US 20020043473A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2002/0043473 A1**

Lee et al. (43) **Pub. Date: Apr. 18, 2002**

(54) **REMOVABLY-ATTACHED, SANITARY TOWELETTE FOR A BEVERAGE CAN**

(76) Inventors: **Dong Hwi Lee**, Whittier, CA (US); **Yeung Jun Kim**, Brea, CA (US)

Correspondence Address:
ALBERT O COTA
5460 WHITE OAK AVE
SUITE A-331
ENCINO, CA 91316 (US)

(21) Appl. No.: **09/942,301**

(22) Filed: **Aug. 30, 2001**

Related U.S. Application Data

(63) Non-provisional of provisional application No. 60/228,283, filed on Aug. 28, 2000.

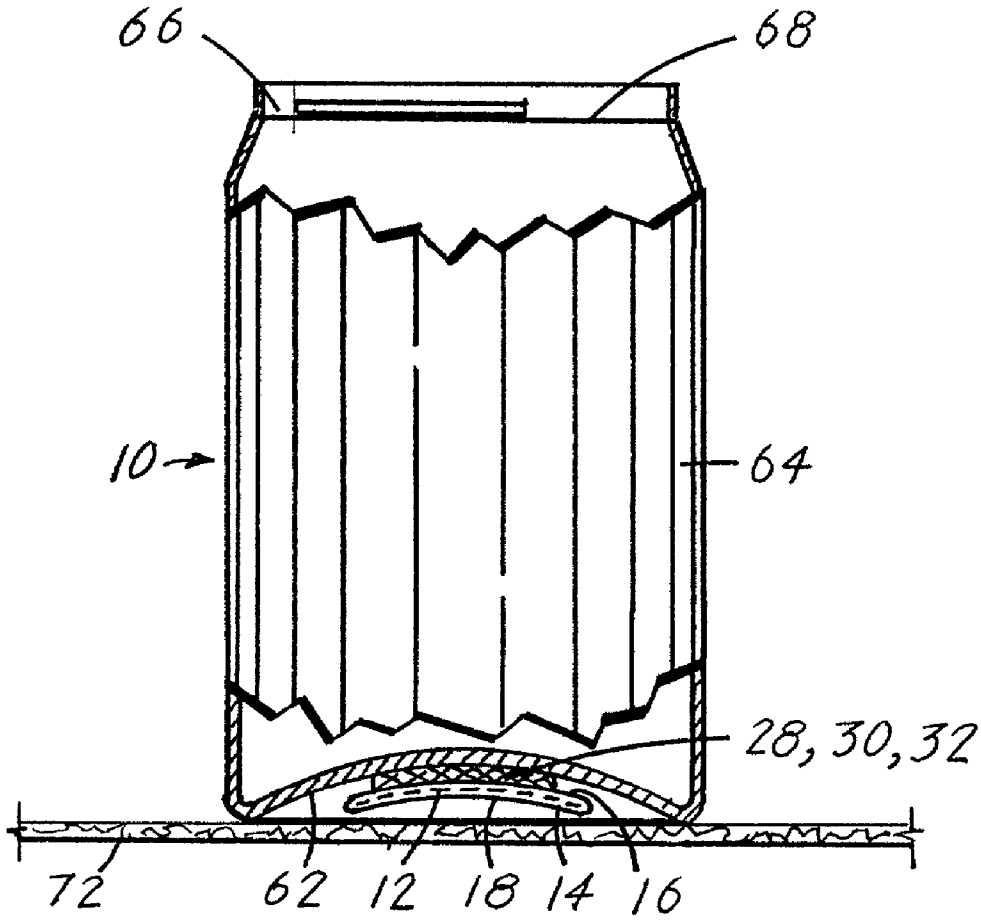
Publication Classification

(51) **Int. Cl.**[7] **B65D 77/00**

(52) **U.S. Cl.** **206/217**; 206/812

(57) **ABSTRACT**

A hygienic beverage can (**10**) that includes a lower concave surface (**62**), sides (**64**) and an upper surface (**66**) having a can opening seal (**68**) covered by a pivoting, finger pull-tab (**70**). The can (**10**) is designed to incorporate a sanitary towelette (**12**) and a sanitary can cover (**40**). The towelette (**12**) can be used by itself or in combination with the can cover (**40**). The towelette (**12**) is folded and hermetically sealed within a towelette enclosure (**14**) that is dimensioned to removably attached within the lower concave surface (**62**) of the can (**10**). The sanitary can cover (**40**) includes an upper section (**42**), which covers the entire upper surface (**66**) of the can (**10**), and an integral flange (**40**) that frictionally fits around the diameter of the can (**10**). The flange (**40**) includes a perforated tear-strip (**46**) that, when pulled and removed, the upper section (**42**) of the cover (**40**) can be separated from the flange (**44**) to expose the can's opening seal (**68**) and the pull-tab (**70**).



