Innovation, Sciences et Développement économique Canada
Office de la Propriété Intellectuelle du Canada

Innovation, Science and Economic Development Canada
Canadian Intellectual Property Office

CA 2871509 C 2022/12/13

(11)(21) 2 871 509

(12) BREVET CANADIEN
CANADIAN PATENT

(13) C

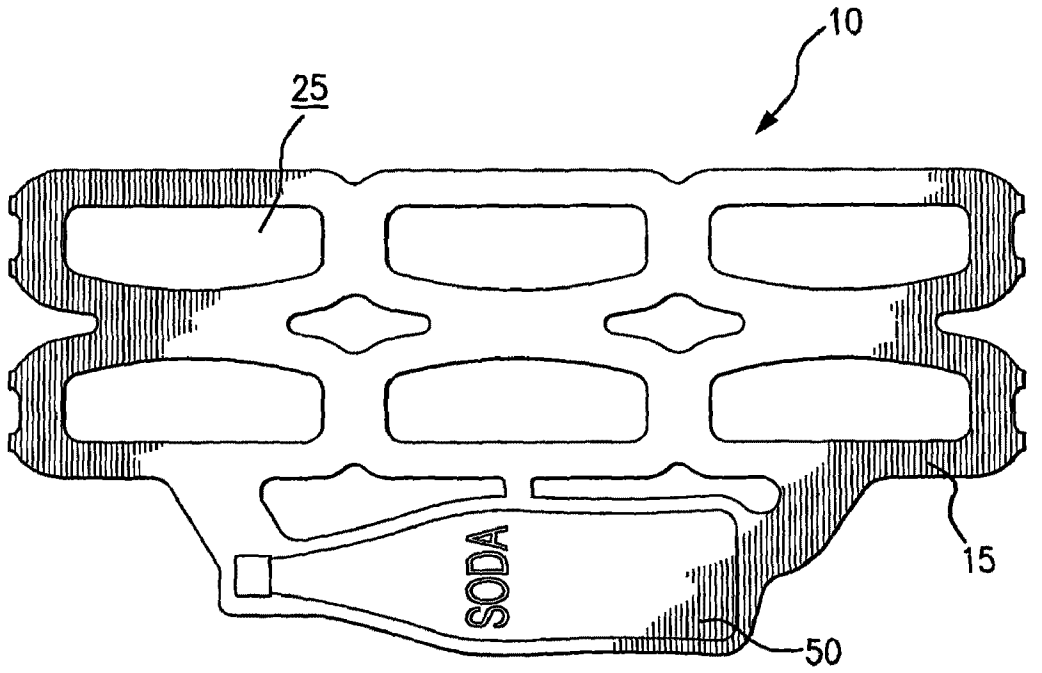
(86) Date de dépôt PCT/PCT Filing Date: 2013/05/06
(87) Date publication PCT/PCT Publication Date: 2013/11/07
(45) Date de délivrance/Issue Date: 2022/12/13
(85) Entrée phase nationale/National Entry: 2014/10/23
(86) N° demande PCT/PCT Application No.: US 2013/039710
(87) N° publication PCT/PCT Publication No.: 2013/166495
(30) Priorités/Priorities: 2012/05/04 (US61/642,853); 2013/02/19 (US13/770,803)

(51) Cl.Int./Int.Cl. *B65D 71/50* (2006.01)
(72) Inventeurs/Inventors:
WALDO, GEORGE E., II, US;
LUDWIG, CHRISTOPHER J., US;
MARCO, LESLIE S., US

(73) Propriétaire/Owner:
ILLINOIS TOOL WORKS INC., US

(74) Agent: FINLAYSON & SINGLEHURST

(54) Titre : SUPPORT DE RECIPIENT
(54) Title: CONTAINER CARRIER



(57) Abrégé/Abstract:
This invention relates to a package of a plurality of containers (20) unitized with a flexible carrier (10). The carrier is constructed from a plastic planar sheet (15) having a plurality of container receiving apertures (25) and a panel (50) or handle (60) positioned with respect to the planar sheet. The panel or handle are die cut to form at least one of a product name, a product property, a promotional shape, a trademark, a tradename, alpha-numeric characters, symbols and a fanciful design.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
7 November 2013 (07.11.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/166495 A1

(51) International Patent Classification:
B65D 71/50 (2006.01)

(21) International Application Number:
PCT/US2013/039710

(22) International Filing Date:
6 May 2013 (06.05.2013)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/642,853 4 May 2012 (04.05.2012) US
13/770,803 19 February 2013 (19.02.2013) US

(71) Applicant: **ILLINOIS TOOL WORKS INC.** [US/US]; 3600 West Lake Avenue, Glenview, IL 60026 (US).

(72) Inventors: **WALDO, George, E., II**; 11959 Nicholson Drive, Unit #8415, Baton Rouge, LA 70810 (US). **LUDWIG, Christopher, J.**; 636 Hickory Drive, Buffalo Grove, IL 60089 (US). **MARCO, Leslie, S.**; 5831 Raintree Lane, Westmont, IL 60559 (US).

