

[54] **HYGIENIC MOUTH PROTECTORS**

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229/7; 215/83, 100, 38

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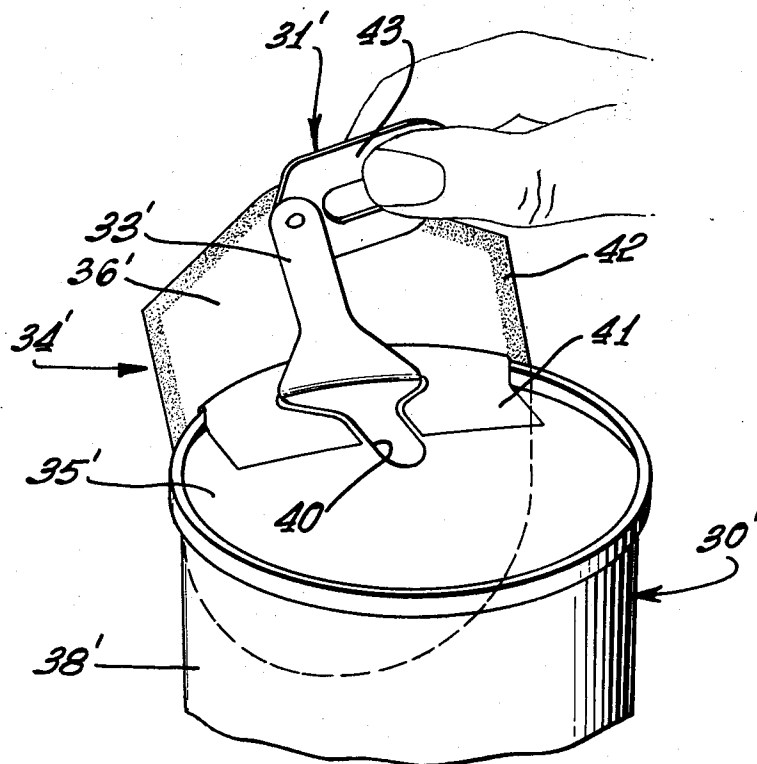
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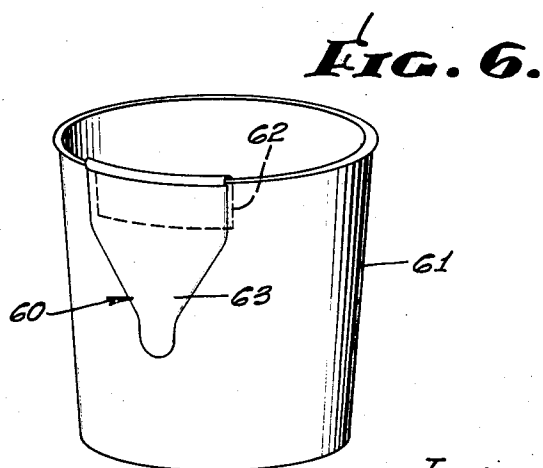
