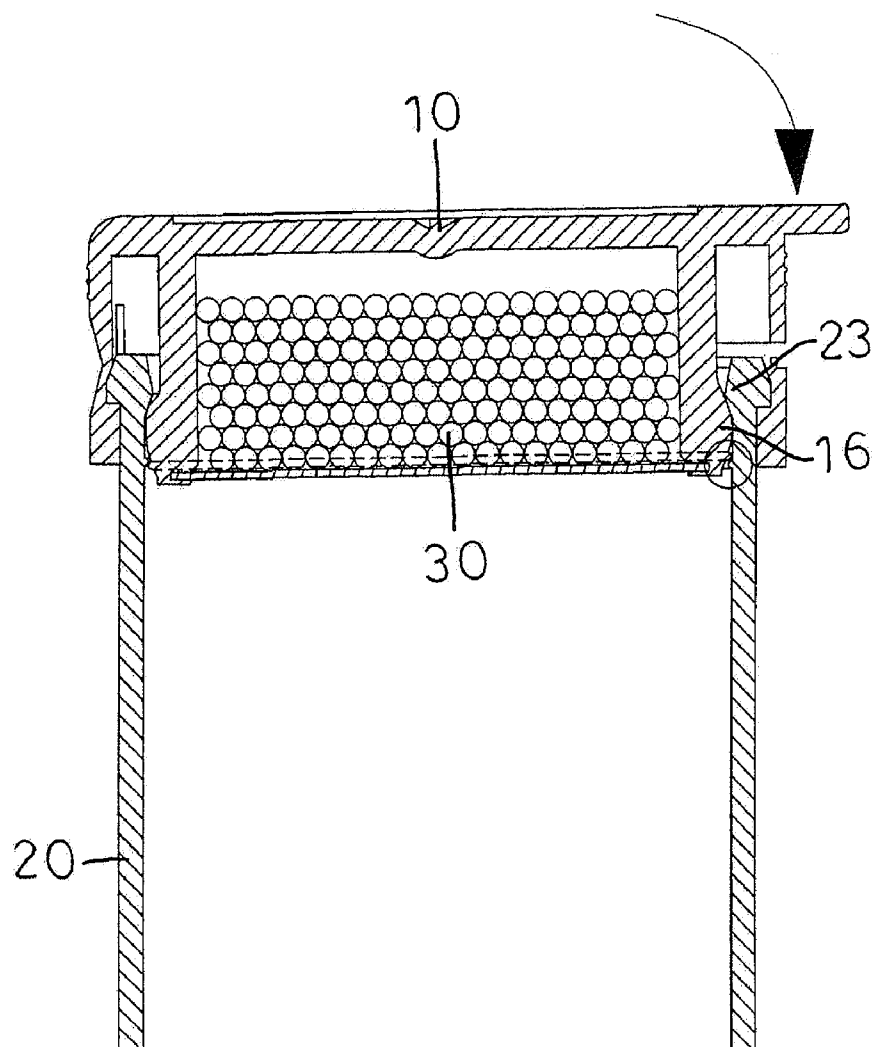




US 20150259115A1

(19) **United States**(12) **Patent Application Publication**
Yeh(10) **Pub. No.: US 2015/0259115 A1**(43) **Pub. Date: Sep. 17, 2015**(54) **SEALED CONTAINER WITH
MOISTURE-PROOF FUNCTION**(52) **U.S. Cl.**
CPC **B65D 51/30** (2013.01); **B65D 45/322**
(2013.01)(71) Applicant: **Huan-Fu Yeh**, Miaoli City (TW)(72) Inventor: **Huan-Fu Yeh**, Miaoli City (TW)(21) Appl. No.: **14/205,549**(22) Filed: **Mar. 12, 2014****Publication Classification**(51) **Int. Cl.**
B65D 51/30 (2006.01)
B65D 45/32 (2006.01)(57) **ABSTRACT**

A sealed container includes a bottle having a mouth, a cover mounted on the mouth of the bottle, and a retaining ring connected with the cover and mounted on the mouth. The mouth has an outer diameter provided with a locking flange and an inner diameter provided with a protrusion and a first leakproof air-tight protruding ring-shaped portion. The retaining ring has an inner diameter provided with a locking snap locked onto the locking flange. The cover has a connecting portion connected with the retaining ring. The cover has a tap inserted into the mouth. The tap has an outer diameter provided with a projection pressing the protrusion. The projection is provided with a second leakproof air-tight protruding ring-shaped portion pressing the first leakproof air-tight protruding ring-shaped portion.