(74) Agents: **SIEGEL, William, R.** et al.; Pauley Petersen & Erickson, 2800 West Higgins Road, Suite 365, Hoffman Estates, IL 60169 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(54) Title: CONTAINER CARRIER

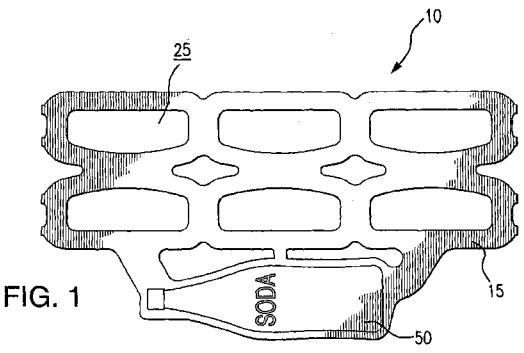


FIG. 1

(57) Abstract: This invention relates to a package of a plurality of containers (20) unitized with a flexible carrier (10). The carrier is constructed from a plastic planar sheet (15) having a plurality of container receiving apertures (25) and a panel (50) or handle (60) positioned with respect to the planar sheet. The panel or handle are die cut to form at least one of a product name, a product prop - erty, a promotional shape, a trademark, a tradename, alpha-numeric characters, symbols and a fanciful design.

WO 2013/166495 A1

CONTAINER CARRIER

BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION

This invention relates to a container carrier for unitizing a desired quantity of containers.

DESCRIPTION OF PRIOR ART

Container carriers connect two or more containers into a sturdy unitized package or "multipack" of containers. Carriers are generally planar arrays of rings, sometimes referred to as "six-pack carriers," typically formed from a thermoplastic sheet material. Carriers are applied to containers of various sizes and shapes.

Conventional container carriers are often used to unitize a plurality of similarly sized containers, such as cans, bottles, jars and boxes, although other packages or containers may be unitized. Plastic ring carriers and box carriers are two such conventional container carriers.

The plastic ring carrier produces a unitized package for containers using little material. However, when used alone has little or no advertising or promotional printing space. Conversely, the box carrier generally has a relatively large amount of area for promotional graphics. Disadvantageously, the box carrier requires a relatively large amount of material, permits bottles to fall out if it is not maintained in an upright position, and usually shrouds much of the actual containers. Therefore, there is a need for a package that incorporates the stability and economy of a ring carrier and the promotional properties of a box carrier.

This invention relates to a carrier, for unitizing a plurality of containers, having a plurality of container receiving apertures configured with an integral panel and/or handle that is shaped to convey additional information regarding the package.

SUMMARY OF THE INVENTION

A container carrier according to this invention carries a plurality of containers such as cans or bottles. The carrier comprises a planar, preferably plastic, sheet formed with a plurality of container receiving apertures. The container receiving apertures are formed in longitudinal rows and transverse ranks.

A panel is preferably integrally formed with the sheet so that the panel extends outward from a panel edge of the sheet. The panel is preferably shaped to convey at least one of a product name, a product property, a promotional shape, a trademark, a tradename, alpha-

numeric characters, symbols and/or fanciful design intended to draw attention to the product.

Alternatively, or in addition, a separate handle may be likewise configured to convey at least one of a product name, a product property, a promotional shape, a trademark, a tradename, alpha-numeric characters, symbols and/or a fanciful design intended to draw attention to the product.

Still further, the handle may be integrally formed with the panel and be likewise configured to convey at least one of a product name, a product property, a promotional shape, a trademark, a tradename, alpha-numeric characters, symbols and/or a fanciful design intended to draw attention to the product.

The containers are positioned in each container receiving aperture o form a package having a panel and/or a handle that is prominent with respect to the package and visible to a consumer such that its stylized form projects the intended image of the product. Such a configuration of the panel and/or handle results in a package of containers having a prominent display area or "billboard" for advertising, information, graphics and other marketing material.

In a broad aspect, the invention pertains to a carrier for carrying a plurality of containers, and comprises a planar sheet of a plastic material. The sheet has a plurality of container receiving apertures arranged in longitudinal rows and transverse ranks. A panel is integrally formed with the sheet, and extends outward from an edge of the sheet and is die cut to form at least one of a product name, a product property, a promotional shape, a trademark, a tradename, alpha-numeric characters, symbols and a fanciful design.

In a further aspect, the invention provides a package of a plurality of containers. The package comprises a planar sheet of a plastic material, the sheet having a plurality of container receiving apertures arranged in longitudinal rows and transverse ranks. A plurality of containers are positioned within a corresponding one of the plurality of container receiving apertures, and a panel is integrally formed with the sheet. The panel extends outward from an edge of the sheet and across one or more containers of the plurality of containers. The panel is die cut to form at least one of a product name, a product property, a promotional shape, a trademark, a tradename, alpha-numeric characters, symbols and a fanciful design.

Still, further the invention embodies a carrier for carrying a plurality of containers and comprises a planar sheet of a plastic material. The sheet has a plurality of container receiving apertures arranged in longitudinal rows and transverse ranks, and a handle integrally formed with the sheet. The handle extends from the sheet and is die cut to form at least one of a product name, a product property, a promotional shape, a trademark, a tradename, alpha-numeric characters, symbols and a fanciful design.

BRIEF DESCRIPTION OF THE DRAWINGS

The above-mentioned and other features and aspects of this invention will be better understood from the following detailed description taken in conjunction with the drawings wherein:

Fig. 1 is a top view of a flexible carrier according to one preferred embodiment of this invention;

Fig. 2 is a top view of a flexible carrier according to one preferred embodiment of this invention;

Fig. 3 is a front view of a package according to one preferred embodiment of this invention;

Fig. 4 is a front view of a package according to one preferred embodiment of this invention;

Fig. 5 is a front view of a package according to one preferred embodiment of this invention;

Fig. 6 is a front perspective view of a package according to one preferred embodiment of this invention;

Fig. 7 is a top view of a flexible carrier used in the package shown in Fig. 6;

Fig. 8 is a front perspective view of a package according to one preferred embodiment of this invention; and

Fig. 9 is a top view of a flexible carrier used in the package shown in Fig. 8.

