

100 Documents

Publication numbers	Title	Current assignees
CA2895524 A1	Plastic container with strapped base	NIAGARA BOTTLING
WO201576362 A1	Plastic bottle	COCA COLA
CA2956454 A1	Lightweight base for carbonated beverage packaging	PLASTIC TECHNOLOGIES, ...
GB8325774 D0	Flexible detachable handle and carrier for a plastic bottle and the combination thereof	MERRICK INDUSTRIES SUNNYVALE
BR9503952 A1	One-piece plastic container for carbonated beverages	AMCOR
JP2013095428 A	Synthetic resin-made blow bottle	YOSHINO KOGYOSHO
US20080257855 A1	Preform base and method of making a delamination and crack resistant multilayer container base	GRAHAM PACKAGING
GB9005810 D0	Plastic container, particularly for pressurized fluids.	INTERNATIONAL PACKAGING TECHNOLOGIES
NO8902524 D0	Blow molded one-piece bottle and method for making same	AMCOR
US20130140264 A1	Plastic container with varying depth ribs	NIAGARA BOTTLING
JP08267549 A	Self-standing container having excellent heat resistance and pressure resistance and method of producing the same	TOYO SEIKAN KAISHA
US5183169 A	Reusable bottle handle	GRZYCH STEPHEN D
GB8904417 D0	A plastics bottle	EMBEE
US5850932 A	Base design for one piece self-standing blow molded plastic containers	DTL MONOFOOT PARTNERSHIP
US5205434 A	Footed container	CONSTAR PLASTICS
NO8902904 D0	Blow molded bottle with improved self supporting base	HOOVER UNIVERSAL, ...
US4785949 A	Base configuration for an internally pressurized container.	GRAHAM PACKAGING, ...
US6085924 A	Plastic container for carbonated beverages	BALL
BR102013001542 A1	Handle for a plastic bottle	COCA COLA
JP2015089826 A	Plastic bottle	COCA COLA
US4989743 A	Device for storing carbonated beverages	LOWERY VANCE E
US20020033376 A1	Non-rocking, webbed container for carbonated beverages	AMCOR RIGID PLASTICS
US5064080 A	Plastic blow molded freestanding container	PLASTIPAK PACKAGING
US4780257 A	One-piece self-standing blow molded plastic containers	DEVTECH LABS
WO9828193 A1	Plastic container for carbonated beverages	BALL
NO9501559 D0	Plastic bottle having enhanced sculptured surface appearance.	CONSTAR, ...
US20160137331 A1	Carbonated soft drink finish modification	NIAGARA BOTTLING
GB9116459 D0	Plastic bottle for containing both under-pressure and non	SIPA

Publication numbers	Title	Current assignees
	under-pressure liquids	
WO8907554 A1	Blown plastic container	BROADWAY COMPANIES
US5988417 A	Plastic container having improved rigidity	CONSTAR FOREIGN HOLDINGS, ...
US5988416 A	Footed container and base therefor	CONSTAR INTERNATIONAL HOLDINGS, ...
WO200162614 A1	Bottle holder	DRAGUTIN JAZBEC, ...
WO200723630 A1	Bottle	YOSHINO KOGYOSHO
US4318489 A	Plastic bottle	PEPSICO
GB8603709 D0	Improvements in or relating to plastics containers.	NORTH AMERICAN CONTAINER
EP2133277 A1	Container, in particular a bottle, made from thermoplastic material equipped with a reinforced bottom	SIDEL PARTICIPATIONS
WO200013974 A1	Container with base having cylindrical legs with circular feet	COTT
BR9501013 A1	Self-standing polyester containers for carbonated beverages	AMCOR
WO9624482 A1	One piece self-standing blow molded container	DTL MONOFOOT PARTNERSHIP
IL-246809 B	A fastening device for compacted plastic bottles intended for recycling	AMSALEM YAAKOV, ...
US20070215571 A1	Container and method for blowmolding a base in a partial vacuum pressure reduction setup	GRAHAM PACKAGING
TW-198703 B	Freestanding plastic container for pressurized fluids	GRAHAM PACKAGING, ...
US4249667 A	Plastic container with a generally hemispherical bottom wall having hollow legs projecting therefrom.	CONTINENTAL PET TECHNOLOGIES
US4368825 A	Self-standing bottle structure	STANDARD OIL, ...
DK8002855 A	Process of reducing blowing cycle for blow molded containers and resultant container.	CONTINENTAL PET TECHNOLOGIES
CA2862775 A1	Bottle	YOSHINO KOGYOSHO
WO200817747 A1	Bottom of hollow ware obtained by the blow moulding or stretch-blow moulding of a thermoplastic hollow ware preform having such a bottom	SIDEL PARTICIPATIONS
CA2634496 A1	Pressured thermoplastic beverage containing bottle with finger gripping formations	PEPSICO
CA2131486 A1	Wide stance footed bottle with radially non-uniform circumference footprint	BALL
US5160059 A	Reinforced container base and method of forming same	CONTINENTAL PET TECHNOLOGIES
US20020153343 A1	Multi-functional base for a plastic wide-mouth, blow-molded container	REYNOLDS CONSUMER PRODUCTS, ...
US20090095701 A1		

Publication numbers	Title	Current assignees
	Pouch bottle	KRONES
WO200253341 A1	Synthetic resin biaxial oriented blow formed preform for forming bottle body	YOSHINO KOGYOSHO
US4294366 A	Free-standing plastic bottle	OWENS ILLINOIS PLASTIC PRODUCTS
US20070221607 A1	Split-ring handle and container assembly	GRAHAM PACKAGING
AU-198000 A0	Attachment handle	NOBLE S
US20090065469 A1	Bottle Handling Device	MCCLELLAN TROY LEE
CH-707262 A2	Plastic container	ALPLA WERKE ALWIN LEHNER
JP2012030837 A	Synthetic resin round bottle body	YOSHINO KOGYOSHO
US5735421 A	Plastic bottle having enhanced sculptured surface appearance	DT, ...
JP2018087043 A	Plastic bottle	COCA COLA
WO9948763 A1	Plastic bottle with handle	YOSHINO KOGYOSHO
WO200051894 A1	Synthetic resin thin wall container	YOSHINO KOGYOSHO
WO9634805 A1	Plastic container for carbonated beverages	BALL
US5884792 A	Preform for a hot fill pressure container	GRAHAM PACKAGING, ...
US5320230 A	Base configuration for biaxial stretched blow molded pet containers	YUAN FANG
US5024340 A	Wide stance footed bottle	CONSTAR PLASTICS
US4379578 A	Reusable bottle holder	SCHULER HERIBERTO
BE-784888 A	Noneverting bottom for thermoplastic bottles	DU PONT DE NEMOURS
WO200718584 A2	Plastic container with footed bottom construction	PLASTIPAK PACKAGING
US20020148805 A1	Process for improving material thickness distribution within a molded bottle and a bottle therefrom	AMCOR RIGID PLASTICS
US20040060896 A1	Bottom structure of bottle-shaped container made of synthetic resin	YOSHINO KOGYOSHO
JP07304088 A	Biaxially-drawn blow-molded container having excellent heat resistance and method for producing the same	TOYO SEIKAN KAISHA
WO2014174210 A1	Container provided with a deformable base with a double arch	SIDEL PARTICIPATIONS
US4747496 A	Plastic bottle pressurization clip for maintaining carbonation in beverages	RENDINE DENNIS JAMES
WO200750330 A1	Flask	COCA COLA
WO2015189515 A1	Container provided with a base with bulging beams	SIDEL PARTICIPATIONS
US6913159 B1	Water bottle strap with finger holes	GOLDBERG ROBERT H.
US5066081 A	Blow-molded bottle with bi-axially stretched skirt	BROADWAY COMPANIES

Publication numbers	Title	Current assignees
US4865208 A	Support device for holding a bottle in suspended relationship	AUTRONIC PLASTICS
US20080223816 A1	Plastic container with elongated vertical formation	PLASTIPAK PACKAGING
WO200244038 A1	Biaxially stretch-blow molded lightweight synthetic resin bottle container and method for production thereof	YOSHINO KOGYOSHO
WO200734676 A1	Polyester resin and plastic bottle with resistance to heat and pressure	YOSHINO KOGYOSHO
WO200888824 A1	Beverage container having a modified shape	COCA COLA
BE-748305 A	Bottom end structure for plastic containers	CONTINENTAL CAN
CA2808996 A1	Synthetic resin bottle body	YOSHINO KOGYOSHO
DE2352738 A1	Bottom structure for plastic containers	CONTINENTAL CAN
WO201269759 A1	Combined petaloid base of a container	SIDEL PARTICIPATIONS
WO200928571 A1	Synthetic resin container	TOYO SEIKAN KAISHA
JP63232144 A	Synthetic resin bottle furnished with handgrip and method for manufacturing the same	TOYO SEIKAN KAISHA
FR2892048 A1	Mold base for mold manufacturing thermoplastic containers, and molding device equipped with at least one mold provided with such a base	SIDEL PARTICIPATIONS
US20130213925 A1	Plastic container	NIAGARA BOTTLING
GB201005717 D0	Petaloid base for a self-standing container and container therefor	PETAINER LIDKÖPING
EP1645515 A1	Thermoplastic material container	SIDEL PARTICIPATIONS
US20050127024 A1	Container	PLASTIPAK PACKAGING
FR2822804 A1	Thermoplastic container whereof the base comprises a cross-shaped impression	SIDEL
US4892205 A	Concentric ribbed preform and bottle made from same	BALL PACKAGING EUROPE
EP-652158 A1	Device for holding an essentially cylindrical bottle.	ZAEHNER VIKTOR
WO200246049 A1	Plastic container and method of producing the same	TOYO SEIKAN KAISHA
US5047271 A	Apparatus and process relating to a preform and a container with geodesic reinforcement	FMT HOLDINGS

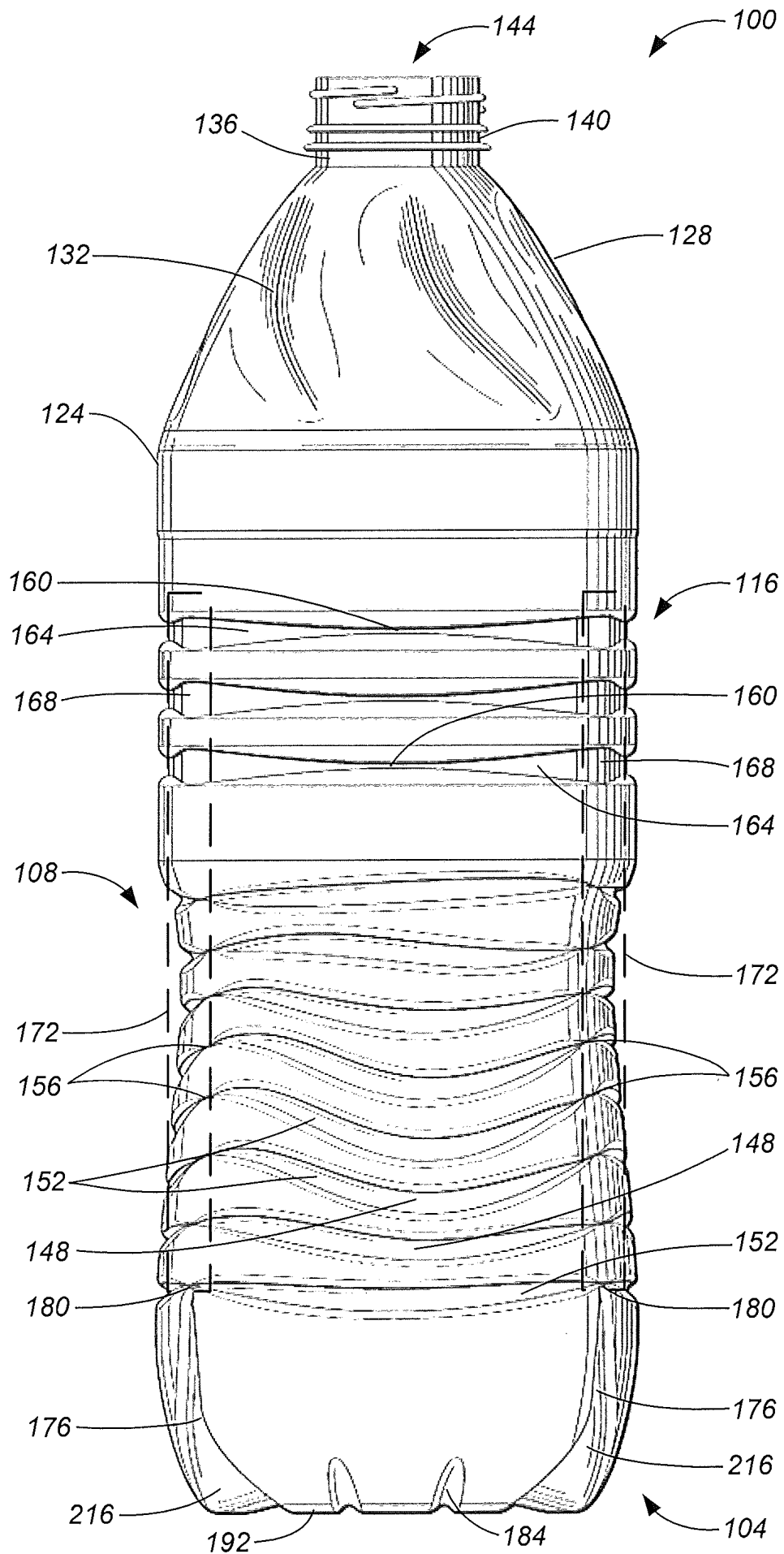
Family 1/100 - FAMPAT - ©Questel

Title

(EP3087009)

Plastic container with strapped base

Images



Publication data including kind & date

CA2895524	A1	2014-07-03	CA2895524				
US20140183202	A1	2014-07-03	US20140183202				
US20140183156	A1	2014-07-03	US20140183156				
WO2014105956	A1	2014-07-03	WO2014105956				
US20150144587	A1	2015-05-28	US20150144587				
CA2907004	A1	2015-07-02	CA2907004				
WO2015099813	A1	2015-07-02	WO2015099813				
BR112015015458	A1	2015-07-07	BR112015015458				
AU2013370421	A1	2015-07-09	AU2013370421				
US9120589	B2	2015-09-01	US9120589				
US9132933	B2	2015-09-15	US9132933				
AU2014370440	A1	2015-10-15	AU2014370440				
CL2015001866	A1	2015-10-23	CL1866201500				
EP2938548	A1	2015-11-04	EP2938548				
US20150329234	A1	2015-11-19	US20150329234				
US20150336703	A1	2015-11-26	US20150336703				
PE16922015	A1	2015-12-04	PE201501692				
MX2015014355	A	2015-12-07	MX2015014355				
BR112015025191	A1	2015-12-08	BR112015025191				
PE16782015	A1	2015-12-17	PE201501678				
JP2016501798	A	2016-01-21	JP2016501798				
MX2015008422	A	2016-02-16	MX2015008422				
CL2015002911	A1	2016-03-28	CL2911201500				
MX2016001344	A	2016-07-29	MX2016001344				
CA2918903	A1	2016-07-30	CA2918903				
AU2016200518	A1	2016-08-18	AU2016200518				
JP2016155603	A	2016-09-01	JP2016155603				
EP3087009	A1	2016-11-02	EP3087009				
JP2017501093	A	2017-01-12	JP2017501093				
TH159442	A	2017-01-18	TH-159442				
EP2938548	B1	2017-02-22	EP2938548				
TH161362	A	2017-03-30	TH-161362				
EP3087009	A4	2017-06-21	EP3087009				
ES2621282	T3	2017-07-03	ES2621282				
BR112015015458	A2	2017-07-11	BR112015015458				
BR112015025191	A2	2017-07-18	BR112015025191				
ES2621282	T9	2017-09-11	ES2621282				
AU2013370421	B2	2017-09-28	AU2013370421				
JP6321034	B2	2018-05-09	JP6321034				
US10023346	B2	2018-07-17	US10023346				
JP2018122937	A	2018-08-09	JP2018122937				
US20180297741	A1	2018-10-18	US20180297741				

Abstract

(EP3087009)

A container may have a base, a sidewall connected to the base, a bell connected to the sidewall, and a finish connected to the bell. The base may have strap ribs to resist deformation of the base. The sidewall may have recessed columns to resist bending, leaning, crumbling, and/or stretching. The strap ribs and recessed columns may vertically line up along a central

axis of the container to communicate forces on the container vertically along the container to continuously resist deformation in the base and the sidewall.

Inventors

HANAN JAY CLARKE

Latest standardized assignees - inventors removed

NIAGARA BOTTLING

Family 2/100 - FAMPAT - ©Questel

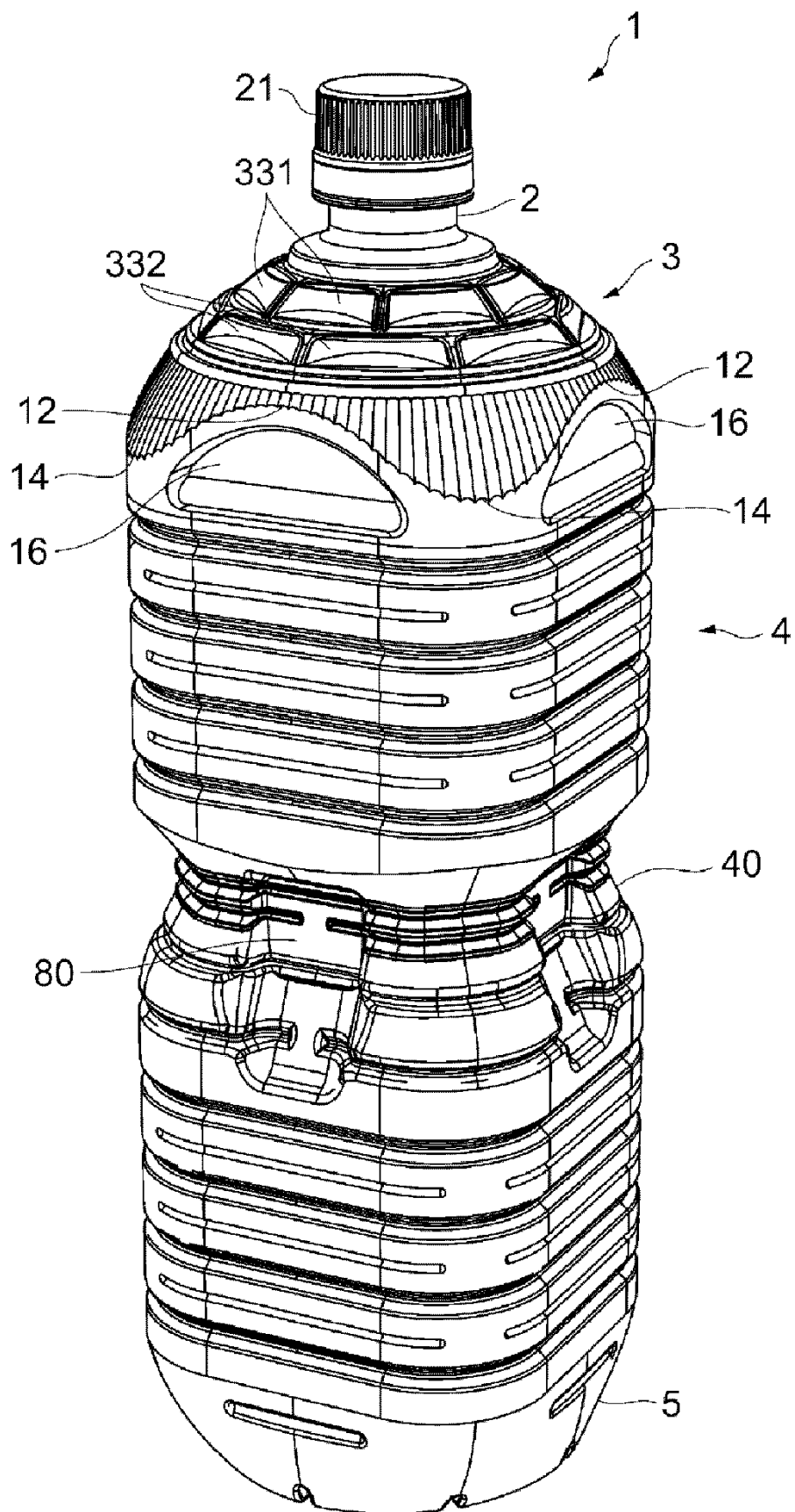
Title

(EP3072825)

Plastic bottle

Images

[Fig. 1]



Publication data including kind & date

WO2015076362	A1	2015-05-28	WO201576362
JP2015101361	A	2015-06-04	JP2015101361
AU2014354043	A1	2016-07-07	AU2014354043
IN201617021282	A	2016-08-31	IN201617021282



CN105916776	A	2016-08-31	CN105916776				
EP3072825	A1	2016-09-28	EP3072825				
EP3072825	A4	2017-05-31	EP3072825				
AU2018211260	A1	2018-08-16	AU2018211260				
AU2014354043	B2	2018-08-16	AU2014354043				
EP3072825	B1	2018-09-05	EP3072825				

Abstract

(EP3072825)

Provided is a plastic bottle that can be depressed and restored without damaging the bottle shoulder portion even with thin plastic bottles and that can effectively handle top loads. A shoulder portion (3) has, in order from the top, a first circumferential rib (311), a second circumferential rib (312), and a third circumferential rib (313), each being annular, on the same axis as an opening (2) and is configured so that a plastic bottle (1) transitions to a depressed state in which the bottle is depressed down by deformation that starts at the first circumferential rib (311), the second circumferential rib (312), and the third circumferential rib (313) when a top load (F) is acting on the bottle and so that the depressed state can be maintained even after the top load (F) is removed.

Inventors

IWASHITA HIROMASA

Latest standardized assignees - inventors removed

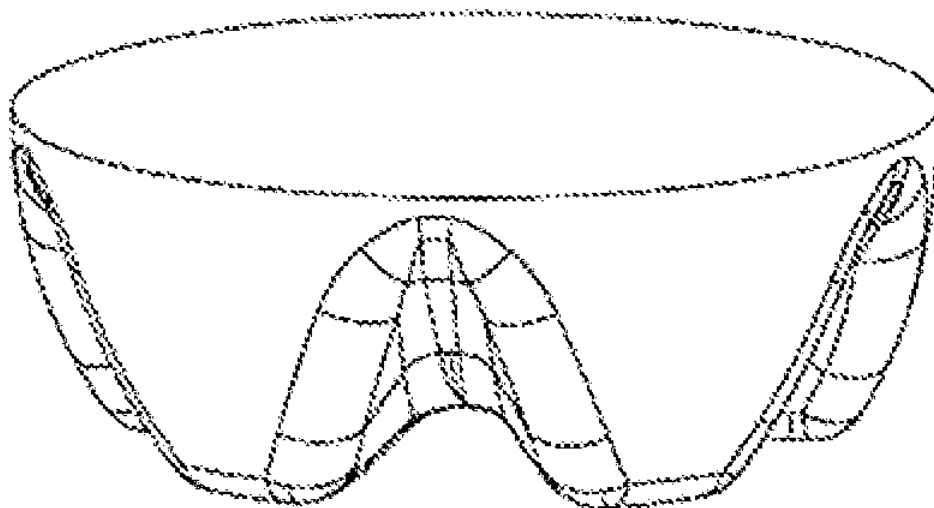
COCA COLA

Family 3/100 - FAMPAT - ©Questel

Title

(EP3174804)

Lightweight base for carbonated beverage packaging

Images**Publication data including kind & date**

CA2956454	A1	2016-02-04	CA2956454				
CA2953887	A1	2016-02-04	CA2953887				
WO2016019318	A1	2016-02-04	WO2016019318				
WO2016019361	A1	2016-02-04	WO2016019361				
AU2015296078	A1	2017-01-19	AU2015296078				
AP201709698	A0	2017-01-31	AP201709698				

BR112017002142	A1	2017-02-21	BR112017002142				
BR112017002141	A1	2017-02-21	BR112017002141				
AU2015296030	A1	2017-03-16	AU2015296030				
CN106536356	A	2017-03-22	CN106536356				
KR20170039252	A	2017-04-10	KR20170039252				
KR20170039204	A	2017-04-10	KR20170039204				
MX2017001249	A	2017-05-08	MX2017001249				
MX2017001140	A	2017-05-09	MX2017001140				
IN201717005240	A	2017-05-12	IN201717005240				
IN201717005537	A	2017-05-19	IN201717005537				
EP3174804	A1	2017-06-07	EP3174804				
EP3174803	A1	2017-06-07	EP3174803				
US20170217625	A1	2017-08-03	US20170217625				
JP2017524615	A	2017-08-31	JP2017524615				
CN107148385	A	2017-09-08	CN107148385				
US20170267390	A1	2017-09-21	US20170267390				
JP2017530030	A	2017-10-12	JP2017530030				
BR112017002142	A2	2017-11-21	BR112017002142				
BR112017002141	A2	2017-11-21	BR112017002141				
EP3174803	A4	2017-12-06	EP3174803				
EP3174804	A4	2017-12-13	EP3174804				
RU2017103369	A	2018-09-03	RU2017103369				
RU2017106299	A	2018-09-04	RU2017106299				
CN106536356	B	2018-12-11	CN106536356B				

Abstract

(EP3174804)

This disclosure provides generally container base designs for use in packaging carbonated beverages and new containers that incorporate the base design. It has been found that improved physical and mechanical properties such as good stress crack performance can be achieving while improved light weighting and potential cost savings. The particular base and container designs are generally applicable to carbonated soft drink (CSD) containers, and can be used with containers of any size and with any type of base form such as petaloid or champagne base forms.

Inventors

STEWARD STERLING LANE

GOVINDARAJAN VENKAT

GEITHMANN MARTIN

Latest standardized assignees - inventors removed

PLASTIC TECHNOLOGIES

COCA COLA

Family 4/100 - FAMPAT - ©Questel

Title

(US4627546)

Flexible detachable handle and carrier for a plastic bottle and the combination thereof

Images

lower part of the bottle. The tabs in the preferred embodiment extend from the ring a distance greater than one-half the diameter of the ring and cover a relative large area so that their footprint on the bottle follows the inward partial collapse of the bottle walls and continues in engagement with the bottom walls as the bottle is emptied.

Inventors

CARRANZA JOSE R

Latest standardized assignees - inventors removed

MERRICK INDUSTRIES SUNNYVALE

Family 5/100 - FAMPAT - ©Questel

Title

(EP-703152)

One-piece plastic container for carbonated beverages

Images

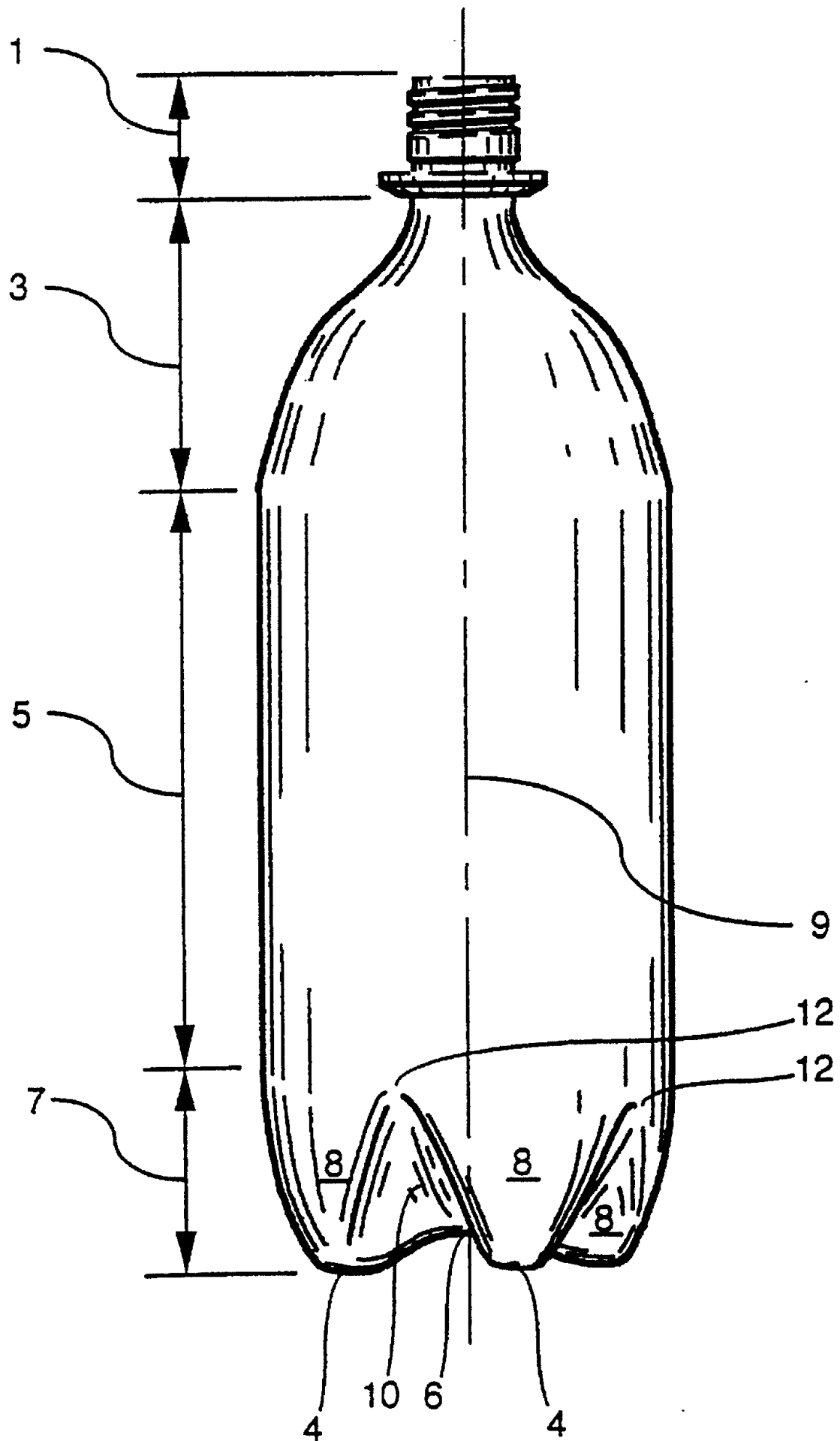


Fig. 1
Prior Art

Publication data including kind & date

BRPI9503952	A1	1995-10-10	BR9503952
HU9502523	D0	1995-10-30	HU9502523
CA2153368	A1	1996-03-10	CA2153368
PL310297	A1	1996-03-18	PL95310297
AU2490295	A	1996-03-21	AU9524902
EP0703152	A1	1996-03-27	EP-703152
BG99761	A	1996-03-29	BG--99761
JPH0885531	A	1996-04-02	JP08085531
CN1119616	A	1996-04-03	CN1119616
HUT72551	A	1996-05-28	HU-T72551
TR199501103	A2	1996-06-21	TR199501103
US5529196	A	1996-06-25	US5529196
CZ9502298	A3	1996-07-17	CZ9502298
BR9503952	A	1996-09-24	BR9503952
AU684168	B2	1997-12-04	AU-684168
EP0703152	B1	1998-09-16	EP-703152
DE69504793	D1	1998-10-22	DE69504793
ES2123861	T3	1999-01-16	ES2123861
DE69504793	T2	1999-07-08	DE69504793
BRPI9503952	B1	2000-05-02	BR9503952

**Abstract**

(EP-703152)

A one-piece plastic container for carbonated beverages with a footed base structure (7) to support the container in an upright position. The container is manufactured with a reduced amount of plastic material while maintaining performance, particularly stability. Stability is preserved when the container is empty and when filled. The upper portion of the base structure has a strap formation (17) between each circumferentially adjacent pair of feet (35) that is relatively stiff and which communicate at their outer ends with readily deformable areas (15). When the container is pressurized from the carbonated beverage the areas (15) easily deform and expand to avoid unwanted distortions that commonly occur in other footed container base structures and cause the strap formations (17) to apply an upwardly directed force to the central region (14) of the base structure. <IMAGE>

Inventors

LANE MICHAEL T

Latest standardized assignees - inventors removed

AMCOR

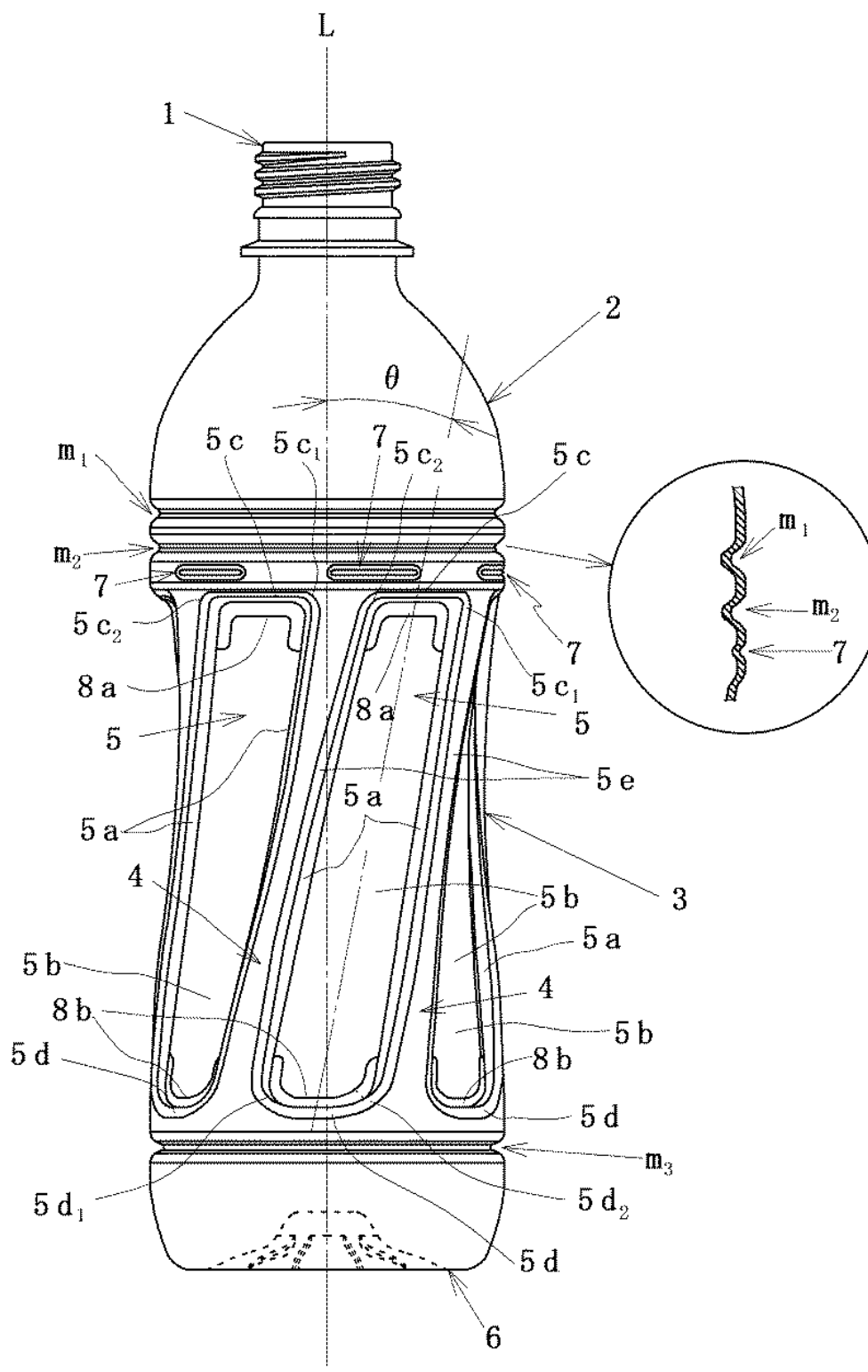
Family 6/100 - FAMPAT - ©Questel

Title

(JP2013095428)

Synthetic resin-made blow bottle

Images



Publication data including kind & date

[JP2013095428](#)

A 2013-05-20

JP2013095428

[JP5969752](#)

B2 2016-08-17

JP5969752



Abstract

(JP5969752)

PROBLEM TO BE SOLVED: To provide a synthetic resin-made blow bottle which does not cause crushed deformation at the upper pressure-reducing absorbing walls even when an external shock is applied, and has high rigidity. **SOLUTION:** The synthetic resin-made blow bottle includes a mouth part 1 forming the spouting port of contents, a shoulder part 2 which is connected with the mouth part 1 and whose diameter is enlarged downward, a body part 3 connected with the shoulder part 2 via annular groove parts m, m, and a bottom part 6 connected with the lower end of the body part 3, and cooperating with the shoulder part 2 and body part 3 to form a space to be filled with contents inside them. The body part 3 includes a plurality of pressure-reducing absorbing walls 5 each having an acute-angle part 5a and an obtuse-angle part 5a at the end of an upper side 5a and formed of an inclined panel having an inclination θ with respect to the axial center L of the bottle, and column walls 4 positioned between the pressure-reducing absorbing walls 5 and formed along the periphery of the body part 3 and arranged alternately with the pressure-reducing absorbing walls 5. The body part 3 is provided with short reinforcing ribs 7 extending along the annular groove parts m, m, right above the obtuse-angle parts 5.

Inventors

SAITO HIROMICHI

Takao Iizuka

Latest standardized assignees - inventors removed

YOSHINO KOGYOSHO

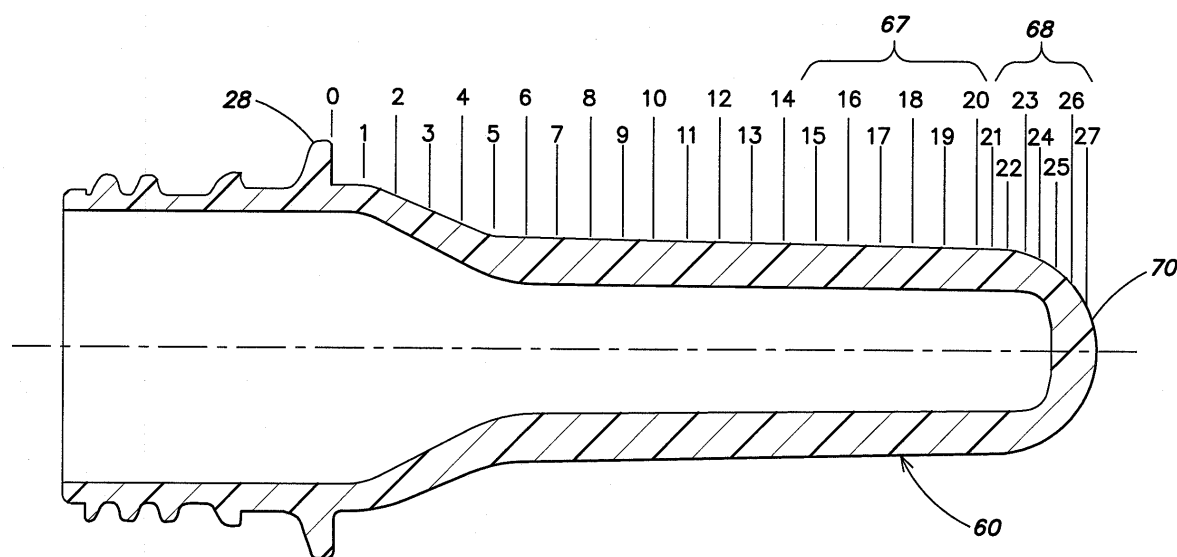
Family 7/100 - FAMPAT - ©Questel

Title

(WO2008131083)

Preform base and method of making a delamination and crack resistant multilayer container base

Images



Publication data including kind & date

US20080257855	A1	2008-10-23	US20080257855
WO2008131083	A1	2008-10-30	WO2008131083
MX2009011188	A	2009-11-02	MX2009011188
US8020717	B2	2011-09-20	US8020717



Abstract

(WO2008131083)

Molded preform (60) for blow molding a plastic container for pressurized applications, the preform having a base with a multilayer wall for forming a delamination and crack resistant multilayer footed container base. The preform base forming region has an end cap portion with a non-spherical inner wall, including a flattened central section joined by arcuate corner sections to a generally cylindrical outer section. The inner wall sections provide a varying end cap thickness profile which enhances orientation in select portions of the footed container base for improved performance and/or lightweighting of the

container base.

Inventors

PATEL TAPAN Y

Latest standardized assignees - inventors removed

GRAHAM PACKAGING

Family 8/100 - FAMPAT - ©Questel

Title

(EP-440964)

Plastic container, particularly for pressurized fluids.

Images

FIG. 1

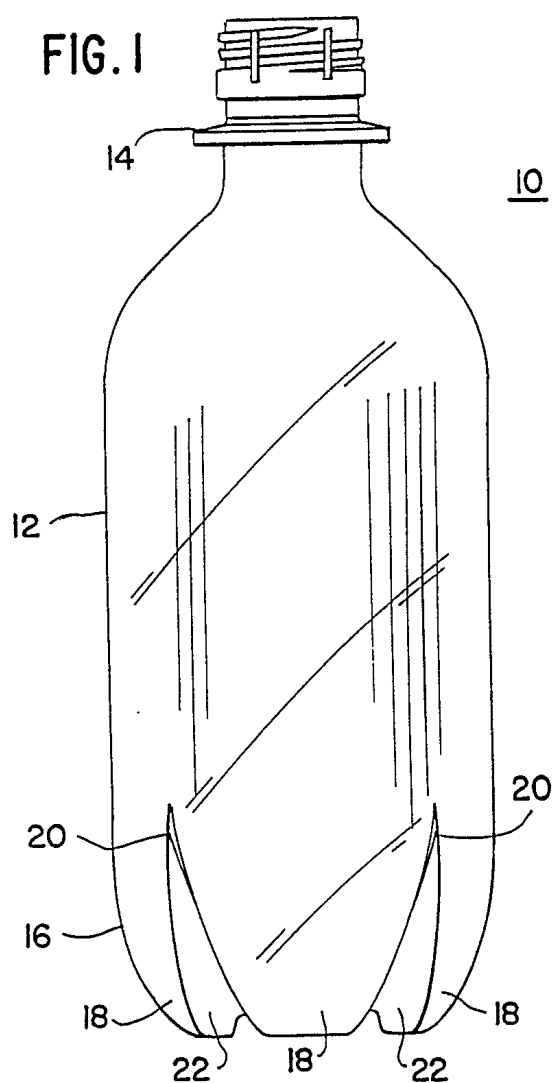
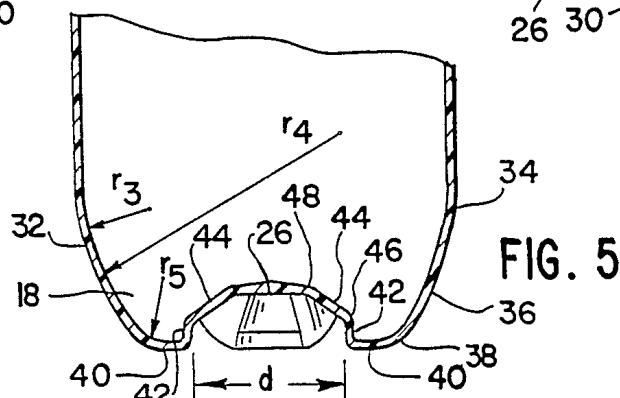
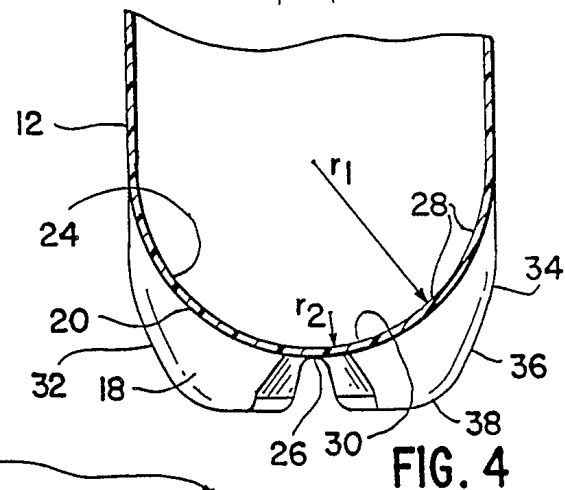
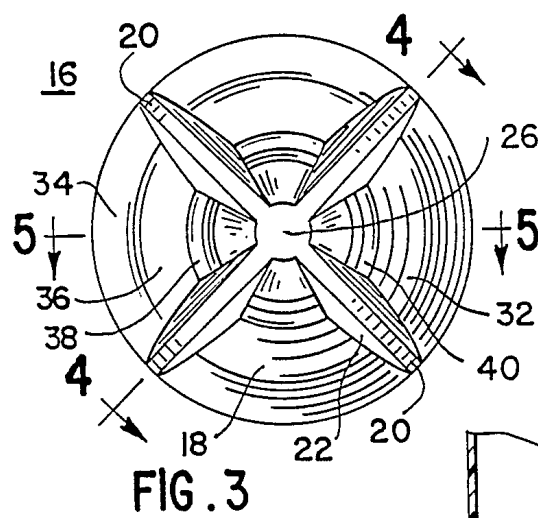
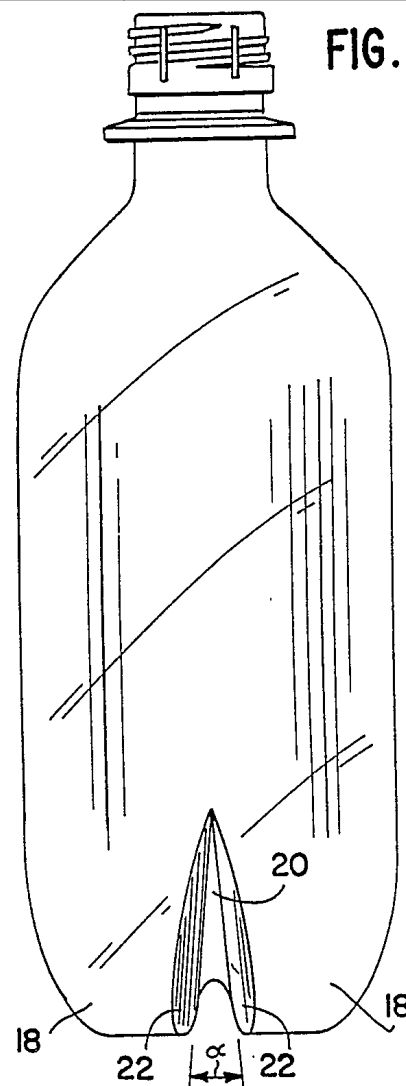


FIG. 2



Publication data including kind & date

GB9005810

D0 1990-05-09

GB9005810

US4978015

A 1990-12-18

US4978015



CA2012675	A1	1991-07-10	CA2012675
AU6691890	A	1991-07-11	AU9066918
IE910067	A1	1991-07-31	IE9100067
GB2240317	A	1991-07-31	GB2240317
EP0440964	A1	1991-08-14	EP-440964
IL96845	A	1991-09-16	IL--96845
MX163484	B	1992-05-20	MX-163484
JPH04215936	A	1992-08-06	JP04215936
NZ236688	A	1993-04-28	NZ-236688
IL96845	B	1993-11-15	IL--96845
GB2240317	B	1994-01-12	GB2240317
AU5496794	A	1994-04-21	AU9454967
IE62048	B1	1994-12-14	IE--62048
AU671879	B2	1996-09-12	AU-671879
AU7424696	A	1997-02-20	AU9674246
CA2012675	C	1997-03-04	CA2012675
JP3053120	B2	2000-06-19	JP3053120



Abstract

(EP-440964)

A blow-molded plastic container (10) having a body comprising a neck portion (14), a generally cylindrical sidewall portion (12) and a bottom structure (16). The bottom structure comprises a central portion (26), a plurality of ribs (20) extending downwardly from the bottle sidewall to the central portion (26), and a plurality of feet (18) extending below the central portion (26) from the sidewall portion (12). The ribs (20) are defined by an upper curvilinear surface (24) and, in cross-section are of an substantially U-shape having a relatively tight radius, the upper rib surfaces lying on a generally hemispherical curvature in the interior of said container. Each foot (18) is positioned between two ribs (20) and has a pair of rib-defining endwalls (22) connected to and continuous with the ribs (20) on each side of a curvilinear outer wall (32) connected to and continuous with the sidewall portion (12), a generally horizontal base surface (40) joined to said outer wall (32), a generally vertical first inner surface (42) forming a lip extending upwardly from the base surface, and a second inner surface (44) extending from the lip (42) to the central portion (26). <IMAGE>

Inventors

WALKER LARRY D

Latest standardized assignees - inventors removed

INTERNATIONAL PACKAGING TECHNOLOGIES

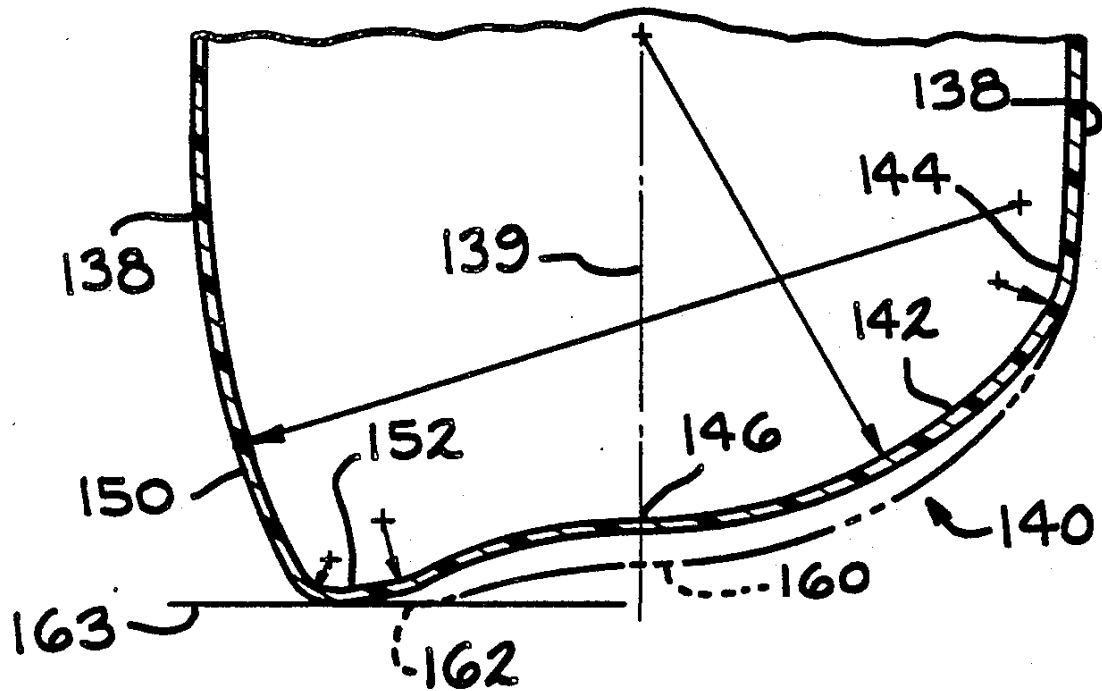
Family 9/100 - FAMPAT - ©Questel

Title

(EP-346858)

Blow molded one-piece bottle and method for making same

Images



NO892524	D0	1989-06-16	NO8902524
FI892965	A0	1989-06-16	FI8902965
DK298789	D0	1989-06-16	DK8902987
US4865206	A	1989-09-12	US4865206
JO1582	B1	1989-12-16	JO---1582
IE891921	L	1989-12-17	IE8901921
NO892524	A	1989-12-18	NO8902524
FI892965	A	1989-12-18	FI8902965
DK298789	A	1989-12-18	DK8902987
EP0346858	A2	1989-12-20	EP-346858
AU3599589	A	1989-12-21	AU8935995
PT90862	A	1989-12-29	PT--90862
MA21577	A1	1989-12-31	MA--21577
IL90509	A	1990-01-18	IL--90509
BR8903093	A	1990-02-06	BR8903093
JPH0257545	A	1990-02-27	JP02057545
EP0346858	A3	1990-05-16	EP-346858
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NZ229582	A	1991-02-26	NZ-229582
CN1050852	A	1991-04-24	CN1050852
YU121589	A	1991-04-30	YU8901215
HU204011	B	1991-11-28	HU-204011
IL90509	B	1991-12-15	IL--90509
CS276423	B6	1992-05-13	CS-276423
IN171066	B	1992-07-11	IN-171066
BRPI8903093	A1	1992-08-18	BR8903093



CN1019179	B	1992-11-25	CN1019179B				
SU1813058	A3	1993-04-30	SU1813058				
RU1813058	C	1993-04-30	RU1813058				
EP0346858	B1	1993-07-07	EP-346858				
AT91262	T	1993-07-15	ATE091262				
DE68907447	D1	1993-08-12	DE68907447				
ES2041896	T3	1993-12-01	ES2041896				
MX172186	B	1993-12-06	MX-172186				
PL162818	B1	1994-01-31	PL-162818				
DE68907447	T2	1994-02-17	DE68907447				
CA1330959	C	1994-07-26	CA1330959				
AR246720	A1	1994-09-30	AR-246720				
IE62278	B1	1995-01-25	IE--62278				
PT9035	T	1995-01-31	PT---9035T				
JPH0744501	U	1995-11-21	JP07044501U				
YU47714	B	1996-01-08	YU--47714				
BRPI8903093	B1	1996-04-30	BR8903093				
ID992	B	1996-10-08	ID----992				
JP2551699	Y2	1997-10-27	JP2551699Y				

Abstract

(EP-346858)

A one piece self supporting blow molded plastic container (130) having a generally cylindrical side wall (138) and a plurality of hollow legs extending downwardly from the side wall. The legs terminate in substantially planar feet (152) having radially outer edges (154) forming a non-continuous support surface engaging area having a diameter slightly less than the diameter of the tubular side wall. A generally horizontal center section (146) is disposed in the center of the container radially inwardly of the legs and merging with the inner edges (156) of the feet. V-shaped ribs extend radially outwardly and upwardly from said center section so as to circumferentially separate said legs.

