ABSTRACT OF THE DISCLOSURE

A container package and blank for use in packaging a plurality of containers placed therein, said blank comprising a base portion having means for positively locating and positioning said containers in a predetermined pattern, an elongated band portion laterally affixed to said base along an intermediate position of said band to provide means for snugly securing said containers by enveloping the outer periphery. Carrying means are further provided in said band portion for easy transport.

This invention relates to a novel container package and more particularly to a low cost blank to be assembled with a plurality of containers into a container package.

A variety of packaging devices for storing and carrying cans, bottles, etc., may be seen by a casual perusal of any modern grocery or supermarket shelf. Most of these packages are of box-like construction, made of the usual paper type products with individual compartments housing each of the containers placed therein. These packages, for the most part, are bulky in nature, occupy excess shelf space, and in many cases, permit the premature exit of the containers. Any individual having previously handled cartons of soft drinks, beer, etc., has experienced the relative discomfort in carrying such package and feeling the sharp corners of the package as it is brushed against the body.

Keeping in mind the above-stated disadvantages accruing to many present day container packages, this invention is primarily directed to overcoming such disadvantages and thereby providing an improved container package requiring a minimum of shelf and storage space, being free of sharp protrusions and corners, easily stacked, stored, and transported, and is appealing to the eye.

Another object of this invention is to provide a blank for said container package which is lightweight and therefore inexpensive to ship, economical in design and construction, thereby being easily formed into a sturdy compact package.

Another object of this invention is to provide a blank for a container package having means for positioning containers placed therein and including banding means for keeping said containers in a fixed relationship.

Another object of this invention is to provide a blank for a container package constructed from transparent plastic material thereby making the container labels readily visible to a consumer, and thereby eliminating redundant printing costs.

Another object of this invention is to provide a blank for a container package with means for securing containers in a triangular arrangement and including built-in carrying means for ease in handling said package.

Other objects and advantages of the instant invention will become readily apparent from the following description and the accompanying drawings, wherein:

FIG. 1 is a plan view of a preferred embodiment of the instant invention showing a blank used in the formation of a container package;

FIG. 2 illustrates the formation of a container package using the blank of FIG. 1;

FIG. 3 is an end view of the completed package with the container secured therein;

FIG. 4 is a side view of the completed package of FIG. 3, also illustrating the outwardly extending carrying means; and

FIG. 5 is an enlarged cross-sectional end view of the container package of FIG. 4, taken substantially along line 5-5 of same.

In the packaging of cylindrical containers of the kind illustrated in FIGS. 2 to 5, blank 10, shown in FIG. 1, is providing for positioning and securing various size cylindrical containers commonly found on supermarket shelves. Blank 10 is formed, preferably in one piece, from inexpensive flexible sheet materials such as paper, cardboard, synthetic materials. However, blank 10 is preferably constructed from a flexible plastic material which may be polyethylene, polyvinylchloride, or the like. It has been found that these plastic materials have good tensile and tear strength properties and are highly resistant to the adverse effects of wetting, rotting, mildewing, etc. Furthermore, scraps remaining after formation of the blank may be reprocessed.

Blank 10 generally includes a base portion 12 and a band portion 14 which is coplanar with said base and affixed thereto. Base portion 12, generally of flattened triangular shape with approximately equal side dimensions, is provided with a plurality of circular apertures 16 closely spaced to each other and occupying a substantial portion of base portion 12. Apertures 16, preferably arranged on triangular centers to permit the nesting or stacking of containers, are formed of predetermined diameters capable of resiliently deforming to permit passage of a container end flange therethrough. The terminal ends of such containers are thereby removable by contact of base portion 12 material with the body of the container, as shown in FIG. 4.

Although a preferred embodiment, shown in FIG. 1, illustrates the packaging of ten circular containers, it should be understood that the overall size, dimensions, and number of positions, may be readily altered to accommodate any desired number of containers. These containers may have either circular or non-circular cross-sections or end flanges. Furthermore, the shape of base portion 12 may be circular, square, or polygonal, having either rounded or truncated corners. In lieu of apertures, base portion 12 may be provided with positively receiving positioning means or cavities (not shown) for indexing and securing containers placed therein. For this purpose, base portion 12 would be thicker.

