

[54] **CONTAINER CARRIER**
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 [51] Int. Cl.**B66c 1/10**
 [58] Field of Search.....206/56 C, 65 CT, 65 E, 65 S; 294/27 H, 31 R, 31 A, 33, 87, 87.2

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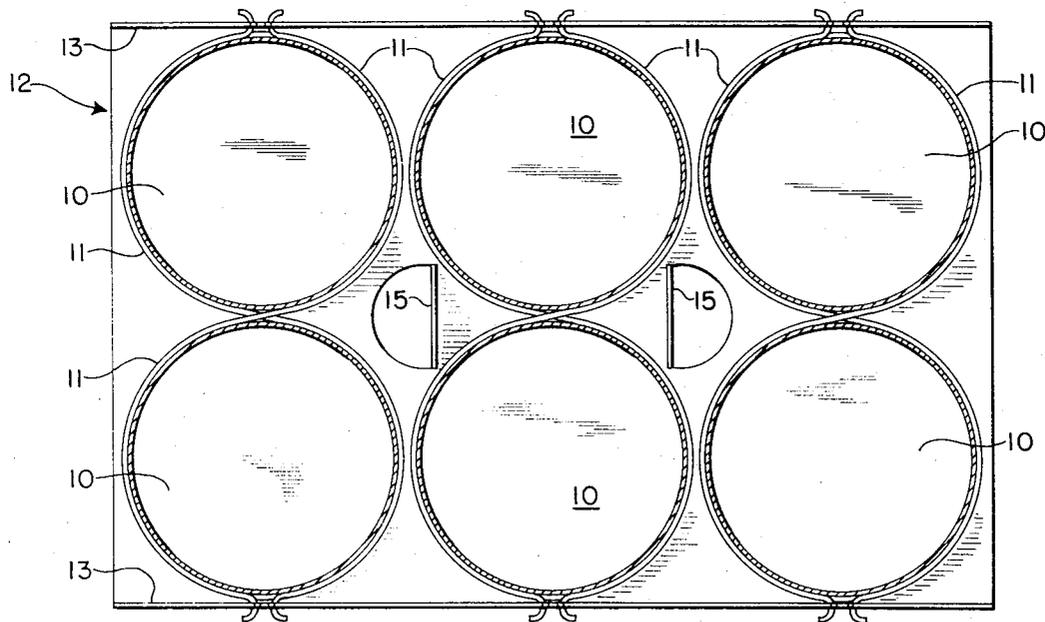
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[57] **ABSTRACT**

Formed wire ring carrier arrangements for retaining and transporting a plurality of containers.

