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(54) Title: WIPES DISPENSING SYSTEM

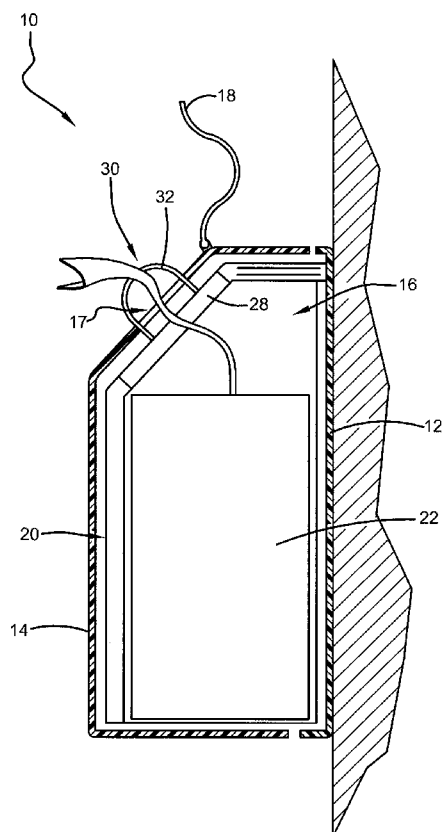


FIG.-1

(57) Abstract: A wipes dispensing system including a dispenser housing having a backplate and a cover, the backplate and the cover defining an internal cavity, and the cover including an opening for dispensing wipes. A wipes-filled refill pouch is secured within the internal cavity of the housing by a fitment on the pouch. An opening with a zipper strip is provided in the pouch to provide access to the wipes and to facilitate resealing of the opening. A feed throat is provided within the fitment to allow for wipes to be dispensed.



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WIPES DISPENSING SYSTEM

This application claims priority from U.S. provisional patent application serial number 61/198,717 filed on November 7, 2008, which is incorporated herein by reference in its entirety.

TECHNICAL FIELD

The invention herein resides in the art of wipes or towelettes (herein "wipes") dispensers, wherein a dispenser housing receives a wipes-filled refill unit. More particularly, the invention relates to an improved wipes dispenser system including a refill pouch with a fitment for securing the pouch within a dispenser, an integral feed throat, and a zipper strip on one edge of the pouch to allow access into the pouch for threading or re-threading the wipes through the feed throat. In some embodiments of the invention particular advantages are provided when employing wet wipes impregnated with a fluid.

BACKGROUND OF THE INVENTION

Wet-wipes are in wide-spread use for applying various fluids to various surfaces. For example, wet-wipes are employed to apply cleansing and protective fluids to inanimate surfaces, or to apply sun-block, lotions, hand-sanitizing and hand-cleansing products to the skin. The wipes are desirable because they are easy to use and are easily disposed after use. However, the packaging and dispensing of wet-wipes can be problematic for a number of reasons.

First, it is important to keep the wet-wipes container sealed during storage and shipment to prevent the wipes from drying out. Even a small opening or leak that allows air flow to reach the wet-wipes can result in an unusable product, especially where the wipes are saturated with an alcohol based solvent or cleanser. Wet-wipes packages are often sealed to prevent dry-out during storage and shipping, and the seal must be broken by the consumer to access the wet wipes. This, however, does not address the problem of dry-out after the consumer has broken the seal, since

it is often a lengthy period of time between when the seal is broken and when the last wet-wipe from the package is used.

When a plurality of wet-wipes are stored in a wet-wipes dispenser a mechanism must be provided to allow the wet-wipes to be threaded and re-threaded through a dispenser feed throat. A lead end of a lead wipe extends through the feed throat where it may be grasped and pulled by a user, and the opening often has a unique shape to separate the lead wipe from the following wipes when pulled there-through. As is well known, multiple wipes are commonly provided in a continuous sheet, with individual wet-wipes defined by perforations that are intended to tear when pulled through the feed throat. Multiple wipes are also commonly provided as a stack of interleaved individual wipes (much like a stack of tissues), and the feed throat separates the lead wipe from a following wipe in the interleaved stack. The feed throat opening, however, is often a source of leakage, allowing air flow to reach the wipes either during storage and shipping or after a consumer has broken the seal provided by the manufacturer.

