ABSTRACT OF THE DISCLOSURE

A carrier carton for ice cream cones and the like comprising a rigid erectable container formed from a single flat blank which includes top and bottom panels and side walls with spaced cuts therein extending from said bottom panel and continue into the top panel; those portions of the side walls and top panel between the cuts are folded inwardly and form generally L-shaped supports; the bottom legs of the L-shaped support abut the base panel and the side legs thereof extend in upright disposition between the top and bottom panels to form strengthening struts; ice cream cones are adapted to be supported on the bottom leg in the space formed between the cuts.

This invention relates to containers, and more particularly it relates to a carrier carton for holding a plurality of ice cream cup cones or similar articles.

Numerous types of carrier cartons have been known and used in the past, such cartons being particularly utilized for carrying bottles, cans, soft drink cups, ice cream cones and similar forms of articles. The general requirements for all such containers have been of the same type. Specifically, it has always been desired to produce carrier cartons as inexpensively as possible, while at the same time, assuring that the carton is capable of performing its intended operation and of satisfactorily supporting the articles to be carried therein. Moreover, it is usual for such cartons to be of the "erectable" type, that is, a carton which is stored and shipped in a collapsed or flattened condition, but which can be manually erected by the vendor when it is desired to use the same.

Carrier cartons of the type to which the present invention is particularly addressed, namely, ice cream cone carrier cartons, are primarily intended for use at ballparks, sports arenas, carry-out type restaurants, and other forms of establishments where a consumer would customarily purchase more than a single ice cream cone. Such carrier cartons are shipped to the vendor in a flattened or collapsed position in order to save space and shipping costs, but when the vendor desires to use the same, he must manually erect the carton to form the same into a rigid, self-supporting form of carton which can readily carry a plurality of ice cream cup cones or other similar articles.

In the past, cartons of this type have had several problems associated therewith, particularly due to the fact that the operation of erecting the carton was a difficult, cumbersome and time-consuming job which required careful manipulative skills. Such prior art forms of cartons included various interfitting tabs and slots, flaps and grooves, and various panels which had to be folded and interfolded in order to convert the carton from its flattened condition to its erected condition. Naturally, all of the time which a vendor had to devote to erecting the carton was merely wasted time which could otherwise have been used in servicing customers, and accordingly, it was found that prior art forms of cartons were regarded as inefficient.

One further consideration with respect to prior art cartons was the initial cost of fabricating the carton or the blank from which the same was formed. In the past, the usual form of carton blank had various holes or slots which had to be cut therein, various cut-lines and score-lines, various flaps which had to be cut out, and so on. As a result, much of the carton blank material became waste and several manufacturing steps and sequences were required to properly condition the blank to convert the same from a continuous imperforate sheet of material into an actual carton blank. Moreover, in some prior art constructions, a variety of different glue flaps were utilized, and each of these glue flaps had to be carefully adhered into position to create the desired carton. In fact, in some prior art constructions, it was even necessary to manufacture separate pieces or portions which had to be carefully glued on to the carton blank itself.

In contrast to all of the aforementioned difficulties, it is an object of the present invention to overcome the deficiencies and shortcomings of the prior art arrangements and to provide in their stead an improved, superior form of carrier carton.

Another object of the present invention is to provide a carrier carton which is extremely simple to manufacture, assemble and erect, yet which will fully perform its desired function of supporting a plurality of ice cream cup cones or the like.

Another object of the present invention is to provide an improved form of carrier carton which can be stored and shipped in a flattened or collapsed condition but which can be manually erected very quickly and simply and which can be converted to tubular condition with a minimum of manipulative skills.

Another object of the present invention is to provide a carrier carton wherein virtually no material waste is encountered, wherein the blank can be quickly formed with a minimum of manufacturing steps and techniques, and wherein the blank can be converted into the container in a simple and efficient manner.

Another object of the present invention is to provide a carrier carton fabricated from a single sheet of material, which carton forms a rigid, tubular, self-supporting type of unit which can be utilized to safely carry a plurality of fragile articles such as ice cream cup cones or the like.

Another object of the present invention is to provide a carrier carton which can be very inexpensively manufactured and produced and which can be very quickly and easily erected by a vendor having no special skill whatsoever, thereby providing such vendor with a disposable item which does not materially add to the vendor's costs.

Another object of the present invention is to provide a carrier carton for fragile articles, such as ice cream cup cones and the like, which carton will support a plurality of such items and will prevent the same from inadvertently tipping or falling while the same are being transported by a person holding the carton.

Other objects, advantages and salient features of the present invention will become apparent from the following detailed description, which, taken in conjunction with the annexed drawings, discloses a preferred embodiment thereof.

Referring to the drawings:

FIGURE 1 is a perspective view of a carrier carton in accordance with the principles of the present invention, such carton being shown in erected condition without any articles being supported thereby.