DESCRIPTION OF PREFERRED EMBODIMENTS

Figs. 1-9 show carriers 10 and packages 80 according to various preferred embodiments of this invention. Containers 20 shown in Figs. 3-5, 6 and 8 are preferably bottles. Although bottles are shown in Fig. 3-5, 6 and 8, cans or any other commonly unitized container 20 may be used with carrier 10 according to this invention. Containers 20 are preferably like-sized within a single carrier 10 to form package 80.

Carrier 10 unitizes a plurality of containers 20 to create package 80, such as package 80 shown in Figs. 3-5. Carrier 10 comprises planar sheet 15 preferably constructed from a flexible, resilient material such as plastic. In one preferred embodiment of this invention, sheet 15 is made from low density polyethylene.

Sheet 15 of material is preferably cut, using means known to those skilled in the art, such as a stamping die, to form a plurality of container receiving apertures 25 in sheet 15. Preferably, six or more container receiving apertures 25 are formed in sheet 15 in longitudinal rows and transverse ranks. Preferably, container receiving apertures 25 are configured in two rows of three ranks or in two rows of four ranks. Sheet 15 may include other configurations of container receiving apertures 25 depending on the size of package 80 desired.

In one preferred embodiment of this invention, panel 50 is integrally formed with sheet 15. Panel 50 preferably has an overall longitudinal panel length less than an overall length of sheet 15. Panel 50 preferably accommodates, on one or both sides, UPC and proof of purchase labels, graphics, and promotional and/or other information related to contents and/or ingredients of package 80.

Panel 50 preferably extends outward from a longitudinal edge of sheet 15. As shown in Figs 1-5, panel 50 is at least partially formed along a portion of each container receiving aperture 25.

Panel 50 is preferably integrally formed with the sheet 15 so that the panel 50 extends outward from a longitudinal edge of the sheet 15. Panel 50 is preferably shaped to convey at least one of a product name, a product property, a promotional shape, a trademark, a tradename, alpha-numeric characters, symbols and/or a fanciful design intended to draw attention to the product.

In a preferred embodiment of this invention shown in Figs. 3 and 4, carrier 10 further comprises integral handle 60 positioned between rows of container receiving apertures 25 or along an opposite longitudinal edge of sheet 15. Handle 60 is particularly important in configurations of carrier 10 that contain many container receiving apertures 25 to facilitate ease of handling of package 80.

Alternatively, or in addition, handle 60 may be likewise configured to convey at least one of a product name, a product property, a promotional shape, a trademark, a tradename, alpha-numeric characters, symbols and/or a fanciful design intended to draw attention to the product. Both handle 60 and panel 50 may include corresponding die cuts, either identical or complementary including the product name, the product property, the promotional shape, the trademark, the tradename, the alpha-numeric characters, symbols and/or the fanciful design.

Still further, handle 60 may be integrally formed with the panel 50 and be likewise configured to convey at least one of a product name, a product property, a promotional shape, a trademark, a tradename, alpha-numeric characters, symbols and/or a fanciful design intended to draw attention to the product.

As shown in Figs. 3-5, containers 20 are preferably positioned in each container receiving aperture 25 to form package 80. Panel 50 is preferably generally flat and parallel with respect to containers 20 and prominent with respect to package 80. If panel 50 is curled or folded in a perpendicular position with respect to package 80, then advertising or other material positioned on panel will not be legible to a consumer. In addition, a panel 50 that protrudes with respect to package 80 will create difficulties in packaging, handling and stacking packages 80 because of interference between panels 50 of adjacent packages 80 and between panel 50 and packaging equipment.

According to one preferred embodiment of this invention shown in Figs. 6 and 7, panel 50 is similarly formed in a decorative configuration however cutouts or similar areas for grasping the panel are not provided. Instead one or a series of weakened areas 85, such as slits and/or perforations, are formed with respect to the panel 50 that permit a user to insert her hand through the panel 50 and "create" the handle at the point of sale. In this manner, billboard space on the panel 50 is maximized until purchase. The one or more slits and/or perforations may protrude directly through the graphics and/or decorative configuration within the panel 50 and are thus best positioned to open only following a purchase decision by a consumer.

According to one preferred embodiment of this invention shown in Figs. 8 and 9, a panel 50 is formed relative to a carrier 10 and a group of containers 20 in a package 80 such that a decorative component forms a portion of a removal element 90 such as a perforation or tear strip so that a user may remove containers 20 from the package 80 generally along an interface between the panel 50 and at least one row of the containers 20. For example, as shown in Figs. 8 and 9, a tail of a lizard may be pulled along a removal element 90 to release individual containers 20 from the package 80. In this manner, the removal element 90 preferably forms an integral portion of the product name, the product property, the promotional shape, the trademark, the tradename, the alpha-numeric characters, the symbols and the fanciful design of the panel 50.

While in the foregoing specification this invention has been described in relation to certain preferred embodiments thereof, and many details have been set forth for purposes of illustration, it will be apparent to those skilled in the art that the invention is susceptible to additional embodiments and that certain of the details described herein can be varied considerably without departing from the basic principles of the invention.

