Aug. 10, 1965 O. J. POUPITCH 3,199,908

CONTAINER CARRIER AND PACKAGE

Filed July 17, 1959 4 Sheets-Sheet 1

Fig. 1

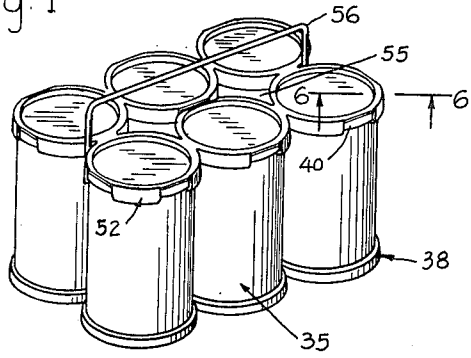


Fig. 2

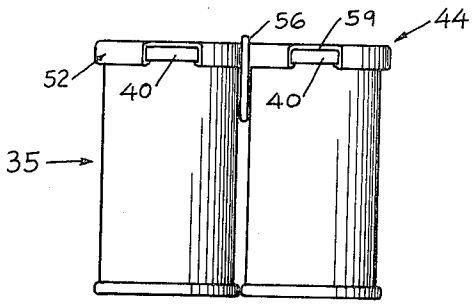


Fig. 3

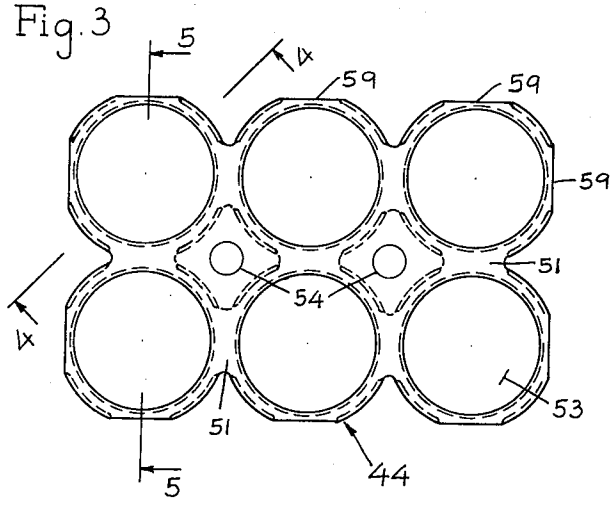


Fig. 4

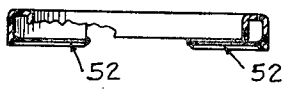


Fig. 5

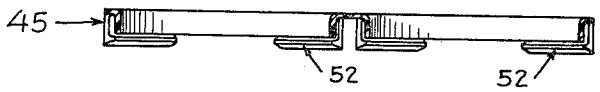


Fig. 6

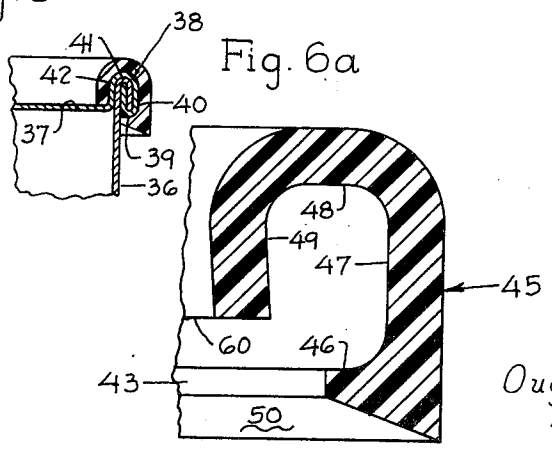
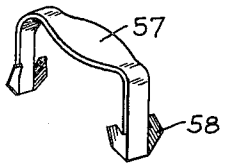


Fig. 6a

Fig. 7



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Aug. 10, 1965 O. J. POUPITCH 3,199,908