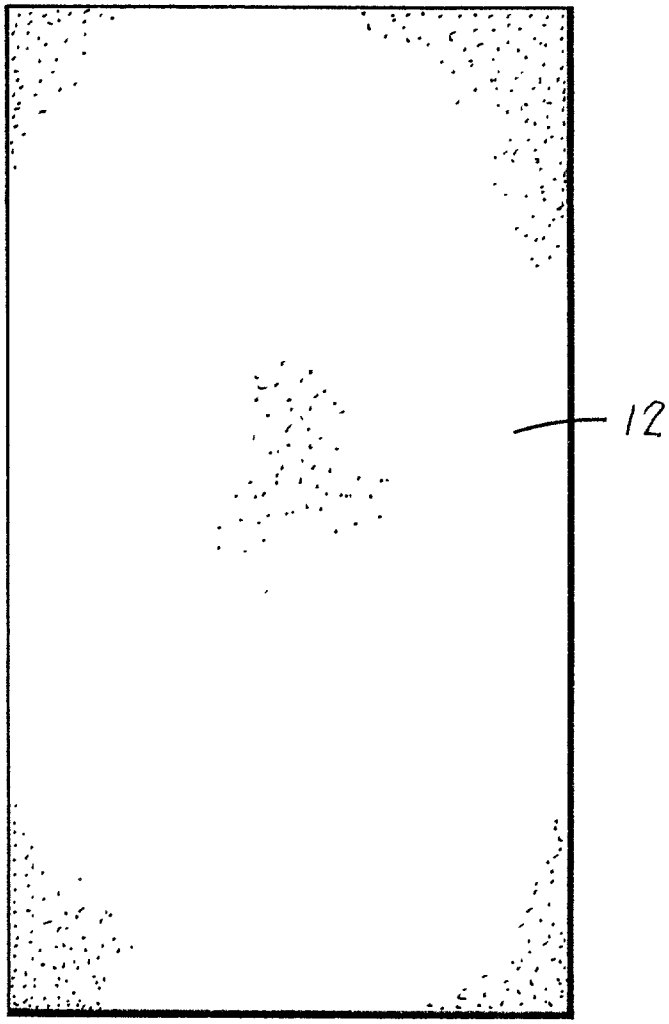


FIG. 1

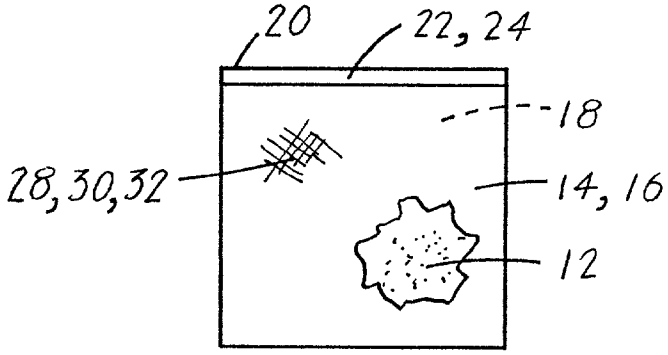


FIG. 5

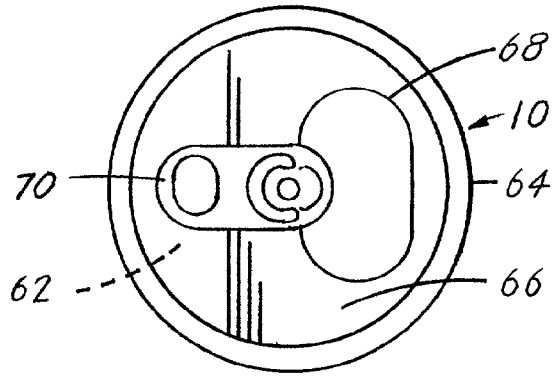


FIG. 3

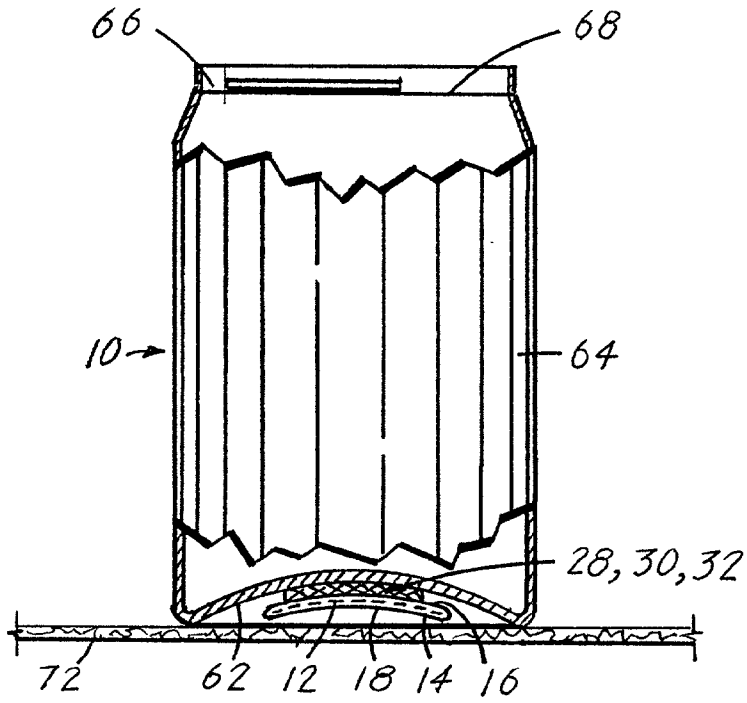


FIG. 2

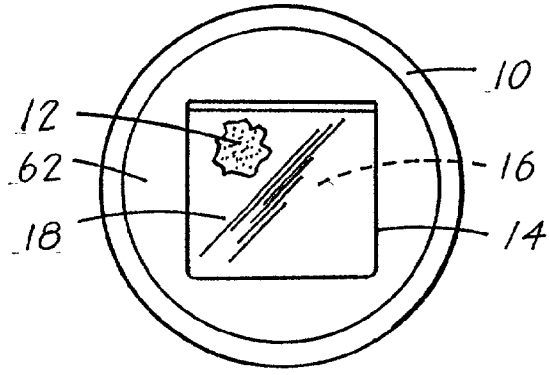


FIG. 4

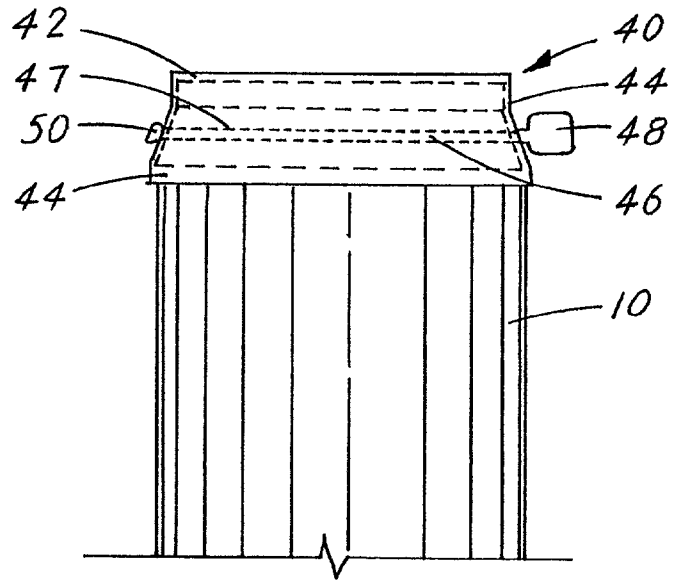


FIG. 6

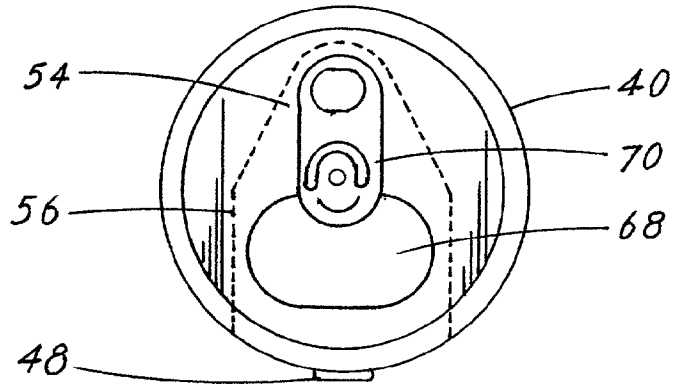


FIG. 7

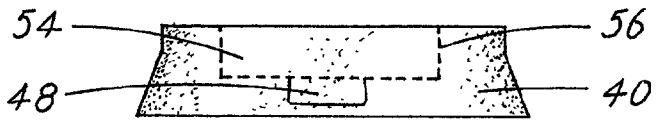


FIG. 8

REMOVABLY-ATTACHED, SANITARY TOWELETTE FOR A BEVERAGE CAN

TECHNICAL FIELD

[0001] The invention generally pertains to the hygienic storage and cleaning of beverage cans, and more particularly to a beverage can that incorporates a hygienic cover and a sealed, sanitary towelette that is attached to the can's lower surface.

BACKGROUND ART

[0002] One of the most popular and widely utilized means of packaging beverages is in an aluminum can. Almost every type of carbonated and non-carbonated soft drink, as well as