

25 Documents

Publication numbers	Title	Current assignees
CN201756208U U	Stably stood bottle bottom of light-weight bottle	GUANGZHOU TECHNOLOGY LONG PACKING MACHINE
CN106927105 A	Bottle bottom structure of barreled water bottle	SIPA MACHINERY
JP2002053118 A	Light-weight bottle container	SHISEIDO
CN101913447 A	Internal pressure-resistant PET hot-filling bottle bottom structure	GUANG DONG XING LIAN PRECISE MACHINERY, ...
CN202038493U U	Light weight bottle	GUANGZHOU SINLIEN Z T INDUSTRY
CN201777447U U	Bottle bottom structure of internal pressure resistant PET (Polyester) hot-filled bottle	GUANG DONG XING LIAN PRECISE MACHINERY, ...
WO200244038 A1	Biaxially stretch-blow molded lightweight synthetic resin bottle container and method for production thereof	YOSHINO KOGYOSHO
WO9712811 A1	Blow-moulded plastics container, in particular lightweight bottle	ALPLA WERKE ALWIN LEHNER
CN202272238U U	Improved 450 ml optimized light bottle blank	ZHUHAI ZHONGFU ENTPR
CN104085579 A	BOPP beverage bottle with bottle opening with diameter being 38 mm and manufacturing method of BOPP beverage bottle	DONGJUN DAIRY INDSTRY YUCHENG
CN104192391 A	Light weight package bottle blank bottom structure	SIPA MACHINERY HANGZHOU
JP2010105677 A	Resin container with buckling resistance and beverage product using the same	KIRIN BREWERY
CN2500607U Y	Bottle with soft body	GUO LIANGUANG
JP2005186996 A	Container	TOYO SEIKAN KAISHA
JP2005247393 A	Container	TOYO SEIKAN KAISHA
CN206579957U U	Bottle bear building -up of barreled water -jug constructs	SIPA MACHINERY HANGZHOU
EP-609575 A1	Lightweight, composite container and method for making the same	PROCTER & GAMBLE
CN202670213U U	Light weight pointed bottom bottle preform	GUANGZHOU UNIQUE INJECTION MOLDING SYSTEMS
US4308955 A	Interfitting, stackable bottles	LIQUI BOX
WO2013110631 A1	Load-bearing and vacuum-resistant containers	NESTEC
CA2817555 A1	Preform extended finish for processing light weight bottles	NIAGARA BOTTLING
BR102013001542 A1	Handle for a plastic bottle	COCA COLA

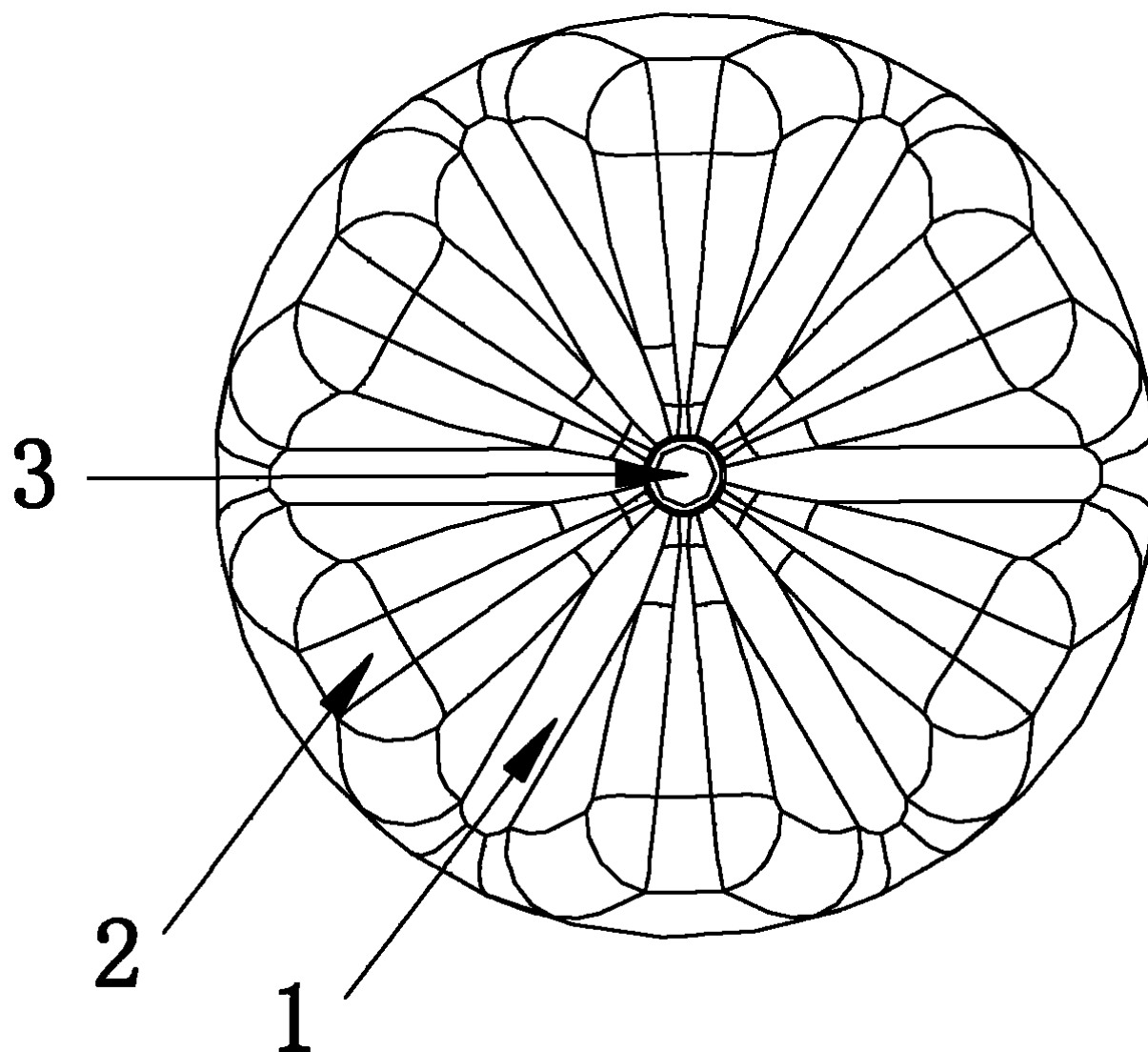
Publication numbers	Title	Current assignees
CN103621314 A	Homemade transparent container for cultivation of cordyceps militaris, fungus growth and direct filling of medicinal liquor	LI YANFENG
US20130140264 A1	Plastic container with varying depth ribs	NIAGARA BOTTLING
GB9308650 D0	Plastics container	UNILEVER

Family 1/25 - FAMPAT - ©Questel

Title

(CN201756208U)

Stably stood bottle bottom of light-weight bottle

Images**Publication data including kind & date**[CN201756208](#)

U

2011-03-09

CN201756208U

**Abstract**

(CN201756208U)

The utility model discloses a stably stood bottle bottom of a light-weight bottle, wherein six or eight reinforcing ribs are uniformly arranged at the bottom of the bottle, six or eight supporting points are uniformly arranged at the bottle bottom, and the reinforcing ribs and the supporting points are distributed at intervals. The utility model provides the bottle bottom of a light-weight bottle, which has a simple structure and can be stably stood, aiming to solve the problem that after a light-weight PET (polyethylene terephthalate) bottle is filled with nitrogen, the bottom deforms and a downward protrusion is formed, resulting in unstable standing and falling down of the bottle.

Inventors

AN WU YU

Latest standardized assignees - inventors removed

GUANGZHOU TECHNOLOGY LONG PACKING MACHINE

Publication dates

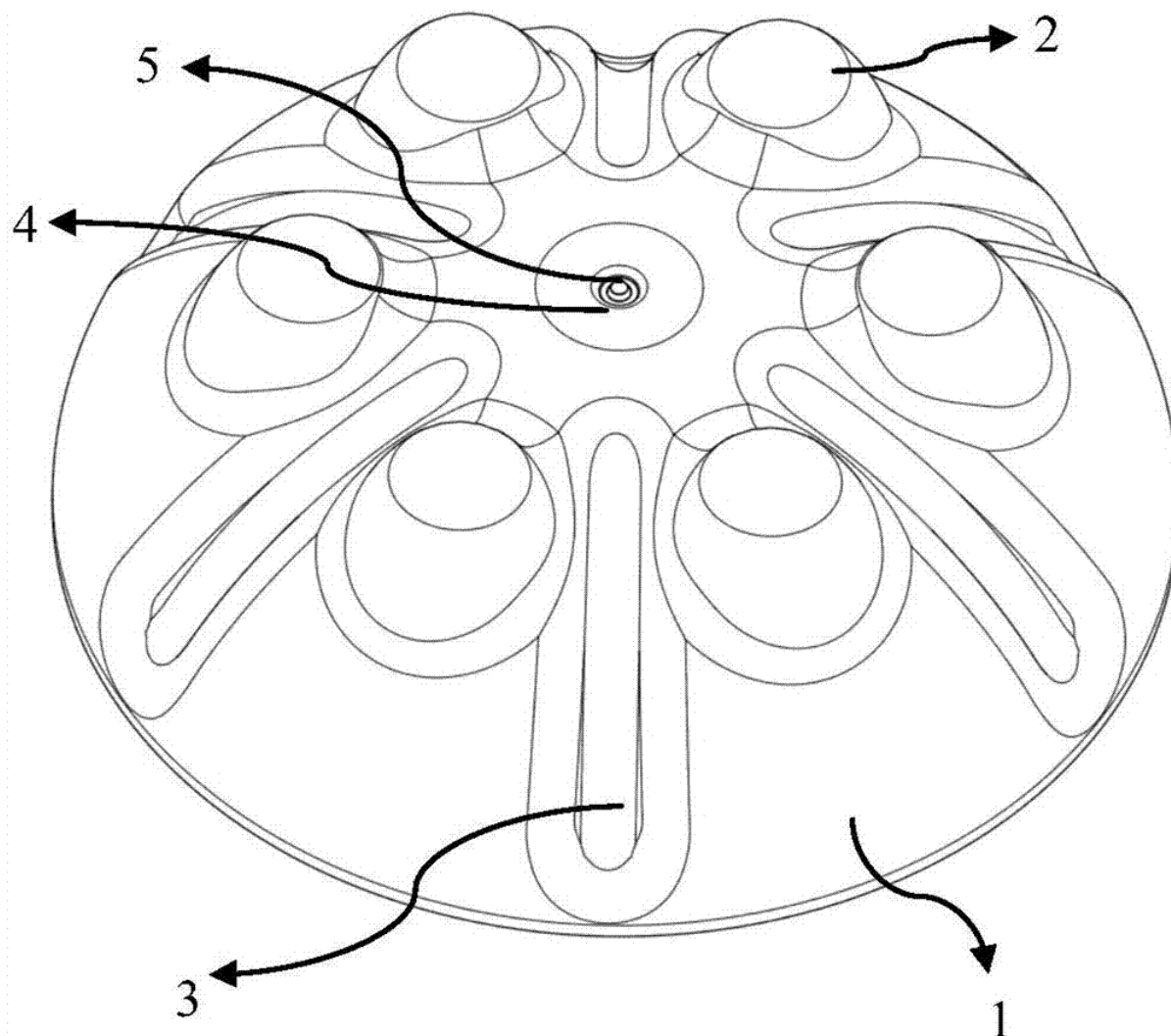
2011-03-09

Family 2/25 - FAMPAT - ©Questel

Title

(CN106927105)

Bottle bottom structure of barreled water bottle

Images**Publication data including kind & date**[CN106927105](#)

A

2017-07-07

CN106927105

**Abstract**

(CN106927105)

The invention relates to the structural design of a barreled water bottle, and aims at providing a bottle bottom structure of the barreled water bottle. A body of a bottle bottom of the bottle bottom structure is in a semispherical shape or a curved surface shape similar to the semispherical shape. A center boss protruding towards the inner side sphere center is arranged at the center position. Multiple supporting legs protruding outwards are arranged on the body of the bottle bottom, wherein the top ends are located on the same horizontal plane, and the horizontal plane is perpendicular to the vertical axis of the barreled water bottle. A groove indented inwards is formed between every two adjacent supporting legs. The supporting legs and the grooves are alternate. The grooves extend towards the center boss from the periphery of the bottle bottom and are formed in a radial manner in the radial direction. The bottle bottom structure has the beneficial effects that after a bottle body is filled with nitrogen and pressed, the bottle body can stand stably due to the bottle bottom, and outward-protruding deformation of the bottle bottom can be effectively restrained. Reinforcing ribs extend to the positions close to the center of the bottle bottom all the way from the periphery of the bottle bottom, supporting points are reinforced, and a good supporting effect is achieved for the whole bottle body. Under the condition that the use requirement is met, more PET raw materials can be saved, and the bottle bottom structure can be applied to a large barrel bottle with the volume within 50 L.

Inventors

LUO QIN

CHENG FENG

Latest standardized assignees - inventors removed

SIPA MACHINERY

Publication dates

2017-07-07

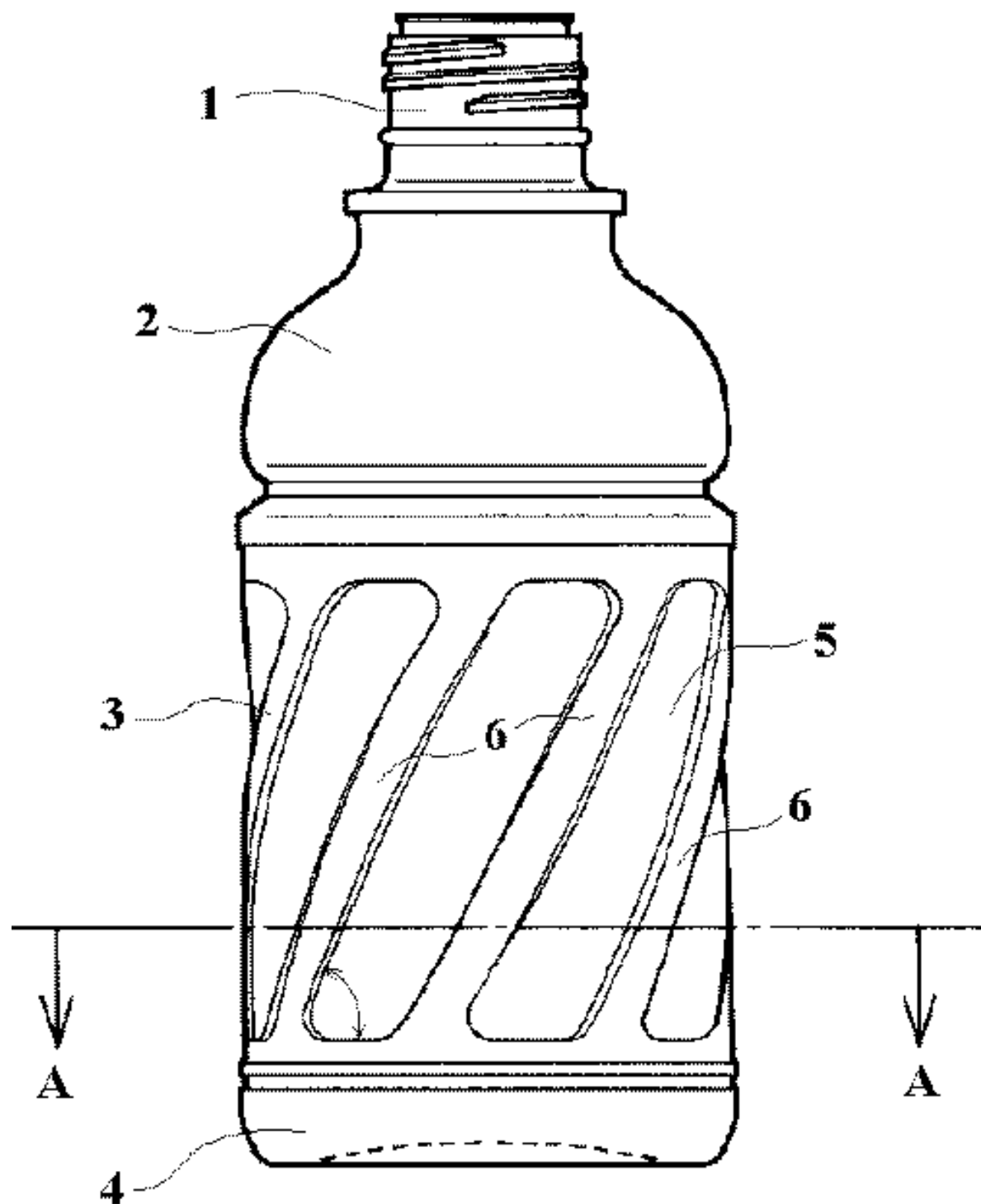
Family 3/25 - FAMPAT - ©Questel

Title

(JP2002053118)

Light-weight bottle container

Images

**Publication data including kind & date**[JP2002053118](#)

A

2002-02-19

JP2002053118

**Abstract**

(JP2002053118)

PROBLEM TO BE SOLVED: To suppress a container deformation due to the lightening of a container, and keep the deformation in a degree wherein the appearance of the container may not be spoiled. SOLUTION: A plurality of spiral grooves are formed on the body wall section of the container, and the deformation of the container is made a twisting type deformation along the spiral grooves. Thus, a large deformation on the container appearance is suppressed.

