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(54) **INTEGRAL LABEL HANDLE**

INTEGRIERTER ETIKETTGRIFF

POIGNEE INTEGRANT UNE ETIQUETTE

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Description**BACKGROUND OF THE INVENTION****FIELD OF THE INVENTION**

[0001] This invention relates to a label that provides an integrated handle, particularly for use with large containers.

DESCRIPTION OF PRIOR ART

[0002] PET bottle containers are typically used for soda, juice and similar beverages. As the size of these bottles increases, they become more difficult to transport, grasp and pour. Commonly, large PET bottles, such as 2 liter bottles, include smooth sidewalls that may prove slippery when wet and/or cold. Such difficulties are compounded by the large diameters of such bottles that make grasping and pouring with one hand difficult.

[0003] US 5,775,019 describes a sleeve label comprising a multi-function tab separated from the sleeve label by a sleeve generally parallel to the axis of the sleeve. The sleeve is made of a stitchable plastic with memory. The sleeve is stretched over the container and relaxed, securing the sleeve to the container. The tab may contain indicia.

SUMMARY OF THE INVENTION

[0004] Various aspects of the present invention are set out in the appended claims.

[0005] A sleeve according to this invention is used to label and carry one or more containers such as large PET bottles. Individual sleeves preferably comprise a folded low density flexible plastic sheet that includes a label and an integrated handle. The sleeve further includes a pair of seals that extend across the sleeve to define a sleeve opening and the handle together with a handle aperture for grasping, transporting and pouring the container.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] The above-mentioned and other features and objects of this invention will be better understood from the following detailed description taken in conjunction with the drawings wherein:

Fig. 1 is a side elevational view of an elastic sheet according to one preferred embodiment of this invention;

Fig. 2 is a side elevational view of an elastic sheet including two seals according to one preferred embodiment of this invention;

Fig. 3 is a side elevational view of a plurality of

sleeves according to one preferred embodiment of this invention; and

Fig. 4 is a side elevational view of a sleeve applied to a bottle according to one preferred embodiment of this invention.

DESCRIPTION OF PREFERRED EMBODIMENTS

10 [0007]

Figs. 1-4 show various preferred embodiments of a sleeve used for labeling and carrying a container, for example, a bottle.

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Figs. 1-4 show sleeve 10 for labeling and carrying container 80, according to various preferred embodiments of this invention. Containers 80, such as those shown in package 90 in Fig. 4, are preferably PET bottles, typically large size PET bottles, such as those accommodating 2 liters, 48 ounces, 64 ounces, 96 ounces or other suitable quantities of product, such as soda or juice. Although PET bottles are shown in Fig. 4, similar containers 80 may be used with sleeve 10 according to this invention.

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[0008] Sleeve 10 is preferably stretchingly engaged around container 80 to create package 90, such as package 90 shown in Fig. 4. Sleeve 10 preferably comprises a flexible plastic sheet, such as an elastic material 15 preferably constructed from a flexible, resilient material such as, in one preferable embodiment, low density polyethylene. For most applications, the elastic material 15 may have a thickness of about 1-20 mils, suitably about 2-4 mils.

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[0009] According to a preferred embodiment of this invention, the elastic material 15 used to form sleeve 10 is formed using a polymer composition which includes a high pressure low density polyethylene polymer. The composition provides the sleeve 10 with improved recovery after stretch, improved elongation and strength at break, and improved resistance to tearing when the sleeve is notched or scratched. The low density polyethylene polymer should have a density of about 0.910-0.950, grams/cm³, suitably about 0.920-0.940 grams/cm³, desirably about 0.925-0.935 grams/cm³. In other words, the term low density polyethylene polymer includes polyethylene polymers commonly considered as having medium density, as well as polyethylene polymers commonly considered as having low density.

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[0010] Elastic material 15 is preferably extruded into sheets which are cut, using means known to those skilled in the art, such as a stamping die, to form a plurality of sleeves 10. Each sleeve 10 is preferably formed to sufficiently engage a respective container 80.

[0011] Elastic material 15 is preferably printed with label 30. Label 30 preferably includes one or more of graph-

ics, product information, nutritional information, pricing, promotional offers and/or other suitable material germane to the marketing, sale and use of the respective container 80.