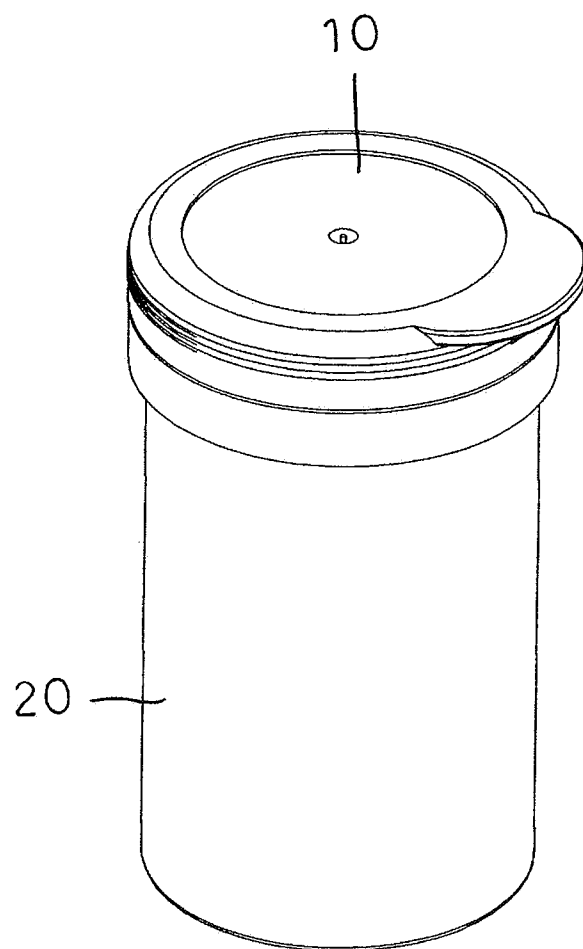


FIG. 1

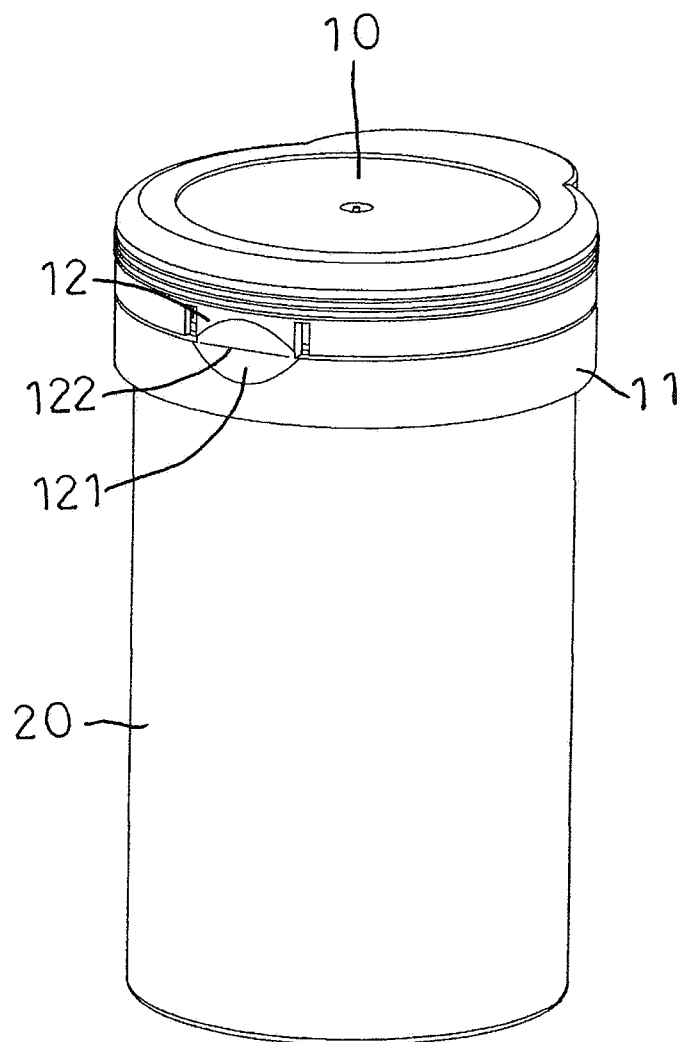


FIG. 2

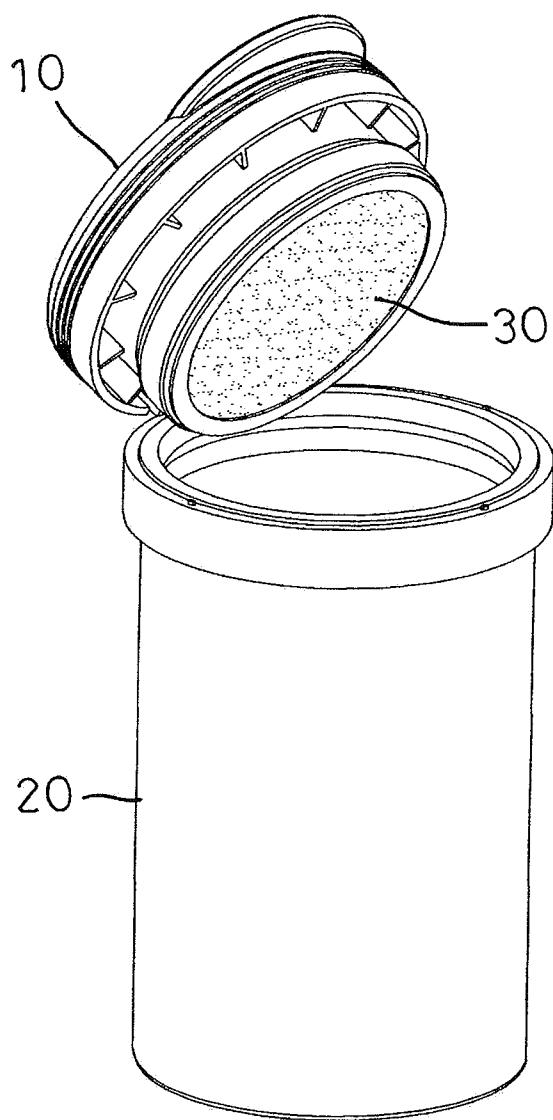


FIG. 3

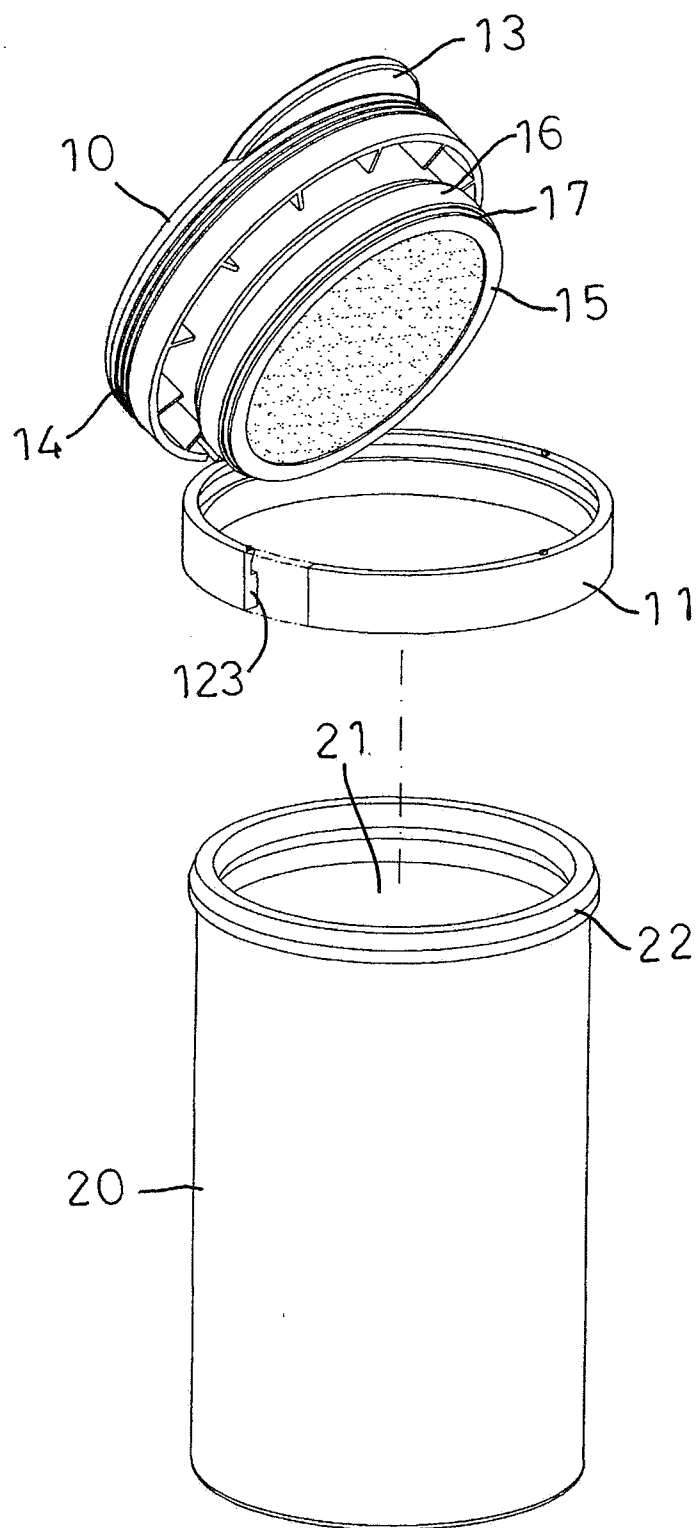


FIG. 4