CONTAINER CARRIER AND PACKAGE

Filed July 17, 1959 4 Sheets-Sheet 2

Fig. 8

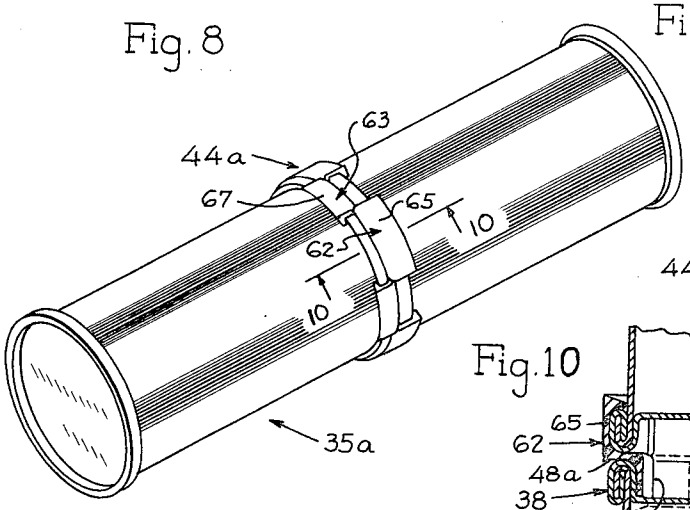


Fig. 9

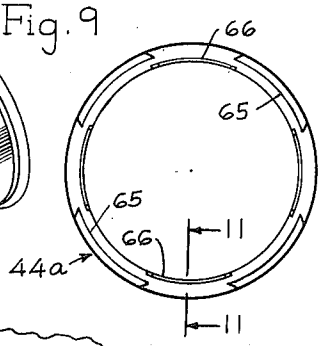


Fig. 10

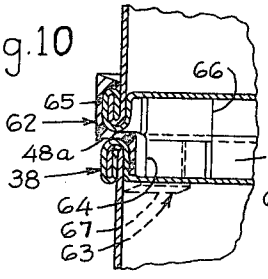


Fig. 11

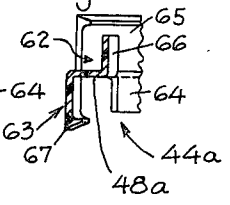


Fig. 12

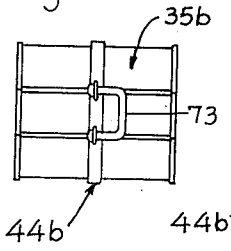


Fig. 13

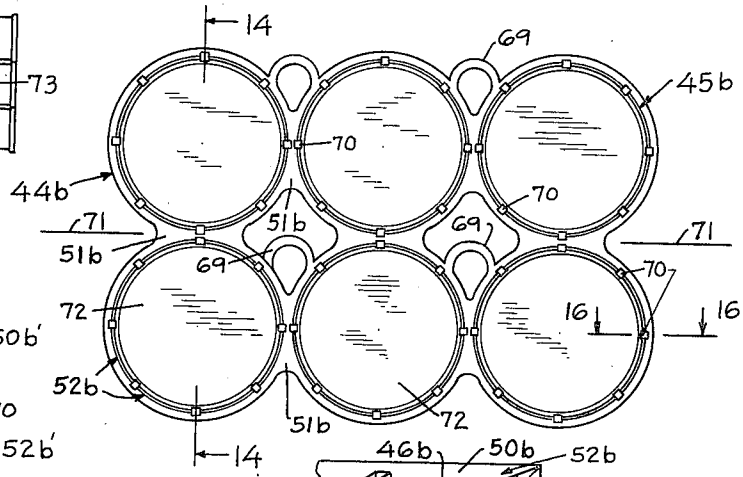


Fig. 14

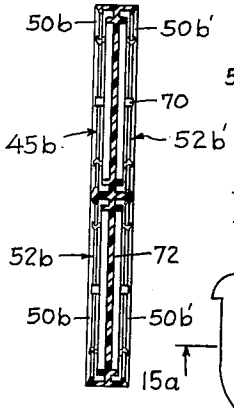


Fig. 15

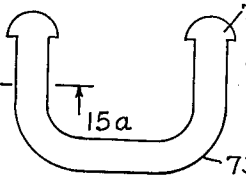


Fig. 15a

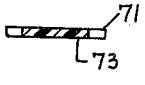
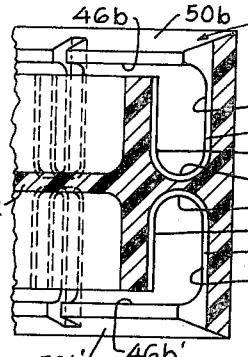


Fig. 16



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Aug. 10, 1965 O. J. POUPITCH 3,199,908