Inventors

BEHM, DALE HERBERT

PLUMMER, GEORGE ALLEN

Latest standardized assignees - inventors removed

AMCOR

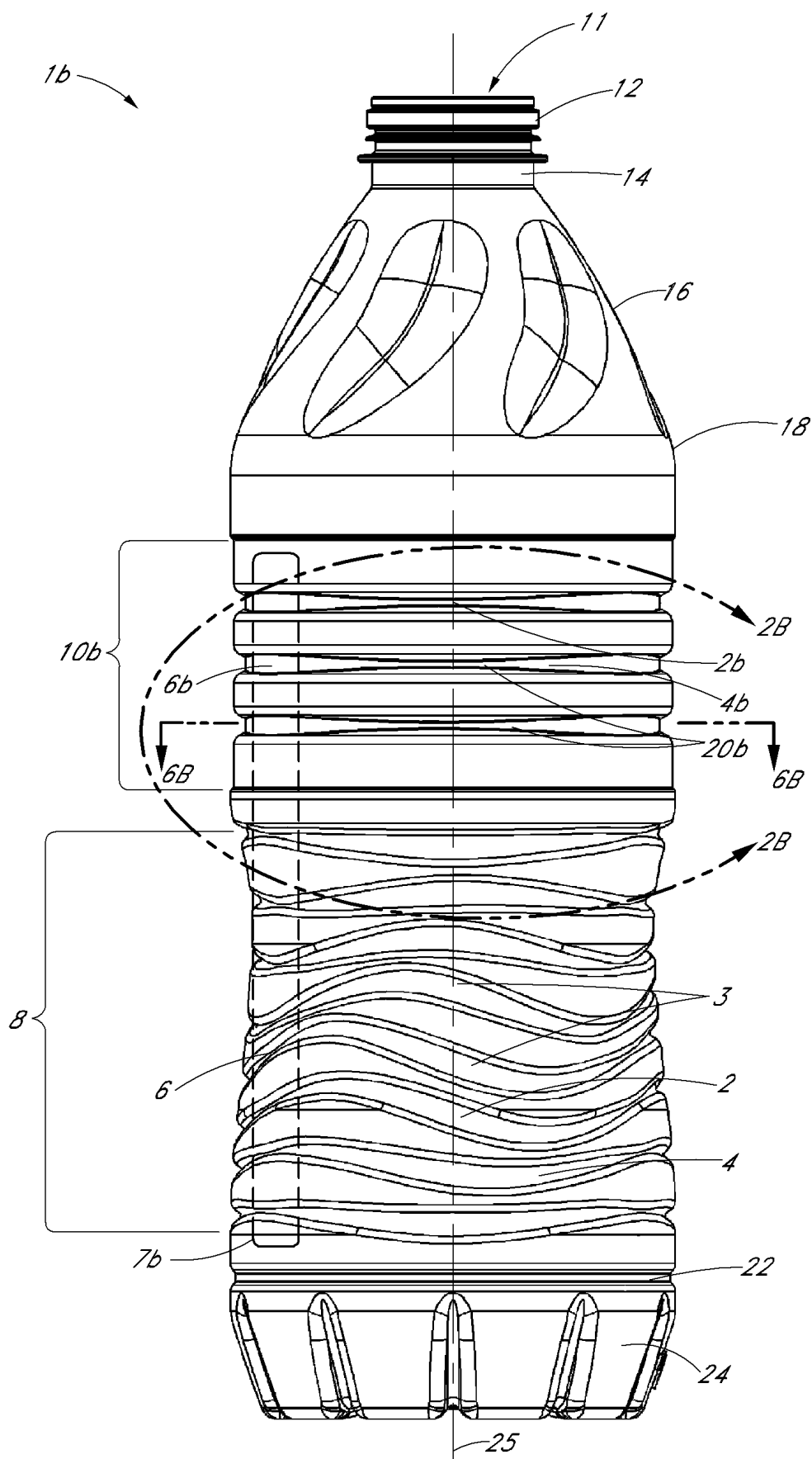
Family 10/100 - FAMPAT - ©Questel

Title

(EP2788261)

Plastic container with varying depth ribs

Images



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				
US10150585	B2	2018-12-11	US10150585				
EP2788261	B1	2018-12-19	EP2788261				

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

Family 11/100 - FAMPAT - ©Questel

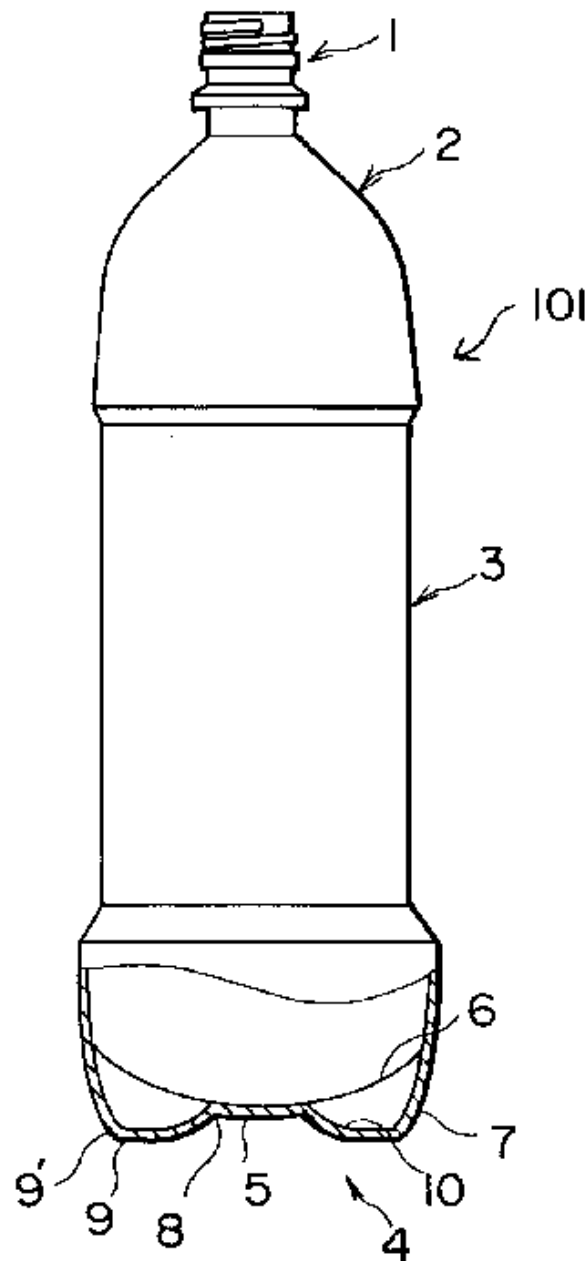
Title

(EP-739823)

Self-standing container having excellent heat resistance and pressure resistance and method of producing the same

Images

Fig. 1



Publication data including kind & date

JPH08267549	A	1996-10-15	JP08267549
KR19960034017	A	1996-10-22	KR19960034017
EP0739823	A1	1996-10-30	EP-739823
TW294641	B	1997-01-01	TW-294641
US5906286	A	1999-05-25	US5906286
KR100225007	B1	1999-10-15	KR100225007
EP0739823	B1	2000-01-12	EP-739823
DE69606084	D1	2000-02-17	DE69606084
US6090334	A	2000-07-18	US6090334
DE69606084	T2	2000-09-14	DE69606084



[JP3612775](#)

B2 2005-01-19 JP3612775

Abstract

(EP-739823)

A container obtained by biaxially stretch-blow-molding a resin.Except the mouth-and-neck portion (1), vicinities thereof and the center (5) of the bottom portion (4), the container as a whole is reduced in thickness under a highly drawing condition without accompanied by whitening, and a portion constituting the bottom valley portions (6) has an yielding load of not smaller than 25 kg/cm at 70 DEG C.The container exhibits excellent heat resistance, pressure resistance, shock resistance as well as self-standing ability. <IMAGE>

Inventors

MATSUNO KENJI

IKEGAMI HIROO

KATO NOBUYUKI

NAKAMAKI SETSUKO

TAKEUCHI KIMIO

MARUHASHI YOSHITSUGU

FUKABORI HOTAKA

KURASHIMA HIDEO

Latest standardized assignees - inventors removed

TOYO SEIKAN KAISHA

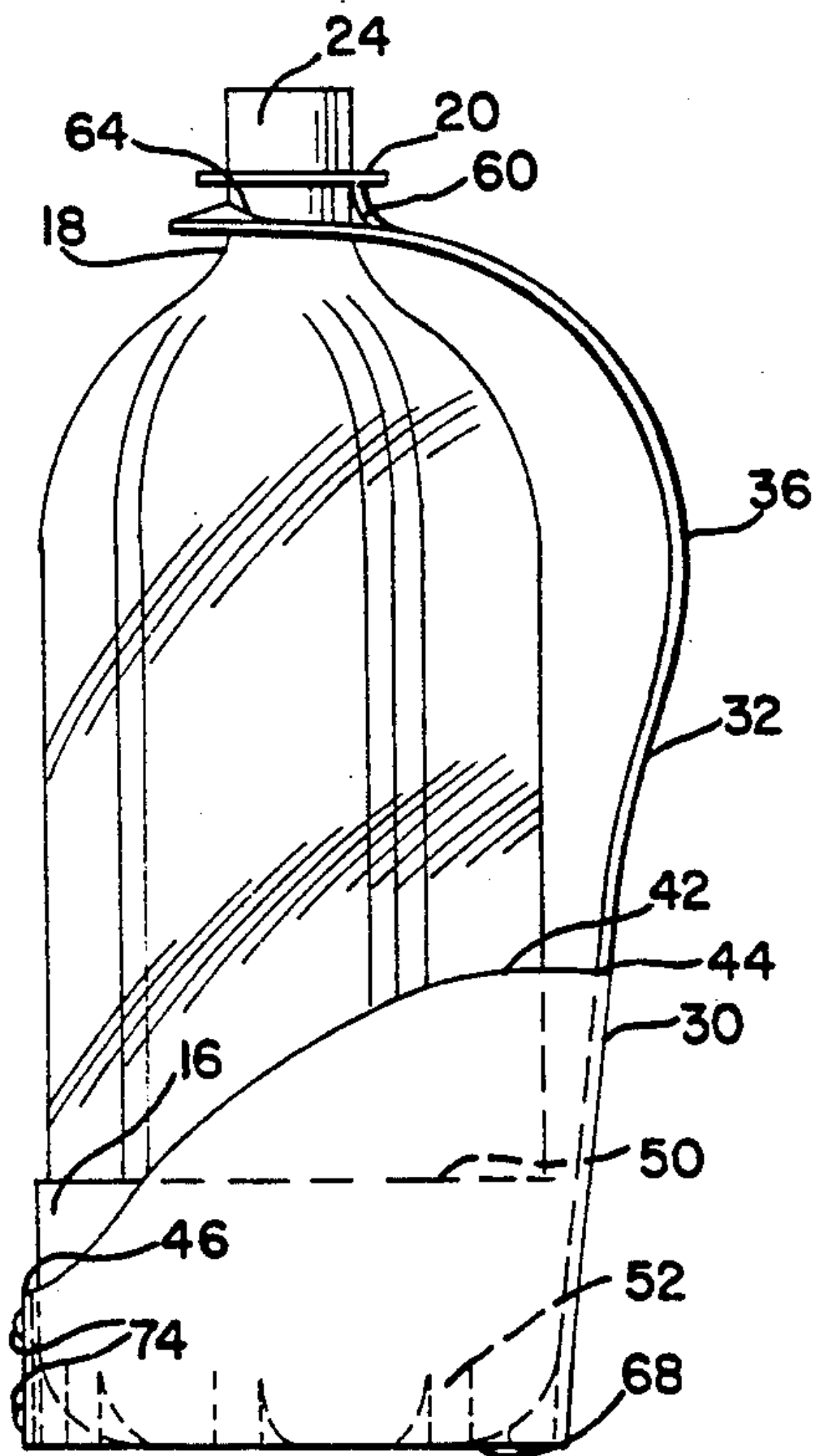
Family 12/100 - FAMPAT - ©Questel

Title

(US5183169)

Reusable bottle handle

Images



(US5183169)

A reusable handle for use with bottles is disclosed. The handle has an upwardly diverging bonnet shaped jacket which encircles and holds a portion of the bottle body. An arm, with a gripping portion, extends from the jacket and terminates in a bottle neck ring which holds the bottle neck. The bottle neck ring has a neck locking tab and an opposing straight edge which firmly hold the bottle neck. The neck locking tab and shape of the jacket also serve to bias the gripping portion of the handle away from the bottle body. Because of the tapered jacket, the handle can be used with a bottles having varying diameters. The handle can also be made, sold and stored in a flat configuration. In the flat configuration, the handle has a planar body with an arcuate bottom edge and side edges which can be attached together for use to form the upwardly diverging bonnet shape of the jacket.

Inventors

GRZYCH STEPHEN D

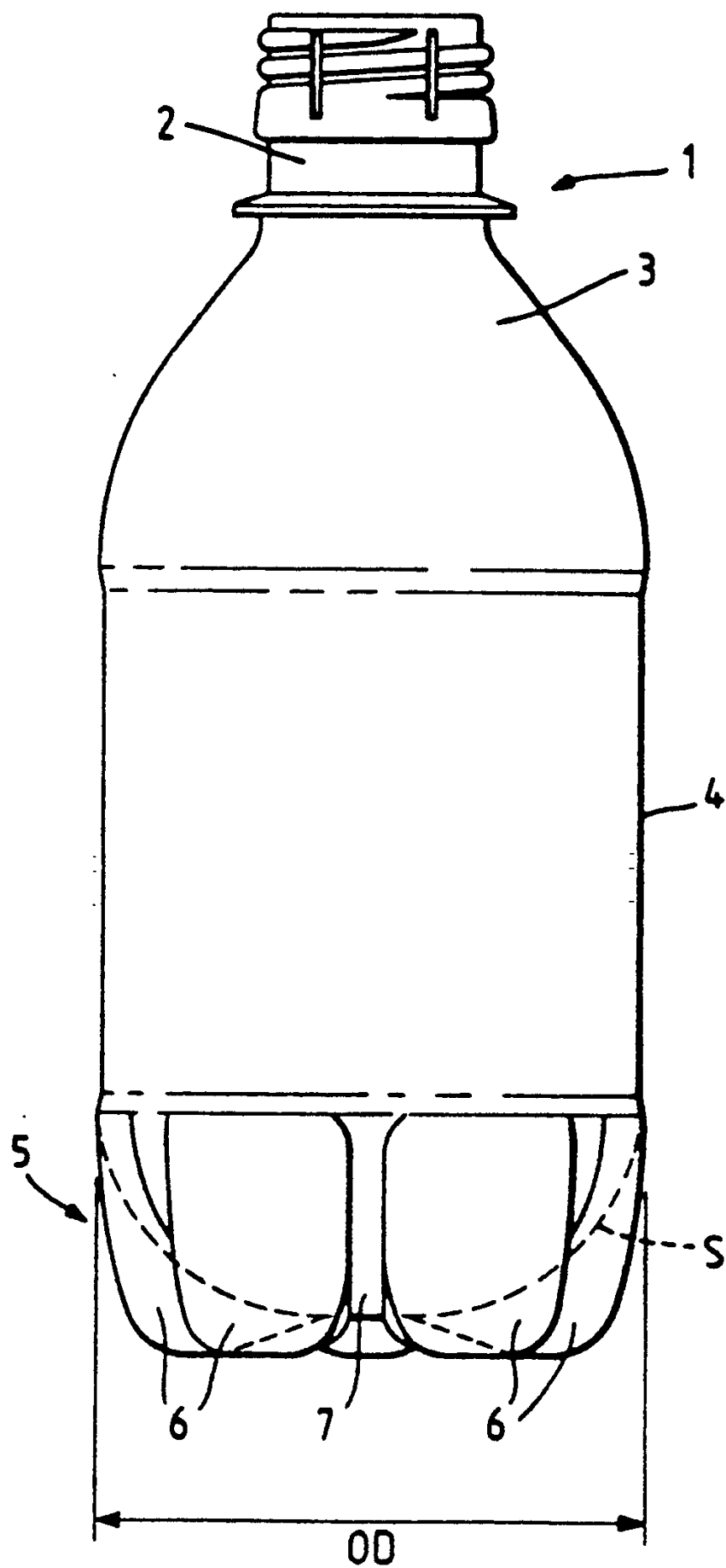
Family 13/100 - FAMPAT - ©Questel

Title

(EP-385693)

A plastics bottle

Images

Fig. 1.

Publication data including kind & date

GB8904417	D0	1989-04-12	GB8904417
CA2010861	A1	1990-08-27	CA2010861
IE900632	L	1990-08-27	IE9000632
CN1045073	A	1990-09-05	CN1045073
EP0385693	A1	1990-09-05	EP-385693
JPH03124542	A	1991-05-28	JP03124542
US5024339	A	1991-06-18	US5024339
EP0385693	B1	1992-02-19	EP-385693
AT72644	T	1992-03-15	ATE072644
DE69000022	D1	1992-03-26	DE69000022



Abstract

(EP-385693)

A plastics bottle for carbonated drinks has a side wall (4) and a base (5) formed with a central area (8) surrounded by circumferentially spaced projecting feet (6) separated by substantially parallel-sided straps (7). The central area (8) and the straps (7) define a continuous smooth domed surface with no re-entrant portions. The ratio of the combined width of the straps (7) to the outside circumference of the base (5) is in the range from 1:5.5 to 1:6.5 and preferably 1:6. Preferably the base (5) has only seven projecting feet (6). This configuration is particularly useful with bottles of small size and enables a saving in plastics material of up to 40% by weight.

Inventors

RIEMER, HORST HERMANN

Latest standardized assignees - inventors removed

EMBEE

Family 14/100 - FAMPAT - ©Questel

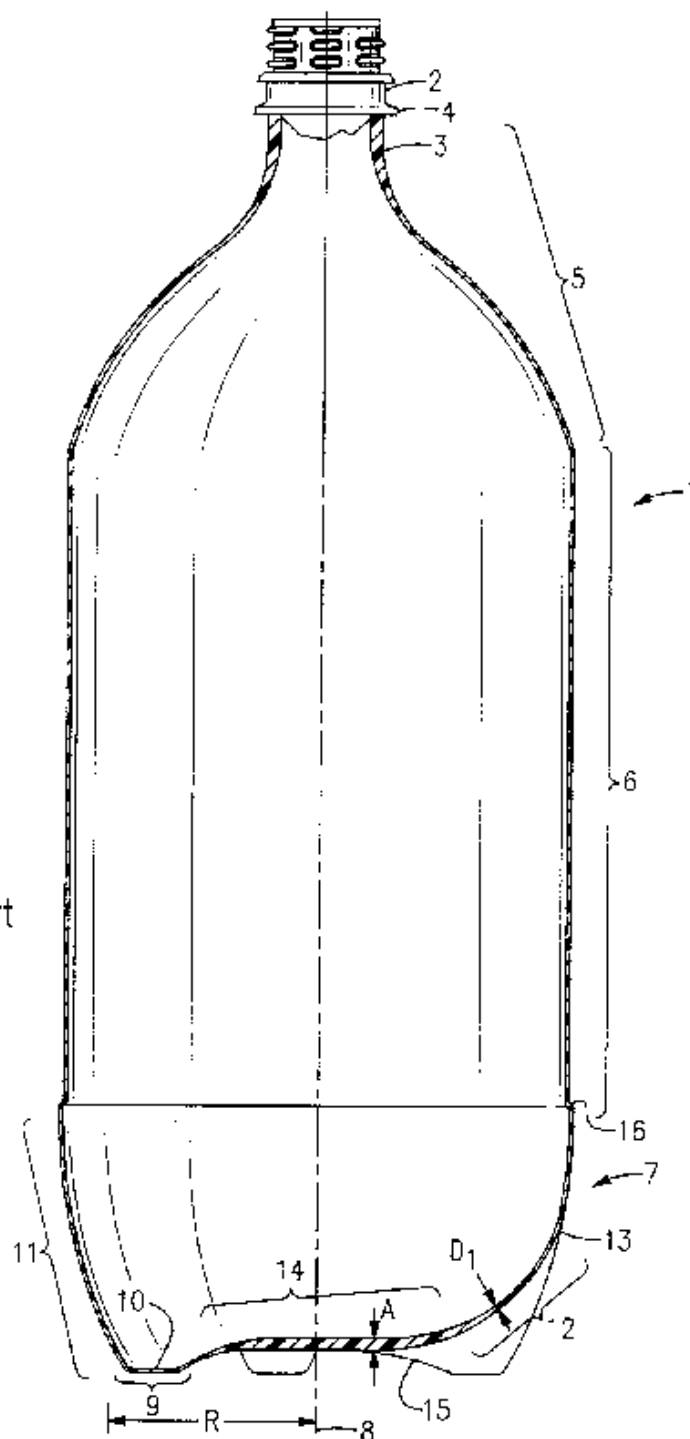
Title

(US5850932)

Base design for one piece self-standing blow molded plastic containers

Images

FIG.1
Prior Art



Publication data including kind & date

US5850932

A 1998-12-22 US5850932



Abstract

(US5850932)

The invention provides a light weight self-standing blow molded two-liter carbonated beverage container base design having a unique petaloid base. The base comprises a petaloid design which has a plurality of at least three (preferably five) feet with an ever increasing radius of curvature joining the feet to the underlying base from the radially outer portion of the feet to the radially inner portion of the feet, a controlled radius from the axis of the container to that curvature and an area of material flow in feet ankles and straps therebetween to promote adequate material flow during blow molding, to the radially outer most areas of the feet and straps.

Inventors

BECK MARTIN H

ROLLEND GEORGE F

CALDICOTT ROBERT

CONNOR DENNIS C

Latest standardized assignees - inventors removed

DTL MONOFOOT PARTNERSHIP

Family 15/100 - FAMPAT - ©Questel

Title

(EP-574342)

Footed container

Images

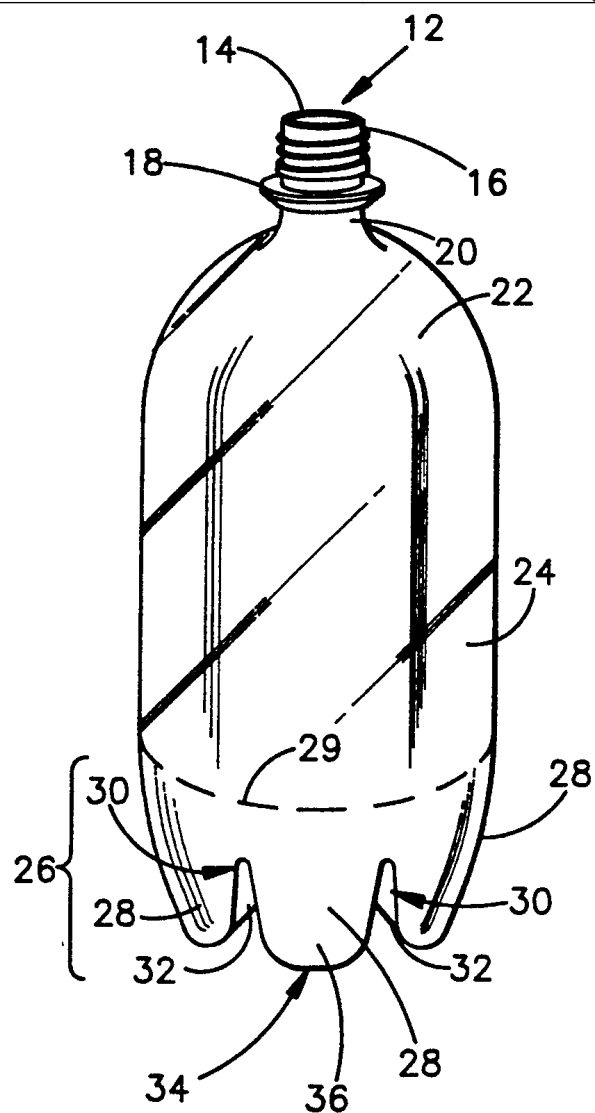


FIG. 1

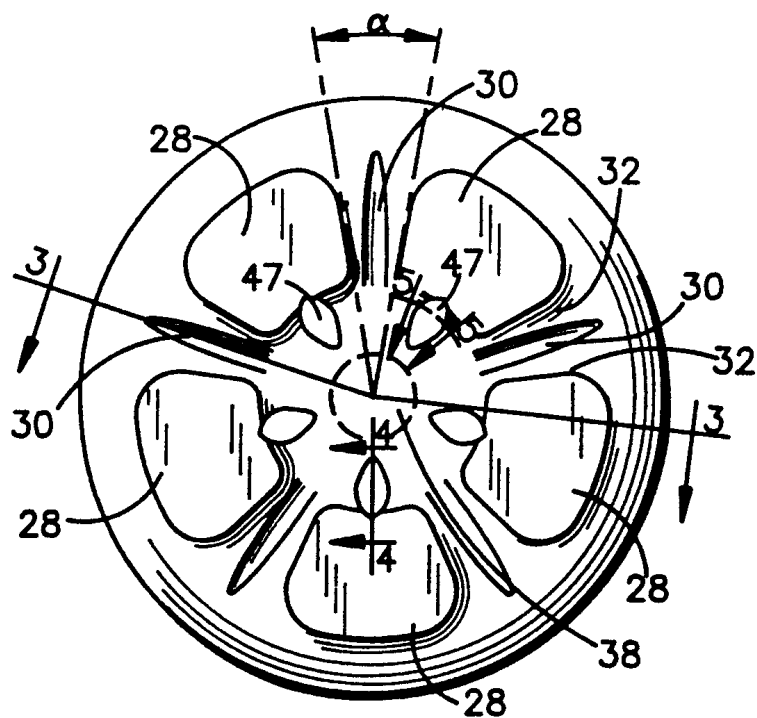


FIG 2

Publication data including kind & date

US5205434

A 1993-04-27 US5205434

NO932062

D0 1993-06-07 NO9302062

FI932612

A0 1993-06-08 FI9302612



MX9303423	A	1993-12-01	MX9303423				
FI932612	A	1993-12-10	FI9302612				
NO932062	A	1993-12-10	NO9302062				
CA2097634	A1	1993-12-10	CA2097634				
EP0574342	A1	1993-12-15	EP-574342				
AU4009793	A	1993-12-16	AU9340097				
ZA9304022	B	1994-01-06	ZA9304022				
CN1081419	A	1994-02-02	CN1081419				
ECSP930942	A	1994-03-07	EC9300942				
JPH0680132	A	1994-03-22	JP06080132				
AU653133	B2	1994-09-15	AU-653133				
NZ247812	A	1994-10-26	NZ-247812				
CN1032525	C	1996-08-14	CN1032525C				
CA2097634	C	1996-11-26	CA2097634				
EP0574342	B1	1997-04-16	EP-574342				
AT151708	T	1997-05-15	ATE151708				
DE69309781	D1	1997-05-22	DE69309781				

Abstract

(EP-574342)

A blow-molded container of thermoplastic resin has a hollow body (24) with a generally cylindrical side wall portion rotationally symmetric about a longitudinal axis of the container. A shoulder portion (22) integrally joins the side wall portion to a finish (12). An integral base (26) merging with the side wall portion is defined by an outer surface comprising a plurality of downward projections (28) separated from each other by generally arcuate segments (30) extending essentially from the cylindrical side wall to the longitudinal axis of the container. The bottom of the container includes a web (47) extending between a central portion adjacent the longitudinal axis of the container and a generally perpendicular ring segment (44) in each of the downward projections (28) for providing enhanced stability against deflection during entry of the filling liquid into the container which aids in the prevention of bottom failure from stress cracking associated with the rigors of the filling procedure. <IMAGE>

Inventors

BRUNSON DAVID A

DEEMER DAVID A

LYNN STEPHEN R

Latest standardized assignees - inventors removed

CONSTAR PLASTICS

Family 16/100 - FAMPAT - ©Questel

Title

(EP-350782)

Blow molded bottle with improved self supporting base

Images

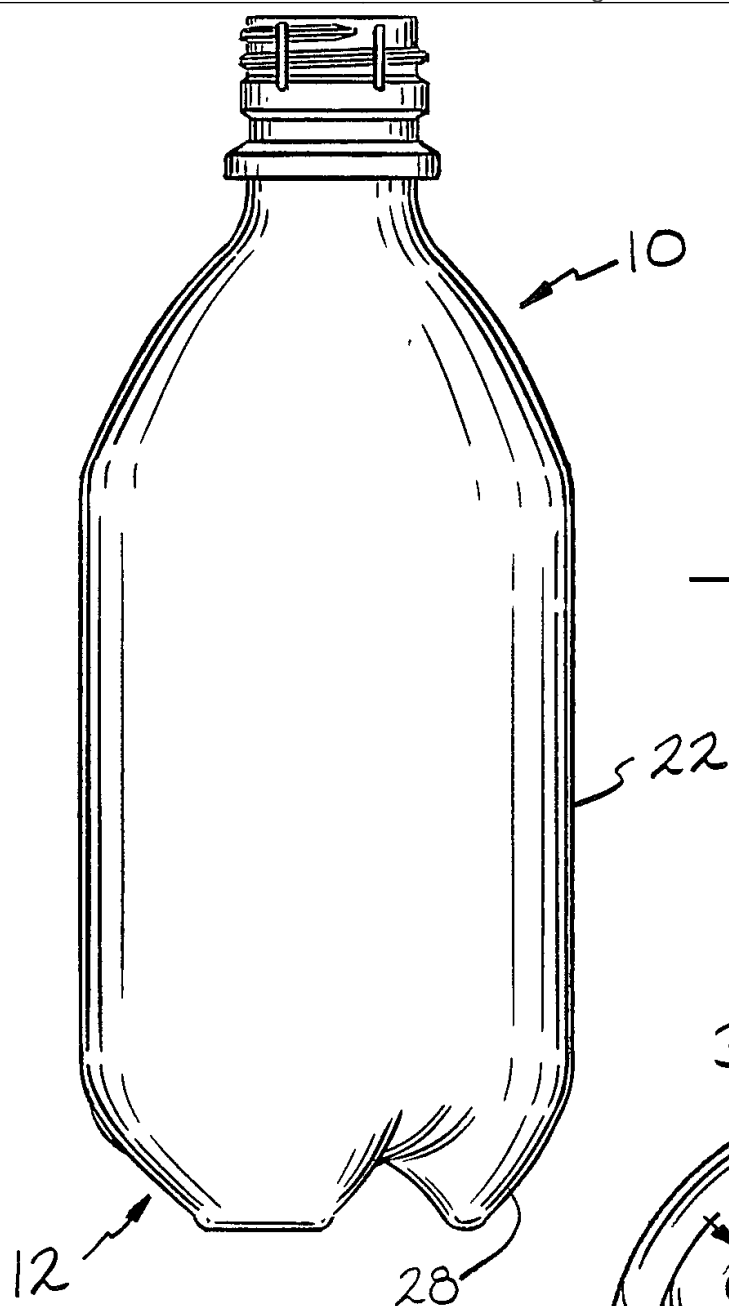


FIG. 1

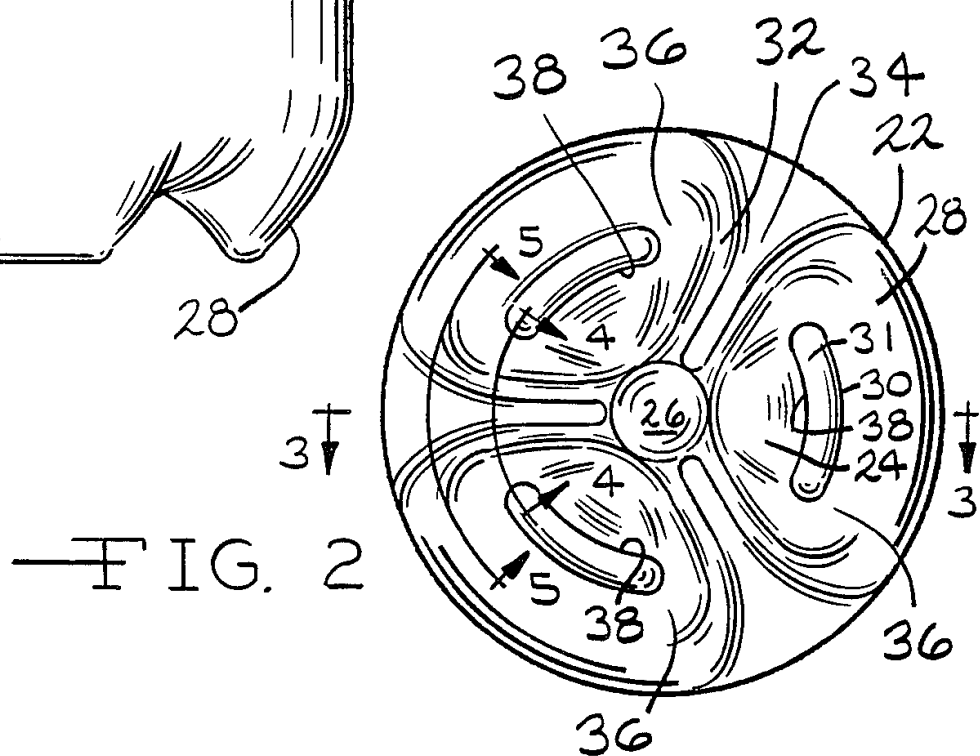
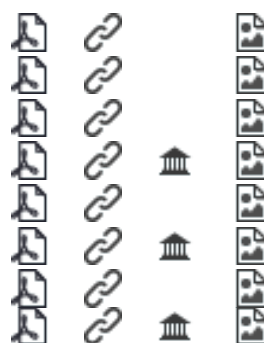


FIG. 2

Publication data including kind & date

NO892904	D0	1989-07-14	NO8902904
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DK350889	D0	1989-07-14	DK8903508
US4867323	A	1989-09-19	US4867323
JO1591	B1	1989-12-16	JO---1591
NO892904	A	1990-01-16	NO8902904
FI893424	A	1990-01-16	FI8903424



DK350889	A	1990-01-16	DK8903508				
EP0350782	A2	1990-01-17	EP-350782				
AU3794889	A	1990-01-18	AU8937948				
CN1039387	A	1990-02-07	CN1039387				
PT91178	A	1990-02-08	PT--91178				
IL90873	A	1990-02-09	IL--90873				
BR8903561	A	1990-03-13	BR8903561				
BRPI8903561	A1	1990-03-13	BR8903561				
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HUT54086	A	1991-01-28	HU-T54086				
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AU609691	B2	1991-05-02	AU-609691				
JPH03148440	A	1991-06-25	JP03148440				
AR244618	A1	1993-11-30	AR-244618				
MX173553	B	1994-03-15	MX-173553				
CA1330653	C	1994-07-12	CA1330653				
USRE35140	E	1996-01-09	USRE35140				

Abstract

(EP-350782)

An improved beverage bottle support base (12) is disclosed having an upwardly directed conical inner wall (24), the apex (26) of which is centrally of the base and a convex outer wall of annular shape surrounding the conical inner wall and merging therewith and with the side wall (22) of the bottle. A plurality of reinforcing grooves (34) extend radially outward from the apex and merging with the convex outer wall, dividing the conical inner wall and convex outer wall into a plurality of spaced apart hollow feet (36).

Inventors

POWERS, THOMAS, FREDERICK

Latest standardized assignees - inventors removed

HOOVER UNIVERSAL

AMCOR

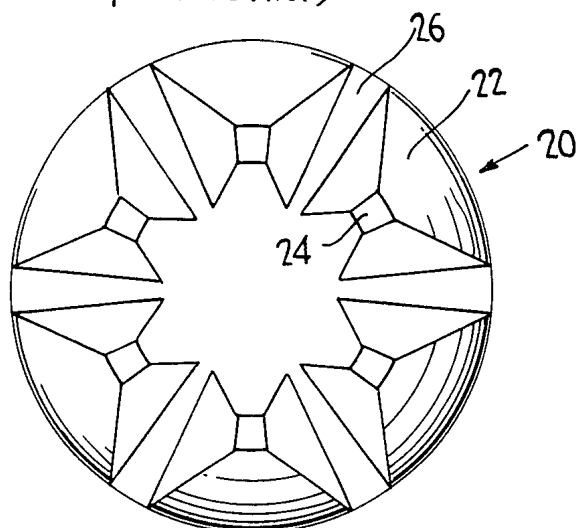
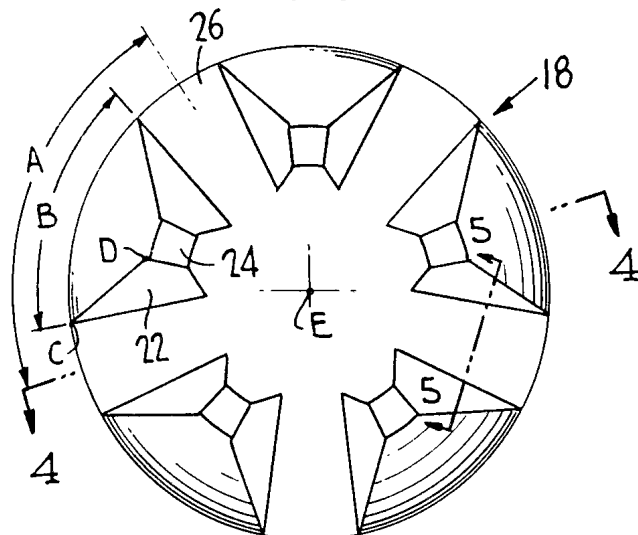
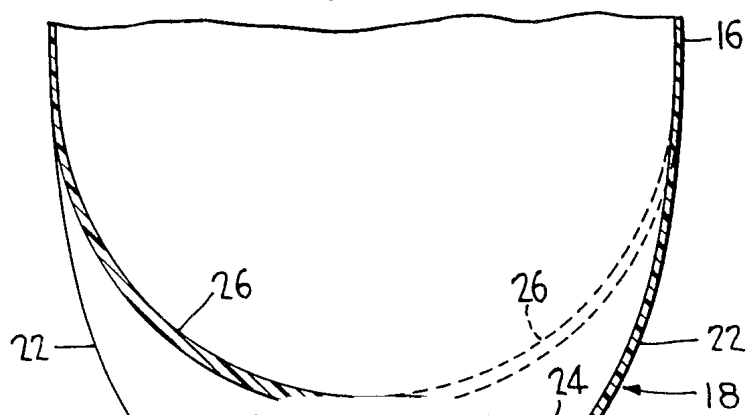
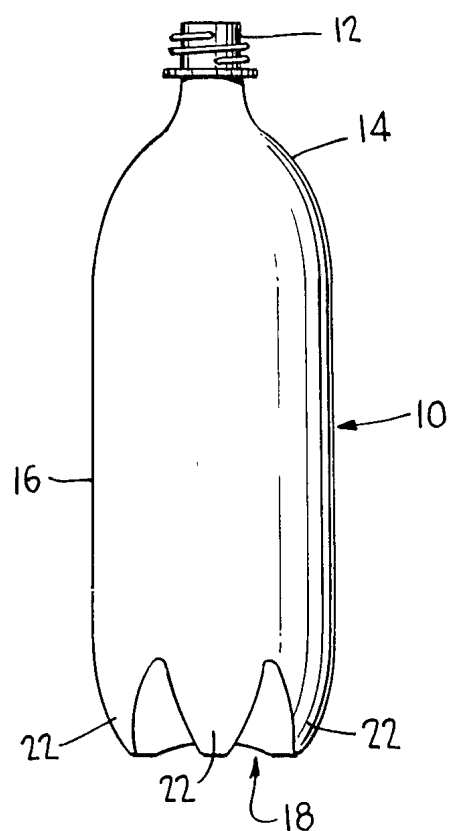
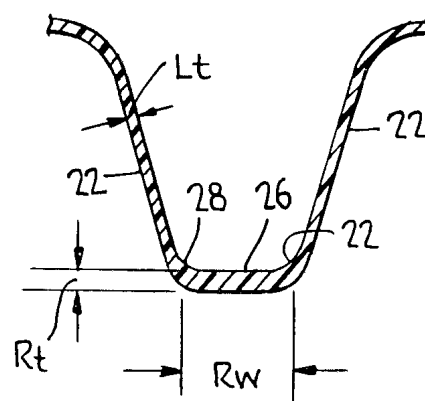
Family 17/100 - FAMPAT - ©Questel

Title

(EP-319958)

Base configuration for an internally pressurized container.

Images

FIG. 2
(PRIOR ART)**FIG. 3****FIG. 4****FIG. 1****FIG. 5****Publication data including kind & date**

US4785949	A	1988-11-22	US4785949
EP0319958	A1	1989-06-14	EP-319958
AU2675488	A	1989-06-15	AU8826754
CN1034253	A	1989-07-26	CN1034253



KR19890009731	A	1989-08-03	KR19890009731				
BR8806520	A	1989-08-22	BR8806520				
JPH01267146	A	1989-10-25	JP01267146				
PH24840	A	1990-10-30	PH--24840				
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AU7914491	A	1991-09-12	AU9179144				
NZ227274	A	1991-09-25	NZ-227274				
CA1295266	C	1992-02-04	CA1295266				
CN1017515	B	1992-07-22	CN1017515B				
AU630595	B2	1992-11-05	AU-630595				
AU631516	B2	1992-11-26	AU-631516				
MX170936	B	1993-09-22	MX-170936				
AR244157	A1	1993-10-29	AR-244157				
BRPI8806520	A1	1995-10-10	BR8806520				
JP2599776	B2	1997-04-16	JP2599776				
KR970010832	B1	1997-07-01	KR970010832				
KR1997-0010832	B1	1997-07-01	KR19970010832				

Abstract

(EP-319958)

This relates to the base configuration of a biaxially oriented blow molded thermoplastic resin container (10).It has been found that by assigning more space to the ribs (26) between adjacent legs (22) and feet (24), during the blow molding of a preform, there is proportionally less thinning of the material of the preform in accordance with the greater width of rib (26), thereby providing greater strength in the high stress area of the base structure with a resultant lesser failure due to stress cracking.

