United States Patent [19]

Klygis

[11] **3,860,112**

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[54] **BOTTLE CARRIER**

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[52] **U.S. Cl.**..... **206/151,** 206/162, 294/87.2

[51] **Int. Cl.**..... **B65d 75/00**

[58] **Field of Search**..... 294/87.2; 224/45 A, 45 AA; 206/139–162, 199, 428, 429

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Primary Examiner—William I. Price
Assistant Examiner—Stephen P. Garbe
Attorney, Agent, or Firm—Edward L. Benno; Robert W. Beart

[57] **ABSTRACT**

A carrier for a plurality of bottles having enlarged cap portions and arranged in two rows. The carrier is made from a resilient deformable plastic sheet material and preferably as two flat blanks with the blanks placed one on the other and joined along a central bight portion. The joined blanks are folded and mechanically locked into two integral side-by-side prism-like members in which the end faces are triangles by simple tabs and tab receiving apertures provided on the blanks. An integral hand assembly is formed in the upper blank and serves to provide a convenient carrying handle for the carrier and plurality of bottles secured in the carrier. Aligned apertures through the base and apex of each of the prism-like members of the carrier provide an interlocking relationship of the carrier with the bottles such that the side walls of the prism-like members of the carrier are resiliently bowed outwardly to project opposed marginal edges of the apertures in the apex of the prism-like members of the carrier firmly against the underside of the cap portion enlargements of the bottles and with the marginal edges of the apertures in the base of the prism-like members of the carrier being firmly circumferentially urged downwardly against the diverging neck portions of the bottles. The bottle gripping apertures in the apex of each of the prism-like members of the carrier are defined between straight-edged segments at one marginal edge of the lower blank and the inner marginal edges of apertures in an overlapped section of a side portion of the upper blank. The tabs which extend from the opposite marginal edges of the overlapped sections of the upper blank and engage tab receiving apertures in the outer walls of the prism-like members of the carrier may be simply pulled from those apertures and the apertures of the overlapped sections, which are larger than the enlarged cap portions of the bottles, may then be raised over and above the enlarged cap portions of the bottles to permit the carrier to be easily lifted from the bottles. The carrier may be reused by interlocking the tabs in the tab receiving apertures to again form the prism-like members and by projecting the carrier downwardly over the bottles until the apex apertures snap below the enlarged cap portions of the bottles.

16 Claims, 10 Drawing Figures

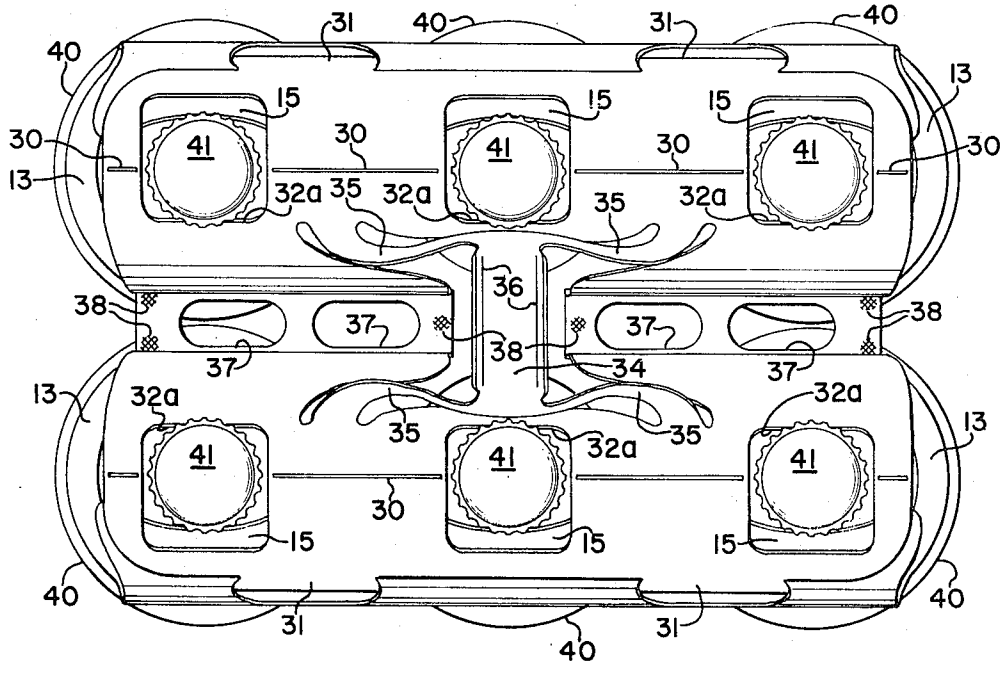
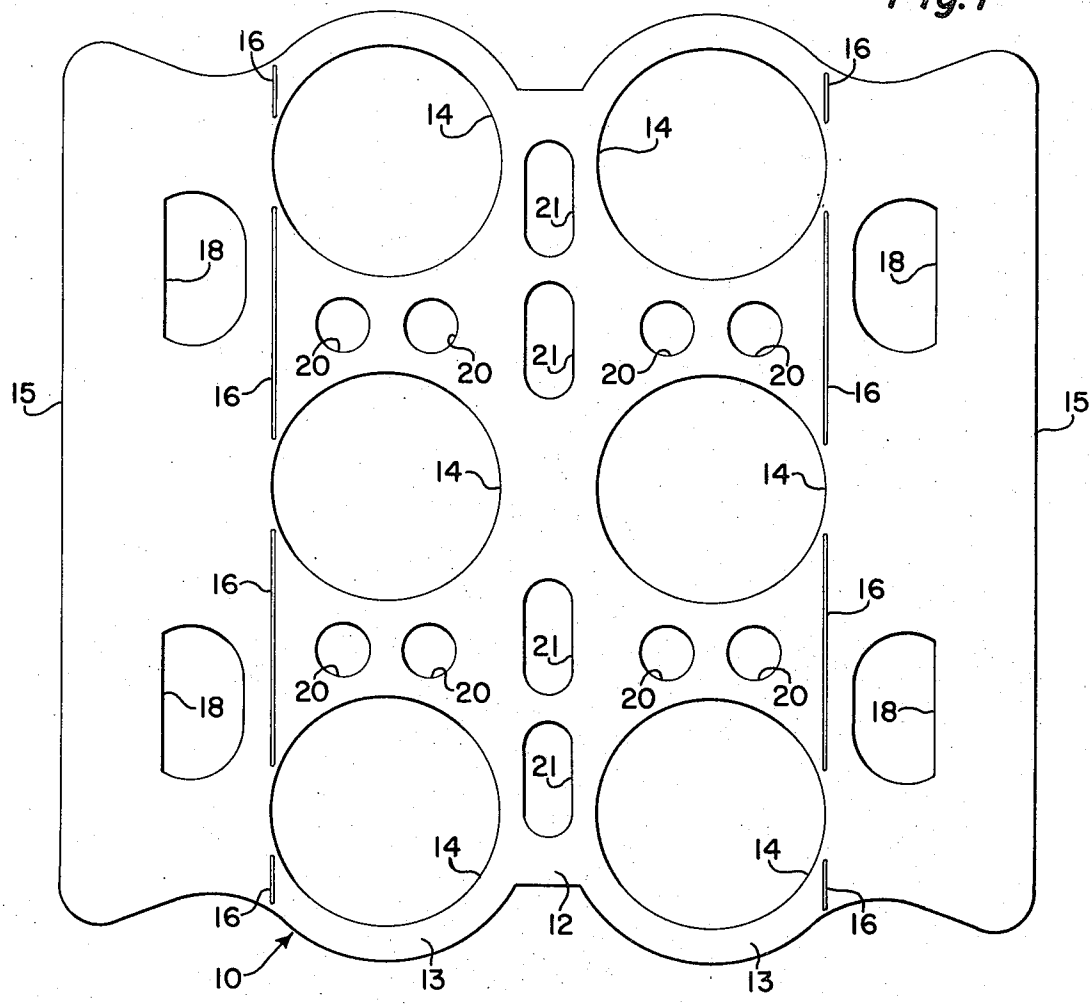