8 Claims, 4 Drawing Figures



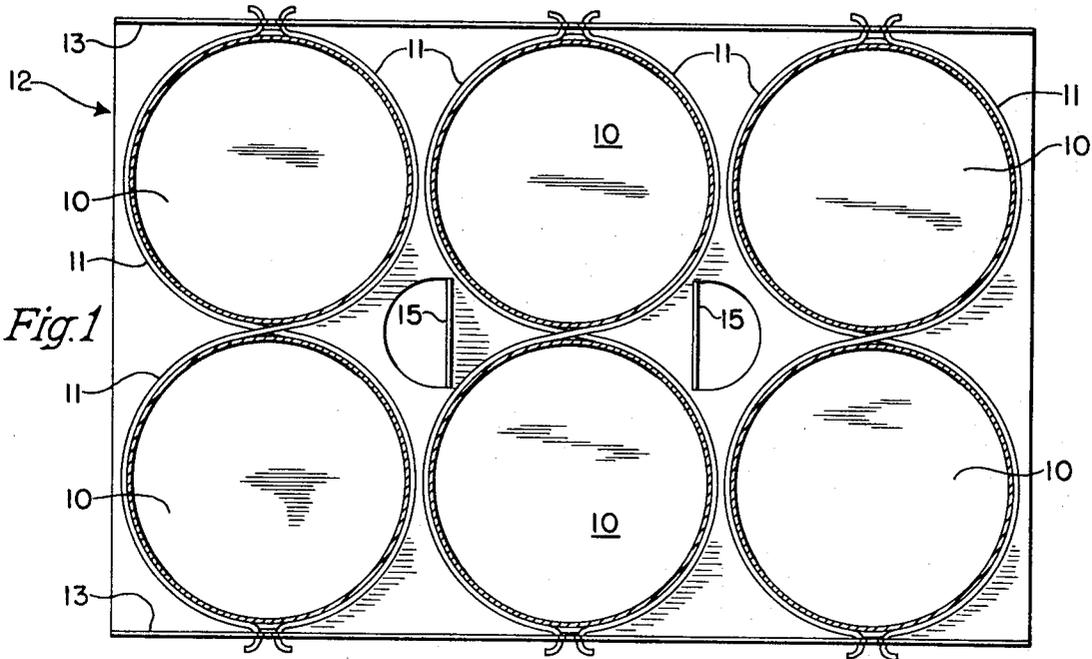


Fig. 1

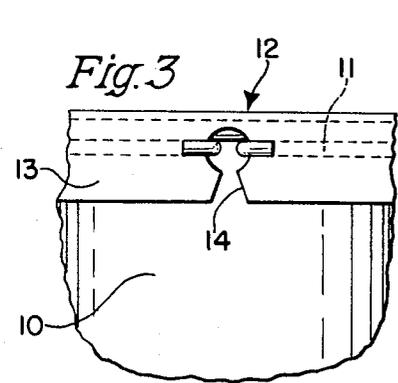


Fig. 3

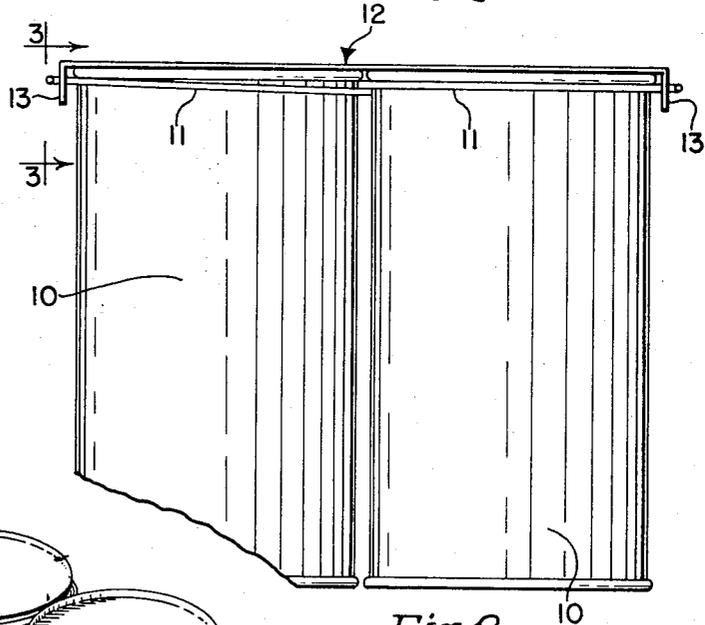


Fig. 2

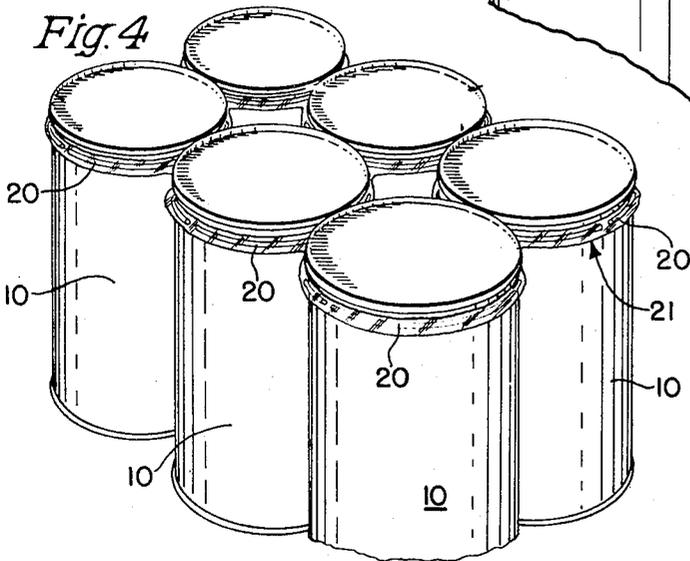


Fig. 4

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CONTAINER CARRIER

SUMMARY OF THE INVENTION

This invention relates to carrier devices for multi-packaging of containers, usually metal beverage containers which are generally commercially sold in multiples of six containers. The present invention contemplates formed wire rings, each of which is circumferentially discontinuous, as the basic elements of the carrier arrangements. In one embodiment the wire rings cooperate with a cover member and a plurality of containers to form a unitary package which is easily transported. In another embodiment the wire rings cooperate with a resilient coating and a plurality of containers to form a unitary package which is easily transported.

It is the principal object of the present invention to provide carrier arrangements for a plurality of containers wherein circumferentially discontinuous formed wire rings are utilized as the basic elements of the carrier for a unitary package of the containers.

Other objects and features of the invention will be apparent upon a perusal of the following specification and drawing.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a plan view of the underside of one embodiment of the invention with the lower portion of the containers removed to clearly show the formed wire rings;

FIG. 2 is an end elevational view of the embodiment shown in FIG. 1;

FIG. 3 is an enlarged fragmentary view of the structure shown in FIGS. 1 and 2 and viewed substantially along the line 3—3 of FIG. 2; and

FIG. 4 is a perspective view of another embodiment of the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

In both embodiments of the invention, the carrier structure is arranged for use with six cans 10, but it is contemplated that the carrier structure can be shaped for use with containers having other circumferential configurations, and in the embodiment of FIGS. 1-3 the carrier structure can be arranged for use with a pair of containers or any multiple thereof. In the embodiment of FIG. 4 the carrier structure can be arranged for use with a pair of containers or any convenient greater number. It will be obvious in the embodiment of FIG. 4 that if the number of containers is an odd number of three or more, the carrier arrangement will be such that each wire ring will be tangentially adjacent to more than one ring.

