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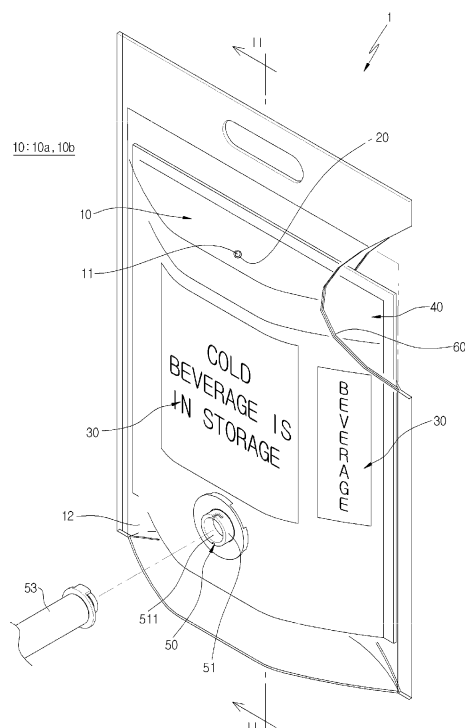
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(54) **DOUBLE PACK**

(57) Disclosed is a dual pack. The dual pack includes a main body having an air pore for passage of air, a storage body configured to receive content therein, the storage body being located within the main body, and a water entrance/exit member configured to penetrate the main body and be connected to the interior of the storage body. The main body and the storage body are flexible, and an inner surface of the main body is separated from an outer surface of the storage body.

[Figure 1]



Description

[Technical Field]

[0001] The present invention relates to a dual pack.

[Background Art]

[0002] In general, content is stored in a pack, and phrases indicating the content are printed on an outer surface of the pack.

[0003] In a state in which content is stored in a dual pack, the dual pack remains tight. While the dual pack remains tight, the printed phrases are not deformed and remain in an original state thereof.

[0004] However, if content is discharged from the dual pack, the dual pack is crushed, which makes it difficult to read the phrases printed on the outer surface of the dual pack, and consequently prevents acquisition of advertisement effects and accurate transfer of information.

[Disclosure]

[Technical Problem]

[0005] It is an object of the present invention to provide a dual pack in which a printed section provided on an outer surface of the dual pack remains in an original form thereof even if content stored in the dual pack is discharged.

[Technical Solution]

[0006] In accordance with an aspect of the present invention, there is provided a dual pack including a main body having an air pore, a storage body configured to receive content therein, the storage body being located within the main body, and a water entrance/exit member configured to penetrate the main body and be connected to the interior of the storage body, the main body and the storage body being flexible, and an inner surface of the main body being separated from an outer surface of the storage body.

[0007] The dual pack may further include at least one interlayer member located between the main body and the storage body.

[0008] The interlayer member may be an insulator to prevent transfer of heat from the interior of the storage body to the outside, or from the outside of the storage body into the storage body.

[0009] The interlayer member may be a cooling and heating device to cool or heat the content stored in the storage body.

[0010] The interlayer member may be a protective layer to prevent the storage body from being damaged by external shock.

[0011] The interlayer member may be a light emitting member.

[0012] The interlayer member may be a display panel.

[0013] The dual pack may further include a shield film located within the main body, a portion of the shield film being affixed to an inner surface of the main body such that the remaining portion of the shield film is attached to or separated from the periphery of the air pore.

[0014] The dual pack may further include a printed section provided on an outer surface of the main body.

[Advantageous Effects]

[0015] According to the embodiments of the present invention, once content is discharged from a storage body that is located in a main body of a dual pack, air equal in amount to that of the discharge content is introduced into the main body through an air pore formed in the main body. Introduction of the air may assist the main body in remaining in an original form thereof rather than being crushed. In a state in which the main body remains in an original form thereof, a printed section formed on the main body has no risk of deformation, which may ensure accurate information transmission even if the content received in the storage body is discharged.

[0016] Further, according to the embodiments of the present invention, an interlayer member is provided between the main body and the storage body. The interlayer member has the effects of protecting the storage body and achieving enhanced advertisement efficiency of the dual pack.

[Description of Drawings]

[0017] These and/or other aspects of the invention will become apparent and more readily appreciated from the following description of the embodiments, taken in conjunction with the accompanying drawings of which:

FIG. 1 is a perspective view illustrating a dual pack according to an embodiment of the present invention;

FIG. 2 is a sectional view of the dual pack taken along the line II-II of FIG. 1;

FIGS. 3 to 7 are sectional views illustrating an embodiment of an interlayer member illustrated in FIG. 2;

FIG. 8 is a perspective view illustrating a contracted state of a storage body according to an embodiment of the present invention; and

FIG. 9 is a sectional view illustrating a dual pack taken along the line IX-IX of FIG. 3.