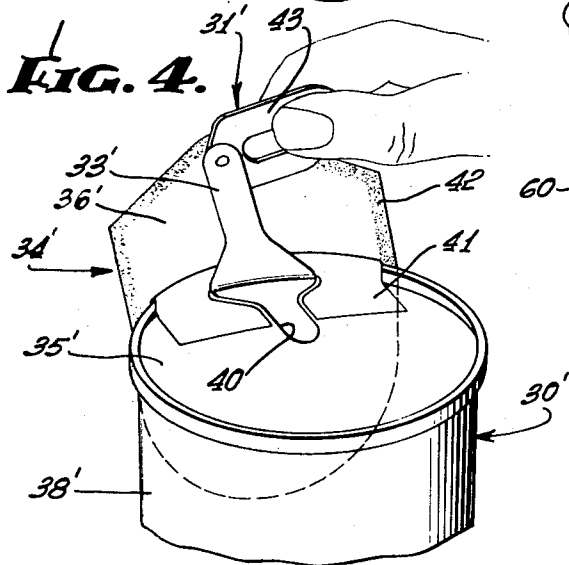
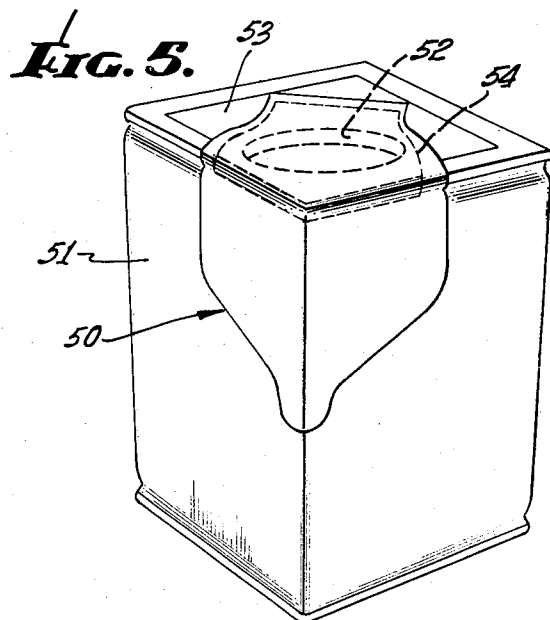
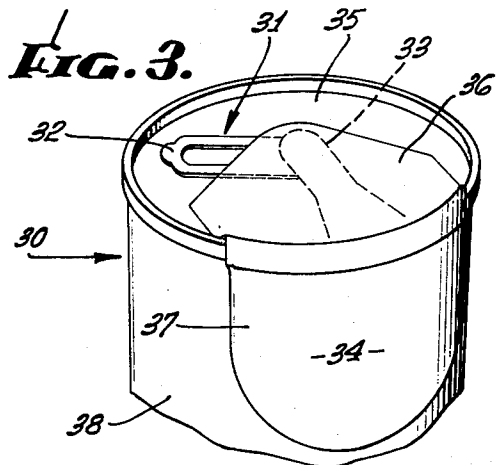
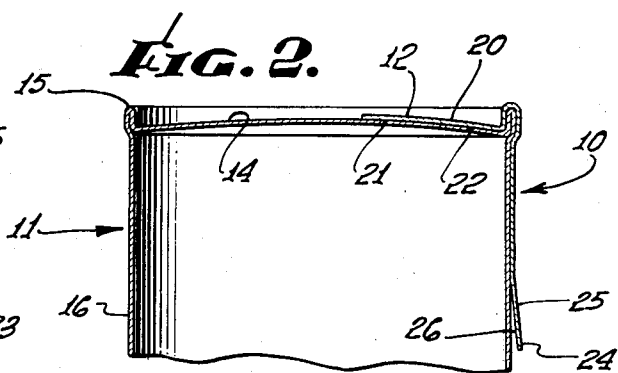
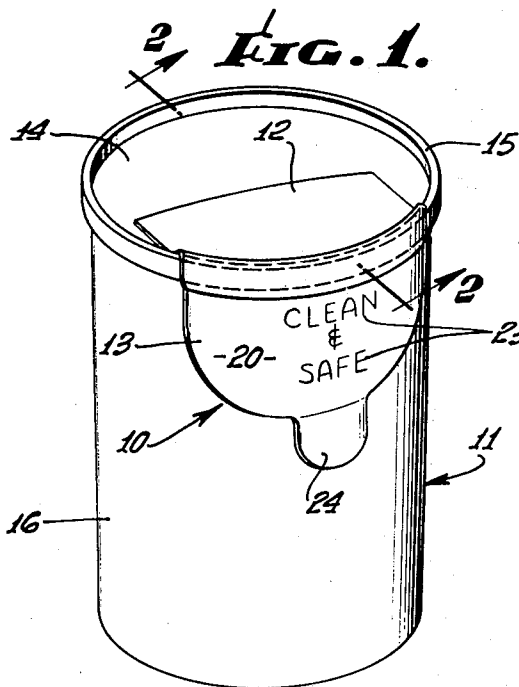
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[57] **ABSTRACT**