other beverages such as beer, utilize aluminum cans. This is because aluminum is lightweight, strong and is an especially good conductor for cold temperatures. Aluminum cans can be sold individually over the counter or from a dispensing machine, they can be easily carried, transported and stored, and, once they are refrigerated or put on ice, are able to maintain a cold temperature for an extended period of time.

[0003] A typical aluminum can holds approximately 12 to 16 ounces and has a lower concave surface and an upper surface having an opening sealed by a finger pull-tab. In order to use the aluminum can, the opening is unsealed, thereby allowing the beverage to be poured into a container or drunk directly from the can.

[0004] Unfortunately, while aluminum cans do provide an easy means of holding and drinking a beverage, there is one significant negative aspect. As a result of the can's opening being located on the can's upper surface, the opening is un-protected from dirt, germs and other un-desirable elements. Even if a beverage is consumed relatively soon after it is bought, a large amount of time has passed since the beverage left its place of manufacture and retail storage. One of the benefits of using aluminum cans is that they can be stored for extended periods. While this can be beneficial, the extended periods also allow much more time for the opening to accumulate disease-bearing particles.

[0005] One solution that has been attempted has been to store the cans upside down. Whereas this method may be effective for non-carbonated beverages, any carbonated beverage that is turned upside down or otherwise moved to cause the contents to shake, becomes unstable. The result is that when the can is opened, the liquid within the can is forced out under pressure, which causes the liquid to "spray" away from the opening.