In light of the increasing popularity of using hand cleansing or sanitizing wipes, as opposed to conventional hand-washing or sanitizing solutions, a method of dispensing wet wipes in public settings must be provided that will prevent users from taking the wipes container from the public area. For example, if a wet wipes container were provided in a public restroom on the countertop near a sink, it is possible that the wipes container would be stolen before all of the sanitizing wet-wipes had been dispensed. In addition, disposal of empty wet wipes containers is a concern where the containers cannot be recycled. For example, dis-infecting wipes are often used in medical facilities that do not recycle due to medical waste contamination issues. In these instances, it is important to reduce the trash volume created by empty wet-wipes containers.

Thus, there is a need for a wet wipes dispensing system which prevents dry-out, provides an opening for threading and rethreading the wet wipes through a feed throat, creates minimal trash volume, and secures the wipes in a desired location.

DESCRIPTION OF THE DRAWINGS

Fig. 1 is a side cross section view of the wet wipes dispenser according to the concepts of the present invention.

Fig. 2 is a perspective view of the wet wipes dispenser pouch of the present invention.

Fig. 3 is a side cross section view of the pouch fitment according to the concepts of at least one embodiment of the present invention.

Fig. 4 is a top view of the pouch fitment of Fig. 3.

Fig. 5 is a cross section view taken across line 5-5 of the pouch fitment of Fig. 4.

Fig. 6 is a top view of a keyed pouch fitment according to the concepts of the present invention.

Fig. 7 is a side cross section view of a first embodiment of the feed throat according to the present invention.

Fig. 8 is a side cross section view of a second embodiment of the feed through according to the present invention.

Fig. 9 is a side cross section view of a second embodiment of the wet wipes dispenser pouch of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

Wet wipes dispensers according to the concepts of the present invention are shown in Figs. 1-9. In Fig. 1, the dispenser is indicated generally by the numeral 10. Dispenser 10 may be employed to dispense any known type of wipes and it is particularly useful for dispensing wet-wipes. With reference to Fig. 1, the wipes dispenser 10 includes a backplate 12 and a cover 14 that together define an internal cavity 16. Cover 14 is pivotable about a pivot point (not shown), which may be positioned on a side, at the top, or at the bottom of backplate 12, to allow access to internal cavity 16. Cover 14 includes a dispensing opening 17, through which wipes are dispensed. When wet-wipes are used, a pivoting lid 18 may be provided on cover

14 to selectively close over and seal the internal cavity 16 to prevent the wet-wipes from drying out.

A wipes-filled refill pouch 20 is removably secured within internal cavity 16. In this particular embodiment, refill pouch 20, as best seen in Fig. 2, includes a roll of wet-wipes 22 therein. The roll of wet-wipes 22 is a continuous roll of wipes saturated with a desired fluid, such as, for example, a sanitizing or cleansing substance. The wipes are separated by perforations, as is well known in the art. The roll of wet-wipes 22 is fed from the inner portion of the roll, and individual wipes are separated from the remainder at the perforations as they are dispensed. It will be appreciated by those skilled in the art that while a roll of wet-wipes is shown in the Figures, alternative forms of wipes may be provided, such as, for example, an interleaved stack of wet-wipes.

The roll of wet-wipes 22 is enclosed in an air-tight pouch 24 to prevent evaporation of the fluid. Pouch 24 may be provided in any desired shape or size, but will preferably be sized to fit easily into internal cavity 16 of housing 12. In the embodiment shown in Fig. 2, pouch 24 is generally rectangular in shape with an angled edge 26 provided at one upper corner to facilitate mounting refill pouch 20 within housing 12 and to present the lead wipe at a beneficial angle for access and dispensing.

One side, or edge, of pouch 24 is provided with a zipper strip 27 so that the two sides of pouch 24 may be pulled apart creating an opening, through which a lead wet-wipe 22A can be accessed for threading or rethreading through a fitment 28 and feed throat 30. Zipper strip 27 is located on a top edge of pouch 24 in the embodiment shown in Fig. 2, but may be alternatively positioned on any desired edge of pouch 24. Fig. 9 shows one such alternative embodiment wherein the zipper strip is located on a side edge of a pouch. Zipper strip 27 may optionally be provided on an edge that is accessible when refill pouch 20 is positioned within housing 12, so that a person may easily open cover 14 and zipper strip 27 to access the roll of wet-wipes 22 or a lead wipe 22A, as desired. Zipper strip 27 may be any known resealable strip, and includes a male side having a flexible projection and a female

side having a slot, the projection being removably received in the slot to create an air and liquid tight seal. It will be appreciated by those skilled in the art that other mechanisms may be used to allow for resealing of the opening, such as a slider, zip-lock or an adhesively sealed opening.

