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CONTAINER DISPENSER AND CLOSURE

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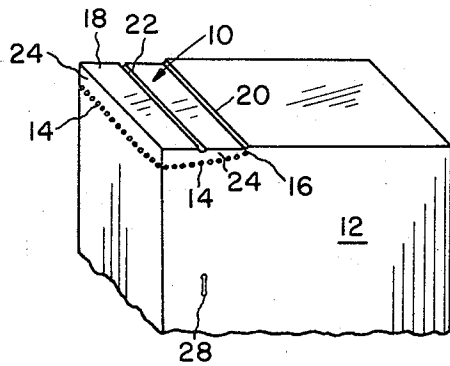


Fig. 1

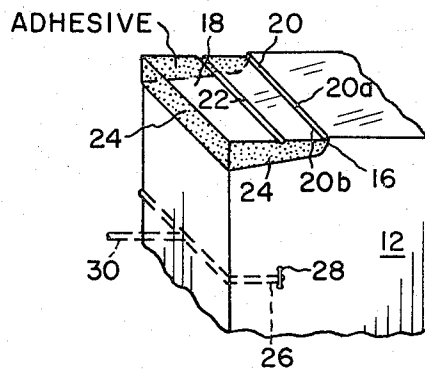


Fig. 5

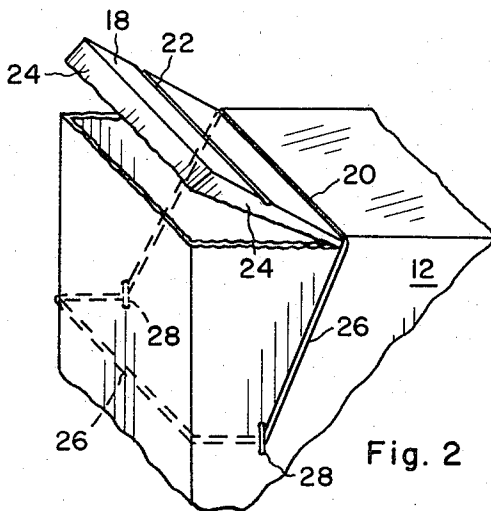


Fig. 2

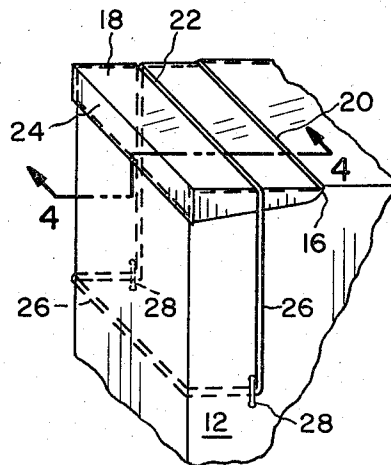


Fig. 3

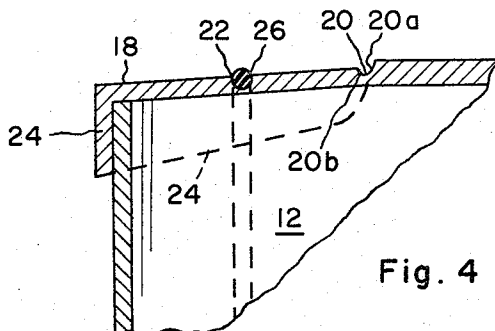


Fig. 4

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CONTAINER DISPENSER AND CLOSURE
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ABSTRACT OF THE DISCLOSURE

A dispenser and closure arrangement for a container in which the flap of the closure element, when lifted from the container, automatically remains open and, when closed, automatically retains the closure element in a sealed position on the container.

The invention relates to a dispenser and closure element for containers, such as a cardboard carton used for enclosing foods as well as non-food items.

Since cartons containing various food items are opened and closed many times and only part of the contents thereof consumed, a closure and dispensing device is desirable whereby the contents of the carton are easily dispensed by using only one hand. The remaining contents in the container are then resealed by the closure to avoid spillage, loss or flavor and freshness, dispelling of odors, and to prevent the food from being ravaged by insects and rodents.

An object of the present invention is to provide a closure for a container which is a hinged cover that is initially integral with the container or carton or is partially secured thereto by an adhesive. The hinged cover is provided with a resilient band which automatically retains the closure in an open position to facilitate the dispensing of the contents thereof, and when the hinged cover is lowered to its closed position the resilient band assumes another position on the cover to automatically retain said cover in a sealed position on the carton. In this manner a positive opening and closing of the carton is effected. It should be noted that the carton will not spill its contents when the cover is in the closed position, even if the carton is accidentally turned upside down.

A further object of the present invention is to provide a flap closure element for a container having spaced-apart grooves for receiving a resilient band having a circular cross-section thereby permitting the band to be easily rolled from one groove to another.

Another object of the present invention is the provision of a relatively simple closure element that is inexpensive to manufacture yet extremely efficient in operation. This box closure may be used, for example, for foods, soaps, detergents, grass seed, fertilizers and other types of boxed granular substances.

The above and other features, objects and advantages of the present invention will be fully understood from the following description considered in connection with the accompanying illustrative drawings.

FIG. 1 is a partial perspective view of a container with a closure and dispenser device in accordance with the teachings of the present invention, however with the elastic band removed.

FIG. 2 is a partial perspective view of the container illustrated in FIG. 1 in the open position of the closure.

FIG. 3 is a partial perspective view of the container illustrated in FIG. 1 in the closed position of the closure.

FIG. 4 is an enlarged sectional view of the container taken along lines 4—4 of FIG. 3 and

FIG. 5 is partial perspective view of an alternative embodiment of the present invention.

