

July 16, 1968

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3,392,876

WRAP-AROUND CARRIER

Filed Sept. 6, 1966

2 Sheets-Sheet 1

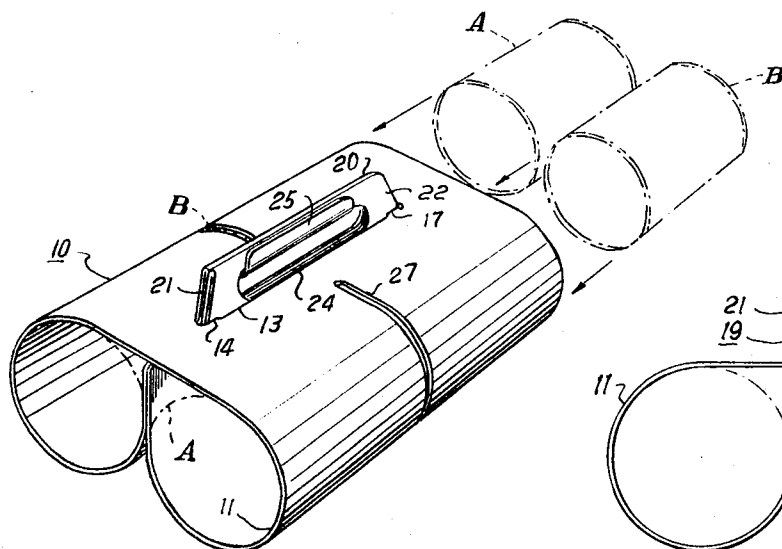


FIG. 1

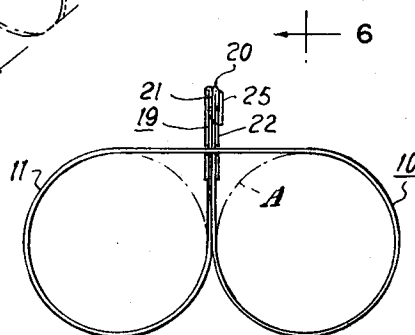


FIG. 2

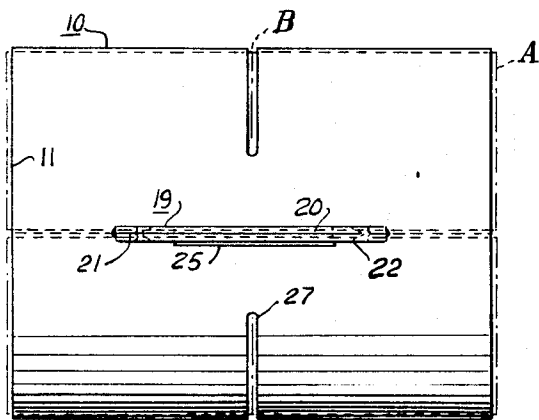