[Best Mode]

[0018] Hereinafter, reference will now be made in detail to the exemplary embodiments of the present invention with reference to the accompanying drawings, to allow those skilled in the technical fields to which the invention pertains to easily implement the invention. However, it

will be understood that the present invention may be realized in various forms and are not limited to the embodiments described herein. Like reference numerals refer to like elements throughout.

[0019] Now, a dual pack according to one embodiment of the present invention will be described with reference to FIGS. 1 and 2.

[0020] FIG. 1 is a perspective view illustrating a dual pack according to the embodiment of the present invention, and FIG. 2 is a sectional view of the dual pack taken along the line II-II of FIG. 1.

[0021] Referring to FIGS. 1 and 2, the dual pack, designated by reference numeral 1, according to the present embodiment includes a main body 10, a printed section 30, a storage body 40, and a water entrance/exit member 50.

[0022] The main body 10 consists of a first shell 10a and a second shell 10b. The first shell 10a and the second shell 10b are arranged to face each other such that edges thereof overlap each other and are attached to each other. The attachment may be accomplished via thermal fusion, although the present invention is not limited thereto.

[0023] The first shell 10a and the second shell 10b are attached to each other only at the edges thereof with central regions thereof separated from each other. Any one of the first shell 10a or the second shell 10b has an air pore 11. The air pore 11 connects the interior of the main body 10 to the outside and provides an air passage.

[0024] If the interior pressure of the main body 10 is reduced, outside air may be introduced into the main body 10 through the air pore 11. The main body 11 may be formed of a plastic resin, for example. Alternatively, the main body 10 may be formed of paper, plastic, or glass. The main body 10 is flexible.

[0025] A shield film 20 is affixed to an inner surface of the main body 10 having the air pore 11. Only at least a portion of the shield film 20 may be affixed to the inner surface of the main body 10. The remaining portion of the shield film 20 not affixed to the main body 10 may be spaced apart from the periphery of the air pore 11. If the interior pressure of the main body 10 is reduced, a portion of the shield film 20 is separated from the periphery of the air pore 11, which may allow the outside air to be introduced into the main body 10. However, if the interior pressure and the exterior pressure of the main body 10 are equal to each other, or if the interior pressure of the main body 10 is increased, the shield film 20 comes into close contact with the inner surface of the main body 10, thereby preventing the interior air of the main body 10 from being discharged to the outside. The shield film 20 may be formed of soft rubber, for example. Alternatively, the shield film 20 may be omitted.

[0026] The first shell 10a and the second shell 10b are provided with reinforcing members (not shown), respectively. The reinforcing members serve to prevent the main body 10 from being crushed according to change in the interior pressure of the main body 10. The reinforcing

members may be formed of plastic, for example.

[0027] The printed section 30 is formed on the outer surface of the main body 10. The printed section 30 functions as an information transmitter, and may be composed of figures and letters, for example.

[0028] The storage body 40 may be located in the main body 10, and may be configured to store content (fluid), such as beverage, for example, therein. The printed section 30 indicates the content stored in the storage body 40, assisting a user in acquiring information on the stored content.

[0029] A portion of the storage body 40 is connected to the main body 10, and the water entrance/exit member 50 is mounted at a connection between the storage body 40 and the main body 10. Alternatively, the storage body 40 and the main body 10 may be separated from each other, and the water entrance/exit member 50 may be coupled to both the storage body 40 and the main body 10.

[0030] The storage body 40 and the main body 10 may be formed of the same material. Thus, the storage body 40 is also flexible. If the content is discharged from the storage body 40, the storage body 40 begins to be crushed from a portion thereof where the water entrance/exit member 50 is mounted, thus having a reduction in volume.

[0031] The water entrance/exit member 50 serves as an entrance/exit for the content stored in the storage body 40. The water entrance/exit member 50 consists of a water entrance/exit body 51 and a lid 52.

[0032] The water entrance/exit body 51 is coupled to the connection between the main body 10 and the storage body 40 and has a flow path 511 formed in a central portion thereof. When a drainage line 53 is mounted to the water entrance/exit body 51, the content stored in the storage body 40 may be discharged through the flow path 511. On the contrary, the content may be introduced into the storage body 40 through the flow-path 511.

[0033] The lid 52 is configured to clog the flow path 511, and prevents outward discharge of the content during transportation and storage of the dual pack 1. The lid 52 may be separated from the water entrance/exit body 51 before the drainage line 53 is coupled to the water entrance/exit body 51, or may be separated from the water entrance/exit body 51 as the drainage line 53 is coupled to the water entrance/exit body 51. Although the water entrance/exit member 50 is described as including the water entrance/exit body 51 and the lid 52, other various configurations are possible.

[0034] At least one interlayer member 60 is formed between the main body 10 and the storage body 40 and serves to protect the storage body 40 or to enhance advertisement efficiency of the dual pack 1. The interlayer member 60 may be separated from the storage body 40, but may be attached to the main body 10. Alternatively, the interlayer member 60 may be separated from both the main body 10 and the storage body 40.

