

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention is related to a tubular container for filling liquid, especially, to an airtight simple tubular container which is compact and is easily portable, if the container is not used, it may be sustained in a tightly sealed condition for preventing to contact with the air, thus the internal liquid will not be deteriorate or polluted, while in using, the liquid within said tube may flow out quickly by the pressure of atmosphere, capillarity phenomenon, and gravity.

2. Description of the Prior Art

In the prior art, the cure method for external injury includes of using cotton bars and all kinds of drugs, if there is any external injury, it is very inconvenient since many drug bottles must be used, not only the economic burden and storage space are increased, but also in each time, the user must search for a proper single drug bottle, the time and labor are wasted. Another, it is possible that the stored drugs are still enough for using, but because the date of usage is long overdue, thus the drugs is deserted, therefore, the environment is polluted. While the cotton bar puts into the drug bottle many times, some germs possibly still remains in the drug bottle, thus the medical effects are reduced. It is also possible that the following user that user that medical liquid will deteriorated, and during traveling, it is inconvenient to carry many medical bottles and cotton bars, since they occupies larger volume.

However, not only the medical drugs, but also the perfumes beverages, and seasons have the same problem, for example, the storage container are too large to carry, and it is also uneasy to take out, or it must be take out by table spoons or spoons; the liquid within said container frequently contacts with air so it is vaporized, polluted, dried, deteriorated, or the density thereof is increased, thus this is not only unhealthy, but also inconvenient.

According, the inventor of the present invention has taken mush efforts to improve the liquid container of the prior art, and eventually, the airtight simple tubular container of the present invention is invented, the airtight simple tubular container of the present invention is a slender tube container, and a liquid is contained within said container, another, the airtight simple tubular container of the present invention is compact, convenient and healthy.

SUMMARY OF THE INVENTION

The object of the present invention is to provided an airtight simple tubular container for filling the requirement liquid, such as medical liquid (iodine, hydrogen peroxide solution, mercurochrome, alcohol, etc.), ointment, perfume, beverage (water, ginseng solution) and seasons (sauce, toffee, syrup), so that the two ends of the slender tubular container is sealed for preventing the liquid within said container being vaporized, the density being increased, and for preventing to contact with air, thus in the present invention the liquid within said tube may flow out by the pressure of atmosphere, capillarity phenomenon and gravity, therefore, the tablespoons and spoons are completely unnecessarily, thus the airtight simple tubular container of the present invention is very practical and convenient. Further on the end for the liquid to flow out, a proper packet will enclose said tube end according to the kind of said liquid, the packet such as cotton (if the containing liquids are medical liquid,

perfume, etc.), brushes (if the containing liquids are sauce, etc.) so that the user may use said airtight simple tubular container easily, and it is unnecessary to prepare cotton bars and brushes, the liquid may be used directly, so it is convenient and time saved. While the filled liquid is a drunk beverage, the packet may be neglected. Moreover, a further complicated design which contains the structure of inner and outer tube is disclosed in the present invention for further reducing the volume of the tubular container, and the user would use the present invention conveniently.

In summary, the present invention has the following advantages over the prior art:

- (1) The present invention may be used widely, it is compact and convenient, and because the usage and other characters of the object containing within said tube body may be labeled clearly, thus the packet material and cost are saved vastly.
- (2) Since the liquid may be contained within the tube body as it is unused so that said liquid will not contact the environment, thus the present invention is safe, healthy, and may be conserved for a long time. Innuse, only need to slightly tilt the tubular container so that the two ends of said tubular container contact with the atmosphere, the by using atmosphere pressure, capillarity phenomenon, and gravity, the liquid within said tube may flow out, and the tablespoon and spoon are unnecessary to use, so the labor and time are saved.
- (3) The present invention is easy to manufactured and is low cost, the liquid may be filled within the container according to the require volume, thus the volume of said liquid is convenient to be controlled.
- (4) The present invention may be used to substitute the conventional liquid container, pick up tool, coating and using tool. In the present invention, the packet for enclosing the end for liquid to flow out may be used to substitute the conventional coating and use tool. Said packet may be a sponge, cotton and other absorption body, and it may be a eyebrow brush,

a eyelash brush, and a lip pencil, while the liquid within said tube may be drunk directly, even the packet may be deserted.

(5) Because in the present invention, a structure containing a inner tube and a outer tube are applied, the liquid within said inner tube will not contact with the outer environment, thus the color and material of the outer tube may be widely selected with a large flexibility.

(6) If a structure containing a inner tube and a outer tube are adopted in the present invention, since the outer tube has the function for safeguarding the structure, thus the inner tube will not be broken due to collision or breaking to make the liquid within said inner tube to flow out.

(7) If a structure containing an inner tube and an outer tube are adopted in the present invention, by a design of compressible inner tube, the space may be saved effectively, for example, a long rod coated with medical drug and having been used may be substituted by the airtight simple tubular container of the present invention inside of which a proper medical drug has been filled.

(8) If a structure containing a inner tube and a outer tube are adopted in the present invention, by the matching of said inner tube and said outer tube, the present invention has the function of safeguarding and positioning, i.e. if the present invention is unused, the breakable portion may be broken easily so that the liquid within said tube may flow out immediately.

(9) No matter that the present invention is a design of single tube or double tube, the liquid can be sealed within said tube so that it can be preserved for a long time.

(10) No matter that the present invention is a design of single tube or double tube, by the linkage rod or hydraulic pressure theory, the liquid within said tube may be flow our through a simple action for coating and usage. It is very quickly and convenient.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention, as well as its many advantages, may be further understood by the following description and drawings in which:

Fig. 1 is the cross-sectional view of the first embodiment of the present invention;

Fig. 2 is the perspective exploded view of the first embodiment of the present invention;

Fig. 3 is the perspective view of the first embodiment of the present invention;

Fig. 4 is the cross-sectional view of another type of the plug in the first embodiment of the present invention;

Fig. 5 is the cross-sectional view of the second embodiment of the present invention; and

Fig. 6 is the cross-sectional view of the third embodiment of the present invention;

Fig. 7 is the cross-sectional view of the fourth embodiment according to the present invention; and

Fig. 8 is the cross-sectional view of the fifth embodiment according to the present invention.

