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ARTICLE CARRIER FOR FLANGED CONTAINERS

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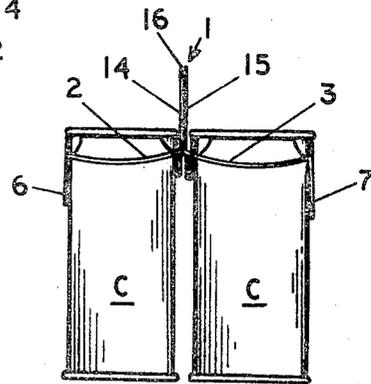
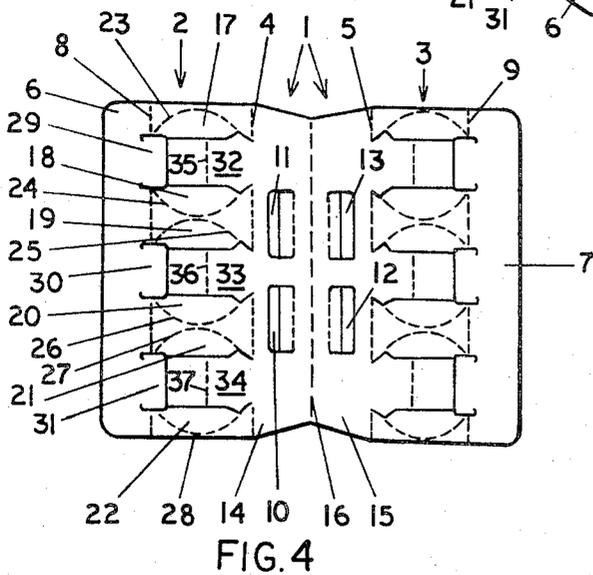
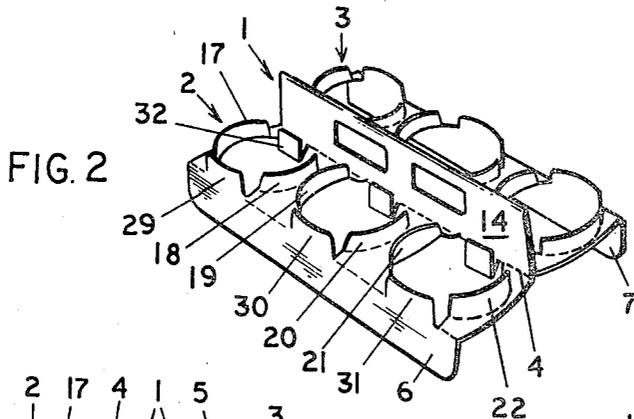
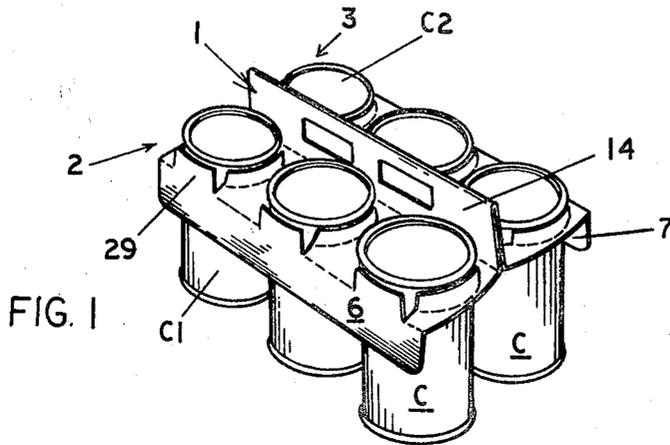


FIG. 3

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**ARTICLE CARRIER FOR FLANGED CONTAINERS**

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**ABSTRACT OF THE DISCLOSURE**

A container carrier with a handle for securing together and carrying a plurality of cans therein the carrier holding elements engage the beads of the cans to support and retain the cans in the carrier.

This invention relates to article carriers for flanged containers and more particularly to a carrier which utilizes a minimum of material and which effects a gripping action about the periphery of the packaged containers as distinguished from a carrier of the type which completely envelops a group of articles.