Fig. 1


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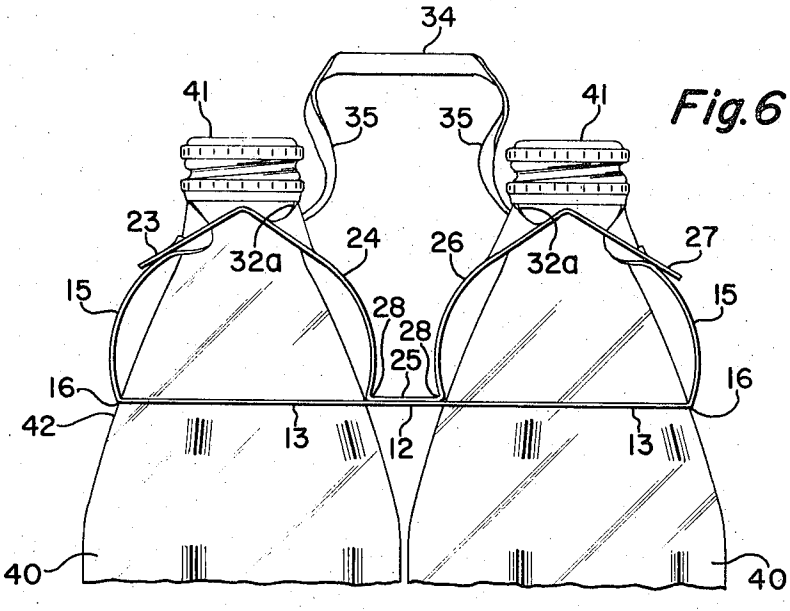