Inventors

SATO TATSUO

TAGUCHI MASARU

Latest standardized assignees - inventors removed

SHISEIDO

Publication dates

2002-02-19

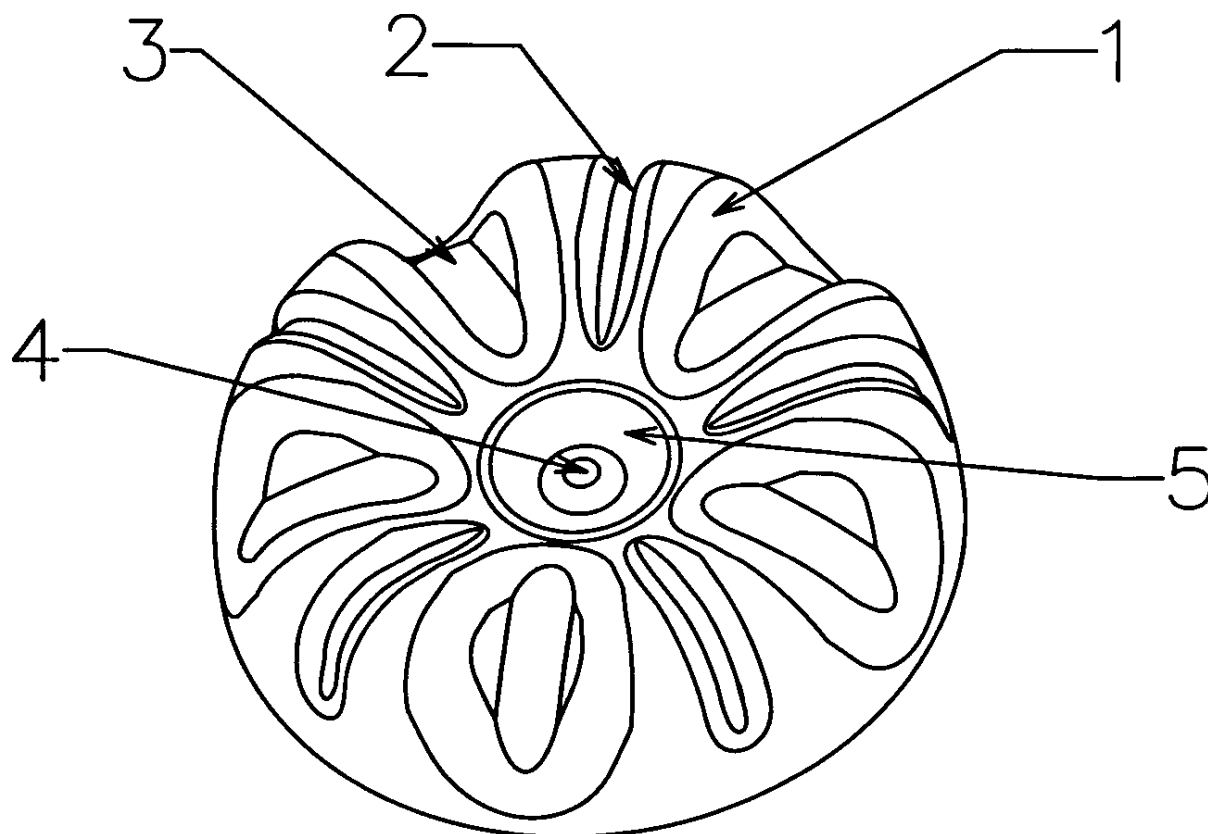
Family 4/25 - FAMPAT - ©Questel

Title

(CN101913447B)

Internal pressure-resistant PET hot-filling bottle bottom structure

Images



Publication data including kind & date

CN101913447	A	2010-12-15	CN101913447
CN101913447	B	2012-07-04	CN101913447B



Abstract

(CN101913447B)

The invention discloses an internal pressure-resistant PET hot-filling bottle bottom structure. The structure comprises five claws, grooves between claws, a bottle bottom stretching positioning groove and a central boss, wherein an in-claw groove is arranged on the middle part of each claw; the section of the in-claw groove is formed by straight lines, at a field angle δ , on the two sides and a transition arc, wherein the straight lines, at the field angle δ , on the two sides are tangent to the arc of the in-claw groove and are connected with the claws on the two sides through transition arcs; the height H_1 of the in-claw groove is 0.6 to 0.85 H ; the width w of the in-claw groove is 0.05 to 0.2 ϕ ; the field angle δ formed by the straight lines on the two sides of the in-claw groove is 30 to 60 degrees; the arc radius R_δ of the in-claw groove is 1 to 3 mm; ϕ is the diameter of a PET bottle; and H the height of the bottle bottom of the PET bottle. After fully considering the light weight of the bottle, the bottle bottom can not only resist heat, but also bear 0.8 to 1.2kg of internal pressure without causing a convex bottom on a lower bottom, and has two characteristics of heat resistance and pressure resistance.

Inventors

GUOJI XIE

XIAOPING JIANG

QINGCHUN HU

Latest standardized assignees - inventors removed

GUANG DONG XING LIAN PRECISE MACHINERY

SOUTH CHINA UNIVERSITY OF TECHNOLOGY

Publication dates

2010-12-15

2012-07-04

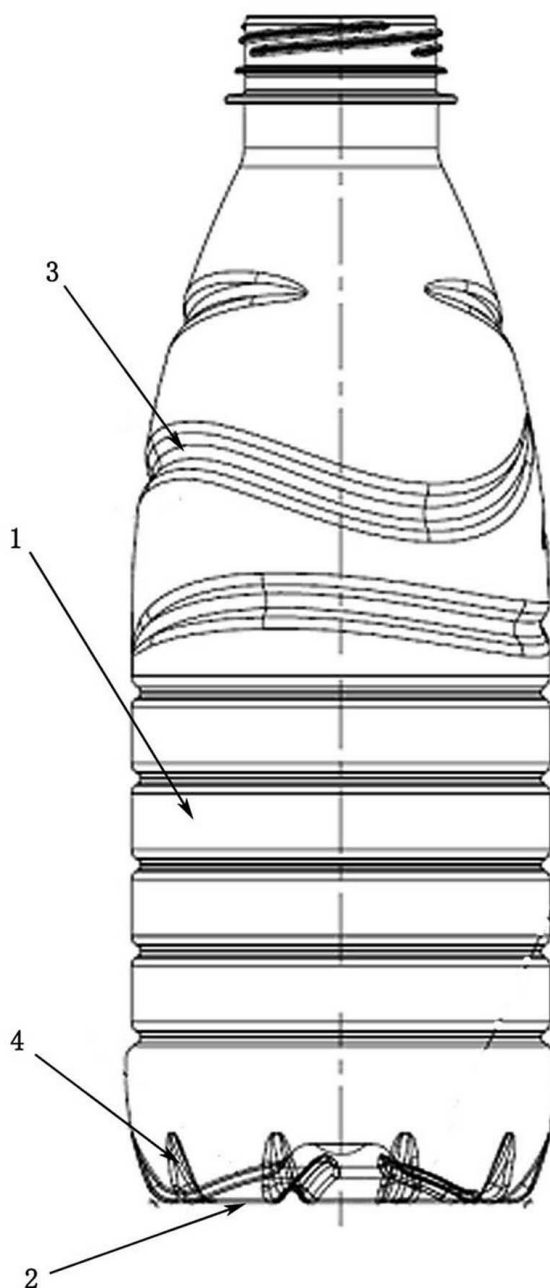
Family 5/25 - FAMPAT - ©Questel

Title

(CN202038493U)

Light weight bottle

Images



Publication data including kind & date

CN202038493

U 2011-11-16

CN202038493U

**Abstract**

(CN202038493U)

The utility model discloses a light weight bottle, which reduces material consumption and production consumption of drinking water bottles and lights weight of finished bottles under a condition that using habits and product quality of consumers are ensured. The light weight bottle comprises a bottle body and a bottle bottom, stripes are arranged on the bottle body, cross sections of the stripes are triangles, apex angles of the triangles are arc angles, and connecting portions of the stripes and the bottle body are chamfering fillets. A plurality of fillets concaved inwards are arranged at the lower ends of outer surfaces of the bottle body and the bottle bottom, cross sections of the fillets are in a trapezoid shape, two base angles of each trapezoid are arc angles, and connecting portions of the fillets and the bottle bottom are chamfering fillets. The arc angles and the chamfering fillets avoid stress concentration, lower probability of deformation, simultaneously increase compression strength of wall thickness, save using materials of the bottle bottom and the bottle body and reduce energy consumption. Compared with the traditional scheme of being filled with nitrogen, a filling technology is not changed, and no device is needed to add.

Inventors

XIAOBIN ZENG

Latest standardized assignees - inventors removed

GUANGZHOU SINLIEN Z T INDUSTRY

Publication dates

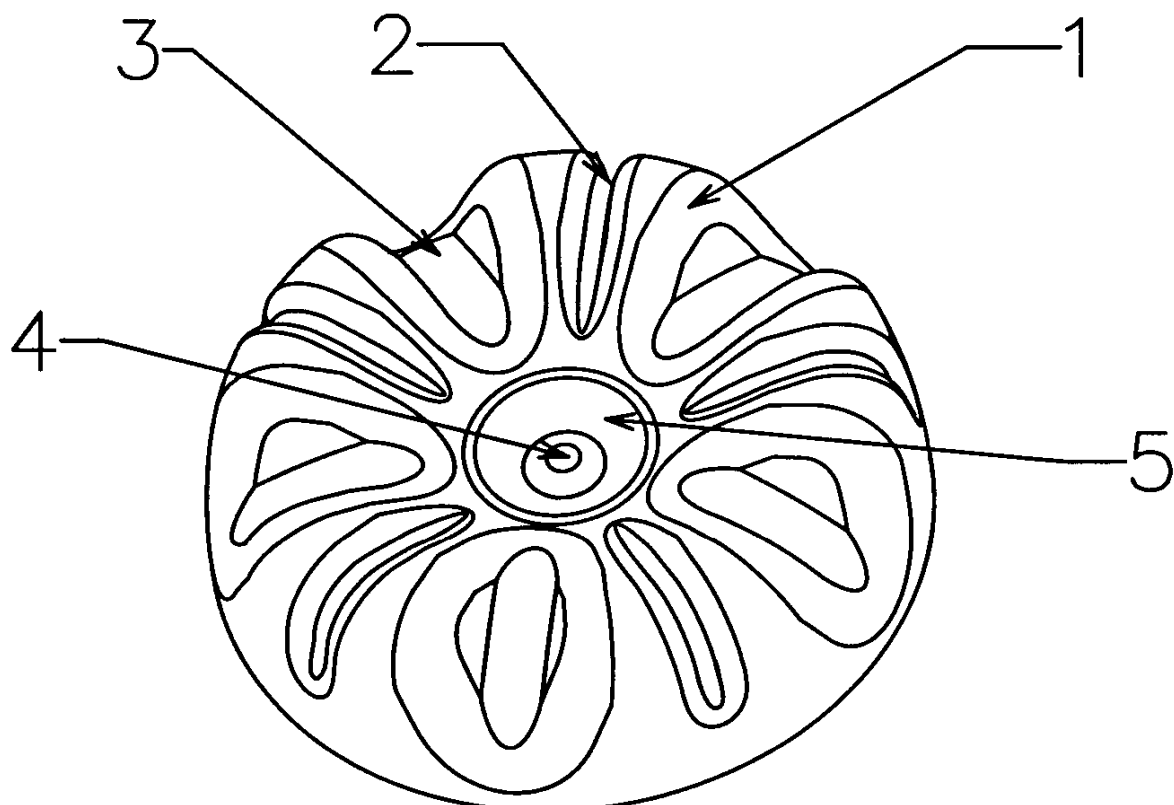
2011-11-16

Family 6/25 - FAMPAT - ©Questel

Title

(CN201777447U)

Bottle bottom structure of internal pressure resistant PET (Polyester) hot-filled bottle

Images

Publication data including kind & date

CN201777447

U 2011-03-30 CN201777447U

**Abstract**

(CN201777447U)

The utility model discloses a bottle bottom structure of an internal pressure resistant PET (Polyester) hot-filled bottle, which comprises five claws, grooves among the claws, a bottle bottom stretching and positioning groove and a central lug boss, wherein a claw internal groove is arranged at the middle part of each claw; the section of the claw internal groove comprises two straight line segments which form a flare angle δ and are arranged on two sides and a transitional arc section; the two straight line segments which form the flare angle δ and are arranged on two sides are not only tangential to the arc of the claw internal groove, but also are connected with the claws on two sides by the transitional arc; the height H_1 of the claw internal groove is $0.6-0.85H$; the width w of the claw internal width is $0.05-0.2\phi$; the flare angle formed by the straight line segments on two sides of the claw internal groove is $30-60$ degrees; the circular-arc radius R_δ of the claw internal groove is $1-3\text{mm}$; the ϕ is the diameter of the PET bottle; and the H is the bottle bottom height of the PET bottle. After the light weight of the bottle is fully considered, the bottle bottom not only resists the heat, but also can bear the pressure within 0.8 to 1.2kg to avoid the bottom protrusion after the lower bottom is pressed; and the utility model has two characteristics of heat and pressure resistance.