WHAT IS CLAIMED IS:

1. A carrier (10) for carrying a plurality of containers (20), the carrier comprising:

a planar sheet (15) of a plastic material, the sheet having a plurality of container receiving apertures (25) arranged in longitudinal rows and transverse ranks;

a panel (50) integrally formed with the sheet, the panel extending outward from an edge of the sheet (15),

characterised in that

the panel (50) is die cut to form at least one of a product name, a product shape, a promotional shape, a trademark, a tradename, alpha-numeric characters, symbols and a fanciful design.

2. The carrier of claim 1, wherein a longitudinal panel length is less than a longitudinal sheet length.

3. The carrier of claim 1 further comprising an integral handle (60) positioned between longitudinal rows of container receiving apertures (25).

4. The carrier of claim 3, wherein the integral handle (60) is die cut to form a corresponding at least one of the product name, the product shape, the promotional shape, the trademark, the tradename, the alpha-numeric characters, symbols and the fanciful design as the panel (50).

5. The carrier of claim 1 further comprising a handle (60) integrated with the panel (50).

6. The carrier of claim 1, wherein the die cut comprises an asymmetric shape.

7. The carrier of claim 1 comprising at least two panels (50), each panel associated with a container receiving aperture (25) of the plurality of container receiving apertures (25).

8. The carrier of claim 7, wherein two or more die cut panels (50) are each associated with one rank of two or more transverse ranks of container receiving apertures.

9. The carrier of claim 1, wherein the panel (50) is die cut to form an outline of the container (20).

10. The carrier of claim 1 further comprising a handle (60) positioned between the panel and the longitudinal rows of container receiving apertures (25).

11. A package (80) of a plurality of containers (20), the package comprising:

a planar sheet (15) of a plastic material, the sheet having a plurality of container receiving apertures (25) arranged in longitudinal rows and transverse ranks;

a plurality of containers (20) positioned within a corresponding one of the plurality of container receiving apertures (25);

a panel (50) integrally formed with the sheet (15), the panel (50) extending outward from an edge of the sheet (15) and across one or more containers (20) of the plurality of containers,

characterised in that

the panel (50) is die cut to form at least one of a product name, a product shape, a promotional shape, a trademark, a tradename, alpha-numeric characters, symbols and a fanciful design.

12. The package of claim 11, wherein the panel (50) includes one or more weakened areas (85) to provide a hand hold when grasped therein while still providing billboard space on the panel (50) prior to purchase.

13. The package of claim 11, wherein a two or more panels (50) are positioned across the package (80), each panel corresponding with a rank of the transverse ranks of container receiving apertures (25).

14. The package of claim 11 further comprising a handle (60).

15. The package of claim 14, wherein the handle (60) is die cut to form at least one of a product name, a product shape, a promotional shape, a trademark, a tradename, alpha-numeric characters, symbols and a fanciful design.

16. A carrier (10) for carrying a plurality of containers (20), the carrier comprising:

a planar sheet (15) of a plastic material, the sheet having a plurality of container receiving apertures (25) arranged in longitudinal rows and transverse ranks;

a handle (60) integrally formed with the sheet (15), the handle extending from the sheet, characterised in that

the handle (60) is die cut to form at least one of a product name, a product shape, a promotional shape, a trademark, a tradename, alpha-numeric characters, symbols and a fanciful design.

17. The carrier of claim 16, wherein the handle (60) extends from between longitudinal rows of the container receiving apertures (25).

18. The carrier of claim 16 further comprising a panel (50) extending from an edge of the longitudinal rows of container receiving apertures (25).

19. The carrier of claim 18, wherein the panel (50) includes a corresponding die cut to that of the handle (60) and forms at least one of a product name, a product shape, a promotional shape, a trademark, a tradename, alpha-numeric characters, symbols and a fanciful design.

20. The carrier of claim 18, wherein the panel (50) is separable along a removal element (90) to release individual containers (20) from the carrier (10), wherein the removal element (90) forms an integral portion of the product name, the product shape, the promotional shape, the trademark, the tradename, the alpha-numeric characters, the symbols and the fanciful design.