Inventors

KRISHNAKUMAR SUPPAYAN M

COLLETTE WAYNE N

MILLER BRYAN H

Latest standardized assignees - inventors removed

GRAHAM PACKAGING

GRAHAM PACKAGING PET TECHNOLOGIES

Family 18/100 - FAMPAT - ©Questel

Title

(US6085924)

Plastic container for carbonated beverages

Images

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4,850,494	7/1989	Howard, Jr.	215/1 C
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5,772,056	5/1998	Slat	215/12,2
5,785,177	7/1998	Slat	215/375
5,803,250	3/1998	Bongiorno	215/384
5,858,360	1/1999	Shimizu et al.	215/131 X
5,906,256	5/1999	Marmiro et al.	220/606 X

Publication data including kind & date

US6085924 A 2000-07-11 US6085924



Abstract

(US6085924)

A blow molded plastic container for carbonated beverages includes an upper mouth-forming portion, a cylindrical sidewall portion and a lower base-forming portion, all of the portions being generally symmetrically situated about a central longitudinal axis. The lower base-forming portion includes a central portion contiguously surrounding the central longitudinal axis and a plurality of circumferentially-spaced, downwardly convex rib segments, each rib segment extending upwardly from the central portion following a hyperbolic profile and expanding circumferentially outwardly to merge with the sidewall. The lower base-forming portion additionally has a plurality of intervening and circumferentially-spaced, convex, hollow foot-forming portions extending downwardly from the circumferentially-spaced, rib segments. Each of the foot-

forming portions has a bottom clearance-forming portion adjacent the central portion and a lower outer portion defined by the rotation of a heel radius greater than 0.8 cm about a central point of each foot situated on a contact radius. The rotation of the heel radius is along a mirrored hyperbolic profile having a coefficient of curvature of between about 0.65 and 0.80 so that the bottom of the foot exhibits essentially no incidence of creases and folds common in prior art containers.

Inventors

HENDERSON JOHN P

Latest standardized assignees - inventors removed

BALL

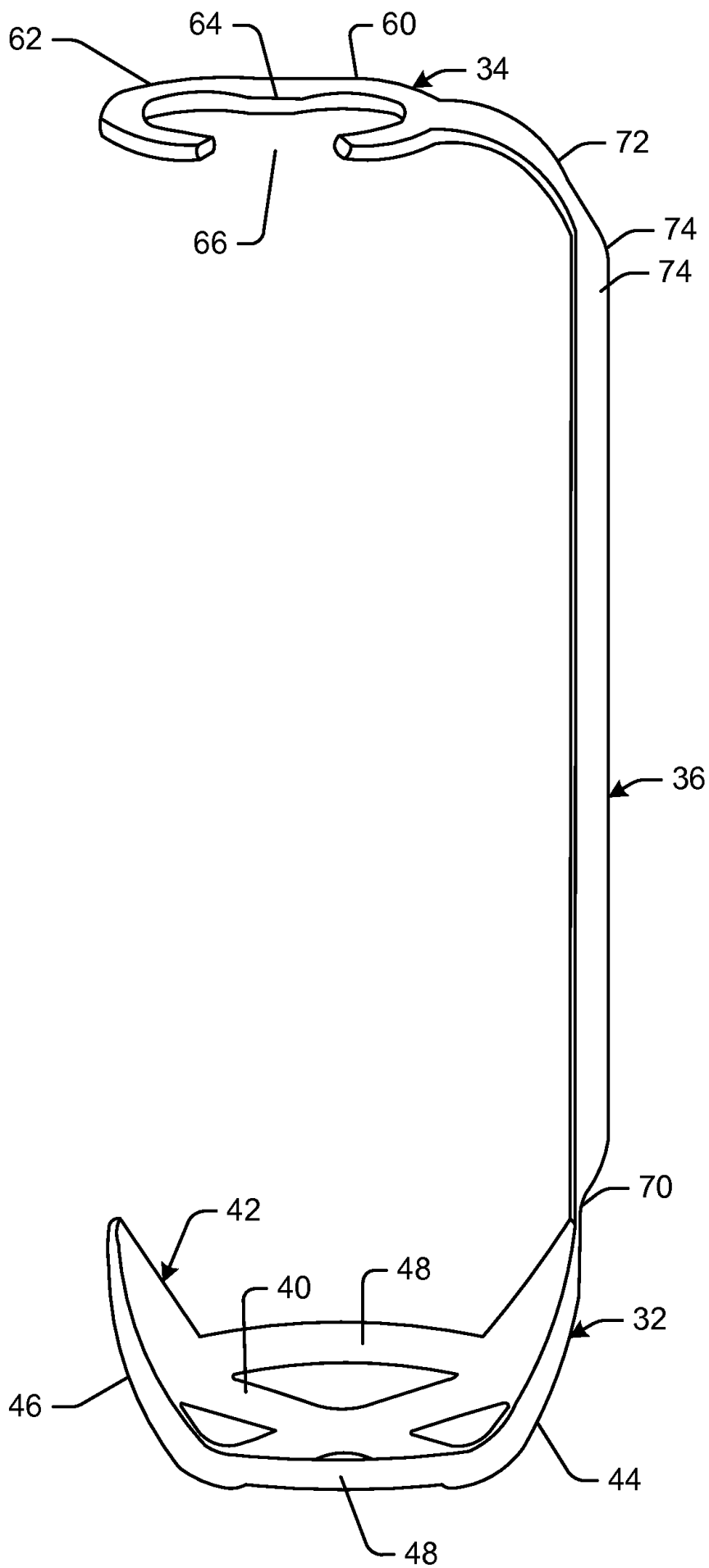
Family 19/100 - FAMPAT - ©Questel

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

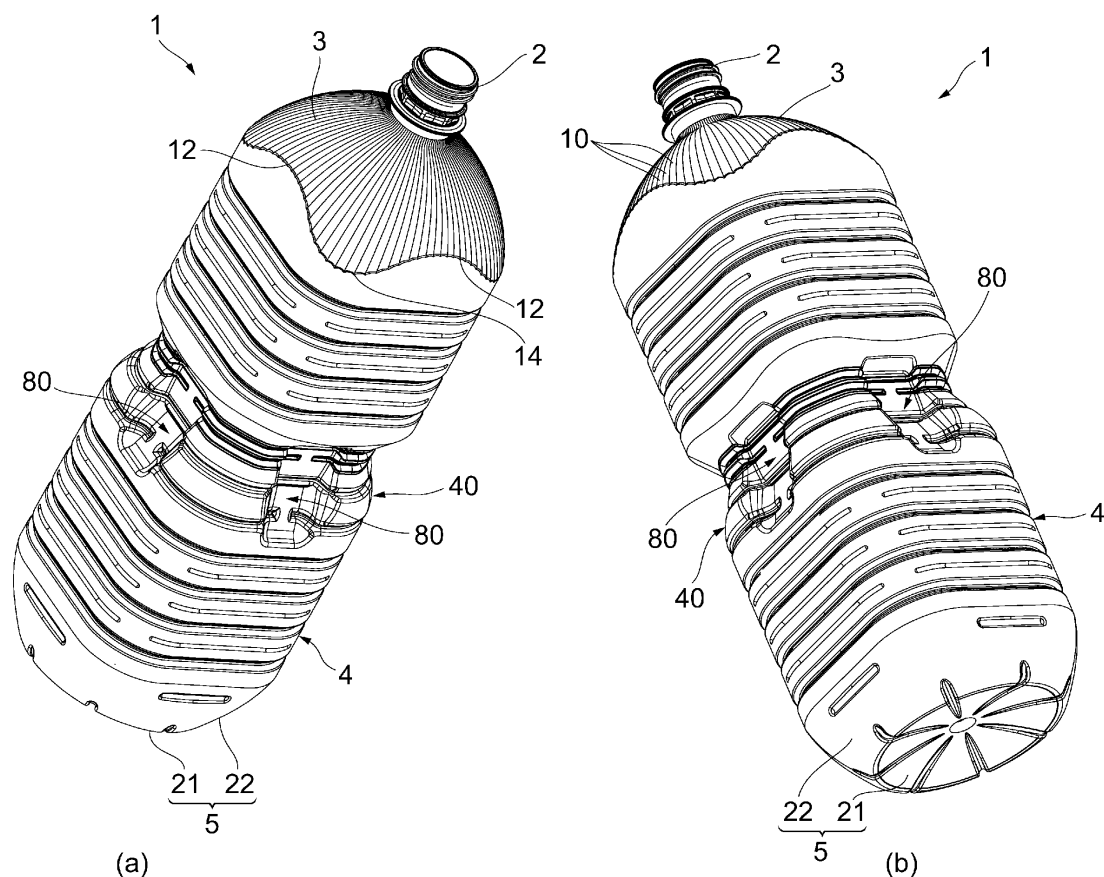
Family 20/100 - FAMPAT - ©Questel

Title

(WO201568763)

Plastic bottle

Images

**Publication data including kind & date**

JP2015089826	A	2015-05-11	JP2015089826
WO2015068763	A1	2015-05-14	WO201568763
JP6335475	B2	2018-05-30	JP6335475

**Abstract**

(WO201568763)

The present invention provides a plastic bottle that makes it possible to ensure adequate usability even when a large bottle is reduced in weight, and that can deal with a top load in an effective manner. A plastic bottle (1) having indents (80) for finger insertion on at least a part of a constricted part (40) of a trunk part (4) has a plurality of circumferential ribs (100, 102, 104, 106) formed as recesses so that gaps are present in the vertical direction at a vertical position that includes the constricted part (40) and the indents (80). The circumferential ribs (102, 106) comprise divided circumferential ribs which extend circumferentially around the trunk part (4), the divided circumferential ribs being divided so as to be non-continuous at bottom surfaces (82, 84) of the indents (80). The bottom surfaces (82, 84) of the indents (80) are configured to deform so as to bulge when a top load (F) is applied to the plastic bottle (1) and return from the deformed shape when the top load (F) is released.

Inventors

IWASHITA HIROMASA

Latest standardized assignees - inventors removed

COCA COLA

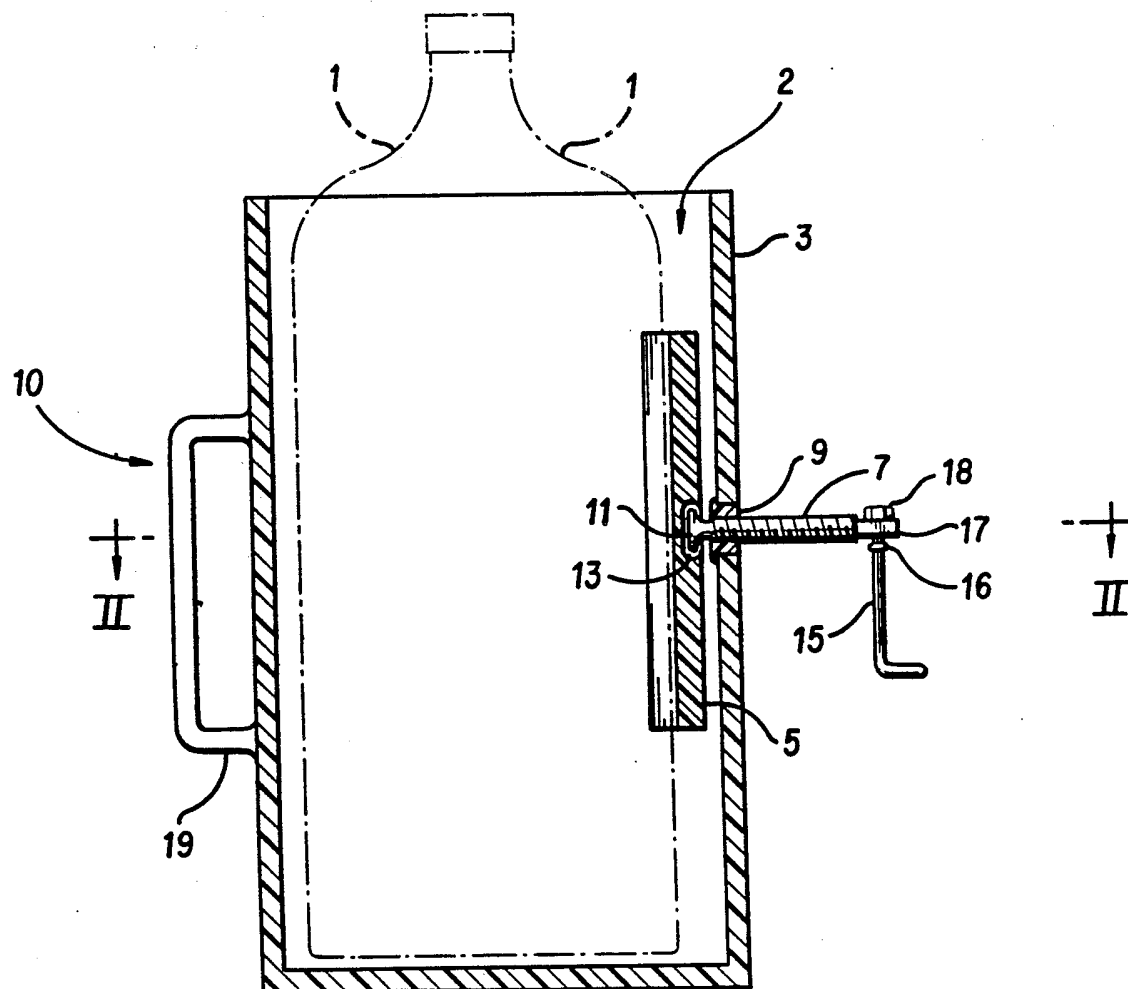
Family 21/100 - FAMPAT - ©Questel

Title

(US4989743)

Device for storing carbonated beverages

Images

**Publication data including kind & date**[US4989743](#)

A 1991-02-05 US4989743

**Abstract**

(US4989743)

The present invention provides an improved device for storing carbonated beverages. The inventive device includes a container adapted to receive a carbonated beverage bottle. In combination with the container is a means to laterally compress the carbonated beverage bottle so as to reduce the gas volume within the bottle and reduce the loss of carbonation in the beverage. The improved device for storing carbonated beverages may also include a handle to facilitate pouring of the carbonated beverage while in the device.

Inventors

LOWERY VANCE E

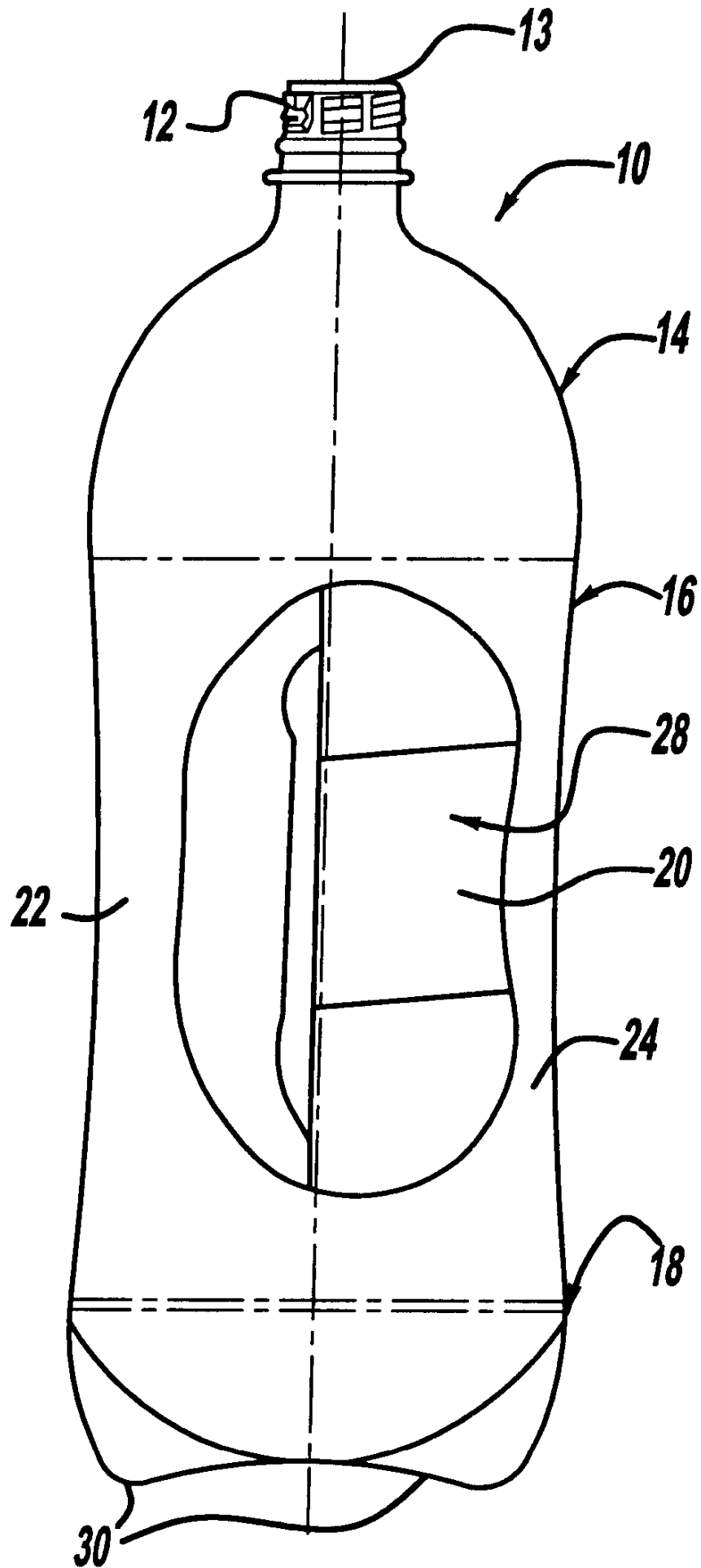
Family 22/100 - FAMPAT - ©Questel

Title

(US6536619)

Non-rocking, webbed container for carbonated beverages

Images



Publication data including kind & date[US20020033376](#)

A1 2002-03-21

US20020033376

[US6536619](#)

B2 2003-03-25

US6536619

**Abstract**

(US6536619)

A blow molded plastic container including a neck finish, a shoulder portion, a sidewall, and a base integrally formed with one another. Two indentations in the sidewall create a handgrip and a web extends generally across the interior of the container between the two indentations. A plurality of generally downwardly extending support feet include short feet and long feet. Separating the support feet are a plurality of first and second strap formations. Support surface contact points of the long feet are in a planar relationship with respect to one another, thereby providing the container with stability when empty. After filling, capping and pressurizing, the support surface contact points of the short feet and the support surface contact points of the long feet are all in a planar relationship with respect to one another, thereby providing the container with stability when filled.

Inventors

GAYDOSH KEVIN D

DEEMER DAVID A

Latest standardized assignees - inventors removed

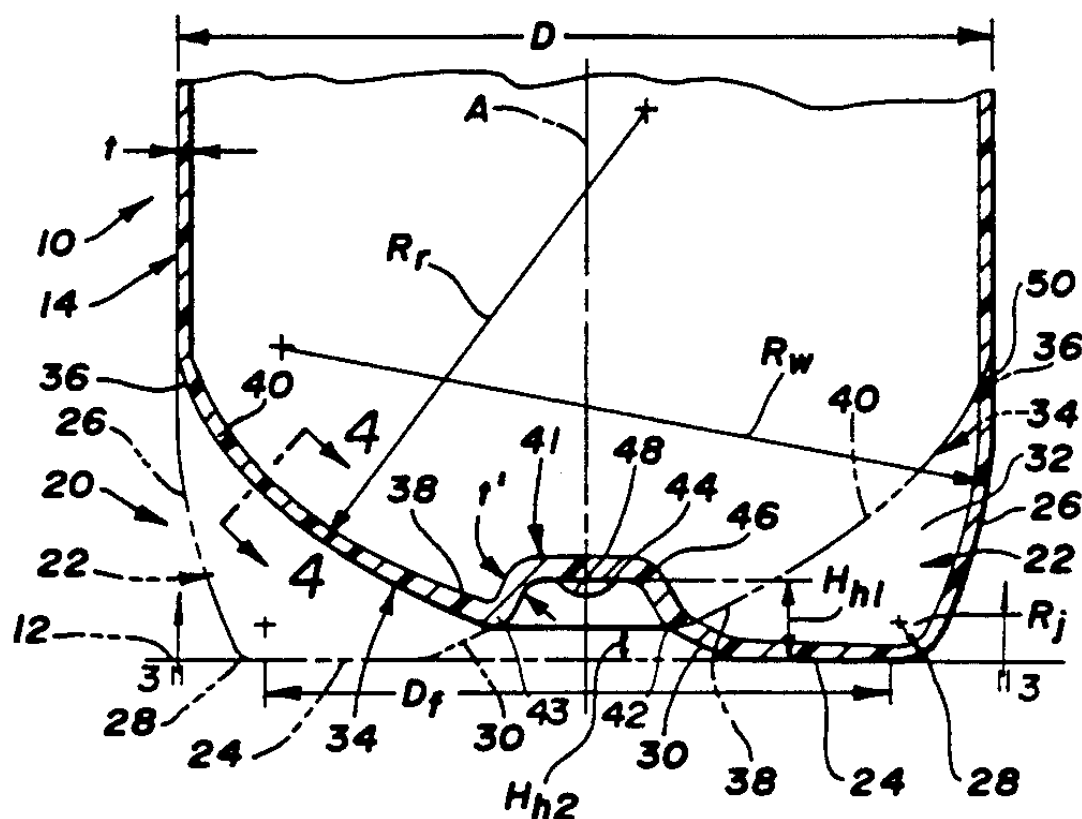
AMCOR RIGID PLASTICS

Family 23/100 - FAMPAT - ©Questel

Title

(EP-557332)

Plastic blow molded freestanding container

Images**Publication data including kind & date**[US5064080](#)

A 1991-11-12

US5064080

[CA2092817](#)

A1 1992-05-16

CA2092817



IE913730	A1	1992-05-20	IE9103730				
WO9208647	A1	1992-05-29	WO9208647				
AU8876991	A	1992-06-11	AU9188769				
MX9101980	A	1992-07-08	MX9101980				
IL99943	A	1992-08-18	IL--99943				
US5139162	A	1992-08-18	US5139162				
ZA9108429	B	1992-10-28	ZA9108429				
FI932189	A	1993-05-13	FI9302189				
FI932189	A0	1993-05-13	FI9302189				
NO931778	A	1993-05-14	NO9301778				
NO931778	D0	1993-05-14	NO9301778				
NZ240290	A	1993-08-26	NZ-240290				
EP0557332	A1	1993-09-01	EP-557332				
KR19937002198	A	1993-09-08	KR19937002198				
IL99943	B	1993-09-22	IL--99943				
BR9107091	A	1993-10-05	BR9107091				
BRPI9107091	A1	1993-10-05	BRPI9107091				
AU642560	B2	1993-10-21	AU-642560				
EP0557332	A4	1993-12-08	EP-557332				
PT99476	A	1993-12-31	PT--99476				
JPH06502375	A	1994-03-17	JP06502375				
AR248374	A1	1995-08-18	AR-248374				
EP0557332	B1	1996-08-07	EP-557332				
AT141085	T	1996-08-15	ATE141085				
DE69121246	D1	1996-09-12	DE69121246				
ES2090362	T3	1996-10-16	ES2090362				
NO180229	B	1996-12-02	NO-180229				
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NO180229	C	1997-03-12	NO-180229				
IE73233	B1	1997-05-21	IE--73233				
CA2092817	C	1997-11-18	CA2092817				
SU2096288	C1	1997-11-20	SU2096288				
RU2096288	C1	1997-11-20	RU2096288				
KR100155347	B1	1999-02-18	KR100155347				
KR0155347	B1	1999-02-18	KR100155347				
PT99476	B	1999-02-26	PT--99476				
BRPI9107091	B1	1999-06-29	BR199107091				
JP3074020	B2	2000-08-07	JP3074020				
FI109289	B	2002-06-28	FI-109289				

Abstract

(EP-557332)

A plastic container (10) comprises a freestanding base (20) with a plurality of downwardly projecting hollow legs (22), a plurality of curved ribs (34) located between the legs, and a hub (41) from which the legs and ribs provides good stability against tipping and the capability of withstanding internal pressure. Each leg (22) has a lower flat foot (24) coplanar with the other feet. Each flat foot (24) has a junction (28) with an associated outer wall (26) of the foot. A planar inner connecting portion (30) of each foot (22) is inclined and extends upwardly and inwardly to the hub (41) while sidewalls (32) of the legs are connected to the curved ribs (34) which each have a curved intermediate portion that extends between outer and inner ends (36, 38) of the rib along a curved intermediate rib portion (40).

CA1306206	C	1992-08-11	CA1306206				
MX167255	B	1993-03-12	MX-167255				
AR243112	A1	1993-07-30	AR-243112				
EP0577155	A1	1994-01-05	EP-577155				
BRPI8802603	A1	1996-01-16	BR8802603				
EP0293147	B1	1996-01-17	EP-293147				
AT133107	T	1996-02-15	ATE133107				
DE3854903	D1	1996-02-29	DE3854903				
ES2082751	T3	1996-04-01	ES2082751				
KR960007288	B1	1996-05-30	KR960007288				
KR1996-0007288	B1	1996-05-30	KR19960007288				
DE3854903	T2	1996-09-05	DE3854903				
EP0577155	B1	1997-04-16	EP-577155				
AT151688	T	1997-05-15	ATE151688				
DE3855880	D1	1997-05-22	DE3855880				
JP2619688	B2	1997-06-11	JP2619688				
ES2100407	T3	1997-06-16	ES2100407				
DE3855880	T2	1997-07-31	DE3855880				
BRPI8802603	B1	2000-05-30	BR8802603				

Abstract

(EP-577155)

A process for making a one-piece plastic container of the champagne base variety having an annular peripheral chime (20) surrounding an inward sloping base portion for containing carbonated beverages comprising the steps of forming the preform on a core rod with annular thickened portions of the preform positioned at points along the length thereof such that during blowing of the preform the material of the preform will be deposited where desired; positioning the preform within a blow molding cavity defining the finished container shape; extending a stretch rod (50) within the preform towards the bottom of the blow molding cavity, prior to injection of pressurized gas, to longitudinally stretch a sidewall-forming portion of the preform while minimizing the stretching of a base-forming portion thereby inducing the base-forming portion to lay down where desired when injected with pressurized gas; and injecting pressurized gas into the preform adjacent the neck whereby the preform is radially stretched outward to fill the cavity and form the container from the neck towards the base.

<IMAGE>

Inventors

BECK MARTIN HARRY

Latest standardized assignees - inventors removed

DEVTECH LABS

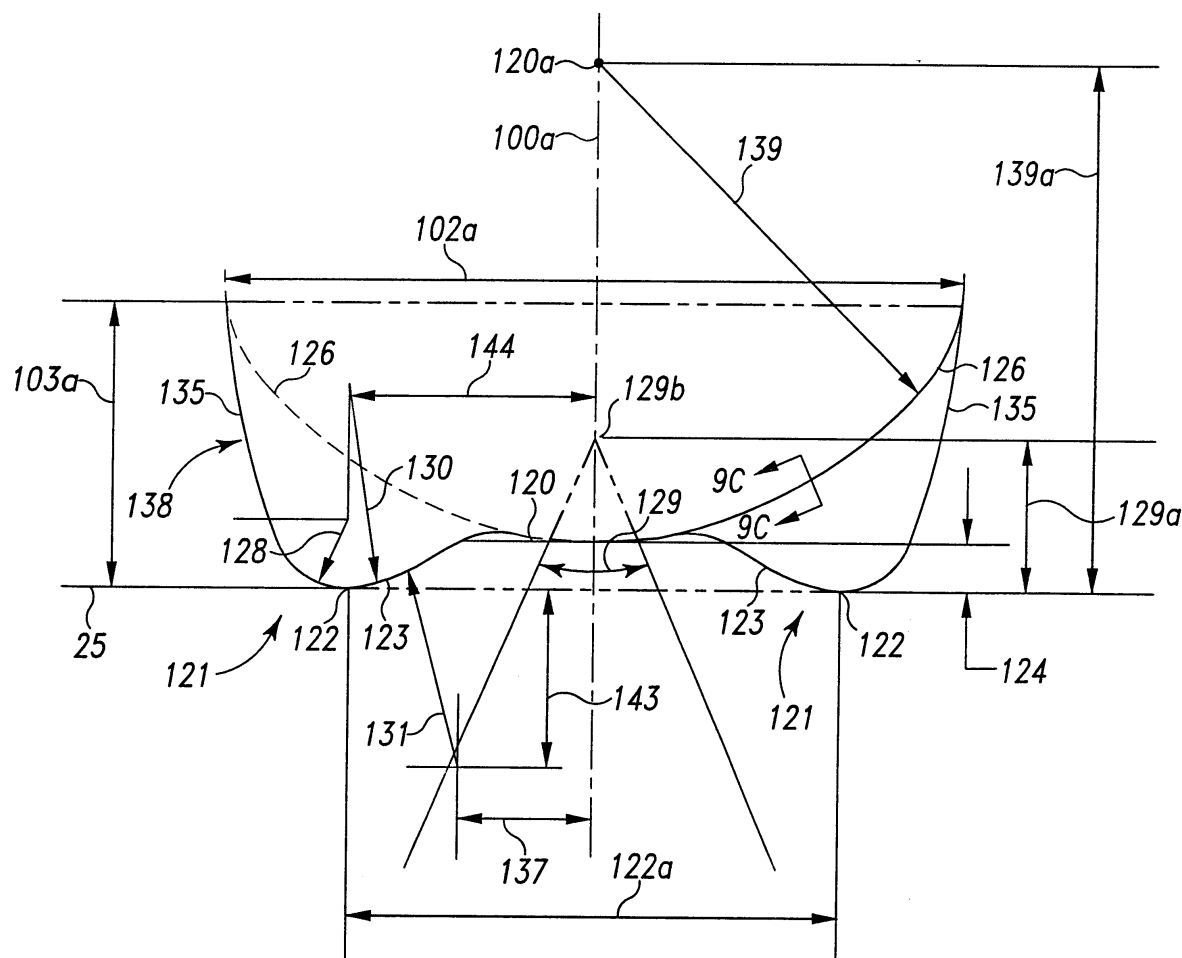
Family 25/100 - FAMPAT - ©Questel

Title

(EP1021342)

Plastic container for carbonated beverages

Images



Publication data including kind & date

WO9828193	A1	1998-07-02	WO9828193
CA2274574	A1	1998-07-02	CA2274574
AU5708698	A	1998-07-17	AU9857086
CN1241162	A	2000-01-12	CN1241162
BR9713766	A	2000-02-01	BR9713766
BRPI9713766	A1	2000-02-01	BRPI9713766
EP1021342	A1	2000-07-26	EP1021342
AU733235	B2	2001-05-10	AU-733235
US6276546	B1	2001-08-21	US6276546
CN1116199	C	2003-07-30	CN1116199C
BRPI9713766	B1	2005-06-07	BR9713766
CA2274574	C	2005-08-23	CA2274574
EP1021342	A4	2006-01-11	EP1021342



Abstract

(EP1021342)

A plastic container comprises a lower base forming portion that includes a plurality of circumferentially spaced downwardly convex segments (126) and a plurality of intervening, circumferentially spaced, totally convex, hollow foot forming portions (121) that extend radially from the central bottom portion (120) and downwardly from the downwardly convex segments to form a clearance (124) for the central bottom portion. The downwardly convex segments have smoothly curved cross sections, in radially extending planes through their central regions and coplanar with the container's longitudinal axis (120a). The clearance forming portion (123) of each foot forming portion includes a compound curved offset formed with opposing radii of curvature lying in a range of about 15 % to over about 30 % of foot contact diameter, the compound curved offset curving downwardly and outwardly about a center of curvature (131) below the bottom forming portion before curving about a center of curvature (130) above the bottom forming portion.

Inventors

DAVIS CRAIG P

FUTRAL DANIEL M

HENDERSON JOHN P

LYNN STEPHEN R

Latest standardized assignees - inventors removed

BALL

Family 26/100 - FAMPAT - ©Questel

Title

(EP-679580)

Plastic bottle having enhanced sculptured surface appearance.

Images

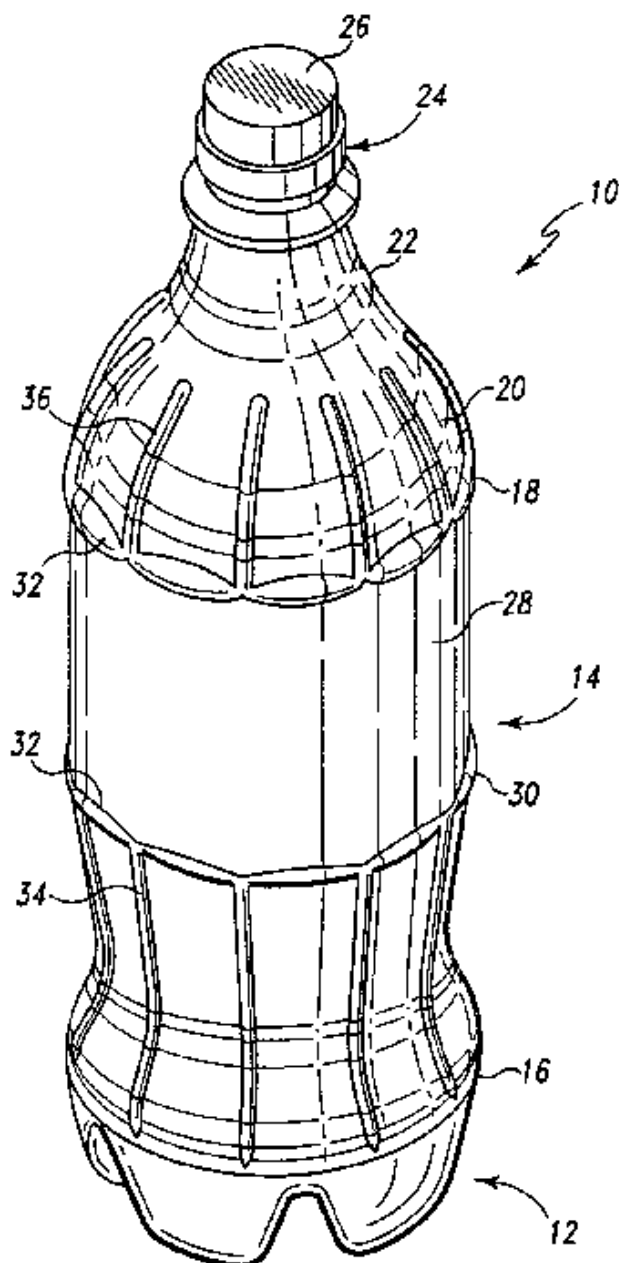
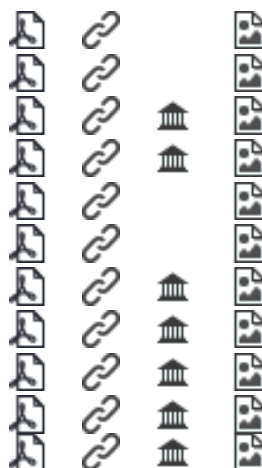


Fig. 1

Publication data including kind & date

NO951559	D0	1995-04-25	NO9501559
FI952057	A0	1995-04-28	FI9502057
BRPI9501816	A1	1995-06-06	BR9501816
IL113063	A	1995-06-29	IL-113063
PE29495	A1	1995-10-18	PE9500294
FI952057	A	1995-10-30	FI9502057
CA2147910	A1	1995-10-30	CA2147910
NO951559	A	1995-10-30	NO9501559
EP0679580	A1	1995-11-02	EP-679580
AU1495395	A	1995-11-09	AU9514953



WO9529850	A1	1995-11-09	WO9529850				
JPH07300121	A	1995-11-14	JP07300121				
KR19950031791	A	1995-12-20	KR19950031791				
MA23523	A1	1995-12-31	MA--23523				
BR9501816	A	1996-01-02	BR9501816				
ZA9503231	B	1996-01-03	ZA9503231				
TW267985	B	1996-01-11	TW-267985				
CN1116601	A	1996-02-14	CN1116601				
CO4290503	A1	1996-04-17	CO4290503A1				
GT199500020	A	1996-10-15	GT199500020				
US6149024	A	2000-11-21	US6149024				

Abstract

(EP-679580)

A plastic bottle 10 having a substantially uniform side wall thickness yet having a sculptured appearance is formed generally symmetrically about a vertical axis Y. The bottle includes a base portion 12, a side wall portion 14 extending upward from a lower margin 16 united to the base portion to an upper margin 18, a shoulder portion 20 extending from the upper margin of the side wall portion to a neck portion 22, and a finish portion 24 united to the neck portion and adapted to receive a closure 26. At least one of the side wall and shoulder portions includes a plurality of generally vertical ribs 34, 36 spaced uniformly around a circumference of the bottle, each generally vertical rib having an upper and lower end and, in cross-section, a central portion situated at a first radius $R + \Delta$ from the bottle axis and a pair of generally symmetric side portions leading to the bottle surface at a second radius R from the bottle axis, at least one set of the upper and lower ends of the ribs terminating at a common height on the container. Only one of the upper and lower ends of the ribs on each portion of the bottle is joined together by a set of arcuate rib segments 32 forming a scalloped line around the circumference of the bottle giving the appearance of a substantial variation in side wall thickness. <IMAGE>

Inventors

DEEMER DAVID A

BRANDT CHARLES M

Latest standardized assignees - inventors removed

CONSTAR

DT

CONSTAR FOREIGN HOLDINGS

BFF

CONSTAR INTERNATIONAL

CROWN PACKAGING

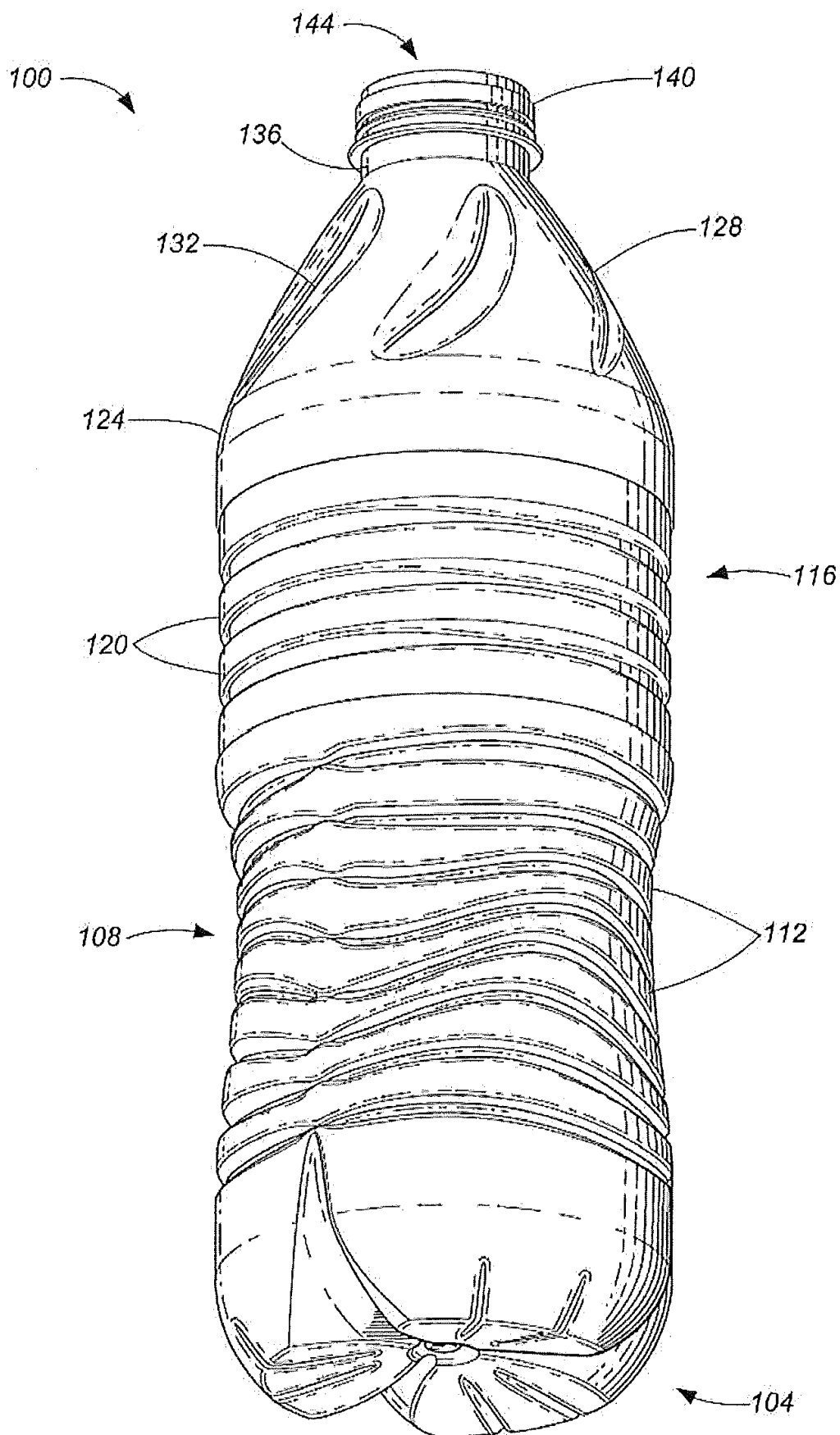
Family 27/100 - FAMPAT - ©Questel

Title

(EP3218271)

Carbonated soft drink finish modification

Images

**Publication data including kind & date**

US20160137331	A1	2016-05-19	US20160137331
WO2016077517	A2	2016-05-19	WO201677517
US20160229578	A1	2016-08-11	US20160229578



WO2016077517	A3	2016-10-13	WO201677517				
AU2015346342	A1	2017-06-01	AU2015346342				
EP3218271	A2	2017-09-20	EP3218271				
WO2017189334	A1	2017-11-02	WO2017189334				
JP2017533871	A	2017-11-16	JP2017533871				
CA3021791	A1	2017-11-20	CA3021791				
MX2017006210	A	2018-04-10	MX2017006210				
EP3218271	A4	2018-08-01	EP3218271				
CO2018011198	A2	2018-10-31	CO2018011198				
AU2017257277	A1	2018-11-15	AU2017257277				

Abstract

(EP3218271)

An apparatus and method are provided for a finish configured to define an opening to an interior of a container and to substantially reduce foaming of contents when the container is opened. The finish comprises a cylindrical body comprising a peripheral portion with a first edge and a second edge disposed at opposite ends. The first edge defines a first opening and is configured to receive a container cap. The second edge defines a second opening and is configured to receive a neck of the container. The first and second openings are in fluid communication. One or more threads on an exterior of the peripheral portion are configured to rotatably engage with one or more threads of the container cap. At least one notch is disposed at the first edge, peripheral to the first opening, and comprises a cross-sectional shape suitably formed to substantially reduce foaming of the contents.

Inventors

HANAN JAY CLARKE

Latest standardized assignees - inventors removed

NIAGARA BOTTLING

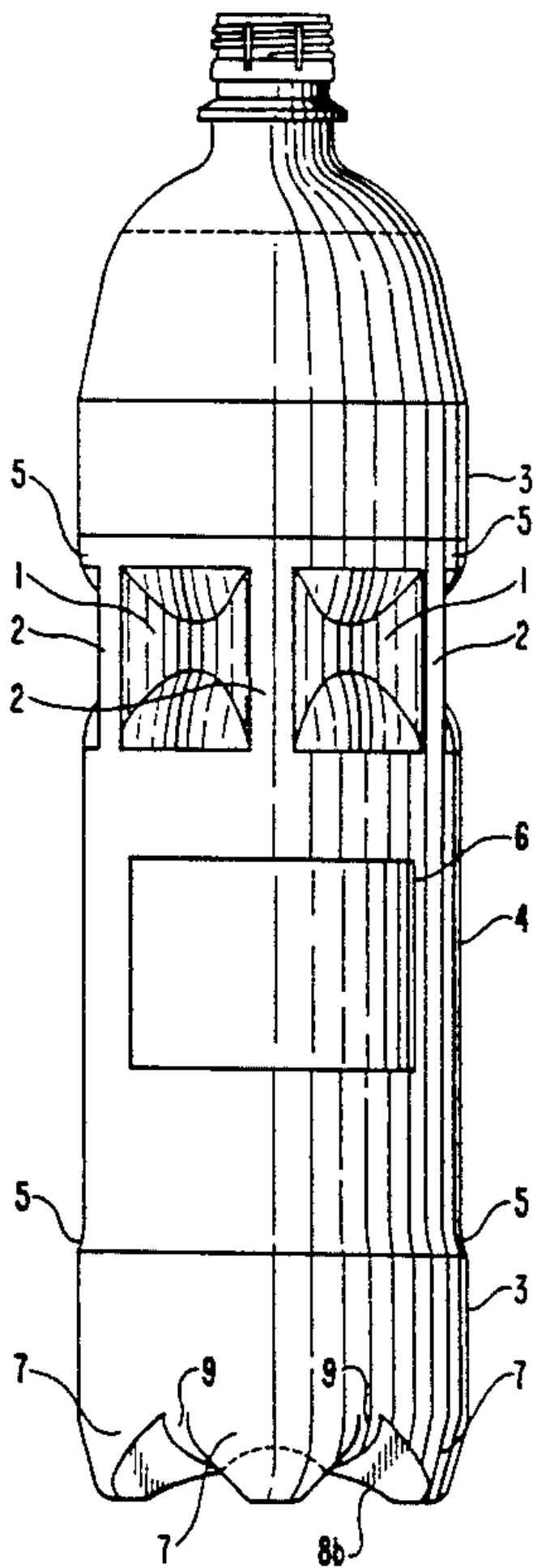
Family 28/100 - FAMPAT - ©Questel

Title

(US5261543)

Plastic bottle for containing both under-pressure and non under-pressure liquids

Images



Publication data including kind & date

GB9116459	D0	1991-09-11	GB9116459
LU87991	A1	1992-05-25	LU--87991
GB2258209	A	1993-02-03	GB2258209
FR2680155	A1	1993-02-12	FR2680155
NL9101430	A	1993-03-16	NL9101430
BE1005183	A3	1993-05-18	BE1005183
FR2680155	B3	1993-10-22	FR2680155
US5261543	A	1993-11-16	US5261543

**Abstract**

(US5261543)

A substantially cylindrical plastic bottle has a base including a plurality of bulges separated by arcuate ribs. Outer surfaces of the bulges extend vertically down to the bottoms thereof defining a bearing surface of the bottle. The ribs and the bulges extend inwardly to a spherically concave common portion of the base located at the central longitudinal axis of the bottle. The bottle also has a plurality of similar recesses extending therein in a regular pattern at the same height and separated by respective vertical ribs so as to facilitate a gripping and handling of the bottle. The bottle is thus suitable for packaging pressurized and non-pressurized liquids.