Description for the Symbols:

11	outer tube	22	plug
111	convex portion	23	push bolt
112	hole	231	channel
12	inner tube	31	tube
121	breakable portion	311	breakable portion

122	handhold portion	312	hole
123	ring convex portion	32	plug
13	plug	33	pull piece
131	outerT ring portion	34	viscose
132	plug portion	41	tube body
133	hole	411	breakable portion
134	penetrating hole	412	holding portion
14	packet(absorbing element)	42	reserved space
21	tube	43	liquid silicon oil stopper
211	convex protion	90	liquid
212	convex portion	91	liquid silicon oil
213	hole		

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Fig. 1 shows the cross section view of an airtight simple tubular container in the first embodiment of the present invention, and the structure thereof is mainly comprised of an outer tube 11, an inner tube 12 and a plug 13, wherein:

The outer tube 11 is a hollow tube and the rear end thereof is installed with one or more holes 112. A concave portion is located near the tube wall in the rear end of the hole 112 for being opposite to a convex portion 111 on the inner wall of the outer tube 11.

The inner tube 12 is a hollow tube the rear end thereof is enclosed, and the diameter thereof is smaller than that of the outer tube 11 so that the inner tube may be penetrated

within the outer tube 11 for moving freely, a breakable portion 121 is installed near the rear end, and a ring convex portion 123 the diameter of which is large than that of the tube body is installed near the front end. A handhold portion 122 which is of flat shape or other shape is installed on the rear end of the inner tube 12 for being held by hand.

The plug 13 is a solid body a plug portion 132 in the center of which is wider than the outer ring portion on the periphery, the outer ring portion 131 thereof is fixed on the front opening of said outer tube 11, while the plug portion 132 on the center thereof is tightly squeezed into said inner tube 12 for sealing said inner tube 12.

By using said structure, the inner tube 12 which is filled with liquid 90 is passed through said inner tube 11, and the front opening of the inner tube 12 is tightly sealed by the plug portion 132 of said plug 13, and the outer ring 131 of said plug 13 is fixed on the front opening of the outer tube 11, while the rear end of the inner tube 12 is projected to the outer of the outer tube 11. When the liquid 90 will be flow out from inner tube 12, the inner tube 12 is held by hand and is pulled backwards so that said inner tube 12 which is now located inside the outer tube 11 is moved backwards, thus the front portion of said inner tube 12 is separated with said plug 13. Then the ring convex portion 123 is not contacted with the convex portion 111 in the inner wall of the outer tube 11, the inner tube may be continuously moved backwards, now the breakable portion 121 near the rear end is still within the outer tube 11 so it will not be broken. When the inner tube 12 is moved backwards to the ring convex portion 123 and is contacted with the convex portion 111 of said outer tube 11, then the inner tube is limited for preventing to be moved backwards, now the breakable portion 121 is exactly exposed to the outside of the outer tube 11, therefore, the inner tube 12 is easily to be broken. After the inner tube is broke, the liquid 90 with the inner tube 12 is flew forwards to pass through the hole 112 on the outer tube 11

by atmosphere pressure, capillarity phenomenon and gravity.

In the first embodiment, a plurality of holes 133 for being penetrated by plugs 13 are installed on the plug body between the plug portion 132 and the outer ring portion 131 of the plug 13 and are used to meet with the hole 112 on the tube wall of the outer tube 11, thus the liquid 90 with said tube may be properly flow out; besides, the hole 133 which is installed between the plug portion 132 and the outer ring portion 131 of the plug 13 is used to substituted the hole 112 on the near front end of the outer tube 11.

In the first embodiment, there is an alternative design for the plug 13 that the hole 133 in said plug 13 is replaced by a penetrating hole 134 provided at the center of the plug portion 132 of the plug 13 such that opening of the penetrating hole 134 is closed when the surrounding of the plug 13 is pressed by sealing the inner tube 12 as shown in Fig. 4A. However, the plug portion 132 will no more be pressed after the front end of the inner tube 12 is released from the plug portion 132 of the plug 13, and the opening of the penetrating hole 134 will be automatically opened, as showing in Fig. 4B.

In the first embodiment, a small volume of non-toxic liquid silicon oil 91 is filled on the front end of the liquid filled on the inner tube, so that the airtight and lubricant property of the plug is enhanced, and while the volatile rate of the liquid 90 filled in the inner tube 12 is low, the outer tube 11 and the plug 13 may be removed, and the silicon oil is used to seal the liquid 90.

Besides, in the first embodiment, in one end of the outer tube for flowing said liquid 90 is enclosed by a proper packet 14 (such as absorption cotton, brush, etc.) depending on the proper of said liquid 90, as shown in the Figs. 2 and 3. If the liquid 90 is directly used or drunk, then the packet may be neglect.

Fig. 5 is the second embodiment of the present invention, the structure thereof is mainly

comprised of a tube body 21, a plug 22 and push bolt 23, wherein:

The tube body 21 is a hollow tube body near the front end of which has a pressured concave portion, and a respective convex portion 211 is located within the tube. A hole 213 is installed near the rear end of said tube body 21, and the inner wall in the front end of the hole 213 has a convex portion 212.

The plug 22 is a solid body the size of which may be inserted into said convex portion 211 on the inner wall of said tube body 21 for tightly sealing the front end of said tube body 21.

The push bolt 23 the size of which is exactly filled into the rear opening of said tube body 21 for tightly sealing the rear end of said tube body 21, and within said push bolt 23 is installed with a channel 231 extending from the side face of said push bolt 23 to the front end of said push bolt 23.

By the aforementioned structure, the convex portion 211 on the inner wall of the front end of said tube body 21 is filled by said plug 22 for tightly the front end which is filled liquid 90. The push bolt 23 is located on the rear end of said tube body 21, and the rear end thereof is exposed to the outside of said tube body 21. Then, the opening of the channel 231 on the side face of said push bolt 23 is sealed by the inner tube wall of the tube body 21, and which is not connected with the hole 213 on the rear end of said tube wall. When the liquid 90 within the tube will flow out, the push bolt 23 is pushed to move toward the front end of said tube body 21, thus the plug 22 is pushed away by the fluid pressure inducing from the flowing of said liquid 90, and the push bolt 23 moves continuously, until the front end thereof is resisted against the convex portion 212 on the rear inner wall of said tube body 21 and then it is stopped. Then the opening of the channel 231 on the side face of the push bolt 23 is exactly connected with the hole 213, therefore, the liquid 90 is flew forwards to pass

through the hole on the tube body 21 by atmosphere pressure, capillarity phenomenon and gravity.