Refill pouch 20 also includes fitment 28 with integral feed throat 30 to facilitate dispensing wipes 22. Fitment 28 is a rigid plastic component that is integral with pouch 24. In one or more embodiments, fitment 28 may be a canoe-shaped fitment, as shown in Fig. 2, or it may have any other desired shape that will mate with opening 17 in cover 14 of housing 12. Feed throat 30 is an opening in fitment 28 providing a channel through which a lead wipe 22A may be pulled to dispense it from dispenser 10. Feed throat 30 provides sufficient resistance to separate lead wipe 22A from the remaining wipes.

With reference to Figs. 2 and 8, fitment 28 may include a plurality of flexible members 32 around feed throat 30, the flexible members having an inward arching molded shape. Flexible members 32 provide a tensioning force on the lead wipe 22A as it is pulled through feed throat 30, the tensioning force causing the lead wipe 22A to tear from a continuous roll at a perforation or disassociate from a following wipe in an interleaved stack. Alternatively, as best seen in Figs. 4, 6 and 7, feed throat 30 may be provided with a disc shaped flexible insert 34 positioned directly therein, the insert having a pair of perpendicular slits 36 to allow wet-wipes to pass therethrough and to provide the tensioning force discussed above. A cap 37 (Fig. 2) may be provided over fitment 28 during storage and shipping to seal the opening and prevent dry-out of wet wipes 22.

Fitment 28 may optionally include a pair of tabs 38, as shown in Figs. 3-5, which act to secure refill pouch 20 within internal cavity 16. Tabs 38 are positioned adjacent to feed throat 30, and extend at an outward angle from the outermost edge 40 of feed throat 30. Tabs 38 each include a step 42, and opening 17 includes a lip 44, steps 42 and lip 44 acting to prevent fitment 28 from being pulled inward when positioned in opening 17. Thus, when refill pouch 20 is inserted into internal cavity 16 within housing 12, fitment 28 is placed adjacent to opening 17 and

is pressed into opening 17. Tabs 38 are forced inward toward feed throat 30 as fitment 28 moves into opening 17, and after steps 42 on tabs 38 have passed lip 44 in opening 17, fitment 28 is prevented from moving back out of opening 17. When it is necessary to remove refill pouch 20, tabs 38 may be pressed inward toward feed throat 30, disengaging steps 42 from lip 44 and allowing fitment 28 to be removed from opening 17.

Referring now to Fig. 6, fitment 28 may optionally be provided with a key 48 that mates with a keyway (not shown) provided in cover 14 adjacent to opening 17. The key 48 and keyway ensure that the appropriate refill pouch 20 (for example, with the appropriate impregnated fluid) is used in dispenser 10.

In light of the foregoing, it should be clear that this invention provides improvements in the art of wipes dispensers, with particular application to wet-wipes. While particular embodiments have been disclosed herein for the purpose of teaching the inventive concepts, it is to be appreciated that the invention is not limited to or by any particular structure shown and described. Rather, the claims shall serve to define the invention.

CLAIMS

What is claimed is:

1. A wipes dispensing system comprising:
 - (a) a dispenser housing having a backplate and a cover, said backplate and said cover defining an internal cavity; and
 - (b) a wipes-filled refill pouch including a fitment adapted to secure said pouch in said internal cavity of said housing, and an opening in said pouch having a zipper strip to facilitating resealing.
2. The wipes dispensing system of claim 1, wherein said fitment includes an integral feed throat.
3. The wipes dispensing system of claim 1, wherein said fitment includes a key, and said cover includes a keyway adjacent to said opening for receiving said key.
4. The wipes dispensing system of claim 1, wherein said fitment includes a pair of tabs each having a stepped surface, and wherein said opening in said cover includes a lip, said steps engaging said lip when said fitment is inserted into said opening to secure said refill pouch within said housing.
5. A wipes dispenser refill unit comprising:
 - (a) a pouch bag defining an inner volume;
 - (b) a plurality of wet-wipes disposed within said inner volume;
 - (c) a fitment having an integral feed throat and adapted to secure the refill unit within a dispenser; and
 - (d) a resealable opening in said pouch bag, wherein said opening provides access to said wipes to facilitate threading and re-threading them through said feed throat.