CONTAINER CARRIER AND PACKAGE

Filed July 17, 1959 4 Sheets-Sheet 3

Fig. 17

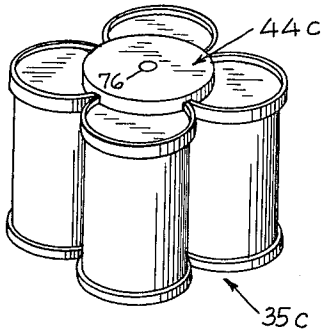


Fig. 19

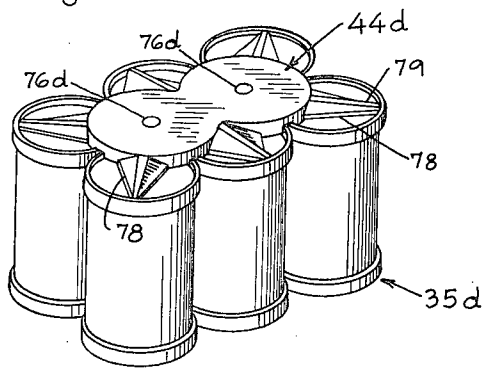


Fig. 18

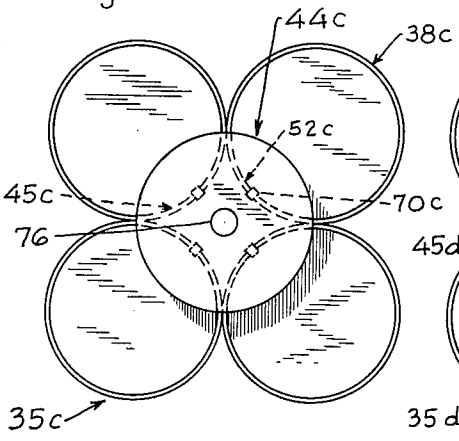


Fig. 20

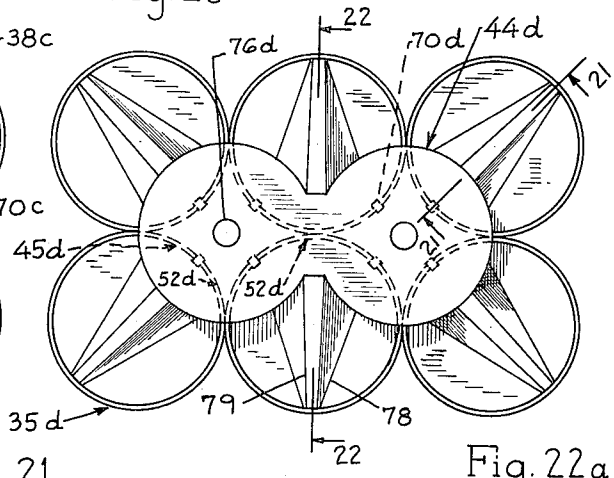


Fig. 21

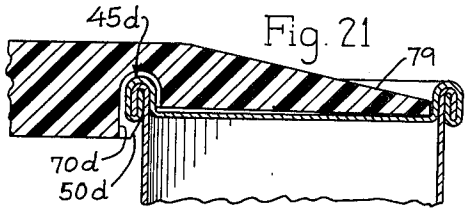


Fig. 22b

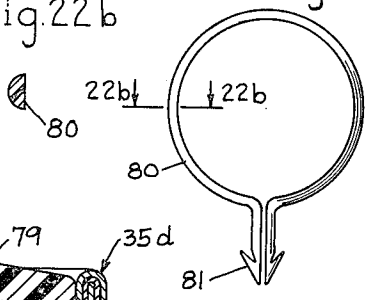
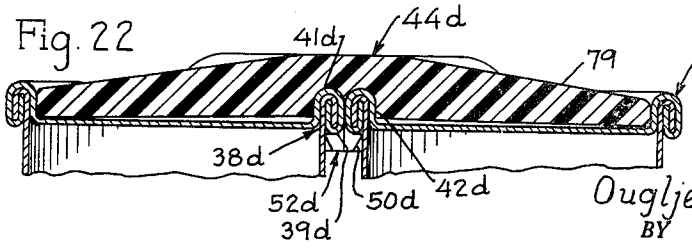


Fig. 22a

Fig. 22



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Aug. 10, 1965 O. J. POUPITCH 3,199,908

CONTAINER CARRIER AND PACKAGE

Filed July 17, 1959 4 Sheets-Sheet 4

Fig. 23

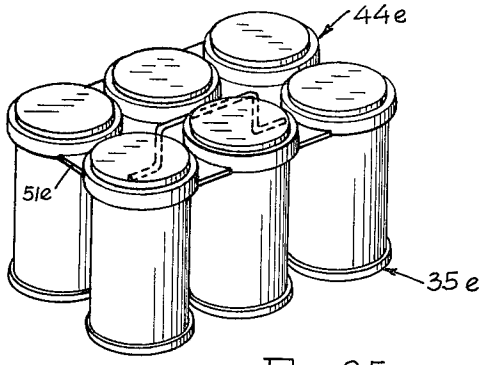


Fig. 24

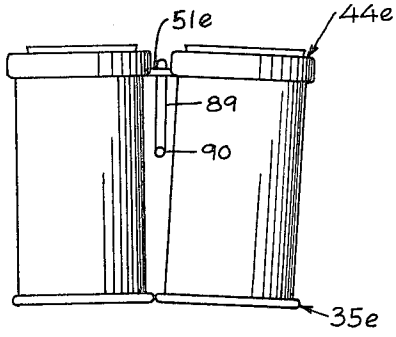


Fig. 25

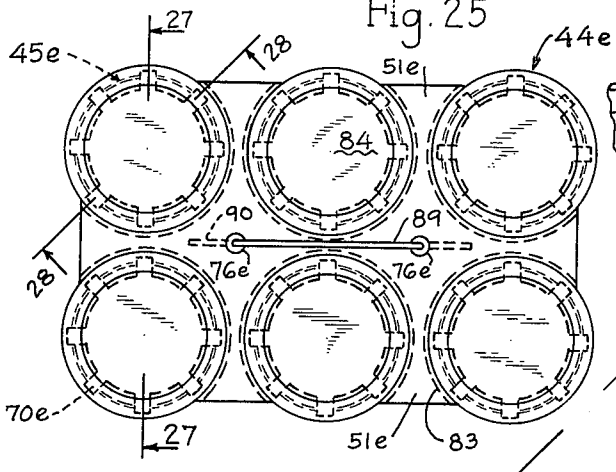


Fig. 26

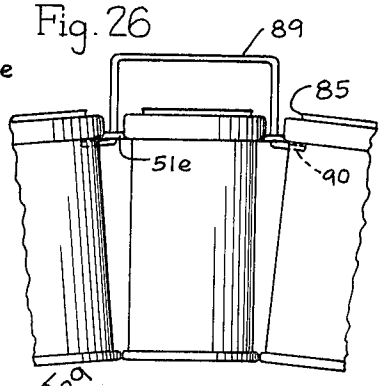


Fig. 27

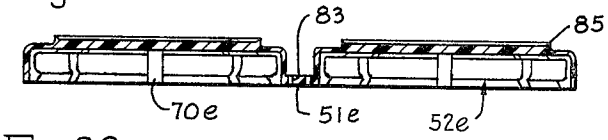


Fig. 28

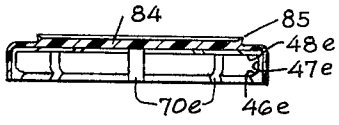


Fig. 29

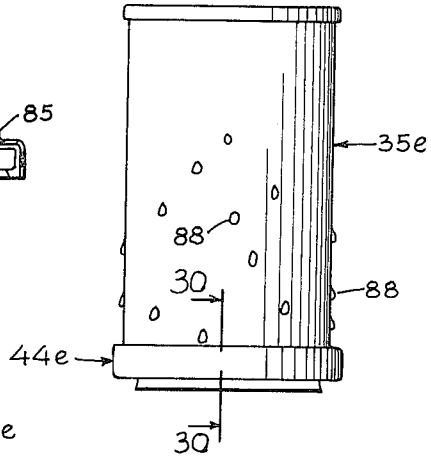


Fig. 30

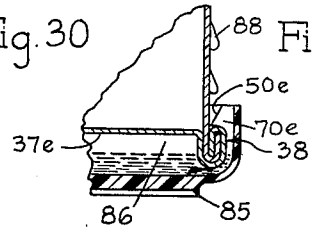
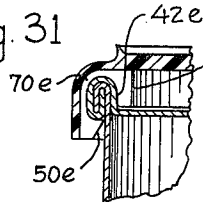