Inventors

GUOJI XIE

XIAOPING JIANG

QINGCHUN HU

Latest standardized assignees - inventors removed

GUANG DONG XING LIAN PRECISE MACHINERY

SOUTH CHINA UNIVERSITY OF TECHNOLOGY

Publication dates

2011-03-30

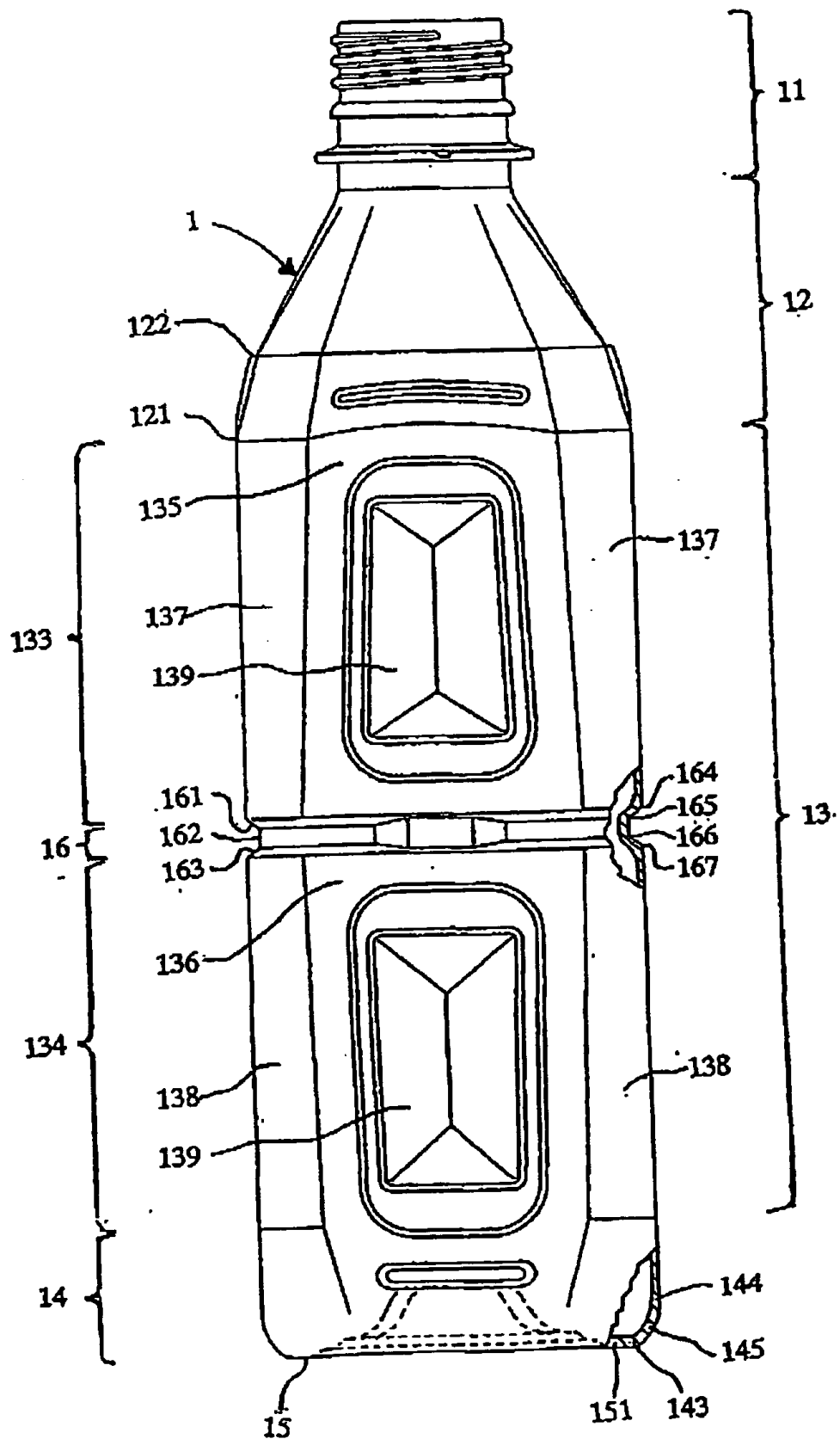
Family 7/25 - FAMPAT - ©Questel

Title

(EP1354801)

Biaxially stretch-blow molded lightweight synthetic resin bottle container and method for production thereof

Images



Publication data including kind & date

WO200244038	A1	2002-06-06	WO200244038
CA2436824	A1	2002-06-06	CA2436824
AU2256002	A	2002-06-11	AU200222560
JP2002166916	A	2002-06-11	JP2002166916
KR20020086481	A	2002-11-18	KR20020086481
CN1407935	A	2003-04-02	CN1407935



TW542809	B	2003-07-21	TW-542809				
EP1354801	A1	2003-10-22	EP1354801				
US20040022976	A1	2004-02-05	US20040022976				
CN1244479	C	2006-03-08	CN1244479C				
KR100807011	B1	2008-02-25	KR100807011				
EP1354801	A4	2009-03-18	EP1354801				
CA2436824	C	2010-10-19	CA2436824				

Abstract

(EP1354801)

A bottle-shaped container shows a large critical strength against buckling and is made of a reduced amount of synthetic resin material. A manufacturing method can manufacture such a bottle-shaped container. A lightweight bottle-shaped container made of synthetic resin and formed by biaxially-oriented blow-molding, characterized in that a wall thickness is increased to 109% or more of an average wall thickness of blow-molded part of the wall at an inflection point (121, 122, 143-145, 164-167, 243-245, 264-267, 271-274, 283, 284, 343-345, 371-374, 391-394) between a portion having a transversal cross sectional area and a portion having a different transversal cross sectional area in a cylindrical wall. The wall is thicker between the heel (14, 24, 34) and the bottom (15, 25, 35), or at the waist (16, 26), at the recessed rib (27, 37, 39), or at the projection (28). <IMAGE>

Inventors

KATO TOYOJI

UESUGI DAISUKE

TSUTSUI NAOKI

HARA NAOTO

OZAWA TOMOYUKI

ISHIZUKA TOMOHIKO

YAGUCHI HIROMI

Latest standardized assignees - inventors removed

YOSHINO KOGYOSHO

Publication dates

2002-06-06

2002-06-06

2002-06-11

2002-06-11

2002-11-18

2003-04-02

2003-07-21

2003-10-22

2004-02-05

2006-03-08

2008-02-25

2009-03-18

2010-10-19

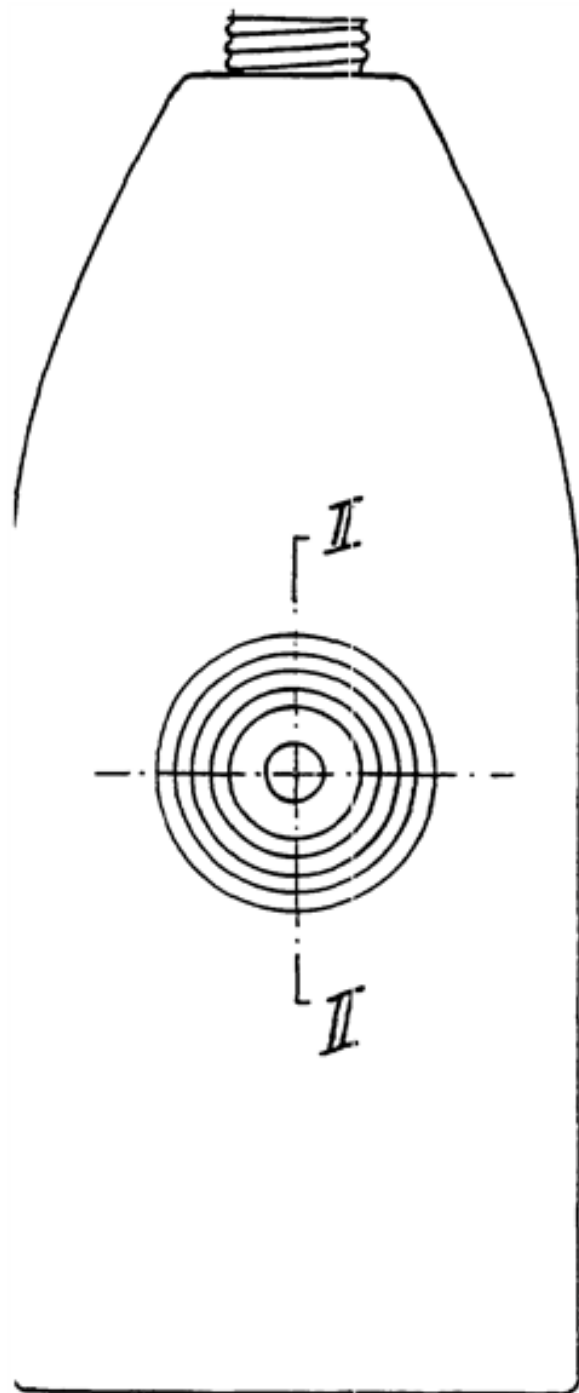
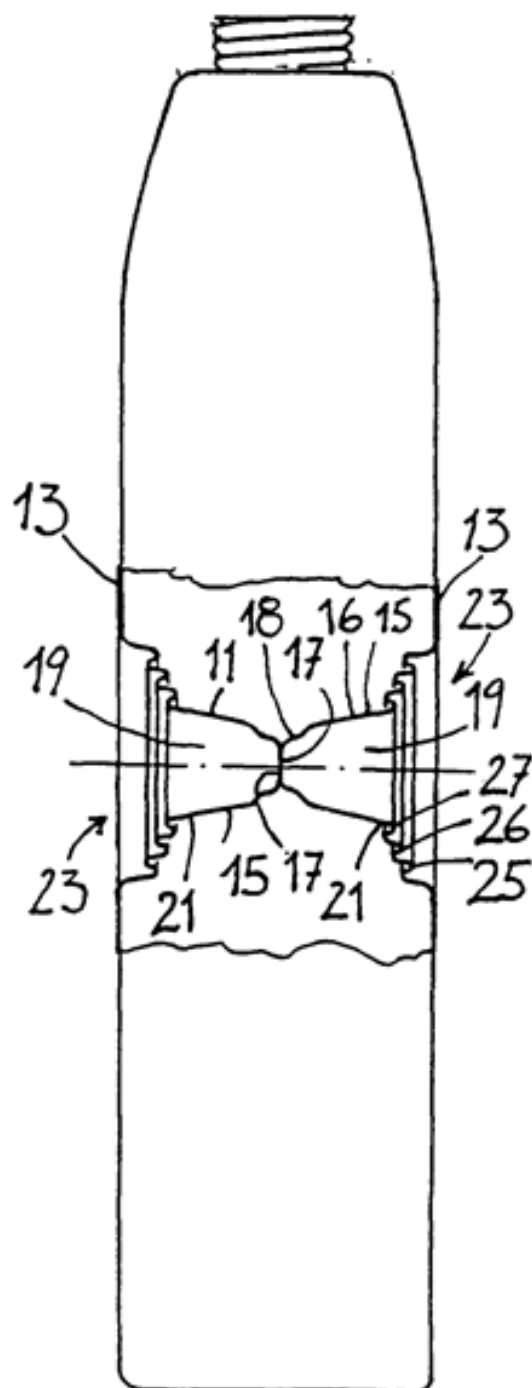
Family 8/25 - FAMPAT - ©Questel

Title

(EP-853584)

Blow-moulded plastics container, in particular lightweight bottle

Images

Fig. 1Fig. 2**Publication data including kind & date**

WO9712811	A1	1997-04-10	WO9712811
AU6983396	A	1997-04-28	AU9669833
EP0853584	A1	1998-07-22	EP-853584
DE19680847	D2	1999-06-17	DE19680847
EP0853584	B1	2001-09-05	EP-853584
AT205150	T	2001-09-15	ATE205150
DE59607637	D1	2001-10-11	DE59607637

**Abstract**

(EP-853584)

The invention concerns a blow-moulded bottle inside which a connection (11) extends from one wall (13) to the other and prevents the walls (13) from bulging when the bottle is full. The risk of the bottle's being compressed so greatly when

handled that fluid inside the bottle is unintentionally forced out and spilt is also counteracted. The connection (11) comprises two columnar recesses (19), the free ends (17) of the columns (15) being welded to one another. At the base of each column (15) undulations (25, 26, 27) are formed practically concentrically to the column (15), so providing a region (23) with increased flexibility. In this way, resilient deformation can occur in this region (23) if the bottle is dropped when full. The walls (13) can thus move inwards or outwards somewhat relative to the columns (15) without a great risk of cracking at the column base.

Inventors

HERBURGER GUENTHER

Latest standardized assignees - inventors removed

ALPLA WERKE ALWIN LEHNER

Publication dates

1997-04-10

1997-04-28

1998-07-22

1999-06-17

2001-09-05

2001-09-15

2001-10-11

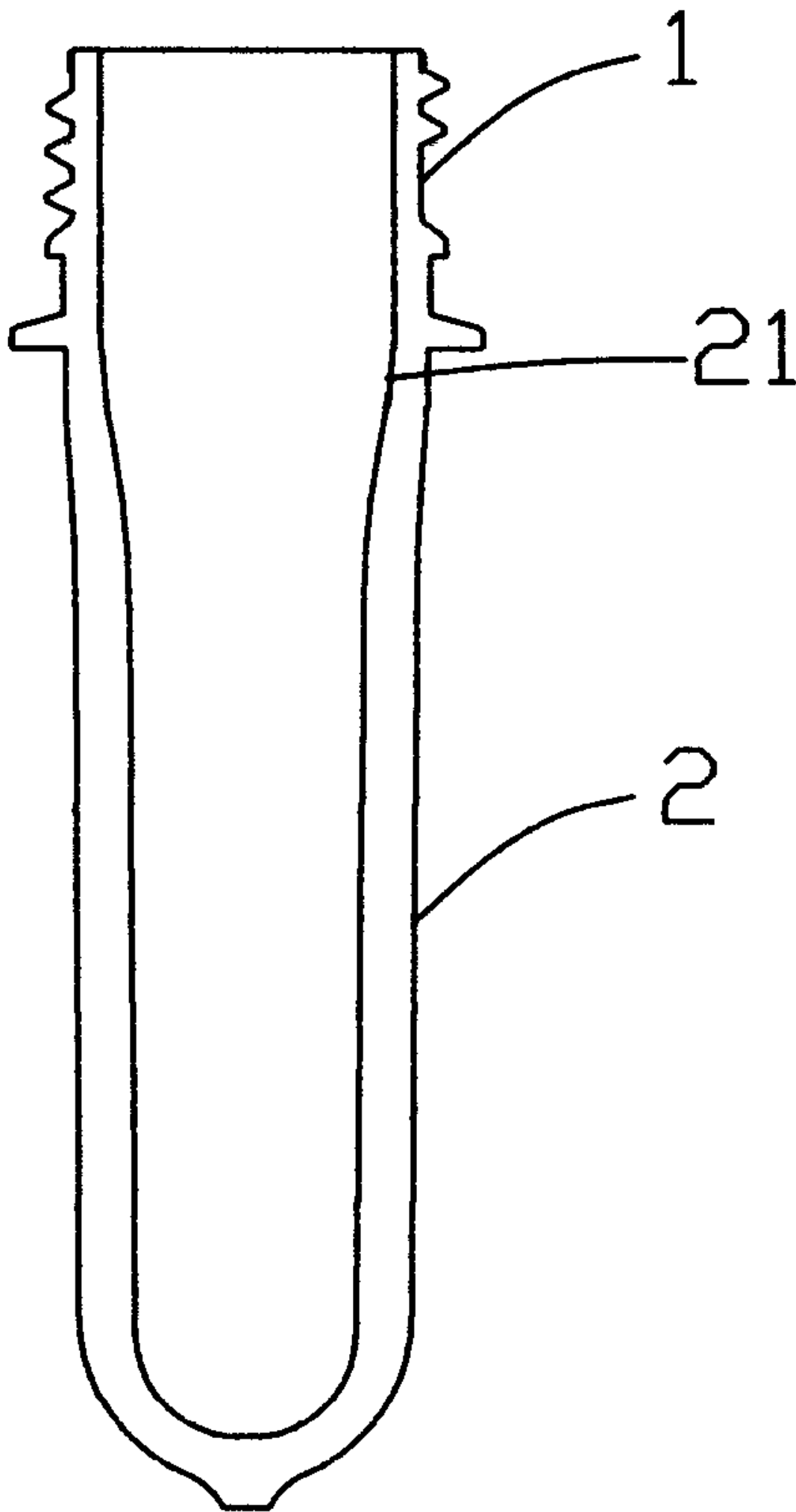
Family 9/25 - FAMPAT - ©Questel

Title

(CN202272238U)

Improved 450 ml optimized light bottle blank

Images



Publication data including kind & date[CN202272238](#)

U 2012-06-13 CN202272238U

**Abstract**

(CN202272238U)

The utility model provides an improved 450 ml optimized light bottle blank. The improved 450 ml optimized light bottle blank comprises a bottle blank mouth and a bottle blank body which are integrated through injection molding, and is characterized in that the bottle blank body is 72.12 to 72.32 mm in length, 22.11 to 22.21 mm in external diameter, 15.86 to 15.96 mm in lower part internal diameter, and 25.45 to 25.55 mm in internal diameter at the joint where the bottle blank body is connected with the bottle blank mouth; and the bottle blank mouth is 21.45 to 21.65 mm in length, 25.22 to 25.32 mm in external diameter, and 20.95 to 21.05 mm in internal diameter. Through the adoption of the structure, a bottle formed by blow molding of the bottle blank can be kept 450 ml in volume while the original quality requirements on beverage hot filling packing are met; and the weight of the packaging bottle can be lower than 23.5 g. Therefore, the raw plastic material is saved; and the packing cost of the product is reduced.