6. The wipes dispenser refill unit of claim 5, further comprising a removable cap positioned over said feed throat of said fitment, wherein said cap is adapted to seal said feed throat during storage and shipment of said refill unit.
7. The wipes dispenser refill unit of claim 5, further comprising a carrying handle on said pouch bag.
8. The wipes dispenser refill unit of claim 5, further comprising a pair of snap tabs on said fitment adapted to secure said refill unit in a dispenser.
9. The wipes dispenser refill unit of claim 1, wherein said feed throat includes a plurality of flexible members having an inwardly arching shape, the flexible members providing a tensioning force on said wipes passing through said feed throat.
10. The wipes dispenser refill unit of claim 1, wherein said feed throat includes a flexible insert having a pair of perpendicular slits therethrough.

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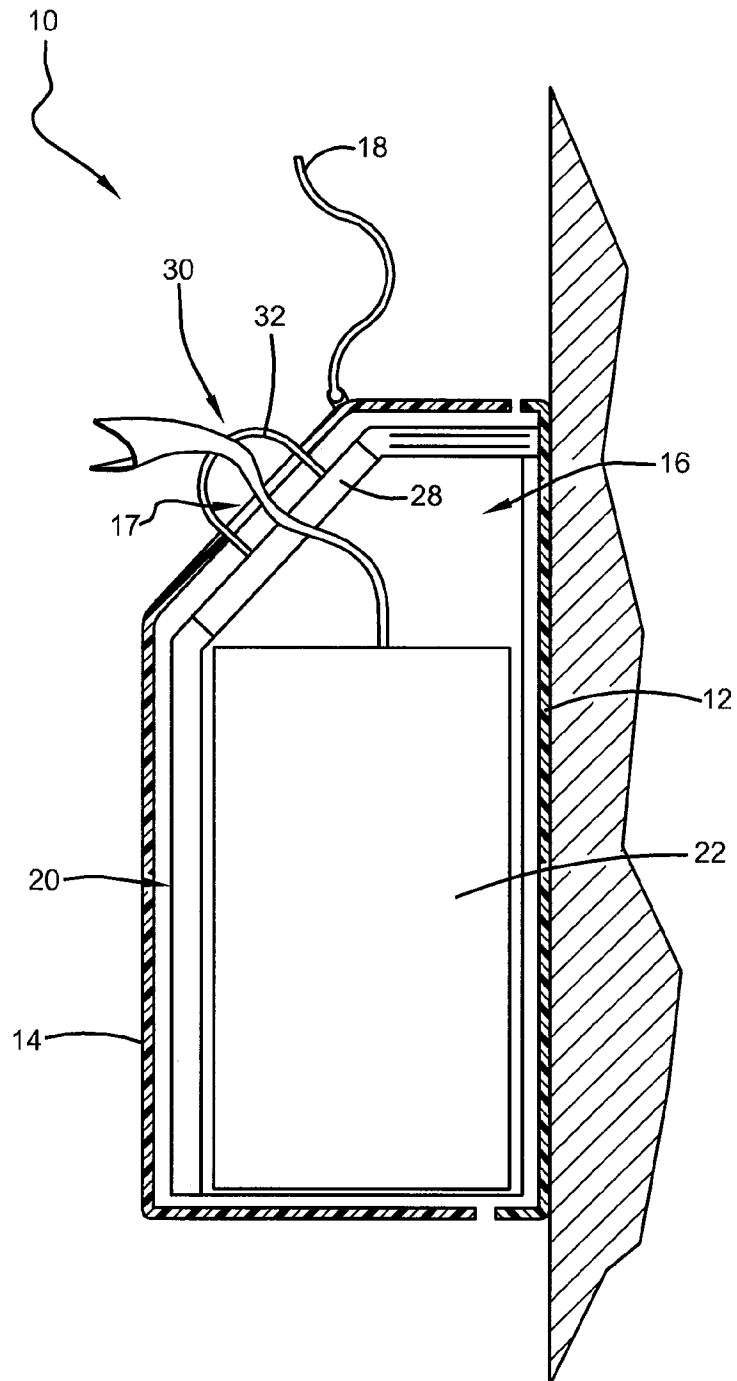