Fig. 31



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United States Patent Office 3,199,908 Patented Aug. 10, 1965

3,199,908

CONTAINER CARRIER AND PACKAGE

Ouglјesa Jules Poupitch, Itasca, Ill., assignor to Illinois Tool Works Inc., Chicago, Ill., a corporation of Delaware

Filed July 17, 1959, Ser. No. 827,748
5 Claims. (Cl. 294—87.2)

This invention relates in general to a package or article carrier and, more particularly, to a package or receptacle device for holding and carrying containers, for example cans.

It is now common commercial practice to package beverages, such as beer and soda pop, in cans. It has also been a long-time practice to package many foodstuffs in cans. Further, it is now becoming a common practice to package articles of almost every shape and character in containers, either for the purposes of unitizing and for ease of handling, or for corrosion resistance considerations. While this invention relates to and has applications for containers of almost all configurations and sizes, it will be described in connection with beverage cans, such as beer and soda pop cans.

In most instances, a plurality of such beverage cans, conveniently six in number, is supplied in a receptacle or carrier for home consumption. A plurality of units of six cans generally is shipped in a large carton and this carton is broken open at the retail outlet for sale of the units to the ultimate consumer.

The common older practice relative to beverage can carriers has been of two general types, the type of packaging unit where paper or pasteboard packaging devices are surroundingly disposed to a group of cans or the other type which utilizes metal clips which engage the rim portions of adjacent cans.

Paper or pasteboard packaging devices, which have been sufficiently strong to be accepted commercially, have been found to be unduly bulky and expensive and require rather complicated packaging machinery. Such paper devices substantially completely encase a plurality of cans, thus insulating the cans, and thus requiring that they be removed from the paper device for efficient refrigeration. Further, the paper devices do not stand up in high humidity or when disposed in cold water for cooling purposes. Another disability of such paper devices is the difficulty in opening the devices to remove the individual beverage cans.

On the other hand, most metallic connectors or clips have not found full commercial acceptance due to the difficulty of applying the clips to the cans in automatic machinery with sufficient permanence so that the cans will not readily detach from one another. Furthermore, prior art metallic connectors which have been sufficiently strong to hold groups of cans firmly together have held such cans rigidly. That is, all of the six (or other number) cans in a unit have been more or less rigidly interconnected. When a carton of such units, eight being a common number, is dropped, the tendency is for each rigid unit to direct all of the impact simultaneously in one direction. This causes a substantial impact on the carton, tending to burst the carton. An analogy may be made to a solid ball and a mass of loosely retained shot. For equal masses, the ball when dropped, would create a given impact shock, while the loosely retained shot would dampen the shock substantially below said impact shock.

In my recently issued patent, 2,874,835, I have shown a number of means for resiliently inter-connecting and carrying a group of cans by forcing an apertured sheet of plastic over the top beads of the cans in a manner so as to grip the can beneath the underside of the head.

In view of the foregoing, it is a general object of this

invention to provide a device for holding a plurality of cans or other containers together as a unit in a manner which affords protection to a portion of the peripheral beads of the individual containers and simultaneously spaces the next adjacent unit of containers from contact therewith.

It is another object of this invention to provide a device of the above general description which protects the peripheral bead against kicks or burrs which might otherwise be formed in the surface of the bead due to careless handling.

It is still another object of this invention to provide a device as aforedescribed which affords the foregoing functions while maintaining a resilient elastic interconnection between individual bead-engaging and protection means, said interconnection absorbing and dampening impact shocks which may occur in handling a carton of units.

It is still another object of this invention to provide a device which affords a combination carrying means and in at least some forms of the invention a sanitary cover which protects the bead of the container from contact with foreign objects.

Another object of this invention is to provide a carrier of the above general type which may use a plurality of transporting means, i.e., the carrier may be formed either with integral handle means, quick detachable handle means which may be inserted at the retail outlet, or may be formed with apertures of suitable configuration for easy manual grasping by a person desiring to carry a unit of beverage containers.

A more specific object of this invention is to provide in certain forms of the invention can carrier devices which afford a substantial planar area for manufacturers and retailers to dispose suitable advertising matter to promote their products.

Another and more specific object of the invention is to provide a carrier for a plurality of container means which completely encases or covers one end of each of the individual containers to provide a dust seal and to form said cover in a manner so that a plurality of discrete individual covers are formed for each individual container. Said covers are preferably made so that they are normally interconnected one to the other for unitizing a plurality of containers, yet are detachable one from the other by a twisting motion whereupon a single container with a cover thereon may be removed from the remaining containers of the unit. The covers may serve as coasters for protection of table surfaces and the like.