Inventors

YULING WANG

DESHAN KONG

CUNGUANG HUANG

Latest standardized assignees - inventors removed

ZHUHAI ZHONGFU ENTPR

Publication dates

2012-06-13

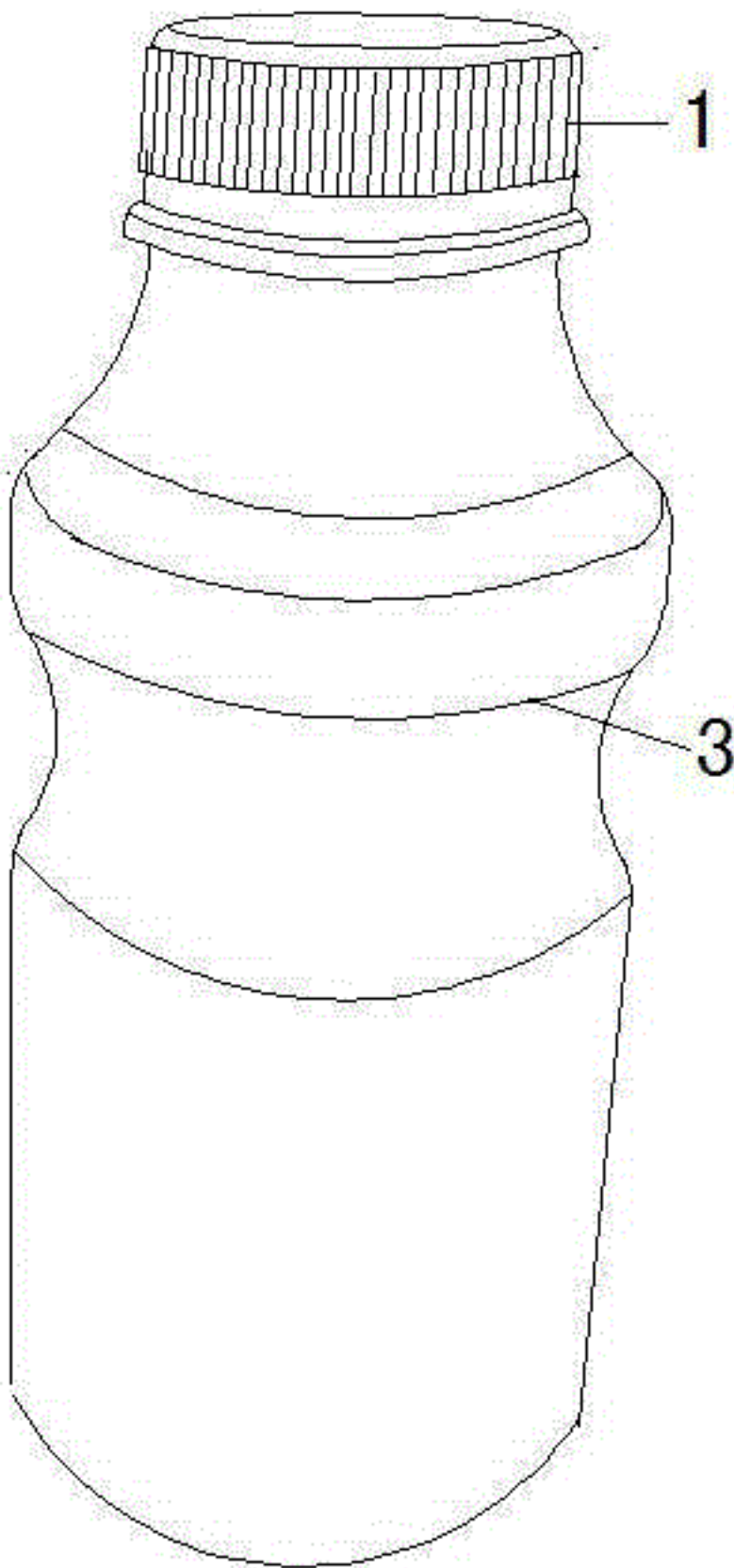
Family 10/25 - FAMPAT - ©Questel

Title

(CN104085579)

BOPP beverage bottle with bottle opening with diameter being 38 mm and manufacturing method of BOPP beverage bottle

Images

**Publication data including kind & date**

CN104085579	A	2014-10-08	CN104085579
CN104085579	B	2016-05-04	CN104085579B

**Abstract**

(CN104085579B)

The invention relates to the beverage technology, in particular to a BOPP beverage bottle with a bottle opening with the diameter being 38 mm and a manufacturing method of the BOPP beverage bottle. The BOPP beverage bottle with the bottle opening with the diameter being 38 mm comprises a bottle body, the bottle opening and a bottle cap matched with the bottle opening. The BOPP beverage bottle with the bottle opening with the diameter being 38 mm is characterized in

that the threaded outer diameter of the bottle opening of the bottle body is 38 mm, and the volume of the bottle body ranges from 150 ml to 1500 ml. According to the BOPP beverage bottle with the bottle opening with the diameter being 38 mm, the sealing performance of the bottle opening and the bottle cap obtained after high-temperature filling sterilization is good, the cost is low, and use is convenient.

Inventors

CHEN CHAO

YU ZHIJIAN

ZHANG XIAOAI

Latest standardized assignees - inventors removed

DONGJUN DAIRY INDSTRY YUCHENG

Publication dates

2014-10-08

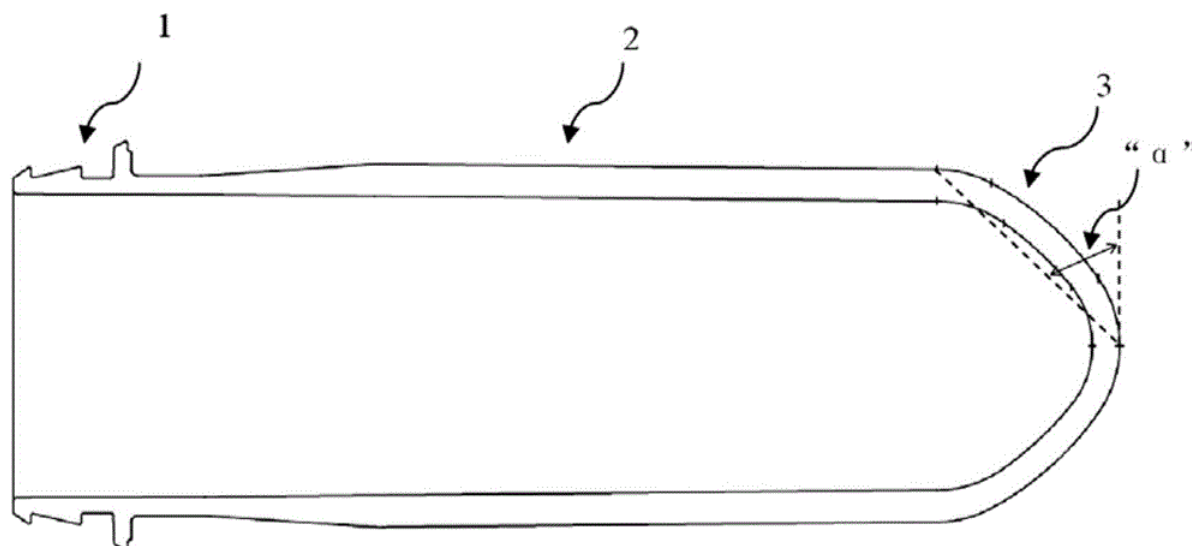
2016-05-04

Family 11/25 - FAMPAT - ©Questel

Title

(CN104192391)

Light weight package bottle blank bottom structure

Images**Publication data including kind & date**

CN104192391	A	2014-12-10	CN104192391
CN204124464	U	2015-01-28	CN204124464U
CN204124465	U	2015-01-28	CN204124465U
CN104192391	B	2016-10-05	CN104192391B

**Abstract**

(CN104192391B)

The invention relates to the field of plastic package bottles and provides a light weight package bottle blank bottom structure. According to the light weight package bottle blank bottom structure, an olive bottom is used in the light weight package bottle blank bottom structure, the inner face and the outer face of the olive bottom are combined by three arc sections and are connected smoothly, the first arc section is used for completing even changing of bottle wall thickness from the bottle blank bottom to the bottle blank body, the bottle wall thickness of the second arc section and the bottle wall thickness of the third arc section are the bottle wall thickness of the bottle blank bottom, the ratio of the bottle wall thickness of the bottle blank bottom to the bottle wall thickness of the bottle blank body is 0.8-0.85, and the bottle wall thickness of the bottle blank body is consistent. The shape of the bottle blank bottom is changed, so that plastic distribution of a bottle is improved, adjusting of a bottle blowing technology can be well achieved, meanwhile, weight is lowered, raw materials are

saved, and the package cost of products is lowered.

Inventors

XIAO WEIJUN

CUI YANYAN

WANG DINGSHENG

CHENG FENG

LUO QIN

JIN HANYANG

LUO WUQIANG

CHEN SHUYUAN

ZHOU XIONGFEI

WANG YANBO

Latest standardized assignees - inventors removed

SIPA MACHINERY HANGZHOU

Publication dates

2014-12-10

2015-01-28

2015-01-28

2016-10-05

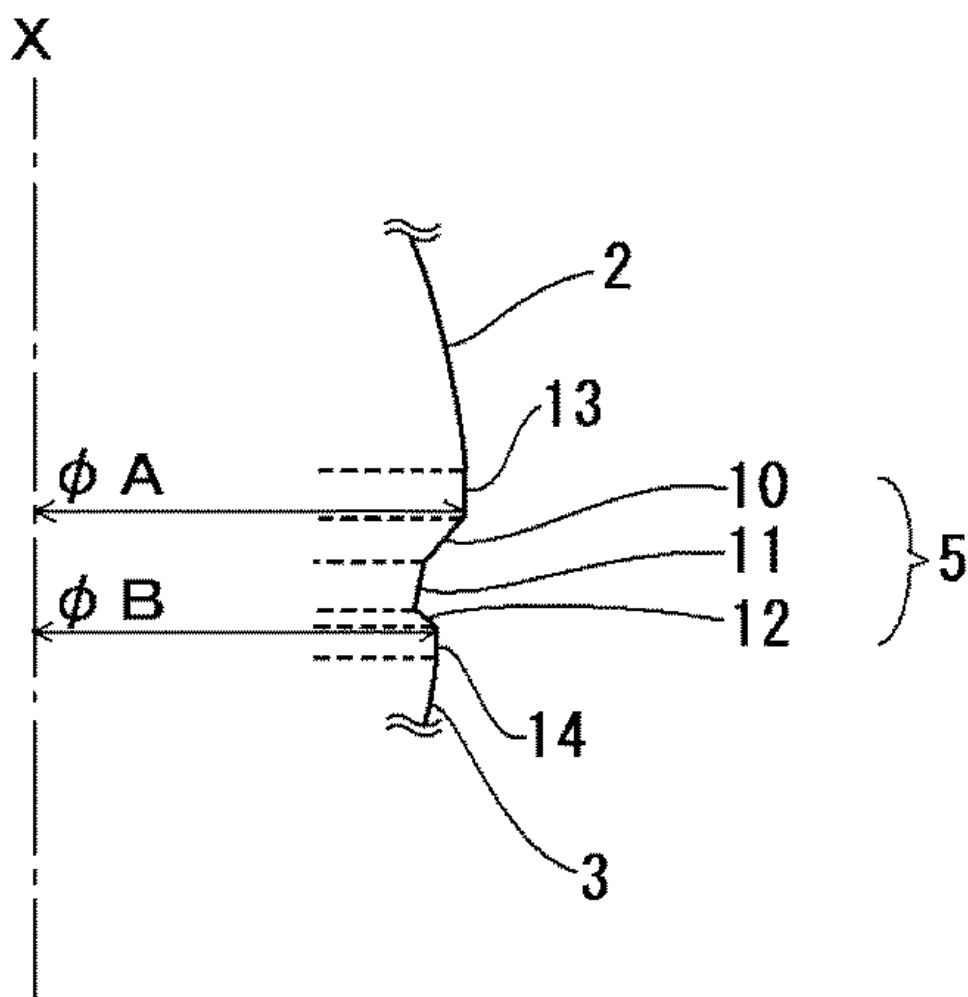
Family 12/25 - FAMPAT - ©Questel

Title

(JP2010105677)

Resin container with buckling resistance and beverage product using the same

Images



Publication data including kind & date

JP2010105677	A	2010-05-13	JP2010105677
JP5102177	B2	2012-12-19	JP5102177



Abstract

(JP5102177)

PROBLEM TO BE SOLVED: To perform weight reduction and wall thinning and to suppress generation of a mark of buckling deformation which lowers appearance in a container used for aseptic filling.

SOLUTION: The resin container with buckling resistance can be obtained by blow-molding a thermoplastic synthetic resin into a bottle-like shape, and a mouth part 1, a shoulder part 2 whose diameter is expanded from the mouth part 1, a body part 3, and a bottom part 4 are successively continuously connected, and an annular rib 5 the whole periphery of which is continuously provided on the side surface of the boundary part between the shoulder part 2 and the body part 3. In the resin container, the shape of the bottom surface 11 of the rib 5 is tapered with an expanded diameter in the vertically upward direction.