FIG.-1

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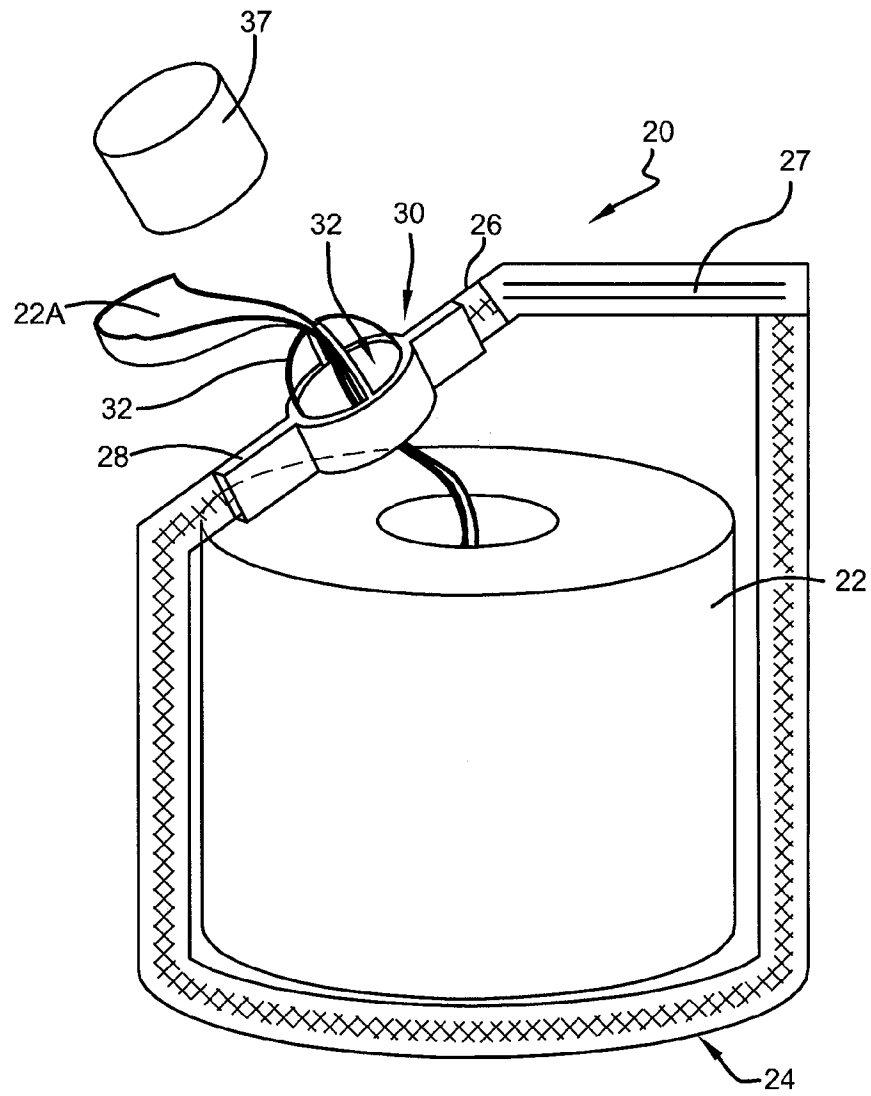


FIG.-2

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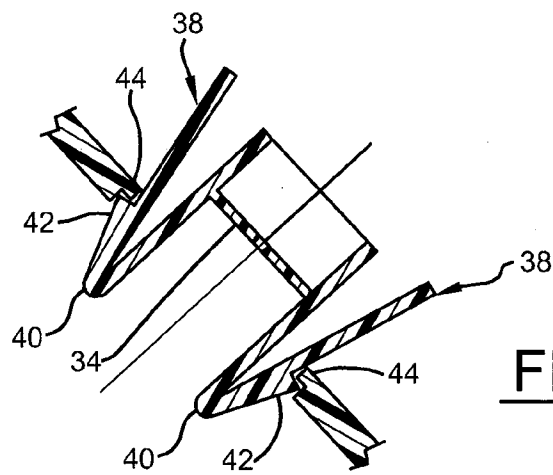