Another object of the invention is to provide a plurality of detachable interconnected caps for individually encasing the top end surfaces of a plurality of beverage cans, the bottom surface of each of said individual caps being spaced from the top of the individual cans to define a chamber, so that after separation from a unit of cans and upon inversion of a capped disconnected can, the said chamber will serve as a collecting place for condensate that is formed on the side walls of the can. In this regard a communication means between the condensate chamber and the side walls of the can is provided, and this becomes a matter of some importance when it is considered that most beverage cans are previously chilled considerably below the temperature to which they are exposed during consumption. The resulting condensing of atmospheric water on the side walls provides a very real problem, particularly when the can also serves as a drinking utensil.

Another object of the invention is to provide a can carrier device which may be easily formed of elastic deformable plastic material by standard mass producing techniques and which may be applied to a plurality of cans by automatic food handling machinery, which is

relatively cheap to manufacture, and is otherwise well adapted for its intended purposes.

The novel features that I consider characteristic of my invention are set forth with particularity in the appended claims. The invention itself, however, both as to its organization and its method of operation, together with additional objects and advantages thereof, will best be understood by the following description of specific embodiments when read in connection with the accompanying drawings, in which:

FIG. 1 is an isometric perspective view of one embodiment of my novel carrier means;

FIG. 2 is an end view of the carrier means shown in FIG. 1;

FIG. 3 is a top view of a carrier means substantially identical to that shown in FIG. 1 except for the addition of integral web means between adjacent bead engaging means of the carrier means;

FIG. 4 is a sectional view taken along lines 4—4 of FIG. 3;

FIG. 5 is a sectional view taken along lines 5—5 of FIG. 3;

FIG. 6 is a cross-sectional view taken along lines 6—6 of FIG. 1;

FIG. 6*a* is an enlarged fragmentary sectional view of the bead engaging means utilized in FIGS. 1 and 3 shown in detached relation;

FIG. 7 is an isometric perspective view of an alternate type of handle usable with the cover means shown in FIG. 3;

FIG. 8 is an isometric perspective view of a modified form of my novel can carrier means;

FIG. 9 is a plan view of the can carrier device shown in FIG. 8 in detached relation relative to cans;

FIG. 10 is a sectional view taken along lines 10—10 of FIG. 8;

FIG. 11 is a sectional view taken along lines 11—11 of FIG. 9;

FIG. 12 is a plan view showing another modified form of my novel can carrier;

FIG. 13 is a top view of a strip of can carrier means employed as shown in FIG. 12, said can carrier means being shown in strip form so as to form a unit for carrying twelve cans if that is desired, there being shown semi-diagrammatic cutting lines for severing the webs between adjacent portions of the can carrier unit to make discrete six packs;

FIG. 14 is a sectional view taken along lines 14—14 of FIG. 13;

FIG. 15 is a plan view of a handle usable with the carrier means shown in FIGS. 12 and 13;

FIG. 15*a* is a sectional view taken along lines 15*a*—15*a* of FIG. 15;

FIG. 16 is an enlarged fragmentary sectional view taken along lines 16—16 of FIG. 13;

FIG. 17 is an isometric perspective view of another form of my novel can carrier means;

FIG. 18 is a top view of the can carrier means and cans shown in FIG. 17;

FIG. 19 is an isometric perspective view of still another form of my inventive concepts;

FIG. 20 is a top view of the form of my invention shown in FIG. 19;

FIG. 21 is a sectional view along lines 21—21 of FIG. 20;

FIG. 22 is a sectional view along lines 22—22 of FIG. 20;

FIG. 22*a* is a front elevational view of a handle means usable with the can carrier means disclosed in FIGS. 17 and 19;

FIG. 22*b* is a sectional view along lines 22*b*—22*b* of FIG. 22*a*;

FIG. 23 is an isometric perspective view of still another form of my inventive concepts;

FIG. 24 is an end view of the device shown in FIG. 23;

FIG. 25 is a plan view of the can carrier device shown in FIG. 23 in detached relation from the containers;

FIG. 26 is a partial front elevational view of the device depicted in FIG. 23;

FIG. 27 is a sectional view along lines 27—27 of FIG. 25;

FIG. 28 is a sectional view along lines 28—28 of FIG. 25;

FIG. 29 is an elevational view along lines 29—29 of FIG. 25, said figure being taken in an inverted relation and shown with an individual container;

FIG. 30 is a sectional view along lines 30—30 of FIG. 29;

FIG. 31 is a sectional view similar to FIG. 30 in reversed relation showing an alternate construction of the device depicted in FIGS. 23–30 inclusive.

Turning now to FIGS. 1–6*a* of the drawings, a plurality of container means 35, here shown as conventional beer or soda pop cans, is each formed with a generally cylindrical outer side wall 36 and an end portion wall 37. At the juncture of the side wall and end walls, a conventional bead 38 is formed, said bead having a bottom portion 39, a radially outward portion 40, a top portion 41 and a radially inwardly directed side portion 42. While the inventive concepts have been depicted with a generally cylindrical container means 35, it is to be expressly noted that thet inventive concepts apply with equal facility to containers of other and different configurations.

A recepacle or packaging device in the form of a carrier means 44 is adapted to fit over and snugly engage a group of individual containers 35. More particularly, the carrier means 44 is formed with a plurality of separate though interconnected bead engaging means 45 having a plurality of spaced teeth 52 in depending relation to the main portion of carrier means 44. The teeth 52 are formed in a manner to provide a partial annulus and are formed with a groove which has substantially the same dimension in a complementary conforming configuration to that of the bead 38. As perhaps best shown in an enlarged FIG. 6*a*, the individual bead engaging means 45 are formed with complementary portions for engaging the bead 38, there being a first portion 46 which comprises the inwardly directed surface of a thickened depending lip for engaging the bottom surface 39 of the bead, a second portion comprising a substantially vertical side portion 47 for engaging the radially outward side of the bead 40, a third portion 48 complementary to and engageable with the top portion 41 of the bead, and a fourth portion 49 comprising the inner wall which is adapted to engage portion 42 of the bead.