FIG. 3

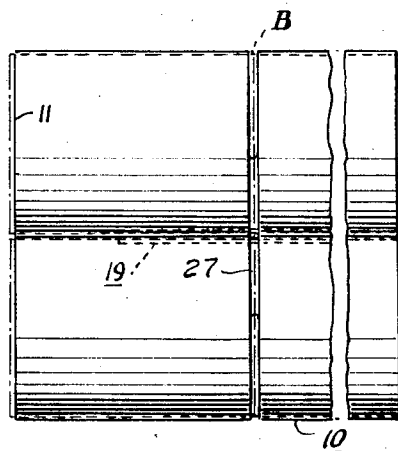


FIG. 4

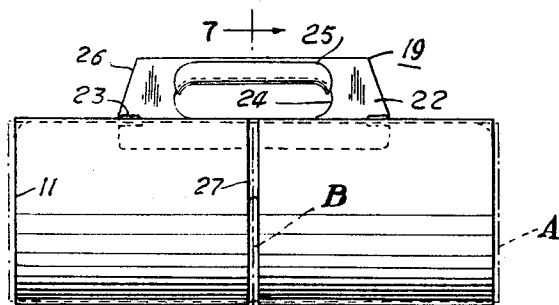


FIG. 5

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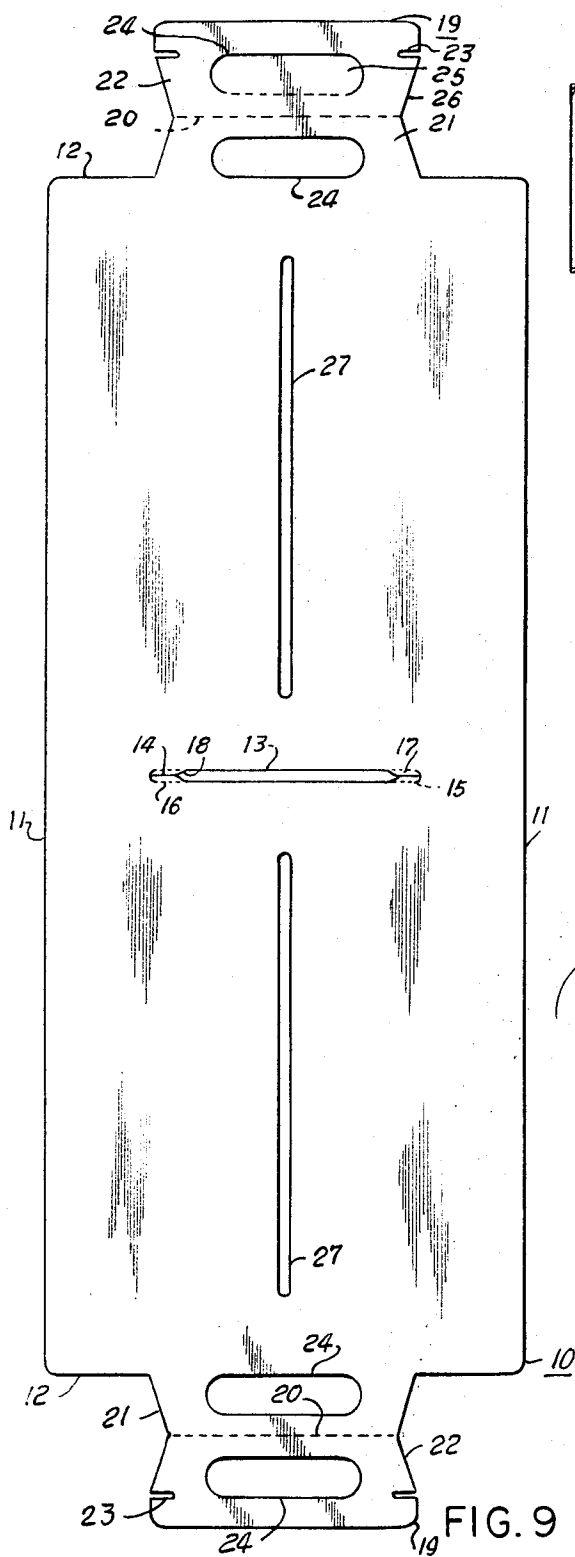
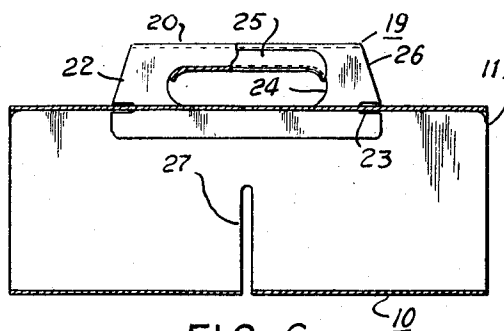