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Inventors

YOSHIMURA KAZUYASU
 HORII OSAMU
 NAKAMURA KOJI
 SHOJI HITOSHI

Latest standardized assignees - inventors removed

KIRIN BREWERY

Publication dates

2010-05-13

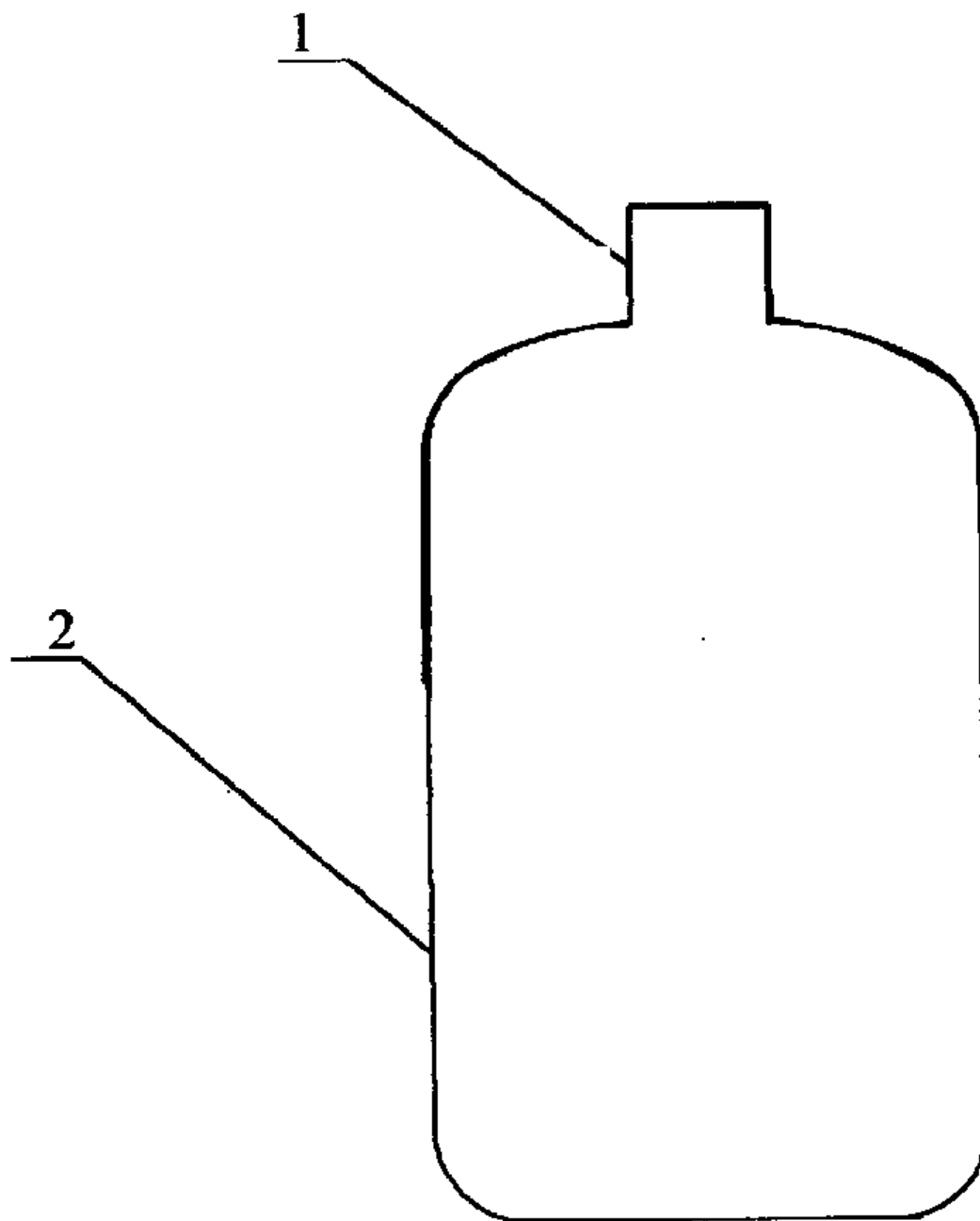
2012-12-19

Family 13/25 - FAMPAT - ©Questel

Title

(CN2500607U)

Bottle with soft body

Images**Publication data including kind & date**[CN2500607](#)

Y

2002-07-17

CN2500607U

**Abstract**

(CN2500607U)

The utility model discloses a soft bottle which comprises a bottle neck and a bottle body, wherein the part from the bottle neck to 1/5-1/3 of the bottle body is made of hard plastic material and the rest parts are made of soft plastic material. The

utility model has the advantages of light weight, reduced material consumption, convenient transportation and carrying, reduction in bottle size along with the reduction of bottle content, and small occupied area.

Inventors

GUO LIANGUANG

Publication dates

2002-07-17

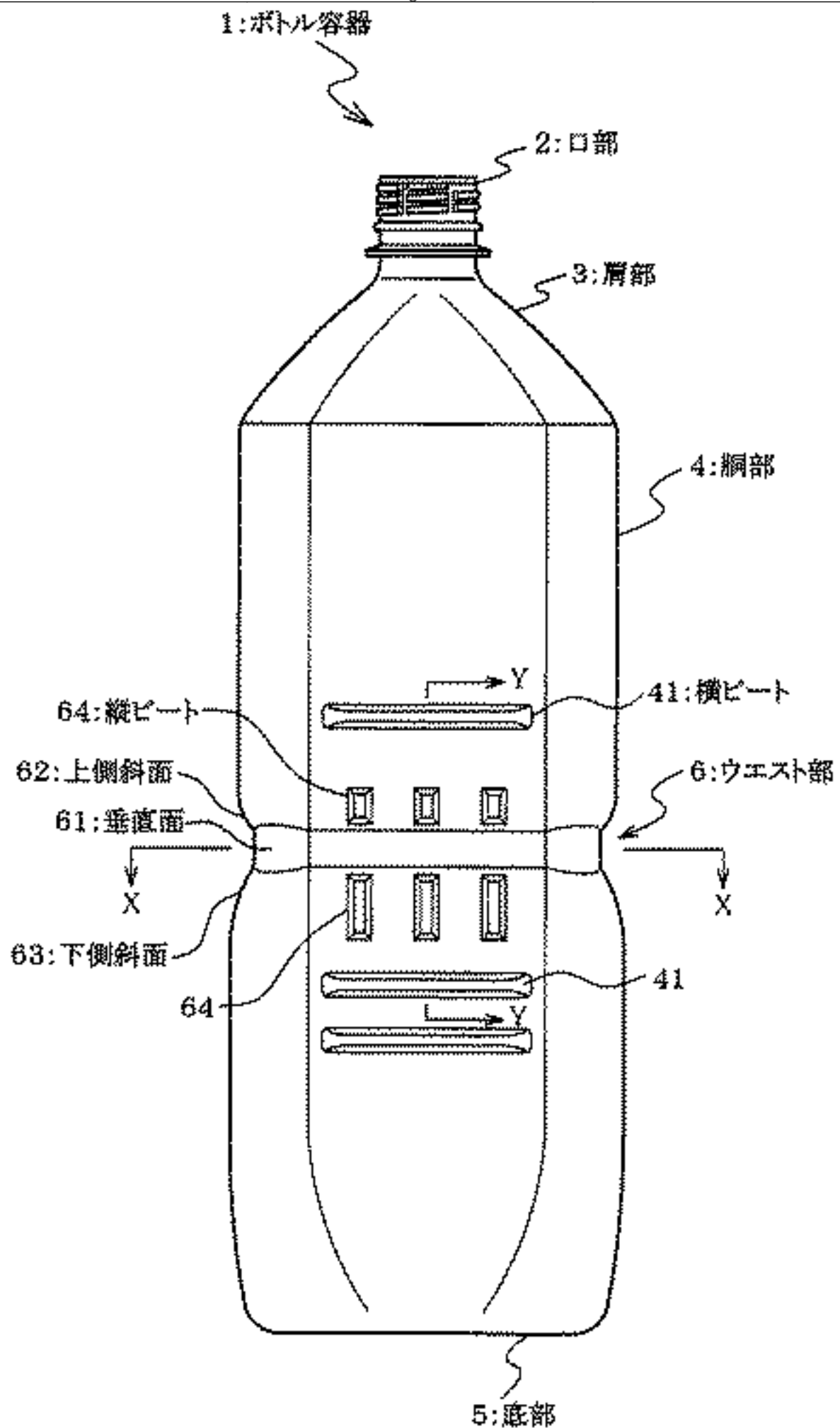
Family 14/25 - FAMPAT - ©Questel

Title

(JP2005186996)

Container

Images



[JP2005186996](#)

A 2005-07-14 JP2005186996

[JP4296930](#)

B2 2009-07-15 JP4296930

**Abstract**

(JP4296930)

PROBLEM TO BE SOLVED: To provide a thin-walled container, which is made light in weight but is given necessary strength and stability at its waist to prevent a dent or deformation of the waist.

SOLUTION: The bottle container 1 has the waist 6, which is of a laterally formed groove shape, in the longitudinal intermediate part of the trunk 4 of the container 1. The waist 6 has a vertical surface 61, which is the bottom of the groove, and slopes 62, 63 at the upside and underside of the vertical surface 61. One or a plurality of longitudinal beads 64 are formed at least on the upside slope 62 and on the under side slope 63 in the longitudinal direction of the container 1.

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Inventors

MAEDA KOJI

MIURA MASAKI

Latest standardized assignees - inventors removed

TOYO SEIKAN KAISHA

Publication dates

2005-07-14

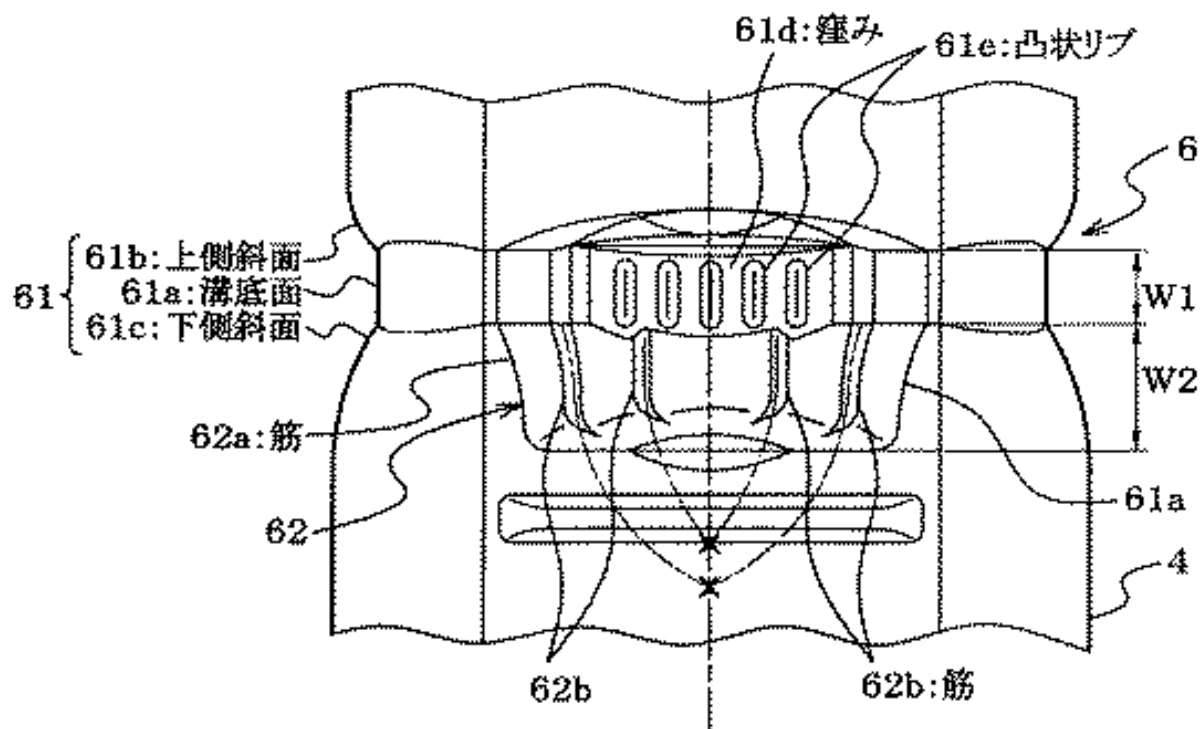
2009-07-15

Family 15/25 - FAMPAT - ©Questel

Title

(JP2005247393)

Container

Images**Publication data including kind & date**[JP2005247393](#)

A 2005-09-15 JP2005247393

[JP4222229](#)

B2 2009-02-12 JP4222229

**Abstract**

(JP4222229)

PROBLEM TO BE SOLVED: To prevent dent or deformation of a waste section by imparting strength and resiliency

necessary for the waste section even in a lightweight, thin-walled container.

SOLUTION: The bottle container 1 has the waist section 6 in the vertically middle of a trunk 4. In the container 1, the waste section 6 is formed circumferentially in the trunk 4. The waste section 6 includes a lateral bead 61 in the form of a groove which has inclined faces 61b and 61c extending upward and/or downward from a groove bottom 61a. The waste section 6 also includes recesses 62 extending upward and/or downward from the lateral bead 61 so as to have a similar figure matching the shape of the inclined faces 61b and 61c.

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Inventors

MIURA MASAKI

MAEDA KOJI

KATSUTA HIDEHIKO

Latest standardized assignees - inventors removed

TOYO SEIKAN KAISHA

Publication dates

2005-09-15

2009-02-12

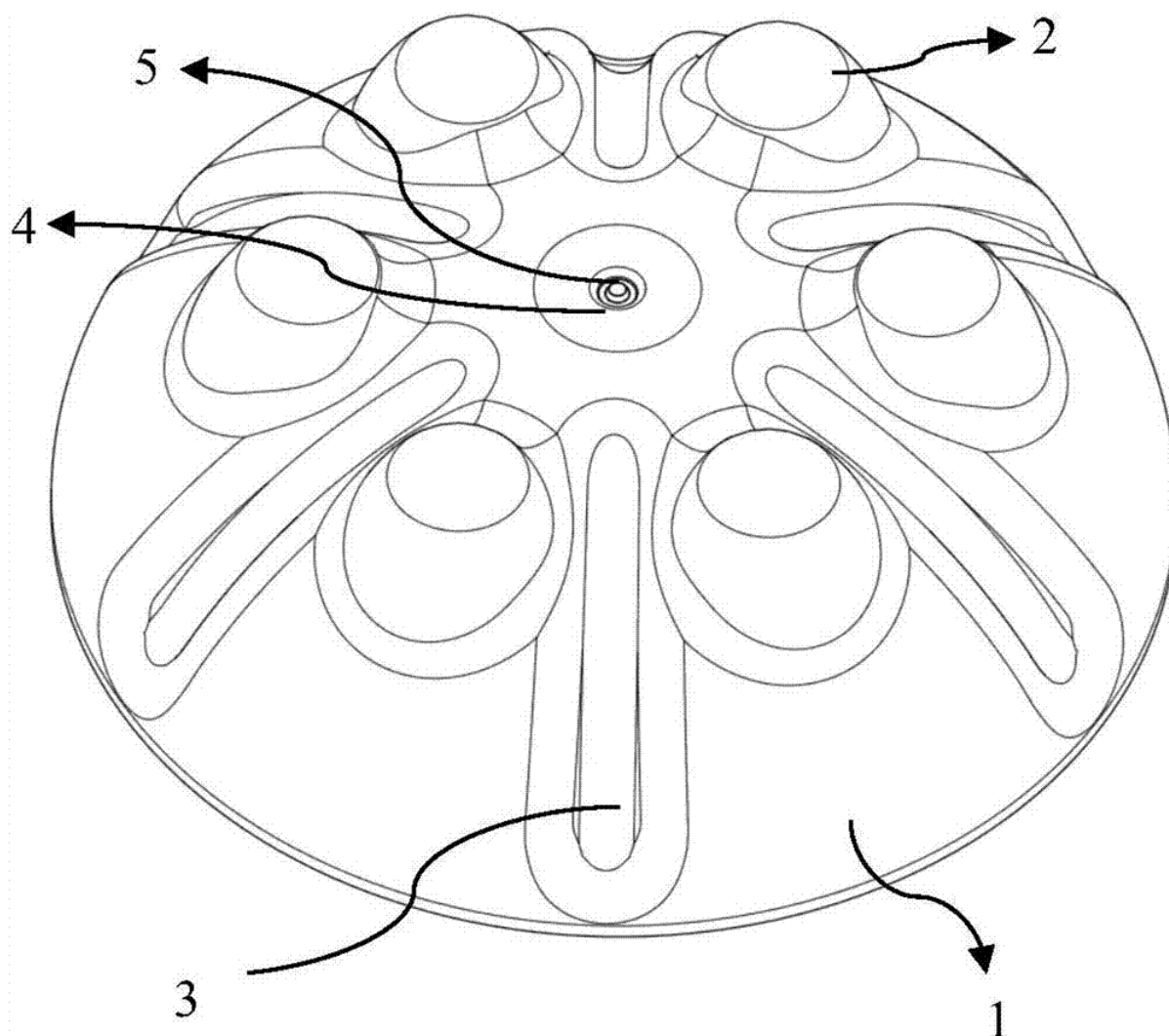
Family 16/25 - FAMPAT - ©Questel

Title

(CN206579957U)

Bottle bear building -up of barreled water -jug constructs

Images



CN206579957

U 2017-10-24 CN206579957U

Abstract

(CN206579957U)

The utility model relates to a barreled water -jug structural design aims at providing a bottle bear building -up of barreled water -jug constructs.The main part of its bottom of the bottle is hemisphere or approximate hemispherical curved surface form, and central point puts and is equipped with to the convex center boss of the inboard centre of sphere, be equipped with a plurality of outside convex supporting legss in the main part at the bottom of the bottle, the top lies in the vertical axial line of same horizontal plane and this horizontal plane perpendicular to barreled water -jug, be equipped with inside sunken slot between adjacent supporting legs, supporting legs and slot separate each other, the slot extends to the center boss direction from the periphery at the bottle end, just is radial arranging.The utility model discloses an advantage: after the bottle filled the nitrogen pressurized, the bottle can make the bottle to stand stably an end, can effectively restrain a bottle end evagination and warp.The strengthening rib extends to from bottle end periphery always and is close to bottle end center, has strengthened the strong point, has played fine supporting role to whole bottle.Reaching under the condition of operation requirement, can save more PET raw materialss, can be applied to the vat bottle within the 50L.