A container which has a dispensing opening, the immediate adjacent areas of which are often placed in contact with a human consumer's mouth, said container having a cover over said area of contact, said cover being hygienically bonded to said container to protect the area of contact from being contaminated, said cover having sufficient tear-strength to overcome said bond so that the cover can be integrally removed by breaking the bond, e.g., by manually pulling the cover away from the container. If the particular container is metal it is often desirable to provide the container with a plastic layer which is located between the cover and the area where the user's mouth would contact the metal in order to prevent the sometimes objectionable metallic taste.

5 Claims, 6 Drawing Figures





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HYGIENIC MOUTH PROTECTORS

CROSS REFERENCES TO RELATED APPLICATIONS

This application is a continuation of application Ser. No. 669,766, filed Sept. 22, 1967 now abandoned, which in turn is a continuation-in-part of Ser. No. 512,744, filed Dec. 22, 1965 now abandoned.

BACKGROUND OF THE INVENTION

In recent years containers for fluids designed for human consumption have undergone important changes. In one instance, many more beers and soft drinks are now being merchandised in cans, rather than bottles. Also, with development of "pull-top" can opening devices, more cans are being used as the vessel for final consumption. That is, the user drinks directly from the can rather than pouring the contents first into a glass.

In another instance, cardboard containers treated with petroleum waxes and plastic coating to make them moisture proof have found wide use for marketing liquids for human consumption. Milk, for example, has long been marketed in such containers rather than in glass bottles and more recently milk shakes, juices and other liquids for human consumption have been placed on the market in such containers. Most of the larger containers, particularly the half gallon size, are equipped with a pour spout. The smaller container, however, are generally made with a stopper and opening which lend themselves to consumption directly from the container.

In a third instance, paper cups, treated with petroleum wax or plastic material, have largely replaced glasses for use as a public drinking device in restaurants and short order houses. Part of the reason for the increased use of paper cups is the claim that being used only once and then disposed of, they are more hygienic than glasses. Under the usual handling conditions this is not entirely true however. Paper cups present a hygienic problem also in that although they are quite sanitary when they are originally placed on the market, continual handling and storage tends to cause hygienic contamination of the upper rim of the cup which is the very area in which the user's mouth will come in contact.

With the great increase in public use of the original container for liquids for human consumption as a drinking device, the problem of consumer hygiene has in fact considerably expanded.

A need therefore exists for a simple, inexpensive device to provide a hygienic surface on containers of fluids for human consumption to which the mouth can be applied when the user is drinking directly from the container. Various devices are suggested by the prior art for this purpose, however, none of them have ever achieved wide use or acceptance since they are either too awkward to use or do not truly achieve the degree of hygienic protection which is sought.

SUMMARY OF THE INVENTION

It is a major objective of this invention to provide a hygienic mouth protector for fluid containers which assures more effective protection than those heretofore known.

It is also an object of this invention to provide a hygienic mouth protector for fluid containers which can be applied to the containers at the processing plant while the container is still in a sterilized condition from the process of manufacture and filling.

It is a further object of our invention to provide a hygienic mouth protector of the type described which can be applied to fluid containers with "pull-top" type opening means and will provide the desired hygienic surface immediately upon opening and in proper position with respect to the opening.

It is still another object of our invention to provide a hygienic mouth protector of the type described which can be conveniently imprinted with indicia for advertising.

It is yet a further object of our invention to provide a hygienic mouth protector of the type described which is readily adaptable to use on cardboard cartons of the smaller size commonly used as drinking vessels, as well as beverage cans with or without "pull-top" type opening means, and paper cups.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a beverage can with a first form of our invention applied thereto;

FIG. 2 is a partial cross-sectional elevational view taken on line 2—2 in FIG. 1;

FIG. 3 is a perspective view of a beverage can with a "pull-top" type opening means showing a second form of our invention applied thereto;

FIG. 4 is a perspective view of a beverage can with a "pull-top" type opening means showing a third form of our invention partially removed;

FIG. 5 is a perspective view of the first form of our invention applied to a beverage carton; and

FIG. 6 is a perspective view of the first form of our invention applied to a paper cup.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings and particularly FIG. 1 thereof, the numeral 10 designates generally the first form of our invention applied to a beverage can 11 of the type commonly used for beer and soft drinks. In this embodiment our hygienic mouth protector 10 is a sheet of durable plastic material (e.g., polyethylene, polypropylene, etc.) having an upper portion 12 and a lower portion 13. The upper portion 12 is applied to the top 14 of the can 11 and extends from the can rim 15 inwardly a distance of approximately one-half the can radius. Circumferentially, the upper portion 12 extends over approximately one-fourth of the can 11. Particularly, the upper portion 12 must cover a sufficient area to permit adequate space for the upper lip of a person drinking from the can 11 to contact the can without extending beyond the covered area.