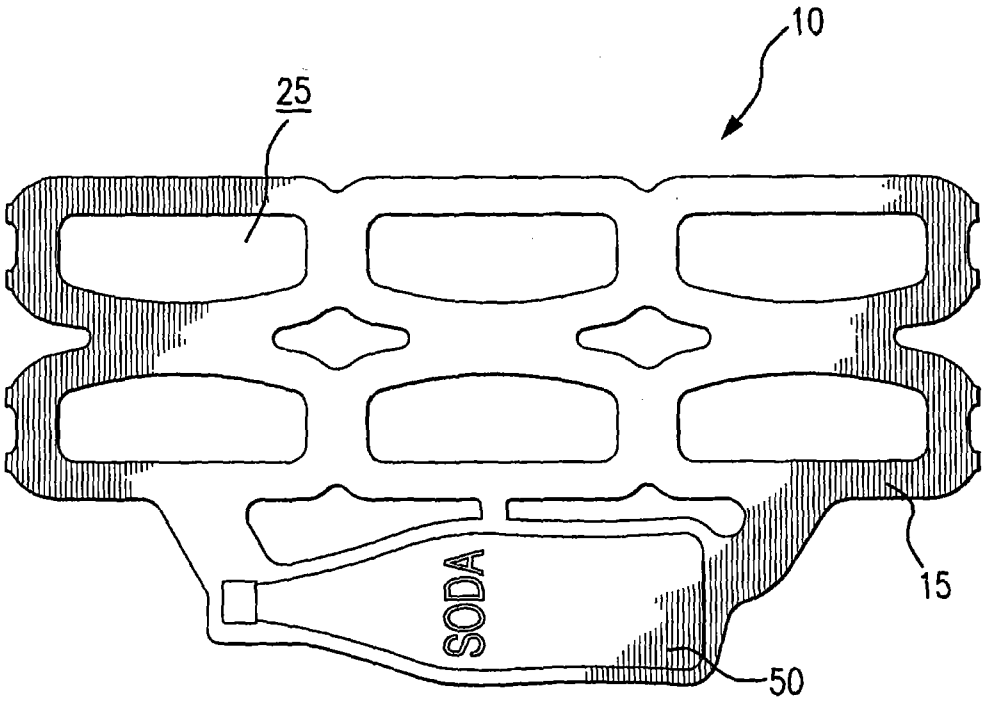


FIG. 1

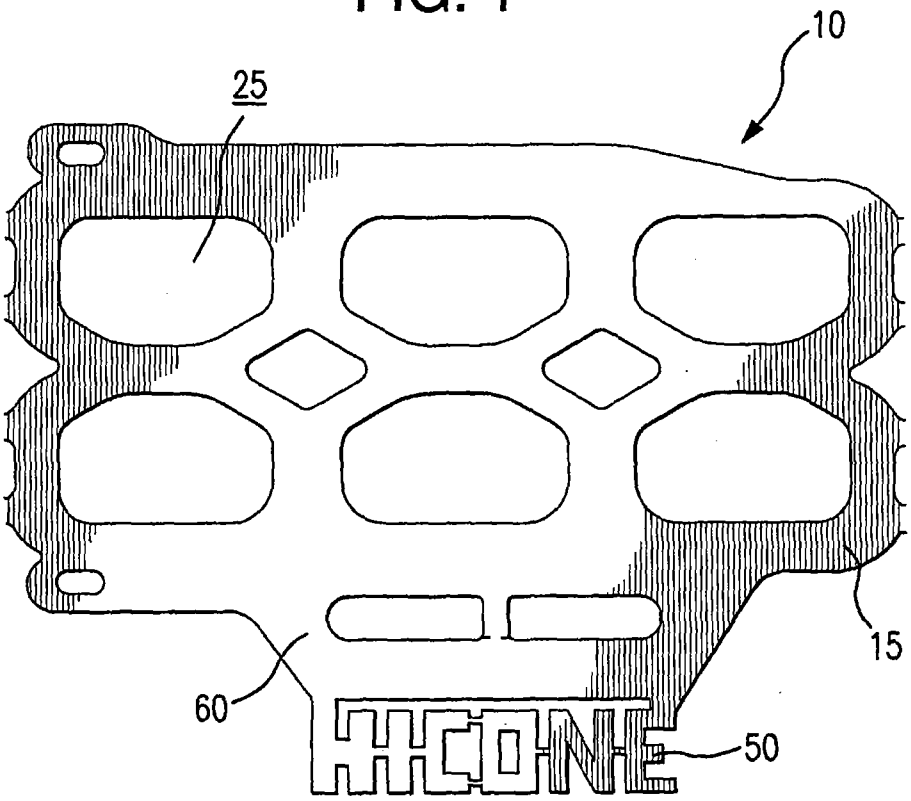


FIG. 2

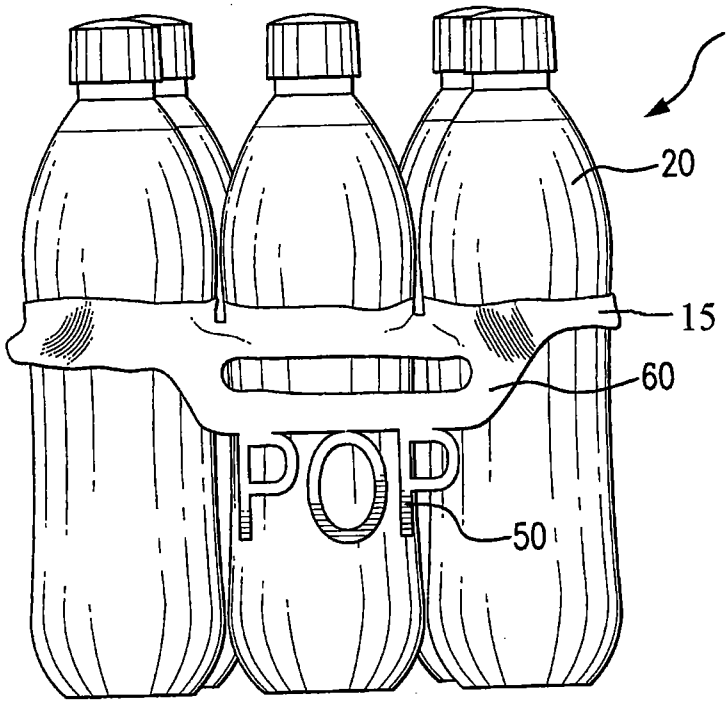