Inventors

LUO QIN

CHENG FENG

Latest standardized assignees - inventors removed

SIPA MACHINERY HANGZHOU

Publication dates

2017-10-24

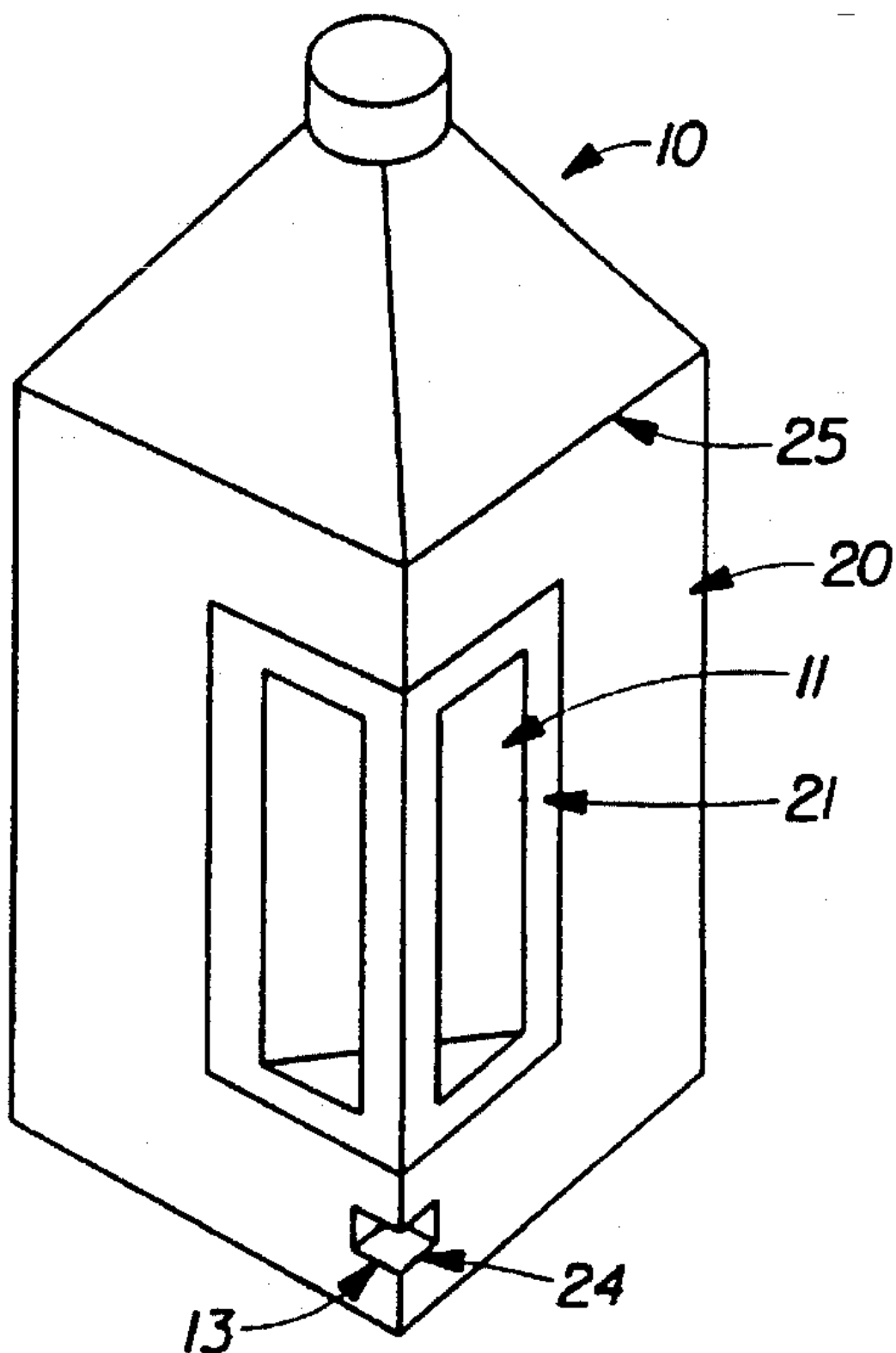
Family 17/25 - FAMPAT - ©Questel

Title

(EP-609644)

Lightweight, composite container and method for making the same

Images


Publication data including kind & date

EP0609575	A1	1994-08-10	EP-609575
EP0609644	A1	1994-08-10	EP-609644
WO9418076	A1	1994-08-18	WO9418076
WO9417982	A1	1994-08-18	WO9417982
CA2155114	A1	1994-08-18	CA2155114
CA2155113	A1	1994-08-18	CA2155113
AU6297094	A	1994-08-29	AU9462970
AU6130294	A	1994-08-29	AU9461302



TR27494	A	1995-06-07	TR--27494
US5524787	A	1996-06-11	US5524787
EP0609644	B1	1996-08-14	EP-609644
DE69304040	D1	1996-09-19	DE69304040
JPH08509190	A	1996-10-01	JP08509190
JPH08509447	A	1996-10-08	JP08509447
ES2091587	T3	1996-11-01	ES2091587
DE69304040	T2	1997-03-20	DE69304040
US5711061	A	1998-01-27	US5711061
CA2155114	C	1999-02-02	CA2155114



Abstract

(EP-609644)

A composite package comprising an inner plastic container (10) and an outer sleeve (20), wherein the outer sleeve has an aperture (21) cut into it in the region of one of its edges. The inner plastic container has an integral plastic handle (11) formed along part of one of its edges. When the package is assembled, the aperture (21) in the outer sleeve corresponds with the plastic handle (11) of the inner container, thereby allowing the composite package to be picked up and handled by means of the plastic handle. <IMAGE>

Inventors

BLAKE ALAN DAVID

JACOBS ANDRE

VAN PUT ANNICK ANTOINE SONIA

Latest standardized assignees - inventors removed

PROCTER & GAMBLE

Publication dates

1994-08-10

1994-08-10

1994-08-18

1994-08-18

1994-08-18

1994-08-18

1994-08-29

1994-08-29

1995-06-07

1996-06-11

1996-08-14

1996-09-19

1996-10-01

1996-10-08

1996-11-01

1997-03-20

1998-01-27

1999-02-02

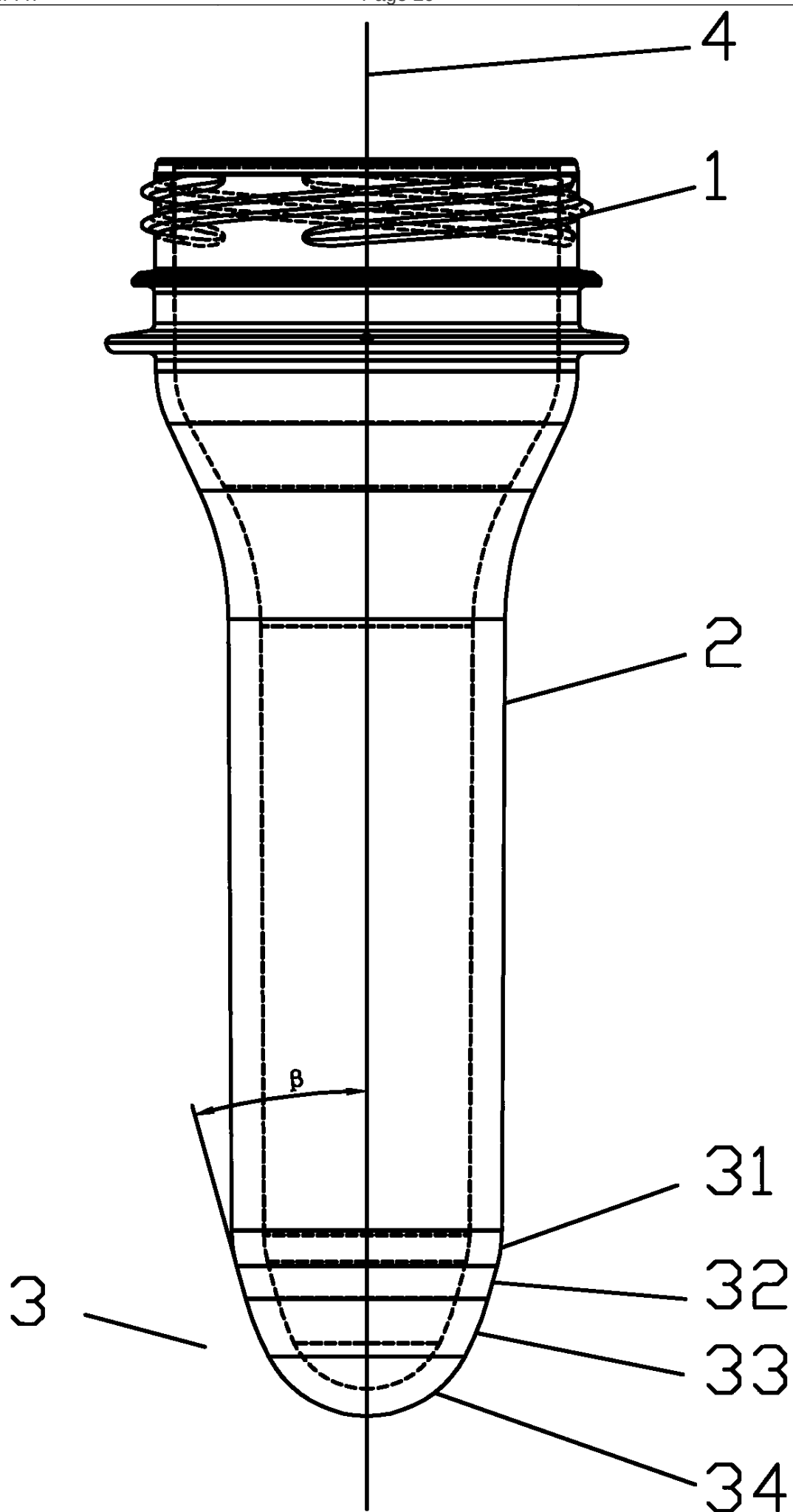
Family 18/25 - FAMPAT - ©Questel

Title

(CN202670213U)

Light weight pointed bottom bottle preform

Images



Publication data including kind & date

CN202670213

U 2013-01-16

CN202670213U

**Abstract**

(CN202670213U)

The utility model provides a light weight pointed bottom bottle preform which comprises an opening, a bottle body and a bottle bottom, wherein the outer surface of the bottle bottom is shaped like a pointed bottom, and the pointed bottom is formed by a plurality of circular arc lines around a bottle body central line. The outer surface of the bottle bottom is shaped like the pointed bottom, and the pointed bottom is formed by the plurality of circular arc lines around the bottle body central line, so bottle bottom material accumulation can be effectively controlled, materials used by the bottle preform are reduced, light weight of a bottle is achieved, and compared with a traditional bottle preform, raw materials can be saved by 2%-3%; and the bottle preform can be well attached to a mold cavity in the process of bottle blowing, exhausting and cooling can be conveniently achieved, and plastic forming of products can be well achieved.

Inventors

XU ZIJIANG

YOU QIANG

LUO JIANMIN

Latest standardized assignees - inventors removed

GUANGZHOU UNIQUE INJECTION MOLDING SYSTEMS

Publication dates

2013-01-16

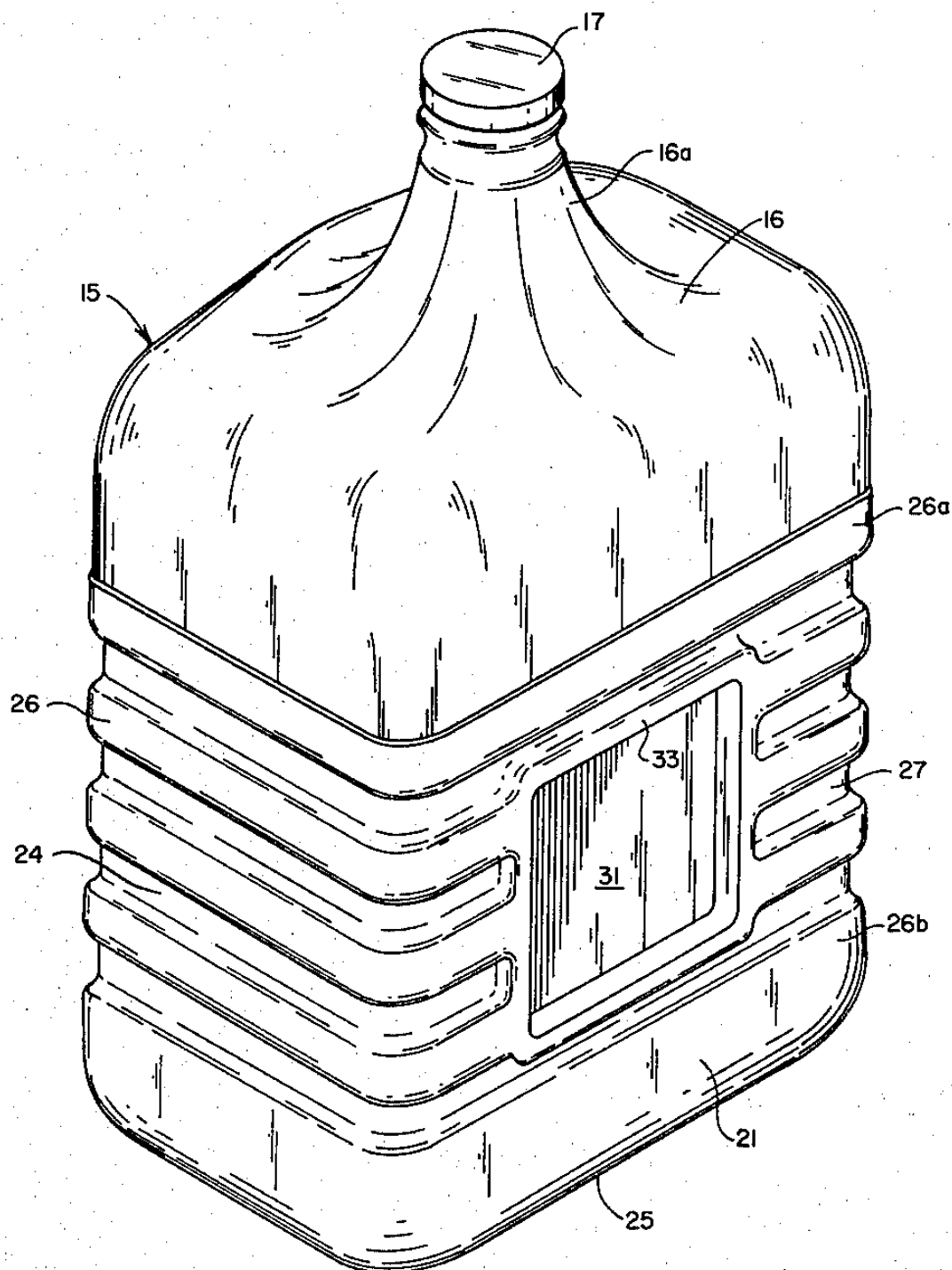
Family 19/25 - FAMPAT - ©Questel

Title

(US4308955)

Interfitting, stackable bottles

Images

**Publication data including kind & date**[US4308955](#)

A

1982-01-05

US4308955

**Abstract**

(US4308955)

A large light-weight bottle made of plastic of the type used on water dispensers instead of the heavy glass bottle. Each bottle is made of rectangular or square transverse cross-section with spaced reinforcing ribs or bands extending therearound. On opposed flat faces or sides, each bottle is provided, respectively, with a square locking projection and a complementary receiving socket so that a plurality of the bottles can be stacked on their sides with the locking projections and sockets of adjacent sides interfitting to keep the bottles in alignment in the stack and with the reinforcing ribs superimposed for strength.