[0035] Now, the interlayer member 60 will be described

with reference to FIGS. 3 to 7.

[0036] First, referring to FIG. 3, the interlayer member 60 may be an insulator 61. The insulator 61 serves to prevent transfer of heat from the interior of the storage body 40 to the outside or from the outside of the storage body 40 into the storage body 40. The insulator 61 may be selected from among Styrofoam®, expanded polystyrene, Iso-Pink®, polyurethane foam, aqueous soft foam, glass wool, mineral wool, cellulose fiber, aerogel, and vacuum insulating panel.

[0037] Referring to FIG. 4, the interlayer member 60 may be a cooling and heating device 62 to heat or cool the content stored in the storage body 40.

[0038] The cooling and heating device 62 includes a refrigerant pipe (not shown) and a hot wire (not shown). The cooling and heating device 62 may be connected to a refrigeration cycle that is provided at the outside to allow refrigerant to flow through the refrigerant pipe. Through the flow of refrigerant, the temperature of the content may be lowered.

[0039] The hot wire is adapted to emit heat when receiving power applied thereto. The heat emitted from the hot wire may be used to heat the content. The cooling and heating device 62 may be a thermoelectric element. However, the cooling and heating device 62 of the present invention is not limited to the above description and may be embodied in other various configurations.

[0040] Alternatively, the cooling and heating device 62 may serve as any one of a cooling device or a heating device.

[0041] Referring to FIG. 5, the interlayer member 60 may be a protective layer 63 to prevent the storage body 40 from being damaged by external shock. The protective layer 63 may take the form of a metal mesh. Alternatively, the protective layer 63 may be formed of plastic. Instead of the protective layer 63, a plastic panel (not shown) may be provided to protect the storage body 40.

[0042] Referring to FIG. 6, the interlayer member 60 may be a light emitting member 64 that emits light upon connection of a power source. The light emitting member 64 may be a light emitting diode. A battery (not shown) that is electrically connected to the light emitting member 64 may be located within the main body 10. Alternatively, an external power source may be connected to the light emitting member 64. Emission of light from the light emitting member 64 has the effect of emphasizing the outer appearance of the printed section 30, resulting in enhanced advertisement efficiency.

[0043] Referring to FIG. 7, the interlayer member 60 may be a small and thin display 65 to display an image. The display 65 may be a flat panel, liquid crystal panel, plasma panel, or Electro Luminescent (EL) display. The display 65 may be connected to a data storage device (not shown) to express various advertisements. If the interlayer member 60 is the flat panel type display 65, the printed section 30 may be omitted.

[0044] The interlayer member 60 of the present invention is not limited to the above description and may be

embodied in other various configurations, and a plurality of interlayer members 60 may be stacked one above another.

[0045] Next, operation of the dual pack as described above will be described with reference to FIGS. 8 and 9.

[0046] FIG. 8 is a perspective view illustrating a contracted state of the storage body according to an embodiment of the present invention, and FIG. 9 is a sectional view illustrating the dual pack taken along the line IX-IX of FIG. 3.

[0047] Referring to FIGS. 8 and 9, the drainage line 53 is connected to the water entrance/exit body 51 to discharge the content stored in the storage body 40. If the flow path 511 is opened via coupling of the drainage line 53, the content received in the storage body 40 may naturally be discharged through the flow path 511.

[0048] Discharge of the content through the flow path 511 may be caused by a height difference (a pressure head) between an outlet port of the dual pack 1 and an outlet hole of the drainage line 53 or by vacuum pressure.

[0049] In this case, once the content is discharged from the storage body 40, the storage body 40 begins to be crushed in proportion to a discharged amount of the content, thus causing a reduction in the interior pressure of the main body 10. This causes a portion of the shield film 20 to be separated from the inner surface of the main body 10, thereby opening the air pore 11. Thereby, the outside air may be introduced into the main body 10 through the open air pore 11. That is, the air equal in amount to that of the content discharged from the storage body 40 is introduced into the main body 10.

[0050] If the content is not discharged from the storage body 40, the main body 10 exhibits no change in pressure. In this case, the shield film 20 remains in close contact with the inner surface of the main body 10 to clog the air pore 11, and thus the interior air of the main body 10 is not discharged outward.

[0051] Introduction of the air into the main body 10 may assist the main body 10 in remaining in an original form thereof rather than being crushed. Moreover, providing the main body 10 with a reinforcing member may more effectively assist the main body 10 in remaining in the original form thereof without a risk of crushing.

[0052] In a state in which the main body 10 remains in an original form thereof, the printed section 30 on the surface of the main body 10 has no risk of crushing, and thus may serve as an accurate information transmitter.

[Mode for Invention]

[0053] As described above, a related description has sufficiently been discussed in the above "Best Mode" for implementation of the present invention.