Inventors

UGARELLI RENATO

Latest standardized assignees - inventors removed

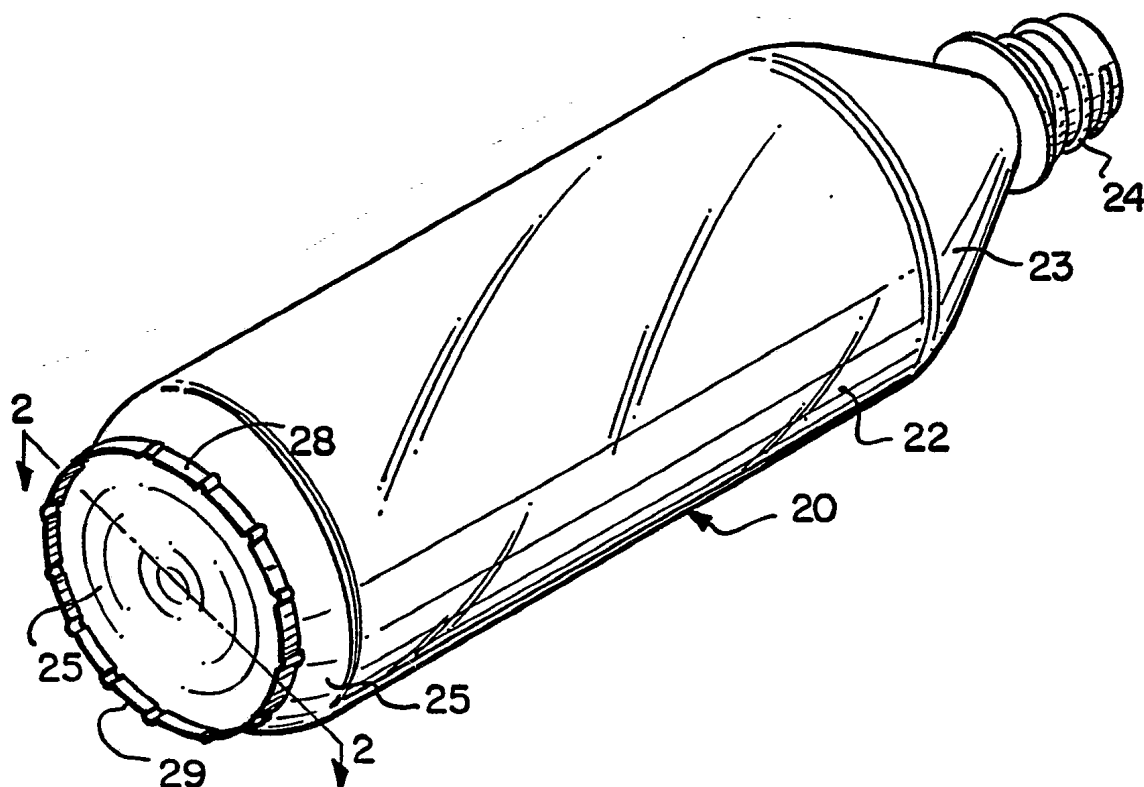
SIPA

Family 29/100 - FAMPAT - ©Questel

Title

(EP-367806)

Blown plastic container

Images**Publication data including kind & date**

WO8907554	A1	1989-08-24	WO8907554
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US4861260	A	1989-08-29	US4861260				
AU3048189	A	1989-09-06	AU8930481				
CN1036186	A	1989-10-11	CN1036186				
NO900535	D0	1990-02-05	NO9000535				
NO900535	A	1990-03-20	NO9000535				
EP0367806	A1	1990-05-16	EP-367806				
KR19907000347	A	1990-08-13	KR19907000347				
US4952134	A	1990-08-28	US4952134				
BR8905997	A	1990-11-20	BR8905997				
US5004109	A	1991-04-02	US5004109				
EP0367806	A4	1991-10-02	EP-367806				
AU626833	B2	1992-08-13	AU-626833				
EP0367806	B1	1993-10-06	EP-367806				
AT95481	T	1993-10-15	ATE095481				
DE68909740	D1	1993-11-11	DE68909740				
CN1022819	C	1993-11-24	CN1022819C				
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DE68909740	T2	1994-05-05	DE68909740				
KR970010905	B1	1997-07-02	KR970010905				

Abstract

(EP-367806)

A bottle (20) useful for containing a carbonated beverage is produced from a parison or preform (30) by a blow-molding method and apparatus so that an annular single thickness depending skirt (28) is formed integrally with the bottle bottom (25) providing a self-standing support for the bottle (20).

Inventors

BARTLEY HAROLD D

GAISER WILLIAM R

Latest standardized assignees - inventors removed

BROADWAY COMPANIES

Family 30/100 - FAMPAT - ©Questel

Title

(US5988417)

Plastic container having improved rigidity

Images

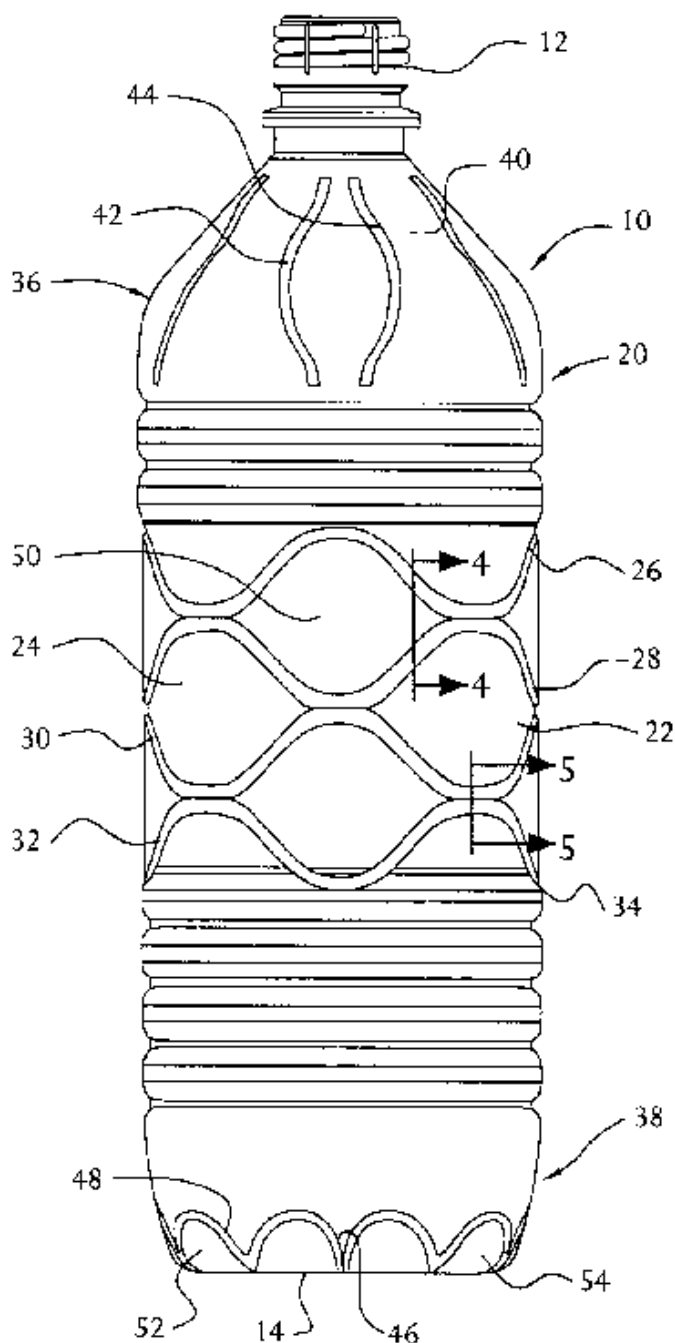


FIG. 1

Publication data including kind & date[US5988417](#)

A 1999-11-23 US5988417

**Abstract**

(US5988417)

A plastic container that is designed for optimal strength and lightweighting characteristics includes a finish portion, a bottom portion that has a plurality of support feet and a corresponding number of grooves defined between the support feet, and a main body portion. According to one feature of the container, the main body portion has at least one groove defined in its smooth label area that is oriented so as to have an axial component and so as to extend to near a bottom of the label portion for permitting condensate to drain from the label portion. This reduces the potential for condensation-induced label delamination. According to another feature of the container, the main body portion further has a tapered neck portion that has a plurality of undulating grooves defined therein to provide structural reinforcement. The main body of the container also

has a lower end that is configured so as to have a number of generally axially extending channels that extend toward the bottom portion. Some of these channels merge into the grooves, and others terminate before reaching the bottom portion. The channels provide a structural reinforcement effect, whereby enhanced structural reinforcement of said lower end is achieved without increasing the number of support feet and grooves.

Inventors

CHENG JIZU J

KRICH JEFFREY D

Latest standardized assignees - inventors removed

CONSTAR FOREIGN HOLDINGS

CONSTAR PLASTICS

CONSTAR INTERNATIONAL HOLDINGS

CROWN PACKAGING

PLASTIPAK PACKAGING

Family 31/100 - FAMPAT - ©Questel

Title

(EP1097084)

Footed container and base therefor

Images

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Publication data including kind & date

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WO200002783	A1	2000-01-20	WO200002783
CA2336991	A1	2000-01-20	CA2336991
AU4865199	A	2000-02-01	AU9948651
US6213325	B1	2001-04-10	US6213325
BR9912012	A	2001-04-10	BR9912012
BRPI9912012	A1	2001-04-10	BRPI9912012
EP1097084	A1	2001-05-09	EP1097084
US20010009244	A1	2001-07-26	US20010009244
CN1308583	A	2001-08-15	CN1308583



ZA200100031	B	2002-07-02	ZA200100031				
JP2002520228	A	2002-07-09	JP2002520228				
MXPA01000280	A	2002-08-12	MXPA01000280				
CN1109629	C	2003-05-28	CN1109629C				
BRPI9912012	A2	2011-12-06	BR9912012				

Abstract

(EP1097084)

A molded polymeric container that is shaped to exhibit superior characteristics of light weighting, stability against toppling and resistance to stress cracking includes a conventional cylindrical body portion having a longitudinal axis and a circumferential sidewall and a novel bottom portion. The bottom portion includes a central pushup area of uniformity that is substantially uniform within a spatial rotation about the longitudinal axis. The area of uniformity has a radius R_G . The bottom also includes a plurality of support feet that surround and protrude downwardly from the pushup area. Each of the support feet has a bottom support surface with an inner point of contact and an outer point of contact. The outer points of contact together define an outer contact radius R_{OC} . The bottom portion as a whole has a radius of maximum width R_{BASE} . A plurality of ribs are positioned in valleys between the support feet. Each of these ribs is positioned between and helps define two of the support feet. At least one of the ribs has a localized radius of curvature R_C that intersects an arc connecting inner points of contact of two adjacent support feet. Advantageously, the radius of uniformity is within the range of about 16 % to about 26 % of R_{OC} ; and R_C is within the range of about 70 % to about 110 % of R_{BASE} .

Inventors

CHENG JIZU J

KRICH JEFFREY D

Latest standardized assignees - inventors removed

CONSTAR INTERNATIONAL HOLDINGS

CROWN PACKAGING

CONSTAR FOREIGN HOLDINGS

CONSTAR PLASTICS

PLASTIPAK PACKAGING

Family 32/100 - FAMPAT - ©Questel

Title

(EP1265791)

Bottle holder

Images

Inventors

JAZBEC DRAGUTIN

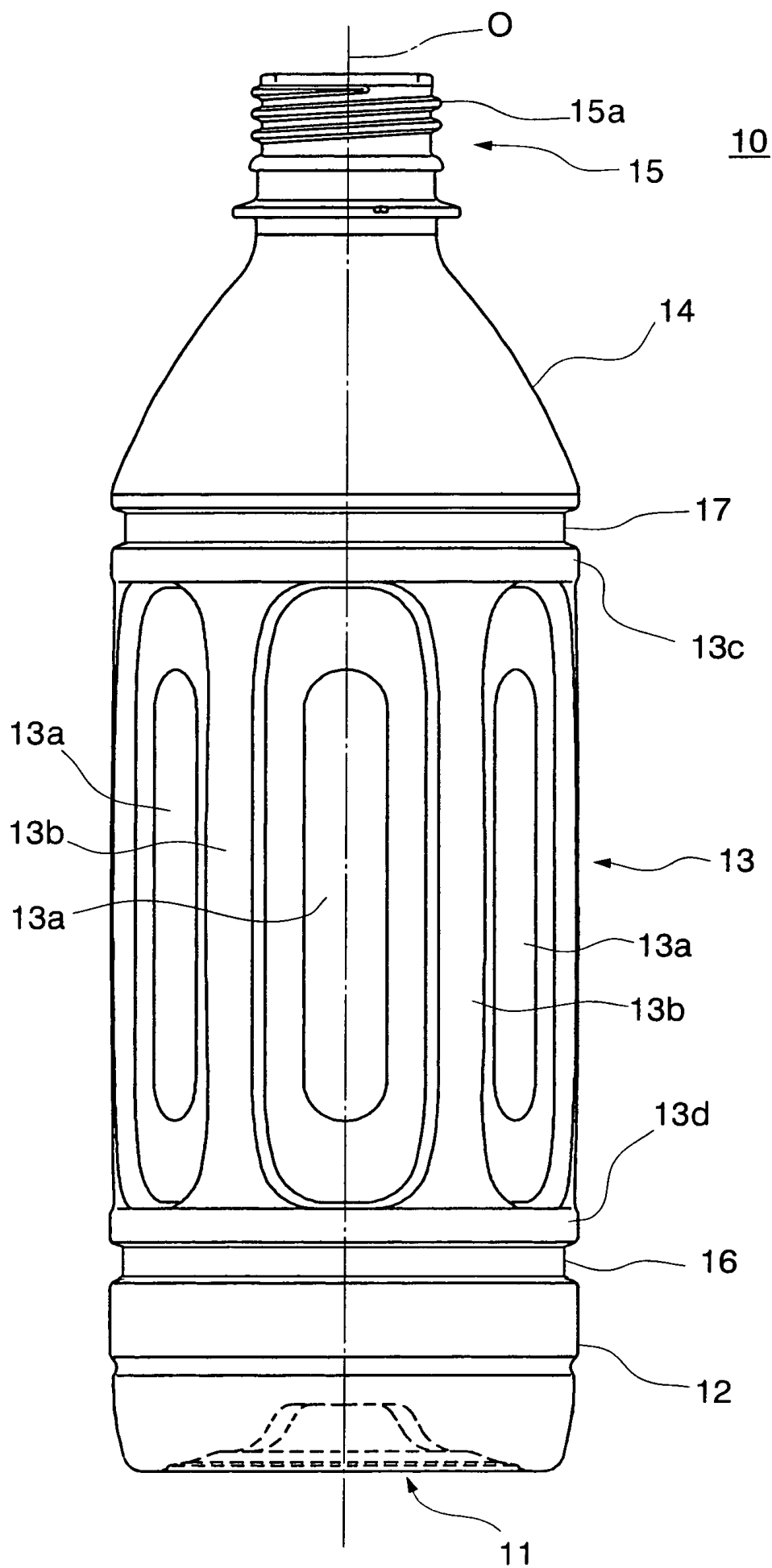
Family 33/100 - FAMPAT - ©Questel

Title

(EP1918213)

Bottle

Images



Publication data including kind & date

WO2007023630	A1	2007-03-01	WO200723630				
CA2619947	A1	2007-03-01	CA2619947				
AU2006282584	A1	2007-03-01	AU2006282584				
JP2007055638	A	2007-03-08	JP2007055638				
TW200728150	A	2007-08-01	TW200728150				
TH86459	A	2007-09-17	TH--86459				
EP1918213	A1	2008-05-07	EP1918213				
KR20080047552	A	2008-05-29	KR20080047552				
CN101242995	A	2008-08-13	CN101242995				
TWI301817	B	2008-10-11	TWI301817				
US20090020497	A1	2009-01-22	US20090020497				
CN100546880	C	2009-10-07	CN100546880C				
EP1918213	A4	2009-11-04	EP1918213				
JP4642601	B2	2011-03-02	JP4642601				
AU2006282584	B2	2011-09-29	AU2006282584				
EP1918213	B1	2011-12-21	EP1918213				
KR101225539	B1	2013-01-23	KR101225539				
CA2619947	C	2014-06-03	CA2619947				
US9027770	B2	2015-05-12	US9027770				
TH53321	B	2017-01-12	TH--53321B				

Abstract

(EP1918213)

The bottle is provided with a base portion installed on the outer circumference brim of the bottom, a central recess installed inside the base portion and recessed toward the inside of the bottle, an annular wall portion installed between the base portion and the central recess and inclined so as to elevate gradually from the base portion to the central recess, and a plurality of ribs installed side by side at the annular wall portion in the circumferential direction of the bottom and protruding toward the inside of the bottle. The ribs are provided with a rising wall portion rising toward the inside of the bottle and an inclined wall portion inclined from the upper brim of the rising wall portion toward the lower brim of the rising wall portion of an adjacent rib. The rising wall portion is inclined more steeply than the inclined wall portion.

Inventors

TANAKA TOSHIMASA

IMAI HIROAKI

IIZUKA TAKAO

Latest standardized assignees - inventors removed

YOSHINO KOGYOSHO

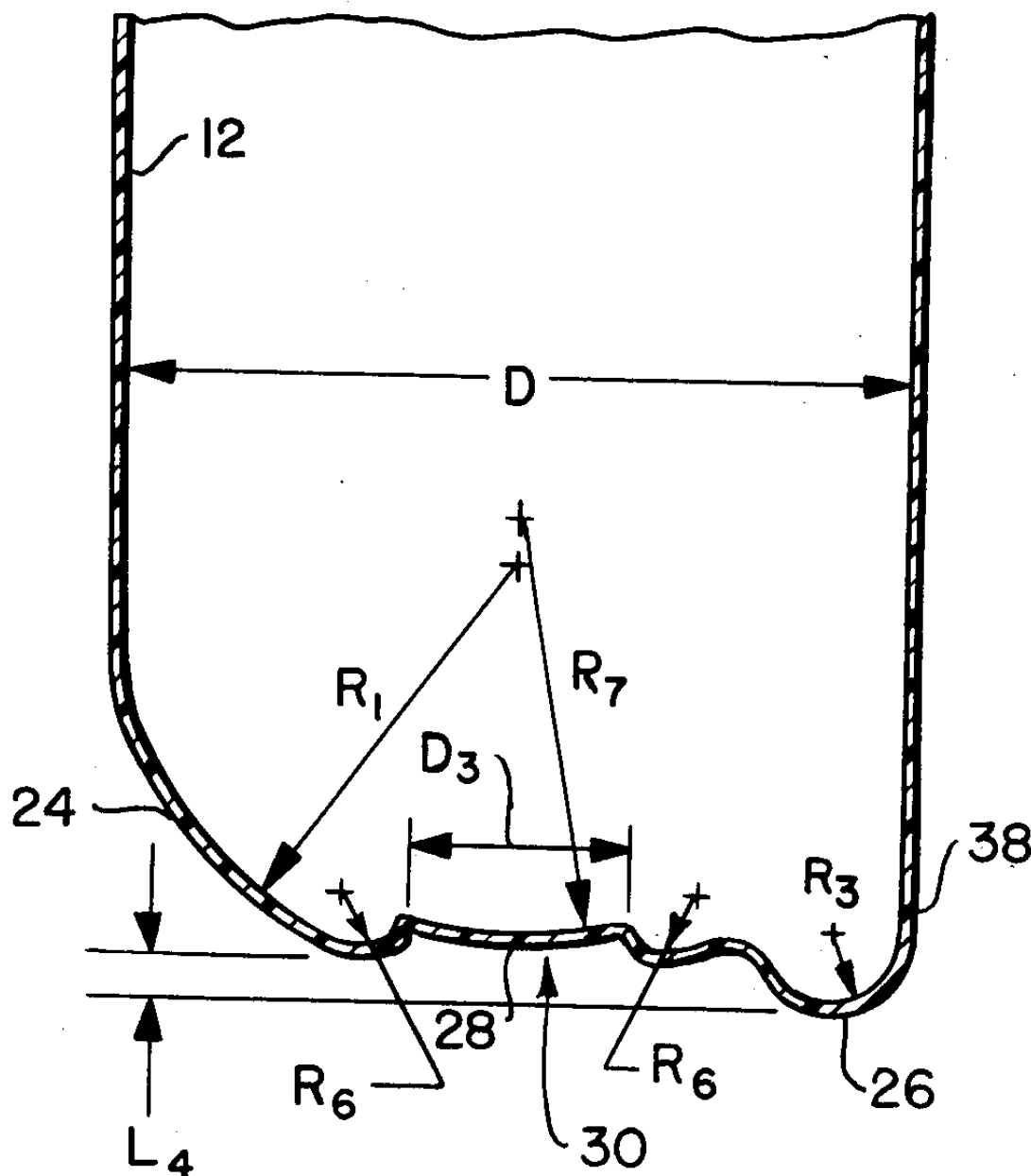
Family 34/100 - FAMPAT - ©Questel

Title

(US4318489)

Plastic bottle

Images

**Publication data including kind & date**[US4318489](#)

A 1982-03-09 US4318489

**Abstract**

(US4318489)

A plastic bottle for holding liquids such as carbonated beverages under pressure. The bottle, a one-piece, self-standing biaxially-oriented plastic container, is generally cylindrical in body configuration with a spherical bottom from which several lobes or feet extend for supporting the bottle upright on a surface. The feet are also spherical in configuration and extend downwardly from the container bottom adjacent to the sidewall of the cylindrical body to support the bottle in a more stable upright position. The center of the bottom of the bottle may be depressed inwardly into the bottle to increase the clearance between the bottom and a surface on which the bottle stands. The configuration of the bottle serves to impart adequate strength and good resistance to eversion. The bottle can be made with a minimal amount of plastic for given performance characteristics, and at speeds that are economical, even for relatively small bottles.

Inventors

SNYDER JOHN A

WECHSLER ROBERT L

Latest standardized assignees - inventors removed

PEPSICO

BR8705767	A	1988-02-09	BR8705767
EP0256082	A1	1988-02-24	EP-256082
KR19887000731	A	1988-04-11	KR19887000731
NZ219279	A	1989-03-29	NZ-219279
AU605139	B2	1991-01-10	AU-605139
US5072841	A	1991-12-17	US5072841
BRPI8705767	A1	1993-03-23	BR8705767
USRE36639	E	2000-04-04	USRE36639



Abstract

(EP-256082)

A container of blow-moulded oriented thermoplastic material includes a base structure comprising a convex annular surface (which may be divided into a plurality of feet (118) by radial webs (112)) and a central re-entrant portion (116). In blow-moulding the container, a moulded preform is enclosed within a mould, heated, and stretched such that its bottom surface impinges upon a projecting surface of the mould bottom corresponding to the topmost surface (158) of the re-entrant portion. After blow-moulding, the material of the re-entrant portion (116) remains unoriented and relatively thick in comparison to the material of the remainder of the base. The unoriented material in the base is substantially confined to the re-entrant portion (116) which itself is strengthened by its relatively thick walls and the base thus exhibits improved creep and stress cracking properties.

Inventors

OKHAI AZIZ A

Latest standardized assignees - inventors removed

NORTH AMERICAN CONTAINER

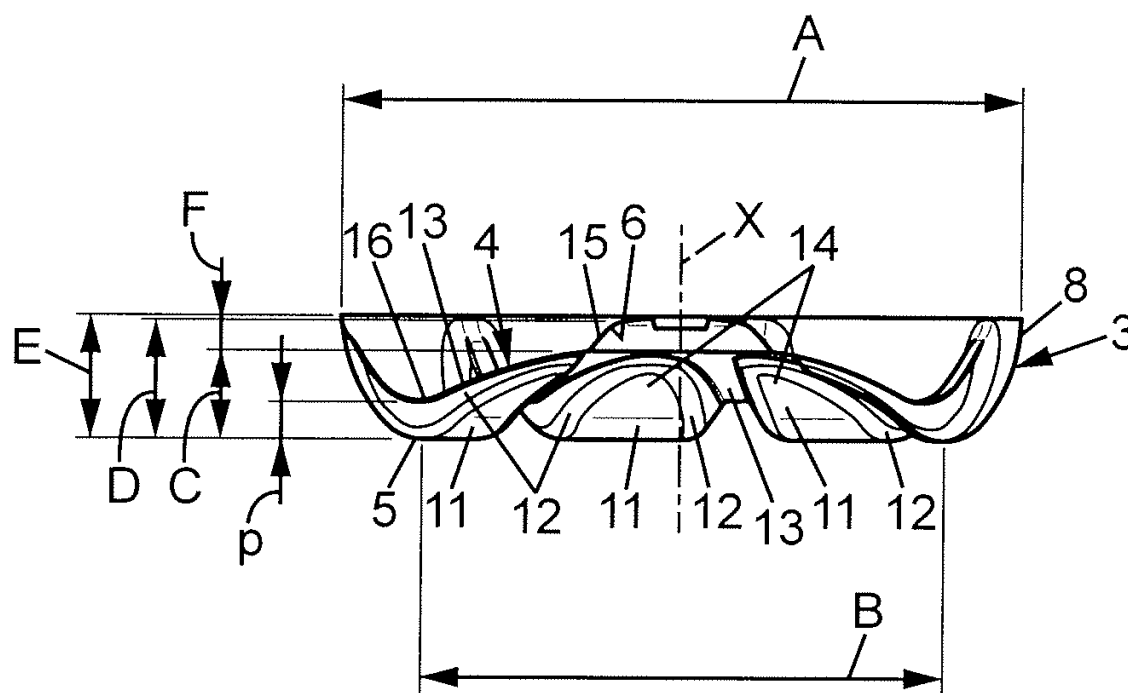
Family 36/100 - FAMPAT - ©Questel

Title

(EP2133277)

Container, in particular a bottle, made from thermoplastic material equipped with a reinforced bottom

Images



Publication data including kind & date

EP2133277	A1	2009-12-16	EP2133277
US20090308835	A1	2009-12-17	US20090308835



FR2932458	A1	2009-12-18	FR2932458				
JP2009298483	A	2009-12-24	JP2009298483				
MX2009006478	A	2010-01-15	MX2009006478				
CN101633417	A	2010-01-27	CN101633417				
FR2932458	B1	2010-08-20	FR2932458				
EP2133277	B1	2010-11-10	EP2133277				
AT487664	T	2010-11-15	ATE487664				
DE602009000335	D1	2010-12-23	DE602009000335				
ES2355932	T3	2011-04-01	ES2355932				
JP4860724	B2	2012-01-25	JP4860724				
CN101633417	B	2012-01-25	CN101633417B				
US8469214	B2	2013-06-25	US8469214				

Abstract

(EP2133277)

The container has a body extending between a neck and a base (3) that has an annular zone (5) surrounding a bottom of a concave arch (4) and forming a plane seat. The base has clamp zones (11) separated from each other and extending a bottom of the body radially in a direction of a central axis of the base, where the clamp zones project offset outward relative to the arch. Radial grooves (12) are radially defined between the clamp zones and have a bottom (13) formed by radial sections (4a) of the arch. The grooves have a radially variable depth maximum in line with the annular zone.

Inventors

BOUKOBZA MICHEL

Latest standardized assignees - inventors removed

SIDEL PARTICIPATIONS

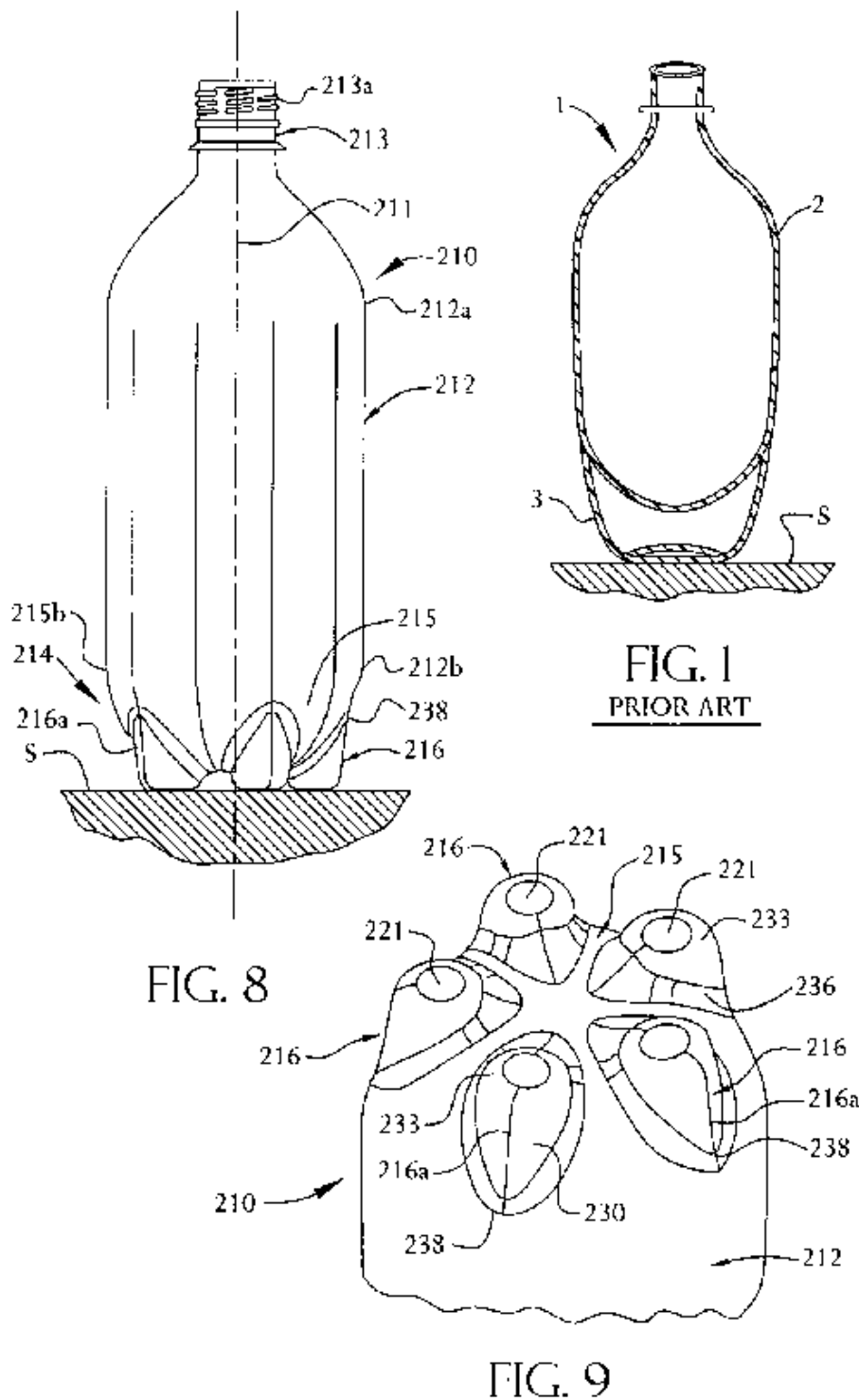
Family 37/100 - FAMPAT - ©Questel

Title

(WO200013974)

Container with base having cylindrical legs with circular feet

Images



Publication data including kind & date

WO200013974	A1	2000-03-16	WO200013974
CA2309667	A1	2000-03-16	CA2309667
AU5821399	A	2000-03-27	AU9958213
GB0011550	D0	2000-06-28	GB200011550
GB2346359	A	2000-08-09	GB2346359
US6112924	A	2000-09-05	US6112924
GB2346359	B	2002-08-07	GB2346359
MXPA00004512	A	2004-03-10	MXPA00004512
CA2309667	C	2008-11-18	CA2309667



Abstract

(WO200013974)

A blow-molded container (210) has a central axis (211), a neck (213) and a cylindrical sidewall (212) connected with the neck, generally centered about the central axis and having an end. A generally hemispherical base wall (215) encloses the end (212b) of the sidewall. A plurality of legs (216) extend from and are circumferentially spaced about the base wall. Each leg has a radially outermost portion (216a) offset inwardly from the sidewall and toward the central axis. An upper portion of each leg connects the leg with the base wall and has a radially outermost edge offset toward the central axis with respect to the sidewall. Preferably, each leg includes a leg sidewall having a generally cylindrical portion, a first, open end integrally formed with the base wall and a second end. An end wall encloses the second end of the leg sidewall and has a generally flat section.

Inventors

ZHANG QIUCHEN PETER

Latest standardized assignees - inventors removed

COTT

Family 38/100 - FAMPAT - ©Questel

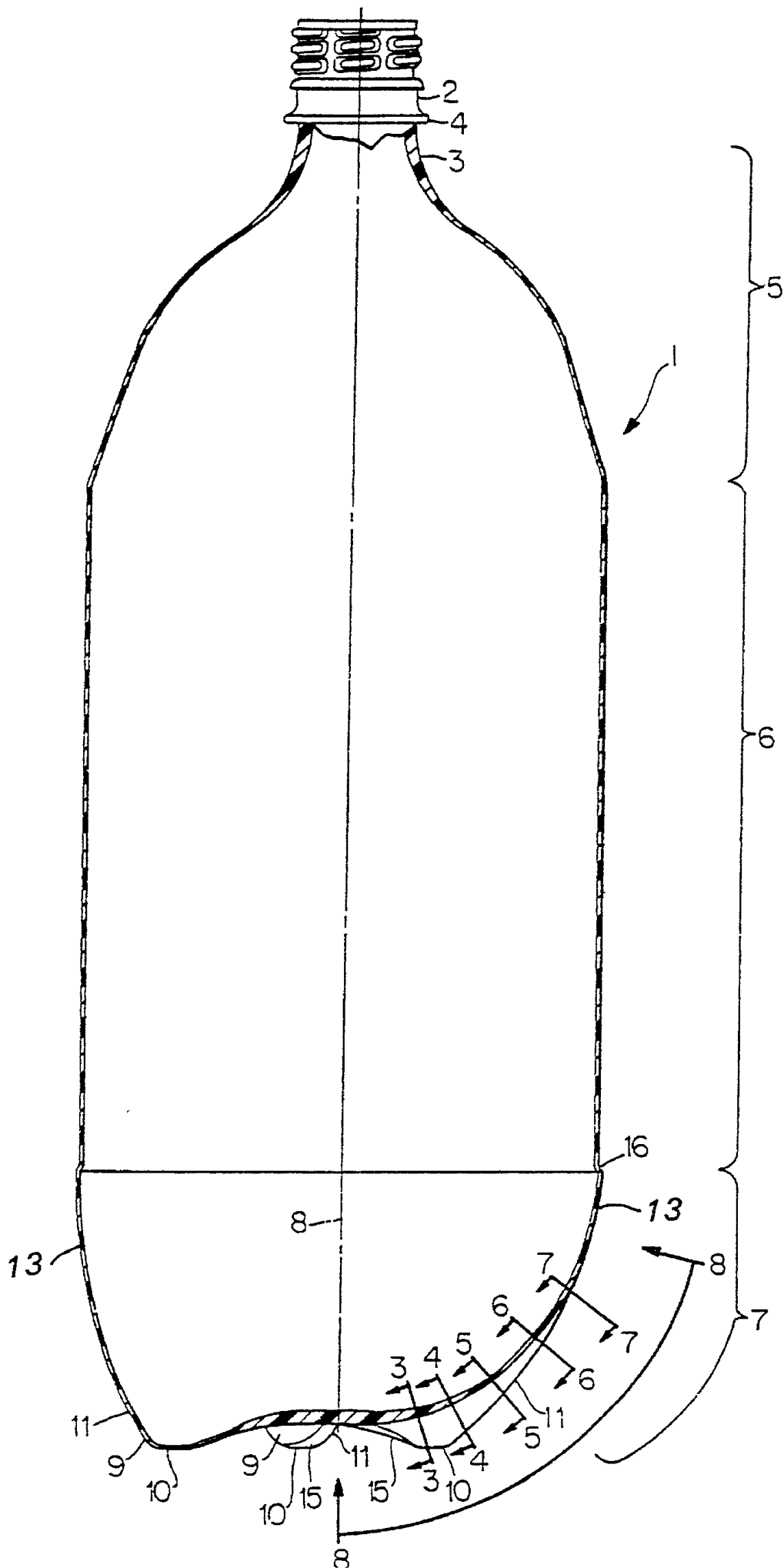
Title

(EP-671331)

Self-standing polyester containers for carbonated beverages

Images

FIG.1



Publication data including kind & date

BRPI9501013	A1	1995-04-18	BR9501013
HU9500713	D0	1995-04-28	HU9500713
CA2143038	A1	1995-09-11	CA2143038
CZ9500609	A3	1995-09-13	CZ9500609
EP0671331	A1	1995-09-13	EP-671331
PL307634	A1	1995-09-18	PL95307634
AU1340995	A	1995-09-21	AU9513409
JPH07267235	A	1995-10-17	JP07267235
BR9501013	A	1995-10-24	BR9501013
HUT70576	A	1995-10-30	HU-T70576
CN1114625	A	1996-01-10	CN1114625
US5484072	A	1996-01-16	US5484072
BG99494	A	1996-04-30	BG--99494
AU684126	B2	1997-12-04	AU-684126
EP0671331	B1	1998-09-30	EP-671331
DE69505027	D1	1998-11-05	DE69505027
ES2124925	T3	1999-02-16	ES2124925
DE69505027	T2	1999-05-20	DE69505027
CA2143038	C	2001-12-04	CA2143038

**Abstract**

(EP-671331)

The invention provides a blow molded two liter carbonated beverage bottle (1) weighing under 50 grams and having a unique petaloid base (7) and an ability to be self-standing on a support surface. The base comprises a petaloid design which has a plurality of at least three (preferably five) feet 9. Between each adjacent pair of feet is a radially extending valley (12) the width of which decreases with increasing radial distance from the longitudinal axis of the bottle toward a point of convergence (14) radially outside the bottle's diameter. The valley floor generally follows the hemispherical base shape and opens to an extended portion (13) of that base shape lying radially outwardly of the feet. The valley and extended portion, on initial pressurization of the bottle, cause deformation of the extended portions outwardly with a resulting raising of the center of the base away from the support surface. <IMAGE>

Inventors

BECK MARTIN H

MUSZYNSKI JOHN H

ROLLEND GEORGE F

Latest standardized assignees - inventors removed

AMCOR

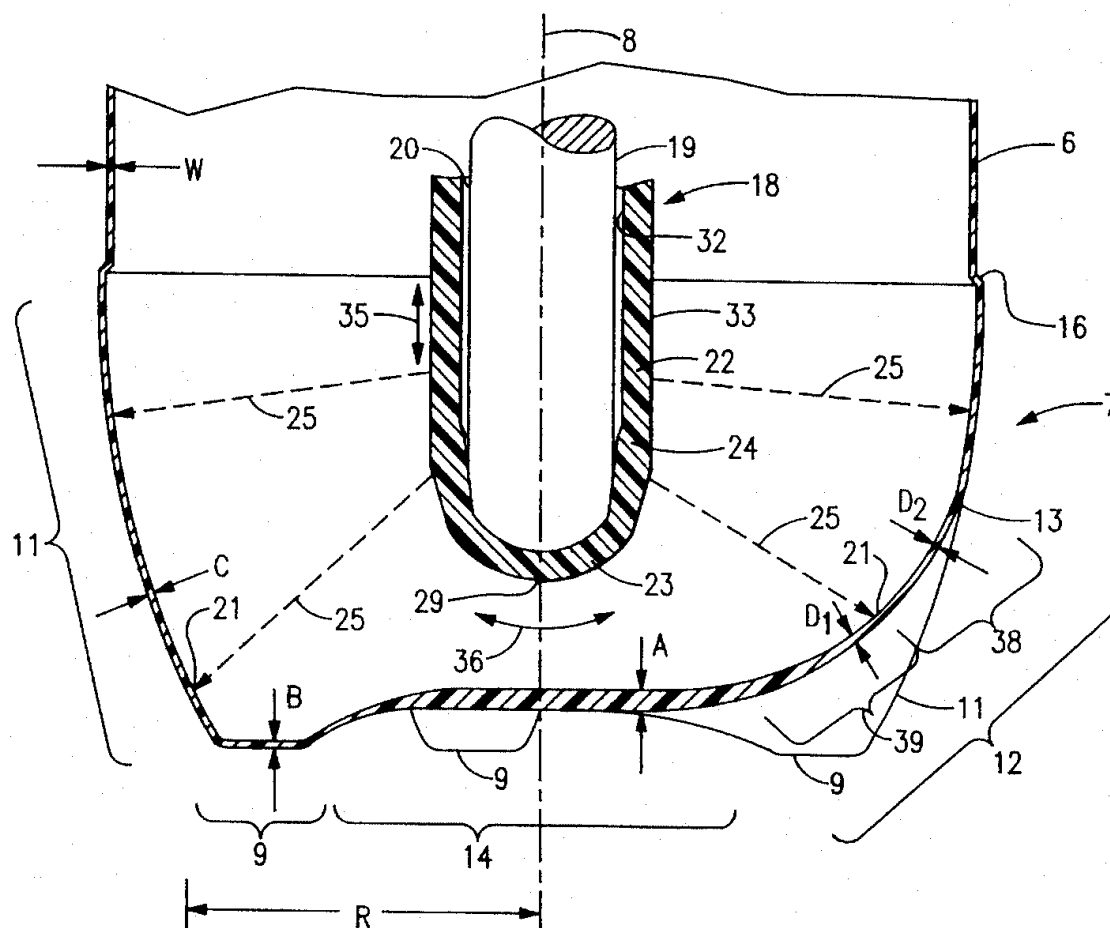
Family 39/100 - FAMPAT - ©Questel

Title

(EP-808241)

One piece self-standing blow molded container

Images



Publication data including kind & date

WO9624482	A1	1996-08-15	WO9624482
CA2210918	A1	1996-08-15	CA2210918
AU5019096	A	1996-08-27	AU9650190
US5614148	A	1997-03-25	US5614148
BR9606858	A	1997-11-25	BR9606858
BRPI9606858	A1	1997-11-25	BRPI9606858
EP0808241	A1	1997-11-26	EP-808241
US5714111	A	1998-02-03	US5714111
MX9705621	A	1998-02-28	MX9705621
EP0808241	A4	1998-05-20	EP-808241
AU696715	B2	1998-09-17	AU-696715
US5913438	A	1999-06-22	US5913438



Abstract

(EP-808241)

A self-standing container (6) with a petaloid base is blow molded from a monobase preform (18). The monobase preform (18) has a thick reinforcing ring forming portion (24) which remains relatively unstretched during blowing. The reinforcing ring forming portion (24) is thicker than both the sidewall forming portion (22) and the bottom forming portion (23) of the preform (18). Because the thicker reinforcing ring forming portion (24) has a greater mass per unit area, it is slightly cooler than the thinner portions of the preform (18). Therefore, the reinforcing ring forming portion (24) stretches to a lesser degree than the thinner sidewall forming portion (22) and bottom forming portion (23) during blow molding. The result is a container (6) having a reinforcing ring (21) extending circumferentially around the base, an oriented gate area (14) and a petaloid base with at least three, preferably five, feet (9).

Inventors

BECK MARTIN H

ROLLEND GEORGE F

MUSZYNSKI JOHN H

REED LYDIA K

HICKEY SCOTT J

CALDICOTT ROBERT J

CONNOR DENNIS C

Latest standardized assignees - inventors removed

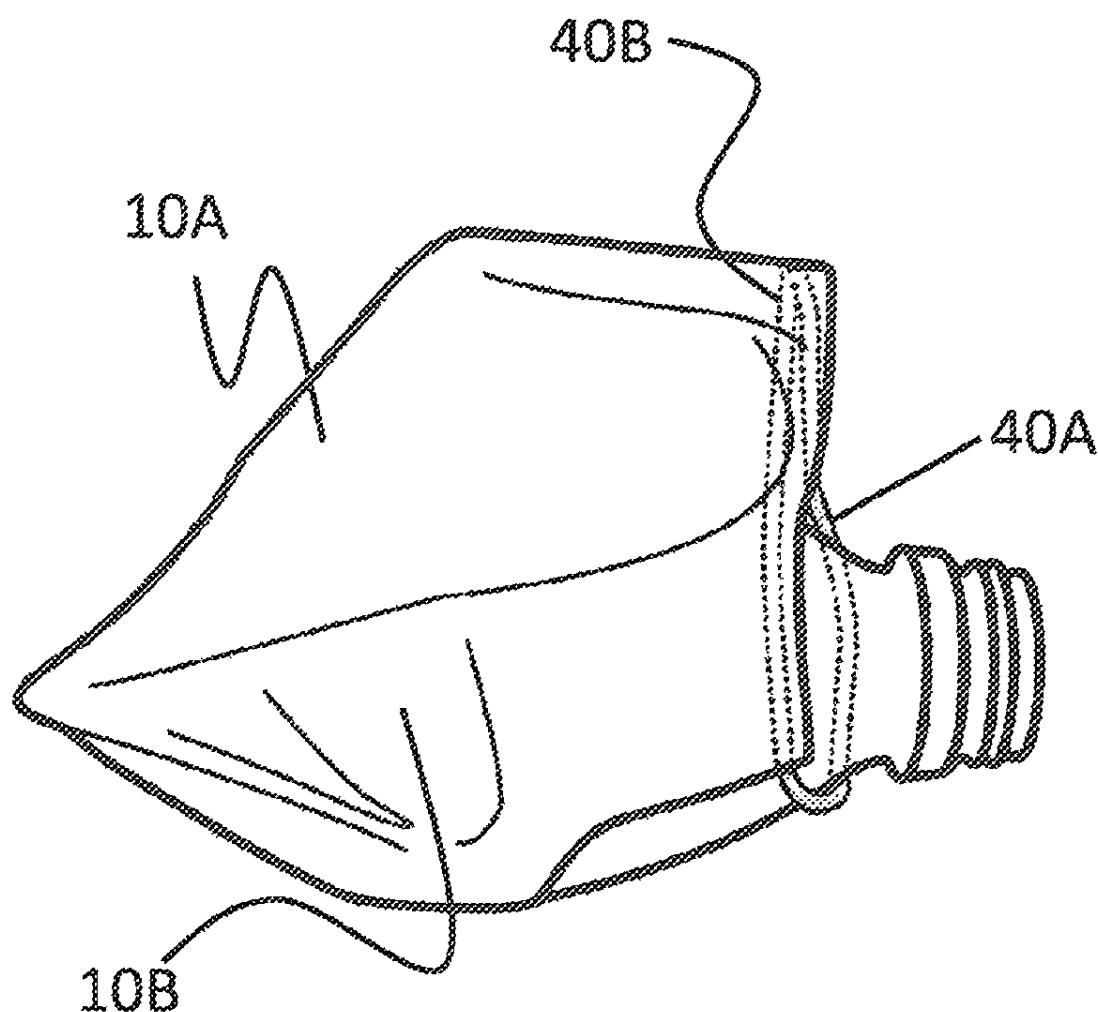
DTL MONOFOOT PARTNERSHIP

Family 40/100 - FAMPAT - ©Questel

Title

(WO201815820)

A fastening device for compacted plastic bottles intended for recycling

Images**Publication data including kind & date**

IL246809	B	2017-08-31	IL-246809
WO2018015820	A1	2018-01-25	WO201815820
WO2018015819	A1	2018-01-25	WO201815819
US20180281234	A1	2018-10-04	US20180281234
US10155327	B2	2018-12-18	US10155327

**Abstract**

US7799264	B2	2010-09-21	US7799264				
AU2010241376	A1	2010-12-02	AU2010241376				
JP4743320	B2	2011-08-10	JP4743320				
AU2010241376	B2	2011-09-22	AU2010241376				
EP1996382	B1	2012-07-25	EP1996382				
CN101400501	B	2013-02-13	CN101400501B				
CA2645650	C	2014-06-10	CA2645650				
US8794462	B2	2014-08-05	US8794462				

Abstract

(EP1996382)

A base of a container may include a standing surface, a first wall, a second wall, a first hinge, and a second hinge. The first hinge (142) may be positioned between the standing surface and the first wall (120), the first wall being rotateable about the first hinge relative to a longitudinal axis of the container. The second hinge (122) may be positioned between the first wall and the second wall (124), the second wall being rotateable about the second hinge relative to the longitudinal axis of the container, where rigidity of the base prevents substantial net distortion of the base during rotation of the second wall.