[0012] As shown in Fig. 1, according to a preferred embodiment of this invention, elastic material 15 includes a fold 20 along one edge to form two layers of elastic material 15. According to one preferred embodiment of this invention, a double thickness of elastic material 15 is sealed along one edge to form an openable sleeve 10 such as shown in Figs. 3 and 4.

[0013] Fig. 2 shows a pair of seals 25 aligned along one edge of elastic material 15. Seals 25, including inner seal 27 and outer seal 29, preferably connect the double thickness of elastic material 15 along an opposite edge of fold 20. Inner seal 27 of the pair of seals 25 preferably forms elastic material 15 into a generally continuous sleeve 10 sized to stretch around container 80. As shown in Fig. 2, each of the pair of seals 25 are preferably positioned along the one edge of elastic material 15 opposite fold 20. Although two seals 27, 29 are shown in Fig. 2, the invention may include a single seal 25 or more than two seals 25 positioned along elastic material 15.

[0014] According to a preferred embodiment of this invention, seals 25 preferably comprise a pair of welds positioned between two layers of elastic material 15. As shown in Figs. 2-4, seals 25 preferably extend transversely across sleeve 10. Seal 25 may comprise any suitable reinforcement that joins two or more layers of elastic material 15 together. The two or more layers of elastic material 15 may be welded, or otherwise joined together to create flexible sleeve 10. A Seal@ as used in the specification and claims may be defined as a hot weld, cold weld, lamination or any other manner of connection that joins two sheets of material known to those having ordinary skill in the art.

[0015] As a result of the preferred placement of seals 25 along one edge of elastic material 15, sleeve 10 is formed and delineated from handle 40. Specifically, as shown in Figs. 3 and 4, handle 40 is positioned to project from sleeve 10 and container 80. Handle 40 further includes handle aperture 50 formed in elastic material 15 between the pair of seals 27, 29. Handle aperture 50 is preferably positioned to provide an ample area for a purchaser to grab by inserting his hand or fingers through and still maintain the integrity of package 90.

[0016] According to the invention, handle 40 includes two layers of elastic material 15 joined by seals 27, 29 whereby additional layers of elastic material 15 are used in handle 40 by creating a gusset or similar arrangement to permit a thicker, more robust handle 40 relative to the remainder of sleeve 10.

[0017] In addition, seals 25 assist handle 40 in adding stiffness so that handle 40 projects from container 80 and facilitates lifting package 90. Such seals 25, particularly seal 27, also preferably add material thickness and/or width along edge of sleeve 10 which bears a significant amount of stress during the application process to con-

tainers 80. According to one preferred embodiment of this invention, seals 25 comprise a width of 1/16" to 1/4" thereby sufficiently reinforcing sleeve 10 during application and use.

[0018] Following application of sleeve 10 to container 80, a resultant and representative package 90 preferably includes a bottle having sleeve 10 stretched around the bottle. As described, sleeve 10 is preferably printed with informational material regarding the bottle.

[0019] A first weld or inner seal 27 preferably extends across a length of sleeve 10 and is positioned along a sidewall of the bottle. Handle 40 accordingly extends from inner seal 27, as shown in Fig. 4. As shown, handle 40 preferably extends outwardly from the bottle.

[0020] A second weld or outer seal 29 preferably extending across an end of handle 40, such as shown in Figs. 3 and 4. Handle aperture 50 extends through handle 40 and is preferably positioned within handle 40 between the inner seal 27 and the outer seal 29.

[0021] Sleeves 10 are preferably applied to containers 80, namely PET bottles, around a sidewall of the respective container 80. Preferably, sleeve 10 is applied around an approximate lower third of container 80 to maintain a maximum frictional engagement between sleeve 10 and the sidewall of container 80.

[0022] As partially shown in Fig. 3, sleeve 10 is preferably manufactured so that raw sleeve stock includes a generally continuous roll of elastic material 15 having a plurality of adjacent sleeves 10 that are punched and then wound onto a spool (not shown) having several thousand sleeves 10, each sleeve 10 attached to each adjacent sleeve 10, as described in more detail below. Sleeves 10 are later applied to containers 80 to form packages 90 and, during such process, are preferably unwound from spools and then separated from each other to form individual packages 90.