[Industrial Applicability]

[0054] As described above, the present invention may be wholly or partially applied to a dual pack.

[0055] Although the embodiments of the present invention have been disclosed for illustrative purposes, those skilled in the art will appreciate that various modifications, additions and substitutions are possible, without departing from the scope and spirit of the invention as disclosed in the accompanying claims.

Claims

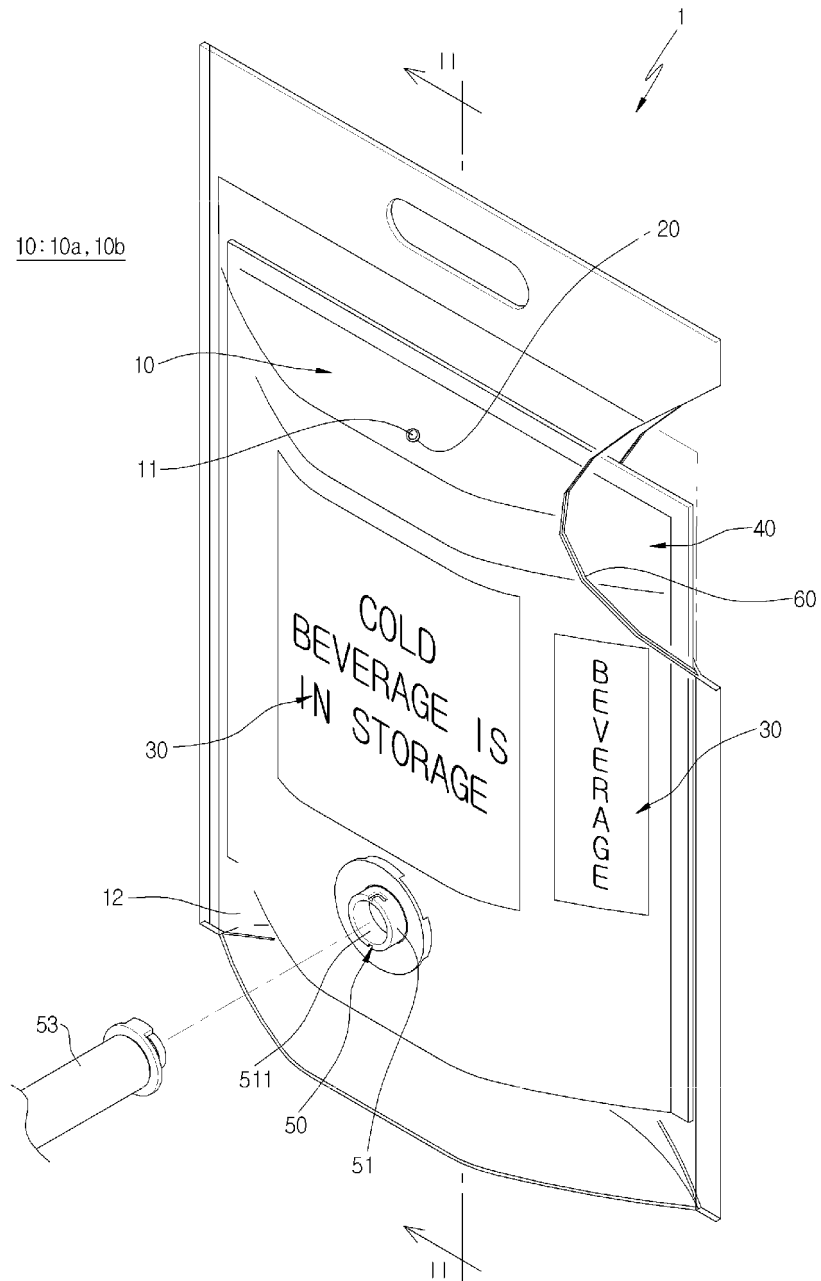
1. A dual pack comprising:

a main body having an air pore for passage of air;
 a storage body configured to receive content therein, the storage body being located within the main body;
 a water entrance/exit member including a water entrance/exit body that penetrates the main body and the storage body and has a flow path, through which the content is discharged outward, and a lid to control discharge of the content;
 a drainage line mounted to the water entrance/exit body, the drainage line being adapted to open the flow path by separating the lid from the flow path, so as to enable discharge of the content; and
 at least one interlayer member located between the main body and the storage body, wherein the storage body is flexible such that a volume of the storage body is reduced when the content is discharged from the storage body, and outside air equal in amount to a reduced volume of the storage body is introduced into the main body, the air introduced into the main body serving to prevent deformation of the main body.

