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2,982,458

CARTON

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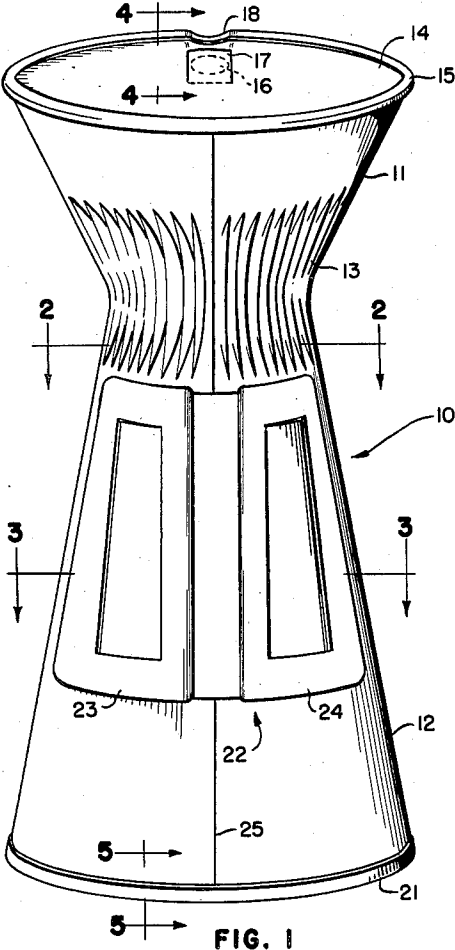


FIG. 1

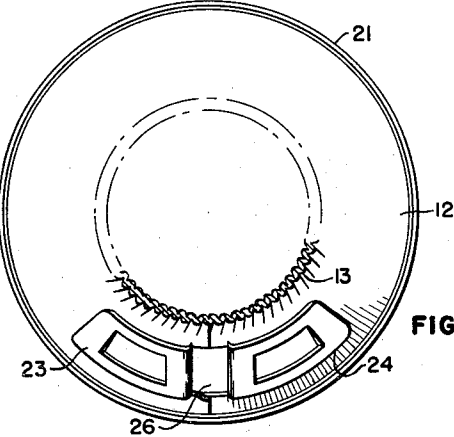


FIG. 2

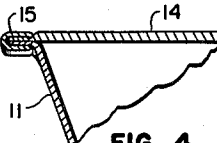


FIG. 4

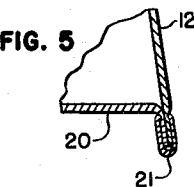


FIG. 5

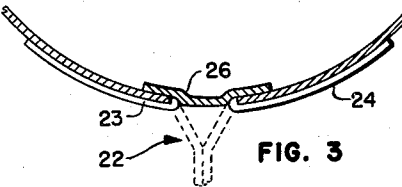


FIG. 3

FIG. 6

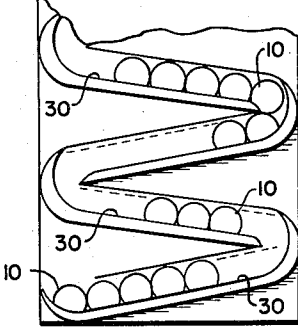


FIG. 7

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CARTON

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2 Claims. (Cl. 229—4.5)

This invention relates, in general, to bottles or containers for fluids, such as milk, fruit juices and the like and in particular to a new and improved container having improved structural and functional characteristics.

A general object of this invention is the provision of a thoroughly practical bottle or carton of paper or the like which is easy to handle, more easily stored and displayed, and especially capable of being used in improved dispensing machines in merchandising establishments such as self-service grocery stores and the like.

Heretofore, it has been the custom to ignore, in the present-day milk bottles or containers, the fact that large containers such as half-gallon sizes have been awkward and cumbersome and therefore, difficult to handle and the fact that when stored in conventional freezers used in merchandising establishments, such containers occupied more space that should be required. Furthermore, such conventional containers did not permit the proper displaying of a number of such cartons in such conventional freezers, nor has any consideration been given to providing such cartons of a means of aligning them for proper operation in vending machines.