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Fig. 6

Fig.2

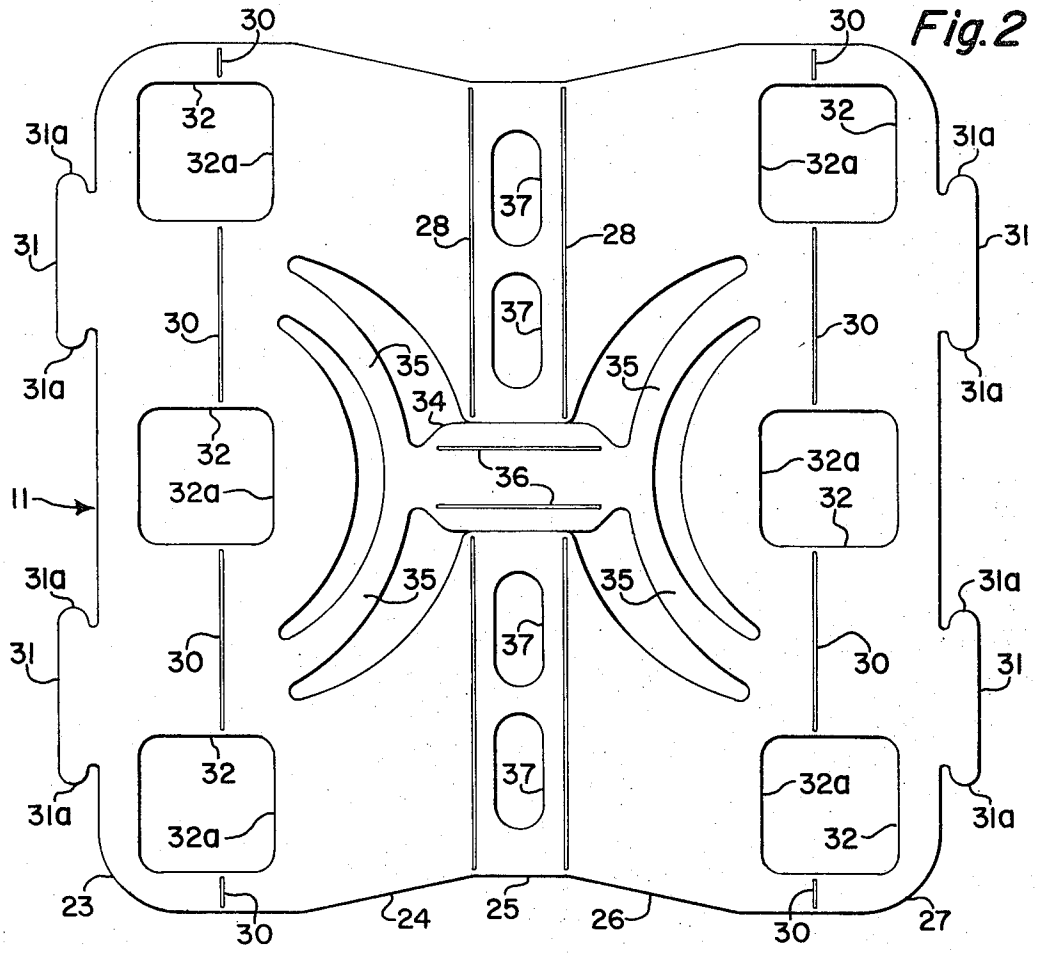

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Fig.3

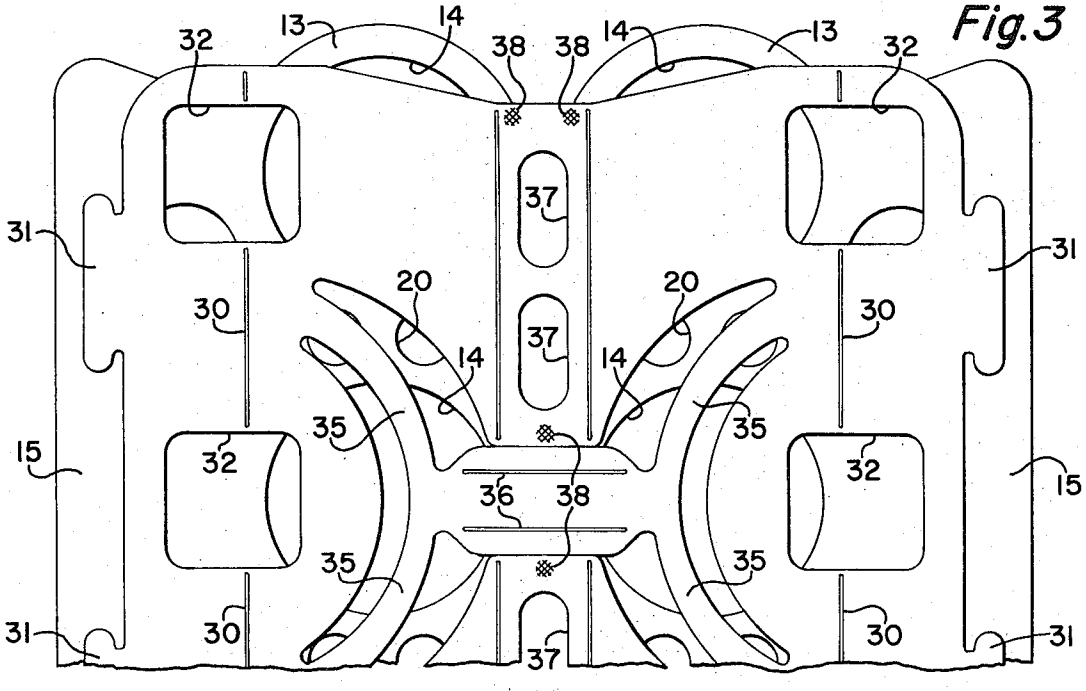

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Fig.4

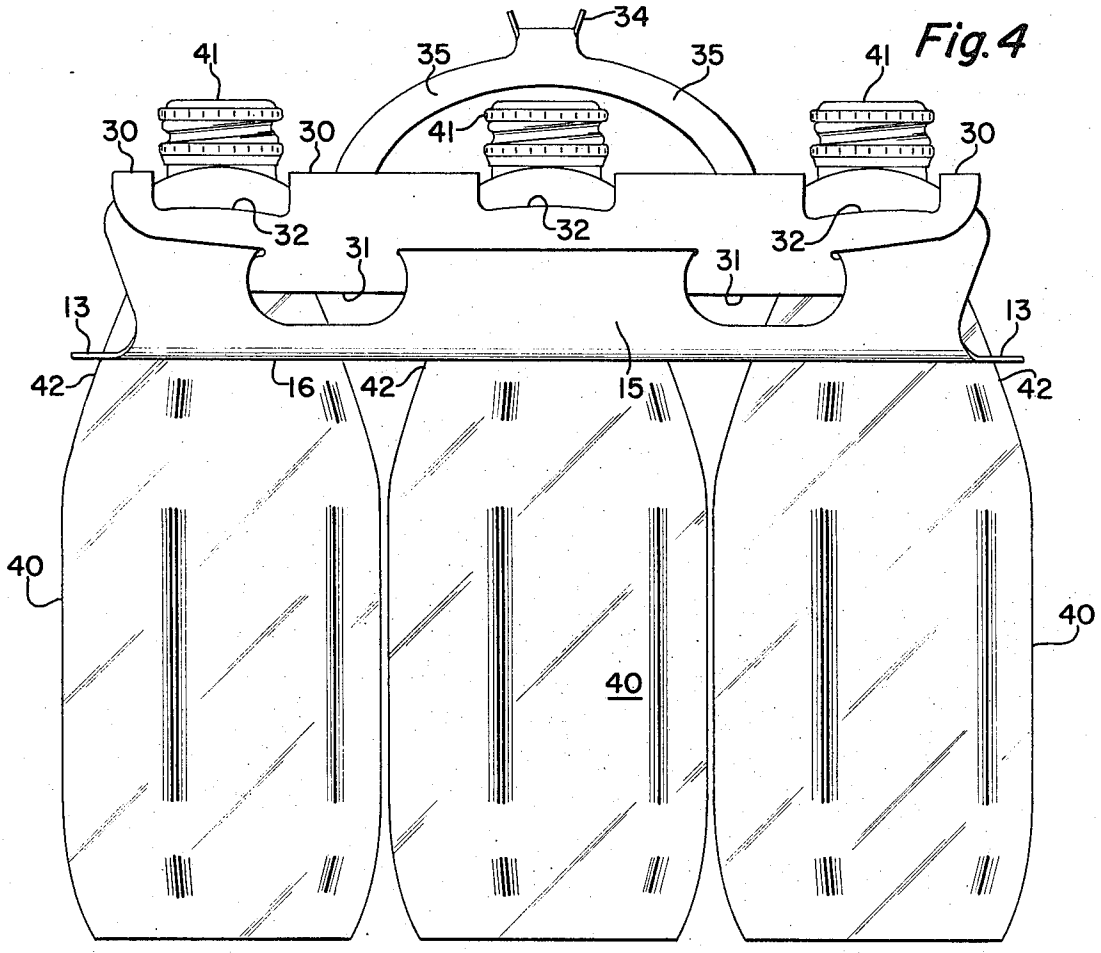

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Fig.5

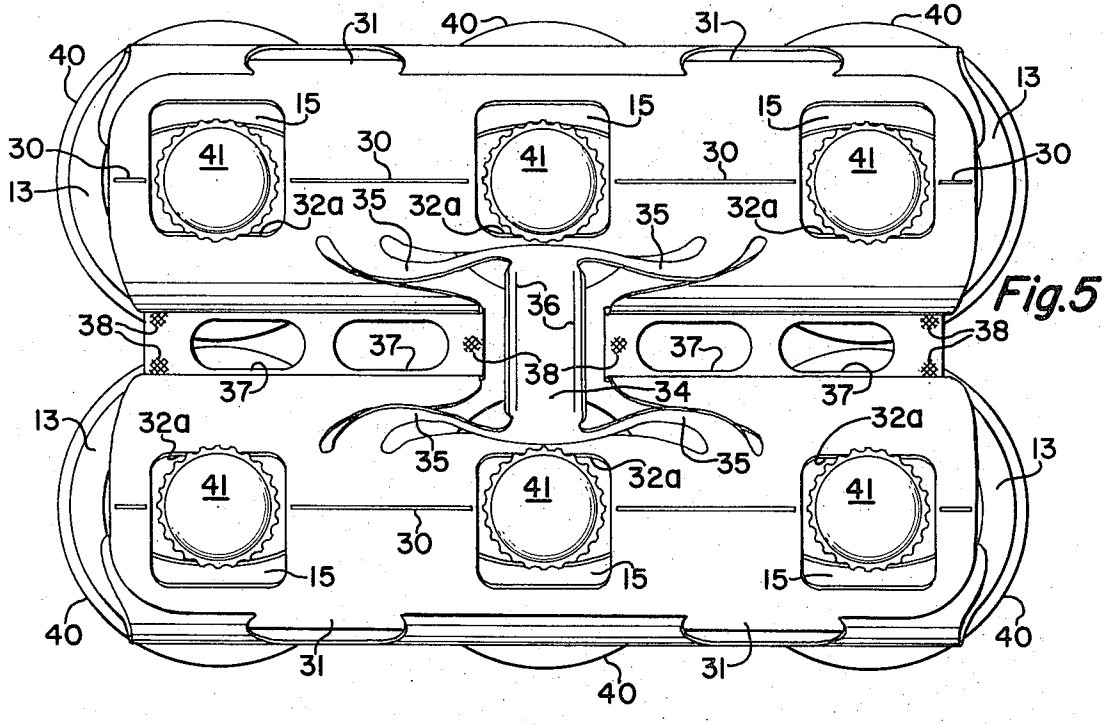

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Fig.7

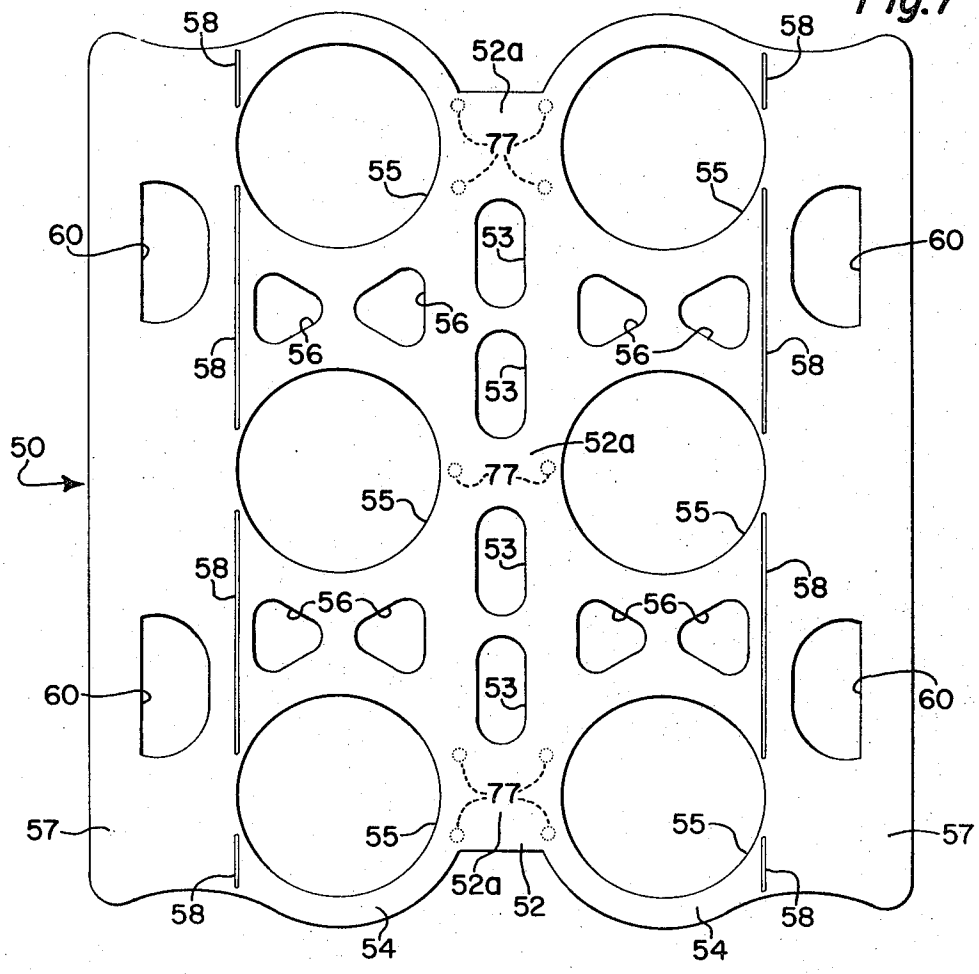

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Fig.10

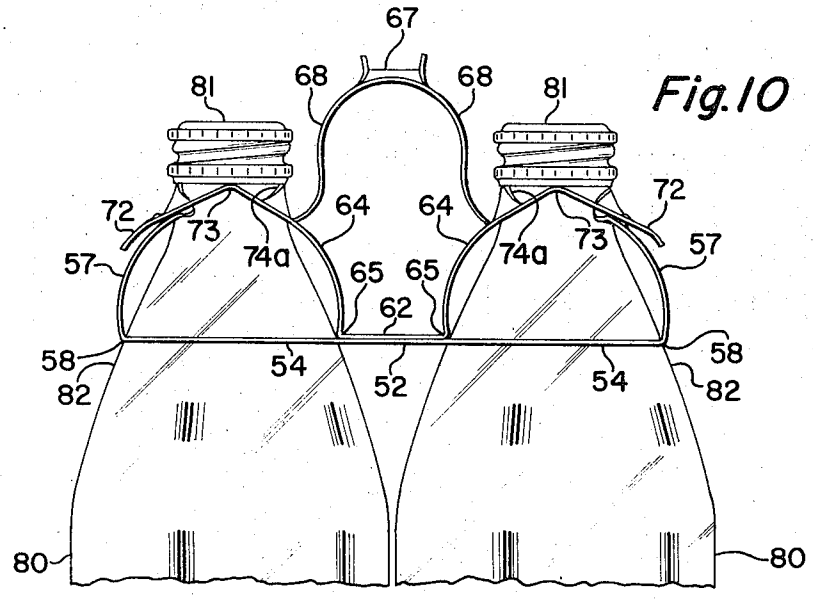

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Fig.8

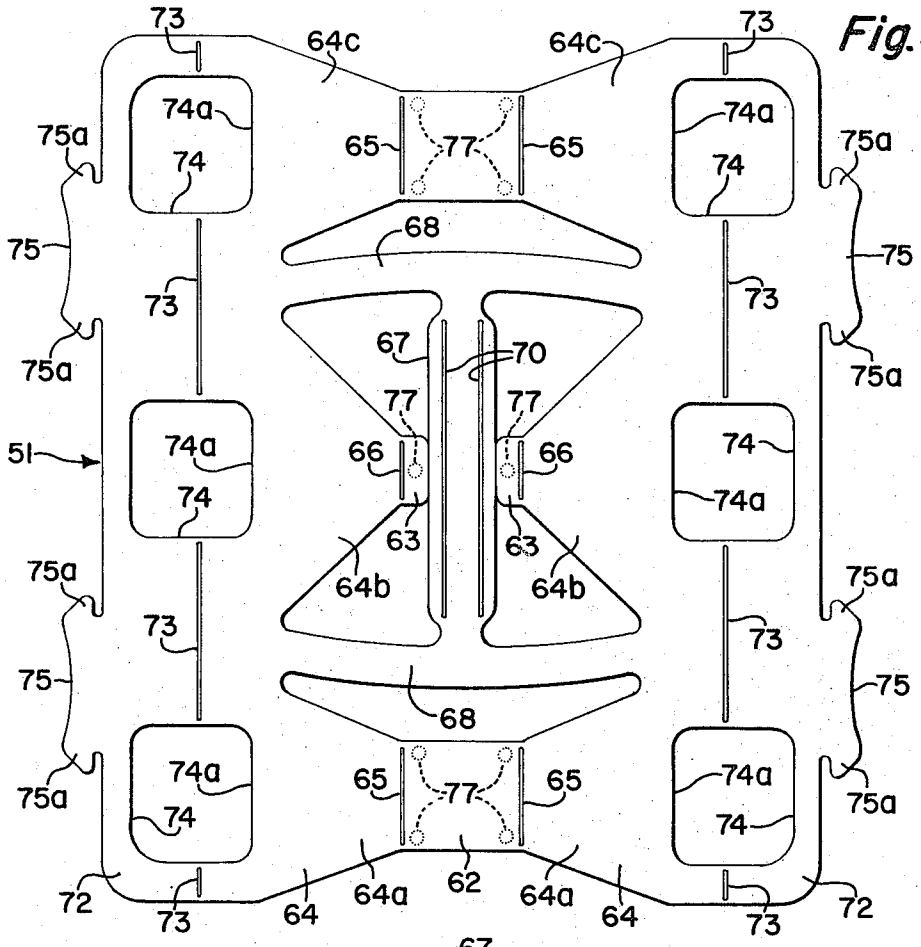
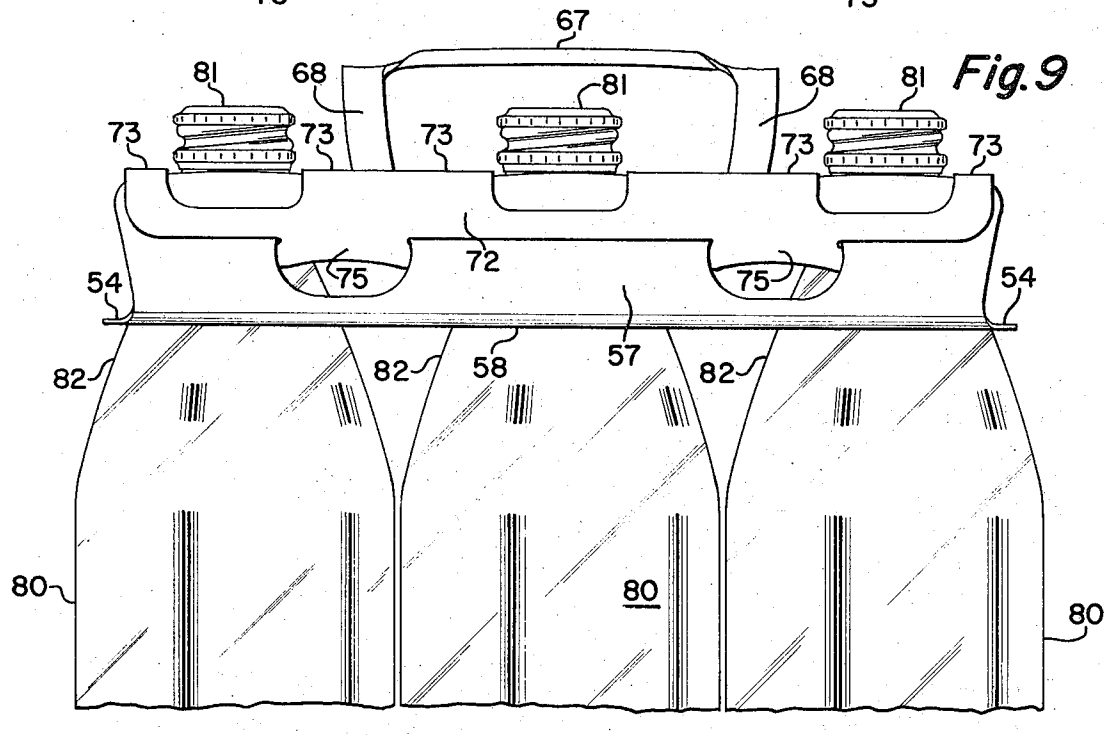

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Fig.9


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BOTTLE CARRIER

BACKGROUND OF THE INVENTION

The subject invention is directed to carrier constructions for a pluality of bottles arranged in two rows and particularly for beverage bottles which have enlarged cap or crown portions and downwardly enlarging or diverging neck portions beneath the cap portions. The invention is further directed to such carriers in which the bottles are held by the neck portions thereof and depend or hang from the carrier in the transport of the resulting package. The invention is additionally directed to such carriers which may be conveniently reused. In other words, carriers which after having been removed from the bottles may be easily manually reassembled and placed on the bottoles to form a convenient package, such as, for example, in the returning of empty bottles to a store from which the original package had been purchased.

SUMMARY OF THE INVENTION