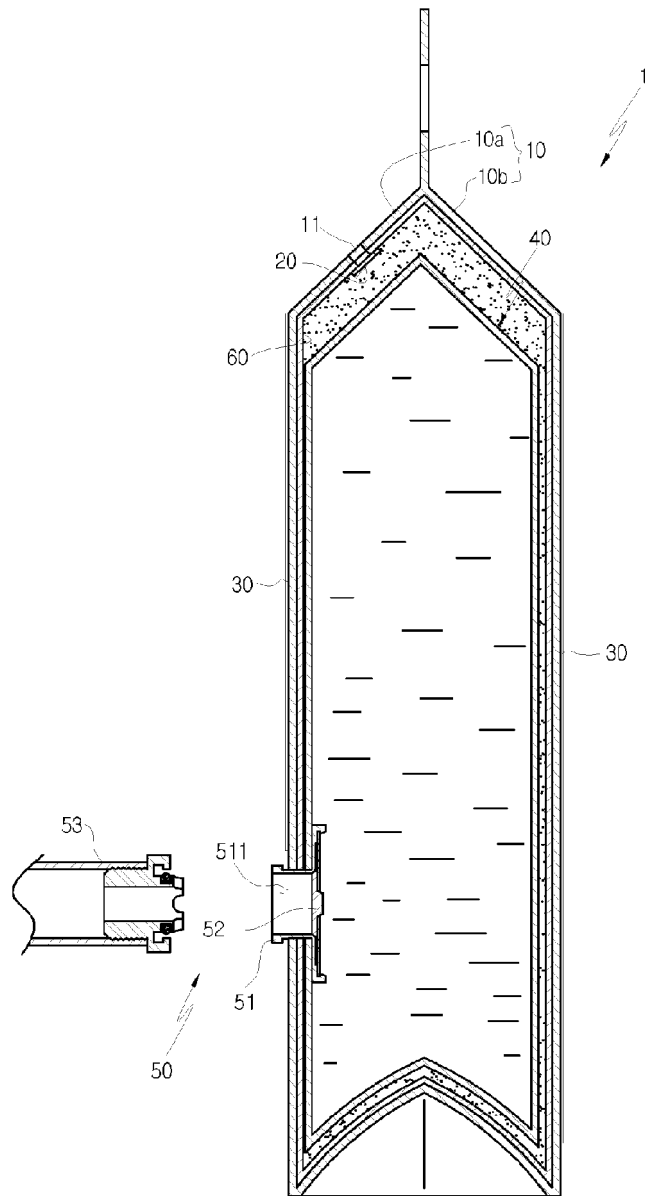
2. The dual pack according to claim 1, wherein the interlayer member is an insulator to prevent transfer of heat from the interior of the storage body to the outside, or from the outside of the storage body into the storage body.
3. The dual pack according to claim 1, wherein the interlayer member is a cooling and heating device to cool or heat the content stored in the storage body.
4. The dual pack according to claim 1, wherein the interlayer member is a protective layer to prevent the storage body from being damaged by external shock.
5. The dual pack according to claim 1, wherein the interlayer member is a light emitting member.
6. The dual pack according to claim 1, wherein the interlayer member is a display panel.

7. The dual pack according to claim 1, further comprising a shield film located within the main body, a portion of the shield film being affixed to an inner surface of the main body such that the remaining portion of the shield film is attached to or separated from the periphery of the air pore.
8. The dual pack according to claim 1, further comprising a printed section provided on an outer surface of the main body.