The lower portion 13 joins the upper portion 12 at the rim 15 of the can, and extends downwardly over the side 16 of the can directly below the portion of the rim 15 covered by the upper portion 12. The lower portion 13 covers substantially the same area circumferentially as the upper portion 12, however, it extends downwardly on the side of the can 11 approximately one-third of the axial dimension of the can and therefore covers an area which in total is somewhat larger

than the area covered by the upper portion 12. Again, the area covered by the lower portion 13 must be large enough to allow the lower lip of a person drinking from the can to contact the can without extending beyond its extremities. Furthermore, it should be understood that the total area covered by the mouth protector 10, when properly located on the can 11, is sufficiently large to permit full contact by the lips and mouth of a person drinking from the can, within the area.

As best shown in FIG. 2, the mouth protector 10 also has an outer surface 20 and an inner surface 21. A hygienic non-toxic adhesive substance such as gum arabic is applied as a coating 22 to the inner surface 21 and causes the mouth protector 10 to adhere securely to the can 11 over the entire area of contact. This adhesion takes place between the mouth protector 10 and the top 14 of the can 11, as well as between the mouth protector and the side 16 of the can 11. If desired, the non-toxic adhesive can be so chosen so that the adhesive forms a stronger bond with the mouth protector 10 than with the can, in which case substantially all of the adhesive remains on the mouth protector when it is removed from the container. Thus, the consumer is presented with a completely clean surface at the site where the lips will touch the can.

The outer surface 20 of the mouth protector 10 is comfortable to human touch and attractive to the human eye. Indicia 23 are applied to the outer surface 20 for advertising or instructional purposes.

To provide easy removal means, a tab 24 is formed integrally with the lower portion 13 of the mouth protector 10. It has an outer surface 25 and an inner surface 26 similar to the outer surface 20 and inner surface 21 of the mouth protector 10, except that the inner surface 26 of tab 24 has no adhesive coating 22 as is provided on the inner surface 21. The tab 24 is not therefore adhered to the side of the can 11.

In operation, this embodiment of our invention performs as follows: At the bottling plant when the can 11 is substantially germ-free as a result of the sterilization processes there-applied, the mouth protector 10 is applied to the top 14 and side 16 of the can 11 as explained above and secured to the can by adhesive coating 22 disposed on the inner surface 21. The mouth protector 10 is thus securely attached to the can 11 so that no contamination may take place in the area which it covers. With the mouth protector 10 so affixed, the area which it covers on can 11 is kept completely sanitary from the time the can leaves the bottling plant until it is presented to the ultimate user, regardless of the environment through which the can may be passed during handling, storage, and retail display. When the user wishes to drink from the can 11 he removes mouth protector 10 by pulling upwardly on the tab 24, which provides a gripping means by which he can pull upon and break the adhesive bond between the mouth protector and the can. The mouth protector 10 is made of a material, e.g., polyethylene plastic, which has sufficient tear-strength to overcome the adhesive bond so that the mouth protector can be removed as one piece, i.e., without tearing. The mouth protector 10 is then disposed of and the user opens the can by punching a drinking hole in the top 14, within the area formerly covered by the upper portion 12, in the usual manner. An air hole may also be punched in the can at some

other point. Then the user places his mouth on the can in the area formerly covered by the mouth protector and is assured of proper sanitation while drinking.

In FIG. 3 we show our invention applied to a metal can 30 which has a "pull-top" type opening means indicated generally at 31 consisting of gripping means attached to tear-strip 33 which seals a pre-formed drinking opening. In the preferred exemplary embodiment such gripping means for easily removing the tear-strip include ring 32. The mouth protector 34 has an upper portion 36 which is positioned over the can top 35 and a lower portion 37 which is positioned over the can side 38. The upper portion 36 not only covers the area of the can top 35 which will be touched by user's lips but in addition covers the entire area of the tear-strip 33 in order to prevent any dirt or the like from contaminating the material contained in the can when the tear-strip is removed and the can opened. Ring 32 is not covered by the upper portion 36 of mouth protector 34 in order that the can can be easily opened and, at the same time, the ring and tear-strip will remove the mouth protector 34 when the can 30 is opened.