Besides, in the second embodiment, in one end of the outer tube 21 for flowing said liquid 90 is enclosed by a proper packet depending on the proper of said liquid 90. If the liquid 90 is directly used or drunk, then the packet may be neglect. Besides, a small volume of non-toxic liquid silicon oil 91 is filled on the front end of the liquid filled on the inner tube, so that the airtight and lubricant property of the plug 22 is enhanced, and while the volatile rate of the liquid 90 filled in the inner tube is low, the plug 22 may be removed, and the silicon oil 91 is used to seal the liquid 90.

In this second embodiment, the convex portion 212 located near the rear end of aid tube body 21 may not be installed, while the channel 231 on the side face of said push bolt 23 may be designed as the opening of said channel 231 is exactly connected with said hole 213 on the rear end of said tube body 21 when the front end of said push bolt 23 is pushed towards the front end of said tube body 21 until it is wholly inserted into said tube body 21.

Fig. 6 is the third embodiment of the airtight simple tubular container in the present invention, the structure thereof is mainly comprised of a tube body 31, a plug 32 and a pull piece 33, wherein:

The tube body 31 is a hollow tube body the rear end of which is enclosed, and the breakable portion 311 is installed near the rear end of said tube body 31, while a handhold portion with a flat shape or other shape is installed on the rear end thereof for holding by hand.

The plug 32 is a solid body which may be tightly inserted into the opening on the front end of the tube body 31 for sealing said tube body.

The pull piece 33 is connected with said plug 32.

By the aforementioned structure, the front opening of said tube body 31 is tightly sealed by the plug 32, and the pull piece 33 which is connected with said plug 32 is exposed to the outside of said tube. If it is intended to flow out the liquid 90 within said tube body 31, the pull piece 33 is pulled outwards (the pull piece 33 is also connected on the packet, and the rear end thereof is held by hand, then it is pulled afterwards), then the plug 32 on the opening on the tube body 31 may be pull out, and then the breakable portion 311 is broken, therefore, the liquid 90 is flew towards the front end of said tube body 31 and then is passed through the hole on the tube body 31 by atmosphere pressure, capillarity phenomenon and gravity.

In the third embodiment, a hole 312 which is sealed by a viscose 34 is installed near the rear end of the tube body 31 in order to substitute said breakable portion 311. When the hole 312 near the front end of said tube body is not sealed by plug 32, the viscose 34 may be torn off so the hole 312 will expose to the outside, thus the object for the liquid 90 within the tube to flow out is attained, or both the viscose 34 and the breakable portion 311 may be installed simultaneously, the user may select to use said viscose 34 or said breakable portion 311 as his or her pleasure, thus the object for the air flowing into the tube body 31 is attained.

Besides, in the third embodiment, in one end of the tube body 31 for flowing said liquid 90 is enclosed by a proper packet depending on the proper of said liquid 90. If the liquid 90 is directly used or drunk, then the packet may be neglect.

In this embodiment, a small volume of non-toxic liquid silicon oil 91 is filled on the front end of the liquid 90 filled on the tube body 31, so that the airtight and lubricant property of the plug 32 is enhanced, and while the volatile rate of the liquid 90 filled in the tube body 31 is low, the plug 32 and pull piece 33 may be removed, and the silicon oil 91 is used to seal

the liquid 90.

In this embodiment, the plug 32 and pull piece 33 may be substituted by the screwed plug. In using, the plug is tightly screwed to attain the same function.

Fig. 7 is the cross-sectional view of airtight simple container in the fourth embodiment according to the present invention, wherein its main structure includes: a hollow tube body 41 with sealed rear end having a breakable portion 411. A holding portion 412 in cylindrical, flat or other shapes may be provided at said rear end for the user to hold by hand. One end of the tube body 41 is opened for inspection the liquid 90 inside with properly enclosed packet (absorbing element) 14 (such as a cotton ball or a brush etc.). If the liquid 90 contained in the tube body 41 is to be directly drank or used (for example , applying ointment directly to the body, instilling ophthalmic solution, spraying perfumes etc.) the packet 14 may be eliminated, as described in the fifth embodiment in Fig 8.

Furthermore, a small amount of non-toxic liquid silicon oil stopper 43 may be filled into the front tip of the tube body 41 wherein liquid 90 is contained, so as to seal the liquid 90 inside the tube body 41. In front of the silicon oil stopper 43, there is a reserved space 42. After the breakable portion 411 is broken by exerting a pressure on the holding portion 412, the content of the tube body 41 is exposed to the atmosphere. At this moment the liquid 90 in the tube body 41 is forced to flow towards the front end of the tube body 41 by atmospheric pressure, capillarity phenomenon and gravity via liquid silicon oil stopper 43 and a breach formed by said reserved space 42 in the tube body 41, and finally reaches the packet 14 at the opening in the front end of tube body 41. The liquid 90 is then absorbed by the packet 14 ready for use . In case the liquid 90 is to be directly used, the installation of the packet 14 is omitted allowing the liquid 90 to flow out of the tube body 41 as described in the fifth embodiment shown in Fig. 8.

In the aforementioned airtight simple tubular container of the present invention, the shapes, material and size, and the number and size of said hole of the tube body are determined by the substantial requirement of said filled liquid 90.

Accordingly, the airtight simple tubular container has improved the functions in transportation, usage, health and conservation of the container for filling liquid in the prior art. The airtight simple tubular container of the present invention is not only compact and easily portable, but also the liquid volume may be adjusted as required for tightly sealing within said tubular container. Further, by the principle of atmosphere, the user may easily take out the liquid within the tube.

Many changes and modifications in the above described embodiment of the invention can, of course, be carried out without departing from the scope thereof. Accordingly, to promote the progress in science and the useful arts, the invention is disclosed and is intended to be limited only by the scope of the appended claims.