FIG. 3

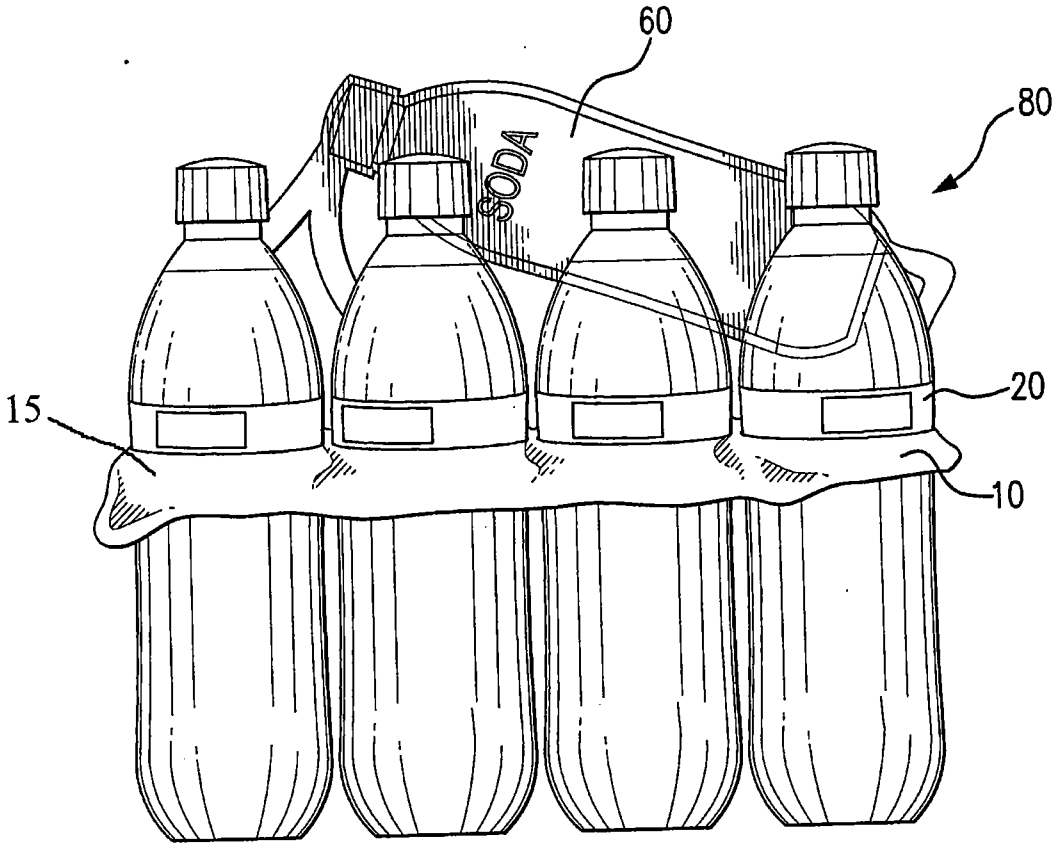


FIG. 4

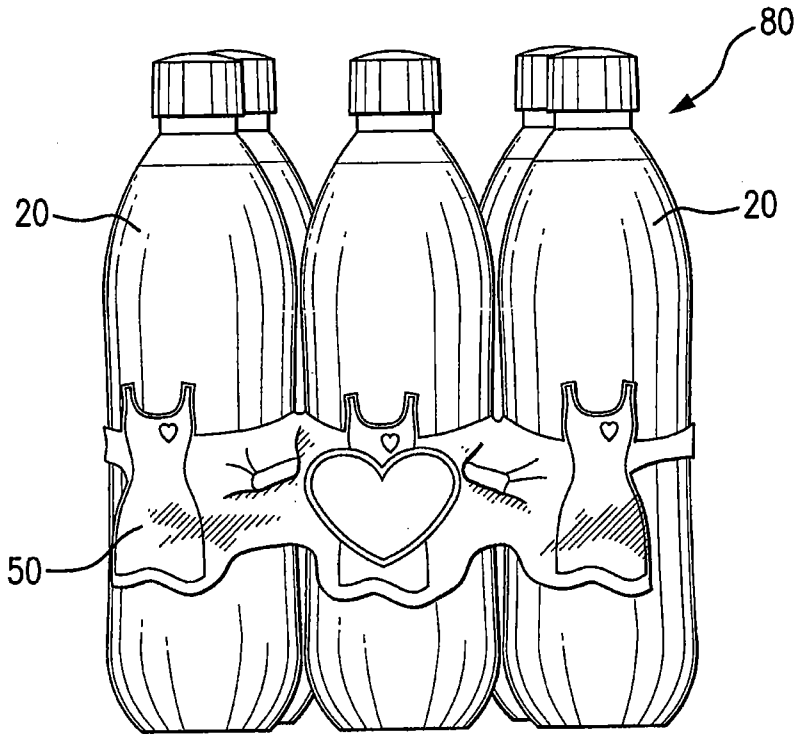


FIG. 5

