

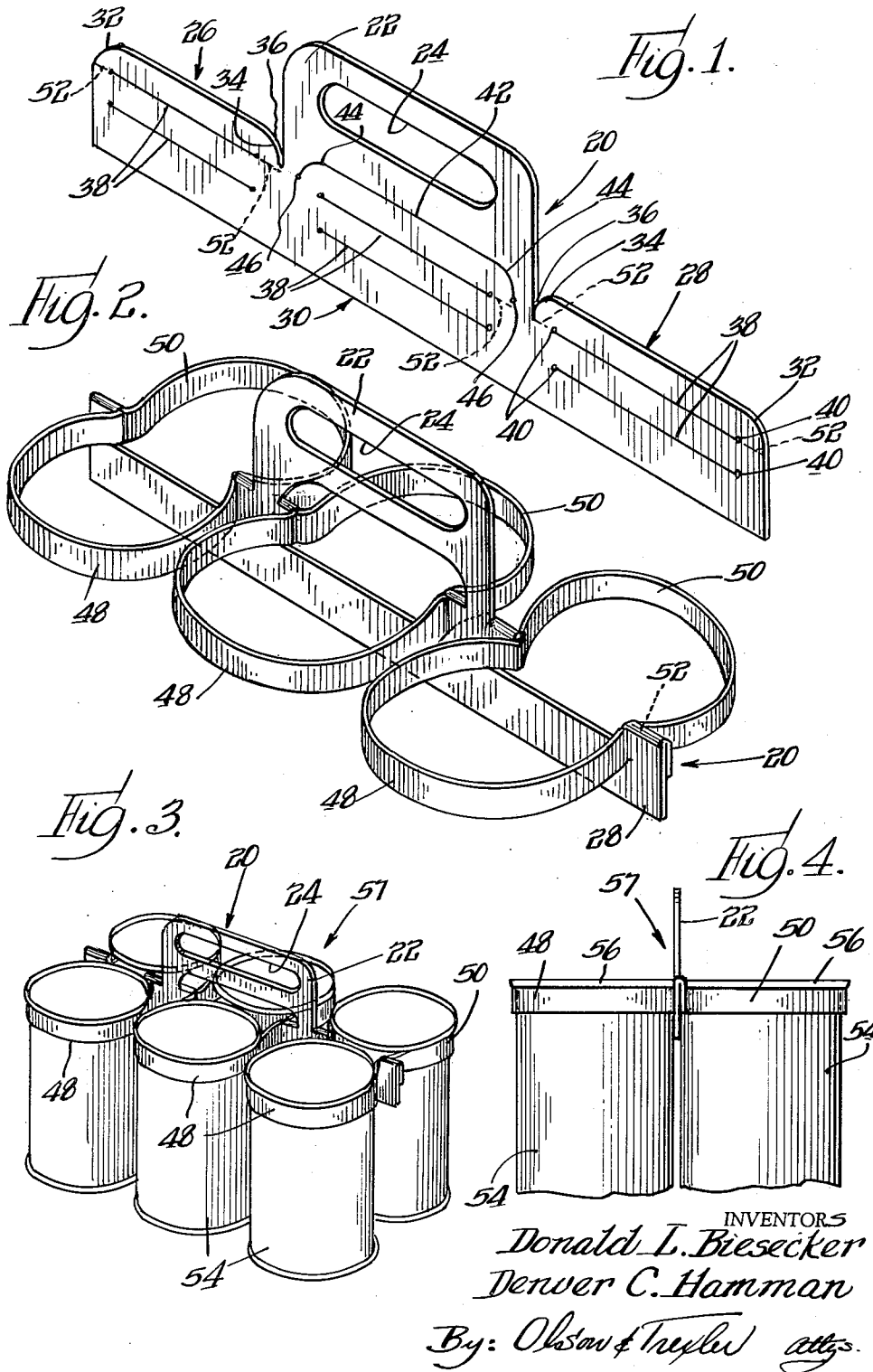
Aug. 1, 1961

D. L. BIESECKER ET AL
CARRIER AND CARRIER PACKAGE

2,994,426

Filed Jan. 22, 1959

2 Sheets-Sheet 1



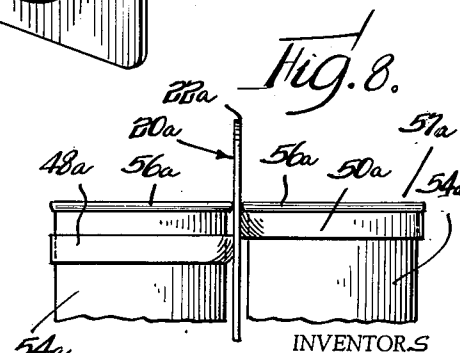
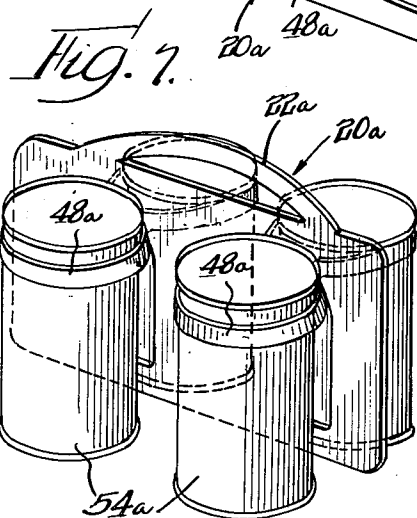