The lower depending end on the outside of the bead engaging means is formed with a cammed surface or edge 50 which assists in the initial assembly as will become apparent. It should be noted, at this point, that the cross sectional views, particularly with regard to the thickness of the materials are to be considered semi-diagrammatic rather than limiting, the precise thickness of the materials varying with the strength of the materials employed. Further, in some types of materials, the thickened lower outer lip portion which defines portion 46 and can edge 50 may not be necessary, a uniform cross-section being permitted at this point. It is important that the walls defining the portion 49 of the bead-engaging means engage as much of the inwardly-directed radial wall surface 42 of the bead as is practical with due regard to manufacturing tolerances. To this end, the portion 49 is formed with a slight bow or convex shape in cross-section so that snug engagement is assured in assembly. Further, it is important to have surface 43 on the depending lip be as close to the side wall as practicable so that portion 46 will underlie the bead portion 39.

As perhaps best illustrated by FIGS. 2, 3 and 5, the depending portions of individual bead-engaging means 45 do not have a common wall or web therebetween at the adjoining ends of the containers, and the individual con-

tainers are placed in abutting relation. Thus, the overall dimensions of the package are at a minimum since there is no matertial between adjacent cans to space the cans unnecessarily.

The individual bead-engaging means 45 are resiliently interconnected at the tops thereof by integral web portions 51 to unitize the plurality of containers. This is most conveniently done as shown in FIG. 5 by extending portion 48 of the bead-engaging means so as to cover the tops of two adjacent cans. The web portion may or may not be removed in the central area defined by four cans arranged in a square. In the form illustrated in FIG. 1, the web portion has been removed to define an open area 55 whereas in FIG. 3 the web remains and central apertures 54 have been disposed in the center of the web to accommodate handle means.

Various forms of handle means may be employed. One convenient form, as shown in FIG. 1 of the drawings, is of the type which comprises a generally rectangular wire member 56 which may be pre-assembled or may be inserted by the retailer. The handle is so formed that it goes completely around the three central webs 51 and may be conveniently grasped by the user to conveniently carry the containers as a unit. On the other hand, the U shaped quick detachable plastic handle 57 shown in FIG. 7 may be readily inserted in the apertures 54 in the carrier shown in FIG. 3. The flexible barbs 58 at the ends of the U shaped handle 57 are quickly inserted in the aperture yet resist regressive movement therefrom.

In this form of the invention, the central areas of the top walls 37 of the cans are exposed by blanking out the central material as defined by the individual bead-engaging means. This serves to conserve the amount of material that its utilized in manufacturing the carrier. Further, for stacking reasons, the outer periphery of the bead engaging means for the entire carrier is made "out of perfect round," as viewed in FIG. 3, such that at areas 59, the bead of the can is just barely exposed. Stated another way, the individual wall portions 49 are relieved at 59 by a plane tangential to the beads of the cans and parallel to the major and minor dimensions of the carrier in plan view at the outer perimeter of the carrier. It will be readily apparent, since this is done entirely around the periphery of the carrier 44, that the carrier 44 does not interfere with the packing dimensions of standard cases now employed. Thus, all the cans of adjacent units will be in abutting relation without the carrier interfering with, and increasing the transverse packing dimensions of, the units of containers.

The carrier means 44 is preferably made out of plastic material which is resilient, flexible and elastic and which will not readily tear. Polyethylene and polystyrene are preferred examples, but any other functionally similar material will serve equally well. In operation, the carrier means 44 may be conveniently fed to automatic machinery in elongated strip stock form or as discrete carriers and automatically inserted over units of cans by conventional food packing machinery.

When the individual bead-engaging teeth 52 are inserted over the beads 38, the inherent elasticity of the material allows outward deformation of the lower cammed rim 50 and portion 46 so that it may be conveniently forced over the bead 38. When surface portion 46 snaps into engagement with the underside portion 39 of the bead, the top portion 48 of the bead-engaging means will snugly engage the top 41 of the bead, and the carrier means will resist unauthorized separation of the individual container means from the carrier means 44. It will be noted that in the final assembly (as shown in FIG. 6), portions 46, 47, 48 and 49 of the bead engaging means 45 on the individual teeth 52 overlie and respectively intimately engage the complementary surfaces 39, 40, 41 and 42 of the bead 38. To remove the individual containers 35 from the bead engaging means 45, the individual containers may be grasped and twistingly pulled so as to forcibly detach the container from the unit.

Another important function results from the inherent elasticity of the material employed in the carrier 44 as it relates to the interconnecting portions, i.e. the webs 51. More particularly, they serve to absorb and dampen impact shocks, both by maintaining a separation of the units into individual though connected units, and by virtue of the characteristics of the resilient material employed per se. This is important because in ordinary handling of the units when they are packaged in, for example, a case lot containing eight discrete units of six packs or the like, it is very usual that the cases will be subjected to dropping distances of three to five feet. Without the resilient interconnection, it has been found, particularly where rigid covers or clips have been used, that a drop of three to five feet will often cause a case to burst open due to the impact shock.