Substantially the entire inner surface of mouth protector 34 is bonded to the can by an adhesive coating. This adhesive coating hygienically bonds the mouth protector over substantially its entire area to the can top 35 and can side 38. Preferably this adhesive coating is non-toxic. As has already been noted, the adhesive coating forms a hygienic seal so that the can will not be contaminated prior to its being opened but, the adhesive coating, is not so strong that the mouth protector 34 cannot be easily removed by merely pulling ring 32 to remove tear-strip 33. The mouth protector is made of a material such as polyethylene which will enable the hygienic bond to be broken without tearing the mouth protector, thereby allowing the mouth protector 34 to be removed in one piece.

FIG. 4 illustrates another exemplary embodiment of our invention applied to a can 30' which is composed substantially of metal and has a "pull-top" type opening means located generally at 31' which is in the opened position so that liquid contained in the can can be dispensed from dispensing opening 40. That portion of the can which will touch the user's lips when drinking therefrom is composed of two separate layers which are bonded together in a non-removable manner such as by a very strong adhesive. The bottom layer is composed of the same metal as the rest of the can and is an integral part thereof. The top layer 41 is composed of a material other than metal and which does not have the objectionable taste found by most users to be possessed by metal. For example top layer 41 may be made of a tasteless plastic. The mouth protector 34', before the can is opened, extends beyond the periphery of said top layer 41 to form an outer zone 42. This outer zone 42 is in contact with the can top 35', the tear-strip 33', and the can side 38' and is bonded thereto by an adhesive which hygienically seals the can and the mouth protector in said outer zone. Of course, the adhesive could be applied to the entire inner surface of the mouth protector 34' so that a bond would be formed between the top cover 41 and the inner surface of the mouth protector 34'. However, this latter embodiment is usually not desirable because of the possibility that the top layer 41 will be removed when the mouth protector 34' is

removed. As in the other embodiments, the mouth protector is made of a material which will not tear or rip when it is being removed and therefore will be removed as one integral unit. Since the outer zone will not generally be contacted by a user's lips it is not necessary that the adhesive remain on the mouth protector when the mouth protector is removed nor that the adhesive be non-toxic. However, for aseptic reasons it is generally preferred that the adhesive remain substantially entirely on the outer zone 42 and, to be absolutely safe, the adhesive should be non-toxic.

The mouth protector 34' covers the major portion of the tear-strip 33' leaving only an upper portion 43 which is not covered by the mouth protector and therefore not hygienic. This upper portion however will not be contacted by a user's lips. The top layer 41 is not removed from the can by the user and therefore it is so formed that it corresponds with the borders of the pull type opening means 34' so that when the tear-strip 33' is removed the top layer 41 will not hinder such removal.

In operation, the exemplary embodiment of FIG. 4 performs as follows:

At the bottling plant when the can 30', including top layer 41, is substantially contamination free the mouth protector 34' is applied to the can by first applying an adhesive coating to the outer zone 42. Upon application, mouth protector 34' is so disposed that outer zone 42 does not overlay or touch top layer 41. The adhesive coating thus forms a bond only with the metal of the can on both the can top 35' and the can side 38'. The peripheral bond formed by the adhesive coating is sufficient to prevent any contamination of the area covered by the mouth protector 34' during handling, shipping, storage and retail display so that this area is substantially free of contamination when the can 30' arrives in the hands of the user.

When the user opens the can 30' by means of the "pull-top" type opening device by pulling ring 31' upward, the tear strip 33' causes upper portion 36' of mouth protector 34' to be separated from can top 35'. The top layer 41 however remains in place to protect the user's lips from contact with the metal. By further manual effort outwardly and downwardly, the remainder of mouth protector 34' is removed from the can together with the "pull-top" opening device.

This form of our invention has the advantage of providing a mouth contacting surface on the can which is more compatible to human touch than is the usual can material. The mouth protector 34' nevertheless, assures the same hygienic surfaces for mouth contact as the mouth protector 10 described previously.

In FIG. 5, we show a mouth protector 50 applied to a carton type fluid container 51 which is generally cubical in shape and has a circular opening 52 in one corner of the top 53 sealed by a hinged stopper 54. The mouth protector 50 is identical to the mouth protector 10 described heretofore with the exception that it is shaped to conform to the corner of the carton 50 rather than to the rim, top and side of the can 11.

