

May 13, 1969

R. N. WOOD

3,443,971

SHORTENING CONTAINER DEVICE

Filed April 26, 1967

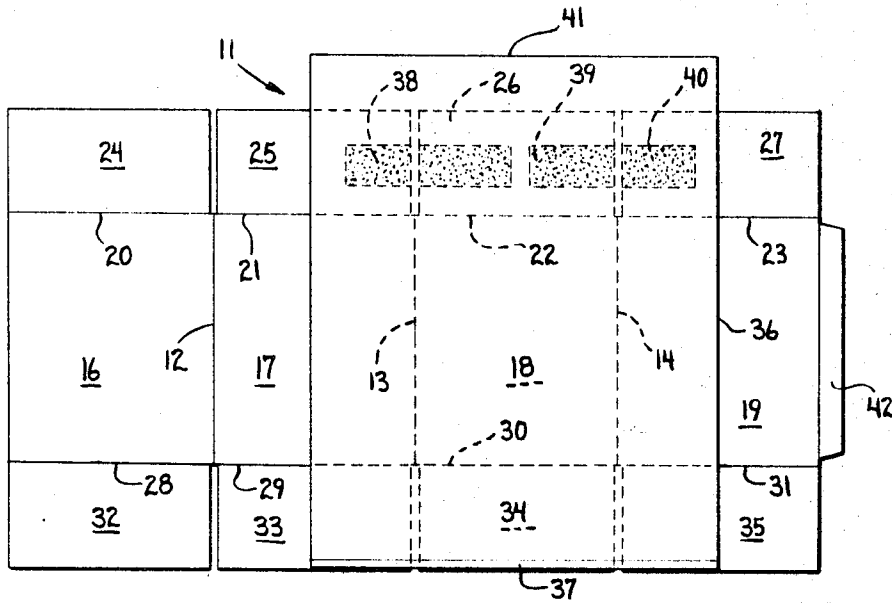


Fig. 1.

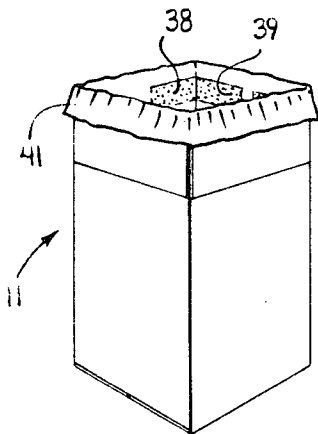


Fig. 3.

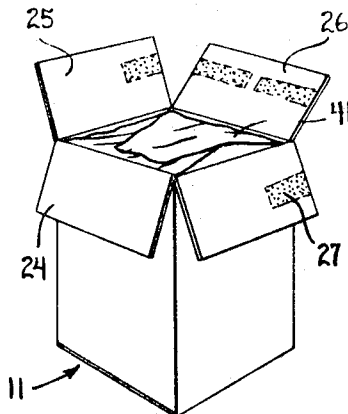


Fig. 4.

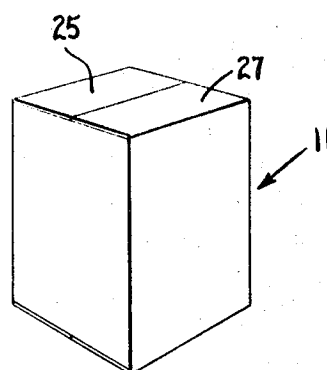


Fig. 5.

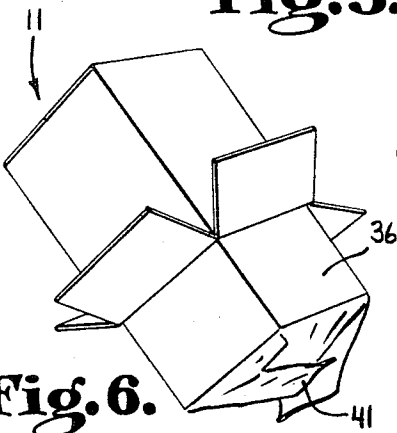


Fig. 6.