FIG. 6

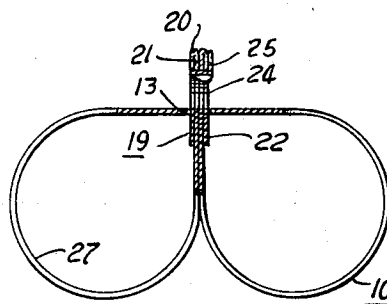


FIG. 7

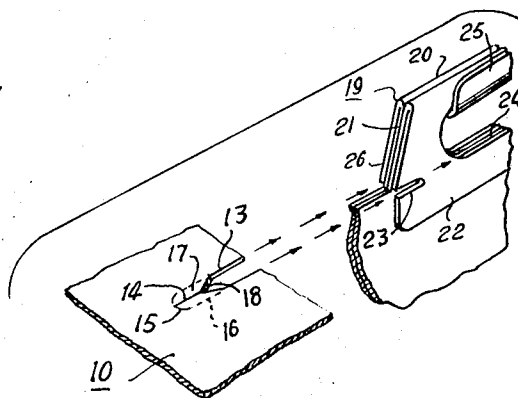


FIG. 8

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3,392,876

WRAP-AROUND CARRIER

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6 Claims. (Cl. 220-115)

ABSTRACT OF THE DISCLOSURE

A wrap-around carrier of flexible sheet material for an even number of articles, such as cans having chines at their ends, adapted to encompass the sides of at least a pair of articles disposed in side-by-side relationship and having an elongate, transverse opening at its medial portion extending longitudinally between the sides of the articles when the carrier is wrapped therearound and therebetween; aligned extensions project from opposed margins of said carrier in parallel relation to the opening for extending outwardly therethrough and have means on their ends for engaging the ends of said opening to prevent inward displacement of the extensions.

This invention relates to new and useful improvements in wrap-around carriers for an even number of articles, such as cans having chines at their ends.

Many articles, such as products packaged in cans and similar containers, are merchandised in groups of two or more and are difficult to handle when the articles are relatively large or relatively heavy. For example, it is customary to package lubricating oil in cans of quart capacity, which is the least as well as the most frequent amount usually sold, so that the oil remains uncontaminated until use. Since larger quantities of oil are required from time to time, such as upon changing the oil of a motor vehicle, it is necessary to manipulate a number of cans including the removal of the cans from a case and the carrying of said cans to the point of use of said oil. Some users prefer to personally change the oil of their vehicles which necessitates additional handling of the cans between the points of purchase and use. Other products, such as fruit juices, are packaged in cans of larger capacity and are even more difficult to unpack and place on display even when sold at retail in small quantities. Also, some canned goods are of relatively small size and are, or may be, sold in groups whereby the handling thereof is complicated.

The novel carrier of this invention facilitates the handling of groups of articles, such as cans or similar containers, and particularly an even number of the same. The carrier is adapted to be wrapped around and between the side walls of two or more articles disposed in side-by-side relationship and consists of a sheet of paperboard or other suitable flexible material which is preferably but not necessarily of rectangular shape. Although of a length sufficient to encompass a pair of side-by-side articles, the width of the sheet is subject to variation. When the articles are of relatively large diameter or transverse dimensions relative to their length, the sheet is of much greater length than width.

For securing the carrier around the articles, an elongate opening or slot extends transversely of the medial portion of the sheet for receiving extensions or flaps which project from opposed margins, such as the ends, of said sheet in parallel relation to the slot. The flaps are elongated transversely of the sheet and are of substantially the same length as the medial slot of the sheet for frictional engagement with the ends of said slot. Disengagement of the flaps from the medial slot may be resisted by slitting or decreasing the width of the end portions of said slot whereby said end portions snugly engage the narrow end

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portions of said flaps. Catch means are provided at the ends of the flaps for engaging and coacting with the end portions of the medial slot to more positively prevent displacement of said flaps and, preferably, are in the form of elongate notches or slots extending in parallel relation to said medial slot. Each flap may have a longitudinal fold line parallel to the medial slot to provide inner and outer panels and permit inward folding of the outer panel into overlying relation to the inner panel, and the notches may be formed in said outer panel. Elongate openings extend longitudinally of the panels of the flaps for registration when said flaps are inserted through the medial slot and folded so as to form a handle for the carrier.