Briefly, my invention contemplates a carton or container for milk and the like which overcomes the defects of prior art cartons by the provision of a conical surface made of paper or the like and having metallically reinforced circumferential edges at each end. I have further provided my carton with handles for ease of handling and which are capable of having an inoperative nesting position contiguous with the outline of the carton and an operative gripping position in an outward relation thereto. With this arrangement of a conical surface and handles, my milk carton is so constructed and arranged whereby it is balanced and easy to handle regardless of its size, and has other additional advantages, namely, if desired, it permits the separation of milk and cream in separate portions; will provide a means of aligning such cartons in racks such as serpentine racks in present-day vending machines; permits the interesting of the top and bottom with like parts of other cartons to reduce the space required when placed in the conventional open top freezer compartments; and finally, the metallic reinforced circumferential rings at the top and the bottom of my carton prevent, or substantially reduce, the transfer of wax or paraffin and the like from the carton to the freezer's shelves in those cartons which are made of paraffin-treated or wax treated paper.

Accordingly, a more specific object of my invention is the provision of a milk carton having handles thereon so constructed and arranged to be easy to handle regardless of its size.

Still another and more specific object of my invention is the provision of a metallic reinforcing ring at the top and bottom of my cartons which prevent the transfer of paraffin wax and the like to the freezer shelves and the like.

Still another and specific object of my invention is the provision of a carton which permits the interesting of

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cartons with like cartons in conventional freezers and which permits proper alignment of the cartons in present-day serpentine dispenser racks and the like.

Other and more particular objects of my invention will be apparent to those skilled in the art from the following description and drawings forming a part hereof and wherein:

Fig. 1 is a side elevational view of a milk carton constructed in accordance with the teachings of my invention and showing to advantage the collapsible handles in contact with the surface of the carton and the opening for pouring with its cover closed;

Fig. 2 is a cross sectional view taken along lines 2—2 of Fig. 1 and looking in the direction of the arrows;

Fig. 3 is a fragmentary cross sectional view taken along line 3—3 of Fig. 1 and illustrating the position of the handles when in contact with the surface of the carton and their operative position illustrated in dotted lines;

Fig. 4 is a fragmentary sectional view taken along line 4—4 of Fig. 1 and looking in the direction of the arrows, illustrating to advantage one form of reinforcing rim for the top lid of my carton;

Fig. 5 is a fragmentary sectional view taken along 5—5 of Fig. 1 and illustrating to advantage the reinforcing rim for the lower lid or bottom of my carton;

Fig. 6 is a perspective view, semi-schematic, illustrating the advantageous way in which my cartons may be stacked in a freezer or display unit or the like; and

Fig. 7 is a schematic view of a serpentine type dispensing unit illustrating to advantage the manner in which my cartons can conveniently cooperate with such a unit.

Turning now to the drawings, and in particular, to Fig. 1, it can be seen that I have illustrated my new and improved carton in its entirety by reference numeral 10, which carton comprises a lower cone portion 11 and an upper cone portion 12 formed by crimping, twisting or corrugating a cylindrical hollow wax or paraffin treated paper at its center as illustrated at 13 to form substantially a conical surface. My carton is further provided with a circular upper lid 14 formed of the selected circumference, depending upon the size of the upper portion 11 and secured to the walls of the upper portion 11 in fluid tight relationship by means of a metallic ring or rim 15, U-shaped in cross-section, pressed or crimped around the peripheral edges of the lid as illustrated in Fig. 4. For convenience in pouring milk or the like from any carton, the lid member 14 is provided with the conventional pouring hole 16 which may be closed by a conventional cover or lid 17, and to further make such a carton convenient to pour, the rim 15 may be formed with a depression or ridge adjacent the pouring hole as illustrated at 18 which forms a pouring spout.

The lower cone portion 12 of my carton is also provided with a circular lid 20 (see Fig. 5) of a size dependent upon the size of cone portion 12, held secure to the wall of the lower cone in fluid tight relationship by means of a ring or rim 21 crimped or pressed as illustrated. It is to be noted that in this arrangement, the U-shaped rim 21 extends downwardly so as to space the bottom 20 and the side 12 from a shelf or ledge upon which the carton may be placed as illustrated in Fig. 6. This solves an ever-increasing difficult problem in present-day milk cartons which have no means of preventing the paraffin or the like from contaminating shelves and the like.