Inventors

TRUDE GREGORY

Latest standardized assignees - inventors removed

GRAHAM PACKAGING

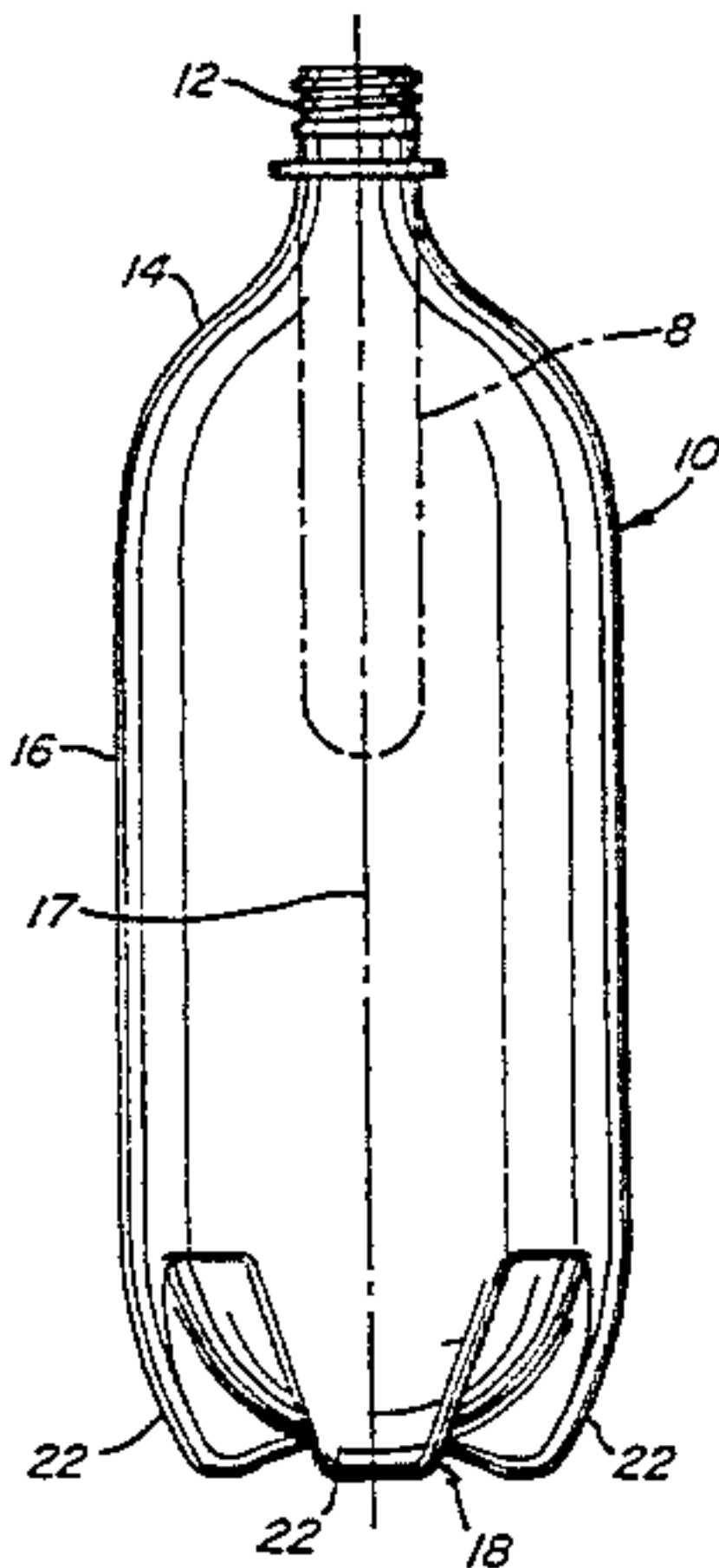
Family 42/100 - FAMPAT - ©Questel

Title

(EP-633857)

Freestanding plastic container for pressurized fluids

Images



TW198703	B	1993-01-21	TW-198703
WO9321073	A1	1993-10-28	WO9321073
CA2117800	A1	1993-10-28	CA2117800
AU4047693	A	1993-11-18	AU9340476
CN1080610	A	1994-01-12	CN1080610
EP0633857	A1	1995-01-18	EP-633857
HU9402906	D0	1995-01-30	HU9402906
CZ9402484	A3	1995-02-15	CZ9402484
SK123594	A3	1995-04-12	SK9401235
US5427258	A	1995-06-27	US5427258
AU660545	B2	1995-06-29	AU-660545
HUT69445	A	1995-09-28	HU-T69445
NZ252019	A	1995-12-21	NZ-252019
EP0633857	B1	1996-09-18	EP-633857
AT142967	T	1996-10-15	ATE142967
DE69304901	D1	1996-10-24	DE69304901
ES2095647	T3	1997-02-16	ES2095647
CA2117800	C	1998-09-22	CA2117800
HU217677	B	2000-03-28	HU-217677
CZ287010	B6	2000-08-16	CZ-287010
CN1056813	C	2000-09-27	CN1056813C



Abstract

(EP-633857)

A freestanding container base having an improved combination of properties in regard to creep resistance, stress crack resistance, impact strength, weight, standing stability and formability. The container base (18) has a substantially hemispherical bottom wall (21) which includes four radiating ribs (26), and four legs (22) extending downwardly from the bottom wall between the ribs and each of which terminates in a foot (24). Each rib has a rib wall forming part of the substantially hemispherical bottom wall and having an angular extent of from about 15 DEG to about 30 DEG for enhanced strength, with the leg occupying the remaining 75 DEG to 60 DEG angular extent for enhanced formability. The outer edge and angular extent of the foot are predetermined for enhanced stability and ease of formability. Preferably, the creep resistance is further enhanced by straightening the upper rib portion or providing an enlarged-diameter truncated bottom wall. The base is particularly suited for a blown PET carbonated beverage bottle.

Inventors

KRISHNAKUMAR SUPPAYAN M

COLLETTE WAYNE N

Latest standardized assignees - inventors removed

GRAHAM PACKAGING

GRAHAM PACKAGING PET TECHNOLOGIES

Family 43/100 - FAMPAT - ©Questel

Title

(EP--28125)

Plastic container with a generally hemispherical bottom wall having hollow legs projecting therefrom.

Images

bottom end is stiffened against creep of the plastic material over a period of time under the influence of the internal pressure by changing the configuration of the bottom wall from that of a hemisphere to one which includes a configuration of straight line sections (32) and curved line sections (31) when viewed in radial cross section along the axis of the bottle.

Inventors

POCOCK JOHN F E

KRISHNAKUMAR SUPPAYAN M

MAHAJAN GAUTAM K

CLARK RICHARD E

Latest standardized assignees - inventors removed

CONTINENTAL PET TECHNOLOGIES

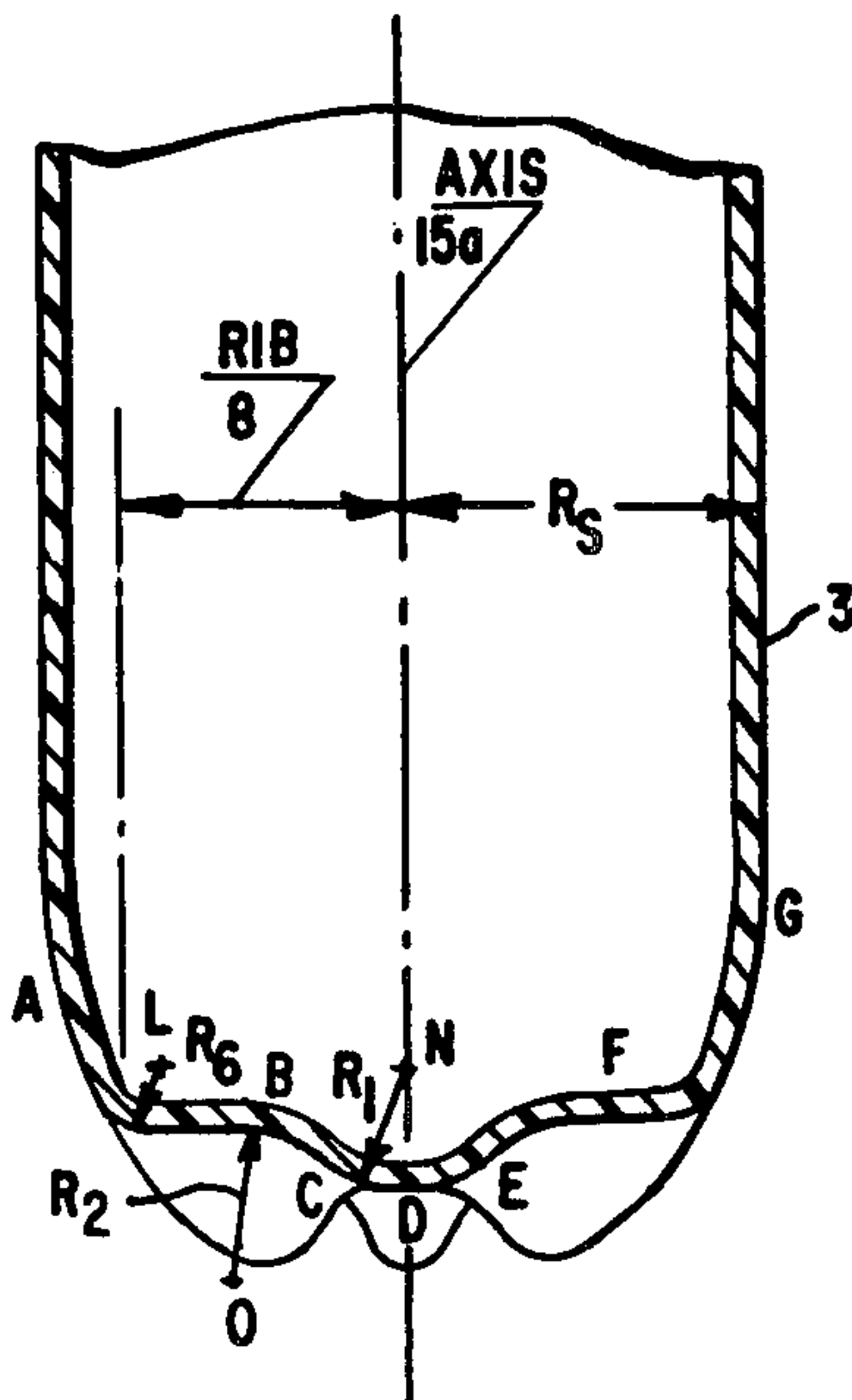
Family 44/100 - FAMPAT - ©Questel

Title

(US4368825)

Self-standing bottle structure

Images



Publication data including kind & date

[US4368825](#)

A 1983-01-18 US4368825



Abstract

(US4368825)

A self-standing bottle structure particularly suited for pressurized beverage bottles. The bottom end comprises a modified hemispherical portion, a convex central base portion, and an intermediate portion interconnecting the modified hemispherical portion and the convex central base portion. A plurality of convex elongated ribs in the intermediate portion

ES255917	Y	1982-06-16	ES-255917Y				
US4335821	A	1982-06-22	US4335821				
KR820001944	B1	1982-10-21	KR820001944				
JPS5753174	B2	1982-11-11	JP82053174				
CA1139685	A	1983-01-18	CA1139685				
JP1180802	C	1983-12-09	JP1180802				

Abstract

(EP--23091)

A change in the bottom configuration of a blow mold (22) and bottle (26) formed of a plastics material which compensates for shrinkage in the bottom structure due to improper cooling whereby the improper cooling may be advantageously utilized to provide for a marked decrease in the blow molding cycle time.

Inventors

COLLETTE WAYNE N

MAHAJAN GAUTAM K

KRISHNAKUMAR SUPPAYAN M

Latest standardized assignees - inventors removed

CONTINENTAL PET TECHNOLOGIES

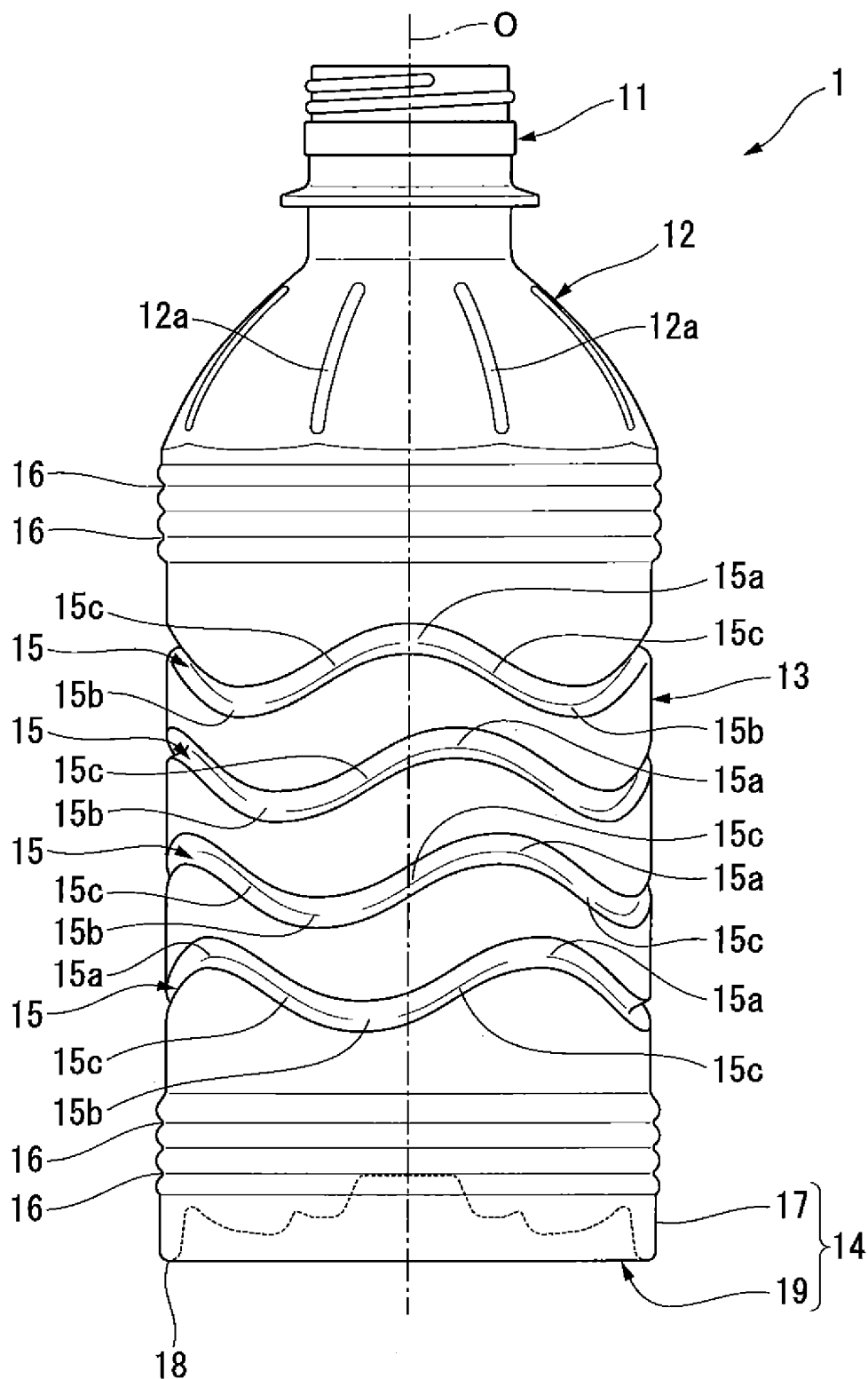
Family 46/100 - FAMPAT - ©Questel

Title

(EP2813437)

Bottle

Images



Publication data including kind & date

CA2862775	A1	2013-08-08	CA2862775
WO2013114760	A1	2013-08-08	WO2013114760
JP2013154907	A	2013-08-15	JP2013154907
AU2012368515	A1	2014-07-31	AU2012368515
CN104066651	A	2014-09-24	CN104066651
KR20140125368	A	2014-10-28	KR20140125368
EP2813437	A1	2014-12-17	EP2813437
US20150008210	A1	2015-01-08	US20150008210
EP2813437	A4	2015-10-21	EP2813437



AU2012368515

B2 2016-09-08

AU2012368515

**Abstract**

(EP2813437)

The present invention is a bottle (1, 2, 3, 4) that is formed from a synthetic resin material in a cylindrical shape having a bottom at one end, comprising: a plurality of circumferential grooves (15) that extend continuously around the entire circumference of a body portion (13) and are formed at a distance from each other in a vertical direction. The circumferential grooves (15) extend cyclically in a circumferential direction while undulating in the vertical direction when viewed from the side of the body portion (13) so as to form wave patterns, and the respective phases of circumferential grooves (15, 15) that are mutually adjacent to each other in the vertical direction are offset from each other.

Inventors

OSHINO TADAYOSHI

SAITO HIROMICHI

YAMASAKI HIROHISA

NISHIMURA TAKUYA

Latest standardized assignees - inventors removed

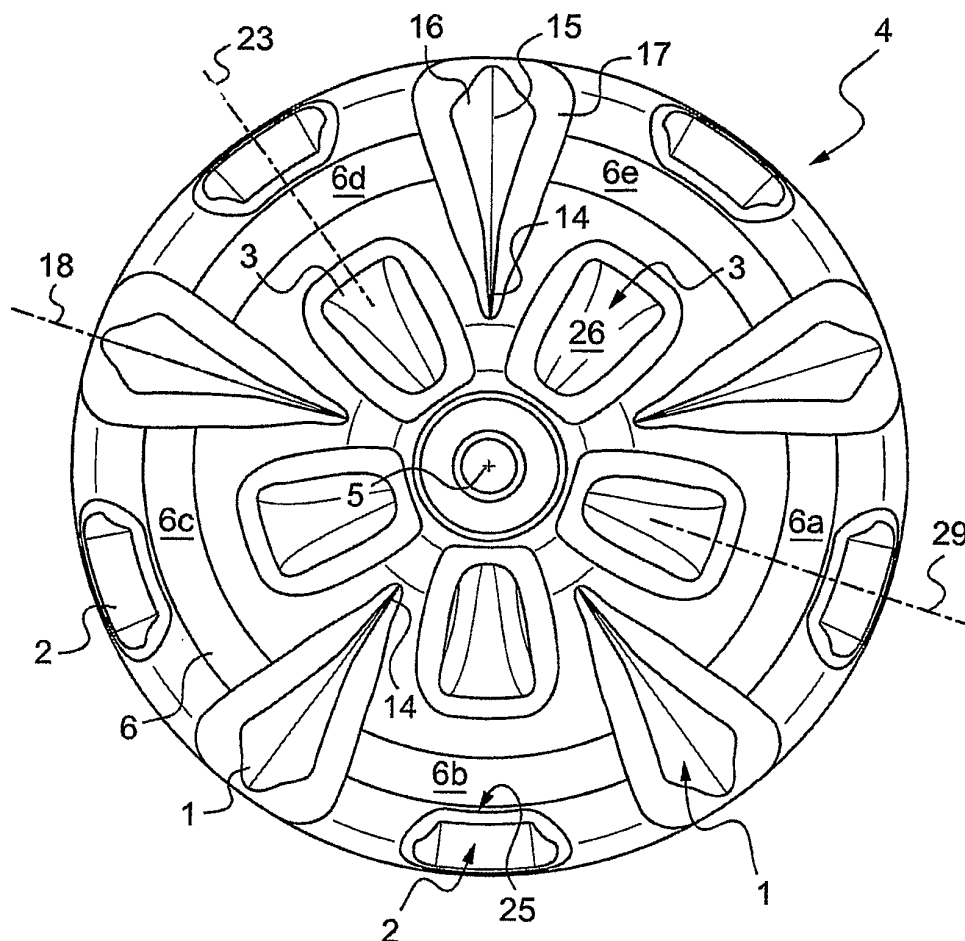
YOSHINO KOGYOSHO

Family 47/100 - FAMPAT - ©Questel

Title

(EP2049405)

Bottom of hollow ware obtained by the blow moulding or stretch-blow moulding of a thermoplastic hollow ware preform having such a bottom

Images

Publication data including kind & date

WO2008017747	A1	2008-02-14	WO200817747				
FR2904809	A1	2008-02-15	FR2904809				
FR2904809	B1	2008-10-24	FR2904809				
EP2049405	A1	2009-04-22	EP2049405				
MX2009001356	A	2009-06-30	MX2009001356				
CN101522531	A	2009-09-02	CN101522531				
JP2010500192	A	2010-01-07	JP2010500192				
EP2049405	B1	2010-11-03	EP2049405				
AT486785	T	2010-11-15	ATE486785				
US20100297375	A1	2010-11-25	US20100297375				
DE602007010309	D1	2010-12-16	DE602007010309				
ES2355855	T3	2011-03-31	ES2355855				
CN101522531	B	2011-09-14	CN101522531B				
JP4926249	B2	2012-05-09	JP4926249				
US8524349	B2	2013-09-03	US8524349				

Abstract

(EP2049405)

Bottom of hollow ware obtained by the blow moulding or stretch-blow moulding of a thermoplastic preform, this bottom having a transverse bearing surface and, on either side of this transverse bearing surface, a transverse external edge (7) and a concave internal wall with a transverse central portion (11) containing a disc (12) of material having a low crystallinity, this bottom including reinforcing ribs (1) having an outer edge (13) coming close to the transverse external edge (7) but without reaching this transverse external edge (7), these reinforcing ribs (1) having an inner edge (14) coming close to the transverse central portion (11), but without reaching this transverse central portion (11), the transverse bearing surface being formed from segments (6a, 6b, 6c, 6d, 6e) interrupted by the reinforcing ribs (1), this hollow ware bottom (4) further including notches (2), the distal end portion (24) of which comes close to but does not reach the external edge (7) of the bottom, the proximal end portion (25) of the notches (2) being tangential with the transverse bearing surface but not opening into this transverse bearing surface.

Inventors

PROTAIS PIERRICK

BOUKOBZA MICHEL

Latest standardized assignees - inventors removed

SIDEL PARTICIPATIONS

Family 48/100 - FAMPAT - ©Questel

Title

(US5927533)

Pressured thermoplastic beverage containing bottle with finger gripping formations

Images

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Publication data including kind & date

CA2634496	A1	1999-01-11	CA2634496
CA2226614	A1	1999-01-11	CA2226614
US5927533	A	1999-07-27	US5927533
CA2226614	C	2006-03-21	CA2226614
CA2634496	C	2010-06-15	CA2634496



Abstract

(US5927533)

A thermoplastic bottle has a generally cylindrical body, in turn having an upper portion, a lower portion, and opposite sides joining at a diametric plane. A plurality of adjacent finger recesses extend about one of the opposite sides in the lower portion of the body, and a thumb depression is provided in the lower portion on the other of the opposite sides. A continuous

circumferential indentation is formed in the cylindrical body between the upper portion and the lower portion to decouple pressure response of the upper and lower portions and minimize lean transfer to the upper portion resulting from expansion of the lower portion on the one of the opposite sides. The bottle is also formed with at least one vertical reinforcing indentation, preferably at least one set of three such vertical reinforcing indentations in each of the finger grooves, and at least one, preferably three spaced vertical reinforcing indentations in the thumb depression. The bottle has a bottom closure base having an odd number of at least five projecting feet, one of the feet being aligned vertically with the thumb depression so that at least three of the five feet remain in a common plane during vertical stretching to assure a stable base for maintaining the bottle in upright posture.

Inventors

PAYNE MICHAEL TODD

HARIDAS BALAKRISHNA

THIEMANN NANCY THERESA

WAEBER KENNETH ROBERT

URMEY KIRK DAVID

Latest standardized assignees - inventors removed

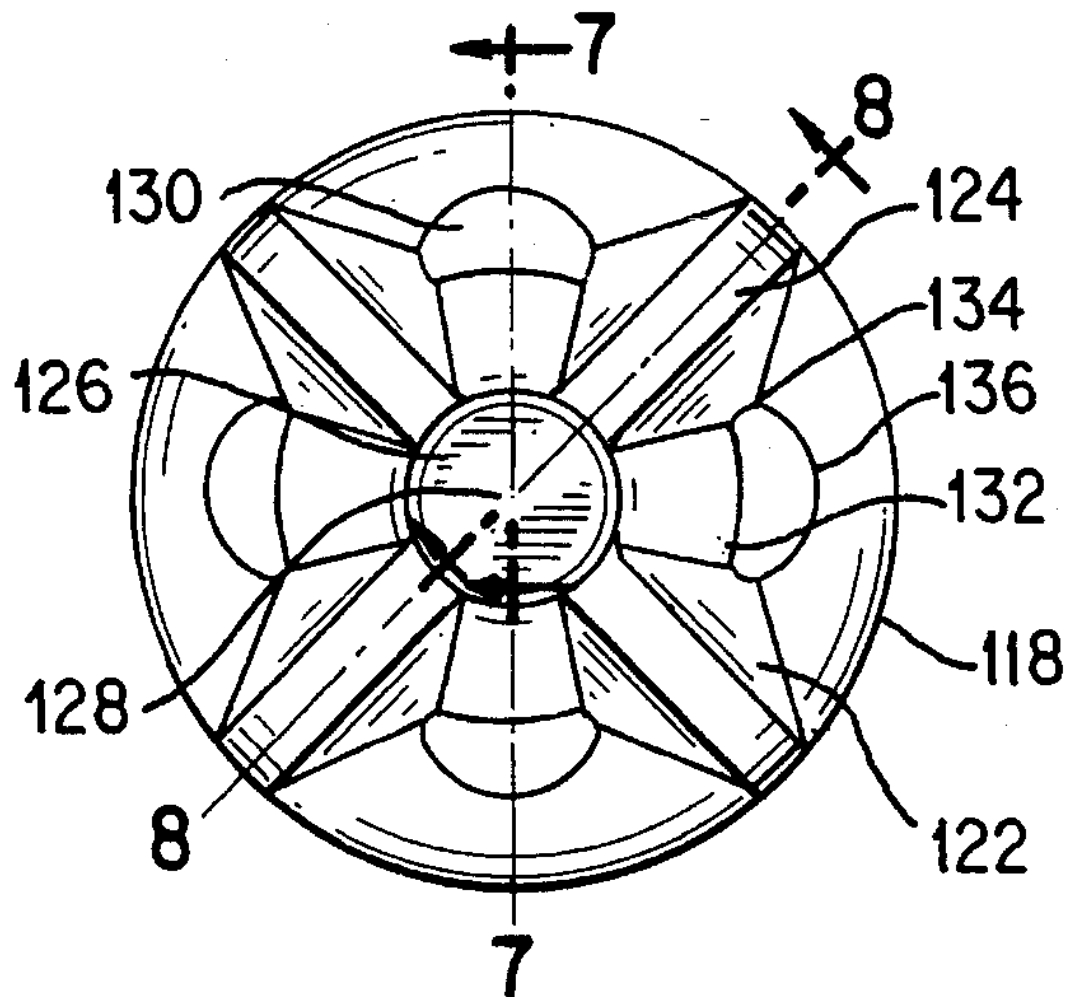
PEPSICO

Family 49/100 - FAMPAT - ©Questel

Title

(US5549210)

Wide stance footed bottle with radially non-uniform circumference footprint

Images

CA2131486	A1	1995-06-14	CA2131486
US5549210	A	1996-08-27	US5549210
CA2131486	C	1998-06-16	CA2131486

**Abstract**

(US5549210)

Hollow plastic blow-molded containers have a tubular bodies and integral improved, self-supporting bases. The bases have distinctly shaped supporting feet disposed on legs at or near the periphery of the container bottom. The container legs extend outwardly and downwardly from the central region of the container on the inner side of the container bottom and extend downwardly from the container sidewalls on the outer side and are separated by ribs which coverage in a central region at the base of the container. At the terminal end of each of the container legs, there are horizontal contact surfaces or feet which are defined by foot edges which include an inner foot edge portion and an outer foot edge portion, the outer foot edge portion includes a pair of outer far corner foot edges and a far middle foot edge portion. The far middle foot edge portion extends radially to a point further than the outer far corner foot edges. The differences between the middle and far outer corner foot edge radii give rise to a container footprint which is essentially non-uniform with the circumference of the container. The unique, non-uniform footprint provides manufacturing advantages in terms of an expanded processing window which is well-suited to a high speed manufacturing environment.

Inventors

CHENG JIZU J

Latest standardized assignees - inventors removed

BALL

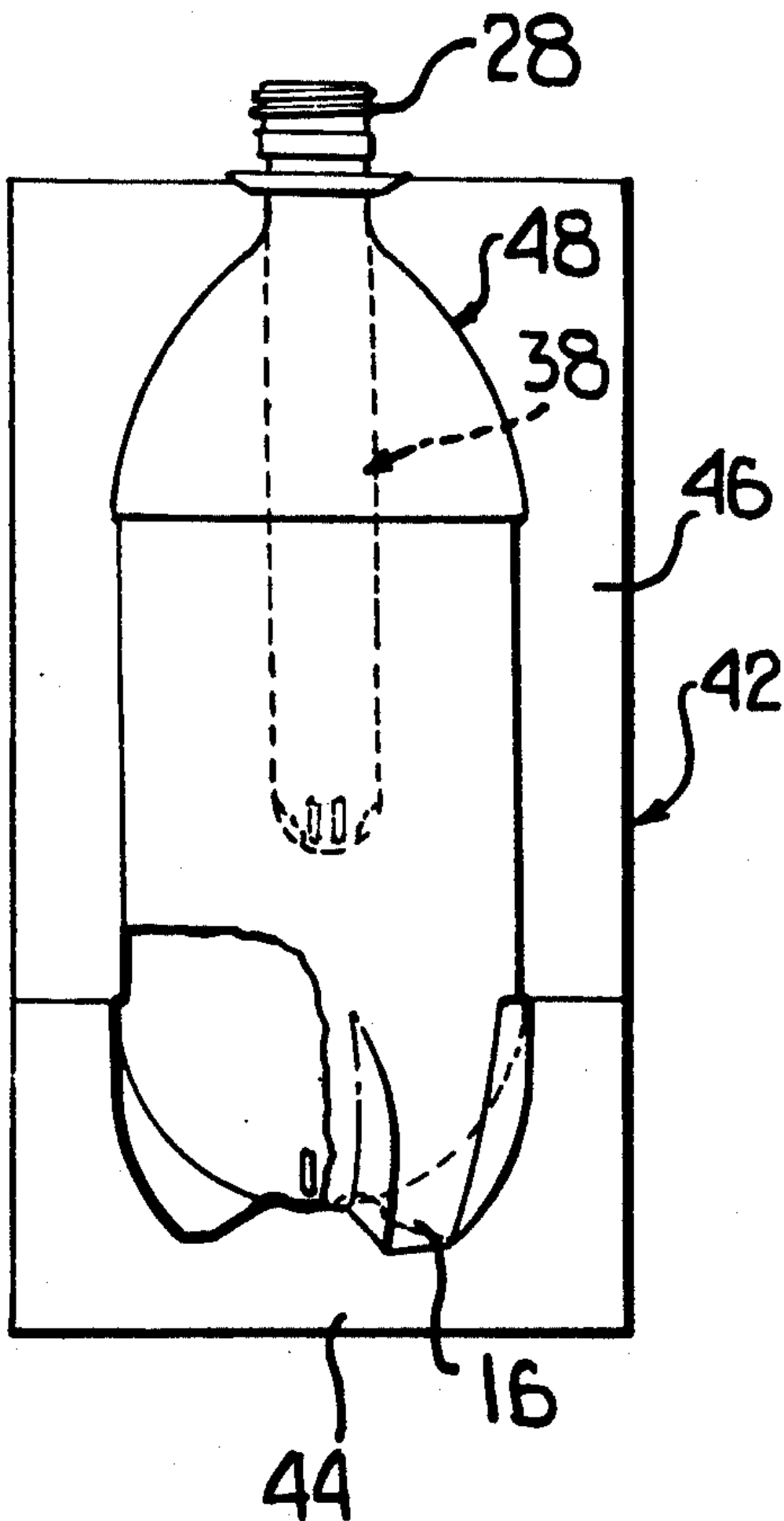
Family 50/100 - FAMPAT - ©Questel

Title

(US5160059)

Reinforced container base and method of forming same

Images



Publication data including kind & date[US5160059](#)

A 1992-11-03 US5160059

**Abstract**

(US5160059)

The reinforcement of a blow molded base of the type including a generally hemispherical configuration interrupted at circumferentially spaced intervals by protruding legs. Prior cracking problems at the intersection of the foot-radii of such legs with the generally hemispherical portion are solved by an internal reinforcement of the base in that area. The reinforcement may be either localized with the points of reinforcement being circumferentially spaced and in alignment with the legs, or may be in the form of a continuous band. The reinforcement is effected by providing a preform from which a container employing such base is blow molded and wherein the preform is provided either with internal ribs or an internal band of reinforcement and the resultant containers are blow molded in the same mold as previously utilized.

Inventors

COLLETTE WAYNE N

MILLER BRYAN H

KRISHNAKUMAR SUPPAYAN M

NAHILL THOMAS E

Latest standardized assignees - inventors removed

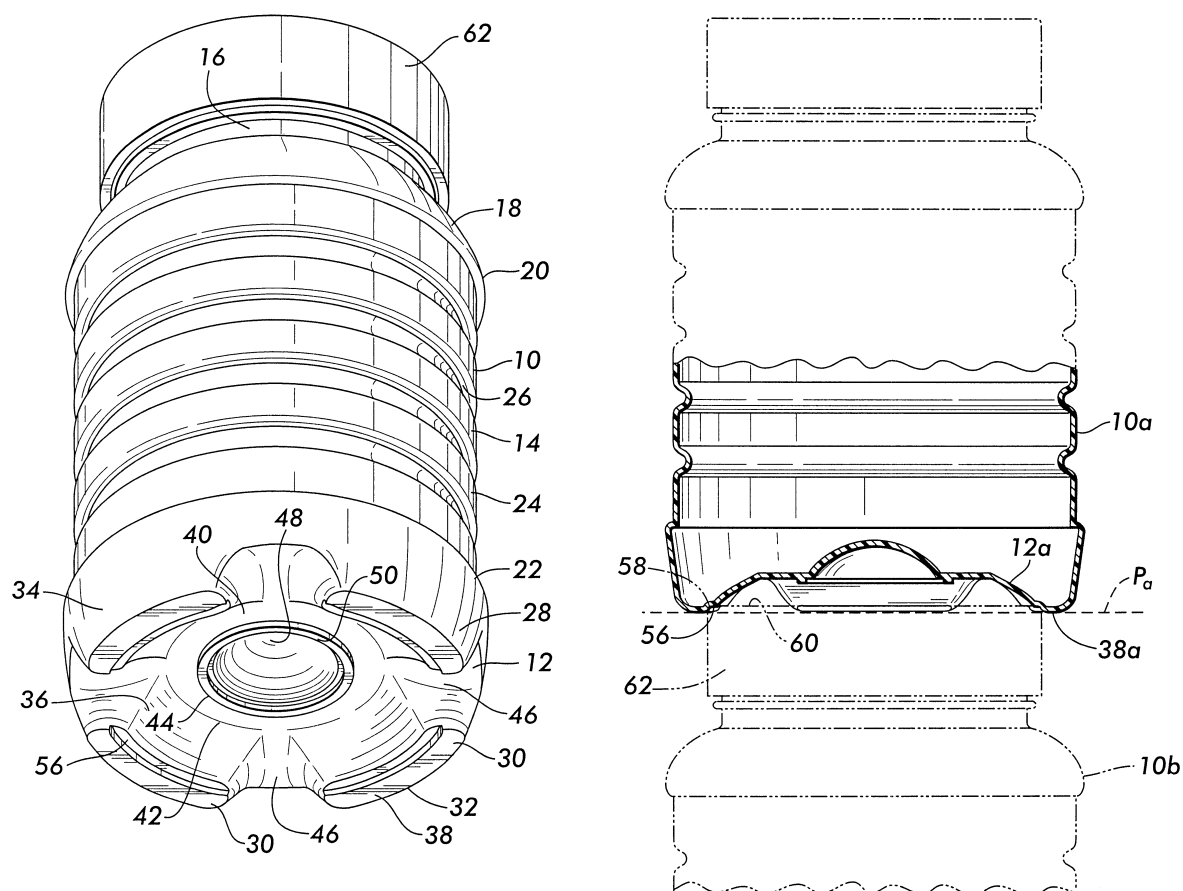
CONTINENTAL PET TECHNOLOGIES

Family 51/100 - FAMPAT - ©Questel

Title

(EP1387804)

Multi-functional base for a plastic wide-mouth, blow-molded container

Images**Publication data including kind & date**[US20020153343](#)

A1 2002-10-24 US20020153343

[WO02085755](#)

A1 2002-10-31 WO200285755



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NO20034666	A	2003-12-17	NO200304666				
EP1387804	A1	2004-02-11	EP1387804				
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EP1387804	A4	2005-03-02	EP1387804				
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US20090178996	A1	2009-07-16	US20090178996				
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CA2527001	C	2013-04-02	CA2527001				
US20130219831	A1	2013-08-29	US20130219831				
US8529975	B2	2013-09-10	US8529975				
US8839972	B2	2014-09-23	US8839972				
US9522749	B2	2016-12-20	US9522749				
US20170057725	A1	2017-03-02	US20170057725				

Abstract

(EP1387804)

A blow molded container (10) having a multi-functional base (12) which enables use of the container (10) in both hot-fill operations and pasteurization/retort operations and enables efficient vertical stacking of like containers (10). To this end, a portion of the base (12) is capable of flexing upwardly and/or downwardly in response to variations in pressures in a filled and sealed container (10). Structurally, the base (12) has a discontinuous concave outer annular wall (28) forming a discontinuous standing ring (38) and an inner annular wall (40) functioning as a flex panel. The inner annular wall (30) connects outwardly to a plurality of radial webs (46) extending at an elevation above the standing ring (38) and connects inwardly to an anti-inverting, upwardly-projecting dome (48). Preferably, a shoulder (56) extends radially inward on the

inward facing side (36) of the outer annular wall (28) above a level of the standing ring (38) to facilitate vertical stacking of containers (10, 10a, 10b) having like bases (12, 12a).

Inventors

TOBIAS JOHN W

OGG RICHARD K

Latest standardized assignees - inventors removed

REYNOLDS CONSUMER PRODUCTS

CLOSURE SYSTEMS INTERNATIONAL

PACTIV PACKAGING

PACTIV

REYNOLDS PRESTO PRODUCTS

GRAHAM PACKAGING

EVERGREEN PACKAGING

GRAHAM PACKAGING PET TECHNOLOGIES

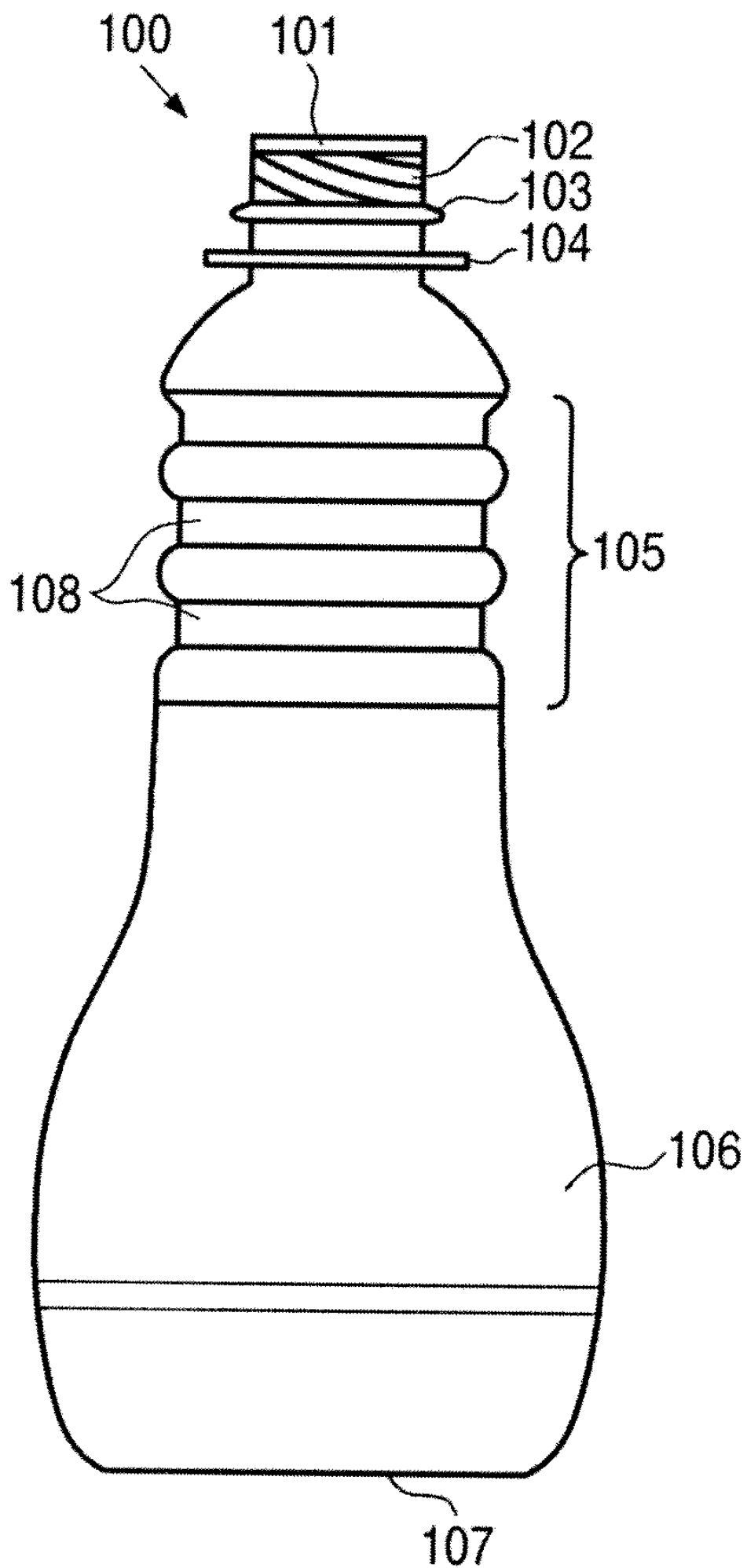
Family 52/100 - FAMPAT - ©Questel

Title

(EP2050677)

Pouch bottle

Images



Publication data including kind & date

US20090095701	A1	2009-04-16	US20090095701				
CN101412445	A	2009-04-22	CN101412445				
EP2050677	A1	2009-04-22	EP2050677				
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EP2050677	B1	2010-11-24	EP2050677				
AT489291	T	2010-12-15	ATE489291				
DE502008001875	D1	2011-01-05	DE502008001875				
CN101412445	B	2012-09-19	CN101412445B				

Abstract

(EP2050677)

The bottle (100) has a thinnest portion in which wall thickness of the bottle is less than 0.1 millimeter, and a grip portion (105).A volume portion (106) forms largest circumference of the bottle, and the grip portion is provided with a smaller circumference than that of the volume portion, where the ratio of the volume portion circumference to the grip portion circumference is greater than 1.4.The grip portion is spaced apart from an area of a bottle closing thread (102) provided with reinforcement structures.An independent claim is also included for a method for producing a bottle.

Inventors

FORSTHOEGEL JOCHEN

Latest standardized assignees - inventors removed

KRONES

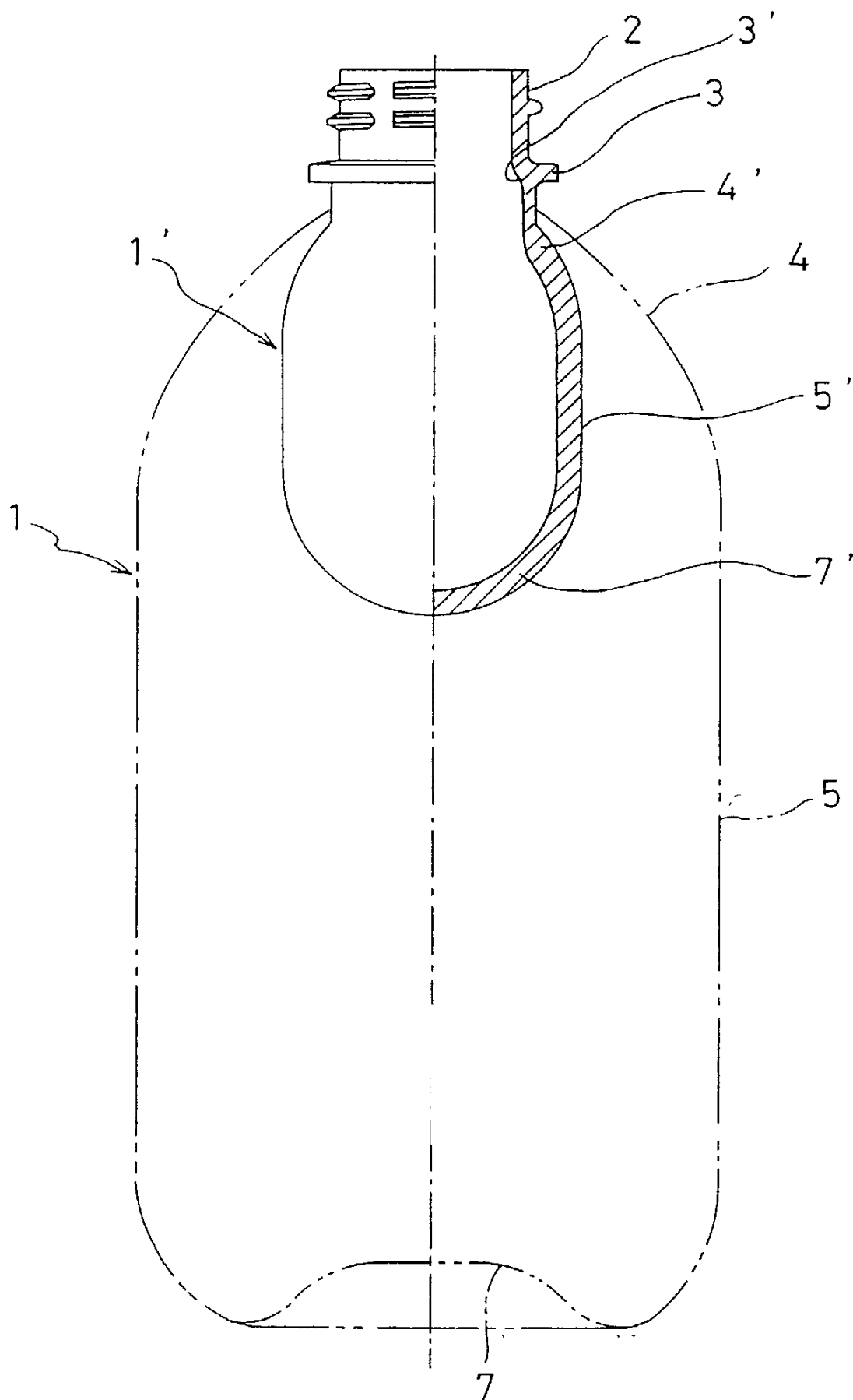
Family 53/100 - FAMPAT - ©Questel

Title

(EP1344618)

Synthetic resin biaxial oriented blow formed preform for forming bottle body

Images

**Publication data including kind & date**

WO02053341	A1	2002-07-11	WO200253341
CA2400574	A1	2002-07-11	CA2400574
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CN1404434	A	2003-03-19	CN1404434				
EP1344618	A1	2003-09-17	EP1344618				
TW579352	B	2004-03-11	TW-579352				
EP1344618	A4	2004-11-17	EP1344618				
US20060141189	A1	2006-06-29	US20060141189				
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CA2400574	C	2010-02-09	CA2400574				
EP1344618	B1	2010-12-01	EP1344618				
DE60143588	D1	2011-01-13	DE60143588				
US7964257	B2	2011-06-21	US7964257				

Abstract

(EP1344618)

The blow molded preform 1' of a laminated wall structure comprises a bulging shoulder portion 4', which has a diameter that widens slightly in the downward direction; a bottom shell portion 7' for molding the bottom 7, which has been blow molded from the corresponding portion of parison P so as to have a widened and deformed shape; an inner overhang wall portion 3' in any position starting from the opposite side of the neck ring 3 and ending at the upper portion of the bulging shoulder portion 4', with the inner wall portion 3' having a diameter that widens in the downward direction; and/or a radially widened connecting portion 6' of an arced shape, which has a larger diameter than the barrel portion 5' so that the entire bottom including the bottom shell portion 7' takes a bulging spherical shape. With this configuration, no thick area is formed in the inner overhang wall portion on the opposite side of the neck ring 3 and/or in the pinch-off portion 8'. <IMAGE>

Inventors

AKIYAMA YOSHIO

TOKUDA HIROAKI

BUSUJIMA MAKOTO

KOSHIO SHUICHI

SASAKI MASAOKI

Latest standardized assignees - inventors removed

YOSHINO KOGYOSHO

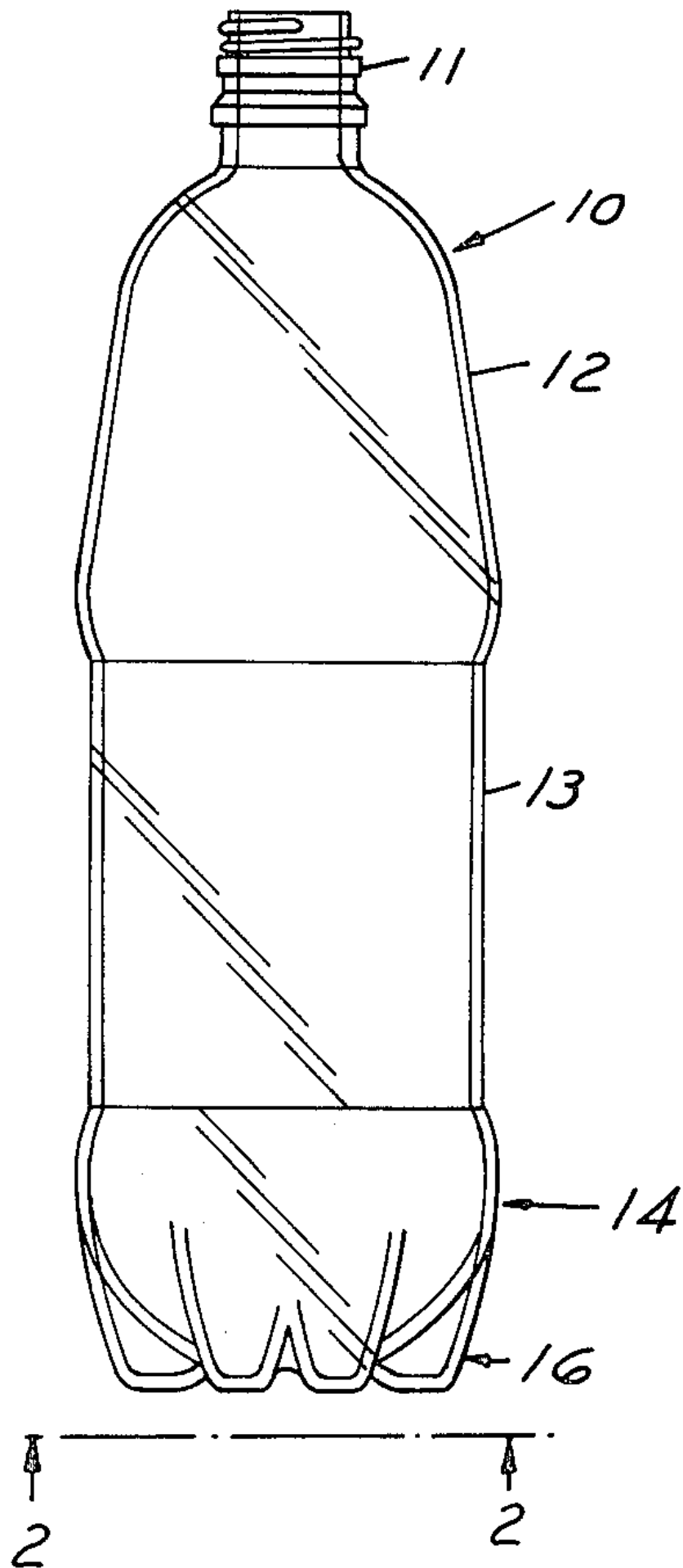
Family 54/100 - FAMPAT - ©Questel

Title

(US4294366)

Free-standing plastic bottle

Images



Publication data including kind & date[US4294366](#)

A 1981-10-13 US4294366

**Abstract**

(US4294366)

A plastic container comprising a side wall having an oriented generally cylindrical lower portion, and a bottom joined to said side wall and closing the lower end of the container. The bottom includes a generally elliptical bottom wall and a plurality of oriented circumferentially spaced outwardly convexed legs extending from the elliptical wall. The elliptical wall has a first portion extending downwardly from the lower cylindrical side wall portion and having a radius less than the diameter of the container. Each leg has a first convex portion extending downwardly from the cylindrical portion of the side wall and having a radius greater than the diameter of the cylindrical portion. Each leg has diverging side wall portions merging radially inwardly with the elliptical wall portion of the bottom wall.