As pointed out, the width of the flexible sheet forming the carrier of this invention is subject to variation, but is usually less than the length of the article to accommodate end enlargements of said articles, such as the chines of cans. In fact, it is preferable for the longitudinal margins of the sheet or portions of said margins to engage these enlargements or chines to prevent endwise displacement of the articles or cans. Although the carrier is particularly adapted for use with cans and other articles having cylindrical side walls, it is noted that said carrier is capable of confining articles of rectangular, oval, triangular or other contour. In the preferred embodiment of the invention, the carrier is arranged to confine four articles disposed in two pairs of side-by-side articles with the pairs in end-to-end relationship. When the articles have end enlargements or chines, the flexible sheet has a pair of aligned, elongate openings or slots in parallel relation to and substantially medial of its longitudinal margins for receiving and confining the major portions of the abutting enlargements or chines of the end-to-end articles. It is pointed out that the width of the sheet and the pairs of aligned slots may be increased to accommodate six or more articles in end-to-end pairs. If only one pair of side-by-side articles is confined by the carrier, the aligned, longitudinal slots of the sheet are unnecessary.

A construction designed to carry out the invention will be hereinafter described, together with other features of the invention.

The invention will be more readily understood from a reading of the following specification and by reference to the accompanying drawings, wherein an example of the invention is shown, and wherein:

FIG. 1 is a partially exposed, perspective view of a wrap-around carrier constructed in accordance with the invention and loaded with cans shown in broken lines,

FIG. 2 is an end elevational view of the loaded carrier, the cans being shown in broken lines,

FIG. 3 is a top plan view of the loaded carrier, the cans being shown in broken lines,

FIG. 4 is a broken, bottom plan view of the loaded carrier, the cans being shown in broken lines,

FIG. 5 is a side elevational view of the loaded carrier, the cans being shown in broken lines,

FIG. 6 is a longitudinal, sectional view taken on the line 6-6 of FIG. 2, the cans being removed,

FIG. 7 is a transverse, sectional view taken on the line 7-7 of FIG. 5,

FIG. 8 is an exploded, perspective view showing the locking relationship between the flaps and medial slot of the carrier, and

FIG. 9 is a face view of the blank forming the carrier.

In the drawings, the numeral 10 designates a blank or sheet, of paperboard or other suitable flexible material, which is cut and scored to form the wrap-around carrier of this invention. The carrier is adapted to be wrapped around and between the side walls of at least a pair of articles in side-by-side relationship and, preferably, two or more pairs of side-by-side articles with the pairs be-

ing in end-to-end relationship for confining the articles. Although the carrier is designed primarily for use with cylindrical articles, such as cans A having chines B as shown in broken lines in FIGS. 1-5, it is readily apparent that said carrier may be utilized to confine articles of rectangular, oval, triangular or other contour so long as the articles are disposed in pairs in side-by-side relationship. When the carrier is arranged to confine only a single pair of articles, the sheet 10 is of a width less than the length of the articles so that the longitudinal margins or side edges 11 of said sheet are spaced from the ends of said articles. It is desirable for the margins 11 of the sheet or at least portions thereof to engage the end enlargements of the articles, such as the chines B of the cans A, so as to prevent endwise displacement of said articles; however, the width of said sheet may be much less than the length of said articles. Also, the width of the sheet is subject to variation in accordance with the length of the articles as well as the number of pairs of articles to be packed in the carrier and, likewise, the length of said sheet varies with the diameter or transverse dimensions of said articles.