Inventors

SCHIESER WARREN J

DUFFEY CRAIG L

Latest standardized assignees - inventors removed

LIQUI BOX

Publication dates

1982-01-05

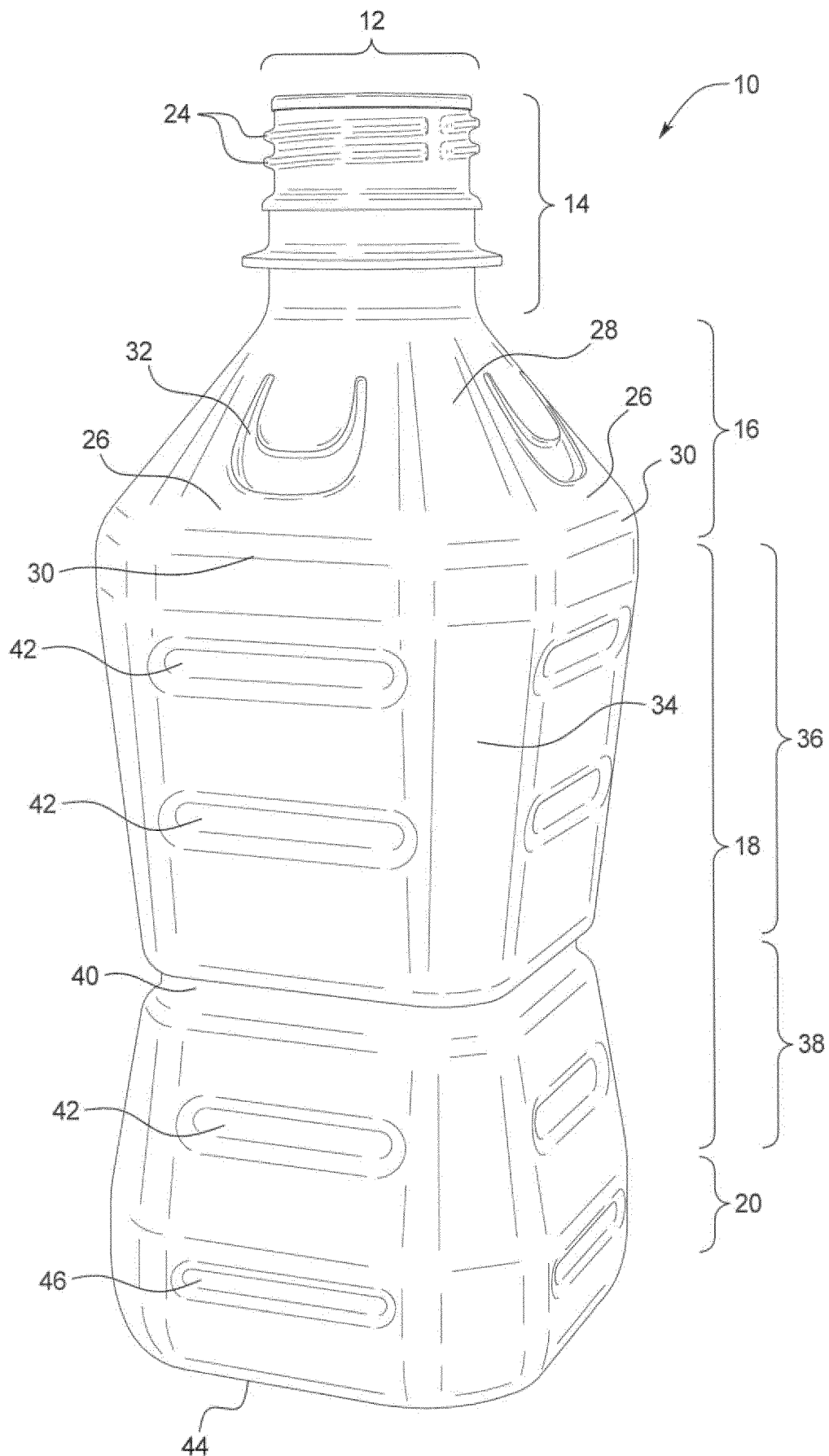
Family 20/25 - FAMPAT - ©Questel

Title

(WO2013110631)

Load-bearing and vacuum-resistant containers

Images

**Publication data including kind & date**[WO2013110631](#)

A1 2013-08-01

WO2013110631

[CN104080706](#)

A 2014-10-01

CN104080706



US20150001172	A1	2015-01-01	US20150001172
JP2015504825	A	2015-02-16	JP2015504825
CN104080706	B	2017-11-28	CN104080706B

**Abstract**

(WO2013110631)

Containers having improved load-bearing and vacuum-resistance features are provided. In a general embodiment, the present disclosure provides a container (10) having a shoulder (16) including four faces forming compound-radiused comers at intersections (28,30) with a body of the container. In another embodiment, the present disclosure provides a container having a shoulder (16) with four faces, at least two of the four faces having a cut-away (32) with a shape that is substantially U-shaped. The structural features of the present containers advantageously provide for improved compression capacity and vacuum-resistance when compared to similar containers currently on the market.

Inventors

GEITHMANN MARTIN

LINDEN ROBERT

ZEBOU DJ LISE

Latest standardized assignees - inventors removed

NESTEC

Publication dates

2013-08-01

2014-10-01

2015-01-01

2015-02-16

2017-11-28

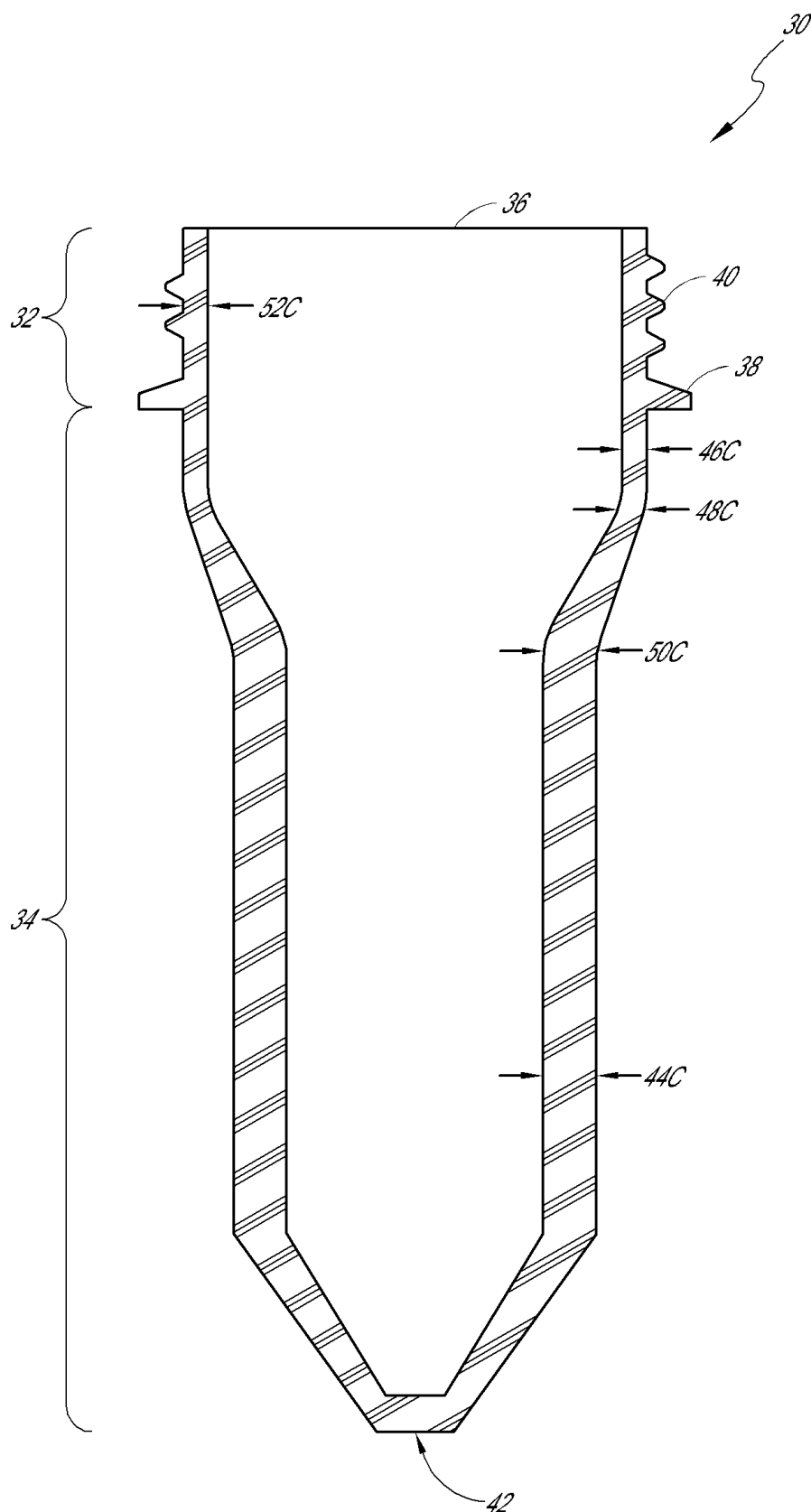
Family 21/25 - FAMPAT - ©Questel

Title

(EP2637831)

Preform extended finish for processing light weight bottles

Images


Publication data including kind & date

CA2817555	A1	2012-05-18	CA2817555
WO2012065162	A1	2012-05-18	WO2012065162
US20120263902	A1	2012-10-18	US20120263902
AU2011325891	A1	2013-05-23	AU2011325891
AU2011325891	A2	2013-06-06	AU2011325891
CO6700882	A2	2013-06-28	CO6700882



CN103237638	A	2013-08-07	CN103237638				
MX2013005214	A	2013-08-15	MX2013005214				
EP2637831	A1	2013-09-18	EP2637831				
JP2013543805	A	2013-12-09	JP2013543805				
BR112013010969	A1	2014-01-07	BR112013010969				
TH136307	A	2014-08-29	TH-136307				
RU2013123905	A	2014-12-20	RU2013123905				
US8956707	B2	2015-02-17	US8956707				
US20150122766	A1	2015-05-07	US20150122766				
ZA201303077	B	2015-09-30	ZA201303077				
IN4395/DELNP/2013	A	2016-05-20	IN2013DN04395				
US20160176566	A1	2016-06-23	US20160176566				
BR112013010969	A2	2016-08-30	BR112013010969				
AU2011325891	B2	2016-10-20	AU2011325891				
AU2011325891	B9	2016-11-24	AU2011325891				
AU2017200045	A1	2017-02-02	AU2017200045				
JP2017100461	A	2017-06-08	JP2017100461				
CN106882441	A	2017-06-23	CN106882441				
WO2017136584	A1	2017-08-10	WO2017136584				

Abstract

(EP2637831)

Disclosed are preforms (30) which incorporate improvements in the region of the neck (32) and upper segment of the body (34) to allow the production of lightweight containers (82), such as bottles suitable for containing water or other beverages. In accordance with certain embodiments, the improvements include a thinner neck finish area than conventional bottles, where the thinner area is extended into the upper segment of the body portion below the support ring (38). Reducing the thickness in these areas of the bottle allows for less resin to be used in forming the preform and bottle.

Inventors

HANAN JAY CLARKE

Latest standardized assignees - inventors removed

NIAGARA BOTTLING

Publication dates

2012-05-18

2012-05-18

2012-10-18

2013-05-23

2013-06-06

2013-06-28

2013-08-07

2013-08-15

2013-09-18

2013-12-09

2014-01-07

2014-08-29

2014-12-20

2015-02-17

2015-05-07

2015-09-30

2016-05-20

2016-06-23

2016-08-30

2016-10-20

2016-11-24

2017-02-02

2017-06-08

2017-06-23

2017-08-10

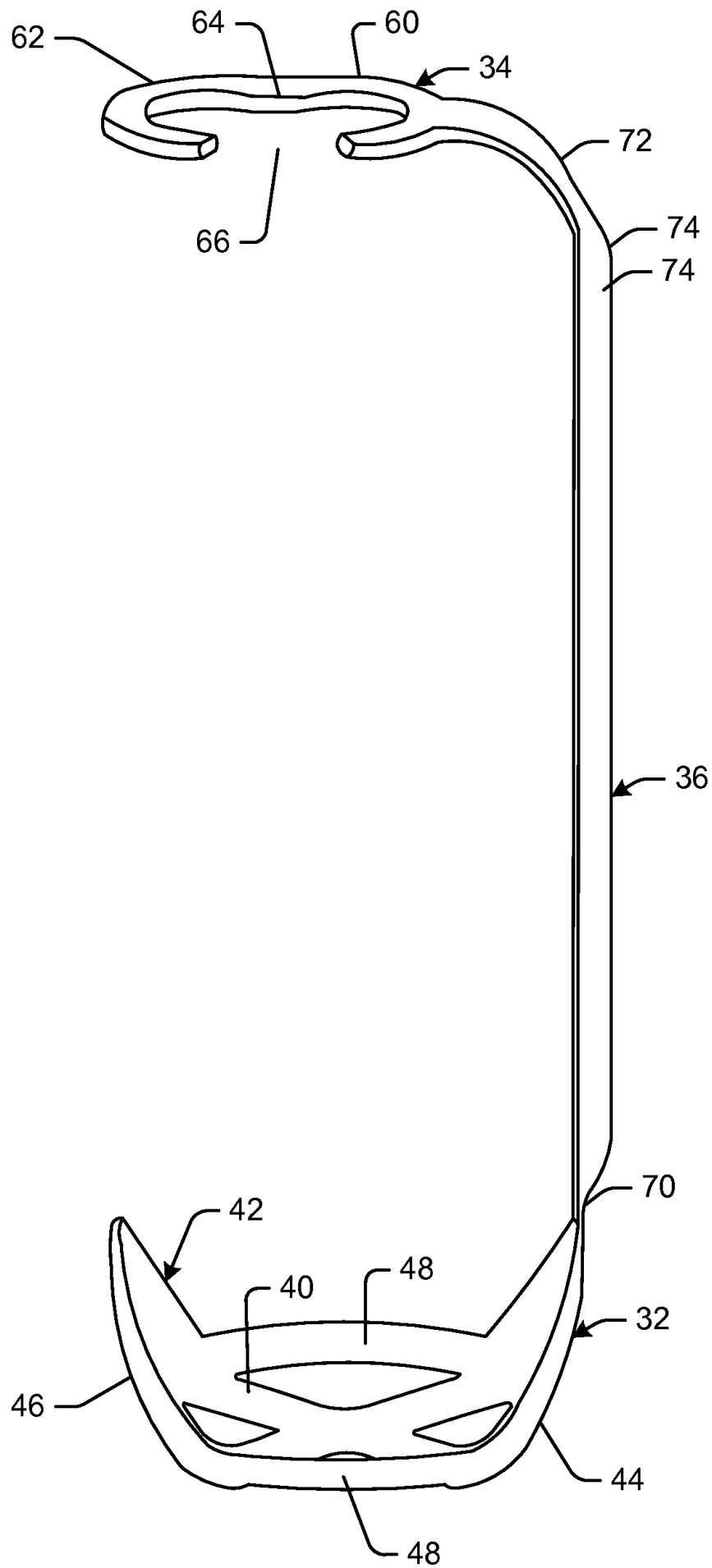
Family 22/25 - FAMPAT - ©Questel

Title

(EP2617656)