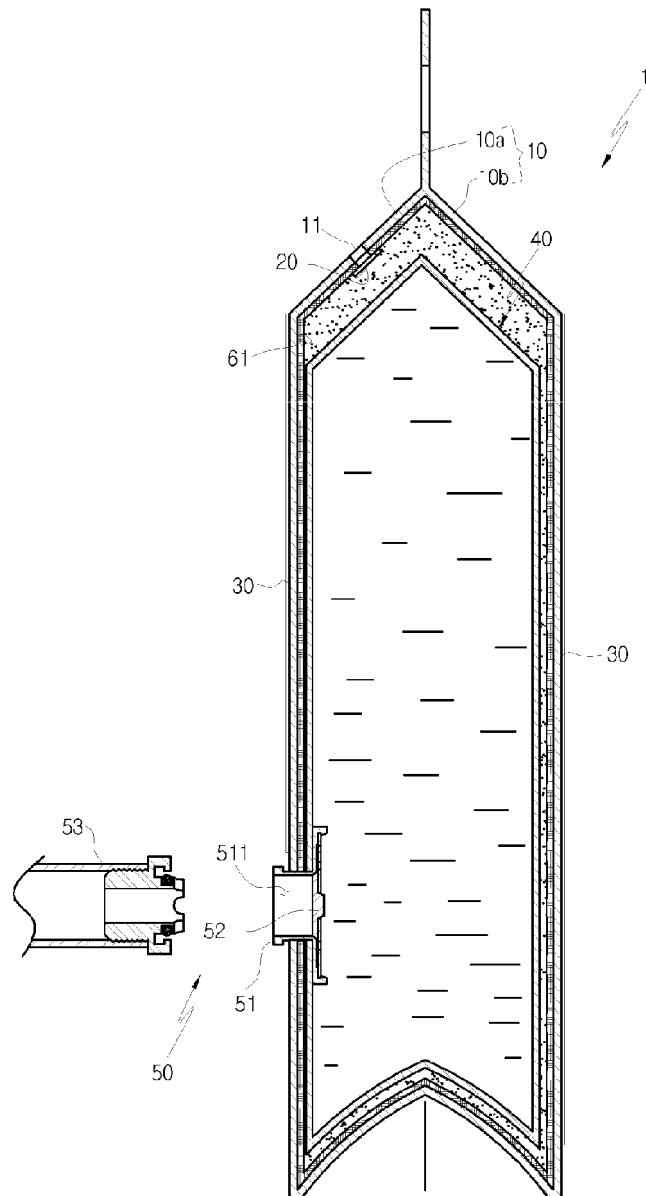
【Figure 1】



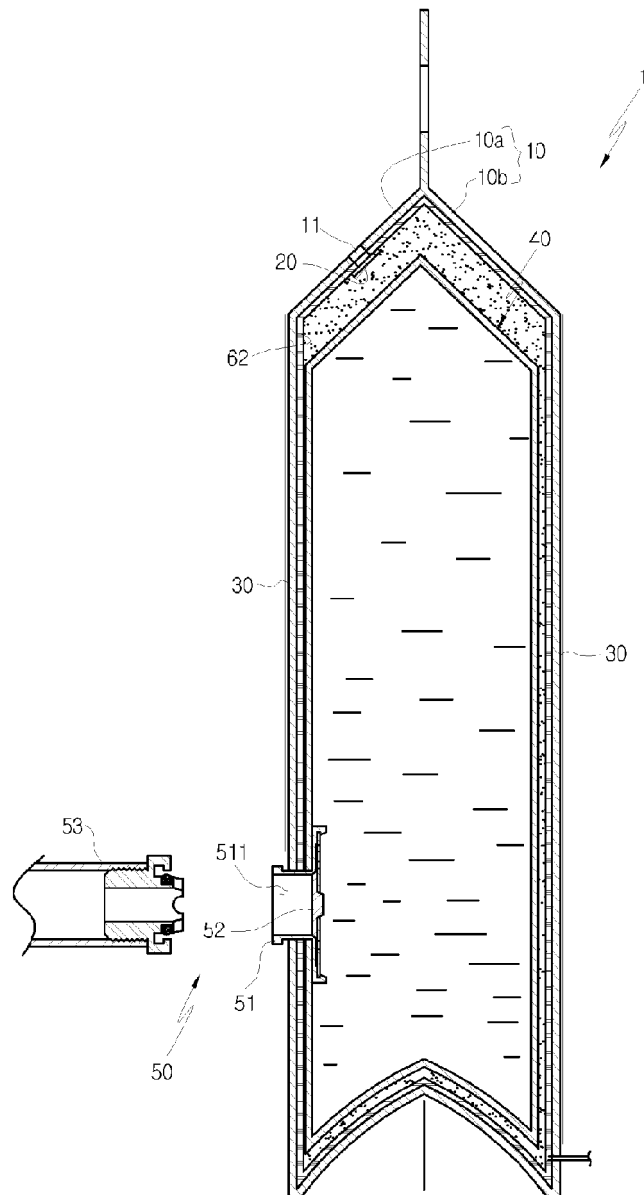
【Figure 2】