The carrier of the invention is a simple and economical carrier that can be used and reused for carrying returnable or nonretrunable bottles and is intended for use with a plurality of bottles having englarged cap portions and arranged in two rows. The carrier firmly holds the bottles by the neck portions thereof in a depending condition. The carrier is made from a resilient, deformable plastic sheet material, such as high density polyethylene. The carrier is preferably made from two blanks which have been cut or otherwise punched from the sheet material. One of the blanks is placed upon the other blank, and the two blanks are joined together by some fastening means such as heat sealing at various spaced apart positions along central bight portions of the blanks.

The bottom blank has two rows of apertures disposed on each side of the central bight portion, and side sections contiguous to and on opposite sides of the sections having the apertures.

The top blank is provided with two inner side sections contiguous to and on opposite sides of the central bight portion. A handle arrangement is formed in the two inner side sections and the central bight portion of the upper blank. Outer side sections contiguous to the inner side sections and connected thereto along integral fold lines are further provided on the upper blank. The outer marginal edges of the outer side sections of the upper blank are provided with tabs for interlocking cooperation with appropriate tab receiving apertures provided in the side sections of the lower blank. The outer and inner side sections of the upper blank are further provided with a plurality of apertures which intersect the fold lines between the outer and inner side sections. Those apertures are larger in every dimension than the enlarged cap portions of the bottles intended to be associated with the carrier.