FIG.-5

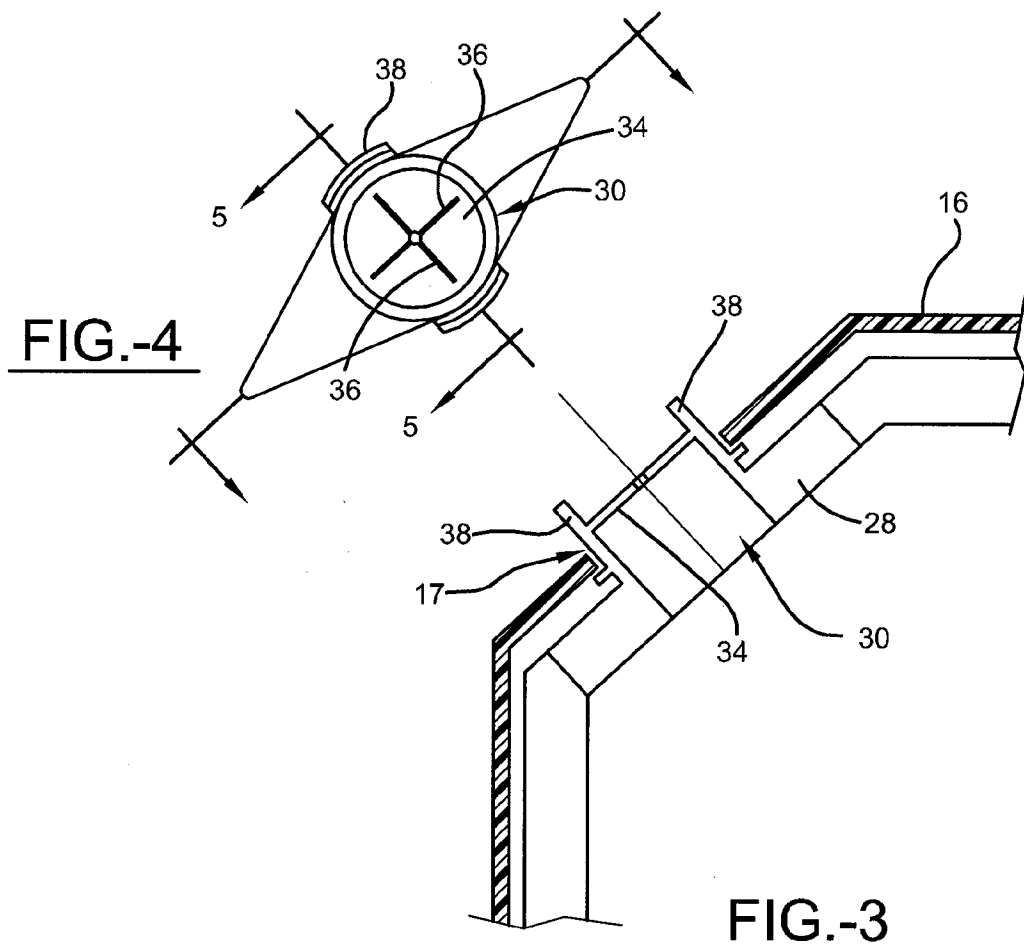


FIG.-4

FIG.-3

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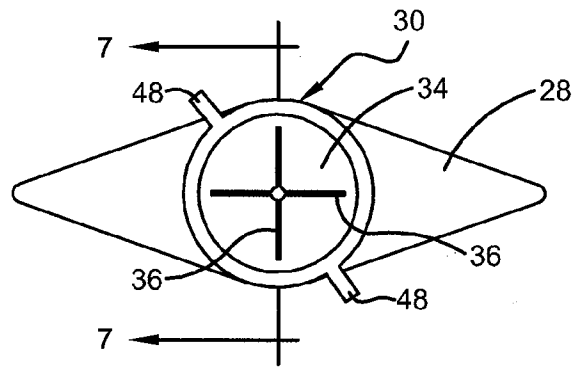