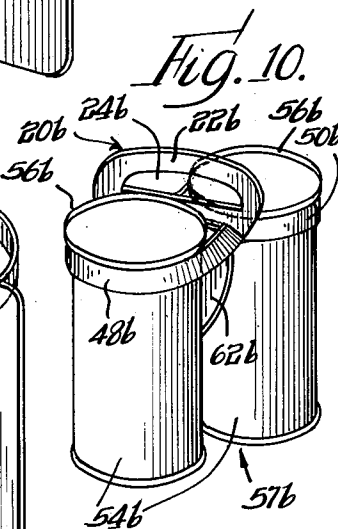
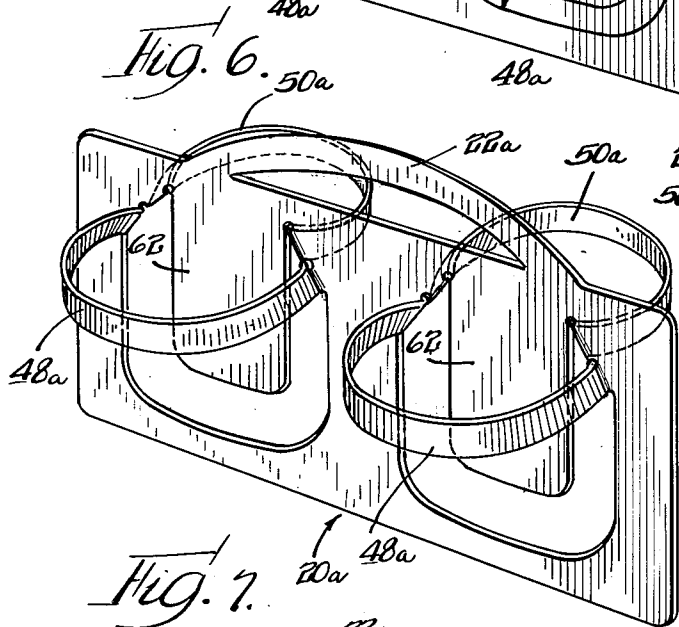
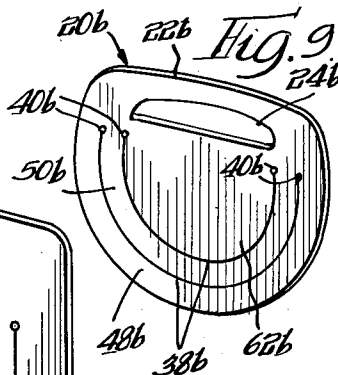
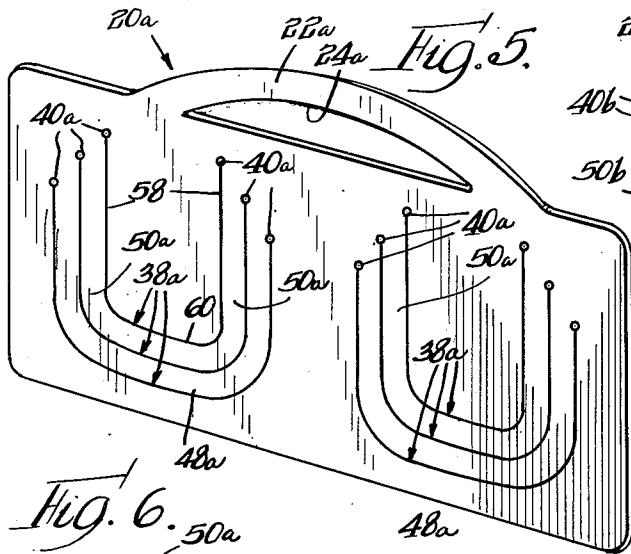
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2 Sheets-Sheet 2