What Is Claimed Is:

1. An airtight simple tubular container mainly comprising:

an outer tube being a hollow tube and the rear end thereof is installed with holes, a concave portion being located near the tube wall in the rear end of the hole for being opposite to a convex portion on the inner wall of the outer tube;

an inner tube being a hollow tube the rear end thereof is enclosed, and the diameter thereof being smaller than that of the outer tube so that the inner tube may be penetrated within the outer tube for moving freely, and a ring convex portion the diameter of which is large than that of the tube body being installed near the front end, a handhold portion being installed on the rear end of the inner tube for being held by hand;

a plug being a solid body a plug portion in the center of which is wider than the outer ring portion on the periphery, the outer ring portion thereof being fixed on the front opening of said outer tube, while the plug portion on the center thereof being tightly squeezed into said inner tube for sealing said inner tube; wherein

by using said structure, the inner tube which is filled with liquid is passed through said inner tube, and the front opening of the inner tube is tightly sealed by the plug portion of said plug, and the outer ring of said plug is fixed on the front opening of the outer tube, while the rear end of the inner tube is projected to the outer of the outer tube, when the liquid will be flow out from inner tube, the inner tube is held by hand and is pulled backwards so that said inner tube which is now located inside the outer tube is moved backwards, thus the front portion of said inner tube is separated with said plug if the outer tube, when the ring convex portion is not contacted with the convex portion in the inner wall of the outer tube, the inner tube may be continuously moved backwards, now the breakable portion near the rear end is still within the outer tube so it will not be break. when



the inner tube is moved backwards to the ring convex portion and is contacted with the convex portion of said outer tube, then the inner tube is limited for preventing to be moved backwards, now the breakable portion is exactly exposed to the outside of the outer tube, therefore, the inner tube is easily to be broken, after the inner tube is broke, the liquid with the inner tube is flew forwards to passed through the hole on the outer tube by atmosphere pressure, capillarity phenomenon and gravity.

2. The airtight simple tubular container as claimed in claim 1, wherein the hole which is installed near the front end of said outer tube may also be installed on the plug, said hole is installed on a plug body between the outer ring portion and said plug portion, and the size and number of said hole is not limited.

3. The airtight simple tubular container as claimed in claim 1, wherein a plurality of holes which penetrates through said plug is installed on a plug body between said outer ring portion and said plug portion of said plug for matching with the hole on the tube wall on the outer tube so that liquid inside the tube may flow out properly and uniformly.

4. The airtight simple tubular container as claimed in claim 1, wherein a small volume of non-toxic liquid silicon oil is filled on the front end of the liquid filled on the inner tube, so that the airtight and lubricant property of the plug is enhanced, and while the volatile rate of the liquid filled in the inner tube is low, the outer tube and the plug may be removed, and the silicon oil is used to seal the liquid.

5. The airtight simple tubular container as claimed in claim 1, wherein in one end of the



outer tube for flowing said liquid is enclosed by a proper packet depending on the proper of said liquid.

6. The airtight simple tubular container as claimed in claim 1, wherein the shapes, material and size, and the number and size of said hole of the inner tube and outer tube are determined by the substantial requirement of said filled liquid.

7. A airtight simple tubular container of present invention mainly comprising a tube body, a plug and push bolt, wherein:

the tube body is a hollow tube body near the front end of which has a pressured concave portion, and a respective convex portion is located within the tube, a hole is installed near the rear end of said tube body, and the inner wall in the front end of the hole has a convex portion;

the plug is a solid body the size of which may be inserted into said convex portion on the inner wall of said tube body for tightly sealing the front end of said tube body; and

the push bolt the size of which is exactly filled into the rear opening of said tube body for tightly sealing the rear end of said tube body, and within said push bolt is installed with a channel extending from the side face of said push bolt to the front end of said push bolt;

by the aforementioned structure, the convex portion on the inner wall of the front end of said tube body is filled by said plug for tightly the front end which is filled liquid, the push bolt is located on the rear end of said tube body, and the rear end thereof is exposed to the outside of said tube body, then, the opening of the channel on the side face of said push bolt is sealed by the inner tube wall of the tube body, and which is not connected with the hole on the rear end of said tube wall when the liquid within the tube will flow out, the push bolt



is pushed to move toward the front end of said tube body, thus the plug is pushed away by the fluid pressure inducing from the flowing of said liquid, and the push bolt moves continuously, until the front end thereof is resisted against the convex portion on the rear inner wall of said tube body and then it is stopped, then the opening of the channel on the side face of the push bolt is exactly connected with the hole, therefore, the liquid is flew forwards to pass through the hole on the tube body by atmosphere pressure, capillarity phenomenon and gravity.

8. The airtight simple tubular container as claimed in claim 7, wherein the convex portion located near the rear end of said tube body may not be installed, while the channel on the side face of said push bolt may be designed as the opening of said channel is exactly connected with said hole on the rear end of said tube body when the front end of said push bolt is pushed towards the front end of said tube body until it is wholly inserted into said tube body.

9. The airtight simple tubular container as claimed in claim 7, wherein in one end of the tube body for flowing said liquid is enclosed by a proper packet depending on the proper of said liquid.

10. The airtight simple tubular container as claimed in claim 7, wherein a small volume of non-toxic liquid silicon oil is filled on the front end of the liquid filled on the tube body, so that the airtight and lubricant property of the plug is enhanced, and while the volatile rate of the liquid filled in the inner tube is low, the plug may be removed, and the silicon oil is used to seal the liquid.



11. The airtight simple tubular container as claimed in claim 7, wherein the shapes, material and size, and the number and size of said hole of the tube body are determined by the substantial requirement of said filled liquid.

12. A airtight simple tubular container of present invention mainly comprising a tube body, plug and a pull piece , wherein:

the tube body is a hollow tube body the rear end of which is enclosed, and the breakable portion is installed near the rear end of said tube body, while a handhold portion with a flat shape or other shape is installed on the rear end thereof for holding by hand;

the plug is a solid body which may be tightly inserted into the opening on the front end of the tube body for sealing said tube body; and

the pull piece is connected with said plug;

by the aforementioned structure, the front opening of said tube body is tightly sealed by the plug, and the pull piece which is connected with said plug is exposed to the outside of said tube, if it is intended to flow out the liquid within said tube body, the pull piece is pulled outwards, then the plug on the opening on the tube body may be pull out, and then the breakable portion is broken, therefore, the liquid is flew towards the front end of said tube body and then is passed through the hole on the tube body by atmosphere pressure, capillarity phenomenon and gravity.