When the upper blank is secured to the lower blank along the central bight portions thereof, the inner side sections of the upper blank may be folded away from the central bight portion to angled positions upwardly and outwardly of the plane of the lower blank. The outer side sections of the lower blank may be folded upwardly and inwardly from the central bight portion and apertured sections thereof. The outer side sections of the upper blank may then be folded downwardly in

an overlapping arrangement of the upwardly and inwardly angled side sections of the lower blank, and the tabs of the upper blank may then be projected into the tab receiving apertures in the side sections of the lower blank. In that arrangement two prism-like members having triangular end faces will be formed with the prism-like members disposed contiguous to and extending longitudinally on each side of the central bight portions.

The handle is positionable out of the planes of the inner side sections of the upper blank to define a convenient carrying handle for the carriers.

In the foregoing described interlocked relationship of the blanks, apertures are defined in the apexes of the prism-like members. Those defined apertures are disposed on the axes of the respective base apertures in the lower blank.

The opposed sides of the apex apertures which are aligned longitudinally of the prism-like members are spaced apart a distance substantially less than the largest diameter of the enlarged cap portions of the bottles intended to be associated therewith.

The carrier is applied to two rows of bottles merely by projecting it downwardly over the tops of the bottles. In the initial projection of the carrier downwardly over the bottles, the base of the carrier, which has the base apertures therein, engages the enlarging or diverging neck portions of the bottles substantially below the cap portions. In the further downward projection of the carrier over the bottles, the transversely opposed sides of the apex apertures are deformed and cammed over the enlarged cap portions of the bottles to lock beneath the cap portions. In the locking of the apex apertures beneath cap portion enlargements, the transversely opposed side edge portions of the apex apertures are bowed outwardly, and by virtue of the resiliency of the material, those bowed side edges firmly engage the neck portions of the bottles beneath the enlarged cap portions. Further in the locking of the apex apertures beneath the enlarged cap portions of the bottles, the lonigtudinally extending inner and outer side walls of the prism-like members are bowed outwardly and, by virtue of the resiliency of the material, the opposed side edges of the apex apertures are urged upwardly and inwardly into firm locking engagement with the underside of the cap portion enlargements while the marginal edges of the base apertures are urged firmly downward and circumferentially about the enlarged neck portions of the bottles to firmly hold the bottles in axial parallel alignment against pivoting to provide a safe and convenient package which may be manually carried.

The resulting package is carried by grasping the handle means which are connected between the inner side wall sections of the prism-like members. In carrying the package the bottles are retained in a firm depending condition from the carrier.

The resulting package is easily opened to remove the bottles from the carrier by pulling the tabs from their interlocking apertures. The overlapping outer side sections of the upper blank may then be raised from the enlarged cap portions of the bottles and the opened carrier is then merely lifted from the bottles.

The carrier of the invention is also easily reassembled for carrying bottles, such as for returning empties to the store, by overlapping the outer side sections of the upper blank over the side sections of the lower blank, and manually snapping the tabs into their interlocking

apertures. The carrier is then merely pushed downwardly over the bottles as previously described to again lock the carrier and the bottles together as a package.

The primary object of the present invention is to provide a simple reuseable carrier for a plurality of beverage bottles arranged in two rows in which the bottles have enlarged cap portions and downwardly diverging neck portions, in which the carrier is easily assembled into a locked condition for application to the bottles, in which the carrier is easily manually unlocked for removal of the bottles, and in which the carrier in the locked and applied condition to the bottles, will firmly hold the bottles in two rows for hand transport by gripping the handle with the bottles in a depending condition from the carrier.

Other objects and features of the invention will be apparent upon perusal of the hereinafter described specification and drawings.

DESCRIPTION OF THE DRAWINGS

FIG. **1** is a plan view of the lower carrier blank constructed according to the invention;

FIG. **2** is a plan view of the upper carrier blank constructed according to the invention;

FIG. **3** is a fragmentary plan view of the carrier of the invention with the upper blank secured to the lower blank;

FIG. **4** is a side elevational view of a package of the carrier and a plurality of bottles assembled and interlocked according to the invention;

FIG. **5** is a top plan view of the package of FIG. **4**;

FIG. **6** is a fragmentary end elevational view of the package of FIG. **4**;

FIG. **7** is a plan view of another embodiment of the lower carrier blank constructed according to the invention;

FIG. **8** is a plan view of another embodiment of the upper carrier blank constructed according to the invention;

FIG. **9** is a fragmentary side elevational view of a package with the assembled and interlocked carrier of FIGS. **7** and **8** applied to a plurality of bottles; and

FIG. **10** is a fragmentary end elevational view of the package of FIG. **9**.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

In both embodiments of the invention shown in the drawing and described hereinafter, the upper and lower carrier blanks are formed from a plastic sheet material. The invention contemplates that the sheet material thickness need not be the same for the upper and lower carrier blanks. In reduction to practice of the invention, one suitable material has been found to be high density polyethylene in sheet thicknesses of 0.025 to 0.032 inches. High density polyethylene has the proper resiliency and deformability to permit the carrier blanks to be folded and locked into the assembled condition, to effectively interlock with a plurality of bottles, to be easily disassembled and removed from the bottles, and to be easily reassembled for repeated use.

The embodiments of the invention shown in the drawing are for six bottles arranged in two rows of three bottles. As will be apparent from the detailed description, the carrier may be varied by one skilled in the art to accomodate a smaller or greater number of bottles in two rows.

In the first embodiment of the invention the lower carrier blank **10** is shown in the flat condition as formed in FIG. **1**, and the upper carrier blank **11** is shown in the flat condition as formed in FIG. **2**.

The lower blank **10** has a central bight portion **12** extending longitudinally thereof. Integral with and on each side of the center bight portion **12** are apertured sections **13**. Each apertured section **13** is provided with three longitudinally spaced-apart apertures **14**. The apertures **14** have a diameter substantially larger than the cap portions of the bottles intended to be associated therewith and large enough to engage the diverging neck portions of the bottles below the cap portions. The apertured sections **13** and the central bight portion **12** may be defined as the base of the carrier. Side sections **15** are contiguous to and integral with the aperture sections **13** along fold lines **16**. The side sections **15** are each provided with a pair of tab receiving apertures **18** positioned in a spaced-apart relationship longitudinally of the side sections **15**. The apertured sections **13** and the central bight portion **12** of the lower blank **10** are further provided with openings **20** and **21** for reducing the material requirements of the carrier.

The upper carrier blank **11** comprises five sections, **23, 24, 25, 26,** and **27,** which extend longitudinally of the blank **11**. Central bight section **25** is positioned longitudinally centrally of the blank **11** and is provided with a plurality of material reducing openings **37**. Sections **24, 26** which may be defined as inner side sections of the carrier are contiguous to the central bight section **25** along fold lines **28**. Sections **23** and **27** which may be defined as outer overlapping side sections of the carrier are contiguous to the inner side sections **24** and **26** along fold lines **30**. The outer longitudinal marginal edges of the overlapping sections **23** and **27** are provided with tabs **31**. Each of the tabs **31** is provided with ears **31***a* which extend in opposite directions longitudinally of the blank **11**. The invention contemplates that the tabs **31** and ears **31a** may have other shapes such as an arrowhead shape.

The fold lines **30** between sections **23, 24,** and **26, 27,** are each discontinuous by virtue of three apertures **32**. Three apertures **32** are disposed between sections **23** and **24** and three apertures **32** are disposed between sections **26** and **27**. Each of the apertures **32** is larger in every dimension than largest diameter of the enlarged cap portions of the bottles intended to be associated with the carrier. Substantially less than half of each aperture **32** is disposed within sections **24** and **26**. The inner marginal edge **32***a* of each aperture **32** is within respective ones of the sections **24** and **26,** and each edge **32***a* is a substantially straight line segment. Each edge **32***a* is spaced from the respective fold line **28** a distance which is substantially equal to the distance between the fold lines **16** and the respective outer marginal edges of the side sections **15** of the lower blank **10**. The invention contemplates that the outer marginal edges of the sections **15** which are not in transverse alignment with the apertures **14** need not be continuous straight lines, but may be interrupted or otherwise formed.

