United States Patent

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[54] **CARTON WITH HANDLING MEANS**
6 Claims, 4 Drawing Figs.

[52] **U.S. Cl.** ..... **229/52 B,** 229/6 R, 229/8, D9/180
[51] **Int. Cl.** **B65d 5/46**
[50] **Field of Search** ..... 229/8, 6 R, 52 B, 3.1, 1.5 H, DIG. 6, 17 G; 220/72; D9/159, 180

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ABSTRACT: Sealed, paperboard carton containers are provided with external corrugations on parallel sidewalls extending downwardly from an upper closure end to facilitate gripping or handling of the carton. The corrugations completely encircle the carton and are formed by parallel spaced indentations or projections.

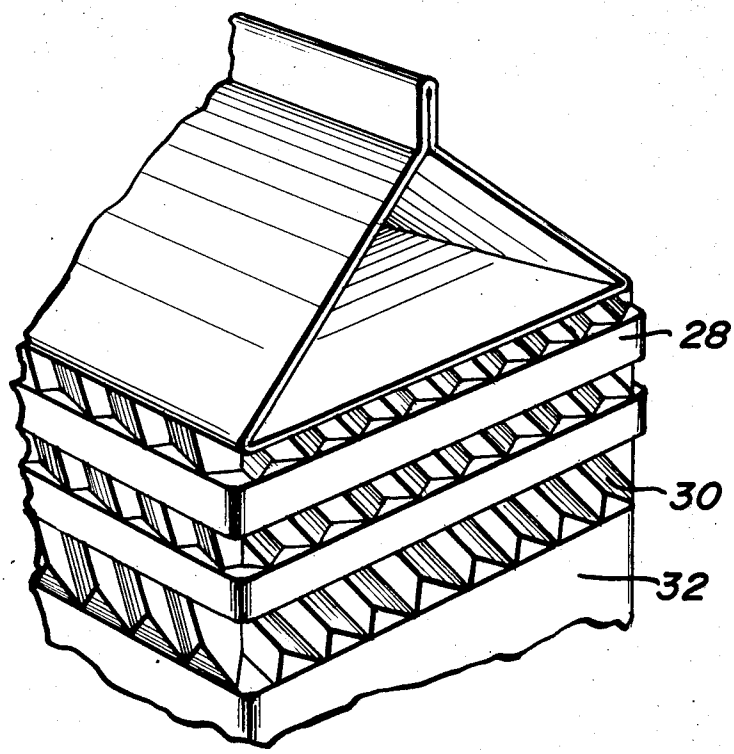


Fig. 1

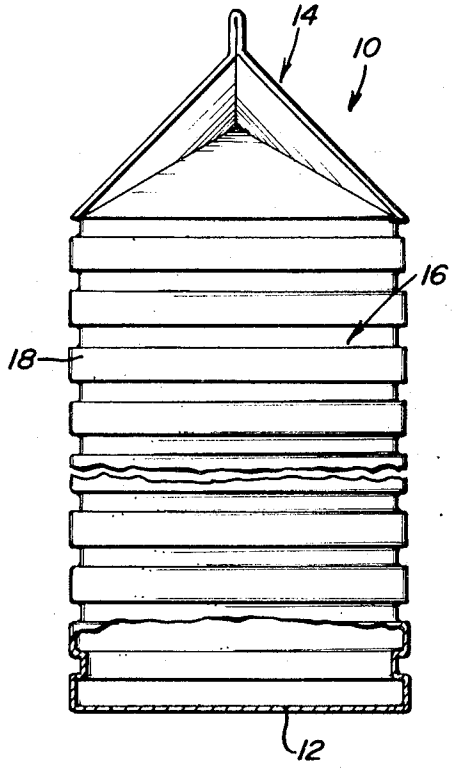


Fig. 2

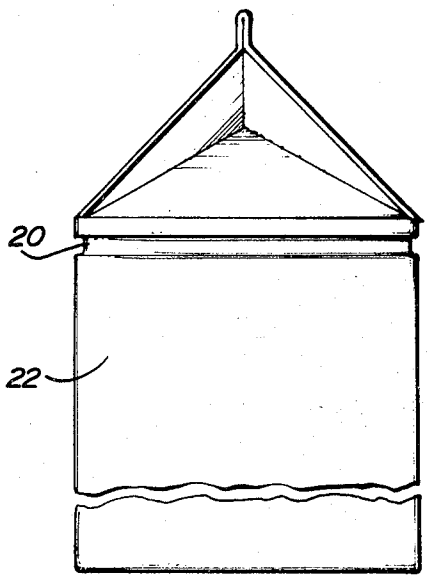


Fig. 3

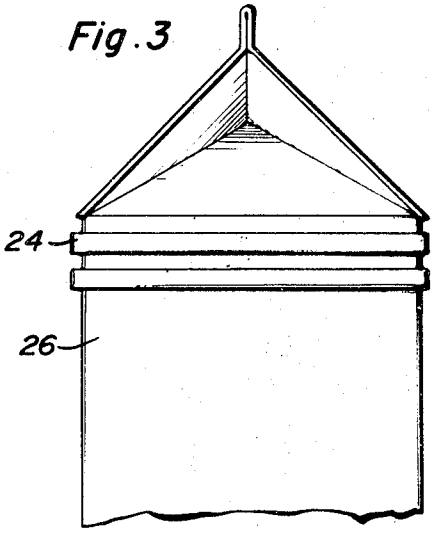
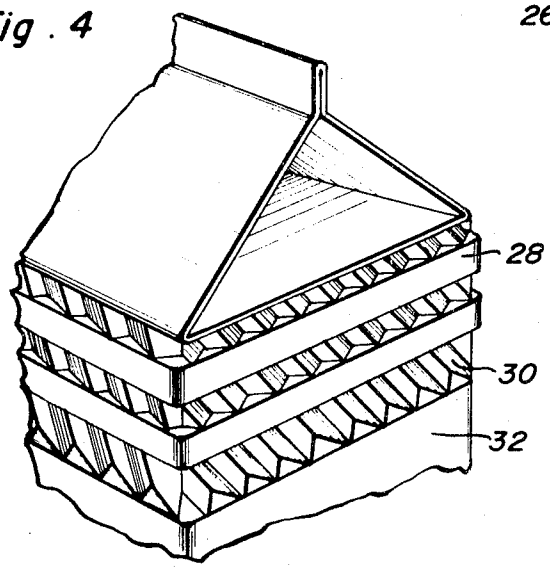


Fig. 4



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CARTON WITH HANDLING MEANS

This invention relates to the art of paperboard containers.

Sealed paperboard containers for liquids such as milk, are presently being made in larger sizes which presents a handling problem since they cannot be completely encircled within the hand of a person. Further, because of the larger capacity of such containers and the weight of the liquid enclosed therein, as well as the coating on the container, slippage of the container from the hand is difficult to resist. It is therefore an important object of the present invention to provide means for facilitating the gripping and handling of such containers.

In accordance with the present invention, paperboard containers of the aforementioned type are provided with corrugations which are formed by parallel-spaced indentations or projections on the parallel sidewalls of the container extending downwardly from the upper closure end where they are most likely to be grasped. The corrugations may extend along the longitudinal axis of the container by any desired extent up to the entire length depending upon the size of the container and the weight of the liquid contained therein.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is a side elevational view with parts broken away and shown in section of one type of container constructed in accordance with the present invention.

FIG. 2 is a partial side elevational view of another form of container constructed in accordance with the present invention.

FIG. 3 is a partial side elevational view of a third form of container.

FIG. 4 is a partial perspective view of a fourth form of container constructed in accordance with the present invention.