Preferably, the sheet 10 is rectangular, usually being of greater length than width, and has parallel end edges or transverse margins 12 perpendicular to its parallel longitudinal margins 11 (FIG. 9). It is noted, however, that the exact shape of the sheet is not critical and is subject to wide variation. An elongate opening or slot 13 extends transversely of the medial portion of the sheet, perpendicularly to the longitudinal axis of the latter, and has its ends terminating an appreciable distance from and in equally-spaced relation to the longitudinal margins of said sheet. Although the medial slot 13 is shown as being, and normally is, at the exact center of the sheet, it is pointed out that the pair of side-by-side articles need not be of the same diameter or transverse dimensions whereby said slot may be closer to one end than the other end of said sheet. Therefore, the word "medial" is used herein synonymously with or in the broader sense of the word "intermediate."

A short slit 14 extends longitudinally from at least one and, preferably, each end of the medial slot so as to decrease the width of at least one or each end portion of said slots (FIGS. 8 and 9) and the outer end of the slit bisects a short, semicircular slit 15 which has its ends directed inwardly in alinement with the margins of said slot. Crease or score lines 16, in parallel relation to the longitudinal slit 14, connect the ends of the slot margins and each semicircular slit 15 for coacting with the slits to form a pair of readily bendable tabs 17. If desired, and as shown at 18, the end margins of the tabs 17 adjacent the slot 13 may extend obtusely of the slot margins and slit 15.

An extension or flap 19 projects medially from each transverse margin 12 of the sheet 10 and has its greater dimension extending longitudinally of the margin and of substantially the same length as the medial slot 13 of said sheet. Preferably, each flap 19 has a longitudinal fold line 20, in parallel relation to the medial slot as well as the transverse margin of the sheet, to provide elongate inner and outer panels 21 and 22 and permit inward folding of the outer panel into overlying relation to the inner panel. The outer panels 22 are of greater width than the inner panels 21 whereby the outer portions of said outer panels project inwardly beyond the margins 12 so as to overlie the sheet when the flaps are folded on the lines 20 (FIGS. 2 and 5-8). Catch means in the form of an elongate notch or short slot 23 is provided in at least one and, preferably, each end of the outer panel of each flap 19 and extends longitudinally of said panel for approximate alinement with the transverse margin of the sheet upon folding of the flap. The panels of each flap may have elongate, handhole openings 24 extending longitudinally thereof and adapted to register with one another when the flaps are folded. A

coextensive tab 25 may be hinged to the inner longitudinal margin of the handhole opening 24 of the outer panel 22 of one of the flaps 19 for folding through the other openings in the customary manner. As shown at 26 in FIGS. 5, 6 and 9, the end margins of the flap panels may converge toward the fold line 20 to facilitate insertion of the folded flaps through the medial slot 13 upon wrapping of the carrier around and between the articles.

When the carrier is adapted to confine two or more pairs of articles and the articles have end enlargements, such as the chines B of the cans A, a pair of alined elongate openings or slots 27 extend longitudinally of the sheet 10 between and in spaced, perpendicular relation to the margins 12 and medial slot of said sheet for receiving and confining the major portions of the abutting chines or other end enlargements of end-to-end cans or articles. As shown, a two pair or four capacity carrier has a single pair of alined slots 27 positioned medially of the longitudinal sheet margins 11 to accommodate the abutting chines or enlargements. Of course, these slots are unnecessary if the articles have no enlargements and said slots may be offset relative to the longitudinal center line of the sheet if one pair of the articles is of greater length than the other pair or if said articles have enlargements other than at their ends. In the event that the carrier has a capacity of three or more pairs of articles, additional pairs of alined slots 27 may be provided for the abutting end enlargements or chines of the articles.