Carriers of the wrap-around type such as is disclosed in U.S. Patent 2,786,572 provide substantial exposed exterior areas which are useful for advertising purposes. Furthermore, carriers of this type ordinarily incorporate one or more finger gripping apertures in the top panel thereof whereby carrying is facilitated. While carriers of this type are known which utilize full fledged handle structures, it is customary to dispense with the handle in carriers of the wrap-around type primarily for economy reasons and secondarily in order to eliminate upwardly protruding structure which tends to interfere with the stacking of one carrier atop another.

A principal object of this invention is to provide an article carrier for flanged containers which incorporates a sturdy handle structure which according to the invention may be moved to a position wherein such structure affords no interference with stacking of one group of articles atop another group.

Another object of the invention is the provision of an improved article carrier of the article gripping type as distinguished from the article enveloping type and wherein the carrier is constructed with a minimum of material.

For a better understanding of the invention reference may be had to the following detailed description taken in conjunction with the accompanying drawing in which FIG. 1 is a perspective view of a carrier constructed according to the invention and which also depicts a group of packaged flanged containers occupying the carrier; FIG. 2 is a view similar to FIG. 1 but with the flanged containers removed for the sake of clarity; FIG. 3 is an end view of the carrier and its containers as depicted in FIG. 1 and in which FIG. 4 is a plan view of the blank from which the container of FIGS. 1, 2 and 3 is formed according to the invention.

With reference to the drawing, the numeral 1 generally designates the container handle structure while the numerals 2 and 3 generally designate a pair of flange panels foldably joined along fold lines 4 and 5 respectively to the lower edges of handle structure 1. Side panels 6 and 7 are foldably joined to the outer edges of flange panels 2 and 3 along fold lines 8 and 9 respectively. Finger gripping apertures 10, 11, 12 and 13 are formed in handle structure 1, apertures 10 and 12 being disposed in coincidental relationship to each other as are the apertures 11 and 13 when the two sides 14 and 15 of the handle structure are folded into flat face contacting relation with each other along fold line 16 as depicted in FIGS. 1, 2 and 3. Of course handle panels 14 and 15 are secured together by any suitable means such as by glue, staples and the like.

If desired finger gripping apertures 10-13 may incorporate cushioning flaps in known manner as shown in FIG. 4.

When assembled the handle structure 1 is disposed vertically as shown in FIGS. 1, 2 and 3 and the flange panels 2 and 3 are disposed generally horizontally with the side panels 6 and 7 folded downwardly alongside the packaged containers C.

According to the invention, the containers C are supported within the carrier by a gripping action. This action is achieved by way of a plurality of pairs of flanges struck from flange panel 2 and identified by the numerals 17-22. As shown best in FIG. 4, these flanges are foldably joined to the flange panel 2 along arcuate fold lines 23-28 respectively.

Disposed atop the upper edge of side panel 6 are a plurality of support tabs 29, 30 and 31 while a plurality of medial spacer tabs 32, 33 and 34 are in effect struck from the flange panel 2 and preferably are provided with horizontal fold lines 35, 36 and 37 respectively whereby the spacer tabs 32, 33 and 34 are doubled back on themselves as best shown in FIG. 2 in order to afford a cushioned partition between the upper ends of the containers on one side of the handle and those on the other side. The spacer tabs may be constructed so as to engage beneath the associated can chime and thus to afford added support for the cans.

Flange panel 3 and associated structure is identical to flange panel 2 and a detailed description thereof is not deemed necessary.

When the containers C are inserted into the carrier of FIG. 2, flanges such as 17 and 18 buckle upwardly and, due to the arcuate configuration of their respective fold lines 23 and 24, a secure gripping action is effected about the container C1 and the flange panels 2 and 3 are bowed downwardly as shown in FIG. 3 thereby enhancing the sturdiness of the carrier. The upper edges of flanges 17 and 18 rest immediately below the upper chime of container C1 and due to the arcuate configuration of the fold lines 23 and 24 the flanges 17 and 18 conform with the exterior surfaces of the container C1. Furthermore support tab 29 is arranged with its upper edge disposed immediately below the chime of container C1, the upper edge of support tab 29 being located in approximately the same plane as the upper edge of the flanges 17 and 18. Thus the container C1 is supported positively about a substantial portion of its periphery.

