10) and a container cover (30) coupled to one side of the container body (10) to be opened or closed, the compact container comprising:

- a button (20) integrally formed on one side of the container body (10);
- the container cover (30) coupled to the container body (10) and having a tension bar (32) integrally formed on an upper portion of a hinge;

an inner container (40) installed in the container body (10); and

- an inner container cover (60) coupled to the inner container (40) to open or close the inner container (40),
- wherein the button (20) comprises a push part (21) formed at two sides thereof with gaps (25) to be elastically movable forward or rearward, a connecting part (22) for integrally connecting the push part (21) and the container body (10) to each other, and a groove (23)formed at an outside of the connecting part (22) to allow the push part (21) to easily move forward or rearward, and
- the inner container (40) comprises a hinge ring (41) formed on an upper portion of one side of the Inner container (40) and a hinge protrusion (61) formed on one side of an outer periphery surface of the inner container cover (60) and fitted into the hinge ring (41)in a ring clasp type.

2. The compact container of claim 1, further comprising one to three reinforcement ribs (26) integrally formed on ah inner surface of the connecting part (22) of the button (20).

3. The compact container of claim 1, further comprising a first protrusion (33) and a second protrusion (34) formed on an end of the tension bar (32), wherein the first protrusion (33) is longer than the second protrusion (34) by 0.1 mm to 0.5 mm.

4. The compact container of claim 1, wherein the inner container (40) includes an outer wall (44), an intermediate wall (43) spaced inwardly from the outer wall (44) by a predetermined distance, an inner wall (42) spaced inwardly from the intermediate wall (43) by a predetermined distance, a receiving sill (45) formed on an upper end of the outer wall (44), and a receiving protrusion wheel (63) formed on the inner container cover (60) to be safely placed on the receiving sill (45).

5. The compact container of claim 1, wherein the inner container cover (60) includes a sealing protrusion wheel (64) formed at a lower side thereof, and the sealing protrusion wheel (64) is tightly close to an inside of the intermediate wall (43) of the inner container (40) to seal the inner container (40).

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