Referring now to the drawings in detail, FIG. 1 illustrates a coated, paperboard container generally referred to by reference numeral 10 which may be generally polygonal in cross section along its longitudinal axis which extends from a bottom wall 12 up to a top closure formation 14 commonly utilized to seal the contents of the container. In the illustrated embodiment, there are four interconnected sidewalls 16 for the container which are generally parallel to its longitudinal axis. Gripping means are formed on the sidewalls of the container completely encircling it and extending from the upper closure end 14 to the bottom wall 12. The gripping means is in the form of corrugations 18. The corrugations may extend any desired distance along the longitudinal axis downwardly from the closure end 14 dependent upon the weight of the full container and its size.

In one form of the invention as shown in FIG. 2, the corrugations are formed by indentations 20 which extend inwardly from the outer surface 22 of the sidewalls. In FIG. 3, the corrugations are formed by parallel-spaced projections 24 that extend outwardly from the outer surface 26 of the sidewalls. Whether the corrugations are formed by indentations or projections from the outer surface, in all cases they completely encircle the container.

In FIG. 4, the grip means is formed by a set of corrugations which include parallel-spaced projections 28 formed adjacent the upper closure end of the container. The grip means also includes diagonal corrugations 30 that extend outwardly from the external surface 32 of the sidewalls. The diagonal corrugations are formed between or are interrupted by the spaced projections 28. Thus, the form of the invention illustrated in FIG. 4 provides a maximum amount of gripping surfaces, which would be particularly useful for relatively large and heavy containers.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. In a container having interconnected sidewalls parallel to a longitudinal axis and a top closure formation grip means including corrugations integrally formed in the sidewalls completely encircling the container adjacent an upper end thereof, said sidewalls being made of a coated paper construction and the corrugations extending downwardly from the top closure formation by an amount dependent on the load of the container contents.

2. The container defined in claim 1 wherein said corrugations form parallel-spaced projections perpendicular to the longitudinal axis.

3. The container defined in claim 2 wherein the grip means further includes diagonal corrugations at an angle to the longitudinal axis.

4. The container defined in claim 3 wherein said diagonal corrugations are interrupted by the parallel-spaced projections of the first-mentioned corrugations where the corrugations intersect and cross.

5. In a container having interconnected sidewalls parallel to a longitudinal axis, a closure top and a bottom wall, grip means including a plurality of corrugations encircling the container adjacent said top thereof forming parallel-spaced projections perpendicular to the longitudinal axis, said corrugations extending from the top toward the bottom wall by an amount dependent on the load of the container contents.

6. The container defined in claim 5 wherein the grip means further includes diagonal corrugations between the projections of the first-mentioned corrugations.

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