On the side of the can immediately adjacent to handle structure 1 the medial spacer tab 32 is disposed. As is best shown in FIG. 2 this tab is doubled back on itself along fold line 35 to provide a double thickness spacer immediately adjacent container C1. Of course a similar spacer tab is disposed on the opposite side of the carrier and is associated with handle panel 15 so that four thicknesses of material are disposed between the container C1 and C2.

From the description above it is apparent that the flanges such as 17 and 18 conform generally with the exterior surfaces of the associated container such as C1. Where the container is cylindrical of course the flanges 17 and 18 are foldably joined to flange panel 2 along fold lines 23 and 24 which are of arcuate configuration and which are generally concentric with the exterior surface of the cylindrical container C1.

One particular advantage of the invention centers around the fact that the handle structure 1, flange panels 2 and 3 and side panels 6 and 7 may be pushed bodily downward until the upper edge 16 of handle structure 1 lies in the plane of or below the upper flanges of the containers C. In this manner it is possible to stack one group of articles such as is depicted in FIGS. 1 and 3 atop another group of articles without encountering interfer-

ence due to the handle structure 1. Furthermore, it is obvious that a carrier according to this invention utilizes a minimum of material such for example as paperboard and hence by the invention substantial economy of material is effected.

While a particular embodiment of the invention has been shown and described, the invention is not limited thereto and it is intended in the appended claims to cover all such changes and modifications as fall within the true spirit and scope of the invention.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. An article carrier for flanged cylindrical containers having a chime at at least one end, said carrier comprising a vertically disposed medial handle structure, a pair of generally horizontally disposed flange panels foldably joined to opposite sides of said handle structure, a pair of vertically disposed side panels foldably joined to the outer edges of said flange panels respectively and having a downwardly protruding free edge portion, and at least one pair of spaced apart transverse container gripping flanges formed in each of said flange panels for receiving one article therebetween, said flanges being foldably joined to said flange panels along generally arcuate individual fold lines which are generally concentric with the exterior surface of the associated container and which are configured and disposed to impart a container gripping bias thereto when said flanges are folded upwardly and out of the plane of said flange panels and to impart a downward bowing of the flange panels longitudinally thereof and each of said flanges being provided with an edge remote from its fold line for engaging the chime of the associated flanged container and which edge conforms generally with the curvature of the associated container.

2. A carrier according to claim 1 wherein the space between the flanges of each pair of flanges on each side of said handle is defined by a medial spacer tab forming downward extensions of said handle structure, each tab being doubled back on itself into flat face contacting relation along a substantially horizontal fold line so as to form a four ply separator between adjacent articles on opposite sides of said handle structure.

3. A carrier according to claim 1 wherein an upwardly projecting support tab is formed along the upper edge of each of said side panels and immediately adjacent the spaces between said pairs of flanges respectively.

4. A carrier according to claim 1 wherein an upwardly projecting support tab is formed along the upper edge of each of said side panels, the upper edges of said support tabs being in approximately the same plane as the edges of said flanges which engage the chime of the associated container.

5. An article carrier for flanged containers having a chime at at least one end, said carrier comprising a vertically disposed medial handle structure, a pair of generally horizontally disposed flange panels foldably joined to opposite sides of said handle structure, a pair of vertically disposed side panels foldably joined to the outer edges of said flange panels respectively, and at least one pair of spaced apart transverse container gripping flanges formed in each of said flange panels for receiving one article therebetween, said flanges being foldably joined to said flange panels along generally arcuate fold lines which are generally concentric with the exterior surface of the associated container and which are configured and disposed to impart a container gripping bias whereto when said flanges are folded upwardly and out of the plane of said flange panels and each of said flanges being provided with an edge remote from its fold line for engaging the chime of the associated flanged container and which edge conforms generally with the curvature of the associated container, the space between the flanges of each pair of flanges being defined by medial spacer tabs forming downward extensions of said handle structure and doubled back on themselves along substantially horizontal fold lines and the upper edges of said support tabs being in approximately the same plane as the edges of said flanges which engage the chime of the associated container.

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