The handle assembly, comprising the handle **34** and arms **35,** is cut or otherwise punched from the inner side sections **24** and **26** and the central bight section **25** of the upper blank **11**. The handle **34** extends transversely of the blank **11** substantiallly at the longitudinal center thereof, and the four arms **35** are integrally

formed, one pair at each end of the handle **34** with each pair extending in opposite curved directions to integral connections in the inner side sections **24** and **26.** The handle **34** is provided with the two parallel spaced-apart fold lines **36** which permit the longitudinal side marginal edge portions of the handle **34** to be folded upwardly for comfortable carrying of the resulting package upon a person's fingers.

The carrier is initially assembled by positioning the upper blank **11** on top of the lower blank **10** substantially as shown in FIG. **3** with the central bight section **25** of the upper blank **11** aligned on top of and in registry with the bight portion **12** of the lower blank **10.** The central bight section **25** of the upper blank **11** has substantially the same length as the central portion **12** of the lower blank **10,** and the width of the central bight section **25** is substantially equal to or slightly less than the distance between the inner edges of transversely opposed apertures **14** of sections **13.** The central bight section **25** of the upper blank **11** is secured to the central bight portion **12** of the lower blank **10** by appropriate fastening means, such as heat seals. A number of such heat seals **38** are shown in FIG. **3.**

When the central bight section **25** and bight portion **12** are disposed and secured as described, the openings **37** are in substantially axial alignment with the openings **21.**

In folding and further interlocking the blanks **10** and **11** to completely assemble the carrier, the inner side sections **24** and **26** of the upper blank **11** are folded upwardly and outwardly along fold lines **28.** The outer side sections **23** and **27** of the upper blank **11** are folded downwardly and outwardly along fold lines **30.** The outer side sections **15** of the lower blank **10** are folded upwardly and inwardly along fold lines **16.** The sections **23** and **27** are caused to overlap the outer upper portions of the side sections **15** of the lower blank **10,** and the tabs **31** are then inserted into the tab interlocking apertures **18** to releasably lock the carrier into the shape of two side-by-side longitudinally extending prism-like members having triangular end faces. It should be noted that the tab apertures **18** must be positioned in the outer side sections **15** to receive the tabs **31** to lock the carrier into its completed shape as described.

Further, by virtue of the angled position of the sections **24** and **26,** the handle **34** and the arms **35** may be drawn upwardly substantiallly as shown in FIGS. **4** and **6.**

In the completely assembled condition of the carrier, the two prism-like members have bases which are defined by sections **13** and are separated by central bight portion **12.** The inner side walls of the prism-like members are defined by inner side sections **24** and **26** of upper blank **11.** The outer side walls of the prism-like members are respectively defined by lapped and interlocked wall sections **23** and **15,** and **27** and **15.** The straight edge sections **32***a* of the apertures **32** and the opposed straight sections of the outer marginal edges of the sections **15** define apertures in the apex of each prism-like member which are axially aligned and above respective ones of the apertures **14.** The dimension of those apex apertures, measured in a direction transversely of the carrier, is substantially less than the diameter of the enlarged cap portions of the bottles intended to be associated therewith.

With the carrier in the completely assembled condition as described, it is merely necessary to downwardly project the carrier over the two rows of bottles intended to be associated therewith. Such bottles are shown at **40** in FIGS. **4, 5,** and **6.** The enlarged cap portions of the bottles **40** are indicated at **41.** The downwardly diverging neck portions of the bottles **40** are indicated at **42.** In the initial projection of the carrier downwardly over six bottles **40** arranged in two rows of three, the inner periphery of the apertures **14** in the base of the carrier will firmly circumferentially engage the enlarging or diverging neck portions **42** of the bottles **40.** Further downward projection of the carrier by a force applied along the apex of each of the prism-like members of the carrier will cause the edges **32***a* of the apertures **32** and the opposed straight edged sections of the side sections **15** to cam over and lock immediately beneath the enlarged cap portions **48** of the bottles **40** as shown in FIG. **6.**

The edges **34***a* and the opposed straight edged sections of side sections **15** are slightly deformed outwardly as may be seen in FIGS. **4, 5,** and **6** and the resiliency of the material in the carrier as described and assembled will cause those edges of the apex apertures to be firmly urged against the necks of the bottles **40** immediately beneath the enlarged cap portions **41.**

When the apex apertures are disposed beneath the enlarged cap portions **41** as described, the inner and outer side walls of the carrier will be bowed outwardly longitudinally thereof as shown in the end view in FIG. **6.** This bowing of the inner and outer side walls of the carrier produces an extremely stable and substantially rigid bottle and carrier package. The resiliency and configuration of the inner and outer side walls of the carrier urges the opposed edges of the apex apertures upwardly and inwardly of the bottles **40** in firm locking contact with the necks of the bottles **40** beneath the cap portions **41** and further urges the base of the carrier downwardly relative to the bottles **40** to firmly hold the bottles **40** with the longitudinal axes thereof parallel and against pivoting. The foregoing is a result of the base aperture **14** being of a diameter less than the outer diameter of the neck portion **42** of a bottle **40** at a position measured downwardly from a point immediately below the enlarged cap portion **41** a distance substantially equal to the vertical distance between the base and apex of the prism-like members before application to the bottles **40.**

In reductions to practice of the invention it has been found that the handle **34** and arms **35** do not disturb the firm resilient locking and parallel holding arrangement of the carrier on the bottles **40** when the carrier is hand transported by a person grasping the carrier with his fingers beneath the handle **34** and with the bottles **40** in a depending condition from the carrier. It is believed that the integral connections of the arms **35** to the inner side walls **24** and **26** in the upper areas thereof, but below the apexes of the prism-like members, are important in providing a balanced arrangement for the depending bottles from the two prism-like members when the package is carried by the handle **34.**

The carrier is easily removed from the bottles **40** when the package is resting upon a surface by pulling the tabs **31** out of the tab apertures **18.** When the tabs **31** have been unlocked from the apertures **18,** the sections **23** and **27** may be raised upwardly and toward each other to remove the apertures **32** from the cap

portions of the bottles **40**. The side sections **15** may then be moved slightly away from the bottles **40** and the carrier merely lifted from the six bottles **40**.

When it is desired to reuse the carrier, it is merely necessary to lap the sections **23** and **27** over the side sections **15** and again snap the tabs **31** into the apertures **18**. With the carrier again in an assembled condition, one may simply project the carrier downwardly over the bottles as previously described to again form the defined carrier-bottle package.

A person skilled in the art will understand from the foregoing description that the carrier of the invention may be sized to cooperate with and carry bottles of different shapes and sizes. For example, for bottles having neck portions **42** which diverge at a more gradual rate than bottles **40** as shown, the apertures **14** may be changed in diameter to properly accomodate those bottles within the carrier of the invention. Further, for bottles having more bulbous lower portions, the central bight portions **12** and **25** may be increased in width and appropriate revised spacings may be made between the base apertures and between the apex apertures to insure the proper parallel depending position of the bottles in the carrier.

In the second embodiment of the invention the lower carrier blank **50** is shown in the flat condition as formed in FIG. **7**, and the upper carrier blank **51** is shown in the flat condition as formed in FIG. **8**.

The lower blank **50** has a central bight portion **52** extending longitudinally thereof. Material reducing openings **53** are provided through the central bight portion **52** longitudinally thereof and between securing areas **52***a* for the upper blank. Integral with and on each side of the central bight portion **52** are apertured sections **54**. Each apertured section **54** is provided with three longitudinally spaced-apart apertures **55**. The apertures **55** have a diameter substantially larger than the cap portions of the bottles intended to be associated therewith and large enough to engage the diverging neck portions of the bottles below the cap portions. The apertured sections **54** are further provided with material reducing openings **56** between the apertures **55**. The apertured sections **54** and the central bight portion **52** define the base of the carrier. The lower blank is further provided with side sections **57** contiguous to and integral with the apertured sections **54** along fold lines **58**. The side sections **57** are each provided with a pair of tab receiving apertures **60** positioned in a spaced-apart relationship longitudinally of the side sections **57**.