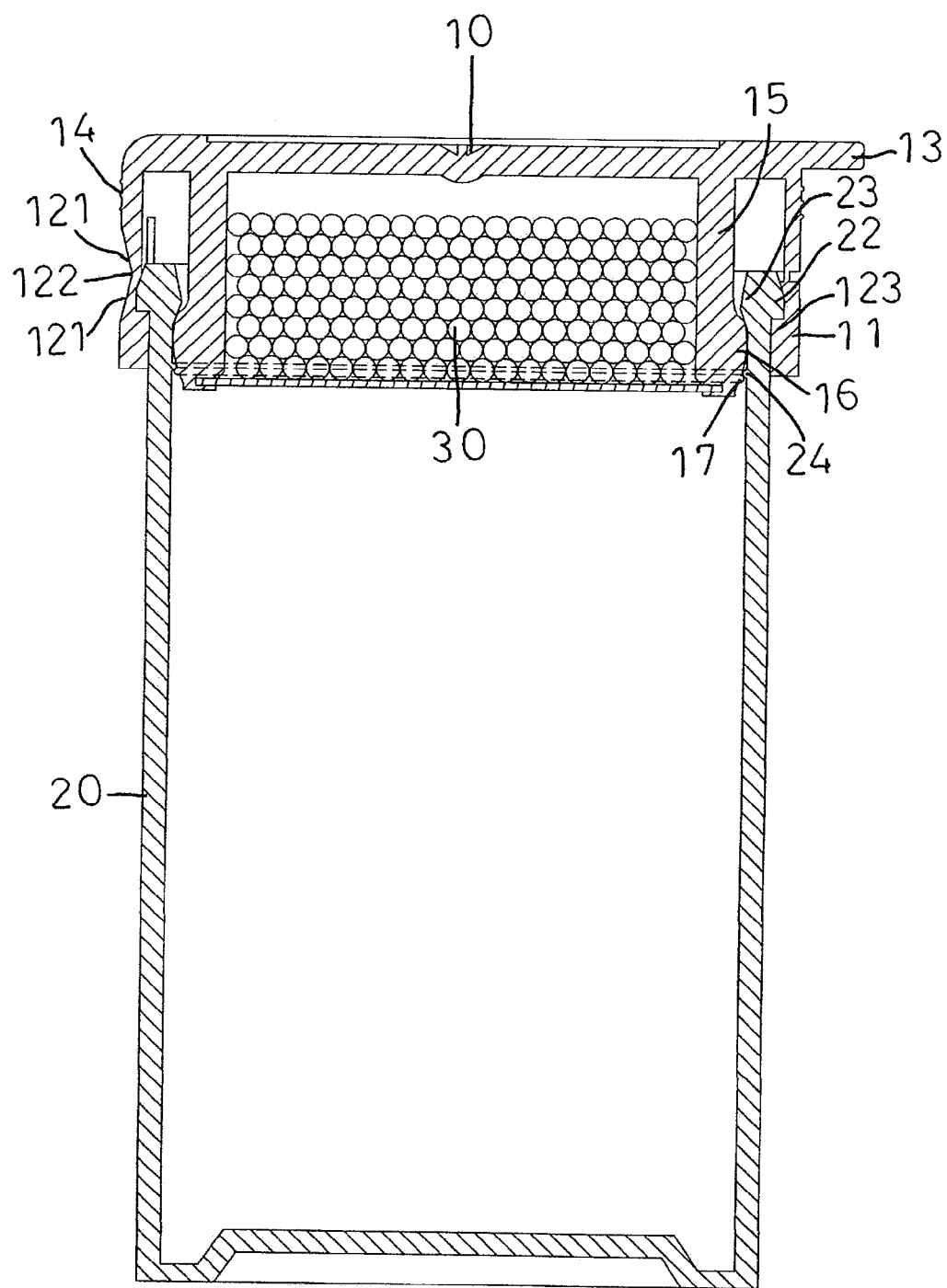


FIG. 5

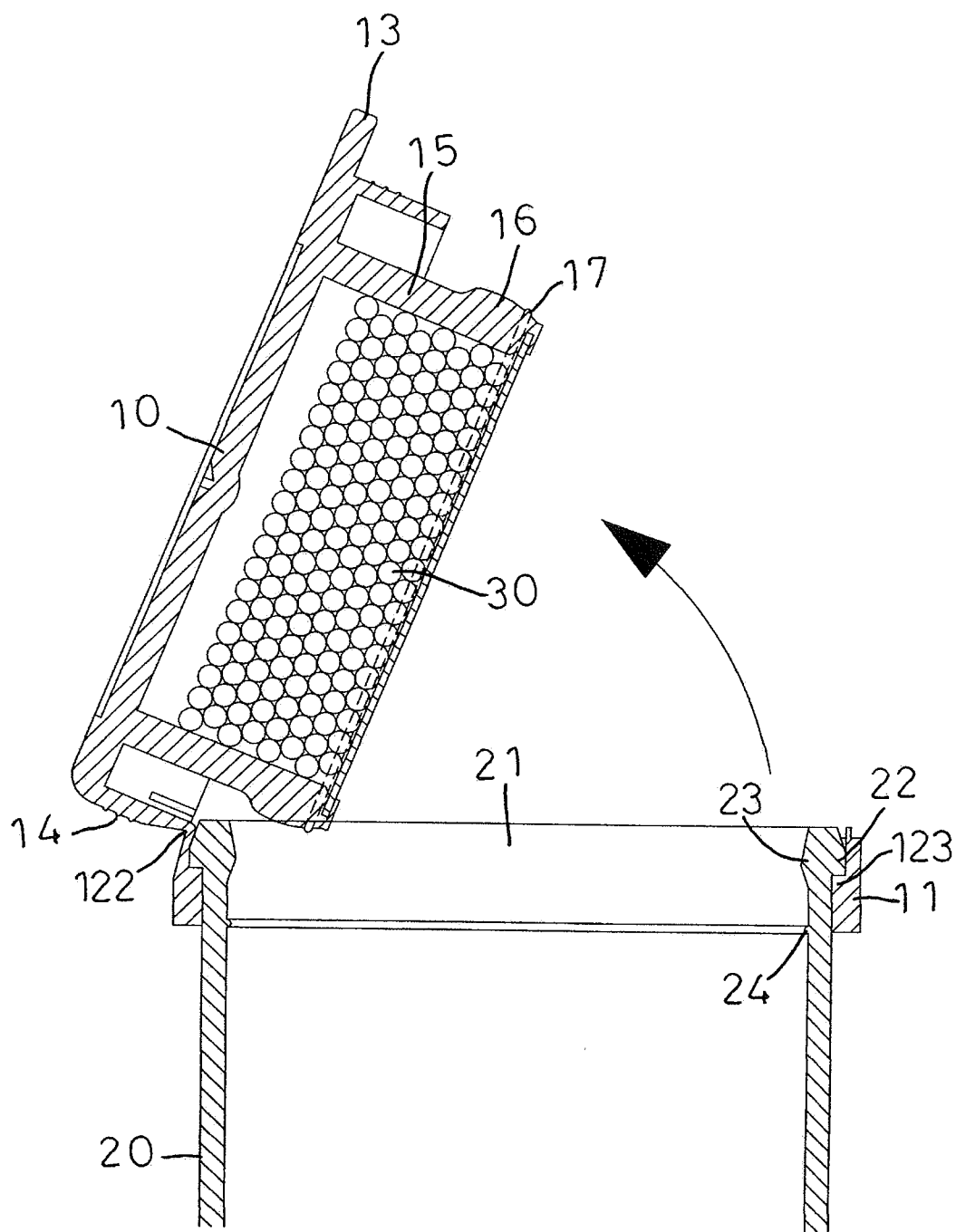


FIG. 6

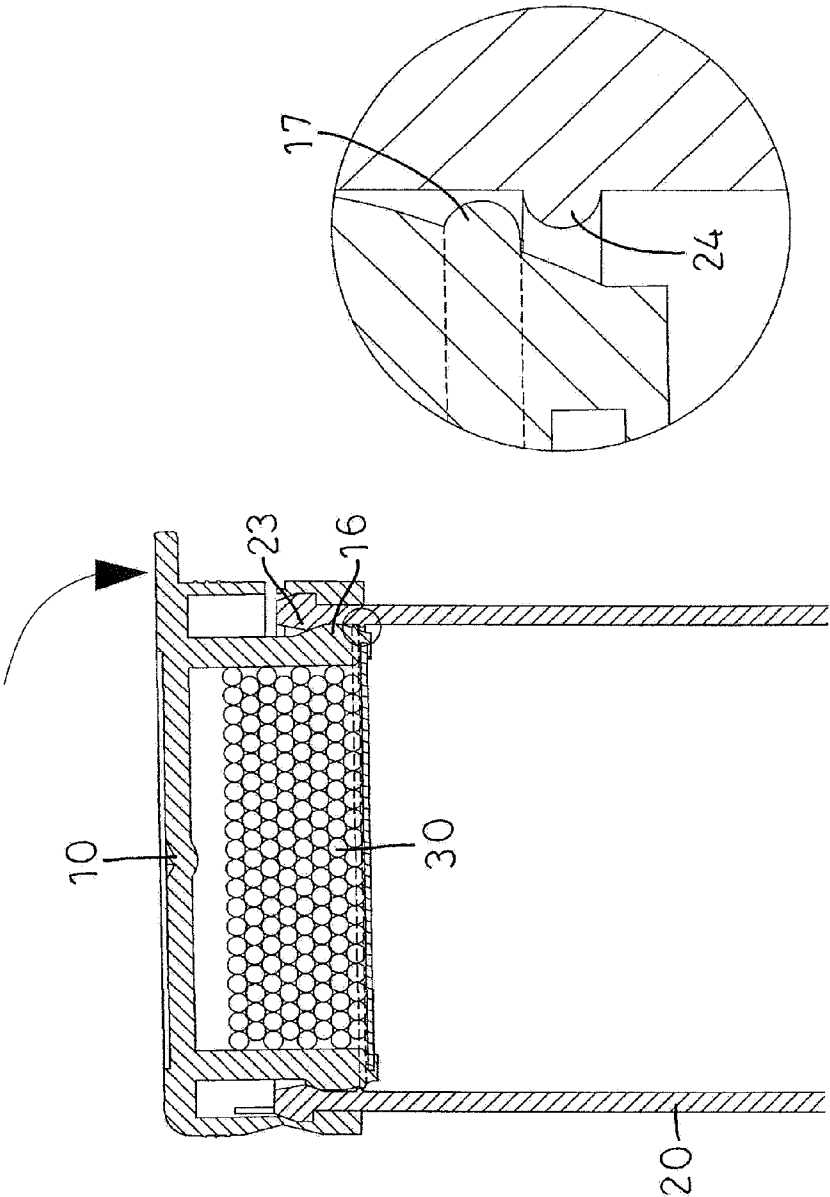


FIG. 8

FIG. 7

SEALED CONTAINER WITH MOISTURE-PROOF FUNCTION

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a container and, more particularly, to a sealed container with a moisture-proof function.

[0003] 2. Description of the Related Art

[0004] A conventional sealed container comprises a bottle, a cover removably mounted on the bottle, and a fastening member mounted between the bottle and the cover to combine the bottle and the cover together. The cover is removed from the bottle after the fastening member is released to open the bottle. However, the cover is separated from the bottle after the bottle is opened, so that the cover is easily missed or lost.