In FIG. 6 we show a mouth protector 60 applied to a drinking cup 61 of paper or plastic. Again, the mouth protector 60 is identical to the mouth protector 10 with the exception that it is shaped for application over the rim of the cup 61 with its upper portion 62 extending

over the inside surface and its lower portion 63 extending over the outside surface of cup 61.

Both mouth protectors 50 and 60 are adhesively applied to the container while it is sterile and manually removed by the ultimate user as explained in our description of mouth protector 10.

From this description of preferred forms of our invention, it will be understood that we have provided a simple but effective device by which a hygienic drinking surface can be assured the user of beverage containers. And, not only does the hygienic surface provided by our invention protect the user while drinking from the container, it also gives protection when the container's contents are poured out.

Most important, we have provided a device which preserves for the user the sterilization applied to beverage containers during the manufacturing and bottling processes. Furthermore, our mouth protector is inexpensive to manufacture and simple to use. In addition, it is suitable for advertising and instruction indicia and can increase the pleasing appearance of the beverage container upon which it is used.

It should also be appreciated from an understanding of our invention that its applications are not limited to containers for liquid, since by suitable adaptation it could be used on containers of other products for human consumption. For example, our invention could be used on containers for peanuts, small candies, and the like which are often placed in contact with the mouth when the contents are dispensed.

It will be understood that the cover protecting the hygienic surface from contamination by foreign material is susceptible of many forms. For example, if the cost of the cover is negligible than the cover may encompass the entire top surface (e.g., 360°) of the can as well as the can side in the area adjacent to the can top.

We claim:

1. In a container of products for human consumption of a type commonly placed in contact with the user's mouth upon dispensing said products whereby the mouth of the user is brought into contact with said container in an area adjacent a dispensing opening therein, a device for rendering said area of contact hygienic for the user comprising:

a cover overlying at least said area of contact and a marginal zone therearound;

a bond hygienically sealing and manually removably securing said cover to said container; and

said cover having sufficient tear-strength to overcome said bond, whereby said cover can be integrally removed by breaking said bond,

said container being composed substantially of metal, said area of contact adjacent said dispensing opening comprising a bottom and a top layer, said bottom layer being composed of metal and an integral part of the container, said top layer being composed of plastic and bonded non-removably to said bottom layer,

the periphery of said cover extending beyond the periphery of said top layer to form an outer zone, said bond between the container and the cover being located in said outer zone.

2. A container according to claim 1, wherein the dispensing opening therein comprises a pre-formed drinking opening, a tear-strip sealing said opening, said

tear-strip having gripping means connected thereto to manually remove said tear-strip, said cover overlying substantially all of said tear-strip and said bond hygienically sealing said cover to said tear-strip, whereby when the tear-strip is removed the cover is integrally removed, said top layer substantially surrounding but not overlying said tear-strip.

3. In a container of products for human consumption of a type commonly placed in contact with the user's mouth upon dispensing said products whereby the mouth of the user is brought into contact with said container in an area adjacent a dispensing opening therein, said container being composed substantially of metal, said opening being formed in a generally flat container top adjacent an edge line of juncture with a container side wall depending from the top, and said area of contact including that part of the top immediately surrounding the opening and the upper part of the side wall in alignment therebelow, the area of contact extending laterally about one-fourth of the total container side wall periphery, a device for rendering said area of contact hygienic for the user comprising:

a cover overlying said area of contact and a marginal zone therearound;

a bond hygienically sealing and manually removably securing said cover to said container,

said cover having sufficient tear-strength to overcome said bond, whereby said cover can be integrally removed by breaking said bond,

said area of contact adjacent said dispensing opening therein comprising a bottom and a top layer, said bottom layer being composed of metal and an integral part of the container, said top layer being composed of plastic and bonded non-removably to said bottom layer.

4. A container according to claim 3 wherein the periphery of said cover extends beyond the periphery of said top layer to form an outer zone, said bond between the container and the cover being located in said outer zone.

5. A container according to claim 4 wherein the dispensing opening therein comprises a pre-formed drinking opening, a tear-strip sealing said opening, said tear-strip having gripping means connected thereto to manually remove said tear-strip, said cover overlying substantially all of said tear-strip and said bond hygienically sealing said cover to said tear-strip, whereby when the tear-strip is removed the cover is integrally removed, said top layer substantially surrounding but not overlying said tear strip.

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