[0006] In view of the above, it can be seen that there is a need for a hygienic can cover which prevents the can from accumulating disease-bearing particles and provides means for cleaning the opening on an aluminum can prior to drinking or pouring the beverage from the can.

[0007] A search of the prior art did not disclose any patents that read directly on the claims of the instant invention, however the following U.S. patents are considered related:

PATENT NO.	INVENTOR	ISSUED
2,936,089	Foldfarb, et al	10 May 1960
2,310,491	Molow	9 February 1943
2,271,589	Henrickson	3 February 1942

[0008] The U.S. Pat. No. 2,936,089 patent discloses a first container located within a second container. The first container is dimensioned to include a premium or the like that is accessible upon removing the second container.

[0009] The U.S. Pat. No. 2,310,491 patent discloses a container with a cap shell that houses a sanitary concealed cup. The cap shell includes a top wall, and a skirt wall that is dimensioned to fit over the neck of the container.

[0010] The U.S. Pat. No. 2,271,589 patent discloses a container which houses an applicator, such as a sponge, for use in applying the contents of a container. The design of the container allows the applicator to be visible from the container's exterior.

[0011] For background purposes and as indicative of the art to which the invention is related reference may be made to the remaining cited patents.

PATENT NO.	INVENTOR	ISSUED
Des. 294,467	Wirkus, et al	1 March 1988
2,594,729	Carvalho	29 April 1952
3,433,378	Ross	18 March 1969
3,606,068	Palmer	20 Sept. 1971
3,650,445	Heitzman	21 March 1972
3,664,497	Mascla	23 May 1972
3,752,305	Heyne	14 Aug. 1973
4,171,047	Ross, et al	16 Oct. 1979
4,428,477	Cristofolo	31 Jan. 1984
4,789,082	Sampson	6 Dec. 1988
5,540,326	Arnold, et al	30 July 1996

DISCLOSURE OF THE INVENTION

[0012] The hygienic beverage can is designed to provide a can that is substantially free of germ-carrying particles which can be harmful to a person consuming the contents of the can. The invention does not require any design change or modification to an existing can's design. Therefore, the invention is both cost effective for the manufacturers of the can and for consumers purchasing the product. The hygienic beverage can is derived from a typical beverage can having a lower concave surface and an upper surface that includes a can opening seal and a pivoting, finger pull-tab.

[0013] Two inventive elements are employed to convert a typical beverage can into the hygienic beverage can: a sanitary towelette and/or a sanitary can cover. The two elements may be used individually or in combination.

[0014] The sanitary towelette is preferably made of a paper material that can be dry or pre-moistened. The paper material is repeatably folded until the size of the folded towelette is less than the area bordering the lower concave surface of a typical beverage can. The folded towelette is then inserted into a towelette enclosure, made of a thin plastic, and the end of the enclosure is then hermetically sealed.

[0015] The sealed sanitary towelette is then applied an adhesive or a double-sided tape. The adhesive or tape is used to attach the hermetically sealed towelette to the lower concave surface of the can. To use the towelette, it is removed from the can, the package is opened and the towelette is removed.

[0016] The second element that further sanitize the can, is the sanitary can cover, which can be used alone or in combination with the towelette. The can cover includes an upper surface that is dimensioned to cover the upper surface of the can, and a flange that extends downward from the cover's upper surface and is located around the circumference of the can. The flange includes a tear strip, that when ripped off, the cover can be removed to expose the opening on the can and allow the contents of the can to be poured or drank directly from the can. In an alternate design, in lieu of a flange tear strip, the cover includes a tear strip that encompasses the can's opening. When the opening tear strip is removed the can opening is exposed.

[0017] In view of the above disclosure, it is the primary object of the invention to convert, an ordinary beverage can into a hygienic beverage can by attaching to the can a sanitary towelette and/or a sanitary can cover.

[0018] In addition to the primary object of the invention, it is also an object of the invention to produce a hygienic beverage can that:

[0019] ○ allows indicia, such as promotional advertising, to be printed on the towelette enclosure,

[0020] ○ can be sold with either one or both of the sanitary elements,

[0021] ○ can enhance sales due to the sanitary aspect of the can, and

[0022] ○ that does not interfere with the vertical stacking of the cans.