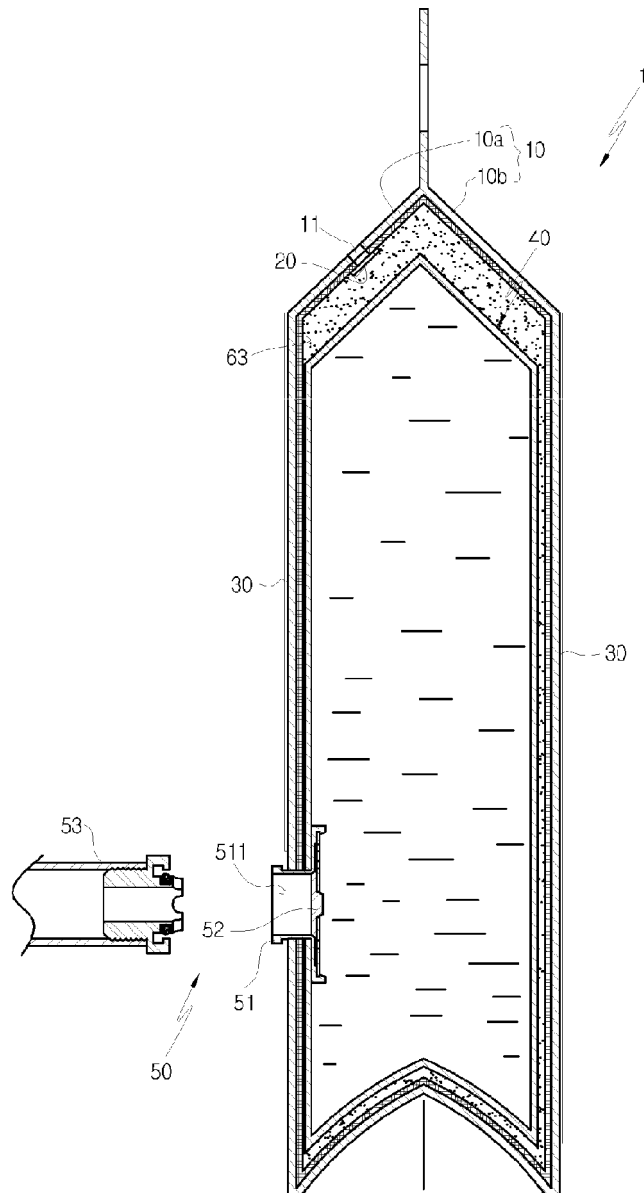
【Figure 3】



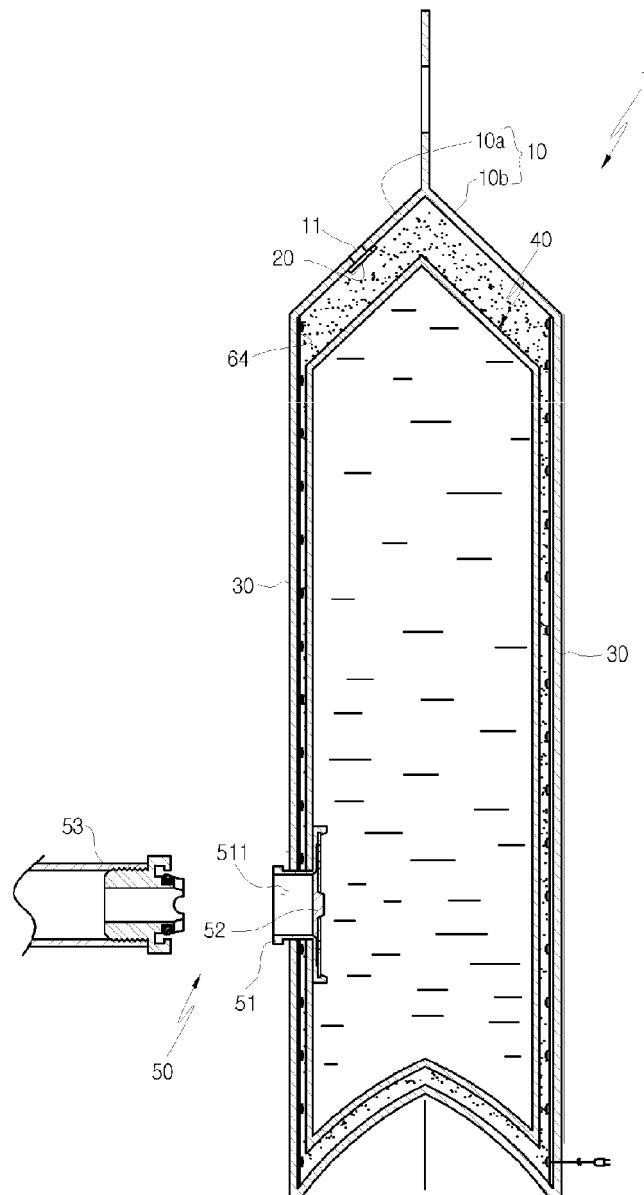
【Figure 4】



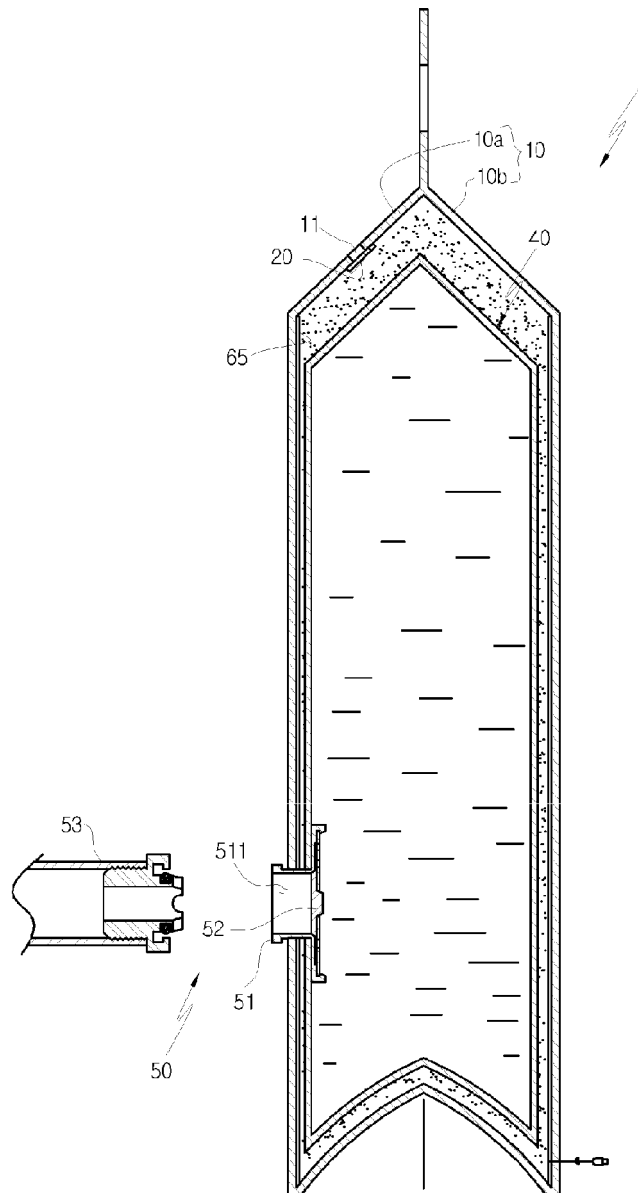