Turning now to Figs. 1 and 3, there is illustrated my handle means 22 on the lower cone portion 12 of my carton for ease of handling, particularly for large fluid volumes such as a half-gallon of milk. As illustrated, I have provided handle elements 23 and 24 forming part of handle means 20 integrally formed on the vertical edges of the carton forming a seam 25 and have further provided a bridging member 26 (Fig. 3) between the two

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edges and adhesively attached thereto. It will be understood that this time, the handle elements 23 and 24 are collapsed around and in contact with the periphery of the wall of the lower portion as illustrated in Figs. 1 and 2 and, when used, are brought together to an outwardly converging position illustrated by dotted lines in Fig. 3.

It is to be understood that while I have illustrated bridging member 26 inwardly of the outer wall of the carton, the bridging member could also be formed as part of handle elements 23 and 24 in which case, the edges of the carton would overlap and the handle means would be secured to the bottom cone 12 as a separate unit.

In the collapsed position of the handle, the carton may be stacked in contact with one another as illustrated in Fig. 6 or placed in a serpentine dispensing rack as illustrated in Fig. 7. It will be noted in Fig. 6 that by stacking the cartons in inverse relation in a freezer or horizontal display rack, the amount of space required is considerably reduced and the advertising matter or the like can be advantageously viewed. Furthermore, while I have shown my carton as having a small top cone portion 11 and a large bottom cone portion 12, obviously, the carton could be so constructed and arranged whereby the two cone portions are equal in which case, the inversion of one of the cartons with respect to the similar carton as illustrated in Fig. 6 is unnecessary.

Turning now particularly to Fig. 7, it can be seen that in a serpentine rack of the type illustrated schematically, it is conventional to have the track support the ends of cans and the like as well as ends such as the lids 14 and 20 of my carton. To improve the operation of racks of this type, my carton may conveniently cooperate with still another track or rail 30 located substantially centrally of the track as illustrated at Fig. 7. This inner or central track serves to complement the central portion 13 of my carton to align my carton in the dispenser. This contributes materially to an improved operation of serpentine racks.

While I have described my invention with a top lid 14 and a pouring opening and closure of the type illustrated at 16 and 17 cooperating with a depression in the outwardly extending rim as at 18, it is obvious that a rim of the type illustrated in Fig. 5 may be used in connection with conventional closure member which forms a spout when opened, if desired.

Where herein the various parts of my invention have been referred to as located in a right or left or an upper or lower or an inward or outward position, it will be understood that this is done solely for the purpose of

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facilitating description and that such references relate only to the relative positions of the parts as shown in the drawings.

Also, it is to be understood that many changes and modifications may be made without departing from the scope or spirit of the invention and the invention is defined and comprehended solely by the appended claims which should be construed as broadly as the prior art will permit.

I claim:

1. A carton for liquid comprising a body portion formed of a tubular blank of liquid impervious deformable material, said blank having a peripherally inwardly crimped portion intermediate its ends to provide said body portion with a pair of axially aligned right circular hollow cones joined in end to end communicating relation adjacent their apices, said crimped portion reinforcing said body portion at the apices of said hollow cones, the outer ends of said cones opposite their joined apices being of the same diameter, closure lids at said outer ends of said cones, pouring hole means in the closure lid at the outer end of one of said cones, and closure means for closing said pouring hole means.

2. A carton for liquid comprising a body portion formed of a tubular blank of liquid impervious deformable material, said blank having a peripherally inwardly crimped portion intermediate its ends to provide said body portion with a pair of axially aligned right circular hollow cones joined in end to end communicating relation adjacent their apices, said crimped portion reinforcing said body portion at the apices of said hollow cones, one of said cones being of smaller volume than the other of said cones, the outer ends of said cones opposite their joined apices being of the same diameter, closure lids at said outer ends of said cones, pouring hole means in the closure lid at the outer end of said cone of smaller volume, closure means for closing said pouring hole, and means defining collapsible die-cut handles located on the outer conical surface of said other cone of larger volume.

References Cited in the file of this patent

UNITED STATES PATENTS

D. 124,880	Teunisz	Jan. 28, 1941
1,122,614	Kraus	Dec. 29, 1914
2,012,127	Griffith	Aug. 20, 1935
2,287,644	Schacht	June 23, 1942
2,327,560	Rose	Aug. 24, 1943
2,340,473	Johnson	Feb. 1, 1944
2,555,380	Stuart et al.	June 5, 1951