[0023] According to a preferred embodiment of this invention, between each sleeve 10 in the generally continuous roll of sleeves is line of weakness 35. Prior to, or during, the process of applying sleeves 10 to containers 80, each sleeve 10 may be separated from each adjacent sleeve along line of weakness 35. Lines of weakness 35 may comprise perforations, serrations, slits, reduced thickness or combination thereof formed in elastic material 15 and are preferably tearable or frangible to permit separation of elastic material 15 along a defined line.

[0024] According to embodiments of the invention best shown in Figs. 1-4, a method of packaging containers 80 preferably includes providing a generally continuous elastic material 15 having a plurality of sleeves 10 each having a respective handle 40. Such sleeves 10 optimally form a single carrying handle 40 for a single container 80, such as large PET bottles, as described herein. Preferably, though not shown in the figures, containers 80 are positioned in each container aperture 30 using equipment capable of stretchingly engaging sleeve 10 with container 80.

[0025] Following application, each container 80 there-

fore includes a sleeve 10 positioned about its sidewall that labels container 80 and enables convenient carrying of container 80. The resulting package 90 of one container 80 may then be lifted and carried using handle 40. A consumer may then carry and pour container 80 as desired and appropriately dispose of the empty container 80 and integrated sleeve 10.

[0026] Regardless of the application method, it is one preferred embodiment of this invention that package 90 include a container 90 with an integrated label and low density flexible handle 40 extending around each container 80. Such an arrangement permits comfortable grasping and carrying of even the largest containers 80.

Claims

1. A sleeve (10) for a container (80), the sleeve (10) comprising:

an elastic material (15) printed with a label (30);
at least one seal (27) aligned along one edge of the elastic material (15), the at least one seal (27) forming the elastic material (15) into the sleeve (10) sized to stretch around the container (80);

an additional seal (29) generally aligned with the at least one seal (27);

and

a handle aperture (40) formed in the elastic material (15) between the at least one seal (27) and the additional seal (29) **characterized by** a gusset positioned between the at least one seal (27) and the additional seal

2. The sleeve of Claim 1 wherein at least one seal (27) comprises a weld positioned between two layers of the elastic material (15).

3. The sleeve of Claim 1 wherein the elastic material (15) includes a fold to form two layers of elastic material (15) and the seals are positioned along the one edge opposite the fold.

4. The sleeve of Claim 1 wherein the handle aperture (40) is formed through two or more layers of the elastic material (15) joined by the seals (27,29).

5. A bottle (80) comprising:

a sleeve (10) stretched around the bottle (50), the sleeve (10) printed with informational material regarding the bottle (80);

a first weld (27) extending across a length of the sleeve (10) and positioned along a sidewall of the bottle (80);

a handle (40) extending from the first weld (27);
a second weld (29) extending across an end of

the handle (40);

a handle aperture extending through the handle (40) and positioned within the handle (40) between the first weld (27) and the second weld (29) **characterized by** a gusset positioned between the first weld (27) and the second weld (29);

6. The bottle (80) of Claim 5 wherein the handle (40) extends outwardly from the bottle (80).

7. The bottle (80) of Claim 5 wherein the sleeve (10) comprises low density polyethylene.

8. The bottle (80) of Claim 5 wherein the handle (40) comprises at least two layers of sleeve material (15).

9. A method of manufacturing a label for a container comprising the steps of:

providing a length of elastic material;

printing the elastic material with product information;

folding the elastic material along a fold line;

sealing two layers of the elastic material opposite the fold line along two generally linear lines of attachment, one of the two generally linear lines of attachment positioned to define a sleeve sized to stretch around the container;

and

forming a handle aperture in the elastic material between the two generally linear lines of attachment **characterized by** positioning a gusset between the two generally linear lines of attachment;

10. The method of Claim 9 further comprising the step of:

separating the elastic material between each handle aperture to form individual labels.

11. The method of Claim 10 further comprising the step of:

stretching each individual label around a respective container.