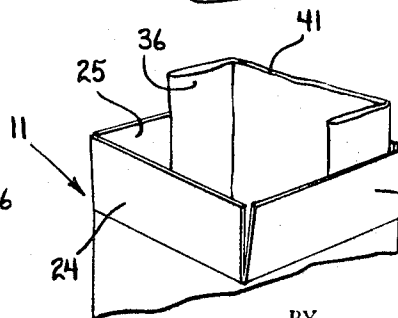


Fig. 2.

INVENTOR.
ROBERT N. WOOD

BY
Woodard, Weickert, Emhardt & Noylton
Attorneys

1

3,443,971

SHORTENING CONTAINER DEVICE

Robert N. Wood, Indianapolis, Ind., assignor to Inland Container Corporation, Indianapolis, Ind., a corporation of Indiana

Filed Apr. 26, 1967, Ser. No. 633,995

Int. Cl. B65d 85/74, 85/72

U.S. Cl. 99-171

2 Claims

ABSTRACT OF THE DISCLOSURE

A container particularly well adapted to receive bulk quantities of shortening and the like having a plastic bag in the form of a tube having a single sealed seam closing its lower end. The tube is received inside a carton of corrugated fibreboard and one-half of the perimeter of the bag is secured to the upper flaps of the carton to assure that it will remain in position during filling. After filling, the bag is detached from the flaps so that the end user can dump the bag and product from the carton as a single unit.

Background of the invention

This invention relates generally to the packaging of commodities and more particularly relates to a container particularly well adapted to the packaging of meltable products such as shortening and the like.

Packaging bulk quantities of shortening leads to a number of problems. For example, present sanitary sealing methods for shortening exhibit the difficulty in removing all of the shortening from the container. The problem of waste is particularly serious in commercial usage where large vats of shortening are used in preparing large quantities of food. The accumulated amount of waste in processing fifty pound bulk cubes, for example, can be considerable.

Therefore, it is a primary object of this invention to provide a shortening container which eliminates the problem of waste yet provides a sanitary packaging means.

Summary

A plastic bag in the form of a tube having a single sealed seam closing its lower end is received inside a generally rectangular carton of corrugated fibreboard. Half of the perimeter of the bag is secured to the upper flaps of the carton to assure that it will remain closed during carton assembly and will remain in position during filling the bag with a flowable product such as melted shortening.

The shortening is allowed to solidify. The plastic bag is then detached from the carton flaps and closed so that the bag is "free" within the carton. This permits the end user to dump the bag and its contents from the carton as a single unit into the vat where the shortening is to be melted. After the shortening has completely melted, the bag is removed from the vat.

Brief description of the drawings

The full nature of the invention will be understood from the accompanying drawings and the following description and claims.

FIG. 1 is a view of the fibreboard blank with the plastic bag mounted thereto, the blank being shown as it appears before the ends thereof are joined.

FIG. 2 is a perspective view of the partially assembled fibreboard blank of FIG. 1 with the plastic bag closed.

FIG. 3 is a perspective view of the blank of FIG. 2 with the bag open prior to filling.

FIG. 4 is a perspective view of a filled assembly with the plastic bag closed.

2

FIG. 5 is a perspective view of a completed assembly. FIG. 6 is a perspective view of the bag and contents being dumped from the assembly as a single unit.

Description of preferred embodiment

Referring now to the drawings in detail, FIG. 1 shows a carton blank 11 typically made of double-faced corrugated fibreboard having score lines 12, 13 and 14 dividing the blank into four panels 16 through 19. Panels 16 through 19 have score lines 20 through 23 defining upper flaps 24 through 27 and score lines 28 through 31 defining bottom flaps 32 through 35.