In the embodiment shown in FIGS. 1-3 the wire rings are formed in pairs of two S-shaped sections 11. One section 11 may be viewed as a normal S-shape, while the other section is arranged as a reverse S-shape and positioned on the one section to substantially define a figure 8 with the top and the bottom of the figure 8 being open or discontinuous. The ends of each pair of sections 11 are bent into a hook shape, as may be seen in FIG. 1. This formation of the ends of the sections 11 provides a pair of opposed spaced-apart hooks for each wire ring. The wire rings formed by each pair of sections 11 are disposed about a pair of cans 10 immediately below the chime at the top of the cans 10.

The pairs of containers or cans 10 with the formed wire rings disposed thereabout are positioned in a row as viewed in FIG. 1. The member 12 is a means for holding the wire rings together as a unit and further holds the wire rings in circumferential confinement about and immediately below the chime of the cans 10. The member 12 in the present embodiment is formed as a substantially solid sheet of material to thereby further function as a dust cover for the tops of the cans 10. The member 12 may be formed of any suitable rigid or semi-rigid material such as, for example, cardboard or plastic. The longitudinal side marginal edges of the member 12 are provided with depending wall structures 13. The wall structures 13 may be formed as an integral part of the member 12.

The wall structures 13 are provided with open key-hole slots or notches 14, one of which may be seen in FIG. 3. The slots 14 are positioned in the wall structures 13 at longitudinally spaced-apart positions corresponding to the spacing between the opposed hooks of adjacent wire rings. The member 12 is projected downwardly over the wire rings and the tops of the cans 10 so that the opposed hooks of the wire rings are snapped or otherwise received in the slots 14.

From the foregoing it may be seen that the member 12 will hold and carry all of the wire rings together as a unitary package. The member 12 will further, in holding the opposed hooks together, maintain the wire rings in circumferential confinement about the cans 10 to provide for retaining and transporting the cans together as a group. To aid in manually carrying the complete package, handle means comprising a pair of finger holds 15 are provided in the member 12. The finger holds 15 are formed by cutting a substantially semi-circular section in the member 12 between each group of cans and bending or otherwise downwardly forming the cut semi-circular section as a tab to define the finger holds 15.