12. The method of Claim 9 further comprising the step of: extruding the length of elastic material.

Patentansprüche

1. Hülse (10) für einen Behälter (80), wobei die Hülse (10) Folgendes aufweist:

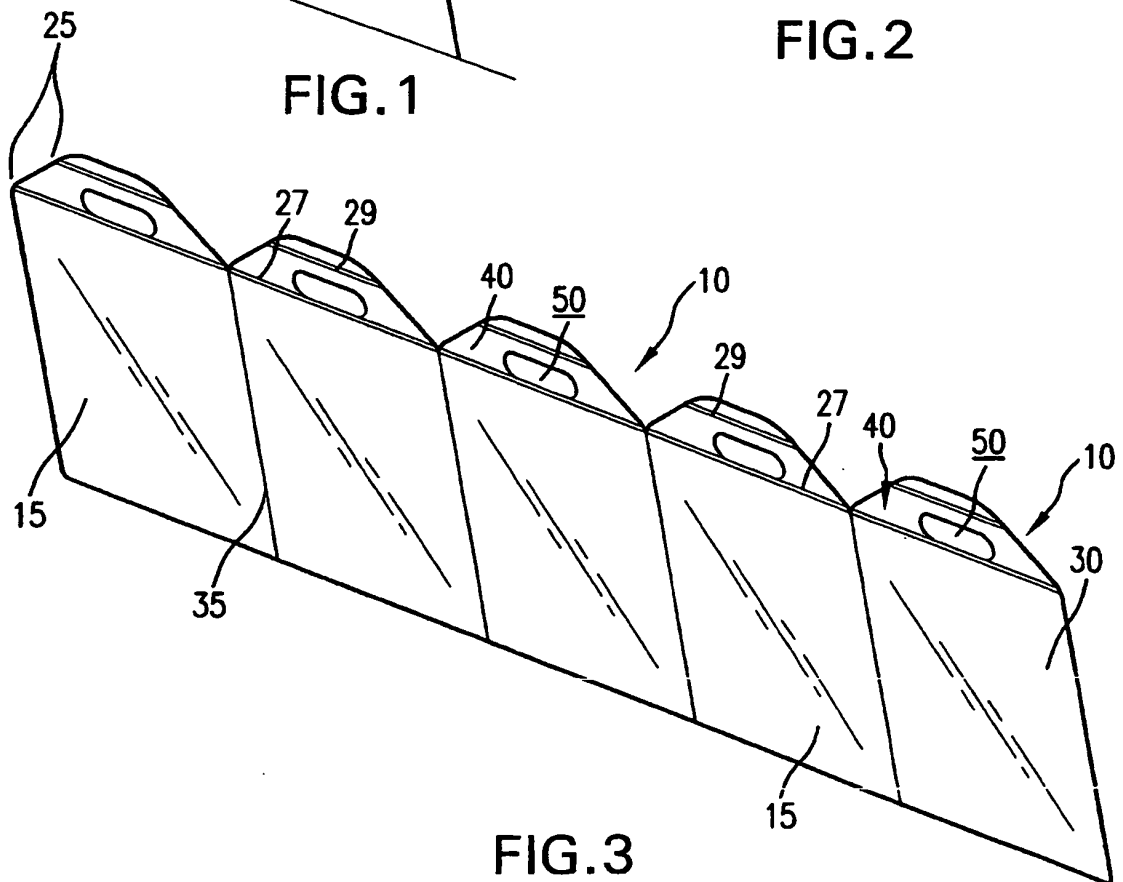
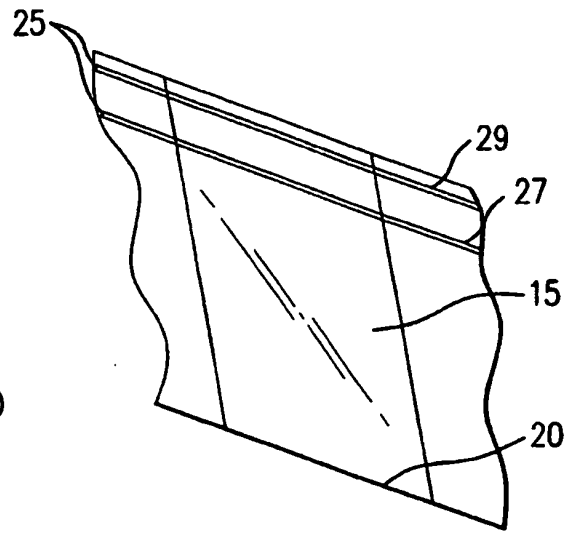
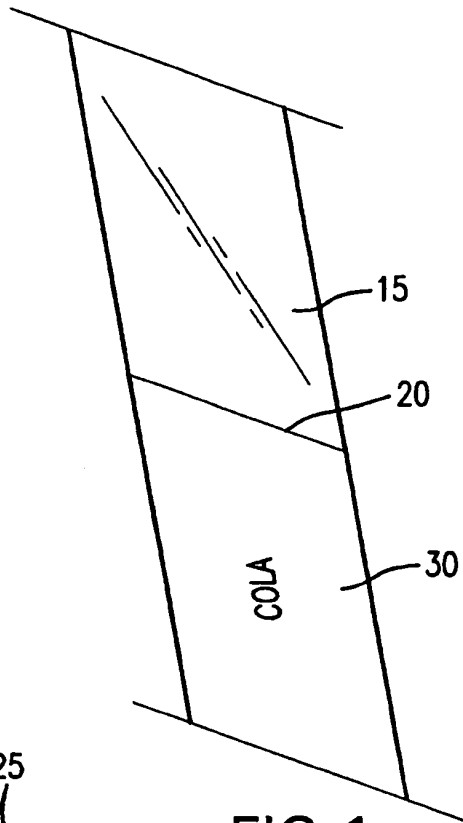
ein elastisches Material (15), das mit einem Etikett (30) bedruckt ist;