13. The airtight simple tubular container as claimed in claim 12, wherein, a hole which is sealed by a viscose is installed near the rear end of the tube body in order to substitute said breakable portion, when the hole near the front end of said tube body is not sealed by plug,



the viscose may be torn off so the hole will expose to the outside, thus the object for the liquid within the tube to flow out is attained.

14. The airtight simple tubular container as claimed in claim 12, wherein, in addition to said breakable portion, a hole which is sealed by a viscose is installed near the rear end of the tube body may be added, when the hole near the front end of said tube body is not sealed by plug, the viscose may be torn off so the hole will expose to the outside, thus the object for the liquid within the tube to flow out is attained, or both the viscose and the breakable portion may be installed simultaneously, the user may select to use said viscose or said breakable portion as his or her pleasure.

15. The airtight simple tubular container as claimed in claim 12, wherein in one end of the tube body for flowing said liquid is enclosed by a proper packet depending on the proper of said liquid.

16. The airtight simple tubular container as claimed in claim 12, wherein a small volume of non-toxic liquid silicon oil is filled on the front end of the liquid filled on the tube body, so that the airtight and lubricant property of the plug is enhanced, and while the volatile rate of the liquid filled in the tube body is low, the plug may be removed, and the silicon oil is used to seal the liquid.

17. The airtight simple tubular container as claimed in claim 12, wherein the plug and pull piece may be substituted by the screwed plug, in using, the plug is tightly screwed to attain the same function.



18. The airtight simple tubular container as claimed in claim 12, wherein the shapes, material and size, and the number and size of said hole of the tube body are determined by the substantial requirement of said filled liquid.

19. The airtight simple tubular container comprising:

a hollow tube body with sealed rear and having a breakable portion near its rear end, a holding portion is provided at the rear end of said breakable portion for holding by hand, the liquid is contained in said tube body;

a small amount of non-toxic liquid silicon oil stopper provided in the front end of tube body wherein the liquid is contained, and,

a reserved space provided in front of said silicon oil stopper,

after the breakable portion is broken by exerting a pressure on said holding portion, the liquid in the tube body is forced to flow towards the front end of the tube body by atmospheric pressure, capillarity phenomenon and gravity via said liquid silicon oil stopper and a breach formed by said reserved space in said tube body, and finally flows out of said tube body.

20. The airtight simple tubular container as claimed in claim 19, wherein a properly enclosed packet with an absorbing element is provided at one tube body end where by the liquid flowing out for conveniently inspecting the liquid contained in the tube body.

21. The airtight simple tubular container as claimed in claim 19, wherein the shape, material and size of said tube body can be determined by actual requirements.

AIRTIGHT SIMPLE TUBULAR CONTAINER

ABSTRACT OF THE DISCLOSURE

The present invention is related to a airtight simple tubular container, the structure of which is mainly comprised of a tube body, a plug, and a packet: The tube is filled with liquid (such as: medical liquid, ointment, perfume, etc.). One end of said tube body is as an opening for the liquid to flow out and is sealed by a plug, which is sealed by a proper packet, while the other end is made as a breakable portion and a sealed hole. After the breakable portion has been broken or the sealed hole has been opened, hen the liquid will be forced to flow to the packet by the atmosphere pressure, capillarity phenomenon, and gravity for coating and using. By the aforementioned structure, the required liquid may be filled within said tube for using freely. Therefore, the airtight simple tubular container of the present invention is not only compact and easily portable, but also healthful and practical.

(FIG. 1)

(Figure 1. is suggested for publication.)