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CARRIER AND CARRIER PACKAGE

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12 Claims. (Cl. 206-65)

This invention is concerned with a carrier for carrying containers such as cans, and with a resulting carrier package.

As is well known, it is common practice to merchandise cans in groups. For example, six cans of beer or other beverage are commonly packed together for sale. Pasteboard containers have been widely used in the past, but are subject to certain deficiencies. They are expensive and difficult to assemble with the containers. In addition, they tend either to be too weak, so as not to be able to resist dropping or mishandling, or they tend to be so strong that it is extremely difficult to separate the containers therefrom. Various metal clips have been contrived for securing groups of cans together, but for various reasons have not been extensively used in commerce.

In the application of O. J. Poupitch for "Container Carrier and Package," Ser. No. 775,333, filed December 1, 1958, now U.S. Patent 2,874,835, owned by the assignee of this application, there is disclosed and claimed a novel carrier formed of plastic sheet material and having apertures therein through which the containers are inserted. This invention relates to a carrier made of plastic sheet material, but differing in various significant details from that of Poupitch.

Accordingly, it is an object of this invention to provide an improved integral plastic carrier for cans and other containers.

It is another object of this invention to provide a carrier for containers such as cans wherein the carrier comprises a vertically positioned sheet of plastic material having integral bands extending in opposite directions therefrom for retaining containers, such as cans.

A further object of this invention is to provide a carrier as outlined in the preceding objects wherein the carrier is of substantially scrapless construction.

Other and further objects and advantages of the present invention will be apparent from the following description when taken in connection with the accompanying drawings wherein:

FIG. 1 is a perspective view of a container carrier in accordance with the principles of this invention, as initially formed;

FIG. 2 is a perspective view of the carrier as stretched for use;

FIG. 3 is a perspective view showing the carrier associated with a plurality of containers, specifically cans;

FIG. 4 is an end view of the containers and carrier;

FIG. 5 is a perspective view of a modified form of the invention, corresponding to FIG. 1;

FIG. 6 corresponds to FIG. 2 and is a perspective view of the device of FIG. 5;

FIG. 7 is a perspective view of the device of FIGS. 5 and 6 as assembled with containers, specifically cans;

FIG. 8 is an end view of the carrier package of FIG. 7;

FIG. 9 is a perspective view of a further embodiment of the invention, somewhat similar to FIG. 5;

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FIG. 10 is a perspective view of the carrier of FIG. 9 as assembled with a plurality of containers.

Referring now to the drawings in greater detail, and first to FIGS. 1-4, there will be seen a sheet or web of plastic material forming the carrier 20. Although other plastics may be used, polyethylene is a preferred example. The web is arranged in a vertical plane, and the central portion thereof is upstanding as at 22, being provided with an elongated slot 24, whereby the upstanding portion serves as a handle. The web also is provided with oppositely extending end portions 26 and 28, and with a central portion 30, all integral and coplanar. The upper outer corners of the end portions 26 and 28 are rounded off as at 32. The inner corners thereof also are rounded off as at 34, thereby joining the upstanding handle portion 22 at an indentation 36.

The end portions 26 and 28 and the central portion 30 are respectively provided with pairs of aligned slots 38 arranged longitudinally of the carrier. The slots in each pair are aligned vertically, and the corresponding slots of the pairs are colinear. Each of the slots is terminated in a small circular hole 40 to prevent tearing of the plastic material. In addition, the central portion 30 is provided with a slot 42 which is straight throughout the major portion of its extent, being colinear with the upper edges of the portions 26 and 28, and which curves down at its opposite ends at 44 to terminate in small circular holes 46 on a line with the indentations 36.