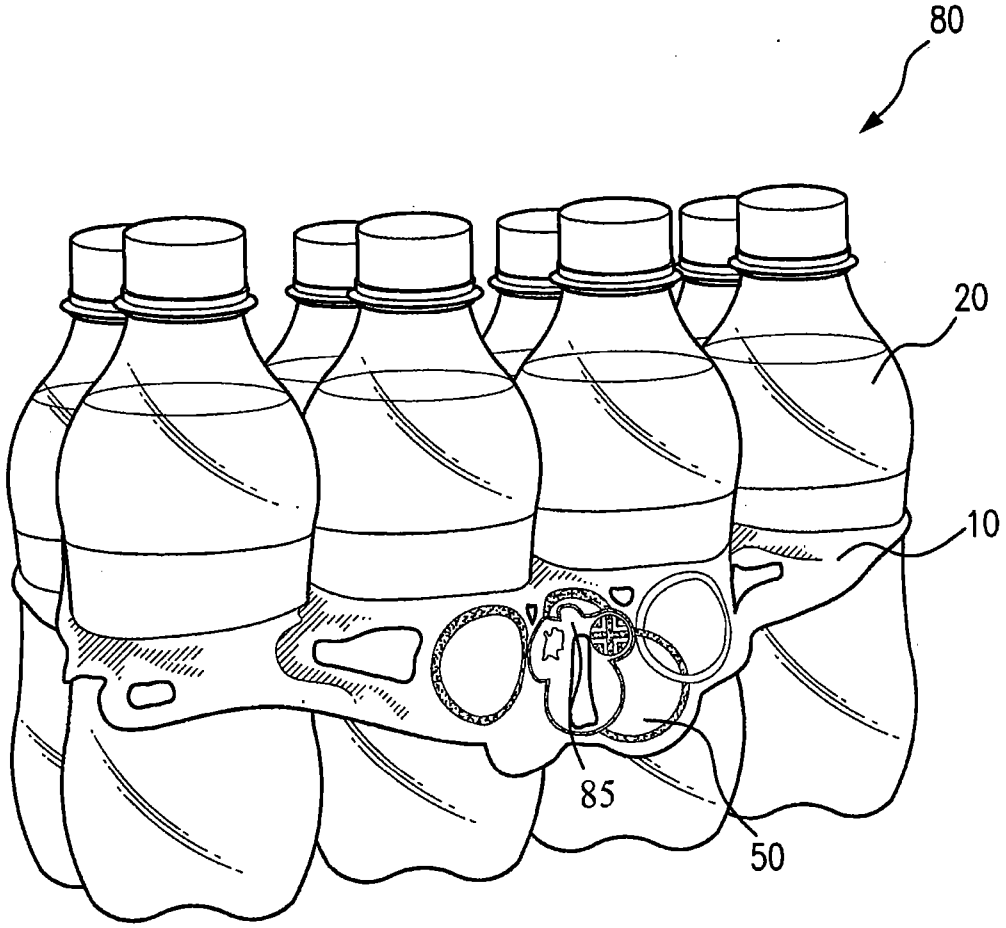


FIG. 6

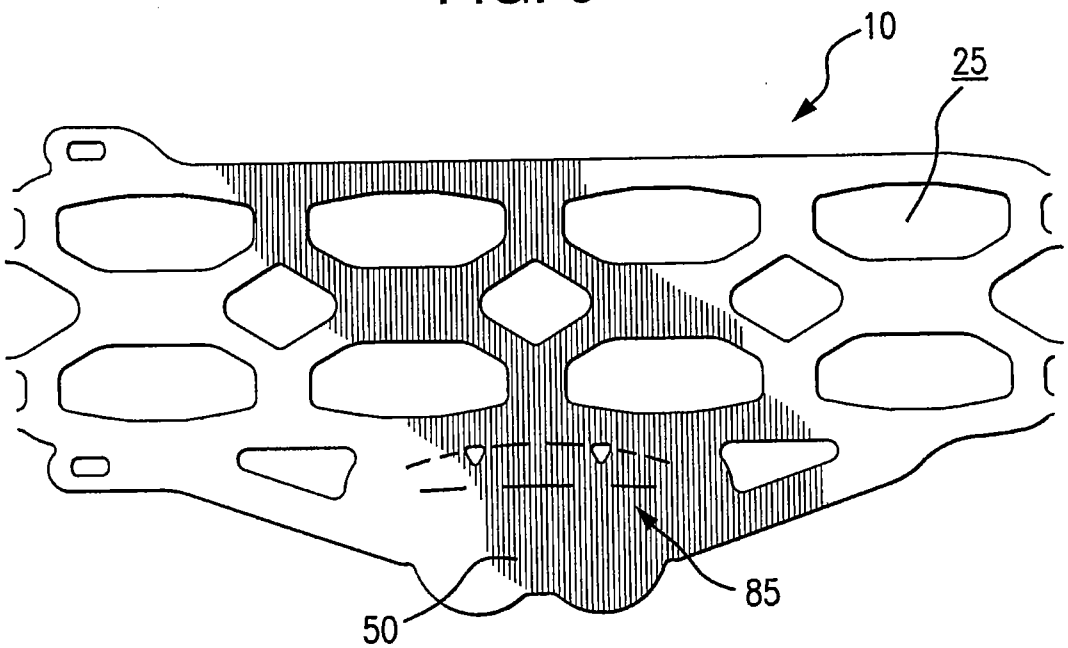


FIG. 7

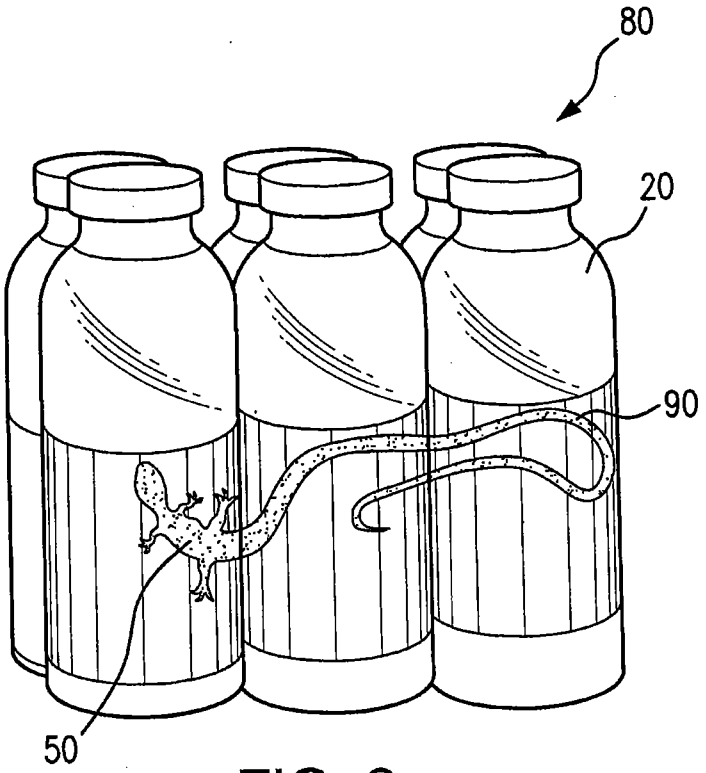