The upper carrier blank **51** comprises a longitudinally central area having pads **62** and **63**. On each side of the longitudinally central area are a pair of inner side wall sections **64**. The side of each of the inner side wall sections **64** toward the central area is formed as three angled sections **64***a*, **64***b* and **64***c*. The angled sections **64***a*, **64***b* and **64***c* converge toward the longitudinal center line of the blank **51**. The angled sections **64***a* and **64***c* of the side wall sections **64** are integrally connected to opposite sides of the pads **62** along fold lines **65**. The angled sections **64***b* are each integrally connected to one side of one of the pads **63** along fold lines **66**. The fold lines **66** are in longitudinal alignment with the fold lines **65**. In the upper blank **51** as formed, the inner sides of the pads **63** engage the opposite longitudinal side edges of a handle **67**. The handle **67** is aligned longitudinally centrally of the longitudinal central section of the blank **51**. While the invention contemplates that in use the handle **67** must be free from the pads **63**, the handle **67** may be attached to the pads **63** in the initial forming by frangible connections so that after the carrier is completely assembled and applied to the bottles intended to be associated therewith the handle **67** may easily be separated from the pads **63** and raised to the package carrying position.

Each end of the handle **67** is integrally connected to the longitudinal center of an arm **68**. The arms **68** are slightly bowed toward each other, and the ends of the arms **68** are integrally connected to the inner side wall sections **64** on each side of the sections **64***b* and between the sections **64***a* and **64** *c*. Reductions to practice of the invention have indicated the preferred connection of the ends of the arms **68** to the inner side wall sections **64** between the longitudinal center lines thereof and the fold lines **73**. The handle **67** is further provided with a plurality of parallel longitudinally extending fold lines **70** which permit the handle **67** to be conveniently shaped in a comfortable hand carrying configuration.

The upper blank **51** further comprises two outer side sections **72**. The outer side sections **72** are integrally connected to the outer side marginal edges of the inner side wall sections **64** along the fold lines **73**. Each fold line **73** is intersected or rendered discontinuous by three apertures **74**. The apertures **74** are larger in every dimension than the largest diameter of the enlarged cap portions of the bottles intended to be associated with the carrier. The major portion of each aperture **74** lies in the outer side sections **72**. Each aperture **74** includes an inner side marginal edge **74***a*, which lies in the inner side sections **64**, and which is a substantially straight line aligned longitudinally of the blank **51**. Each inner marginal edge **74***a* is positioned a certain distance from fold lines **65** and **66**. That certain distance is substantially the same as the distance between the outer marginal edges of the sections **57** and the fold lines **58** of the lower blank **50**.

The outer longitudinal marginal edges of the sections **72** are provided with a pair of spaced-apart tabs **75**. Each of the tabs **75** is provided with a pair of ears **75***a* which extend from the tabs **75** in opposite directions longitudinally of the blank **51**. The tabs **75** are further positioned on the outer side sections **72** so that the tabs **75** may be received within the tab receiving apertures **60** of the lower blank **50** when the upper blank **51** and the lower blank **50** are joined and folded to form the complete carrier.

The carrier of the second embodiment is initially assembled by positioning the upper blank **51** on top of the lower blank **50** with the pads **62** and **63** in registry with the securing areas **52**a of the central bight portion **52** of the lower blank **50**. In that initial assembled condition, the fold lines **65** and **66** of the upper blank **51** will lie substantially on tangent lines extending longitudinally and along the inner edges of the apertures **55** of the lower blank **50**. Appropriate fastening means such as heat seals **77** are provided to join the pads **62** and **63** of the upper blank **51** to the securing areas **52***a* of the central bight portion **52** of the lower blank **50**.

In folding and interlocking the blanks **50** and **51** to completely assemble the carrier, the inner side sections **64** are folded upwardly and outwardly along fold lines **65** and **66**. The outer side sections **72** are folded downwardly and outwardly along fold lines **73**. The outer

side sections **57** of the lower blank **50** are folded upwardly and inwardly along fold lines **58.** The outer side sections **72** are caused to overlap the outer portions of the side sections **57,** and the tabs **75** are then inserted into the tab interlocking apertures **60** to releasably lock the carrier into the general shape of two side-by-side longitudinally extending prism-like members having triangular end faces.

The angled positions of the inner side sections **64** in the completed carrier permit the handle **67** and the arms **68** to be drawn upwardly to the carrying position substantially as shown in FIGS. **9** and **10.**

In the completely assembled condition of the carrier, the two prism-like members have bases which are defined by sections **54** and are separated by central bight section **52.** The inner side walls of the prism-like members are defined by the innner side sections **64** of the upper blank **51.** The outer side walls of the prism-like members are defined by the lapped interlocked wall sections **72** and **57.** The straight edge sections **74***a* of the apertures **74** and the opposed straight edged sections of the outer marginal edges of the sections **57** define apertures in the apex of each prism-like member which are axially aligned and above respective ones of the apertures **55** in the bases of the prism-like members. The dimension of those apex apertures, measured in a direction transversely of the carrier, is substantially less than diameter of the enlarged cap portions of the bottles intended to be associated therewith.

The carrier of the second embodiment is applied to two rows of bottles intended to be associated therewith in a manner similar to that described relative to the first embodiment. Such bottles are shown at **80** in FIGS. **9** and **10.** The enlarged cap portions of the bottles **80** are indicated at **81.** The downwardly diverging neck portions of the bottles **80** are indicated at **82.** In the initial projection of the carrier downwardly over six bottles **80** arranged in two rows of three, the inner periphery of the base apertures **55** will firmly circumferentially engage the enlarging or diverging neck portions **82** of the bottles **80.** Further downward projection of the carrier by a force applied along the apex of each of the prism-like members of the carrier will cause the edges **74***a* of the apertures **74** and the opposed straight edged sections of the side sections **57** to cam over and lock immediately beneath the enlarged cap portions **81** of the bottles **80** as shown in FIGS. **9** and **10.**

The edges **74a** and the opposed staight edged sections of side sections **15** are slightly deformed outwardly as may be seen in FIG. **10** and the resiliency of the material in the carrier as described and assembled will cause those opposed edges of the apex apertures to be firmly urged against the necks of the bottles **80** immediately beneath the enlarged cap portions **81.**

When the apex apertures are disposed beneath the enlarged cap portions **81** as described, the inner and outer side walls of the carrier will be bowed outwardly longitudinally thereof as shown in the end view of FIG. **10.** This bowing of the inner and outer side walls of the carrier produces an extremely stable and substantially rigid bottle and carrier package as described relative to the first embodiment.

In reductions to practice of the invention it has been found that the handle **67** and arms **68** do not disturb the firm resilient locking and parallel holding arrangement of the carrier on the bottles **80** when the carrier is hand transported by a person grasping the handle **67** with the bottles in a depending condition from the carrier. It is believed that the integral connections of the arms **68** with the inner side walls **64** in the upper areas thereof, but below the apexes of the prism-like members, are important in maintaining a firm substantially rigid bottle and carrier package when the package is carried by the handle **67.**

The carrier is easily removed from the bottles **80** when the package is resting upon a surface by pulling the tabs **75** out of the tab apertures **60.** The outer side sections **72** may then be raised upwardly and toward each other to remove the apertures **74** from the cap portions of the bottles **80.** The side sections **57** may then be moved slightly away from the bottles **80** and the carrier merely lifted from the bottles **80.**

When it is desired to reuse the carrier, it is merely necessary to lap the side sections **72** over the side sections **57** and again snap the tabs **75** into the tab receiving apertures **60.** With the carrier again in an assembled condition, one may simply project the carrier downwardly over the bottles as previously described to again form the defined carrier-bottle package.

As described relative to the first embodiment, a person skilled in the art will understand that the carrier of the invention may be sized to cooperate with and carry bottles of different shapes and sizes.

Having described the invention, it is to be understood that changes can be made in the described embodiments by one skilled in the art within the spirit and scope of the invention as defined in the claims.

I claim:

1. A carrier for a plurality of bottles having enlarged cap portions associated with their open ends comprising, said carrier being formed from resilient deformable plastic sheet material into two prism-like members having triangular end faces, said prism-like members being integrally interconnected in a parallel spaced-apart relationship with the bases thereof in a common plane, each of said bases having a plurality of first apertures positioned in a longitudinally spaced-apart relationship to accept and engage a portion of the neck of the bottles below their open ends, the apexes of said prism-like members having a plurality of second apertures therein, said second apertures having opposed side marginal edges formed as continuous straight line sections extending longitudinally of said prism-like members and spaced-apart a distance substantially less than the diameter of said enlarged cap portions of said bottles, each of said second apertures being in axial alignment with one of said first apertures, and handle means comprising a handle integrally interconnected between the ends of a pair of arms, said pair of arms being integrally interconnected between the inner side walls of said prism-like members to position said handle between and above said prism-like members.