[0023] These and other objects and advantages of the present invention will become apparent from the subsequent detailed description of the preferred embodiment and the appended claims taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0024] **FIG. 1** is a front elevational view of an unfolded paper napkin.

[0025] **FIG. 2** is a partial elevational side/sectional view of a beverage can showing a sanitary towelette attached to the bottom of the can.

[0026] **FIG. 3** is a top plan view of the beverage can.

[0027] **FIG. 4** is a bottom plan view of the can with an attached encapsulated sanitary towelette.

[0028] **FIG. 5** is front elevational view of a napkin that has been folded and encapsulated in a thin plastic enclosure to form a sanitary towelette.

[0029] **FIG. 6** is a partial elevational side view of a beverage can having attached on its upper surface a hygienic can cover which include a flange having a tear strip around the flange's circumference and a living hinge.

[0030] **FIG. 7** is a top plan view of a beverage can having a hygienic can cover which includes a tear strip that encompasses the can's opening and finger pull tab.

[0031] **FIG. 8** is a side and front elevational view of the can-opening tear strip showing the strip extending into the flange.

BEST MODE FOR CARRYING OUT THE INVENTION

[0032] The best mode for carrying out the invention is presented in terms of a preferred embodiment for a hygienic beverage can **10**, as shown in **FIGS. 2, 3, 6** and **7**, which consists of a lower concave surface **62**, sides **64**, and an upper surface **66** having a can opening seal **68** and a pivoting, finger pull-tab **70**. When the tab **70** is pulled, the can opening seal **68** is depressed, which then allows the contents of the can **10** to be poured or drank directly from the can. The can **10** is typically made of aluminum or other light-weight metal and is used for soft drinks, beer and other fluids.

[0033] The hygienic beverage can **10** is designed to be "hygienic" when either a sanitary towelette **12** and/or a sanitary can cover **40** are incorporated into the design of the can **10**.

[0034] The sanitary towelette **12**, as shown in **FIGS. 1, 2, 4** and **5**, is preferably made from paper, however a fabric or a pre-moistened paper or fabric material can also be used.

[0035] The towelette **12**, as shown in **FIG. 1**, is typically 7 inches (17.8 cm) wide by 13 inches (33.0 cm) long. In order to allow the towelette **12** to fit on the can **10**, it is repeatably folded until the towelette is substantially 1-inch (2.54 cm) square. The one-inch size is less than the area bordering the lower concave surface **62** of the can **60**. The towelette **12** is then hermetically sealed, as best shown in **FIG. 5**, within a thin plastic enclosure **14** having an inner surface **16**, an outer surface **18** and one edge **20** that is sealed by a heat sealing process **22** or an adhesive **24**. Once the towelette **12** is sealed within the plastic enclosure **14**, the towelette is effectively safe from contact with dirt and/or germs.

[0036] The hermetically sealed towelette **12** is then attached to the lower concave surface **62** of the can **10** by an attachment means **28**, as shown in **FIGS. 2 and 4**. Typically, the attachment means **14** is comprised of an adhesive **30** or a double-sided tape **32** that is applied to the inner surface **16** of the towelette enclosure **14**, as shown in **FIG. 5**. Either of the attachment means used will securely hold the encapsulated towelette **12** onto the lower concave surface **62** of the can **10**, while also allowing the towelette **12** to be easily removed from the can **10**. As shown in **FIG. 2**, when the enclosure **14** is attached, the outer surface **18** of the enclosure **14** is above the lower concave surface **62** of the can **10**. Therefore, the enclosure **14** does not interfere with the lower horizontal plane **32** of the can **10**.

[0037] The sanitary towelette **12** is utilized as follows: a person holding the beverage can **10** grasps the encapsulated towelette **12** and pulls it off of the can's **10** lower concave surface **62**. The towelette enclosure **14** is then opened by tearing or cutting one edge of the enclosure **14**. Once the enclosure **14** has been opened, the towelette can be withdrawn, unfolded and utilized.