In the embodiment of the invention shown in FIG. 4, a separate wire ring 20 is provided for each can 10. The wire rings 20 are discontinuous and placed circumferentially about the cans 10 below the upper chime. A resilient coating 21 is applied about the rings 20 and particularly over the discontinuous end portions to span those discontinuous end portions and encase them in the resilient coating 21. The resilient coating 21 in spanning the discontinuous portions of the wire rings 20 serves to hold the wire rings in circumferential confinement about the cans 10. The resilient coating 21 is further applied to the rings 20 at the tangential cooperating sections of adjacent wire rings 20 to interconnect the rings 20 and hold them together as a unit. Although the coating 21 is shown in FIG. 4 as substantially covering the entire circumferential extensions of the wire rings 20, the coating may be omitted at circumferential positions of the wire rings 20 other than at the discontinuous portions and the tangentially adjacent portions. By omitting the coating 21 as noted, the wire rings 20 can be held in close contact with the surface of the cans 10 if the wire rings 20 have any inherent spring bias tending to open them while the coating 21 is applied. It is contemplated that the coating 21 can be any suitable well-known material which can be applied as a liquid or paste and will harden to a suitable inherent resiliency. The coating 21 further can be applied by any well-known means such as spraying, paint-

ing, or dipping the coating material. It is further contemplated that if convenient or desirable, the coating 21 may extend about the wire rings 20 to an adhesive bond with the circumferential surface of the cans 10.

The present embodiments are the preferred embodiments, but it is to be understood that changes can be made in the present embodiments by one skilled in the art without departing from the spirit and scope of the present invention.

I claim:

1. A carrier for a plurality of containers comprising a plurality of wire rings, each of said wire rings being circumferentially discontinuous and having the ends thereof bent outwardly of the circumference of said wire rings within the planes of said wire rings, a member positioned over said wire rings and having portions defining depending slots, the outwardly bent ends of said wire rings being positioned in said depending slots, the side walls of said depending slots engaging said outwardly bent ends of said wire rings and retaining said wire rings together as a unit in circumferential confinement.

2. A carrier as defined in claim 1, wherein said member comprises a substantially flat cover positioned over said wire rings with said portions comprising integral wall structures depending from the side marginal edges of said cover and said slots being formed in said wall structures in a spaced-apart relationship to each other.

3. A carrier as defined in claim 2, and handle means formed in said cover for transporting said carrier.

4. A carrier as defined in claim 1, wherein said wire rings are formed as an integral pair of rings defined by two S-shaped sections with one of the sections reversed

and positioned in cooperation with the other section to define a FIG. 8 which is discontinuous at the top and bottom thereof.

5. A carrier as defined in claim 4, wherein the ends of said wire rings at the discontinuities of said FIG. 8 are bent outwardly of the circumference of the rings and shaped as opposed hooks, and said member comprising a cover extending over said rings and having depending portions including slots engaging and retaining said opposed hooks and holding said wire rings together as a unit.

6. A carrier as defined in claim 1, wherein said wire rings are formed as a plurality of integral pairs of wire rings, each integral pair of wire rings defined by two S-shaped sections with one of the sections reversed and positioned in cooperation with the other section to define a figure 8 which is discontinuous at the top and bottom.

7. A carrier as defined in claim 6, wherein the ends of each pair of wire rings at the discontinuities of said figure 8 are bent outwardly of the circumference of the rings and shaped as opposed hooks, and said member comprising a cover member extending over said pairs of rings with said pairs of rings arranged in a side-by-side row, and depending wall portions integrally formed on opposite side marginal edges of said cover member and over said opposed hooks with said pairs of rings arranged in a side-by-side row below said cover member, slots formed in said depending wall portions engaging and retaining said opposed hooks and holding said wire rings together as a unit.

8. A carrier as defined in claim 7, and handle means formed in said cover member between said pairs of wire rings.

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