- mindestens eine Dichtung (27), die entlang einer Kante des elastischen Materials (15) ausgerichtet ist, wobei die mindestens eine Dichtung (27) das elastische Material (15) in die Hülse (10) ausbildet, die so bemessen ist, das sie sich um den Behälter (80) erstreckt;
eine zusätzliche Dichtung (29), die im Allgemeinen mit der mindestens einen Dichtung (27) ausgerichtet ist;
und
eine in dem elastischen Material (15) zwischen der mindestens einen Dichtung (27) und der zusätzlichen Dichtung (29) ausgebildete Handgrifföffnung (40), **gekennzeichnet durch** einen zwischen der mindestens einen Dichtung (27) und der zusätzlichen Dichtung positionierten Zwickel.
2. Hülse nach Anspruch 1, wobei mindestens eine Dichtung (27) eine Schweißnaht aufweist, die zwischen zwei Schichten des elastischen Materials (15) positioniert ist.
3. Hülse nach Anspruch 1, wobei das elastische Material (15) einen Falz aufweist, um zwei Schichten aus elastischem Material (15) auszubilden, und wobei die Dichtungen entlang der einen Kante gegenüber dem Falz positioniert sind.
4. Hülse nach Anspruch 1, wobei die Handgrifföffnung (40) aus zwei oder mehr Schichten des elastischen Materials (15) ausgebildet ist, das von den Dichtungen (27,29) zusammengefügt ist.
5. Flasche (80), die Folgendes aufweist:
- Eine um die Flasche (50) gedehnte Hülse (10), wobei die Hülse (10) mit Informationsmaterial über die Flasche (80) bedruckt ist;
eine sich über eine Länge der Hülse (10) erstreckende, und entlang einer Seitenwand der Flasche (80) positionierte erste Schweißnaht (27);
einen sich von der ersten Schweißnaht (27) erstreckenden Handgriff (40);
eine sich über ein Ende des Handgriffs (40) erstreckende zweite Schweißnaht (29);
eine sich durch den Handgriff (40) erstreckende Handgrifföffnung, die innerhalb des Handgriffs (40) zwischen der ersten Schweißnaht (27) und der zweiten Schweißnaht (29) positioniert ist;
gekennzeichnet durch einen zwischen der ersten Dichtung (27) und der zweiten Dichtung (29) positionierten Zwickel.
6. Flasche (80) nach Anspruch 5, wobei sich der Handgriff (40) von der Flasche (80) nach außen erstreckt.
7. Flasche (80) nach Anspruch 5, wobei die Hülse (10)
- Polyethylen mit niedriger Dichte aufweist.
8. Flasche (80) nach Anspruch 5, wobei der Handgriff (40) mindestens zwei Schichten von Hülsematerial (15) aufweist.
9. Verfahren zur Herstellung eines Etiketts für einen Behälter, das folgende Schritte umfasst:
- Bereitstellung einer Länge von elastischem Material;
Bedrucken des elastischen Materials mit Produktinformationen;
Falzen des elastischen Materials entlang einer Falzlinie;
Versiegeln der zwei Schichten des elastischen Materials gegenüber der Falzlinie an zwei im Allgemeinen geraden Befestigungslinien entlang, wobei eine von den zwei im Allgemeinen geraden Befestigungslinien angeordnet ist, um eine Hülse festzulegen, die so bemessen ist, dass sie sich um den Behälter dehnt;
und
Ausbilden einer Handgrifföffnung in dem elastischen Material zwischen den zwei im Allgemeinen geraden Befestigungslinien, **gekennzeichnet durch** die Anordnung eines Zwickels zwischen den zwei im Allgemeinen geraden Befestigungslinien.
10. Verfahren nach Anspruch 9, das weiterhin die folgenden Schritte umfasst:
- Trennen des elastischen Materials zwischen jeder Handgrifföffnung, um einzelne Etiketten auszubilden.
11. Verfahren nach Anspruch 10, das weiterhin die folgenden Schritte umfasst:
- Dehnen von jedem einzelnen Etikett um jeweils einen Behälter.
12. Verfahren nach Anspruch 9, das weiterhin die folgenden Schritte umfasst:
- Extrudieren der Länge von elastischem Material.