Handle for a plastic bottle

Images



Publication data including kind & date

BR102013001542	A1	2013-05-14	BR102013001542				
CA2802267	A1	2013-07-19	CA2802267				
CN103213737	A	2013-07-24	CN103213737				
EP2617656	A1	2013-07-24	EP2617656				
US20130186849	A1	2013-07-25	US20130186849				
KR20130085394	A	2013-07-29	KR20130085394				
JP2013147271	A	2013-08-01	JP2013147271				
AU2013200334	A1	2013-08-08	AU2013200334				
MX2013000882	A	2013-11-05	MX2013000882				
TW201402412	A	2014-01-16	TW201402412				
RU2013103451	A	2014-07-27	RU2013103451				
PH12013000024	A1	2014-08-04	PH12013000024				
PH12013000024	B1	2014-08-04	PH12013000024				
AR089773	A1	2014-09-17	AR--89773				
EP2617656	B1	2014-10-01	EP2617656				
BR102013001542	A2	2014-12-02	BR102013001542				
AU2013200334	B2	2015-08-13	AU2013200334				
IN0157/DEL/2013	A	2016-04-29	IN2013DE00157				
ZA201300550	B	2016-07-27	ZA201300550				
CN103213737	B	2016-10-05	CN103213737B				
JP6037618	B2	2016-12-07	JP6037618				
RU2618463	C2	2017-05-03	RU2618463				
TWI585010	B	2017-06-01	TWI585010				
US9771180	B2	2017-09-26	US9771180				

Abstract

(EP2617656)

Handle 30 is provided with a bottom supporting part 32 that receives the bottom of a bottle 1 and supports the bottom portion of the bottle 1, a neck supporting part 34 that mates with the neck 3 of the bottle 1 and supports this, and a gripping part 36 that connects the bottom supporting part 32 and the neck supporting part 34. The neck supporting part 34 has a first engagement part 60 and a second engagement part 62 with which the neck 3 can engage and disengage. The gripping part 36 exists as an extension in the vertical direction in such a manner that it runs along the body 5 of the bottle 1 in the event that the neck 3 is engaged with the first engagement part 60, and exists as an extension that is slanted relative to the vertical direction in such a manner that it draws apart from the bottle 1 in the event that the neck 3 is engaged with the second engagement part 62. This provides a handle that can ensure the storability in a pocket, etc. of a refrigerator even in a state where it is attached to a bottle, and that in addition can provide stable support even for a bottle whose weight is to be lightened.

Inventors

IWASHITA HIROMASA

Latest standardized assignees - inventors removed

COCA COLA

Publication dates

2013-05-14

2013-07-19

2013-07-24

2013-07-24

2013-07-25

2013-07-29

2013-08-01

2013-08-08

2013-11-05

2014-01-16

2014-07-27

2014-08-04

2014-08-04

2014-09-17

2014-10-01

2014-12-02

2015-08-13

2016-04-29

2016-07-27

2016-10-05

2016-12-07

2017-05-03

2017-06-01

2017-09-26

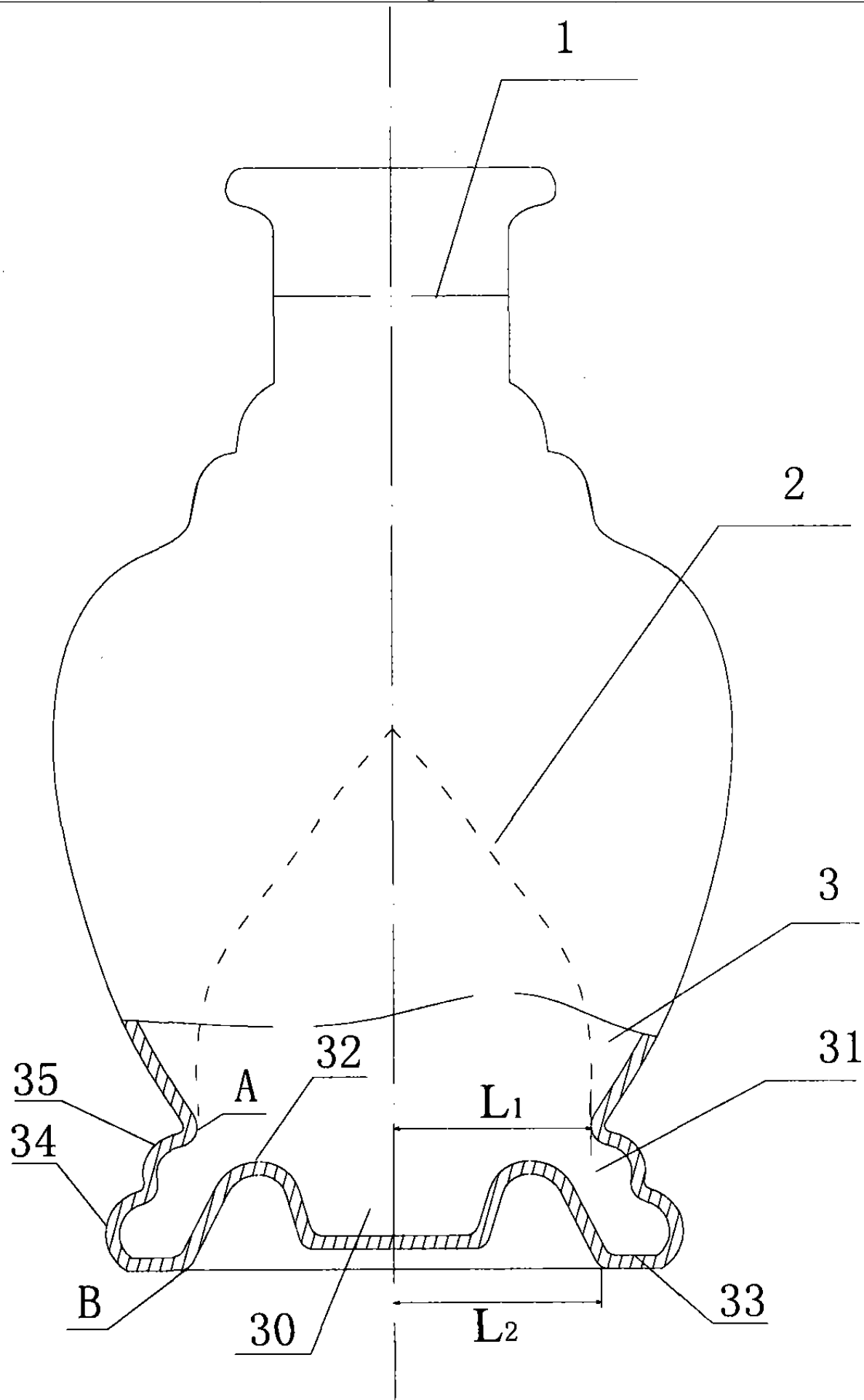
Family 23/25 - FAMPAT - ©Questel

Title

(CN103621314B)

Homemade transparent container for cultivation of cordyceps militaris, fungus growth and direct filling of medicinal liquor

Images



Publication data including kind & date

[CN103621314](#)

A

2014-03-12

CN103621314

[CN103621314](#)

B

2015-07-08

CN103621314B



Abstract

(CN103621314B)

The invention discloses a homemade transparent container for the cultivation of cordyceps militaris, fungus growth and direct filling of medicinal liquor. The homemade transparent container has a bottle bottom structure (3), wherein the bottle bottom structure (3) is provided with a thick and strong fruiting body growth part (30) and a displacement inhibition part (31), wherein the thick and strong fruiting body growth part (30) can be used for keeping the overall growth posture of the cordyceps militaris; the displacement inhibition part can be used for fixing an intertwined root system of the cordyceps militaris at the bottle bottom to keep the cordyceps militaris at a normal growth posture and prevent the cordyceps militaris from displacement. According to the homemade transparent container, the technical problem of growth posture changes caused by the displacement of the cordyceps militaris along with liquor pouring actions is solved, and a medicinal liquor product is permanently endowed with an impression that naturally growing cordyceps militaris at a certain overall posture is impregnated.

Inventors

BIAN JIANG

Latest standardized assignees - inventors removed

LI YANFENG

Publication dates

2014-03-12

2015-07-08

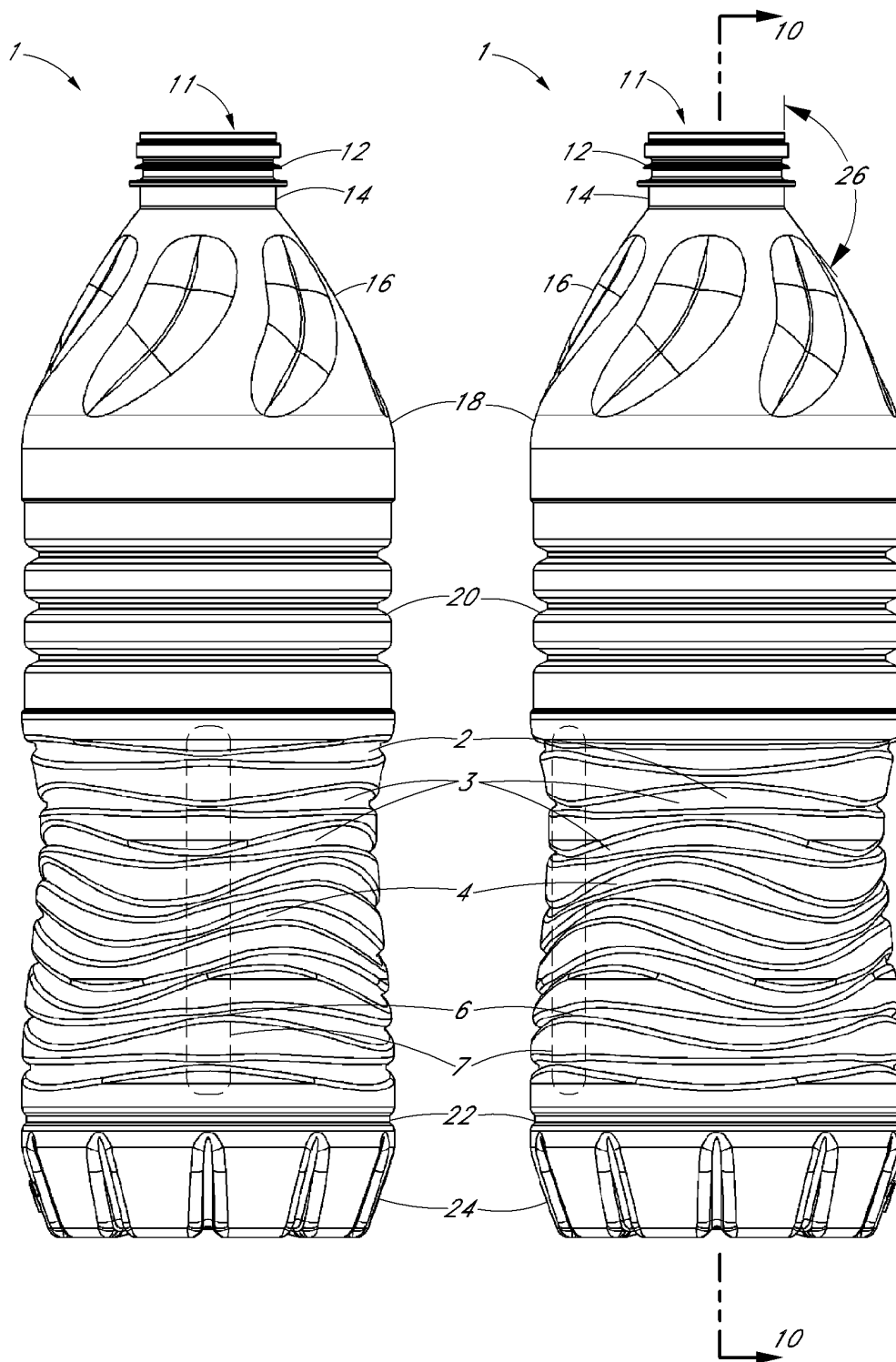
Family 24/25 - FAMPAT - ©Questel

Title

(EP2788261)

Plastic container with varying depth ribs

Images



Publication data including kind & date

US20130140264	A1	2013-06-06	US20130140264
CA2857965	A1	2013-06-13	CA2857965
WO2013085919	A1	2013-06-13	WO201385919
TW201325996	A	2013-07-01	TW201325996
US8556098	B2	2013-10-15	US8556098
US20140054257	A1	2014-02-27	US20140054257
MX2014006646	A	2014-09-04	MX2014006646
CN104093637	A	2014-10-08	CN104093637
EP2788261	A1	2014-10-15	EP2788261
JP2015500188	A	2015-01-05	JP2015500188



IN5274/DELNP/2014	A	2015-03-27	IN2014DN05274				
CN104093637	B	2016-08-24	CN104093637B				
MX345912	B	2017-02-22	MX-345912				
TWI572532	B	2017-03-01	TWI572532				
TW201716292	A	2017-05-16	TW201716292				
JP2017145060	A	2017-08-24	JP2017145060				
TWI615327	B	2018-02-21	TWI615327				

Abstract

(EP2788261)

A bottle may have varying depth ribs (3) to achieve a balance of strength and rigidity while maintaining hoop strength. The varying depth ribs may smoothly transition around the circumference of the bottle from a flattened and/or shallow depth rib portion to a deep rib portion. A collection of flattened and/or shallow depth ribs (6) act as recessed columns (7) in the body of the bottle to resist bending, leaning, crumbling, and/or stretching. The deep rib portions provide hoop strength and make the bottle body more rigid and/or stiffer when gripped by a user. A balance may be achieved between of flattened and/or shallow depth ribs and deep ribs to attain a desired resistance to bending, leaning, and/or stretching while maintaining stiffness in a lightweight bottle.

Inventors

HANAN JAY CLARKE

PEYKOFF ANDREW DIMITRI

Latest standardized assignees - inventors removed

NIAGARA BOTTLING

Publication dates

2013-06-06

2013-06-13

2013-06-13

2013-07-01

2013-10-15

2014-02-27

2014-09-04

2014-10-08

2014-10-15

2015-01-05

2015-03-27

2016-08-24

2017-02-22

2017-03-01

2017-05-16

2017-08-24

2018-02-21

Family 25/25 - FAMPAT - ©Questel

Title

(EP-695263)

Plastics container

Images

CZ288024	B6	2001-04-11	CZ-288024
BRPI9406336	B1	2001-04-17	BR9406336
JP3557207	B2	2004-08-25	JP3557207
CA2160688	C	2005-06-28	CA2160688

**Abstract**

(EP-695263)

A lightweight plastics bottle (1) having a body wall of substantially constant wall thickness and having a plurality of depressed zones (7) having a floor portion (12) spaced inwardly of and parallel to the general plane of the body wall, said depressed zones (7) being arranged in a series of horizontal rows characterised in that the body is non-cylindrical having a number of body panels and that each of said depressed zones (7) has at least one long dimension (9) lying in a direction which is not parallel to the longitudinal axis (10) of the bottle.

Inventors

HARBOUR RICHARD

Latest standardized assignees - inventors removed

UNILEVER

Publication dates

1993-06-09

1994-11-10

1994-11-10

1994-11-21

1995-10-25

1995-12-26

1995-12-26

1995-12-28

1996-02-07

1996-03-19

1996-05-01

1996-07-17

1996-07-29

1996-10-08

1997-07-16

1997-08-21

1997-10-16

1997-11-19

1998-01-15

1998-07-02

1998-09-28

2001-04-11

2001-04-17

2004-08-25

2005-06-28