It is within the contemplation of this invention that the bead engaging means 45 may be formed so as to engage two containers 35*a* in back to back relationship. Such an embodiment of the invention is shown and illustrated in FIGS. 8 to 11. In these figures, corresponding parts are identified by the use of similar numerals with the addition of the suffix *a*. More particularly, the bead-engaging means 45*a* of a carrier 44*a* is formed with a plurality of progressive alternately disposed Z shaped teeth 62 and 63. Z shaped tooth 62 has an inner depending tooth portion 64 (as viewed in FIG. 10) for engaging bead portion 42*a* of the lower can and an outer upwardly extending tooth portion 65 for engaging portions 40*a* and 39*a* of the upper can. Conversely, the next adjacent tooth 63 has an inner upwardly extending tooth portion 66 for engaging portion 42*a* of the upper can and a depending outer tooth portion 67 for engaging portions 40*a* and 39*a* of the lower can. The alternate teeth 62 and 63 are conveniently formed entirely around the periphery of the annulus-shaped carrier 44*a* four of such teeth being shown, but any convenient number may be formed as suitable and desired. It will be noted that portion 48*a* of the carrier 44*a* engages end surfaces 41 of each of the upper and lower cans. It will also be apparent that a substantially similar form of the invention shown in FIGS. 8 through 11 may be conveniently made of sheet metal rather than the plastic shown, if this construction is desired.

The embodiment shown in FIGS 12 through 16 is substantially similar to FIG. 8 in concept except that it is applicable to the unitizing of a plurality of cans such as six or twelve in number. In these figures, corresponding parts are identified by the use of similar numerals with the addition of the suffix *b*. More particularly, a plurality of separate bead-engaging means 45*b* are placed in side by side parallel relation as shown in FIG. 13. The bead-engaging means has a substantially continuous outer wall portion; however, it will be noted that extending and depending portions which define portions 46*b*, 47*b*, 48*b*, and 49*b*, and 46*b'*, 47*b'*, 48*b'* and 49*b'* are periodically interrupted around the inner periphery by grooves 70. The groove 70 serve to identify a plurality of separate teeth 52*b* around the bead-engaging means 45*b* and allow easier deformation of the material for assembling over the beads of the cans. Thus, when the material must deform in order to receive the beads, the stock may be forced into the area left open by the grooves without causing as great a distortion upon the entire bead-engaging means as would occur if the grooves 70 were not employed.

As shown in FIGS. 12 and 13, the webs adjacent either side of the middle can may be made into a looped form 69 to accommodate a handle, such as 73. The handle 73 is generally U shaped and formed of thin plastic having an enlarged head portion 74. The head portion 74 is adapted to be inserted within the spaced loops 69 and lie flat against the center can as shown in FIG. 12.

Since the handle is flexible, it is easily moved by the user into an upright position for conveniently carrying six units.

The can carrier means 44*b* shown in FIG. 13 will accommodate twelve separate container means or cans, six on each side in back to back relation. When it is desired to make discrete six packs, the web portion 51*b* may be severed along line 71 so as to define two separate six packs. This may be done either by automatic machinery at the point of initial assembly or may be conveniently done by the retailer if this is desired.

It will also be apparent that the cover means 44*b* is formed with a central planar dust cover portion 72 which separates and protects the tops 37*b* of the cans. Depending upon the strength of materials used, and cost considerations, this central portion 72 may be removed if desired to conserve material.

Another form of the invention is shown in FIGS. 17 and 18. In this embodiment similar parts are identified by similar numerals with the addition of the suffix *c*. As shown, the carrier 44*c* is substantially disc-like in shape, having a bottom surface which is formed with four curvilinear grooves which serve as bead-engaging means. The configuration of the bead-engaging means as is shown in FIG. 21, is complementary to the bead. The center of each bead-engaging means 45*c* is interrupted by a groove 70*c* similar to that shown in cross-section in FIG. 21 and identified by the reference numeral 70*d*. Any number of grooves, such as 70*c* may be placed upon the individual bead-engaging means 45*c* to define separate tooth portions, however, only one groove 70*c* is necessary in most materials and is preferably located at the midpoint of the individual bead-engaging means. It will be further noted that the individual bead-engaging means 45*c* of carrier 44*c* entends substantially over one quadrant of each individual container. This is adequate for good secure retention of four containers placed in the configuration shown.

The disc-like carrier 44*c* is preferably formed with a central aperture 76 which extends completely therethrough. A handle such as illustrated in FIG. 23, which is substantially a closed loop with depending straight end portions having flexible barbs 81 therein may be quickly inserted into the aperture 76, the barbs resisting regressive movement and thus the group of four containers may be conveniently carried by the consumer.

Another embodiment of the invention very similar to that shown in FIGS. 17 and 18 is shown in FIGS 19 through 22. In this embodiment similar numerals identify similar parts with the addition of the suffix *d*.

The device depicted in FIG. 19 through 21 is essentially the same concept as shown in FIGS. 17 and 18 except that it is adapted to be associated with a plurality of containers, such as six and to this end a double disc in a "dog bone" shape is employed, there being a plurality of fingers 78 which extend outwardly at spaced intervals around the perimeter of the discs for engagement with the top portions 37*d* of the cans to prevent tilting movement thereof. The grooves 70*d* placed on the bead-engaging means 45*d* are similar to those discussed relative to FIG. 18 and are shown most clearly in cross-section in FIG. 21. The fingers 78 have a generally tapered configuration and have a central thickened rib 79 which tends to strengthen the fingers 78. The fingers 78 preferably extend completely across the individual tops of the individual cans to engage the surface 42 of the bead at its far extremity from the central disc portions. The same handle 80, above discussed, may be inserted in spaced central apertures 76*d* by spreading the ends and inserting the separate ends in the holes, the inherent elasticity of the material causing the barbs 81 to engage the back side of the disc. In this form of the invention, it is preferred that the aperture 76*d* be made of slightly smaller size than that shown in FIG. 18 to accommodate a single leg of the handle 80. It is, of course, possible to use any of a number of other types of handles, for example, the U shaped handle shown in FIG. 7 of the drawings. Further, the apertures 76*d* may be enlarged for a "bowling ball" grip if desired.