[0038] The sanitary towelette provides a sanitary and convenient means by which the upper surface **66** of the beverage can **20** can be wiped off and cleaned before drinking the contents directly from the can or before pouring the contents.

[0039] Since the can opening seal **68** is on the upper surface **66** of the can **10** it is not protected from dirt, germs or other un-sanitary agents that may accumulate on or around the opening **68**, especially on cans that are exposed or stored for extended periods of time. By providing a sanitary towelette **12** along with the beverage can **10**, the ability to clean the can's opening **68** is easily accomplished.

[0040] Additionally, the utility of sanitary towelette **12** is not limited to only cleaning the upper surface surface **66** of the can **10**. The towelette **12** can also be used for any purpose where a convenient, sanitary and ready-to-use cleaning means is needed. One example of an additional use of the towelette is for cleaning a person and/or surroundings after a carbonated beverage can that was opened has "exploded"—or in other words, the beverage inside the can became pressurized, and when the opening was unsealed, the beverage was rapidly forced out of the can in many directions.

[0041] The second inventive element that can be used either by itself or in combination with the sanitary towelette **12** is the sanitary can cover **40**, as shown in FIGS. **6-8**. The cover **40** is thermoformed from a thermoplastic, that preferably a clear thermoplastic, and is comprised of an upper section **42**, an integral flange **44** and a means for removing the cover **40** from the can **10**.

[0042] The upper section **42** of the cover **40** is dimensioned to cover the entire upper surface **66** of the can **10**. The integral flange **44** extends downward from the periphery of the sanitary can **10** and is dimensioned to frictionally fit around the diameter of the can **10**, as best shown in **FIG. 6**.

[0043] The means for removing the cover from the can **10** is comprised of a tear strip **46** that is located around the circumference of the flange **44**, as also shown in **FIG. 6**. The tear strip **46** is separated by a multiplicity of perforations **47** and includes a strip pull-tab **48** that when grasped and pulled, the tear strip is removed along the perforations **47**, thus allowing the cover **40** to separate from the flange **44**. Once separated, the upper section of the cover can be removed.

[0044] The can cover can be designed to include a hinge **50** and preferably a living hinge **50** that is located at an intersection between the upper section **42** and the flange **44** as shown in **FIG. 6**. The hinge **50** allows the cover **40** to separate from the flange **44** while remaining fastened to one end of the flange **44**. Thus, the cover can function as a resealable cover, which allows a can with a beverage within that is partially consumed, to be resealed for use at a later time.

[0045] To add further utility to the sanitary can cover **40**, it can be designed to have a can-opening tear strip **54** with perforations **56**. The tear strip **54**, as shown in **FIGS. 7 and 8**, encompasses the can's opening **68** and the finger pull-tab **70**. When the can-opening tear strip **54** is pulled and removed, the can's opening **68** and the finger pull tab are exposed for use.

[0046] While the invention has been described in complete detail and pictorially shown in the accompanying drawings it is not to be limited to such details, since many changes and modifications may be made to the invention without departing from the spirit and the scope thereof. Hence, it is described to cover any and all modifications and forms which may come within the language and scope of the appended claims.

1. A hygienic beverage can having a lower concave surface, sides, and an upper surface having a can opening seal covered by a pivoting, finger pull-tab that, when pulled, the can opening seal is depressed allowing the contents of the can to be poured or drank directly from the can, said sanitary beverage can comprising:

a) a sanitary towelette that is repeatably folded until the dimensions of the folded towelette are less than the area bordering the lower concave surface of the can,

b) a towelette enclosure dimensioned to hermetically seal the entire folded towelette, and

c) means for removably attaching the hermetically sealed towelette enclosure to the bottom concave surface of said can, wherein said towelette is available for use when said enclosure is removed from said can and said towelette is removed from said enclosure.