2. A carrier as defined in claim **1,** wherein the ends of each of said arms are integrally connected to one of said inner side walls of said prism-like members.

3. A carrier as defined in claim **1,** wherein each of said arms is integrally connected with one end thereof to one of said inner side walls and the other end thereof to the other of said inner side walls of said prism-like members.

4. A carrier as defined in claim **1,** wherein said first apertures in each of bases are substantially tangent to the opposed longitudinal side marginal edges thereof.

5. A package comprising a carrier and a plurality of bottles having enlarged cap portions associated with their open ends and neck portions diverging downwardly from said enlarged cap portions, said bottles secured in said carrier in a depending condition in two parallel rows, said carrier being formed from a resilient deformable plastic sheet material into two prism-like members having triangular end faces, said prism-like members being integrally interconnected in a parallel spaced-apart relationship with the bases thereof in a common plane, each of said bases having a plurality of first apertures positioned in a longitudinally spaced-apart relationship and engaging the neck portions of said bottles below their open ends, the apexes of said prism-like members having a plurality of second apertures therein, said second apertures having opposed side marginal edges formed as continuous straight line sections extending longitudinally of said prism-like members and spaced-apart a distance substantially less than the diameter of said enlarged cap portions of said bottles, each of said second apertures being in axial alignment of one of said first apertures and having said opposed side marginal edges thereof stretched and deformed in engagement with the necks of said bottles immediately below said enlarged cap portions, and handle means comprising a handle integrally interconnected between the ends of a pair of arms, said pair of arms being integrally interconnected between the inner side walls of said prism-like members and positioning said handle between and above said prism-like members for carrying said package.

6. In a package as defined in claim 5, wherein the ends of each of said arms are integrally connected to one of said inner side walls of said prism-like members with the longitudinal axis of said handle positioned transversely of said carrier.

7. A package as defined in claim 5, wherein each of said arms is integrally connected with one end thereof to one of said inner side walls and the other end thereof to the other of said inner side walls of said prism-like members to position said handle with the longitudinal axis thereof disposed longitudinally of said carrier.

8. A carrier for a plurality of bottles having enlarged cap portions associated with their open ends and downwardly diverging neck portions, said carrier being formed from a resilient deformable plastic sheet material into two prism-like members having triangular end faces, said prism-like members being integrally interconnected in a parallel spaced-apart relationship with the bases thereof in a common plane, each of said bases having a plurality of first apertures positioned in a longitudinally spaced-apart relationship to accept and engage the neck portion of the bottles below their enlarged cap portions, each of said prism-like members having an inner side wall and an outer side wall extending longitudinally thereof, said inner and outer side walls being integrally connected to the opposite longitudinally extending marginal edge portions of said bases and terminating at their upper ends in the apex of each of said prism-like members, each of said outer side walls comprising a lower outer side wall section and an overlapped upper outer side wall section, each of said upper outer side wall sections being integrally interconnected to the associated inner side wall at the apex of each of said prism-like members, locking means interlocking each of said upper outer side wall sections to the lower outer side wall section lapped thereby, a plurality of second apertures formed through each of said inner side walls and the upper outer side wall section integrally connected thereto to span the apex of each of said prism-like members, each of said second apertures being larger in every dimension than the largest diameter of said enlarged cap portions of the bottles intended to be associated with said carrier, the marginal edge of each of said second apertures which is within said inner side walls and extends longitudinally of said prism-like members being formed as a substantially continuous straight line section, the upper marginal edge of each of said lower outer side wall sections having substantially straight line segments transversely opposed to said straight line segments of said second apertures and each of said straight line segments of said lower outer wall sections being spaced from the lower marginal edge of said lower outer side wall section substantially the same distance as said straight line segments in said inner side walls are spaced from the lower marginal edge of said inner side walls, said straight line segments of said second apertures and said straight line segments of said lower outer side wall sections defining openings in the apex of said prism-like members which are substantially less than the diameter of said enlarged cap portions of said bottles measured in a direction transversely of said prism-like members, each of said openings being in axial alignment with one of said first apertures, and handle means comprising a handle assembly integrally interconnected to the inner side walls of said prism-like members.

9. A carrier as defined in claim 8, wherein said handle assembly comprises a handle each end of which is integrally interconnected between the ends of a pair of arms, and the ends of each of said arms being integrally connected to one of said inner side walls of said prism-like members.

10. A carrier as defined in claim 8, wherein said handle assembly comprises a handle each end of which is integrally connected between the ends of a pair of arms, and wherein each of said arms is integrally connected with one end thereof to one of said inner side walls and the other end thereof to the other of said inner side walls of said prism-like members.

11. A carrier as defined in claim 8, wherein said first apertures in each of said bases are substantially tangent to the opposed longitudinal side marginal edges thereof.

12. A carrier as defined in claim 8, wherein said locking means comprises a plurality of tabs integrally formed on the outer marginal edge of each upper outer side wall section, and a plurality of tab receiving apertures formed in each of said lower outer side wall sections and positioned to receive said tabs to interlock said upper outer side wall sections to said lower outer side wall sections.

13. A package comprising a carrier and a plurality of bottles having enlarged cap portions associated with their open ends and neck portions diverging downwardly from said enlarged cap portions, said bottles secured in said carrier in a depending condition in two parallel rows, said carrier being formed from a resilient deformable plastic sheet material into two prism-like members having triangular end faces, said prism-like members being integrally interconnected in a parallel spaced-apart relationship with the bases thereof in a common plane, each of said bases having a plurality of first apertures positioned in a longitudinally spaced-

apart relationship and enaging the neck portions of said bottles below their enlarged cap portions, each of said prism-like members having an inner side wall and an outer side wall extending longitudinally thereof, said inner and outer side walls being integrally connected to the opposite longitudinally extending marginal edge portions of said bases and terminating at their upper ends in the apex of each of said prism-like members, each of said outer side walls comprising a lower outer side wall section and an overlapped upper outer side wall section, each of said upper outer side wall sections being integrally interconnected to the associated inner side wall at the apex of each of said prism-like members, locking means interlocking each of said upper outer side wall sections to the lower outer side wall section lapped thereby, a plurality of second apertures formed through each of said inner side walls and the upper outer side wall section integrally connected thereto to span the apex of each of said prism-like members, each of said second apertures being larger in every dimension than the largest diameter of said enlarged cap portions of said bottles, the marginal edge of each of said second apertures which is within said inner side walls and extends longitudinally of said prism-like members being formed as a substantially continuous straight line section, the upper marginal edge of each of said lower outer side wall section having substantially straight line segments transversely opposed to said straight line segments of said second apertures, each of said straight line segments of said lower outer side wall sections being spaced from the lower marginal edge of said lower outer side wall section substantially the same distance as said straight line segments in said inner side walls are spaced from the lower marginal edge of said inner side walls, said straight line segments of said second apertures and said straight line segments of said lower outer side wall sections defining openings in the said prism-like members in axial alignment with said first apertures, said enlarged cap portions of said bottles extending upwardly through said openings and said straight line segments being stretched and deformed in engagement with the necks of said bottles immediately below said enlarged cap portions, and a handle assembly integrally interconnected to the inner side walls of said prism-like members and terminating above said bottles for carrying said package.

14. A package as defined in claim **13,** wherein the spacing of said straight line segments of said lower outer side wall sections from the lower marginal edge of said lower outer side wall sections and the distance of said straight line segments in said inner side walls from the lower marginal edge of said inner side walls are distances which space said openings in the apexes of said prism-like members from the bases thereof to cause said inner side walls and said outer side walls to be bowed outwardly longitudinally thereof.

15. A package as defined in claim **13,** wherein said bottles have body portions below said neck portions which are substantially greater in diameter than said neck portions, and wherein said integral interconnection of said prism-like members comprises a central section extending longitudinally of said carrier in a common plane with the bases of said prism-like members, and said central section having a width which spaces said bottles laterally to depend from said carrier in two substantially side-by-side rows with the longitudinal axes of said bottles being parallel.

16. A package as defined in claim **15,** wherein said first apertures in each of said bases of said prism-like members are substantially tangent to the opposed longitudinal side marginal edges of said bases.

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