Revendications

1. Manchon (10) pour un récipient (80), le manchon (10) comprenant :
- une matière élastique (15) imprimée avec une étiquette (30) ;
au moins une fermeture (27) alignée le long d'un

- bord de la matière élastique (15), ladite fermeture (27) transformant la matière élastique (15) en manchon (10) dimensionné pour s'enrouler élastiquement autour du récipient (80) ;
une fermeture supplémentaire (29) dans l'ensemble alignée avec ladite fermeture (27) ; et
une ouverture de poignée (40) pratiquée dans la matière élastique (15) entre ladite fermeture (27) et la fermeture supplémentaire (29),
caractérisé en ce qu'un soufflet est placé entre ladite fermeture (27) et la fermeture supplémentaire.
2. Manchon selon la revendication 1, dans lequel ladite fermeture (27) comprend une soudure pratiquée entre deux couches de la matière élastique (15).
3. Manchon selon la revendication 1, dans lequel la matière élastique (15) comprend un pliage pour former deux couches de matière élastique (15) et les fermetures sont placées le long des bords en face du pliage.
4. Manchon selon la revendication 1, dans lequel l'ouverture de poignée (40) est pratiqué à travers deux couches ou plus de la matière élastique (15) assemblées par les fermetures (27, 29).
5. Bouteille (80) comprenant :
- un manchon (10) enroulé élastiquement autour de la bouteille (50), le manchon (10) étant imprimé avec des renseignements informatifs concernant la bouteille (80) ;
une première soudure (27) s'étendant sur toute la longueur du manchon (10) et placée le long de la paroi latérale de la bouteille (80) ;
une poignée (40) s'étendant depuis la première soudure (27) ;
une seconde soudure (29) s'étendant sur toute l'extrémité de la poignée (40) ;
une ouverture de poignée traversant la poignée (40) et placée à l'intérieur de la poignée (40) entre la première soudure (27) et la seconde soudure (29), **caractérisée en ce qu'un soufflet est placé entre la première soudure (27) et la seconde soudure (29).**
6. Bouteille (80) selon la revendication 5, dans laquelle la poignée (40) s'étend vers l'extérieur à partir de la bouteille (80).
7. Bouteille (80) selon la revendication 5, dans laquelle le manchon (10) est constitué de polyéthylène basse densité.
8. Bouteille (80) selon la revendication 5, dans laquelle la poignée (40) comprend au moins deux couches
- de matière de manchon (15).
9. Procédé de fabrication d'une étiquette pour un récipient comprenant les étapes consistant à :
- approvisionner une longueur de matière élastique ;
imprimer des informations concernant le produit sur la matière élastique ;
plier la matière élastique le long d'une ligne de pliage ;
souder deux couches de la matière élastique de l'autre côté de la ligne de pliage, le long de deux lignes dans l'ensemble droites, une de ces deux lignes de fixation dans l'ensemble droites étant placée pour délimiter un manchon dimensionné pour s'enrouler élastiquement autour du récipient ;
pratiquer une ouverture de poignée dans la matière élastique entre les deux lignes de fixation dans l'ensemble droites,
caractérisé en ce que l'on place un soufflet entre les deux lignes de fixation dans l'ensemble droites.
10. Procédé selon la revendication 9 comprenant en outre l'étape consistant à séparer la matière élastique entre chaque ouverture de poignée pour former des étiquettes individuelles.
11. Procédé selon la revendication 10 comprenant en outre l'étape consistant à étirer chaque étiquette individuelle autour du récipient correspondant.
12. Procédé selon la revendication 9 comprenant en outre l'étape consistant à extruder la longueur de matière élastique.