Inventors

CHANG LONG F

Latest standardized assignees - inventors removed

OWENS ILLINOIS PLASTIC PRODUCTS

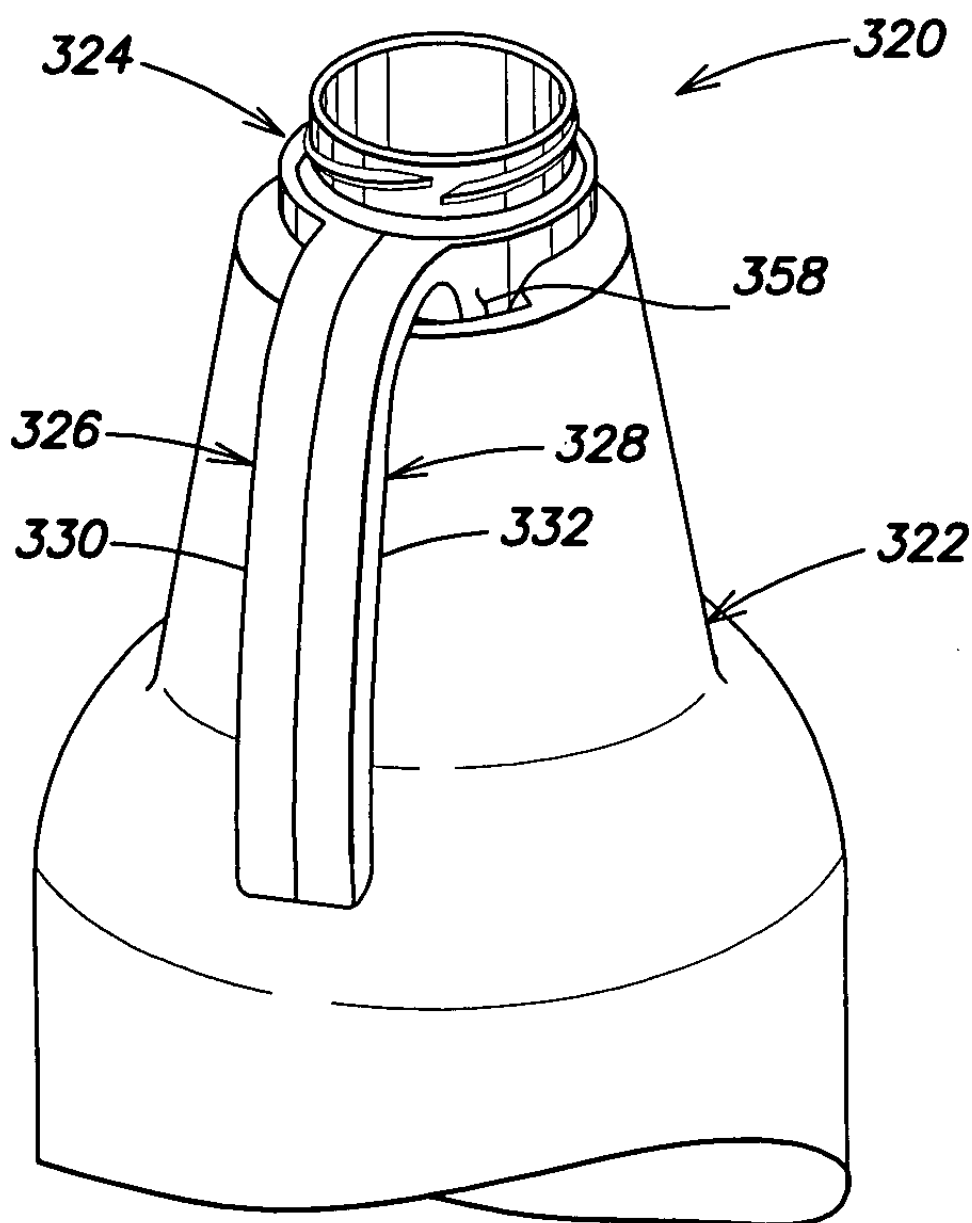
Family 55/100 - FAMPAT - ©Questel

Title

(US20070221607)

Split-ring handle and container assembly

Images

**Publication data including kind & date**[US20070221607](#)

A1 2007-09-27

US20070221607

**Abstract**

(US20070221607)

A plastic container and handle assembly includes a container having a neck, and an attachment formed separately from the container and assembled thereto, the attachment including a handle and an integrally formed attachment ring embracing the neck and mounting the handle to the container. The ring is split and has ends adapted to separate to fit the handle over the neck and adapted to be secured together to embrace the neck of the container. In various embodiments, the handle and/or ring have an integral folded hinge enabling the ring to be pivoted open and closed. In other embodiments, a projection and recess are provided on the attachment and container to provide alignment and prevent relative rotation thereof.

Inventors

PICCIOLI DAVID P

AGRAWAL AMIT S

PATEL TAPAN Y

GUERIN STEPHEN R

Latest standardized assignees - inventors removed

GRAHAM PACKAGING

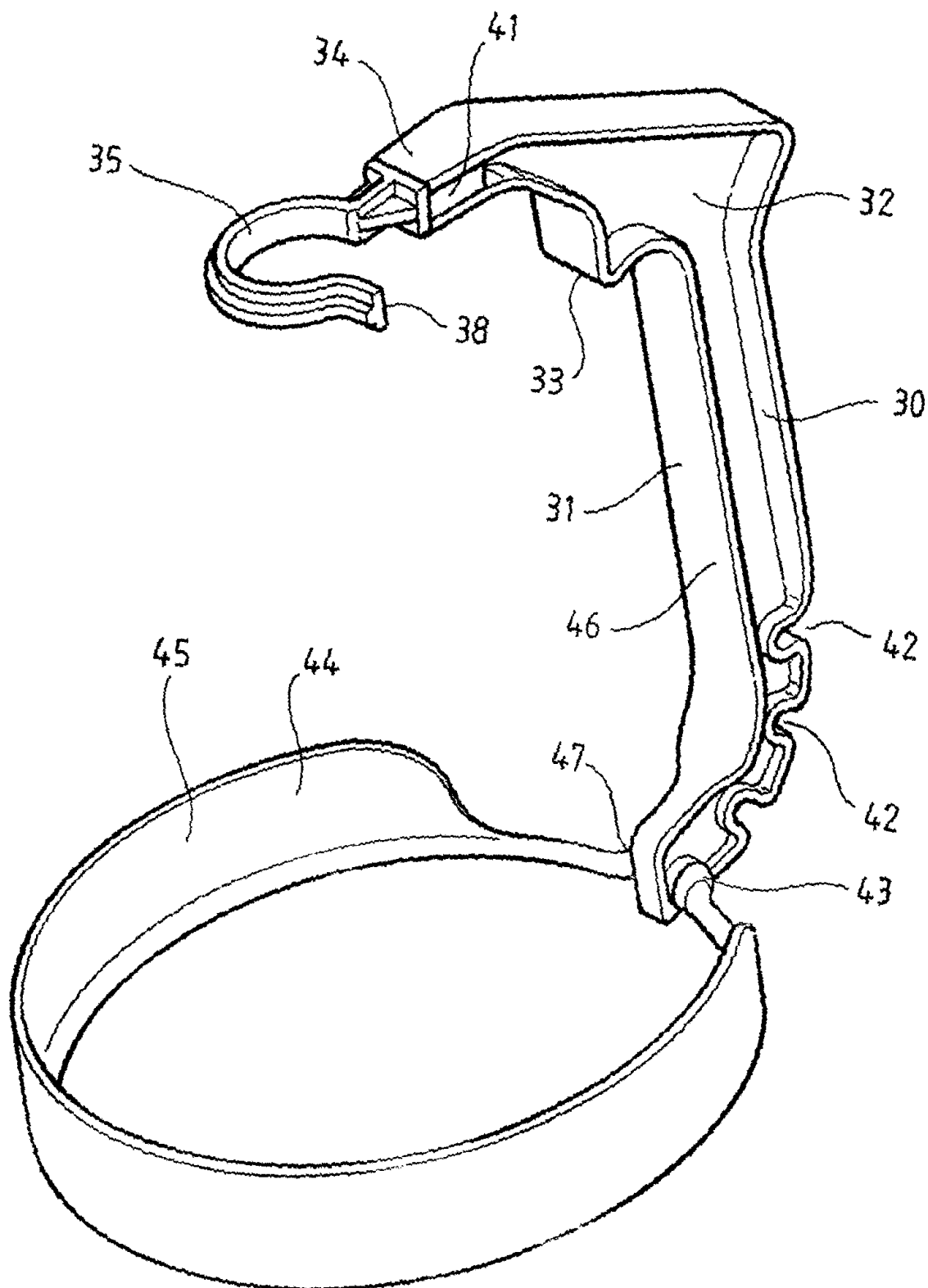
Family 56/100 - FAMPAT - ©Questel

Title

(WO200247991)

Attachment handle

Images



AUPR198000	A0	2001-01-11	AU-198000
WO200247991	A1	2002-06-20	WO200247991
AU2132702	A	2002-06-24	AU200221327

**Abstract**

(WO200247991)

An attachable handle (10) for a bottle which includes a shaft (31) having a yoke (35) at an upper end (34) and a pivotally held ring (44) at a lower end of the shaft (31). This pivot allows the ring (44) to be pivoted about an axis which is transverse to a direction of elongation of the shaft (31) providing a compact storage position. The shaft (31) also includes a foot (47) and some different attachment positions (42) for the ring (44) so that the handle (10) can be adjusted to hold firmly each of different sizes of bottles with the foot (47) being positioned to protrude into a bottle held with the ring (44) with at least one of the attachment positions (42).

Inventors

NOBLE SHAUNA

Latest standardized assignees - inventors removed

NOBLE S

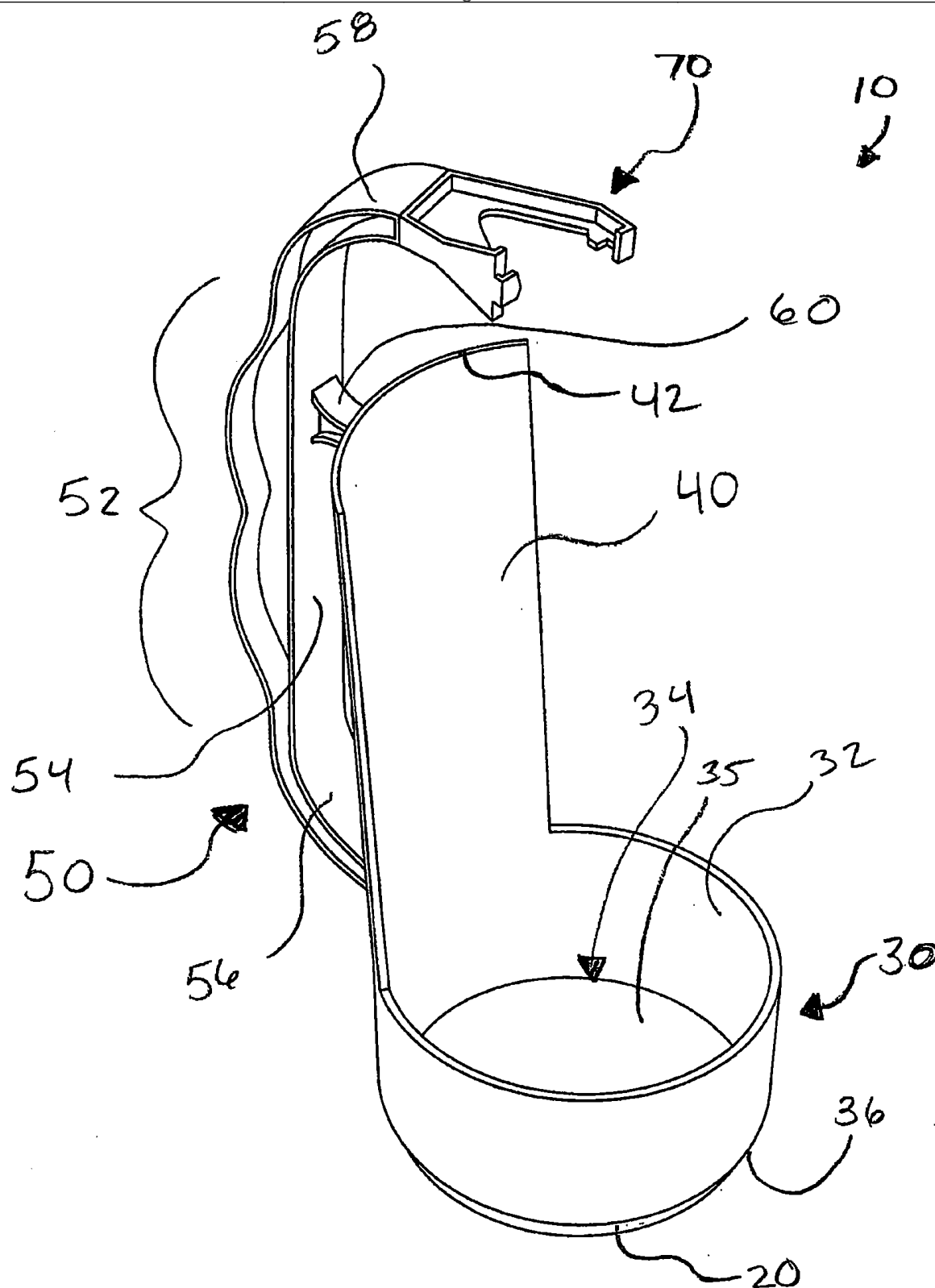
Family 57/100 - FAMPAT - ©Questel

Title

(US20090065469)

Bottle Handling Device

Images



Publication data including kind & date

US20090065469

A1 2009-03-12

US20090065469



Abstract

(US20090065469)

A bottle handling device comprises a cup, a base, a support wall, a handle support member, and a clip. The base extends from the bottom of the cup and the support wall extends upward from the cup. The handle is integral with the support wall at a lower end and is integral with the clip at an upper end. An alternate embodiment comprises a cup, a handle and a clip. A fixed portion of the handle is integral with the cup, while a free portion of the handle is integral with the clip that extends over the cup. Another embodiment comprises a cup, a clip, and a handle and transitions from a first configuration toward a second configuration. The handle is connected to the clip and cup with hinges. The clip and cup comprise at least one

CN104853991	B	2017-06-13	CN104853991B
BR112015011908	A2	2017-07-11	BR112015011908
US9957077	B2	2018-05-01	US9957077

**Abstract**

(EP2925615)

The invention relates to a plastic container, in particular for storing liquid products under slight positive pressure, which container has a container body (2) which extends along a longitudinal axis. The one longitudinal end of the container body (2) is adjoined by a container neck (3), which is equipped with at least one pouring opening (4). The other longitudinal end of the container body (2) is adjoined by a bottom section (5) which has a container bottom (6) and an edge region (8) which is drawn up laterally and which merges into the container body (2). The container bottom (6) has a concave section (9) which is curved in the direction of a container interior bounded by the container body, and the circumference of which section is connected via an axially protruding stepped transition region (10) to a standing surface (7), which opens into the edge region (8) that is drawn up laterally. The standing surface (7) and at least one sub region of the stepped transition region (10) are interrupted by a first number of grooves (11). Formed in the concave section (9) is a second number of panel-like projections (12), which extend substantially between the stepped transition region (10) and the longitudinal axis and end in front of the stepped transition region (10).

Inventors

DORNBACH CHRISTIAN

Latest standardized assignees - inventors removed

ALPLA WERKE ALWIN LEHNER

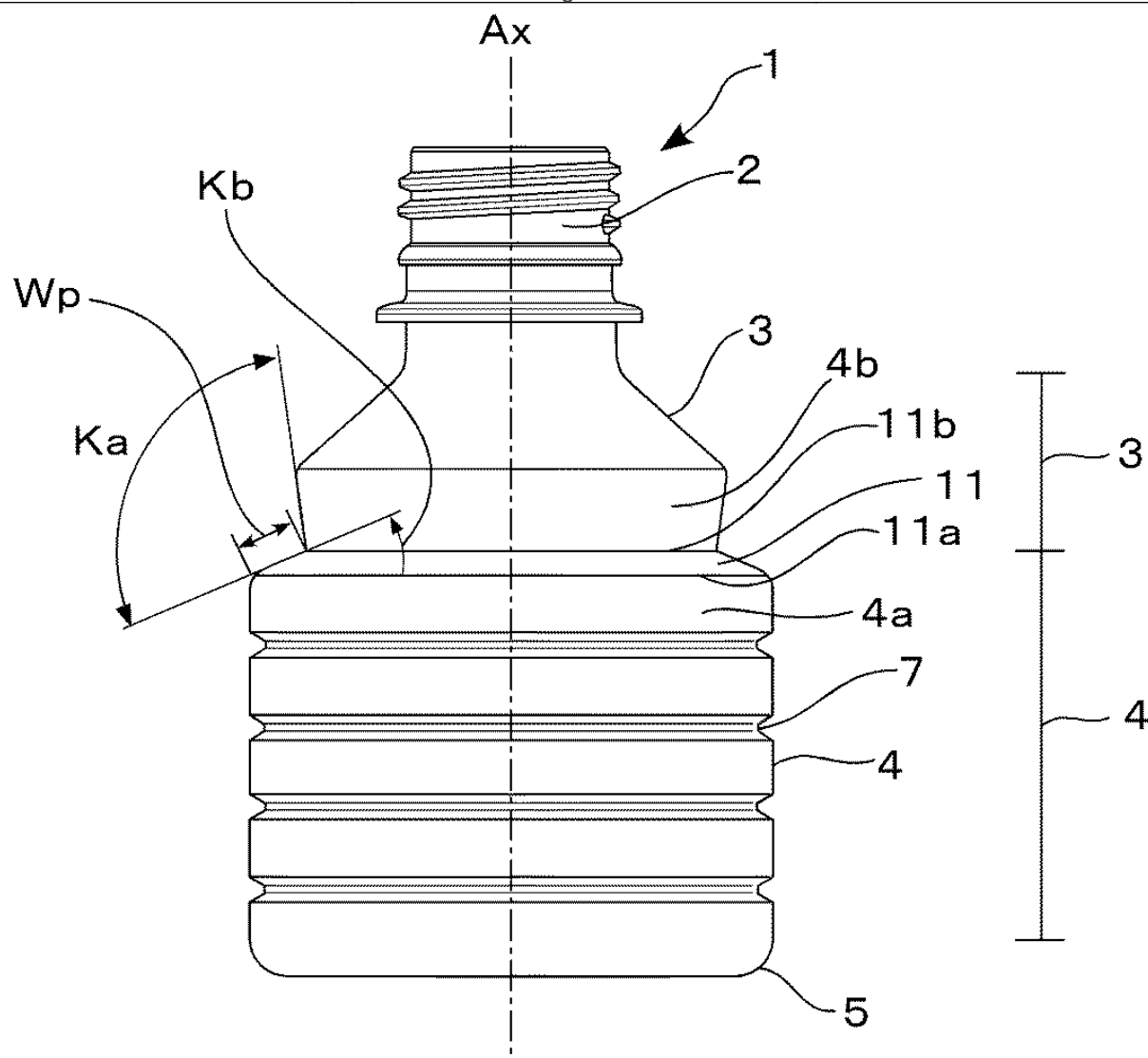
Family 59/100 - FAMPAT - ©Questel

Title

(JP2012030837)

Synthetic resin round bottle body

Images

**Publication data including kind & date**

JP2012030837

A 2012-02-16

JP2012030837

JP5692631

B2 2015-04-01

JP5692631

**Abstract**

(JP5692631)

PROBLEM TO BE SOLVED: To solve the problem of satisfying both of depressurizing absorbing capability and characteristics of rigidity or buckling strength with the background of a request to thin the wall of a bottle body. **SOLUTION:** A synthetic resin round bottle body is formed through a biaxial-stretch blow molding process wherein a mouth tube part is vertically provided on the upper end of a cylindrical body with a tapered cylindrical shoulder part therebetween. In the synthetic resin round bottle body, an inclined peripheral wall is arranged which is increased or reduced in diameter in a stepwise fashion over the region from the lower end of the shoulder part to the upper end of the body. With pressing force applied in the central axis direction of the bottle body, buckling distortion in an inversion condition over the whole periphery of the peripheral wall begins at the inclined peripheral wall, thereby reducing the height of the bottle body so as to cause volume-reduction deformation.

Inventors

SAITO HIROMICHI

Latest standardized assignees - inventors removed

YOSHINO KOGYOSHO

Family 60/100 - FAMPAT - ©Questel

Title

(US5735421)

Plastic bottle having enhanced sculptured surface appearance

Images

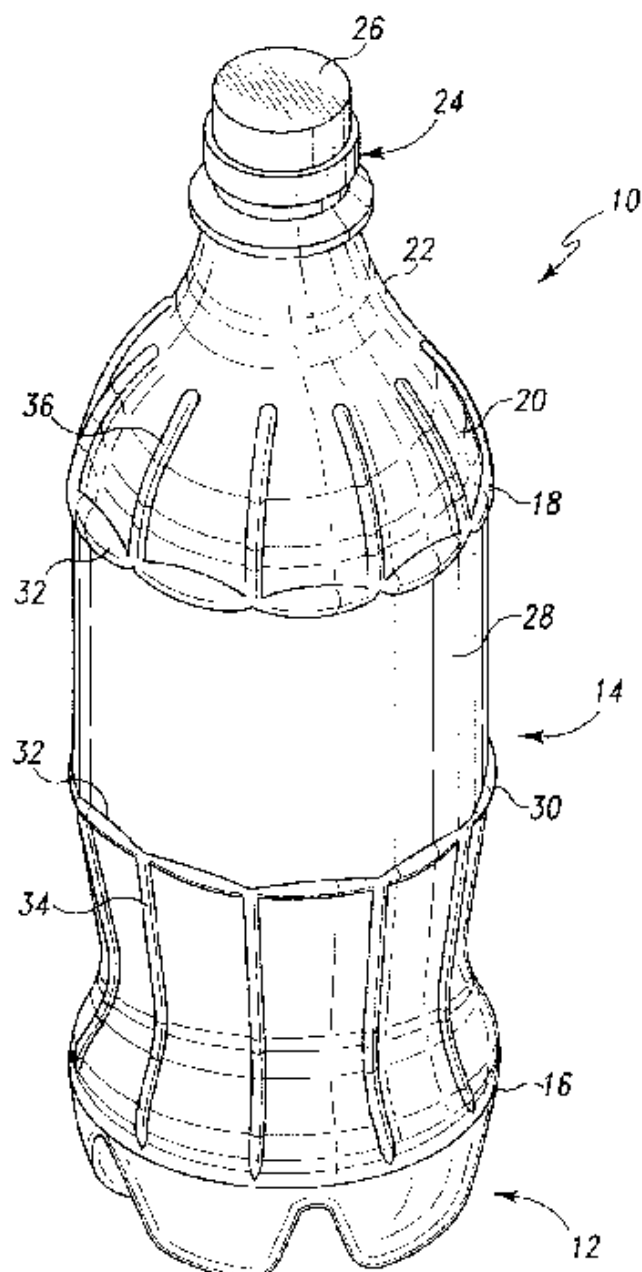


Fig. 1

Publication data including kind & date

[US5735421](#)

A 1998-04-07 US5735421



Abstract

(US5735421)

A plastic bottle having a substantially uniform side wall thickness yet having a sculptured appearance is formed generally symmetrically about a vertical axis. The bottle includes a base portion, a side wall portion extending upward from a lower margin united to the base portion to an upper margin, a shoulder portion extending from the upper margin of the side wall portion to a neck portion, and a finish portion united to the neck portion and adapted to receive a closure. At least one of the side wall and shoulder portions includes a plurality of generally vertical ribs spaced uniformly around a circumference of the

bottle, each generally vertical rib having an upper and lower end and, in cross-section, a central portion situated at a first radius from the bottle axis and a pair of generally symmetric side portions leading to the bottle surface at a second radius from the bottle axis, at least one set of the upper and lower ends of the ribs terminating at a common height on the container. Only one of the upper and lower ends of the ribs on each portion of the bottle is joined together by a set of arcuate rib segments forming a scalloped line around the circumference of the bottle giving the appearance of a substantial variation in side wall thickness.

Inventors

DEEMER DAVID A

BRANDT CHARLES M

Latest standardized assignees - inventors removed

DT

CONSTAR FOREIGN HOLDINGS

BFF

CONSTAR INTERNATIONAL

CROWN PACKAGING

CONSTAR

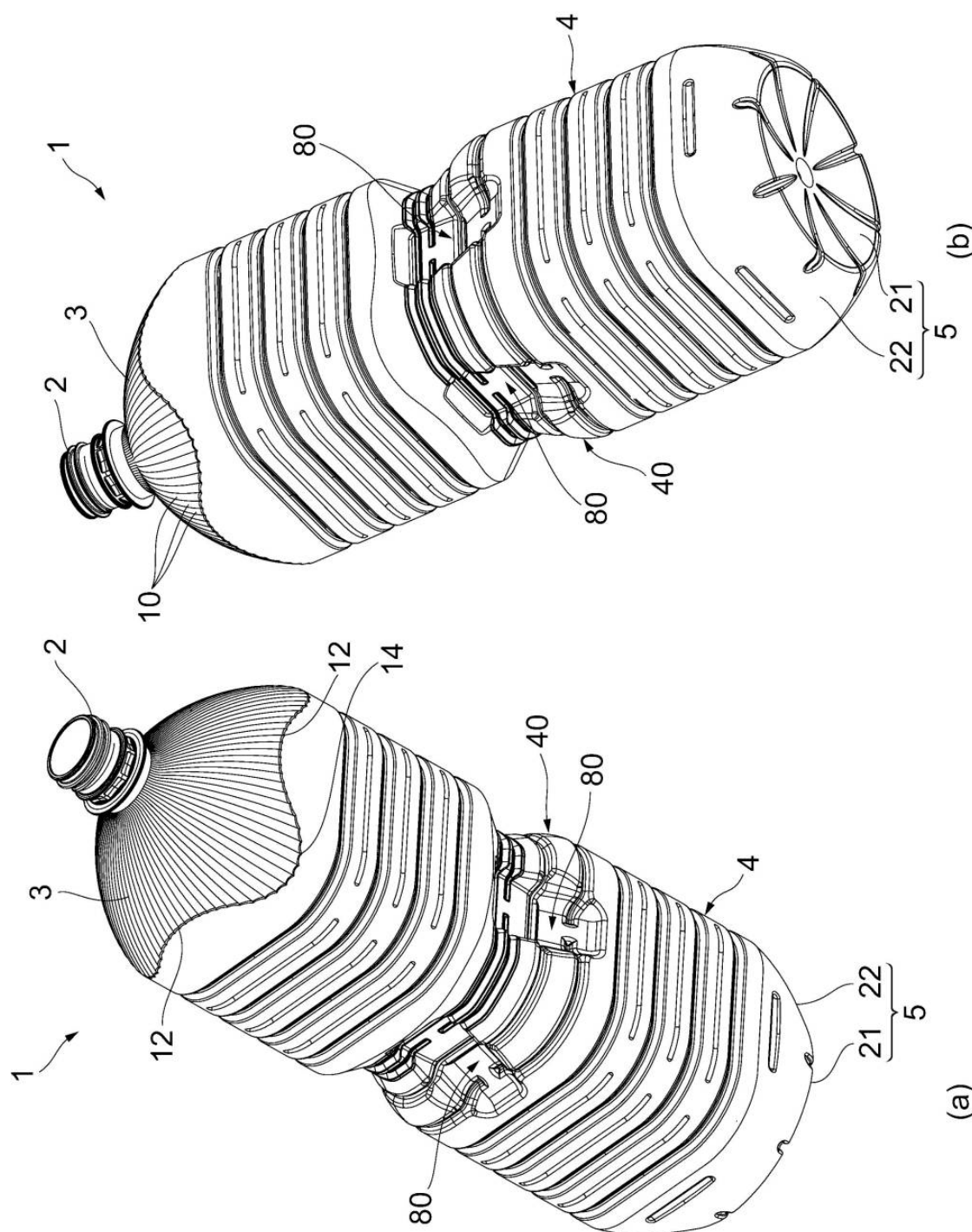
Family 61/100 - FAMPAT - ©Questel

Title

(JP2018087043)

Plastic bottle

Images



Publication data including kind & date

JP2018087043

A 2018-06-07 JP2018087043



Abstract

(JP2018087043)

PROBLEM TO BE SOLVED: To provide a plastic bottle capable of securing usability even when a large sized bottle is formed so as to save weight, and capable of coping with top load efficiently. **SOLUTION:** A plastic bottle 1 having a dent 80 for finger insertion in at least a part of a waist part 40 of a trunk 4 has a plurality of recessed-shaped peripheral ribs 100, 102, 104, 106 with intervals in a vertical direction in vertical positions including the waist part 40 and the dent 80. Among the ribs, the peripheral ribs 102, 106 are formed of a parting peripheral rib which is parted so as not to be continuous on bottoms 82, 84 of the dent 80 and extends in a peripheral direction of the trunk 4, respectively. The bottoms 82, 84 of the dent 80 are configured to deform so as to expand when top load F is applied to the plastic bottle 1, and the deformed shape returns to an original shape when the top load F is released. **SELECTED DRAWING:** Figure 1

Inventors

IWASHITA HIROMASA

Latest standardized assignees - inventors removed

COCA COLA

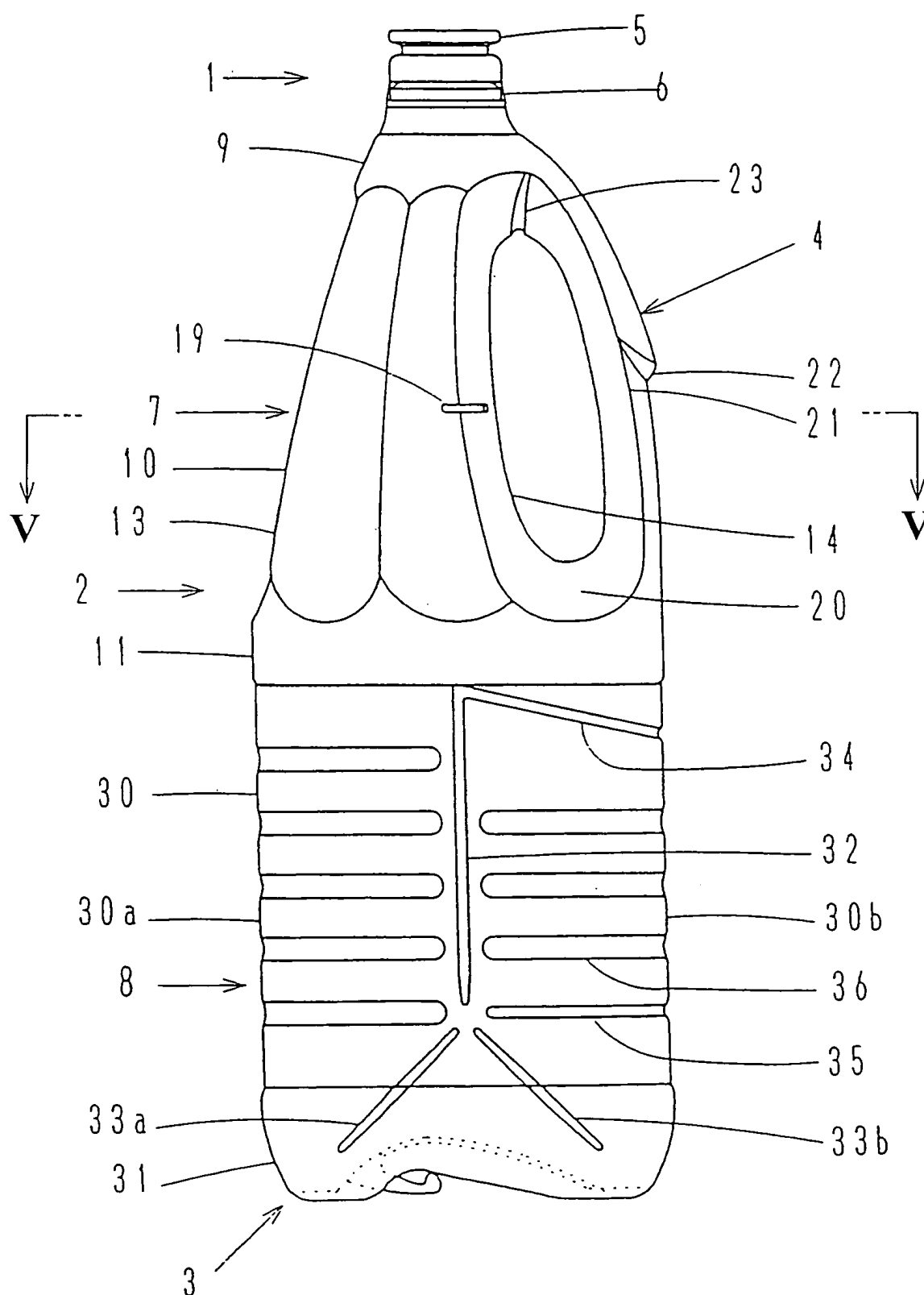
Family 62/100 - FAMPAT - ©Questel

Title

(EP1026085)

Plastic bottle with handle

Images

A1**Publication data including kind & date**

WO9948763	A1	1999-09-30	WO9948763
CA2290453	A1	1999-09-30	CA2290453
AU2853999	A	1999-10-18	AU9928539
JPH11292082	A	1999-10-26	JP11292082



TW393425	B	2000-06-11	TW-393425				
EP1026085	A1	2000-08-09	EP1026085				
CN1262657	A	2000-08-09	CN1262657				
KR20010012765	A	2001-02-26	KR20010012765				
JP2001114241	A	2001-04-24	JP2001114241				
JP2001114240	A	2001-04-24	JP2001114240				
JP2001114239	A	2001-04-24	JP2001114239				
AU757604	B2	2003-02-27	AU-757604				
EP1026085	A4	2003-05-07	EP1026085				
CN1113782	C	2003-07-09	CN1113782C				
EP1026085	B1	2005-12-21	EP1026085				
DE69929030	D1	2006-01-26	DE69929030				
JP3756712	B2	2006-03-15	JP3756712				
JP3785495	B2	2006-06-14	JP3785495				
DE69929030	T2	2006-07-13	DE69929030				
JP3805582	B2	2006-08-02	JP3805582				
JP3819190	B2	2006-09-06	JP3819190				
KR100699122	B1	2007-03-21	KR100699122				
US7357267	B1	2008-04-15	US7357267				
CA2290453	C	2010-09-21	CA2290453				

Abstract

(EP1026085)

A squeezable plastic bottle with a handle which is bendable by forming a bending deformation portion in the handle. The bending deformation portion of the handle can be a bending portion formed in the middle portion of the longitudinal direction of the handle. Further a bending rib can be formed between the handle and the body wall surface. The body may be squeezable and deformable by forming a bending rib in the bottle body. <IMAGE>

Inventors

SHIMADA SHINJI

NOSE KAZUAKI

OTA ATSUSHI

MIYAIRI KEISUKE

Latest standardized assignees - inventors removed

YOSHINO KOGYOSHO

Family 63/100 - FAMPAT - ©Questel

Title

(EP2316740)

Synthetic resin thin wall container

Images

US20040251258	A1	2004-12-16	US20040251258				
CN1243655	C	2006-03-01	CN1243655C				
JP3779497	B2	2006-05-31	JP3779497				
JP3779496	B2	2006-05-31	JP3779496				
CA2330286	C	2008-04-01	CA2330286				
JP4096447	B2	2008-06-04	JP4096447				
KR100877653	B1	2009-01-12	KR100877653				
EP1099638	A4	2009-06-10	EP1099638				
US7748553	B2	2010-07-06	US7748553				
EP2316740	A1	2011-05-04	EP2316740				
EP2316740	B1	2013-07-24	EP2316740				

Abstract

(EP2316740)

A synthetic resin thin wall container having a circular cross section, comprising a neck, a body and a bottom. The bottom comprises a peripheral wall connected to the body and a bottom wall. The peripheral wall is inclined by a predetermined angle, and is circumferentially provided at a lower end thereof with a lateral rib. The lateral rib (91) has a substantially vertical lower wall. Instead of a lateral rib, the peripheral wall may be circumferentially provided with recesses arranged at regular intervals, each of the recesses having a substantially vertical lower wall located at a lower end of the peripheral wall. Also, a synthetic resin thin wall container having a circular cross section, comprising a neck, a shoulder, a body and a bottom. The bottom comprises a peripheral wall connected to the body, and a bottom wall. The peripheral wall is inclined by a predetermined angle and provided with reinforcing ribs.

Inventors

AKIYAMA YOSHIO

KOSHIO SHUICHI

YONEYAMA MASASHI

TOKUDA HIROAKI

TANABE SHOJI

TOMIYAMA SHIGERU

YONEYAMA SHIGERU

Latest standardized assignees - inventors removed

YOSHINO KOGYOSHO

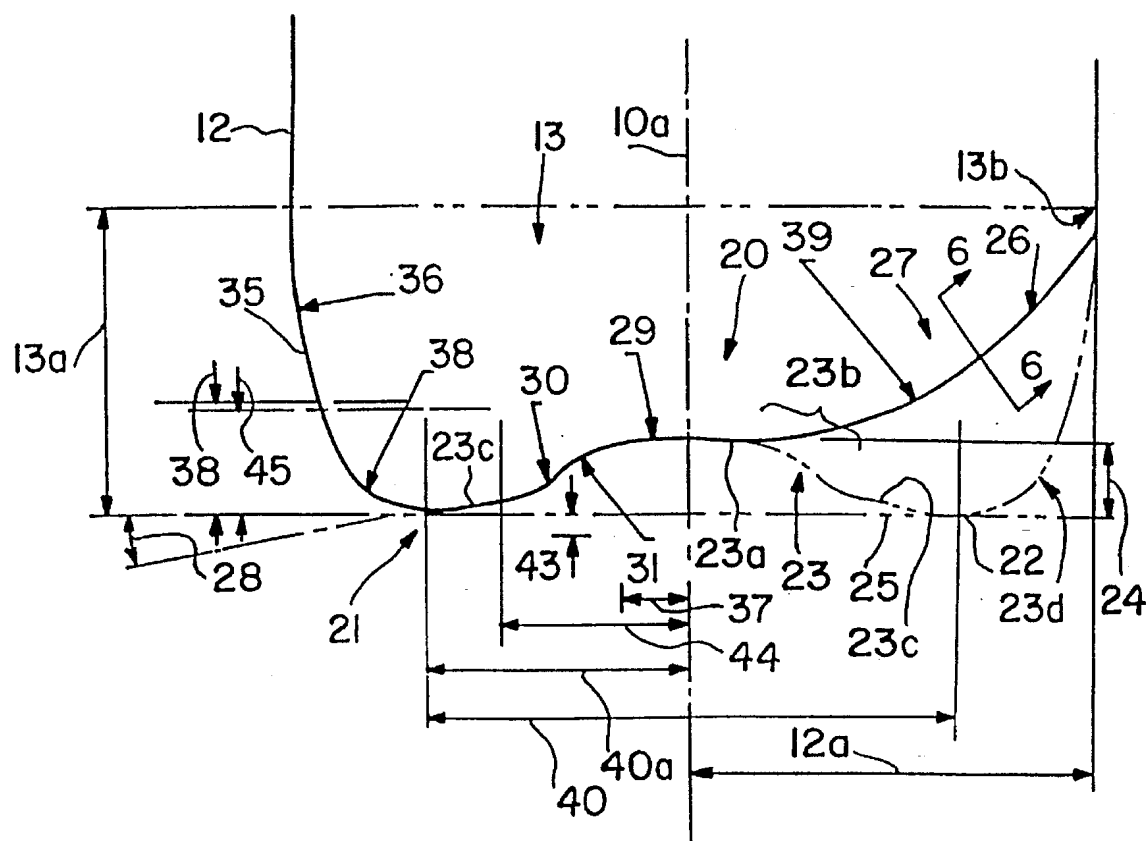
Family 64/100 - FAMPAT - ©Questel

Title

(WO9634805)

Plastic container for carbonated beverages

Images

**Publication data including kind & date**

WO9634805	A1	1996-11-07	WO9634805
CA2219135	A1	1996-11-07	CA2219135
US5603423	A	1997-02-18	US5603423

**Abstract**

(WO9634805)

A plastic container comprises a base forming portion that includes a plurality of circumferentially spaced, generally spherical shaped segments (26) and a plurality of intervening, circumferentially spaced, totally convex hollow foot forming portions (21) that extend radially from a central bottom portion (29) and downwardly from the spherically shaped segments (26) to form a clearance for the central bottom portion. The clearance forming portion of each foot forming portion includes a compound curved offset (23b) formed with opposing radii of curvature (30, 31). The compound curved offset curves downwardly and outwardly about a center of curvature below the bottom forming portion before curving about a center of curvature above the bottom forming portion. Each clearance forming portion further includes a spherical surface (23a) extending from the central bottom portion and merging into the compound curved offset (23b) and a lowermost substantially planar portion (23c) extending from the compound curved offset to form one of the feet.