FIG. 8

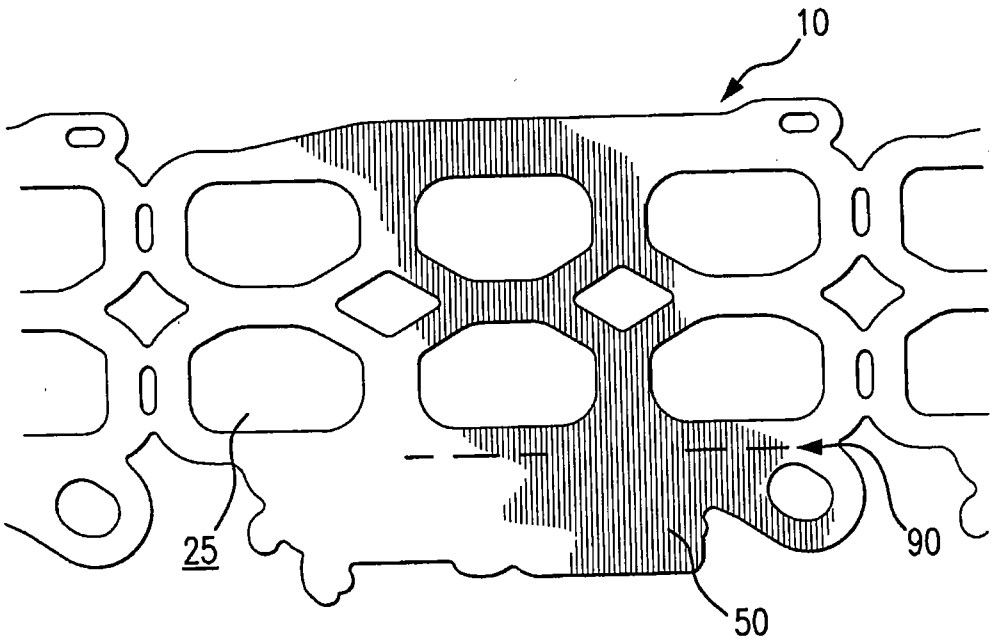
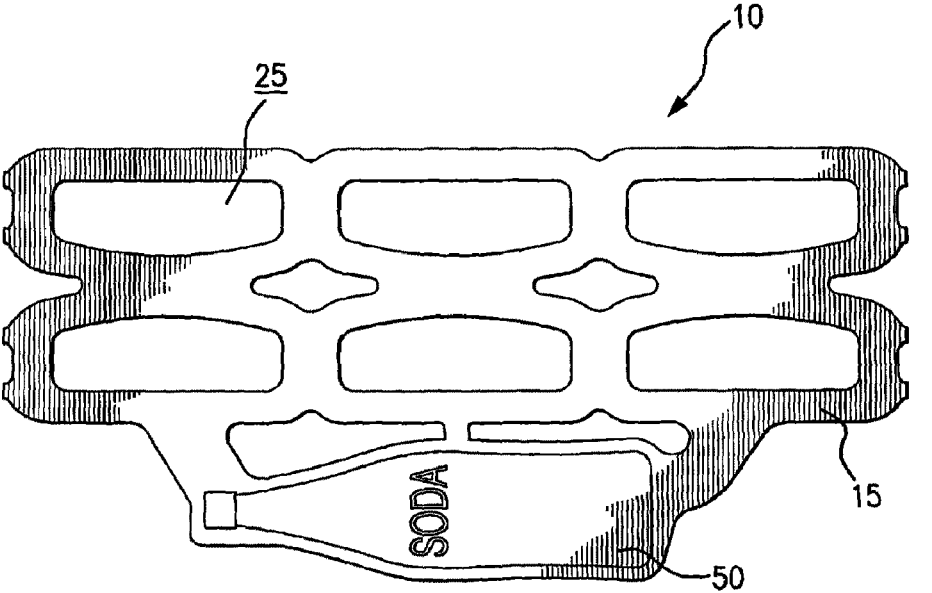


FIG. 9


10
25
SODA
15
50