THIS SHEET HAS BEEN
REPLACED

This Sheet Has Been Replaced



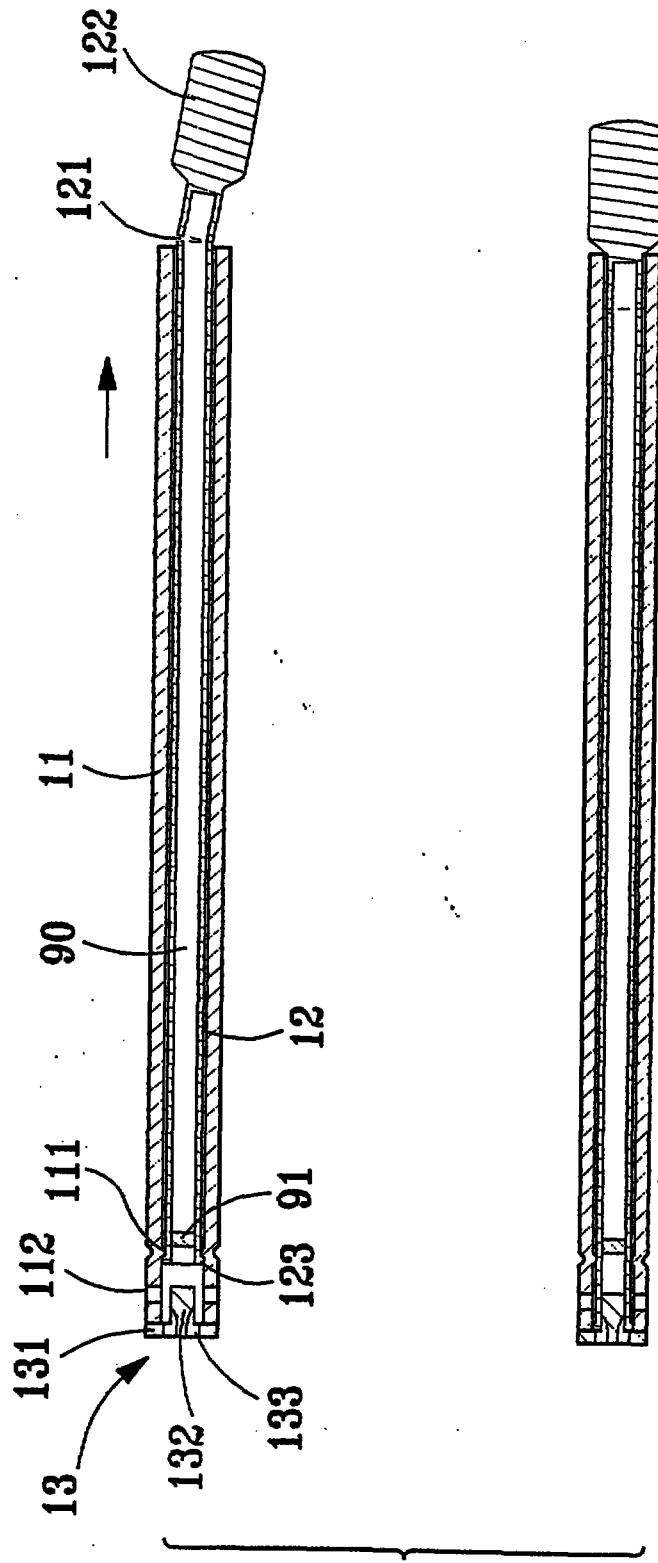


FIG. 1

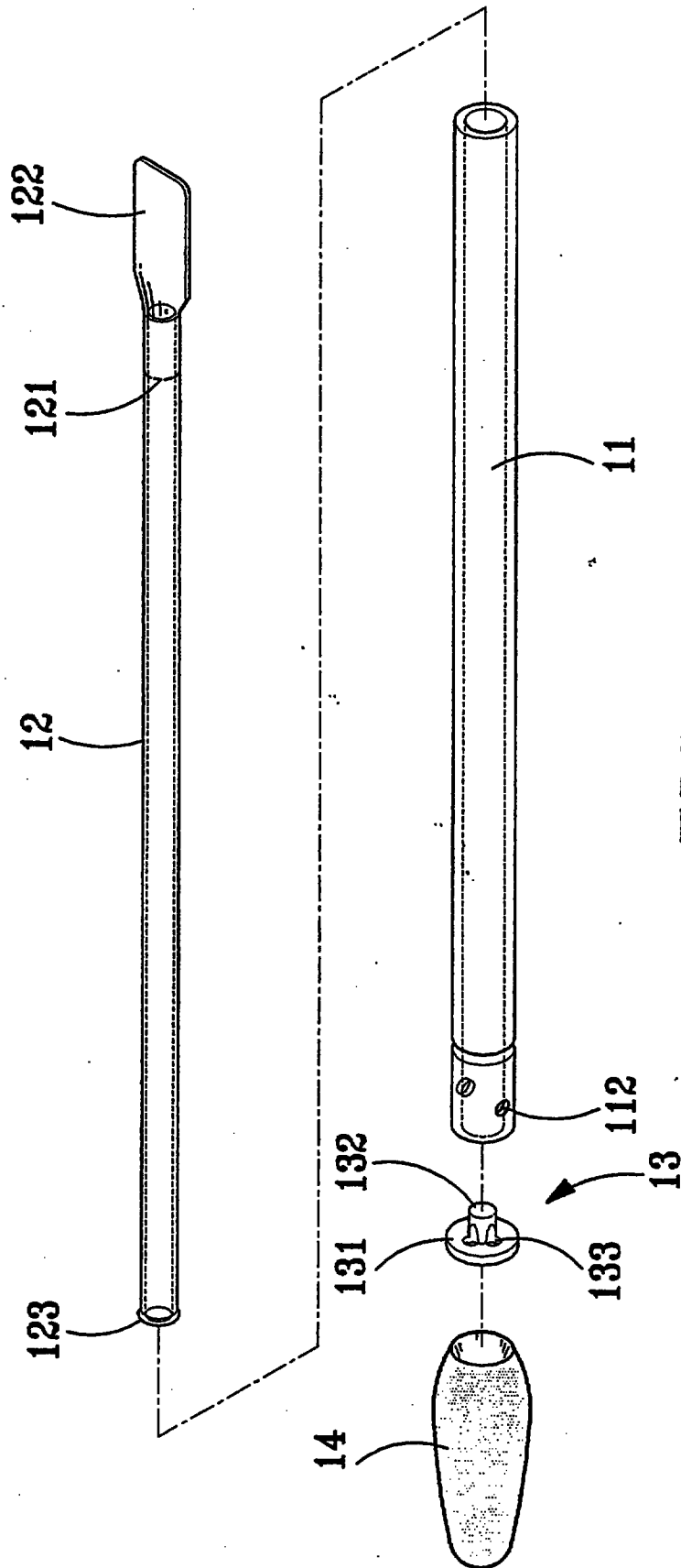


FIG. 2

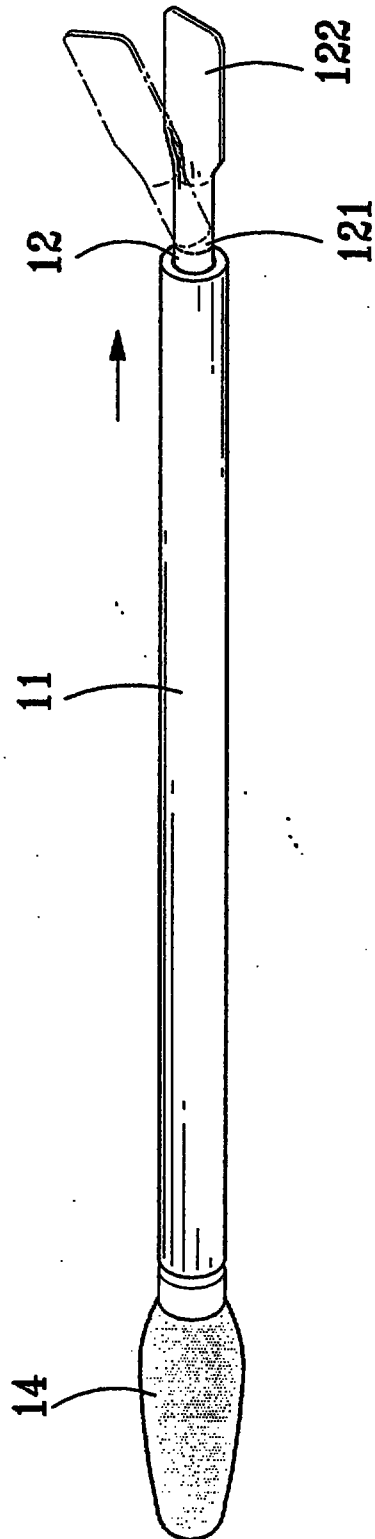


FIG. 3

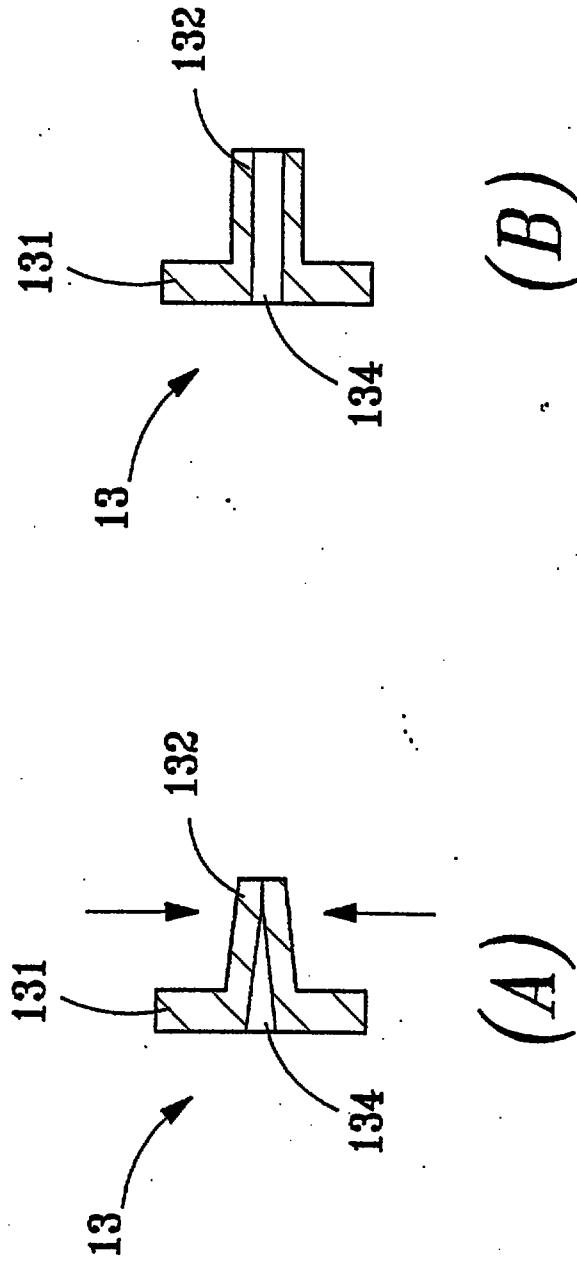


FIG. 4

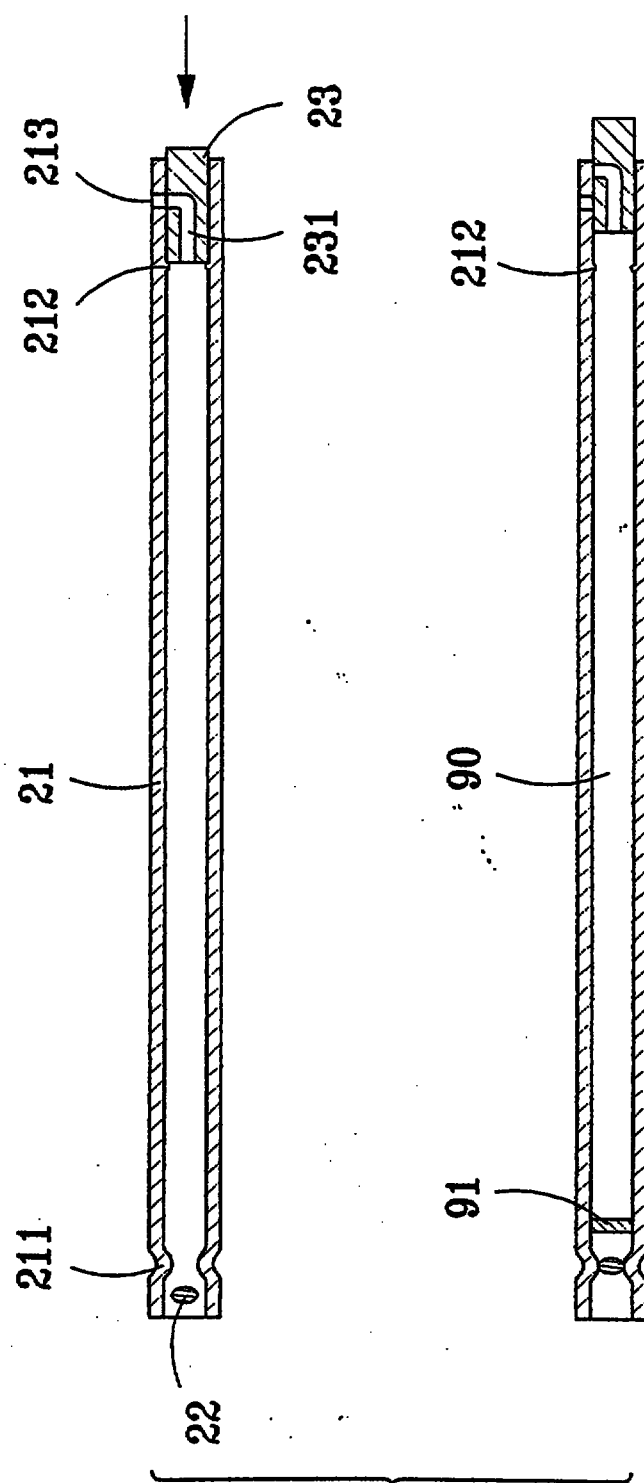


FIG. 5

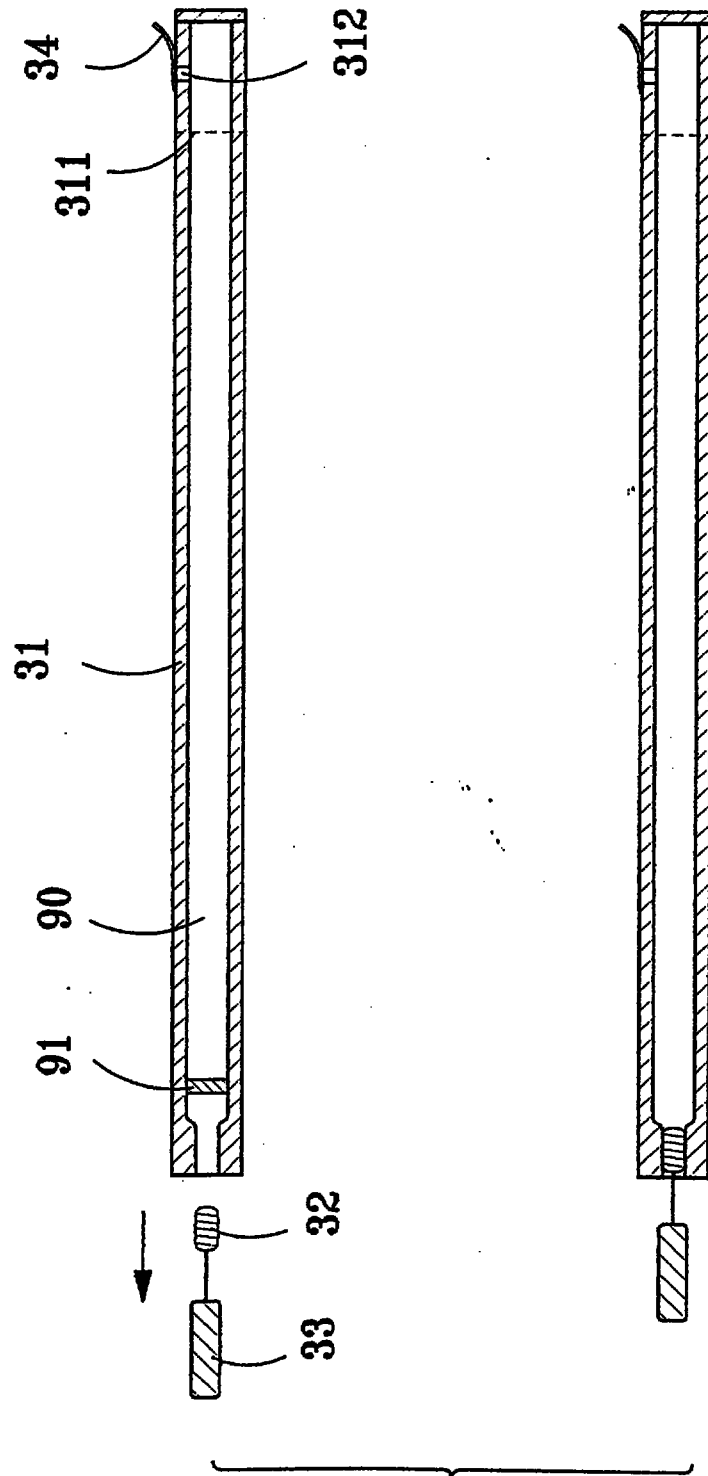


FIG. 6

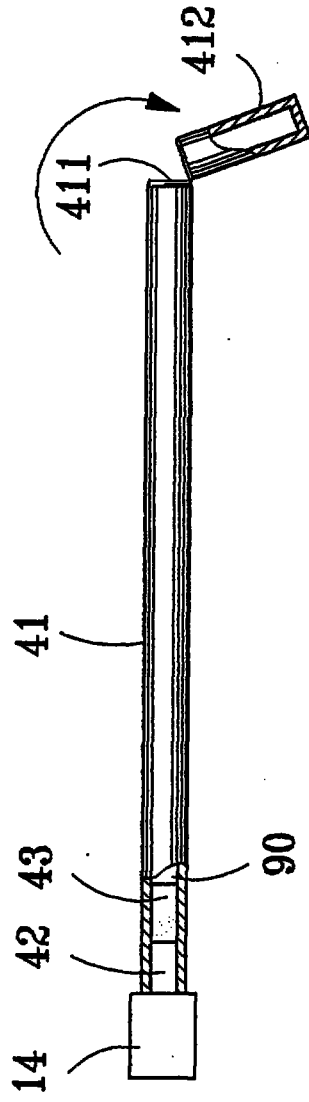


FIG. 7

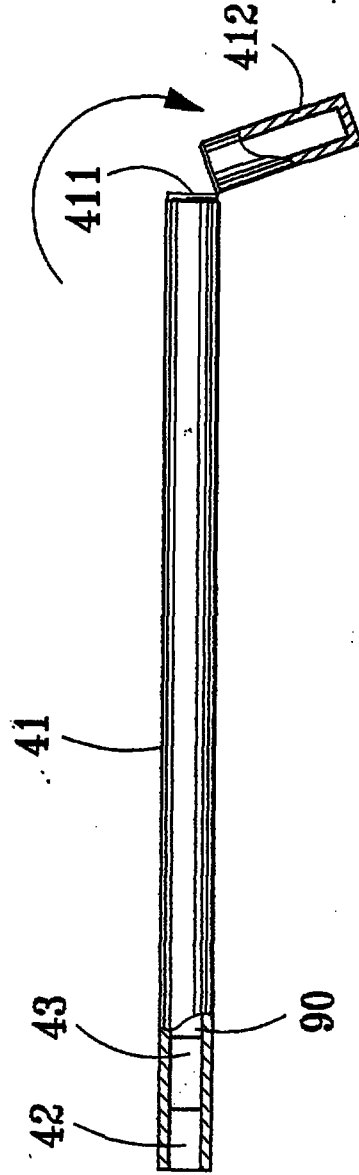


FIG. 8



TEXT OF THE ABSTRACT

AIRTIGHT SIMPLE TUBULAR CONTAINER

The present invention is related to a airtight simple tubular container, the structure of which is mainly comprised of a tub body, a plug (13), and a packet. The tube is filled with liquid (such as: medical liquid, ointment, perfume, etc.). One end of said tube body is as an opening for the liquid to flow out and is sealed by a plug, which is sealed by a proper packet, while the other end is made as a breakable portion (121) and a sealed hole. After the breakable portion (121) has been broken or the sealed hole has been opened, when the liquid will be forced to flow to the packet by the atmosphere pressure, capillarity phenomenon, and gravity for coating and using. By the aforementioned structure, the required liquid may be filled within said tube for using freely. Therefore, the airtight simple tubular container of the present invention is not only compact and easily portable, but also healthful and practical.

Figure 1.