Inventors

LYNN STEPHEN R

PEEK WILLIAM J

Latest standardized assignees - inventors removed

BALL

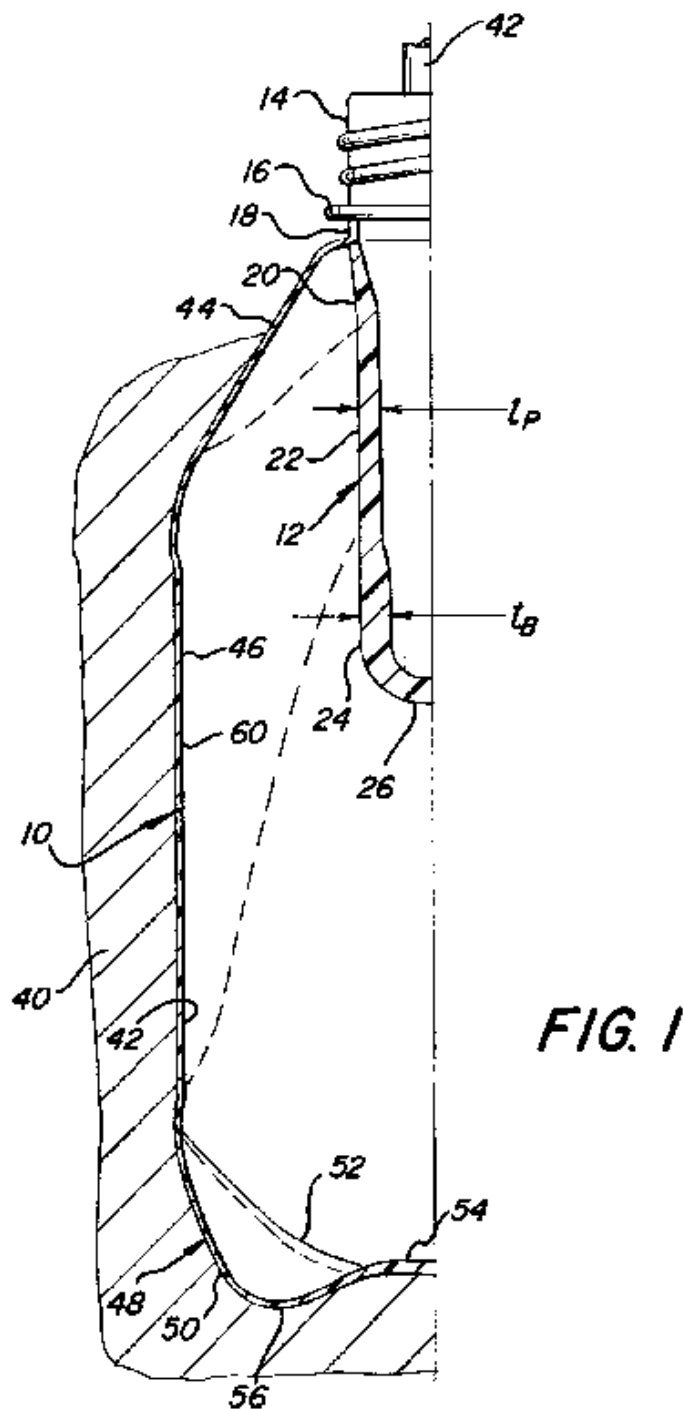
Family 65/100 - FAMPAT - ©Questel

Title

(US5884792)

Preform for a hot fill pressure container

Images

**Publication data including kind & date**[US5884792](#)

A 1999-03-23 US5884792

**Abstract**

(US5884792)

This relates to the packaging of a hot liquid product in a container having little resistance to internal vacuum wherein immediately after the container has been filled, the container is internally pressurized and closed. This particularly relates to an injection molded preform formed of a suitable polyester resin which is of a configuration related to an intended blow mold cavity whereby the desired biaxial orientation is obtained in the various portions of the resultant container and the wall thickness of the container base is increased so as to prevent undue stress enlargement and creep at high internal pressurization. Internal pressurization on the order of 40-45 psig is envisioned.

Inventors

KRISHNAKUMAR SUPPAYAN M

COLLETTE WAYNE N

NAHILL THOMAS E

Latest standardized assignees - inventors removed

GRAHAM PACKAGING

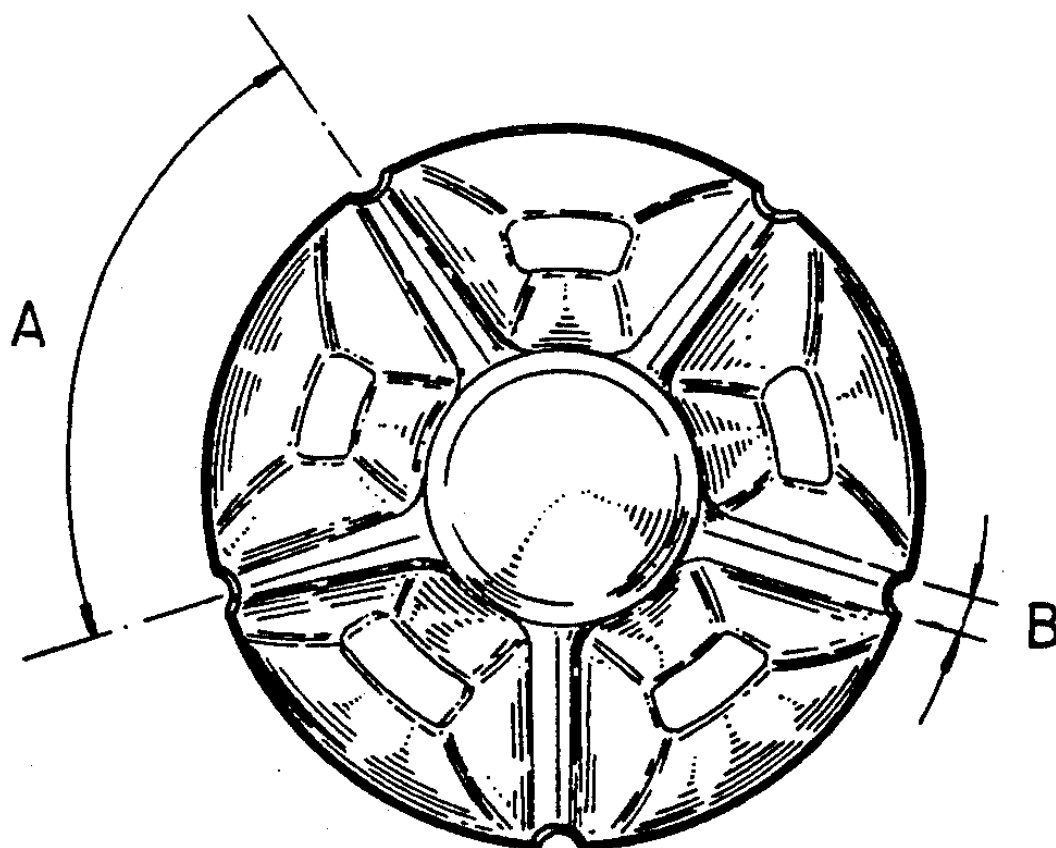
GRAHAM PACKAGING PET TECHNOLOGIES

Family 66/100 - FAMPAT - ©Questel

Title

(US5452815)

Base configuration for biaxial stretched blow molded pet containers

Images**Publication data including kind & date**

US5320230	A	1994-06-14	US5320230
US5452815	A	1995-09-26	US5452815

**Abstract**

(US5452815)

A base configuration for use with biaxially stretched blow molded PET containers is provided. In particular, the base includes a concave spherical portion disposed at a central position on the base. A first protruding circular member is formed around the circumference of the concave spherical portion. An annular groove is disposed around the first protruding circular member. A second protruding circular member is formed around the circumference of the annular groove. Five legs extend radially outward from the second protruding circular member. The outer surface of each leg subtends an angle of 72 degrees, and a curved rib is formed between every pair of legs, the ribs having an umbrella bone structure and each of the ribs subtending an angle of 0 degree, whereby the base of the container has an increased internal pressure resistance and thus prevents cracking in the base.

Inventors

HSIUNG SHIEH M

Latest standardized assignees - inventors removed

YUAN FANG

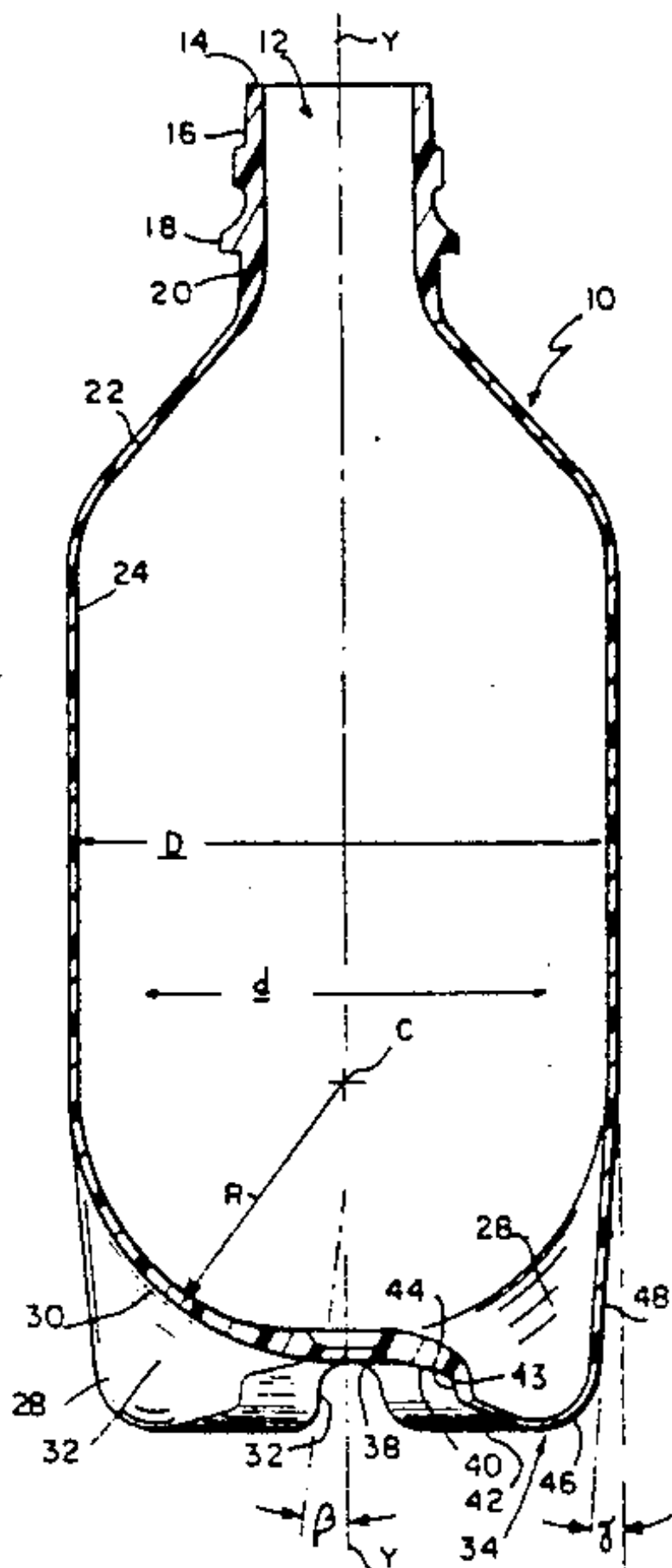
Family 67/100 - FAMPAT - ©Questel

Title

(US5024340)

Wide stance footed bottle

Images



Publication data including kind & date

US5024340	A	1991-06-18	US5024340
ZA9103752	B	1992-02-26	ZA9103752

**Abstract**

(US5024340)

A blow-molded bottle of thermoplastic resin has a hollow body with a generally cylindrical side wall rotationally symmetric about a longitudinal axis of the bottle and an integral base merging with the side wall. The base is defined by an outer surface having a plurality of arcuately extending downward projections separated from each other by hemispherical segments extending from the cylindrical side wall to the longitudinal axis of the bottle. Each of the arcuately extending downward projections has a first inclined portion contiguous to the longitudinal axis, a second inclined portion situated radially outside of, and axially displaced downwardly from, the first inclined portion, a generally perpendicular ring segment having an upper edge united with the first inclined portion by a curved portion having a radius of between about 0.015 in. and 0.060 in., and a lower edge united with the second inclined portion. A radially outwardly and upwardly curved portion defining the axially lower most extent of each downward projection has an inner edge united with the second inclined portion. An inclined outer wall portion having an upper edge united with the cylindrical side wall has a lower edge united with the radially outwardly and upwardly curved portion. Slanted radial facets merge the sides of the arcuately extending downward projections with the hemispherical segments extending from the cylindrical side wall to the longitudinal axis of the bottle.

Inventors

ALBERGHINI ALFRED C

BRUNSON DAVID A

LYNN STEPHEN R

Latest standardized assignees - inventors removed

CONSTAR PLASTICS

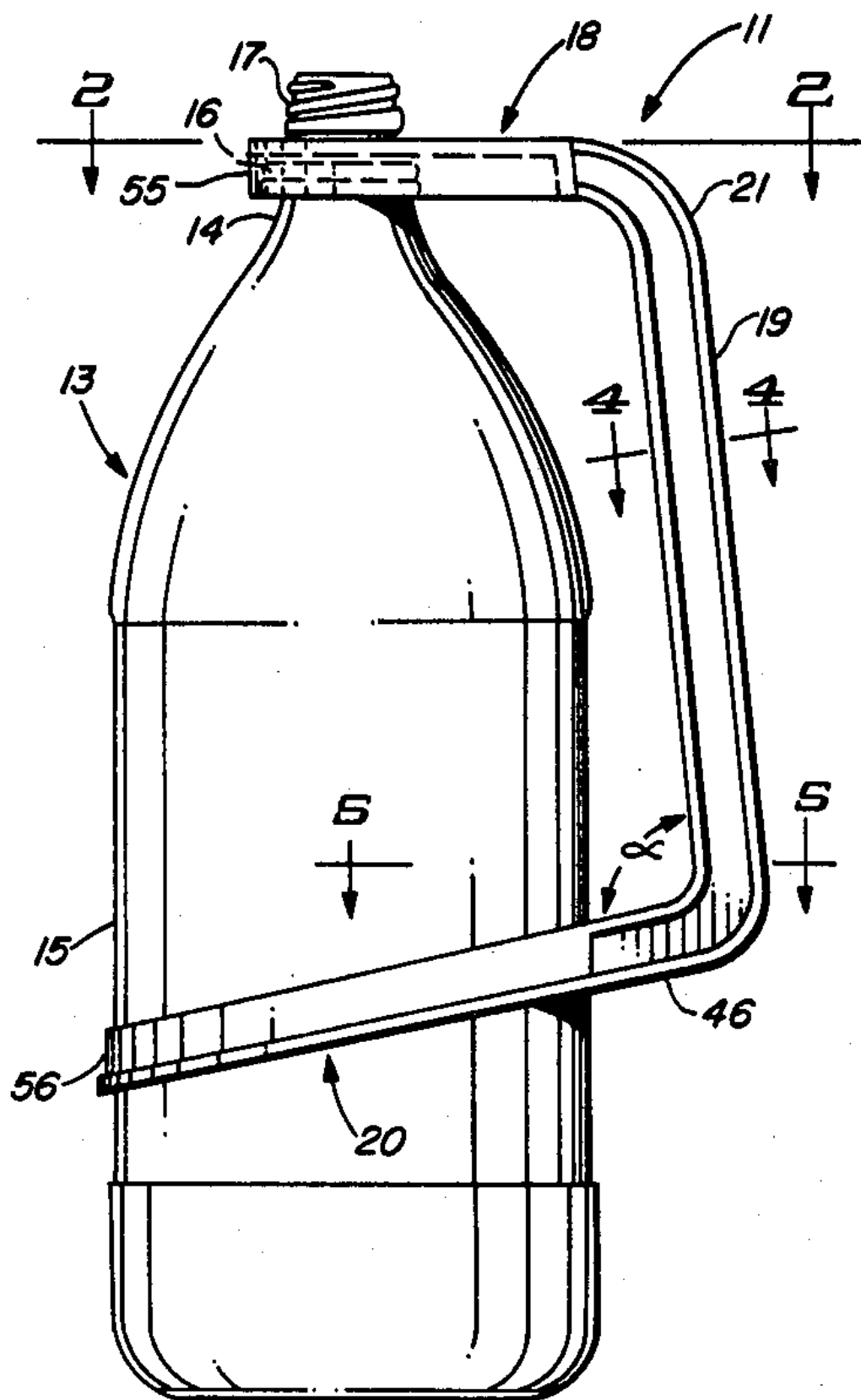
Family 68/100 - FAMPAT - ©Questel

Title

(US4379578)

Reusable bottle holder

Images

**Publication data including kind & date**[US4379578](#)

A 1983-04-12 US4379578

**Abstract**

(US4379578)

A reusable bottle holder is disclosed adapted to be used in connection with bottles now commonly used for soft drinks such as the two liter bottles that have a flange like projection at the neck of the bottle. The bottle holder has a locking portion adapted to cooperate with the flange like projection of the bottle in order to provide a secure friction fit for the handle.

Inventors

SCHULER HERIBERTO

Family 69/100 - FAMPAT - ©Questel

Title

(US3727783)

Noneverting bottom for thermoplastic bottles

Images

FIG. 1

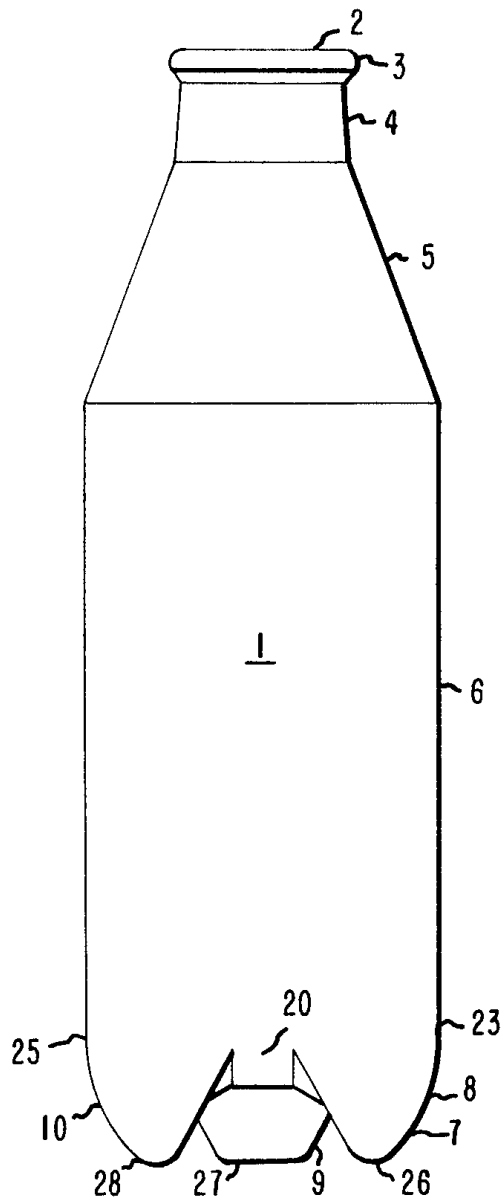


FIG.2

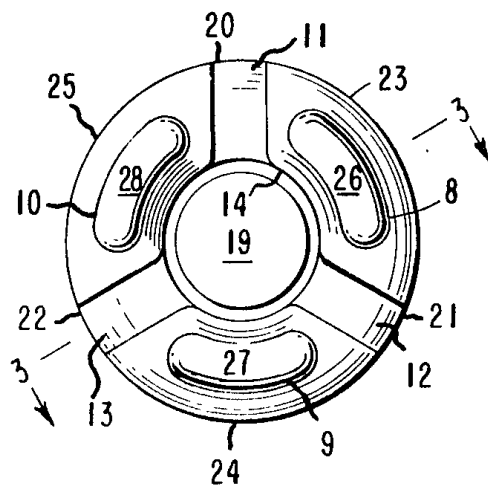


FIG. 3

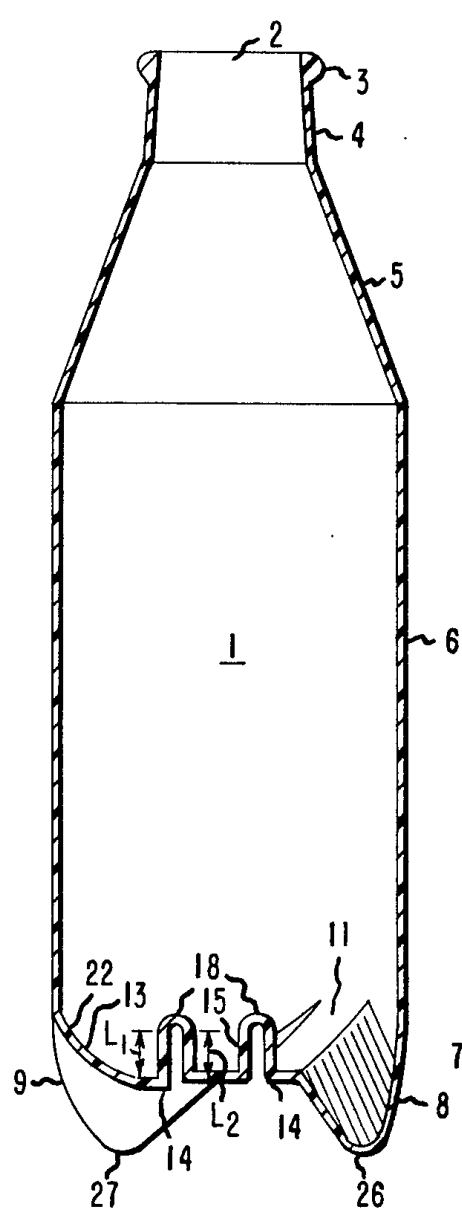
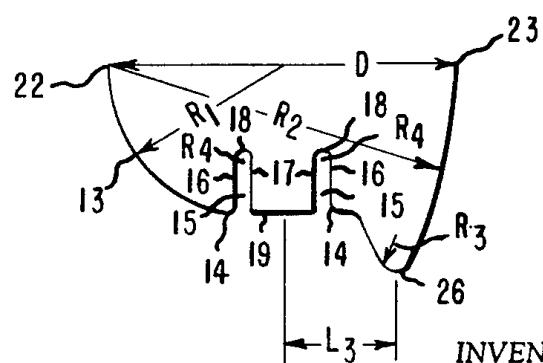


FIG. 4



INVENTOR

KEITH STEWART CARMICHAEL

BY

... 2/2/1916

Publication data including kind & date

BE784888	A	1972-12-14	BE-784888
DE2229312	A1	1972-12-28	DE2229312
FR2141963	A	1973-01-26	FR2141963
FR2141963	A1	1973-01-26	FR2141963
US3727783	A	1973-04-17	US3727783
IT956483	B	1973-10-10	IT-956483
AU4320572	A	1973-12-13	AU7243205
CA949472	A	1974-06-18	CA-949472
GB1360107	A	1974-07-17	GB1360107
AU460886	B2	1975-04-21	AU-460886
FR2141963	B1	1977-12-23	FR2141963

**Abstract**

(US3727783)

A generally cylindrical thermoplastic bottle for bottling liquids under pressure such as beer, soda and aerosols, having a noneverting bottom under conditions of bottling and use wherein the bottom comprises at least three lobes around the bottom perimeter of the bottom on which the bottle stands, strap sections located between each lobe and a generally circular and axially aligned, recessed section defining a re-entrant cylinder of the base. To further improve eversion resistance, the bottom of the bottle can include a reinforcing ring attached to the re-entrant cylinder.

Inventors

CARMICHAEL K

Latest standardized assignees - inventors removed

DU PONT DE NEMOURS

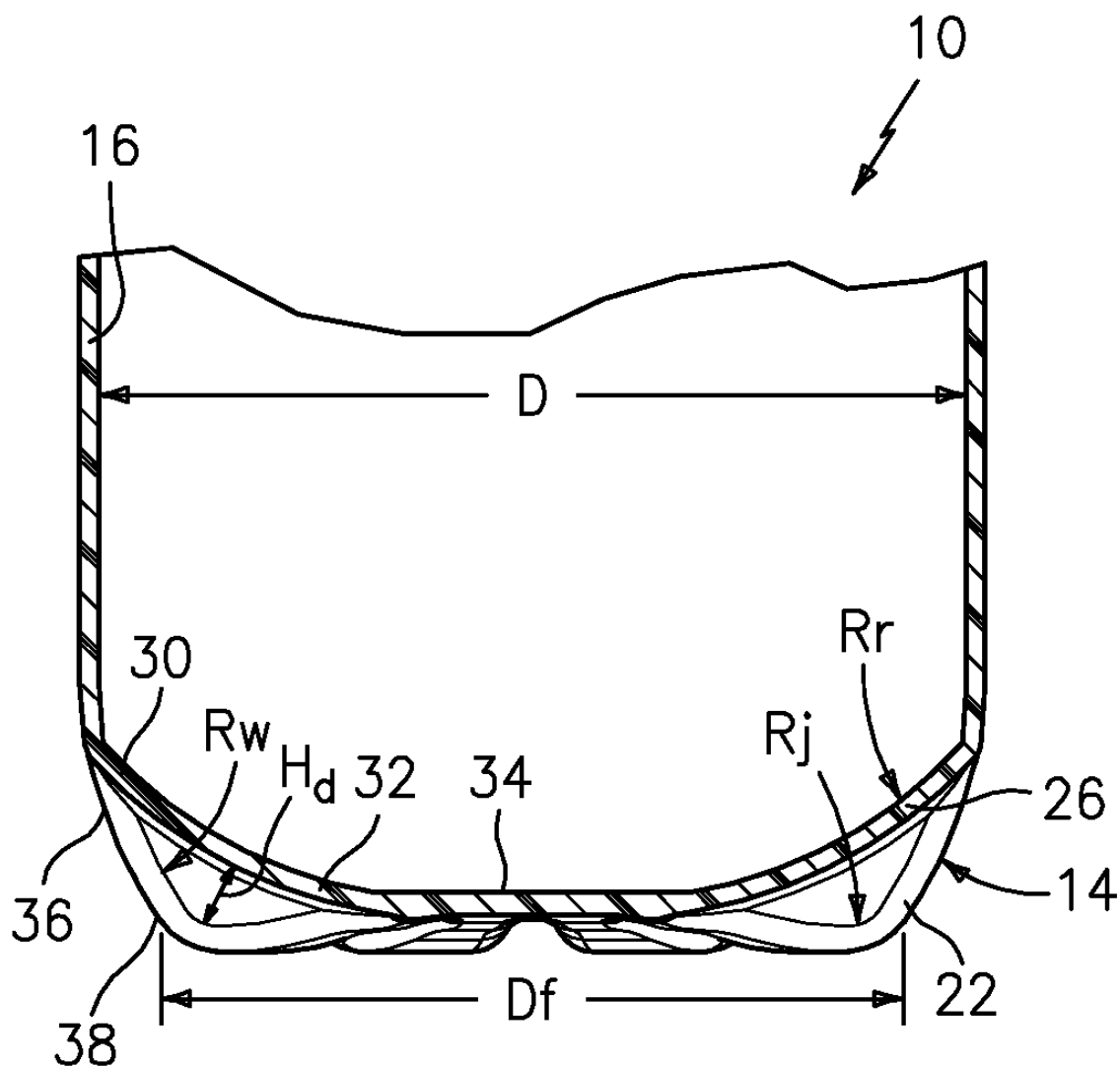
Family 70/100 - FAMPAT - ©Questel

Title

(WO200718584)

Plastic container with footed bottom construction

Images



Publication data including kind & date

WO2007018584	A2	2007-02-15	WO200718584
US20070045220	A1	2007-03-01	US20070045220
USD543462	S1	2007-05-29	USD543462
WO2007018584	A3	2007-11-08	WO200718584
US7461756	B2	2008-12-09	US7461756



Abstract

(WO200718584)

A plastic blow molded container having at least six downwardly projecting legs and a plurality of curved ribs, with each rib located between two downwardly projecting legs. Each rib has an inner portion that extends outwardly from the central axis and an outer portion that extends upwardly from the inner portion, wherein the outer portion of each rib has a circumferential width equal to or greater than the circumferential width of the inner portion.

Inventors

PEDMO MARC A
DARR RICHARD C
KAMINSKI CHRISTOPHER E

Latest standardized assignees - inventors removed

PLASTIPAK PACKAGING

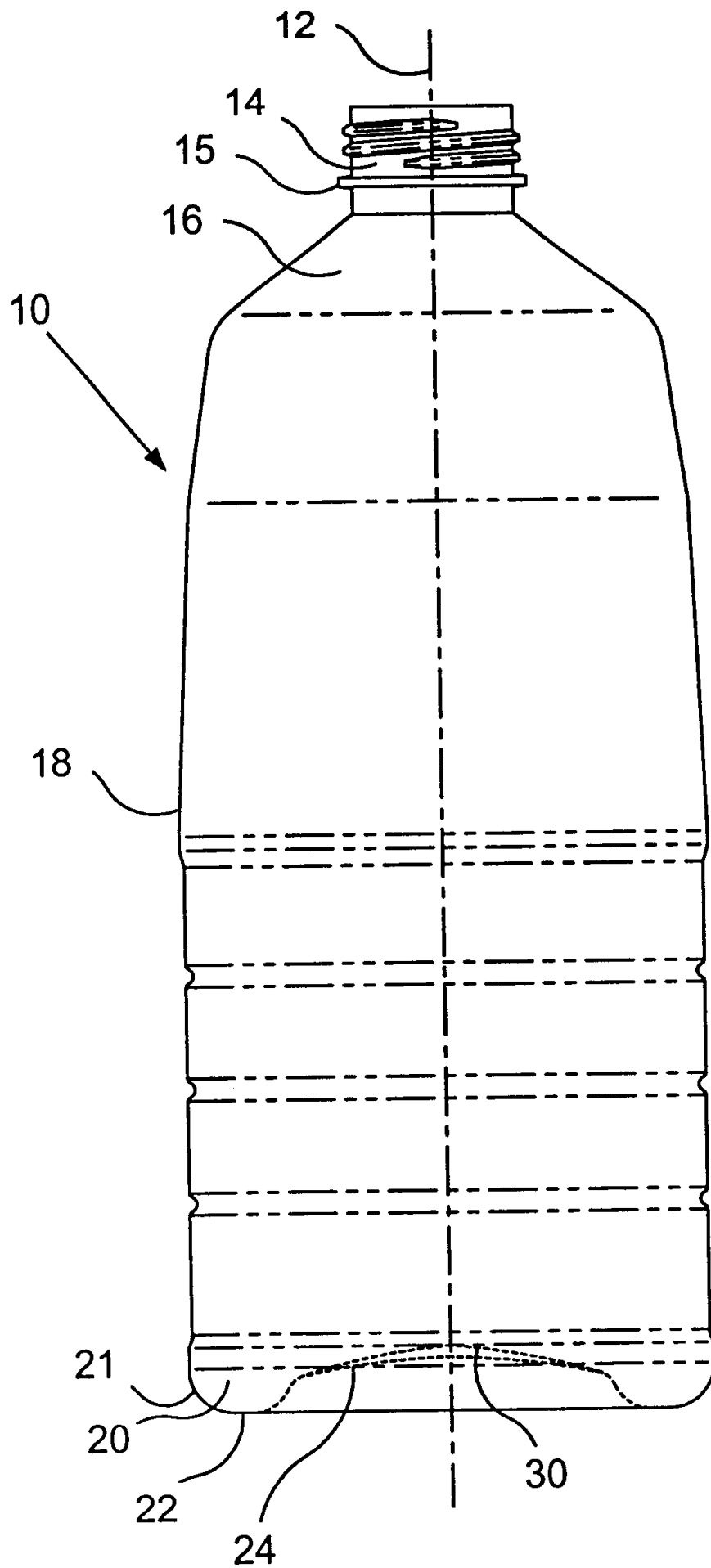
Family 71/100 - FAMPAT - ©Questel

Title

(US6672470)

Process for improving material thickness distribution within a molded bottle and a bottle therefrom

Images



Publication data including kind & date

US20020148805	A1	2002-10-17	US20020148805
US20020148804	A1	2002-10-17	US20020148804
US6569376	B2	2003-05-27	US6569376
US6672470	B2	2004-01-06	US6672470

**Abstract**

(US6672470)

A process and a bottle made from this process where the bottle has improved material thickness distribution within the bottom or base portion. The bottle has a noncircular cross-sectional configuration with corresponding major and minor axes. The mold-base region of the bottle mold-cavity features at least one standing rib-like projection generally parallel to the major axis. The standing rib-like projection increases surface distance in a direction generally corresponding with the minor axis. An expanding heated preform traverses the increased surface distance causing the preform to thin more than what otherwise would be the case thus improving material thickness distribution of the base portion that in turn minimizes unwanted bottle shape distortions.

Inventors

WURSTER MICHAEL P

GAYDOSH KEVIN D

LABOMBARBE CHRISTOPHER C

Latest standardized assignees - inventors removed

AMCOR RIGID PLASTICS

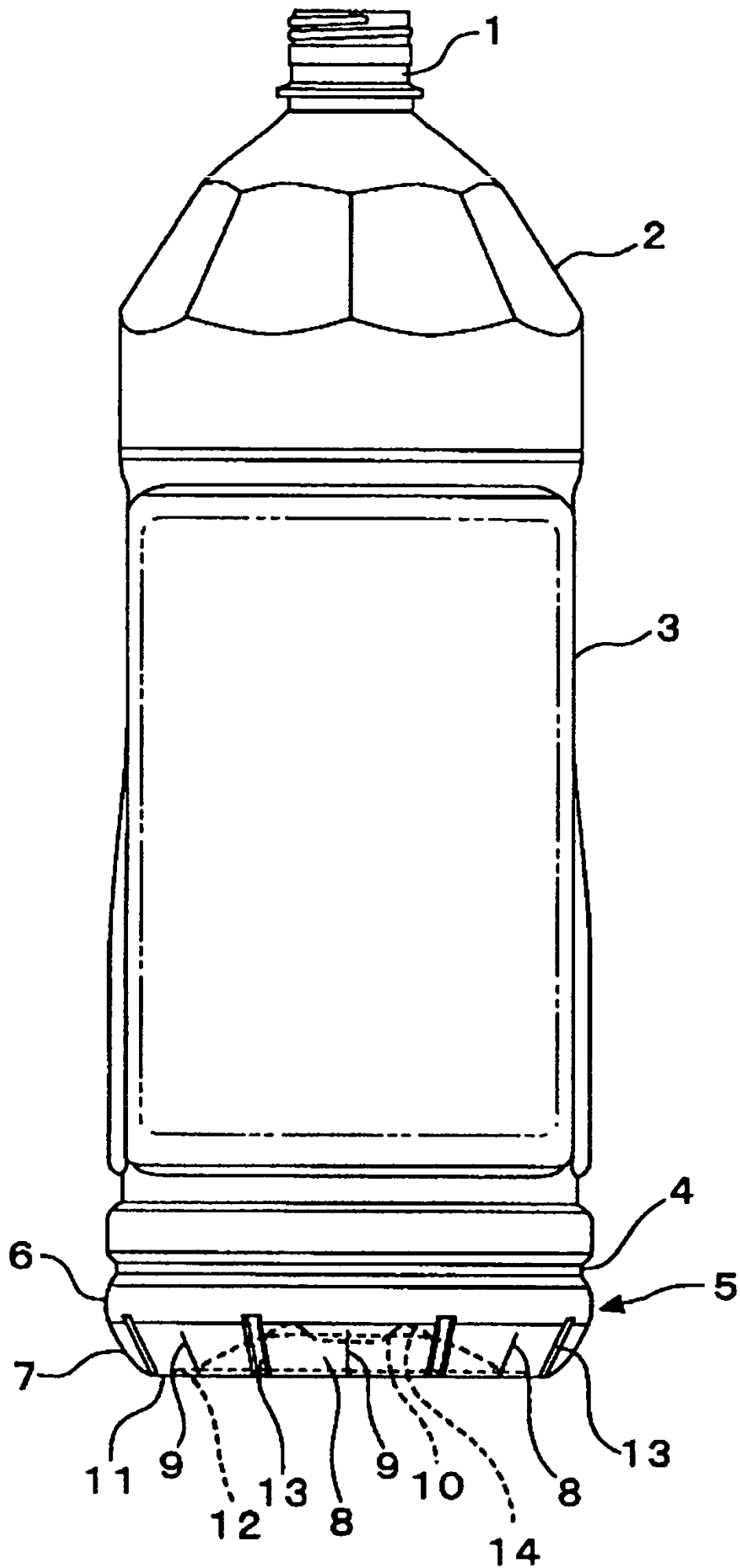
Family 72/100 - FAMPAT - ©Questel

Title

(US7066345)

Bottom structure of bottle-shaped container made of synthetic resin

Images



Publication data including kind & date

US20040060896	A1	2004-04-01	US20040060896
JP2004123103	A	2004-04-22	JP2004123103
US7066345	B2	2006-06-27	US7066345
JP4178531	B2	2008-11-12	JP4178531

**Abstract**

(US7066345)

A bottom structure of a biaxially-oriented blow-molded bottle-shaped container is made of a synthetic resin and includes a neck, a shoulder, a body and a bottom. The bottom has a connecting cylindrical wall, a tapered-cylindrical wall, a bottom wall and a grounding wall. A diameter of the tapered-cylindrical wall is decreased downwardly at a certain inclined angle. The bottom wall is domed to an inside of the container. The grounding wall is in a ring plate shape and arranged between a lower edge of the tapered-cylindrical wall and a lower edge of the bottom wall. Each of groove ribs is formed from an upper edge of the tapered-cylindrical wall through the grounding wall to the lower edge of the bottom wall. The groove ribs are arranged with isometric center angle, and extend radially.

Inventors

ITOKAWA JUICHI

MATSUO YOSHINORI

IIZUKA TAKAO

Latest standardized assignees - inventors removed

YOSHINO KOGYOSHO

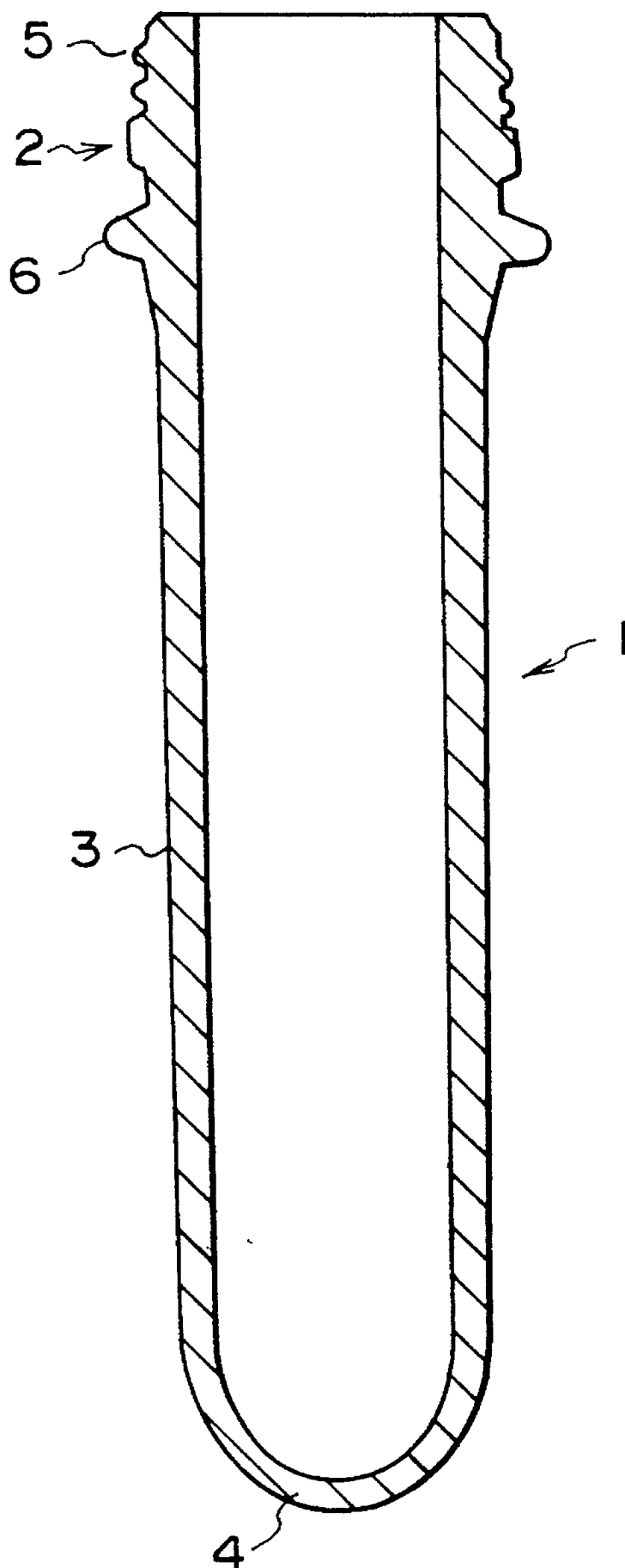
Family 73/100 - FAMPAT - ©Questel

Title

(EP-683029)

Biaxially-drawn blow-molded container having excellent heat resistance and method for producing the same

Images

FIG . 1

Publication data including kind & date

JPH07304088	A	1995-11-21	JP07304088
EP0683029	A2	1995-11-22	EP-683029
TW277025	B	1996-06-01	TW-277025
US5585065	A	1996-12-17	US5585065
KR19960040623	A	1996-12-17	KR19960040623
EP0683029	A3	1997-06-11	EP-683029
US5735420	A	1998-04-07	US5735420
KR100250374	B1	2000-04-01	KR100250374
JP3047732	B2	2000-06-05	JP3047732
EP0683029	B1	2002-07-31	EP-683029

**Abstract**

(EP-683029)

A biaxially-stretch-blow-molded container and a method of producing the same. Redraw ratio at the bottom portion is small in the secondary blow molding without employing a complex heating system but in which a secondary article obtained by subjecting a preform article to the primary blow molding is preferentially shrunk at its bottom portion, and a tertiary article or a quaternally article before being subjected to the secondary blow molding is obtained having a bottom of a flat shape or in which the central portion is recessed inwardly of the container and the periphery thereof is flattened. The bottle obtained by this method has a thickness and crystallinity in the bottom portion which are nearly the same as those of the center of the barrel and are highly oriented. The heat-resistant bottle exhibits excellent strength in the bottom portion and symmetrical panel-sinking stability in the vacuum pressure. <IMAGE>

Inventors

NAKAMAKI SETSUKO

MARUHASHI YOSHITSUGU

KATO NOBUYUKI

MATSUNO KENJI

KURASHIMA HIDEO

IKEGAMI HIROO

TAKEUCHI KIMIO

Latest standardized assignees - inventors removed

TOYO SEIKAN KAISHA

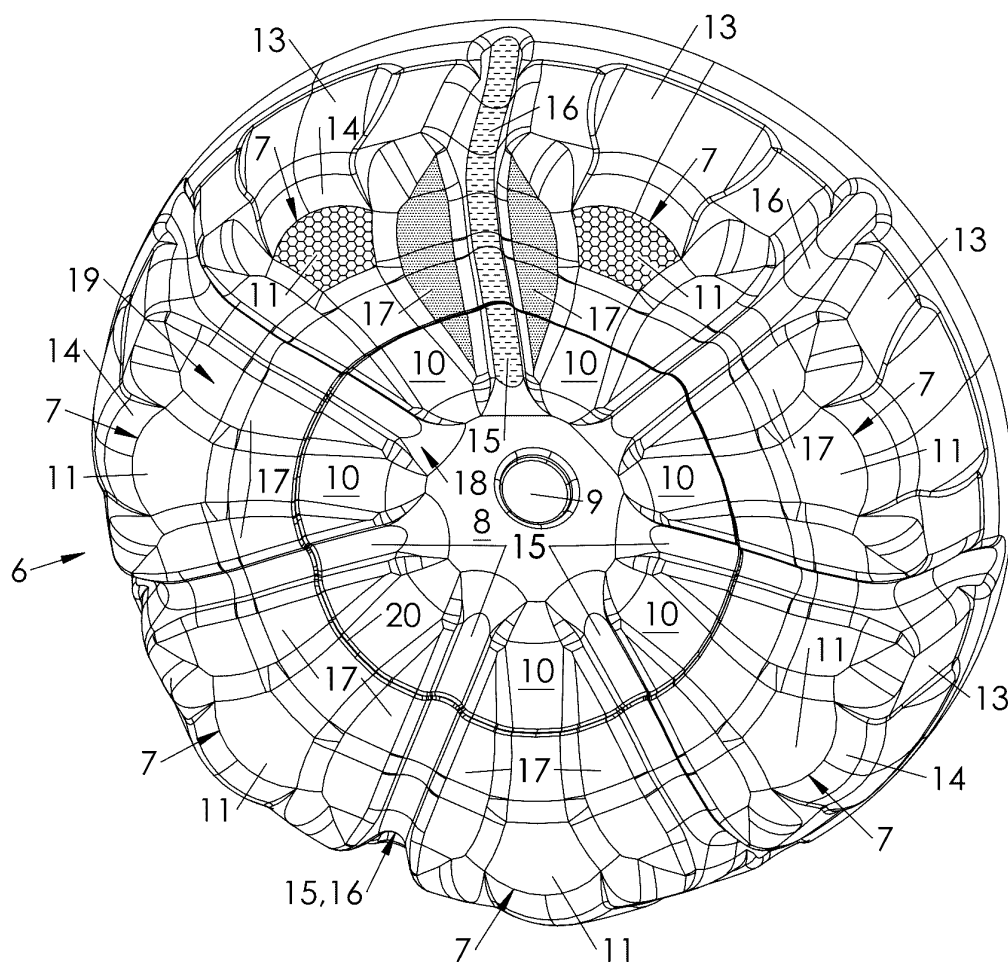
Family 74/100 - FAMPAT - ©Questel

Title

(EP2989015)

Container provided with a deformable base with a double arch

Images



Publication data including kind & date

WO2014174210	A1	2014-10-30	WO2014174210
FR3005035	A1	2014-10-31	FR3005035
CN105050903	A	2015-11-11	CN105050903
FR3005035	B1	2016-01-15	FR3005035
EP2989015	A1	2016-03-02	EP2989015
US20160304233	A1	2016-10-20	US20160304233
CN105050903	B	2017-08-04	CN105050903B
EP2989015	B1	2017-09-27	EP2989015



Abstract

(EP2989015)

Container (1) made of plastics material, comprising a body (5) which extends along a main axis (X), and a base (6) which extends at a lower end of the body (5), the base (6) being provided with protruding feet (7) that are provided with crowns (11) which extend in a common setting-down plane (12), pairs of the feet (7) being separated by recessed grooves (15) which extend radially from a central region (8) of the base (6), each foot (7) having two flanks (17) that each laterally border a groove (15), characterized in that the flanks (17) of two adjacent feet (7) which border one and the same groove (15) form between one another, at the level of the setting-down plane (12) and in a plane transverse to the radial direction of extension of the groove (15), an obtuse angle (A) at the crown.

Inventors

HERMEL WILFRIED

Latest standardized assignees - inventors removed

SIDEL PARTICIPATIONS

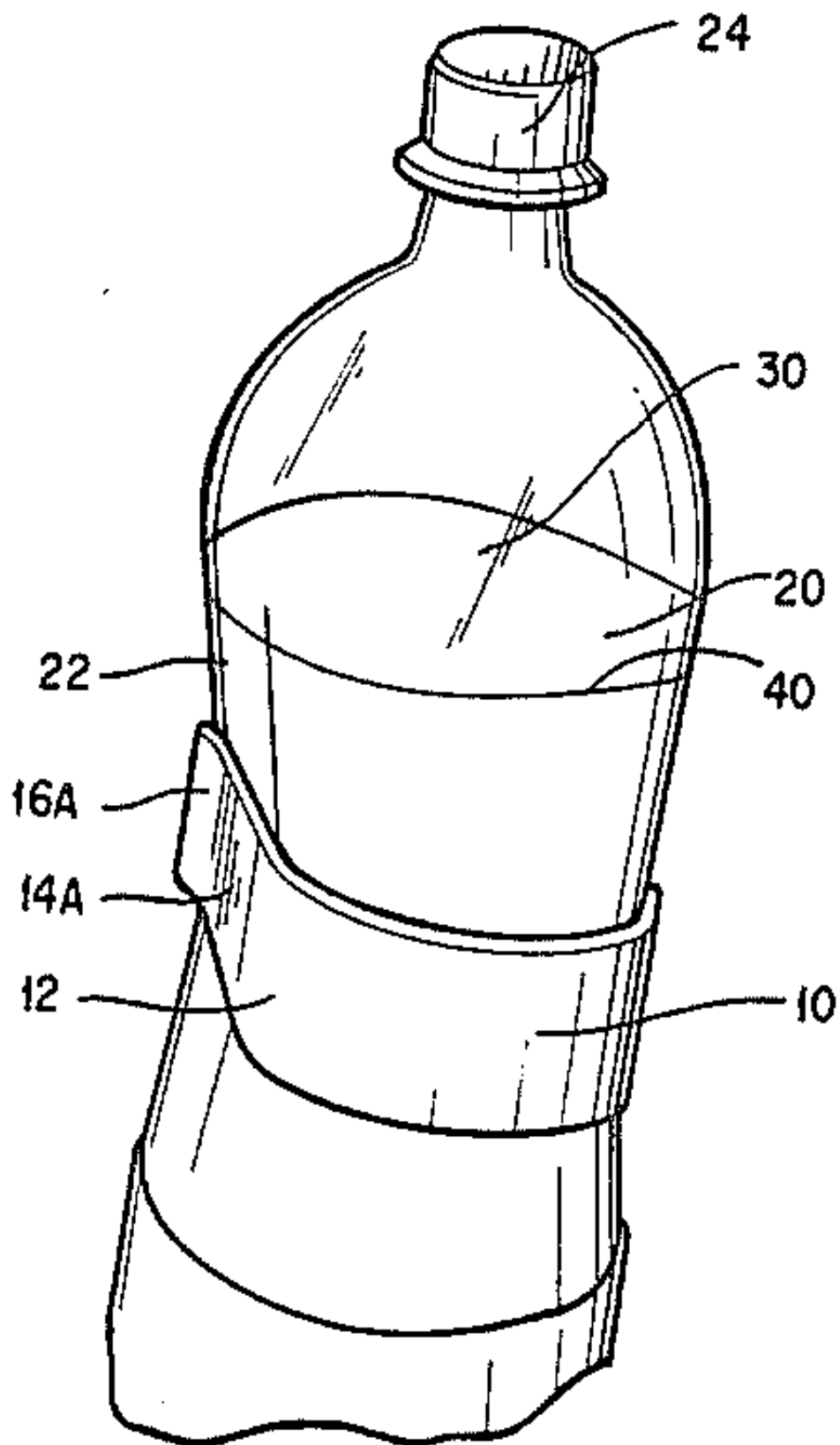
Family 75/100 - FAMPAT - ©Questel

Title

(US4747496)

Plastic bottle pressurization clip for maintaining carbonation in beverages

Images



Publication data including kind & date

[US4747496](#)

A 1988-05-31 US4747496



Abstract

(US4747496)

A device is used to squeeze side walls of a flexible bottle containing a carbonated beverage. The device is preferably a generally horseshoe-shaped clip having an arched portion, two parallel legs extending from the arched portion, and end tips flaring outwardly from each of the two parallel legs. The perpendicular distance between the two parallel legs is less than the diameter of the flexible bottle. Sufficient pressure is maintained inside the flexible bottle so that the beverage contained therein remains carbonated. The pressure maintained inside the flexible bottle is in the range of three to five psi.