BRIEF SUMMARY OF THE INVENTION

[0005] In accordance with the present invention, there is provided a sealed container comprising a bottle having a mouth, a cover mounted on the mouth of the bottle, and a retaining ring connected with the cover and mounted on the mouth of the bottle. The mouth of the bottle has an outer diameter provided with a locking flange and an inner diameter provided with a protrusion and a first leakproof air-tight protruding ring-shaped portion. The retaining ring has an inner diameter provided with a locking snap locked onto the locking flange. The cover has a side provided with a connecting portion connected with the retaining ring. The connecting portion is provided with a folding line. The cover has a bottom provided with a tap inserted into the mouth of the bottle. The tap has an outer diameter provided with a projection pressing the protrusion. The projection is provided with a second leakproof air-tight protruding ring-shaped portion pressing the first leakproof air-tight protruding ring-shaped portion.

[0006] Preferably, the cover has an outer periphery provided with a plurality of annular protruding portions.

[0007] Preferably, the cover has a top provided with a protruding grip portion located opposite to the connecting portion.

[0008] Preferably, the tap has a hollow interior provided with a drying agent.

[0009] Preferably, the connecting portion has an outside provided with a recessed portion, and the folding line is located in the recessed portion.

[0010] According to the primary advantage of the present invention, the projection presses the protrusion, and the second leakproof air-tight protruding ring-shaped portion presses the first leakproof air-tight protruding ring-shaped portion to form an air-tight sealing connection between the tap and the mouth of the bottle, so that the cover is combined with the mouth of the bottle exactly and tightly so as to seal the mouth of the bottle closely.

[0011] According to another advantage of the present invention, the cover is connected with the retaining ring which is locked onto the mouth of the bottle, so that the cover is attached to the mouth of the bottle by the retaining ring and will not be detached from the mouth of the bottle, to prevent the cover from being lost after being opened.

[0012] According to a further advantage of the present invention, the drying agent absorbs the moisture in the bottle to achieve a dehumidifying and deodorizing purpose.

[0013] Further benefits and advantages of the present invention will become apparent after a careful reading of the detailed description with appropriate reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S)

[0014] FIG. 1 is a perspective view of a sealed container in accordance with the preferred embodiment of the present invention.

[0015] FIG. 2 is a rear perspective view of the sealed container as shown in FIG. 1.

[0016] FIG. 3 is a perspective opened view of the sealed container as shown in FIG. 1.

[0017] FIG. 4 is an exploded perspective view of the sealed container as shown in FIG. 1.

[0018] FIG. 5 is a front cross-sectional view of the sealed container as shown in FIG. 1.

[0019] FIG. 6 is a schematic operational view of the sealed container as shown in FIG. 5.

[0020] FIG. 7 is a schematic operational view of the sealed container as shown in FIG. 6.

[0021] FIG. 8 is a locally enlarged view of the sealed container as shown in FIG. 7.

DETAILED DESCRIPTION OF THE INVENTION

[0022] Referring to the drawings and initially to FIGS. 1-5, a sealed container in accordance with the preferred embodiment of the present invention comprises a bottle 20 having a mouth 21, a cover 10 mounted on the mouth 21 of the bottle 20, and a retaining ring 11 connected with the cover 10 and mounted on the mouth 21 of the bottle 20.

[0023] The mouth 21 of the bottle 20 has an outer diameter provided with a locking flange 22 and an inner diameter provided with a protrusion 23 and a first leakproof air-tight protruding ring-shaped portion 24. The first leakproof air-tight protruding ring-shaped portion 24 is located under the protrusion 23.

[0024] The retaining ring 11 has an inner diameter provided with a locking snap 123 locked onto the locking flange 22. The locking snap 123 is located under the locking flange 22. The inner diameter of the retaining ring 11 is located outside the outer diameter of the mouth 21.

[0025] The cover 10 is made of plastic material and has a side provided with a connecting portion 12 connected with the retaining ring 11. The connecting portion 12 is located between the cover 10 and the retaining ring 11 and provided with a folding line 122 which is located between the connecting portion 12 and the retaining ring 11 so that the cover 10 is pivotable relative to the retaining ring 11. The connecting portion 12 has an outside provided with a recessed portion 121, and the folding line 122 is located in the recessed portion 121. Thus, the recessed portion 121 prevents the folding line 122 from producing a sharp edge and prevents the folding line 122 from injuring the user.

[0026] The cover 10 has a top provided with a protruding grip portion 13 located opposite to the connecting portion 12 to facilitate the user remove the cover 10 from the mouth 21 of the bottle 20. The cover 10 has an outer periphery provided with a plurality of annular protruding portions 14 to provide a friction to the user so as to facilitate the user opening the cover 10 by his/her one hand.