The slits 38 define between them straps 48 of plastic material. Above the uppermost slot 38 on the end portions 26 and 28, and between the uppermost slot 38 and the slit or slot 42, there is another plurality of straps 50. These straps are designed to be folded down along the dotted lines 52. As shown in FIG. 2, the straps 50 are stretched rearwardly (after such folding down) and the straps 48 are stretched forwardly. Thus, the cans 54 or other suitable containers can be inserted within the stretched bands or loops 48 and 50. The resulting package 57 readily is carried by inserting the fingers through the slot 24 of the handle 22.

The dimensions of the parts are such that the bands 48 and 50 are stretched rather substantially, and hence, aggressively grip the cans against inadvertent withdrawal from the carrier. Furthermore, the bands lock beneath the beads 56 at the tops of the cans. However, since the can beads are not engaged along the center of the package by the straps 48 and 50, the cans can be withdrawn manually by tipping them up and out away from the body of the carrier.

In accordance with the figures just described, the upper bands 50 are folded down before being stretched out into use. This is advantageous in that it keeps the bands 50 on the same level with the bands 48. However, it will be understood that the bands simply could be stretched out without being folded down, and in such instance the indentations 36 would not be essential.

A modification of the invention is shown in FIGS. 5-8. In this embodiment of the invention, similar parts are identified by numerals similar to those heretofore used, with the addition of the suffix *a*. The handle 22*a* is curved in configuration, and the slot or aperture 24*a* is similarly shaped. The carrier 20*a* again is used in a vertical position, and is provided with two sets of slots 38*a*. The slots or slits 38*a* are in sets of three in the

present instance, and there are only two such sets. The slits 38a each comprise vertical legs 58 interconnected by a bight 60, thereby being of more or less U-shape. The slits 38a define U-shaped bands or straps 48a and 50a which respectively are folded forwardly and rearwardly from the plane of the carrier 20a, as shown in FIG. 6, whereby to receive four containers, illustrated as cans 54a, in FIGS. 7 and 8. The straps or bands 50a lock directly beneath the beads 56a of the cans 54a. When the upper ends of the cans are kept on the same level, as in FIGS. 7 and 8, the straps or bands 48a grip the cans somewhat below the beads, due to the attachment of the straps or bands 48a to the carrier at a somewhat lower position than the straps or bands 50a are attached. However, they elastically and resiliently grip the cans, whereby to hold them against accidental withdrawal. As will be understood, the cans on the front of the carrier could be slid down slightly, if so desired, to cause the straps or bands 48a to lock under the beads 56a, and this would inherently happen should the bands 48a stretch sufficiently to loosen slightly. The handle 22a serves as a convenient means for carrying the resulting container package 57a.

As will be observed in FIG. 6, the U-shaped slits 38a leave tongues 62 of plastic sheet material which lie between adjacent cans 54a. In some instances it may be found desirable to maintain the cans out of contact with one another, or even to provide a cushion between the cans, and it will be apparent that the tongues 62 serve both of these purposes.

In FIGS. 9 and 10 there is shown an embodiment of the invention designed for carrying two cans. This embodiment is otherwise quite similar to that of FIGS. 5-8, but makes a somewhat more efficient use of material. The carrier again includes a sheet of plastic material in a vertical plane, having a handle at the top thereof. Similar numerals again are used for identifying similar parts, this time with the addition of the suffix b, the carrier thereby being identified as 20b and the handle as 22b. The bottom of the carrier is of curved or arcuate configuration, and the slits 38b are more or less arcuate or C-shaped, being substantially concentric with the bottom edge and joining side edges of the carrier, and again terminating in small holes 40b. The lowermost of the slits 38b forms with the lower edge a band or strap 48b, while a band or strap 50b is defined between the two slits 38b.

In order to use the container carrier 20b, the strap or band 48b is flexed up to the front, and the band or strap 50b is flexed up to the back, whereby the two bands respectively engage a pair of containers or cans 54b to form the carrier package 57b. In this instance, the attachments of the bands to the remainder of the carrier are on substantially the same horizontal level, rather than being offset diagonally as in FIGS. 5-8. Accordingly, the two bands or straps are substantially at the same height, and both simultaneously lock beneath the beads 56b of the cans 54b to retain the cans at the same height.

As will now be apparent, each of the embodiments of the invention as herein shown and described is substantially scrapless in construction, requiring only the formation of slits in the plastic sheet or web. Each embodiment provides straps or bands which are stretched or deflected in opposite directions from the plane of the web, whereby aggressively to grip the cans or other containers to be carried thereby.