FIGURE 2 is a top plan view of the blank which the carton of the present invention is fabricated.

FIGURE 3 is a top plan view of the erected carton in accordance with the principles of the present invention.

FIGURE 4 is an end view of the erected carton in accordance with the principles of the present invention, an ice cream cup cone being illustrated in dashed lines therein solely for illustrative purposes; and
FIGURE 5 is a fragmentary perspective view of the carrier carton of the present invention in a flattened or collapsed state.

Referring now to FIGURES 1 and 2, for a more detailed description of the present invention, the carrier carton itself is generally designated 10. Such carton is fabricated from a blank generally designated 12, as shown in FIGURE 2, with such blank initially being a flat imperforate sheet of paper, cardboard, fibre, or other similar material.

The blank 12 includes a base or bottom panel 14 and a top panel 16, each having substantially the same longitudinal and transverse dimensions. One end edge of the blank, designated 18, forms a peripheral side edge of the base panel 14. The opposite peripheral side edge of the base panel 14 is formed by a fold-line means 20. This fold-line means 20 is substantially parallel to the edge 18 and is provided, at spaced locations therealong, with perforated portions 22. The various fold portions 20 and perforated portions 22 serve to provide a continuous edge which acts as the opposite peripheral side edge for the base panel 14.

Another fold-line means 24 is provided in spaced parallel relationship with the fold-line 20, with the fold-line means 24 serving to provide one of the peripheral side edges of the top panel 16. A similar fold-line means 26, provided in spaced parallel relationship with the fold-line means 24, serves to define the opposite peripheral side edge of the top panel 16. The linear distance between the fold-line means 24 and 26 is substantially equal to the linear distance between the edge 18 and fold-line 20 along the base panel 14. Thus, the width of the top panel 16 is substantially equal to the width of the base panel 14.

Continuing along the blank 12, a fold-line 28 is provided in spaced substantially parallel relationship with the fold-line means 26. The fold-line 28 includes spaced apart perforated portions 30, and in this respect, the fold-line 28 and perforations 30 are identical with the fold-line 20 and perforations 22. The opposite end of the blank 12 is formed by an end edge 32 spaced a short distance beyond the fold-line 28, and the portion between the fold-line 28 and the end edge 32 serves to define a glue flap 34.

That portion of the blank 12 disposed between the fold-line 20 and fold-line means 24 serves to define a first outer side wall means 36. Similarly, that portion of the blank 12 disposed between the fold-line means 26 and the fold-line 28 serves to define a second outer side wall means 38. The size of the side wall means 36 is substantially equal to the size of the side wall means 38. In other words, if one considers that portion of the blank between the fold-line 20 and the fold-line 28, it will be seen that the same is bilaterally symmetrical about an axis extending along the center of the top panel 16.

In converting the blank 12 into a container, it is merely necessary to interfold the same so that the glue flap 34 overlaps an edge of the base panel 14. Then, by applying suitable adhesive to the glue flap 34, or to the overlapped portion of the base panel 14, the glue flap can be suitably adhered to the base panel. This converts the blank into an open-ended tubular form of container. When such container is in its flattened or collapsed position, as shown in FIGURE 5, the side wall 36 and the top panel 16 are substantially coplanar, and lie in overlying superposition to the side wall means 36 and base panel 14, which likewise are in substantially coplanar relationship. Then, merely by exerting oppositely directed digital forces against the outer edges of the flattened container, as shown by the arrows 37 and 39 in FIGURE 5, the side panels and edges of the container can be converted from its flattened condition to its erected tubular condition, as shown in FIGURE 1.

A plurality of spaced sets of cuts 40 are provided in each of the side walls 36 and 38. Each set of cuts 40 extends in parallel relationship, substantially perpendicularly to the fold-lines defining the top and bottom of the side wall means. In the form of invention illustrated in the drawings, three sets of spaced side wall cuts 40 are provided along the side wall 36 and a similar three sets of spaced cuts 40 are provided along the side wall means 38.

Each set of spaced cuts 40 merges, at a peripheral side edge of the top panel 16, with a continuing set of cuts 42. The cuts 42 extend arcuately inward across the top panel and terminate at a hinge line 44, formed by a series of perforations. Each hinge line 44 is substantially parallel to the peripheral side edges of the top panel and the length of each hinge line 44 is somewhat less than the perpendicular distance between each set of side wall cuts 40.