[0027] The cover **10** has a bottom provided with a tap **15** inserted into the mouth **21** of the bottle **20**. The tap **15** has a hollow interior provided with a drying agent **30** to absorb the moisture in the bottle **20**. The tap **15** has an outer diameter provided with a projection **16** pressing the protrusion **23**. Preferably, the projection **16** is located under the protrusion **23**. The outer diameter of the tap **15** is closely fitted onto the inner diameter of the mouth **21**. The projection **16** is provided with a second leakproof air-tight protruding ring-shaped portion **17** pressing the first leakproof air-tight protruding ring-shaped portion **24** to form an air-tight sealing effect between the tap **15** and the mouth **21** so as to seal the bottle **20** closely. The second leakproof air-tight protruding ring-shaped portion **17** is located under the first leakproof air-tight protruding ring-shaped portion **24**.

[0028] As shown in FIG. 6, when the user applies an upward force on the grip portion **13**, the projection **16** is detached from the protrusion **23** to unlock the cover **10** from the mouth **21** of the bottle **20**, so that the cover **10** is pivoted upward relative to the retaining ring **11** so as to open the mouth **21** of the bottle **20**.

[0029] As shown in FIGS. 7 and 8 with reference to FIGS. 5 and 6, when the user applies a downward force on the grip portion **13**, the cover **10** is pivoted downward relative to the retaining ring **11**, so that the projection **16** is locked onto the protrusion **23** to lock the cover **10** onto the mouth **21** of the bottle **20**, so as to close the mouth **21** of the bottle **20**. At this time, the second leakproof air-tight protruding ring-shaped portion **17** presses the first leakproof air-tight protruding ring-shaped portion **24** to form an air-tight sealing connection between the tap **15** and the mouth **21** of the bottle **20** so as to seal the mouth **21** of the bottle **20** closely.

[0030] Accordingly, the projection **16** presses the protrusion **23**, and the second leakproof air-tight protruding ring-shaped portion **17** presses the first leakproof air-tight protruding ring-shaped portion **24** to form an air-tight sealing connection between the tap **15** and the mouth **21** of the bottle **20**, so that the cover **10** is combined with the mouth **21** of the bottle **20** exactly and tightly so as to seal the mouth **21** of the bottle **20** closely. In addition, the cover **10** is connected with the retaining ring **11** which is locked onto the mouth **21** of the bottle **20**, so that the cover **10** is attached to the mouth **21** of the bottle **20** by the retaining ring **11** and will not be detached from the mouth **21** of the bottle **20**, to prevent the cover **10**

from being lost after being opened. Further, the drying agent **30** absorbs the moisture in the bottle **20** to achieve a dehumidifying and deodorizing purpose.

[0031] Although the invention has been explained in relation to its preferred embodiment(s) as mentioned above, it is to be understood that many other possible modifications and variations can be made without departing from the scope of the present invention. It is, therefore, contemplated that the appended claim or claims will cover such modifications and variations that fall within the true scope of the invention.

1. A sealed container comprising:

- a bottle having a mouth;
- a cover mounted on the mouth of the bottle; and
- a retaining ring connected with the cover and mounted on the mouth of the bottle; wherein:
 - the mouth of the bottle has an outer diameter provided with a locking flange and an inner diameter provided with a protrusion and a first leakproof air-tight protruding ring-shaped portion;
 - the retaining ring has an inner diameter provided with a locking snap locked onto the locking flange;
 - the cover has a side provided with a connecting portion connected with the retaining ring;
 - the connecting portion is provided with a folding line;
 - the cover has a bottom provided with a tap inserted into the mouth of the bottle;
 - the tap has an outer diameter provided with a projection pressing the protrusion; and
 - the projection is provided with a second leakproof air-tight protruding ring-shaped portion pressing the first leakproof air-tight protruding ring-shaped portion.

2. The sealed container of claim 1, wherein the cover has an outer periphery provided with a plurality of annular protruding portions.

3. The sealed container of claim 1, wherein the cover has a top provided with a protruding grip portion located opposite to the connecting portion.

4. The sealed container of claim 1, wherein the tap has a hollow interior provided with a drying agent.

5. The sealed container of claim 1, wherein the connecting portion has an outside provided with a recessed portion, and the folding line is located in the recessed portion.

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