FIG.-6

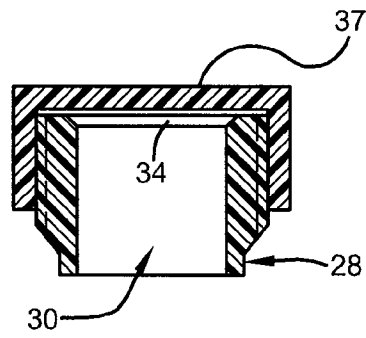


FIG.-7

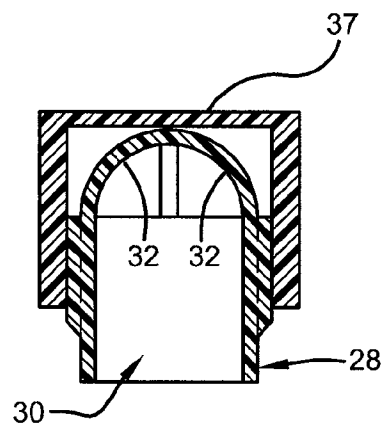


FIG.-8

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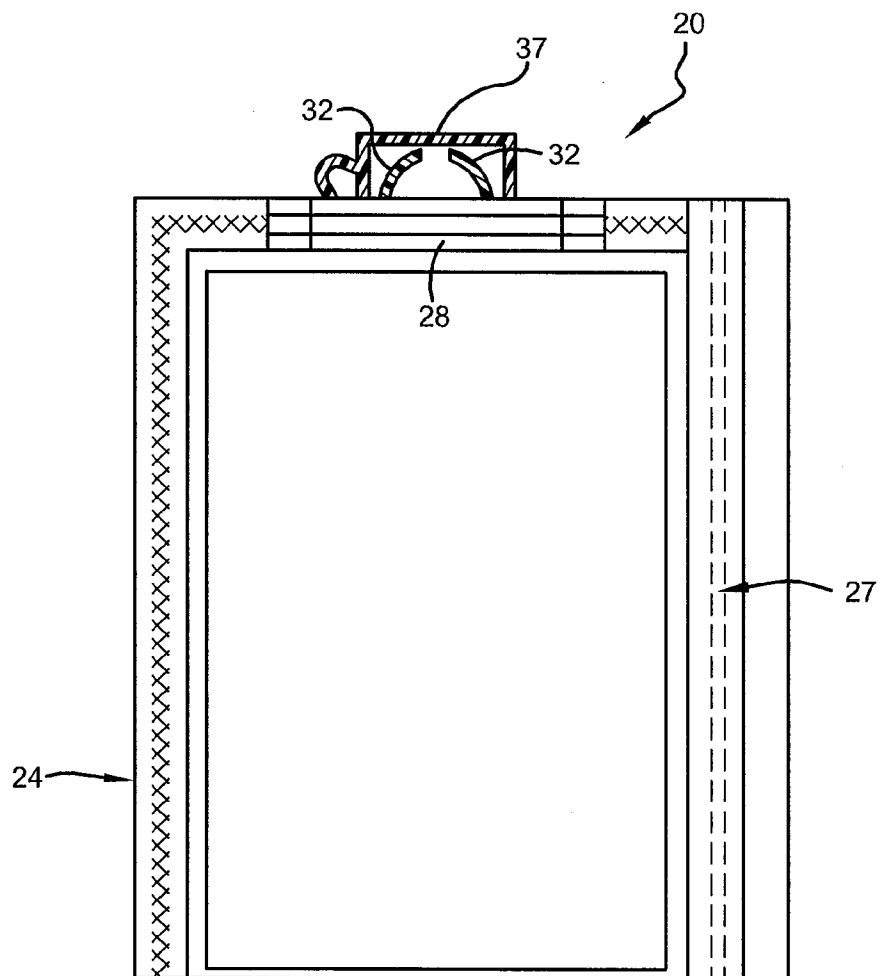


FIG.-9

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2009/063379

A. CLASSIFICATION OF SUBJECT MATTER

INV. B65D83/08 A47K10/18 A47K10/38

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B65D A47K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2008/044152 A2 (APG ASIA LTD [CN]; LAROCHÉ JOHN R [CN]) 17 April 2008 (2008-04-17)	1-4
A	page 9, line 4 - page 19, last line; figures 1-5	5
X	WO 02/41742 A1 (KIMBERLY CLARK CO [US]) 30 May 2002 (2002-05-30)	5-10
Y	page 7, line 15 - page 14, line 25; figures 1,3,5,6	1-4
X	WO 01/02266 A1 (FAY DEREK MARTIN [ZA]) 11 January 2001 (2001-01-11)	5-7
	page 3, line 13 - page 6, last line; figures 1-5	
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☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

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Date of the actual completion of the international search

19 February 2010

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01/03/2010

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INTERNATIONAL SEARCH REPORT

International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2009/063379

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