Each set of cuts 40 and 42 serve to set off and define a support means generally designated 46. The upper and lower ends of each support means are defined by the perforations 22 and 44, and as a result, each support means has a generally keyhole shaped configuration. A laterally extending perforated fold-line 48 extends across each support means in the form of a pair of spaced cuts 42 in the top panel 16. As can best be seen from FIGURE 2, the perforated fold-lines 48 are spaced along the top panel somewhat inwardly from the peripheral side edges thereof. In other words, the perpendicular distance form the hinge lines 44 to the perforated fold-lines 48 is somewhat less than the perpendicular distance from the hinge lines 44 to the peripheral side edges 24 and 26 of the top panel.

When the carton is erected to the tubular position of FIGURE 1, the support means 46 are inwardly foldable to form generally L-shaped supports. Specifically, each support means 46 includes three substantially parallel perforated fold-lines 22, 48 and 44. That portion of the support between the fold-lines 22 and 48 serves to define a bottom leg of the support, such bottom leg being designated 50. That portion of the support between the central fold-line 48 and the hinge line 44 serves to define a side leg designated 52, which acts as an internal strengthening strut in a manner to be now described.

When the support means 46 are folded inwardly to form their L-shaped configuration, the bottom legs 50 extend in overlying superposition through the bottom panel 14, while the side legs 52 extend substantially perpendicular to the top panel 16 and bottom panel 14, as can best be seen in FIGURES 1 and 4. Thus, when the carton 10 is in its fully erected condition, the top and bottom panels 14 and 16 are maintained in substantially parallel disposition, and the side walls 36 and 38 and supporting struts 52 are likewise maintained in substantially parallel disposition. Moreover, the side walls extend substantially perpendicularly between the top and bottom panels and the side legs or supporting struts 52 likewise extend substantially perpendicularly between the top and bottom panels.

As shown in FIGURE 4, a cup-type ice cream cone designated C can be readily inserted into each cut-out portion between a pair of cuts 42. When the cone is so inserted, the bottom thereof rests upon the bottom leg 50 of the support means 46 while the top of the cone, and the ice cream contained therein, is disposed somewhat above the top panel of the carton. Since each set of cuts 42 serves to define a generally circular opening which is chordally truncated at opposite sides thereof, the cone can be easily inserted into the carton, but will not inadvertently slip or fall therefrom. This is particularly true because the spacing between a set of cuts 40 in the side wall is somewhat less than the normal width of a cone to be carried by the carton. Thus, the cone cannot be inadvertently cut away or through the side wall openings.

As the carton 10 is filled with one or several cones, the bottoms of such cones, as foresaid, will seat upon the bottom legs 50 of the L-shaped supports and will thus serve to maintain the various parts of the carton in their desired perpendicular and parallel relationships. As can perhaps best be seen from FIGURES 1 and 4, a space is
provided at the center of the carton between each aligned set of side legs 52, and thus these side legs serve as internal strengthening struts which, acting in cooperation with the side walls 36 and 38, and acting in concert with the bottom legs 50 as the same abut against the bottom panel 14, serve to assure that the carton 10 will be rigid and self-supporting. In other words, the carton of the present invention, even when filled with ice cream cones, can be easily carried in one hand, but will nevertheless safely carry and transport the cones inserted therewithin. There is no need for the user to worry that the carton might be so flimsy as to buckle or collapse during use, thereby causing the ice cream cones to drop or spill.

After reading the foregoing detailed description, it should be apparent that the objects set forth at the outset of the specification have been successfully achieved by the present invention.

What is claimed is:

1. A carrier carton for ice cream cup cones and the like, comprising:
   an erectable container formed from a single blank, said container being foldable to be stored and shipped in a flattened condition but being manually erectable to form a rigid tubular container;
   said container including flat top and bottom panels each having opposed peripheral side edges;
   said container further including side walls joining said top and bottom panels together along said side edges; each of said side walls having spaced cuts therein, with such cuts continuing into said top panel and terminating at a hinge line; those portions of said side walls and said top panel between said spaced cuts being inwardly foldable to form generally L-shaped supports, each having a bottom leg and a side leg;
   said supports, when in said L-shaped configuration, having said bottom legs in abutting superposition to said base panel and having side legs extending in upright disposition substantially between said top and bottom panels to form internal strengthening struts;
   said container being adapted for reception of at least one ice cream cup cone, with the bottom of said cone resting upon the bottom leg of an L-shaped support and serving to maintain said top and bottom panels in substantially parallel disposition and serving to maintain said side walls and said side legs in substantially parallel disposition and serving to maintain said side walls and side legs in substantial perpendicular arrangement between said top and bottom panels to thereby assume that said tubular container will be rigid and self-supporting;
   said L-shaped supports each further including a laterally extending fold line defining the boundary between said side leg and said bottom leg;
   said support hinge line and said support fold line are each substantially parallel to said top panel side edges;
   the distance measured perpendicularly from a hinge line to the nearest side edge exceeds the distance measured perpendicularly from that hinge line to the nearest support fold line.

References Cited

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DONALD F. NORTON, Primary Examiner.