2. The hygienic beverage can as specified in claim 1 wherein said sanitary towelette is made from paper, fabric or a pre-moistened paper or fabric material.

3. The hygienic beverage can as specified in claim 2 wherein said towelette is 7-inches (17.8 cm) wide by 13-inches (33.0 cm) long, wherein said towelette is repeatably folded until the size of the towelette is substantially 1-inch (7.54 cm) square.

4. The hygienic beverage can as specified in claim 3 wherein said towelette enclosure is made of a thin plastic having one end that is sealed by a heat sealing process or an adhesive.

5. The hygienic beverage can as specified in claim 4 wherein said means for attaching the towelette enclosure to the bottom surface of said can comprises an adhesive.

6. The hygienic beverage can as specified in claim 4 wherein said means for attaching the towelette enclosure to the bottom surface of said can comprises a double-sided tape.

7. The hygienic beverage can as specified in claim 6 wherein when said enclosure is attached, the outer surface of the enclosure is above the lower concave surface of the can.

8. The hygienic beverage can as specified in claim 1 wherein said sanitary towelette can include on its outer surface promotional indicia.

9. The hygienic beverage can as specified in claim 1 further comprising a sanitary can cover comprising:

a) an upper section dimensioned to cover the entire upper surface of the can,

b) an integral flange that extends downward from the periphery of said sanitary can cover and that is dimensioned to frictionally fit around the diameter of said can, and

c) means for removing said hygienic can cover from the can, wherein when removed the can opening is exposed.

10. The hygienic beverage can as specified in claim 9 wherein said can cover is made of a thin plastic.

11. The hygienic beverage can as specified in claim 9 wherein said means for removing said sanitary can cover comprises said flange having a tear strip located around the circumference of said flange, and having a strip pull-tab that when pulled, said tear strip is removed, thus allowing said cover to separate from said flange.

12. The hygienic beverage can as specified in claim 11 wherein said can cover further comprises a hinge located at an intersection between said upper section and said flange, wherein said hinge allows said cover to separate from said flange and to also remain fastened to one end of said flange.

13. The hygienic beverage can as specified in claim 12 wherein said hinge is comprised of a living hinge.

14. The hygienic beverage can as specified in claim 9 wherein said hygienic can cover further comprises a can-opening tear strip that encompasses said can's opening and said finger pull-tab, wherein when said can-opening tear strip is pulled and removed, said can opening and said finger pull-tab are exposed.

15. A hygienic beverage can having a lower concave surface, sides, and an upper surface having a can opening seal covered by a pivoting, finger pull-tab that, when pulled, the can opening seal is depressed, thus allowing the contents of the can to be poured or drank directly form the can, said sanitary beverage can comprising:

a) a sanitary towelette comprising:

(1) a re-moistened material that is repeatably folded until the size of the folded towelette is less than the area bordering the lower concave surface of said can,

(2) a towelette enclosure dimensioned to hermetically seal the entire folded towelette, and

(3) means for removably attaching the hermetically sealed towelette enclosure to the lower concave surface of said can, wherein said towelette is removable for use when said enclosure is detached form the can and the towelette is removed from said enclosure.

b) a hygienic can cover comprising:

(1) an upper section dimensioned to cover the entire upper surface of the can,

(2) an integral flange that extends downward from the periphery of said sanitary can cover and that is dimensioned to frictionally fit around the diameter of said can, and

(3) a tear strip located around the circumference of said flange and having a strip pull tab that, when pulled, said tear strip is removed, thus allowing said cover to separate from said flange.

16. The hygienic beverage can as specified in claim 15 further comprising a living hinge located at an intersection between said upper section and said flange, wherein said hinge allows said cover to separate from said flange but to remain fastened to one end of said flange.

17. The hygienic beverage can as specified in claim 15 wherein said cover is thermoformed from a thermoplastic.

18. The hygienic beverage can as specified in claim 15 wherein said tear strip is separated by a multiplicity of perforations.

* * * * *