Referring to FIG. 1 of the drawings, the present dispenser and closure element, referred to generally by the

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numeral 10, is illustrated as part of the top corner of a container 12. The container 12 may take the form of the usual cardboard carton that packages granular food as well as non-food items. Score lines 14 are cut on three sides of the carton so that the user may sever the carton along the score lines and separate the closure element from the carton with the exception of the hinge 16. The closure element 10 then becomes a hinged lid 18, and the return 24 of the lid 18 abuts the outside of the adjacent side, front and back walls of the container 12 since these walls are depressed inwardly upon the severing of the lid 18 along the score lines 14. The lid is further provided with spaced grooves 20 and 22. Groove 20 is located in the hinge portion 16 of the container 12 and extends completely across the depth of the lid 18. Groove 22 is located in the median portion of the lid between the hinge 16 and the side return 24 of the lid 18. Groove 22, like groove 20, extends parallel thereto and completely across the depth of the lid 18.

It should be noted in FIGS. 4 and 5 that groove 20 has a right hand wall 20a that is considerably higher than the left hand wall 20b. In addition, the lid 18, when in a closed position, slopes downwardly several degrees from the horizontal plane.

The elastic band 26 is similar to the well-known rubber band, however it is provided with a round cross-section as clearly seen in FIG. 4. Therefore, because of the round configuration of the elastic band 26, there is little frictional resistance and it is easy for the same to roll from groove 22 to groove 20 and vice versa. In fact, if the lid 18 is lifted, the elastic band 26 will automatically roll down the inclined lid to seat itself in groove 20, as illustrated in FIG. 2. When this is accomplished the lid 18 is held and maintained in an open position by the elastic band 26. If it is desired to close the lid 18 the same is depressed to the position shown in FIG. 3 wherein the elastic band 26 automatically rolls into and seats in groove 22 inasmuch as it is relatively simple for the band to ride over the lower left-hand wall 20b and to roll downwardly on the top surface of the sloping lid 18 to groove 22.

The elastic band 26 is fixed to the container 12 by means of rivets or staples 28 mounted on the front and back walls of the container whereby the elastic band 26 assumes a U-shaped configuration. However, initially before the closure element 10 is placed into operation, the U-shaped elastic band is preferably positioned in the dotted line location of FIG. 2 in order to put less tension on the band when it is not in use and to insure the resiliency of the band when the same is being used.

FIG. 5 illustrates an alternative embodiment of the present invention in which the hinged lid 18 is slightly larger in dimensions than the adjacent parts of the container 12. The return 24 of lid 18 is pasted to the adjacent abutting side, front and back walls of the container 12 by means of an adhesive. Thus, in order to form the closure element 10, an object such as a knife is inserted between the return 24 and the side, front and back walls of the container to thereby separate the lid 18 from the container 12, with the exception of hinge 16. In addition, the elastic band 26 shown in FIG. 5 is provided with a finger piece 30 projecting therefrom in order to afford the user a grasping element for pulling the elastic band from an inoperative position shown in dotted lines to the operative position shown in full lines. It should be noted that it is only necessary to use a knife of the dull type since it is only required to break the thin layer of paste sealing the lid 18 to the container body in the construction of FIGURE 5.

With regard to FIGS. 1 and 2 it should be apparent that the perforations or score lines 14 are initially pressed inwardly by means of the fingers with the elastic band 26 located in the position shown in FIG. 3 over the lid 18

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and creating a downward force thereon. Thus, as the perforations 14 including the corners of the container are pressed inwardly, the front, back and side walls of the container adjacent to the perforations collapse slightly inwardly to thereby ensure that the lid 18 with its return 24 overlaps the open end of the container every time the hinged lid is lowered to the closed position.

What I claim is:

1. A closure element for a container comprising a hinged lid covering an opening in the top of said container, said hinged lid being provided with spaced grooves located in a plane substantially transverse to the longitudinal axis of said container, one of said grooves being at the junction of said hinged lid to said container, an elastic band secured to the front and back walls and over the lid of said container, and having an intermediate portion thereof selectively movable and engageable with tension in one or the other of said grooves to maintain said lid in an open position when said elastic band is in said one of said grooves at the junction of said hinged lid to said container or in a closed position when said elastic band is in the other of said grooves.

2. A closure element for a container as claimed in claim 1 wherein said hinged lid is partially cut out of said container, and said spaced grooves extending entirely across said hinged lid.

3. A closure element for a container as claimed in claim 1 wherein said groove at said junction of said hinged lid to said container is provided with one upstanding wall that is higher than the other upstanding wall thereof; and the top surface of said lid is at a reflex angle to the plane of the top surface of the remainder of said container.

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4. A closure element for a container as claimed in claim 1 wherein said elastic band is substantially circular in cross-section.

5. A closure element for a container as claimed in claim 1 wherein said hinged lid is provided with a return on three sides thereof, the adjacent side, front and back walls of said container being depressed to permit the return of said lid to pass over the outside of said container in a snug fit.

6. A closure element as claimed in claim 1 wherein said elastic band is provided with a finger piece projecting therefrom to facilitate moving of the elastic band from one groove to another groove.

7. A closure element for a container as claimed in claim 1 wherein the spaced grooves of said container extend entirely across said hinged lid, and one of the grooves is provided with an upstanding wall that is higher than the other upstanding wall thereof, the top surface of said lid being at a reflex angle to the plane of the top surface of the remainder of said container, said hinged lid being provided with a return on three sides thereof, and adhesive means securing said return to the adjacent side, front and back portions of said container.

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