【Figure 5】



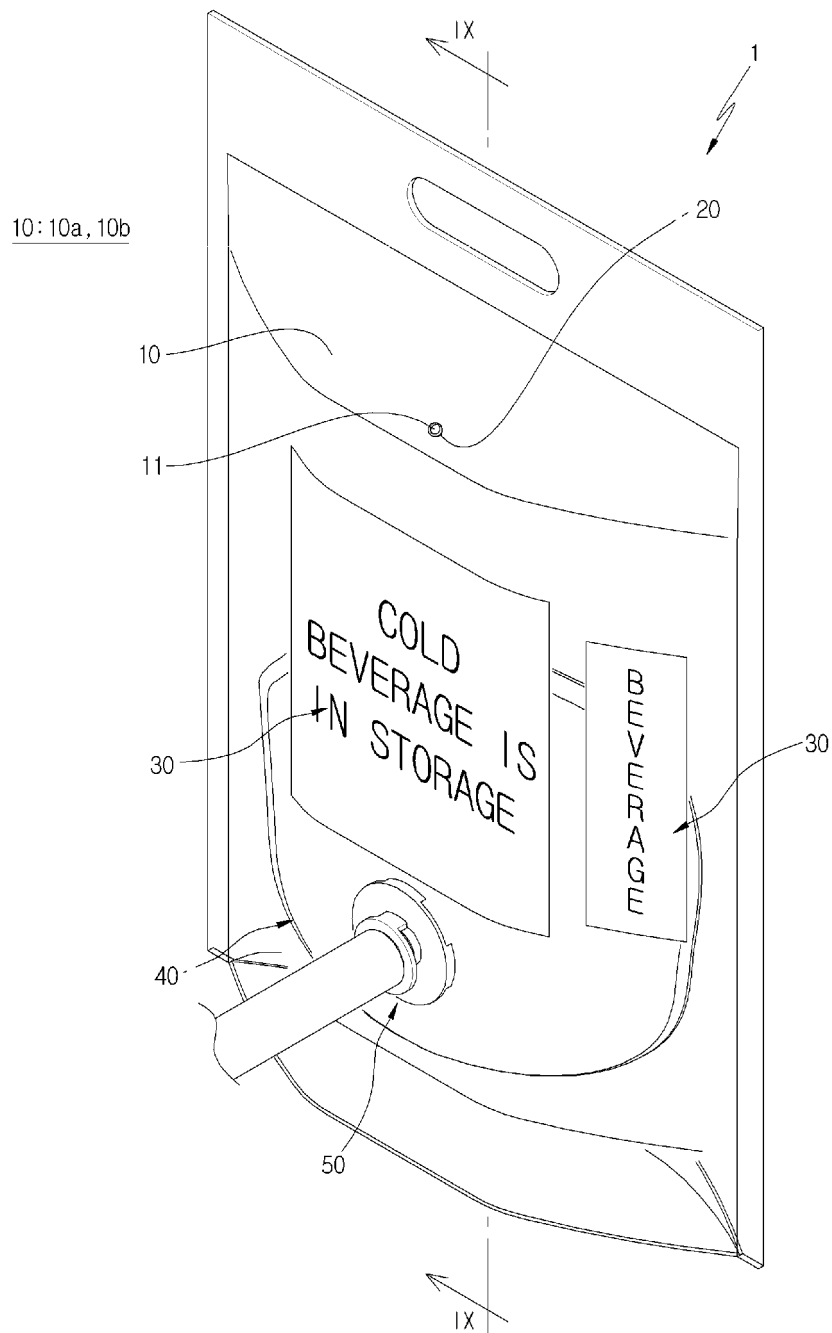
【Figure 6】



【Figure 7】



【Figure 8】



【Figure 9】