An elongated, substantially rectangular, band portion 14 is affixed to base portion 12 at one truncated apex position 17 by tab member 18 perpendicularly attached to band portion 14 at an intermediate position along the length thereof. For purposes of strength, and efficient manufacturing, base portion 12, band portion 14, and tab member 18 are simultaneously formed in one piece of one material having a constant cross-section. However, it is also contemplated, that each of the above-mentioned sections may be of different materials. For example, base portion 12 may be formed of cardboard and band portion 14, of plastic. Conventional means are used for securing said band portion to said base portion to form an integral unit.

A pair of rectangular flaps 20, 22, spaced apart and longitudinally disposed, near the ends of band portion 14 provide carrying means for the assembled container package. Flaps 20, 22, hinged at the outer edges for upward withdrawal, include apertures 28, 30, respectively. As shown in FIG. 5, each of the flaps may be partially removed from band portion 14, placed in back-to-back relation, by means of apertures 28, 30 to enable the consumer to readily and conveniently transport the container package. Alternate positions for flaps 20, 22 may be provided along band portion 14.
For ease in forming a container package from blank 10, hinge or score lines 32, 34, 36 are provided in the tab and band portions, as shown in FIG. 1.

Now, referring to FIG. 2, a container package of prismatic configuration is easily assembled by first inserting circular containers 38 through apertures 16 of base portion 12. Where the containers 38 have end flanges 40 of somewhat larger diameter than the body of said containers, apertures 16 are resiliently deformed to permit penetration therethrough, thereby securing one end of said containers, as shown in FIG. 4 at 41. A triangular positioning of apertures 16 provides the proper nesting or stacking arrangement of the containers resulting in a package having a prismatic configuration. After the containers are secured by apertures 16, tab 18 is bent approximately 90° to base portion 12 and parallel to the longitudinal axis of container 38 thereby placing band portion 14 in position for further securing purposes. Band portion 14 is generally of sufficient overall length to permit sections 42, 44 to be brought up and around the outer periphery of containers 38, thereby enveloping the entire container configuration. Additional length for overlapping purposes, shown at 46, is also provided. Suitable means for permanently joining the overlapped portions to each other may consist of stapling, heat sealing, gluing, or the like. In this manner, a continuous band is formed about the outer periphery of the containers, resulting in a package which snugly confines containers placed therein and constrains their lateral movement.

While many possible combinations of size and shape are possible, a ten-container package of prismatic configuration has proven to offer the most significant advantages in promoting consumer purchases of larger quantities, and in maintaining inventory control of such merchandise. A storekeeper need only count the number of packages and multiply by ten to arrive at the total inventory.

A consumer wishing to carry the container package need only pull the flap members out from the band portion, and insert one or two fingers into the aperture provided therein. The user will find the handling of the container package of the instant invention to be extremely well balanced and stable due to the symmetrical nature of the container package, and the vertical positioning of said carrying means directly above the center of gravity of said package. The package is lighter than other packaging holding equivalent contents and occupies very little additional space on the shelf. When desired, the packaging material may be formed of a transparent plastic material, thereby enabling the consumer to instantly observe the labels on the cans secured within said package. In transporting the package the containers are tightly held and do not skew or bump each other.

When the consumer is ready to use the contents of said container package, he may readily remove one of said containers without fear that the others will tip or fall out from the package.

Thus, from the foregoing, it will be readily apparent that the instant invention provides a container package and blank for forming such a package which is simple in design, and manufacture, and use, having considerable sales appeal to both the retailer and consumer.

While a preferred embodiment of the container package and blank for forming same has been described in the foregoing description, it should be understood that this invention is not limited in its scope to the embodiment described, and variations in the form of the invention are contemplated thereby.

What is claimed is:

1. A blank from which a carrier for containers of generally circular cross-section may be formed, said blank comprising: a single, integral sheet of material formed into a panel of generally triangular outline, said panel having means formed therein for positively positioning a plurality of containers in a triangular pattern with their axes vertical; an integral spacer panel extending from one apex of said triangular panel; a pair of wrapping panels extending from each side of said spacer panel, and means formed in said wrapping panels adjacent the free ends thereof for interlocking said free ends.

2. The blank of claim 1, in which said wrapping panels are of different lengths so as to come together adjacent another apex of said triangular panel.

3. The blank of claim 1, in which the interlocking means of one of said wrapping panels penetrates the interlocking means of the other of said panels to bring portions of said interlocking means into mutual contact to form a handle.

4. The blank of claim 2, in which the interlocking means of one of said wrapping panels penetrates the interlocking means of the other of said panels to bring portions of said interlocking means into mutual contact to form a handle.

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