In order to wrap the carrier around and between the cans, or other articles, the flaps 19 are folded to dispose the panels 21 and 22 in overlying relationship. The transverse end portions of the sheet 10 are swung together around the articles so as to dispose the folded flaps between said articles and in alinement with the medial slot 13 of said sheet. Since the notches 23 are formed in the outer panels 22, the latter are interposed between the articles and inner panels 21 so as to overlie said inner panels when the flaps 19 are inserted through the medial slot. The notches engage and coact with the tabs 17 at the ends of the slot 13 to prevent inward displacement of the flaps which are adapted to be connected by the folding of the tab 25 through the handhole openings 24. As shown in FIGS. 1-5, the longitudinal margins 11 of the sheet preferably engage the outer end enlargements of the articles or chines B of the cans A while the alined, longitudinal slots 27 of said sheet receive and confine the abutting end enlargements or chines to prevent endwise displacement of said articles or cans as well as permit snug engagement of the carrier with the side walls of said articles or cans.

The foregoing description of the invention is explanatory thereof and various changes in the size, shape and materials, as well as in the details of the illustrated construction may be made, within the scope of the appended claims, without departing from the spirit of the invention.

What I claim and desire to secure by Letters Patent is:

1. A wrap-around carrier for an even number of articles such as cans having chines at their ends including a sheet of flexible material adapted to encompass the sides of at least a pair of articles disposed in side-by-side relationship, the sheet having an elongate opening extending transversely of its medial portion so as to extend longitudinally between the sides of the articles when said sheet is wrapped therearound and therebetween, alined extensions projecting from opposed margins of said sheet in parallel relation to the opening and adapted to extend outwardly through said opening, the dimensions of the extensions parallel to said opening being of substantially the same length as said opening to provide frictional engagement between the ends of said extensions and opening for resisting inward displacement of said extensions, the end portions of said opening being of decreased width and the portions of said sheet adjacent said end portions of said opening being slit and scored to provide bendable tabs for snugly engaging said extensions.

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2. A wrap-around carrier for an even number of articles such as cans having chines at their ends including a sheet of flexible material adapted to encompass the sides of at least a pair of articles disposed in side-by-side relationship, the sheet having an elongate opening extending transversely of its medial portion so as to extend longitudinally between the sides of the articles when said sheet is wrapped therearound and therebetween, aligned extensions projecting from opposed margins of said sheet in parallel relation to the opening and adapted to extend outwardly through said opening, each extension having a fold line parallel to said opening to provide inner and outer panels and permit inward folding of the outer panel into overlying relation to the inner panel of the extension, the outer panels being of greater width than the inner panels of said extensions whereby said outer panels extend inwardly of said inner panels for inward projection through said opening when said extensions are folded and inserted through said opening, and catch means on the ends of said outer extension panels for engaging the ends of said opening to prevent inward displacement of said extensions.

3. A wrap-around carrier for an even number of articles such as cans having chines at their ends including a sheet of flexible material adapted to encompass the sides of at least two pairs of articles disposed in side-by-side relationship with the pairs of articles in end-to-end relationship, the sheet having an elongate opening extending transversely of its medial portion so as to extend longitudinally between the sides of the articles when said sheet is wrapped therearound and therebetween, aligned extensions projecting from opposed margins of said sheet in parallel relation to the opening and adapted to extend outwardly through said opening, and catch means on the ends of the

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extensions for engaging the ends of said opening to prevent inward displacement of said extensions, said sheet having a pair of aligned elongate openings extending perpendicularly to its medial opening for receiving and confining portions of the abutting chines of the end-to-end articles when said sheet is wrapped around the sides thereof.

4. A wrap-around carrier as set forth in claim 3 wherein each extension has a fold line parallel to the medial opening of the flexible sheet to permit inward folding of the outer panel into overlying relation to the inner panel of the extension.

5. A wrap-around carrier as set forth in claim 4 wherein the outer panels are of greater width than the inner panels of the extensions whereby said outer panels extend inwardly of said inner panels for inward projection through the medial opening of the sheet when said extensions are folded and inserted through said opening.

6. A wrap-around carrier as set forth in claim 5 wherein the catch means are formed on the ends of the outer panels of the extensions of the sheet.

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