Another embodiment of the invention is illustrated in FIG. 23 to 30. In these figures corresponding parts are identified by the use of similar numerals with the addition of the suffix *e*. The essential distinctions of this embodiment over the foregoing centers about the individual bead-engaging means 45*e* which are peripherally continuous around the outer perimeters thereof, each individual bead engaging means 45*e* being separated one from the other by a preweakened integral web means 51*e*. Thus, there is a distinct spaced relationship between the individual containers when they are assembled affording the canting of the cans in both a horizontal and in a lateral direction as shown by FIGS. 24 and 26 when a handle means 89 is grasped by the user and the containers are supported by the handle means. The web portion 51*a* is, as aforesaid, pre-weakened by being formed with a plurality of sewing stitch type of immediately adjacent each individual bead-engaging means. The sewing stitch type of apertures 83 are preferably spaced a sufficient distance such as to resist accidental tearing of the individual bead-engaging means one from the other, yet affording separation upon a twisting motion so as to permit removal of the individual containers one by one from the remaining containers.

It should be noted that upon separation of an individual container from the unit, the cover formed by the individual bead-engaging means is well adapted to become a coaster, it merely requiring that the container be inverted.

To facilitate collection of condensate 88 which often forms on beverage containers upon being removed from a chilled atmosphere to an ambient temperature, a chamber 86 may be conveniently formed between a planar base or the top 84 of the cover which is integral with the individual containers. It is particularly important in this regard that a communication means 70*e* in the form of grooves afford a communication between the chamber 86 and the underside of the rim of the bead intermediate the bead-engaging means. Thus, the groove 70*e* must extend completely through the bead-engaging means to afford easy passage of condensate. This presents no problem when there is no inner rim or rib portion such as 87 as shown in FIG. 30, however, in an embodiment such as FIG. 31 where there is an inner rib 87 defining a portion 49*e* that engages the inner-radial wall 42*e* of the bead, it is important that the communication means in the form of the groove 70*e* extend completely through the inner rim 87 to afford easy passage of the condensate.

As shown in FIG. 30, the slots or grooves 70*e* may be molded integrally into the portions 46*e*, 47*e* and 48*e* of the bead-engaging means 45*e* and serve the dual purpose of providing spaced teeth 52*e* affording room for the expansion of the material of the cover for insertion over the bead and also serve as a communication means intermediate the bead and the bead-engaging means for free passage of condensate. It should also be noted that cam surface 50*e* is adapted to channel the water or other condensate that forms on the side walls to the passageways 70*e*. This prevents the condensate from running over the outer edge of the bead-engaging means onto a table surface.

The upper outer surface of the planar base or top 84 may be formed with a stacking rim 85 which is approximately the same or slightly smaller diameter than the internal diameter of the beads 38. Thus, the stacking rim 85 serves the dual functions of providing a locating surface for stacking the next adjacent unit of containers in a carton and of spacing the portion 84 from a flat surface when the cover has been detached and is being used as a coaster.

The embodiment shown in FIG. 31 is identical to that

shown in FIGS. 23 to 30 except that the inner rib or depending rim portion 87 is molded integrally with the individual cover means to facilitate a tighter connection for engaging the individual beads and thus affording the use of different materials as compared to that required in the embodiment shown in FIG. 30. As aforenoted, the weep holes or communication means 70*e* must extend through the rib 87 in a manner to allow easy collection of condensate.

As shown in FIGS. 25 and 26, the carrier 44*e* is well adapted to use a generally U shaped handle 89 with offset end portions 90. These may be conveniently inserted in apertures 76*e* in the web portion 51*e*. It is readily apparent that this structure also allows the use of the type of handle 57 as shown in FIG. 7 of the drawings, and further will accommodate the handle 56 shown in FIG. 1 of the drawings.

Although specific embodiments of the invention have been shown and described, it is with full awareness that many modifications thereof are possible. The invention, therefore, is not to be restricted except insofar as is necessitated by the prior art and by the spirit of the appended claims.

What is claimed as the invention is:

1. A packaging device of resilient deformable material for engaging axially and radially projecting peripheral beads of a plurality of containers and providing means for transporting the containers; and comprising a plurality of bead-engaging socket means in the material; each socket means comprising a circumferentially continuous top portion to overlie the top of a container bead, and tooth formations depending from said top portion and circumferentially spaced around the periphery thereof to engage the outer and the under surfaces of a container bead; web means connecting adjacent socket means between adjacent tooth formations; and said packaging device including handle means.

2. A packaging device as claimed in claim 1, wherein each socket means includes an inner circumferentially continuous flange to engage the inner surface of a container bead.

3. A packaging device as claimed in claim 1, wherein there is provided a circumferentially continuous outer flange depending from said top portion and inwardly from which said tooth formations extend.

4. A packaging device as claimed in claim 3, wherein there are provided cover portions within each of the socket means for covering the tops of containers carried thereby.

5. A packaging device as claimed in claim 4, wherein the closure portions are adapted to provide supporting coasters for upended containers.

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