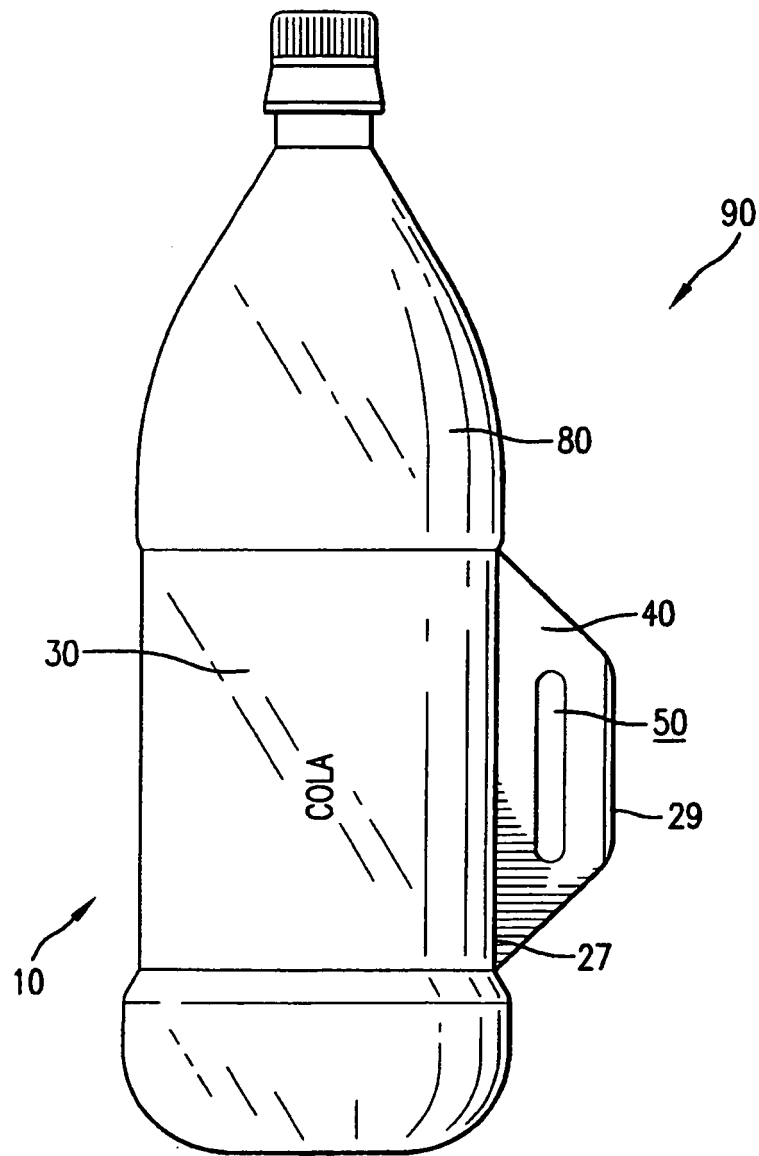


FIG. 4

REFERENCES CITED IN THE DESCRIPTION

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