A bag 36 of fluid-tight flexible plastic material, such as polyethylene, overlies panel 18 and half of panels 17 and 19. The bag is actually formed of a tube of polyethylene sheeting and is shown lying flat with the lower edges of the tube sealed in a single seam 37 whereby the bottom of the bag or tube is closed, and is preferably aligned with the bottom edge of the bottom flaps. The material of the bag which lies immediately in contact with upper flap 26 and half of flaps 25 and 27 is secured thereto by intermittent, horizontal, strippable, adhesive strips 38, 39, and 40. The adhesive strips extend across upper flap 26 and part way across flaps 25 and 27.

When panels 16 and 19 are folded on score lines 12 and 14 respectively and their ends placed together (with tab 42 providing the conventional manufacturer's joint closure), and lower flaps 32 through 35 are folded on score lines 28 through 31, respectively, and sealed, by conventional exteriorly applied tape, the carton has the appearance shown in FIG. 3 when ready for filling. The upper edge 41 of the plastic bag remains closed until the container is to be filled thereby insuring a contamination free bag as shown in FIG. 2.

The upper edge of the bag is then opened and folded over the upper flaps of the carton as shown in FIG. 3. Shortening in a liquid state is fed into the open container and allowed to solidify. The bag is then pulled free from the adhesive strips, 38, 39 and 40 and the upper end is closed by folding as shown in FIG. 4, tying or the like. The bag cannot, under any circumstances, be closed until it is released from the container. The container flaps, in turn, must be free of the bag in order to be folded for box closure under all circumstances.

The upper flaps 24 through 27 are then folded on score lines 20 through 23 respectively to close the carton. When the carton reaches its destination, the carton is opened and inverted as shown in FIG. 6 and the bag and its contents are dumped from the carton as a single unit and into a heating vessel wherein the shortening is melted. The bag is then fished out of the vessel once the shortening has completely melted thereby eliminating any possibility of waste.

Placement of the bag is extremely important to insure proper opening of the bag when the container is assembled. The bag must be placed on the blank so that it extends from the center of panel 17 to the center of panel 19. If this is not done, the bag will not open as intended and the bag will be out of position. The bottom seal 37 should be parallel with the bottom of the blank to insure a flat bottom on the bag when it is filled without pulling the bag away from the walls of the container.

It will be recognized that the container of the present invention is well suited to various other assembly constructions. Therefore, while the invention has been disclosed and described in some detail in the drawings and foregoing descriptions, they are to be considered as illustrative and not restrictive in character, as other modifications may readily suggest themselves to persons skilled in this art and within the broad scope of the invention, reference being had to the appended claims.

The invention claimed is:

1. A container comprising: a flexible bag formed of a tube of flexible material having a single sealed seam closing its lower end and adapted to be filled with a flowable material; a fibreboard carton surrounding said bag, said carton having first, second third and fourth upper flaps; first strippable adhesive means extending across the interior surface of one of said flaps, second strippable adhesive means extending across a portion only of the interior surface of the flap adjacent the flap carrying said first adhesive means, third strippable adhesive means extending across a portion only of the interior surface of the other flap adjacent the flap carrying said first adhesive means; said adhesive means securing said bag to the carton flaps during container assembly and filling and permitting said bag to remain closed until it is opened for filling thereby assuring an uncontaminated container, the bag being adapted to be freed from said carton after filling and closure, thereby permitting the liner and its contents to be dumped from the carton as a single unit.

2. A container in accord with claim 1 wherein said flowable material is shortening, said shortening being introduced into said bag in a flowable state, said bag being

detached from said carton and closed after said shortening solidifies; whereby said bag and shortening may be dumped from said carton into a heated vessel as a single unit with said bag being retrieved from said vessel after said shortening has melted.

References Cited

UNITED STATES PATENTS

	695,273	3/1902	Birnie et al.
10	2,095,910	10/1937	Bergstein.
	2,177,918	10/1939	Vogt et al.
	2,493,337	1/1950	Buttery.
	3,061,165	10/1962	Rench et al.
	3,114,300	12/1963	Bianchi.
15	3,208,658	9/1965	Membrino.
	3,321,070	5/1967	Childs.
	3,344,971	10/1967	Walker.

DAVIS T. MOORHEAD, *Primary Examiner.*

U.S. Cl. X.R.

229—14