The specific examples of the invention as herein shown and described are for illustrative purposes only. Various changes in structure will no doubt occur to those skilled in the art, and are to be understood as forming a part of this invention, insofar as they fall within the spirit and scope of the appended claims.

The invention is claimed as follows:

1. A carrier for carrying a plurality of containers or the like in depending side-by-side and substantially abutting and parallel relation; and comprising a substantially

unsupported sheet of plastic material disposed in a vertical plane to provide a carrier body having handle means along one margin thereof, said sheet of plastic material being resilient, deformable, and elastic, and having a plurality of slits arranged in groups at spaced intervals below the margin on which said handle means is located, said slits in each group being substantially the same length to provide a plurality of pairs of bands each of substantially the same width and length, the bands of each pair respectively being vertically aligned and immediately adjacent one another and deformable in opposite directions from the plane of said sheet whereby the pairs of bands provide oppositely disposed loop-like portions engageable upon stretching by a container or the like with the side walls thereof to retain adjacent containers in substantially abutting and parallel relation, one slit in each group forming the margin of a section of the blank remaining in the vertical plane thereof when the bands are deformed in opposite directions to provide the loop-like portions.

2. A carrier as claimed in claim 1, wherein the slits in each group comprise upper and lower substantially co-extensive parallel slits.

3. A carrier as claimed in claim 2, wherein one of the slits in each group provides a substantially contiguous margin of each pair of oppositely deformed bands.

4. A carrier as claimed in claim 1, wherein the upper marginal portion above the upper slit in each group is turned downwardly to substantially vertical position whereby the upper slit in each group provides the upper margin of each oppositely disposed band.

5. A carrier as claimed in claim 1, wherein there is provided an additional topmost slit above the intermediate group of slits and immediately below the handle means for providing one of the oppositely deformed bands in this group.

6. A carrier as claimed in claim 1, wherein the handle means comprises a central portion of the sheet projecting upwardly from the top margin thereof with the top edge of the sheet having substantially vertical slits separating the said central portion from the adjacent top marginal portions of the sheet facilitating turning of such top marginal portion upon itself to form one of the oppositely deformed bands.

7. A carrier as claimed in claim 1, wherein the slits in each group are substantially U-shaped to define the bands opening upwardly toward the upper margin of the sheet.

8. A carrier package comprising at least a pair of containers disposed in side-by-side relationship and a carrier formed from a sheet of plastic material which is resilient, deformable, and elastic; said carrier including a carrier body disposed in a vertical plane between said containers and having handle means along the upper margin thereof, at least a pair of substantially immediately adjacent narrow bands integral with and formed out of the carrier body and extending from adjacent the top of the carrier body in opposite directions from the vertical plane thereof, the carrier body including a separator portion remaining in the vertical plane thereof and below the handle means, each band defining an aperture having a normal peripheral measurement less than that of an associated container and stretched over an associated container to engage the same adjacent the top thereof with each container elastically held by a corresponding band near the top thereof in depending side-by-side and substantially parallel relationship with the separator portion disposed between adjacent containers.

9. A carrier package as claimed in claim 8, wherein the separator portion is disposed between the upper edges of the containers.

10. A carrier package comprising a plurality of pairs of containers with the containers of each pair disposed in side-by-side relation and a carrier formed from a sheet of plastic material which is resilient, deformable and elastic; said carrier including a carrier body disposed in a

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vertical plane between the containers of each pair and having handle means along the upper margin thereof, a plurality of pairs of substantially immediately adjacent narrow bands integral with and formed out of the carrier body and extending from adjacent the top of the carrier body in opposite directions from the vertical plane thereof, the carrier body including separator portions remaining in the vertical plane thereof and below the upper margin thereof, each band defining an aperture having a normal peripheral measurement less than that of an associated container and stretched over an associated container to engage the same adjacent the top thereof with each container held by a corresponding band near the top thereof in depending side-by-side and substantially parallel relationship with a separator portion disposed between the containers of each pair.

11. A carrier package as claimed in claim 10, wherein the margins of the bands of each pair are substantially contiguous.

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12. A carrier package as claimed in claim 10, wherein the separator portion is disposed between the upper edges of each pair of containers.

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