Inventors

RENDINE RAPHAEL

Latest standardized assignees - inventors removed

RENDINE DENNIS JAMES

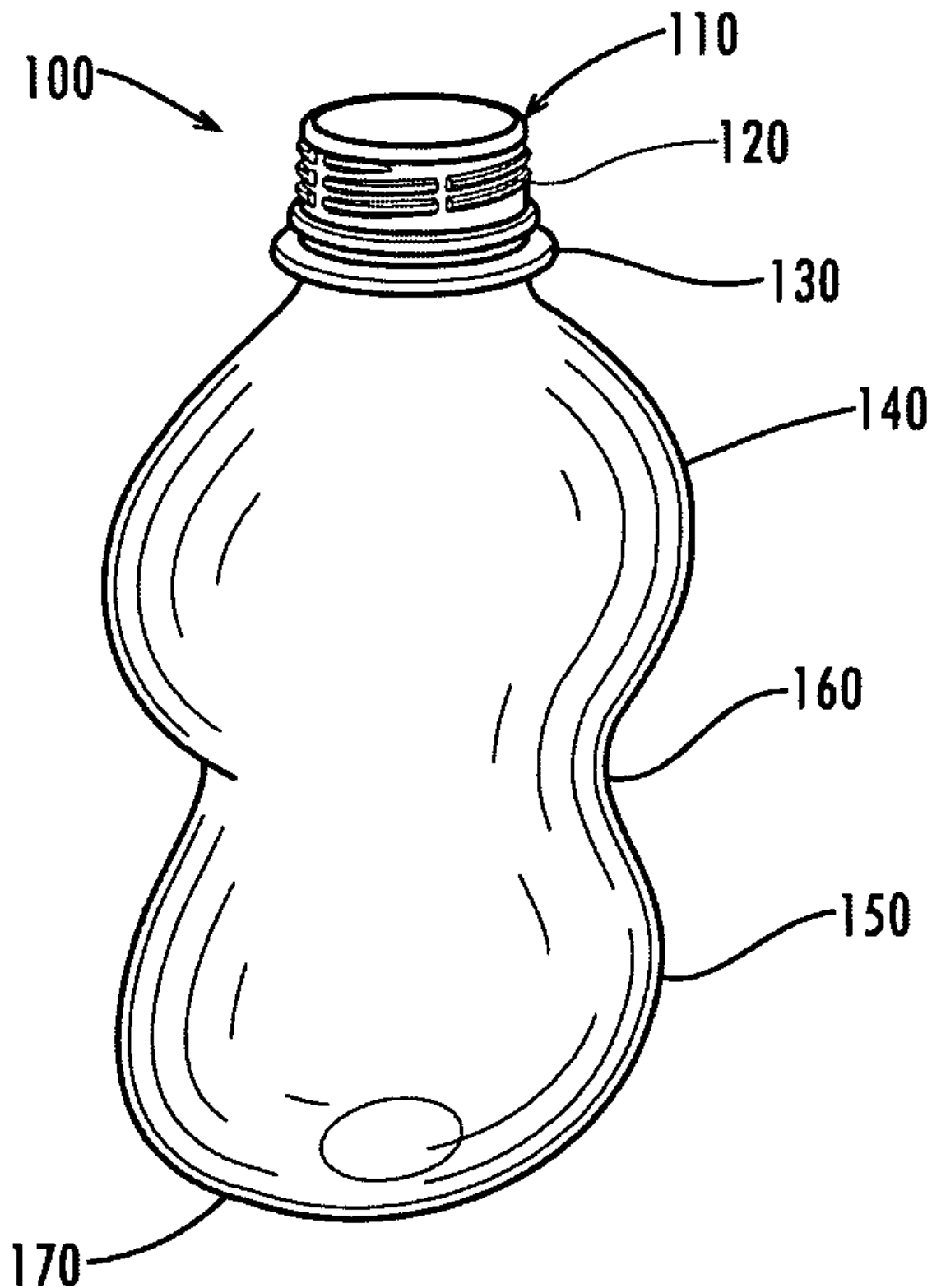
Family 76/100 - FAMPAT - ©Questel

Title

(WO200750330)

Flask

Images



Publication data including kind & date

WO2007050330	A1	2007-05-03	WO200750330
US20070095783	A1	2007-05-03	US20070095783
MA29920	B1	2008-11-03	MA--29920
JP2009513450	A	2009-04-02	JP2009513450
TNSN08179	A1	2009-10-30	TN0800179
US7686178	B2	2010-03-30	US7686178



Abstract

(WO200750330)

A beverage bottle (100) includes a flattened upper lobe (140) , a flattened lower lobe (150) , and a substantially circular transitional section (160) .The bottle may be made out of a plastic material.

Inventors

GRANT ROBERT P
KINMONT MALCOLM
MOMANY TRACY M
WITHAM DANIEL L
MCGURK JONATHAN A
SEMERSKY FRANK E
BALYEAT BARBARA A
MUKHERJEE SUMIT
RYAN DAVID M
GROLL ROBERT J
GEITHMANN MARTIN T

Latest standardized assignees - inventors removed

COCA COLA

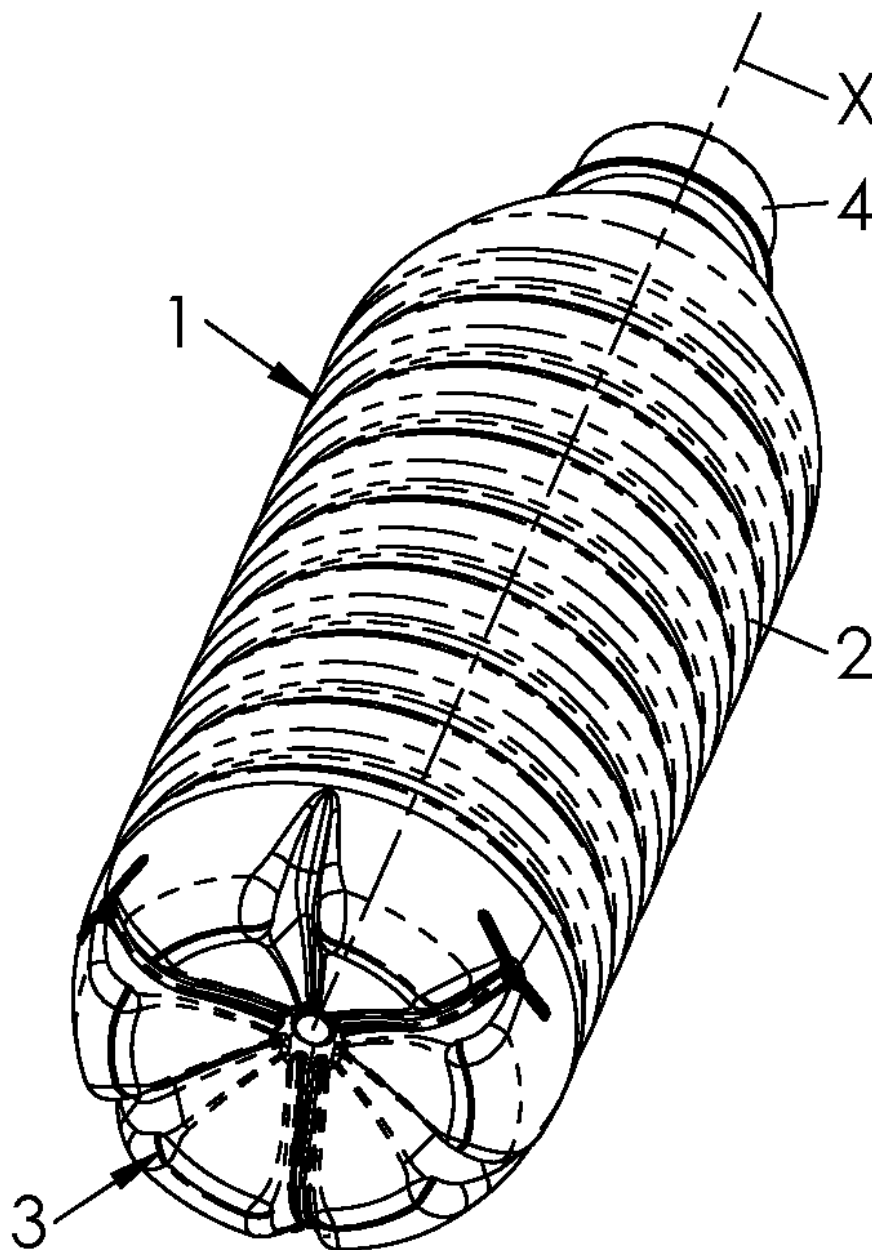
Family 77/100 - FAMPAT - ©Questel

Title

(WO2015189515)

Container provided with a base with bulging beams

Images



Publication data including kind & date

WO2015189515	A1	2015-12-17	WO2015189515
FR3022223	A1	2015-12-18	FR3022223
FR3022223	B1	2016-06-24	FR3022223
MX2016015782	A	2017-02-27	MX2016015782
US20170121049	A1	2017-05-04	US20170121049



Abstract

(WO2015189515)

Container (1) made from plastic material, provided with a body and a base (3) which extends from a lower end of the body, the base (3) comprising: a peripheral resting surface (5) which defines a flat annular deposition line (6) for the container (1); - a concave dome (9) which extends from the deposition line (6) to the central zone (7); a series of moulded beams (10) in the dome (9) which each radiate from the central zone (7) towards the resting surface (5), each beam (10) comprising a pair of radial grooves (11) which are moulded in the dome (9) and are separated by a radial rib which projects from the bases (12) of the grooves (11).

Inventors

BOUQUIN LAURENT

PIERRE IVAN

Latest standardized assignees - inventors removed

SIDEL PARTICIPATIONS

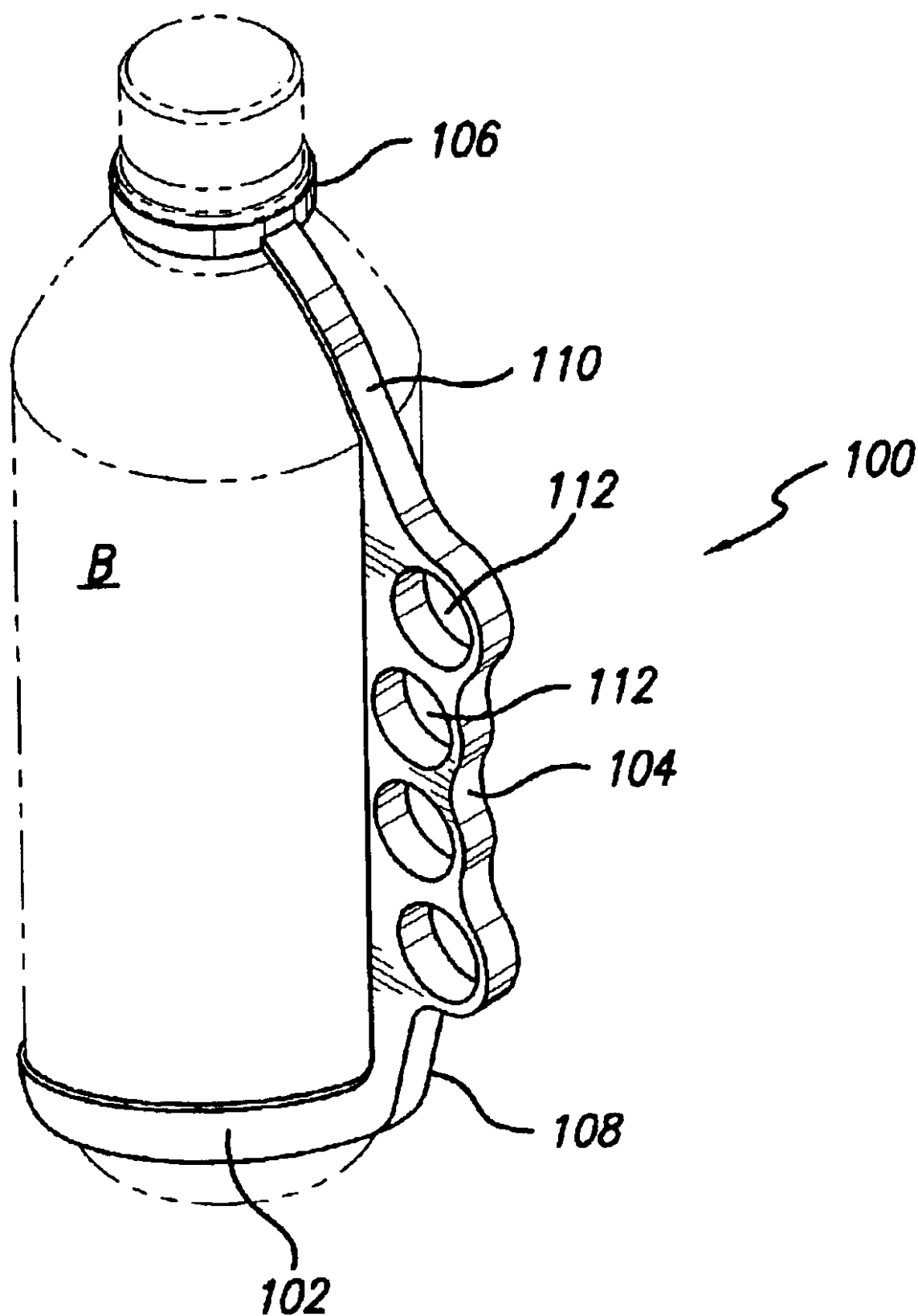
Family 78/100 - FAMPAT - ©Questel

Title

(US6913159)

Water bottle strap with finger holes

Images

**Publication data including kind & date**[US6913159](#)

B1 2005-07-05 US6913159

**Abstract**

(US6913159)

A water bottle strap provides a manual engagement means for bottles or the like. A handle is defined from a substrate defining holes through which fingers or other digits may pass. The handle is held in tension along the side of the bottle by a top loop engaging the neck of the bottle and a base loop engaging the base of the bottle. The top loop and base loop are

connected to the handle by means of upper and lower connecting segments, respectively. Each strap is generally made of flexible and resiliently stretchable material so as to snugly engage the water bottle in tension. A variety of materials can be used to provide an attractive or noticeable appearance as a bottle decoration as well as providing advantageous manual engagement means. Indicia or the like may be etched, written or engraved on the strap which may provide alternative grasping means by finger depressions separated by ridges defined along the outside of the handle.

Inventors

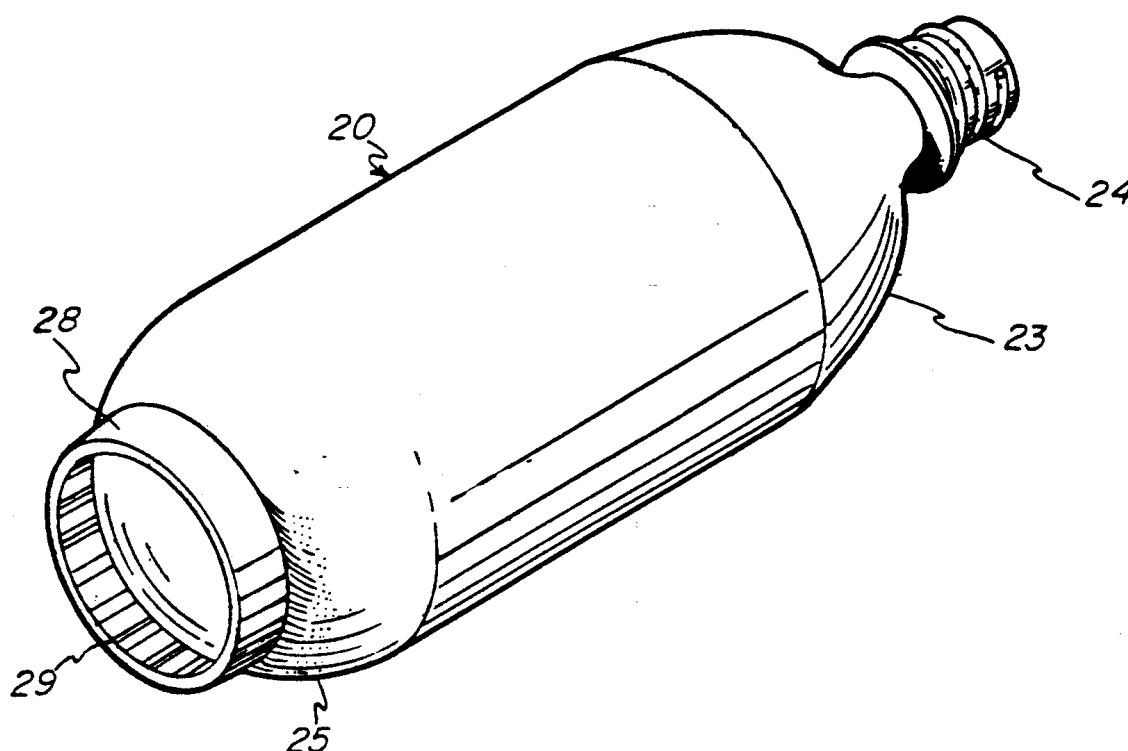
GOLDBERG ROBERT H

Family 79/100 - FAMPAT - ©Questel

Title

(US5066081)

Blow-molded bottle with bi-axially stretched skirt

Images**Publication data including kind & date**[US5066081](#)

A

1991-11-19

US5066081

**Abstract**

(US5066081)

Apparatus and method for forming a self-standing skirt on the pressure bottom of a blow-molded carbonated beverage container. The preform is formed with an annular depending skirt, and the skirt is stretched with a stretch mechanism which engages all but a lower portion of the preform, so that during the stretching of the preform concurrently with the blowing of the preform in a bottle mold, the lower portion folds inwardly to form a bottom ledge on the stretched skirt. The mold is provided with a centering mechanism for assuring the centering of the preform within the mold cavity to assure that the preform skirt receives the skirt stretching mechanism.

Inventors

BARTLEY HAROLD D

GAISER WILLIAM R

Latest standardized assignees - inventors removed

BROADWAY COMPANIES

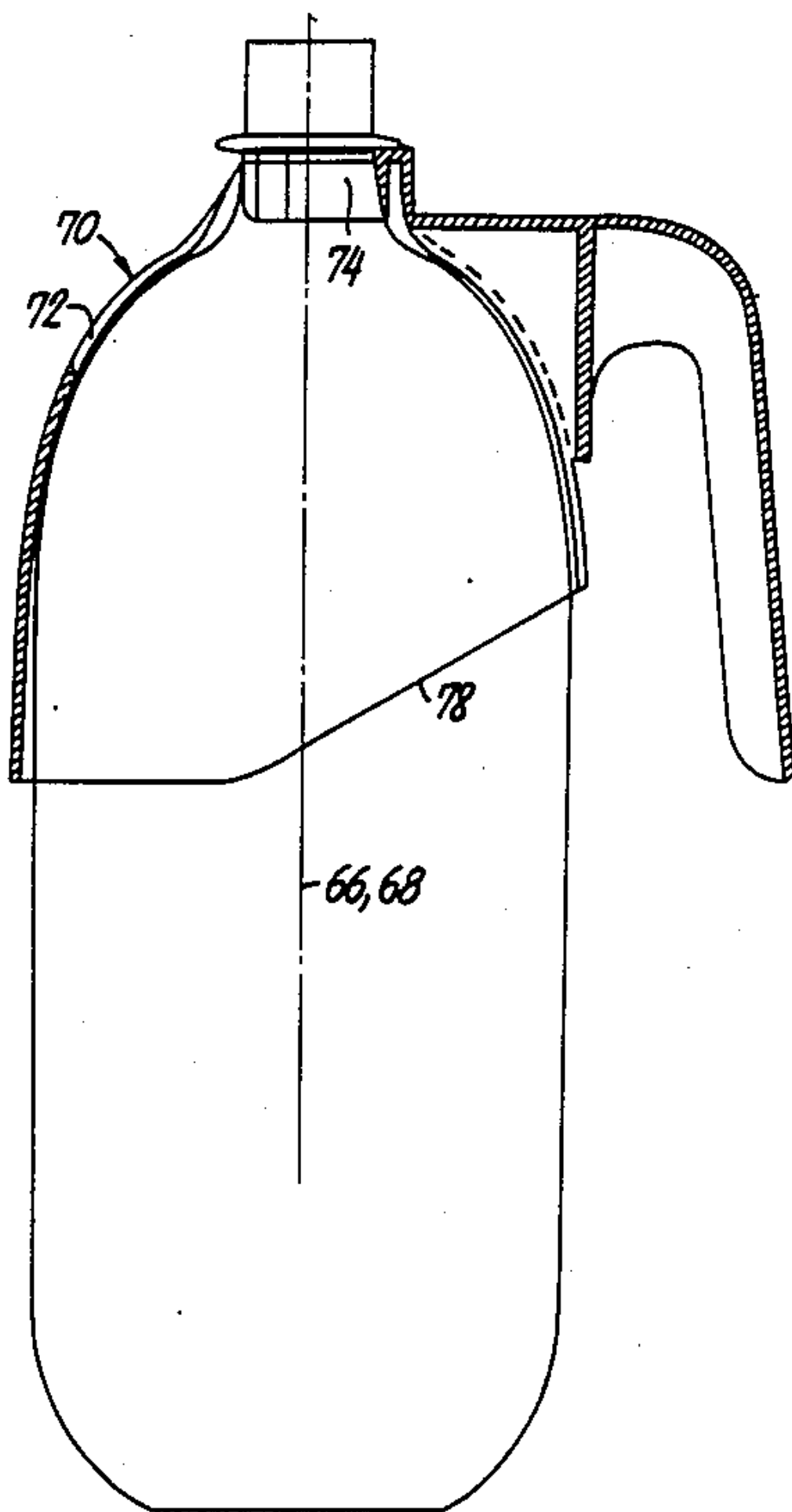
Family 80/100 - FAMPAT - ©Questel

Title

(US4865208)

Support device for holding a bottle in suspended relationship

Images



Publication data including kind & date[US4865208](#)

A 1989-09-12 US4865208

**Abstract**

(US4865208)

A bottle support is provided to hold a bottle in suspended relationship and in such a manner as to be locked to the bottle so that the contents of the bottle can be poured without detachment occurring between the bottle and the support. To enable a mounting of the support atop the bottle, the support is provided with a keyhole-like opening having a first section which is an enlarged lobe which permits the penetration of the neck of the bottle through opening in the support and a second section which is smaller and permits engaging beneath an annular rib which is located on the neck of the bottle. To permit a tilting of the skirt of the support as the support is being mounted on the bottle, the skirt is provided with a cut away portion adjacent the handle which is provided on the skirt.

Inventors

LAX HAROLD

LAX MICHAEL

Latest standardized assignees - inventors removed

AUTRONIC PLASTICS

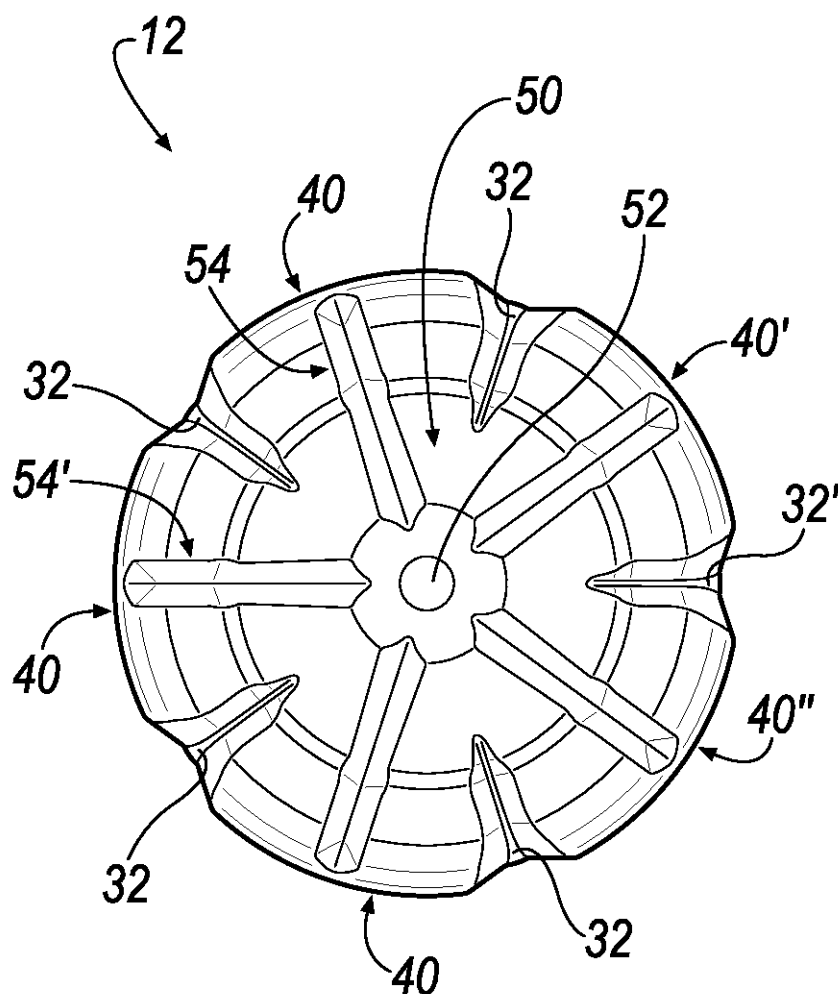
Family 81/100 - FAMPAT - ©Questel

Title

(WO200942588)

Plastic container with elongated vertical formation

Images



Publication data including kind & date

US20080223816	A1	2008-09-18	US20080223816
WO2009042588	A1	2009-04-02	WO200942588
CA2699928	A1	2009-04-02	CA2699928
US8439214	B2	2013-05-14	US8439214
US20130228546	A1	2013-09-05	US20130228546
US8925750	B2	2015-01-06	US8925750
CA2699928	C	2016-02-16	CA2699928



Abstract

(WO200942588)

A plastic container (10) is disclosed comprising a base portion (12) for supporting the container on a surface, an upper portion (14), and a body portion (16). The upper portion (14) includes a neck (20) and a dispensing opening (22). The body portion (16) extends between the base portion (12) and the neck (20), the body portion (16) including a shoulder portion (28) below the neck portion (20) and a sidewall portion (30) between the shoulder portion (28) and the base portion (12). The body portion (16) includes at least one elongated vertical formation (32) that substantially extends along the sidewall portion (30) from the base portion (12) toward the shoulder portion (28), the elongated vertical portion (32) being continuous along at least 0.60 the total height of the container (10).

Inventors

DARR RICHARD C

LOVELACE RICHARD A

KAMINSKI CHRISTOPHER E

MORGAN EDWARD V

Latest standardized assignees - inventors removed

PLASTIPAK PACKAGING

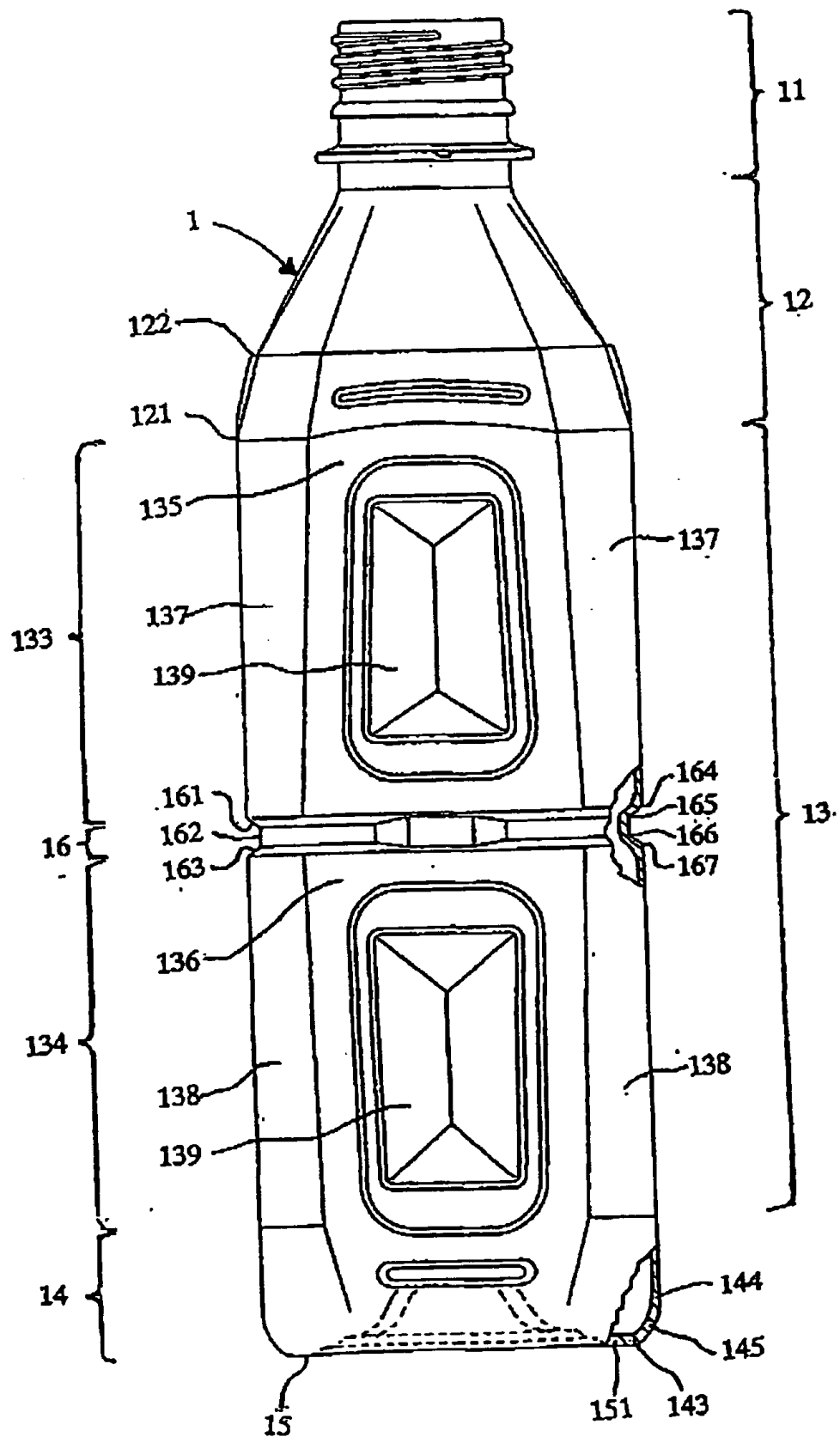
Family 82/100 - FAMPAT - ©Questel

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

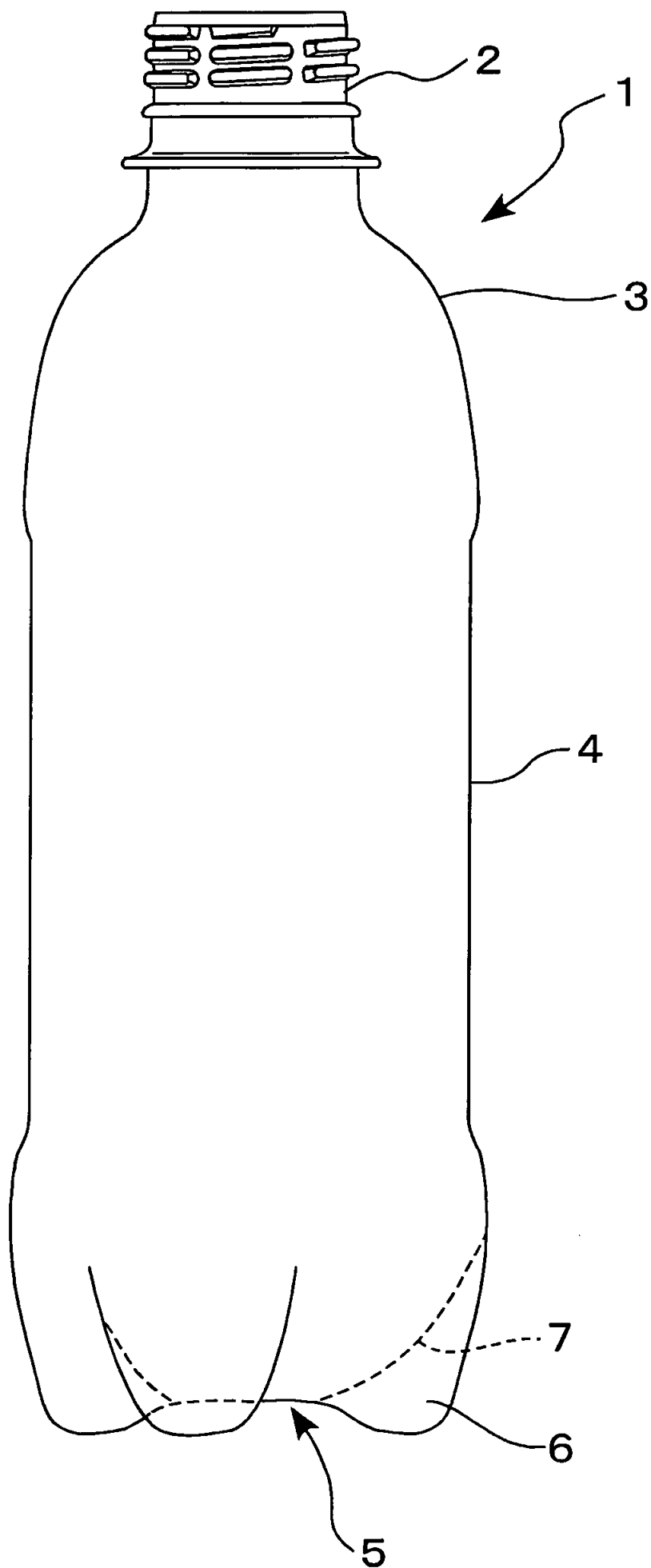
Family 83/100 - FAMPAT - ©Questel

Title

(EP1939236)

Polyester resin and plastic bottle with resistance to heat and pressure

Images



Publication data including kind & date

WO2007034676	A1	2007-03-29	WO200734676				
CA2620672	A1	2007-03-29	CA2620672				
AU2006293303	A1	2007-03-29	AU2006293303				
JP2007084654	A	2007-04-05	JP2007084654				
CN101068849	A	2007-11-07	CN101068849				
KR20080043731	A	2008-05-19	KR20080043731				
EP1939236	A1	2008-07-02	EP1939236				
US20080274318	A1	2008-11-06	US20080274318				
EP1939236	A4	2009-10-14	EP1939236				
US7959997	B2	2011-06-14	US7959997				
AU2006293303	B2	2011-12-01	AU2006293303				
JP4986105	B2	2012-07-25	JP4986105				
CA2620672	C	2013-05-28	CA2620672				
KR101313349	B1	2013-10-01	KR101313349				

Abstract

(EP1939236)

This invention is intended to improve the heat resistance of PET bottles from a material aspect. A technical problem of this invention is to find a polyester resin which is suitable for heat and pressure resistant plastic bottles and which does not eat into productivity and is available at a low cost. The object of this invention is to provide a heat and pressure resistant plastic bottle that can be manufactured at a low cost and has pressure resistance at a high temperature and high impact strength. The means of fulfilling this object is a polyester resin comprising a major part of ethylene terephthalate units and containing at least one of minor copolymerizable components selected from a group consisting of isophthalic acid, cyclohexane dimethanol, and diethylene glycol, wherein three minor copolymerizable components have total content less than 3 mol. %.

Inventors

TAKADA MAKOTO

IMAI TOSHIO

Latest standardized assignees - inventors removed

YOSHINO KOGYOSHO

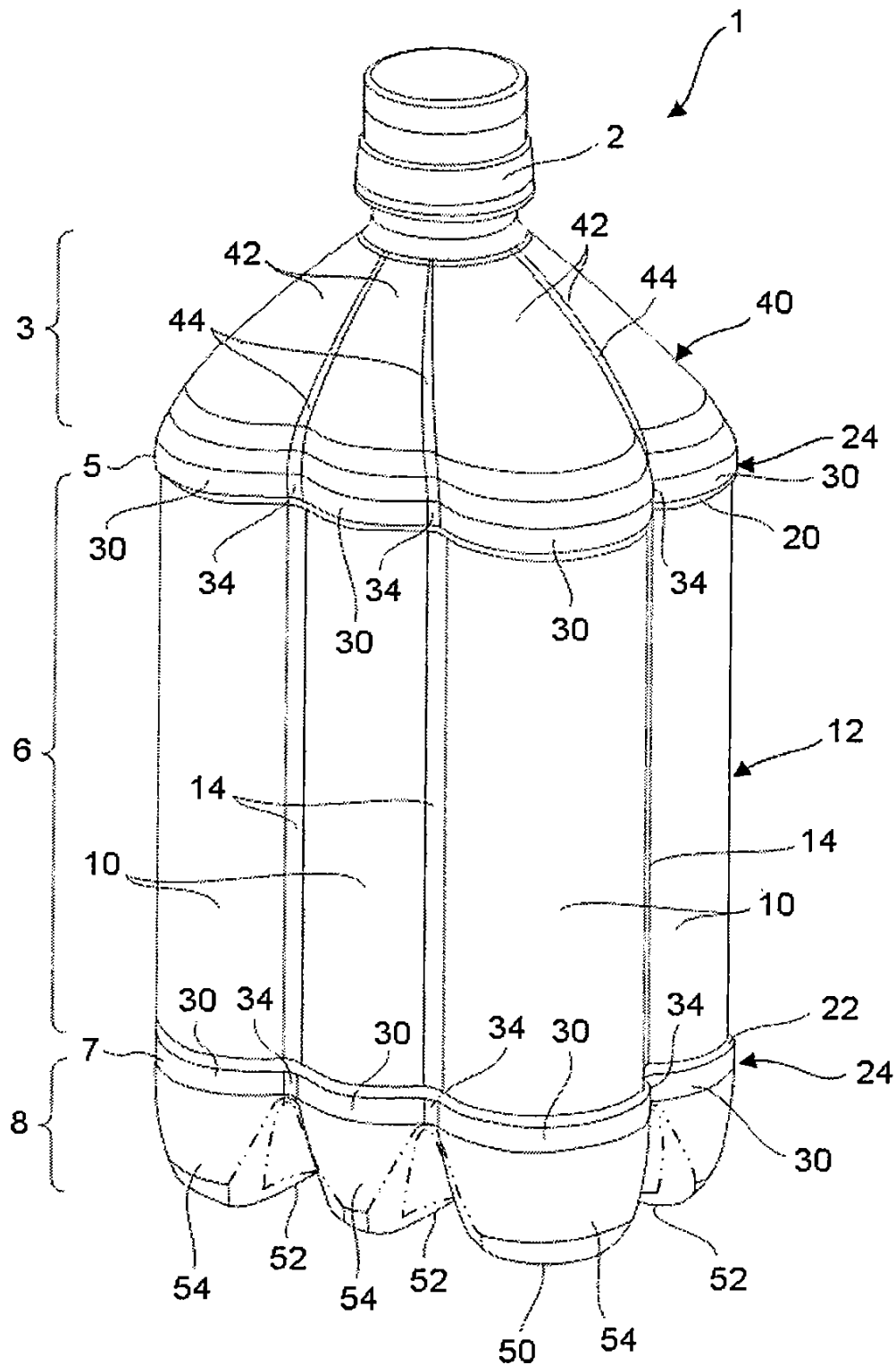
Family 84/100 - FAMPAT - ©Questel

Title

(EP2117937)

Beverage container having a modified shape

Images



Publication data including kind & date

WO2008088824	A1	2008-07-24	WO200888824
US20080173614	A1	2008-07-24	US20080173614
TW200844008	A	2008-11-16	TW200844008
WO2008088824	A8	2009-04-02	WO200888824
MX2009007309	A	2009-07-15	MX2009007309
EP2117937	A1	2009-11-18	EP2117937
CN101583537	A	2009-11-18	CN101583537
ZA200904952	B	2010-03-31	ZA200904952



CN101583537	B	2011-08-24	CN101583537B				
US8141733	B2	2012-03-27	US8141733				
EP2117937	B1	2012-10-10	EP2117937				
BRPI0806927	A2	2014-04-29	BR200806927				

Abstract

(EP2117937)

A plastic beverage container that can withstand deformation by positive pressure and that can be stably stored lying on its side is provided. The beverage container for storing a product under positive pressure includes a body portion having an outer wall made of plastic, and the body portion has a symmetrical cross-sectional shape formed by a plurality of circular arcs.

Inventors

MATSUOKA KENSHI

Latest standardized assignees - inventors removed

COCA COLA

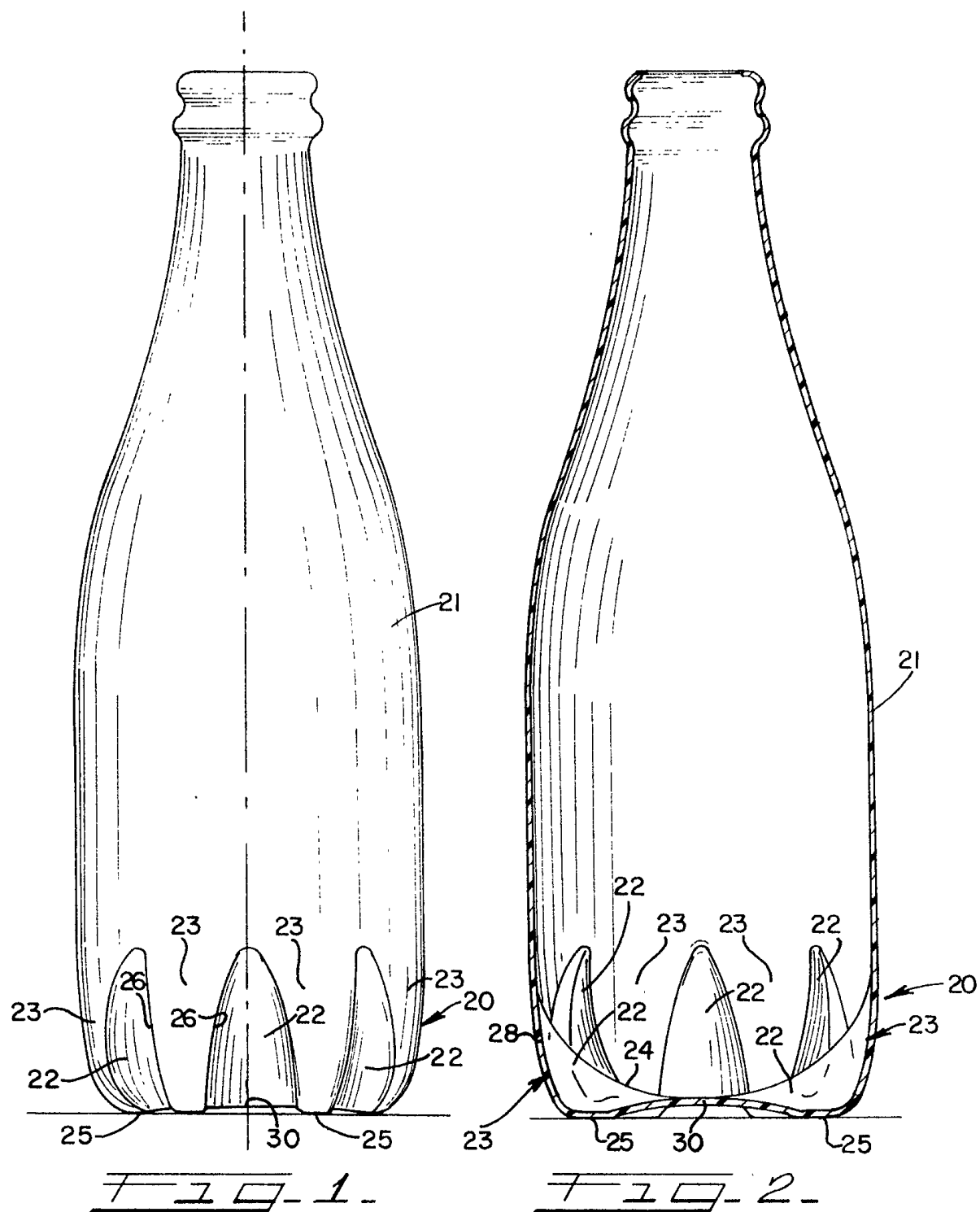
Family 85/100 - FAMPAT - ©Questel

Title

(US3598270)

Bottom end structure for plastic containers

Images



INVENTORS
DOMAS ADOMAITIS
HOWARD M TURNER

BY

Publication data including kind & date

BE748305

A 1970-09-16

BE-748305

DE2009917

A1 1970-10-15

DE2009917



NL7004279	A	1970-10-16	NL7004279				
FR2039147	A	1971-01-15	FR2039147				
FR2039147	A1	1971-01-15	FR2039147				
GB1239531	A	1971-07-14	GB1239531				
US3598270	A	1971-08-10	US3598270				
ZA7000904	B	1971-09-29	ZA7000904				
CH527098	A	1972-08-31	CH-527098				
AT301379	B	1972-09-11	AT-301379				
BR7018118	D0	1973-01-30	BR7018118				
FR2039147	B1	1974-06-14	FR2039147				
DK139349	B	1979-02-05	DK-139349				
DK139349	C	1979-07-16	DK-139349C				
NL167127	B	1981-06-16	NL-167127				
DE2009917	B2	1981-09-10	DE2009917				
NL167127	C	1981-11-16	NL-167127				

Abstract

(US3598270)

This disclosure relates to a plastic container, particularly a bottle suitable for carbonated beverages. The bottom end of the container comprises portions conformed to meridian elements of a hemisphere with a downward pole and a plurality of hollow legs terminating in feet in a plane below the pole of the hemisphere. In blow-molding the bottle, the mold halves pinch the bottom end of the parison closed along an arcuate weld line constituting the midportion of a semicircular element of a hemispherically contoured portion of the bottom.

Inventors

ADOMAITIS DOMAS

TURNER HOWARD M

Latest standardized assignees - inventors removed

CONTINENTAL CAN

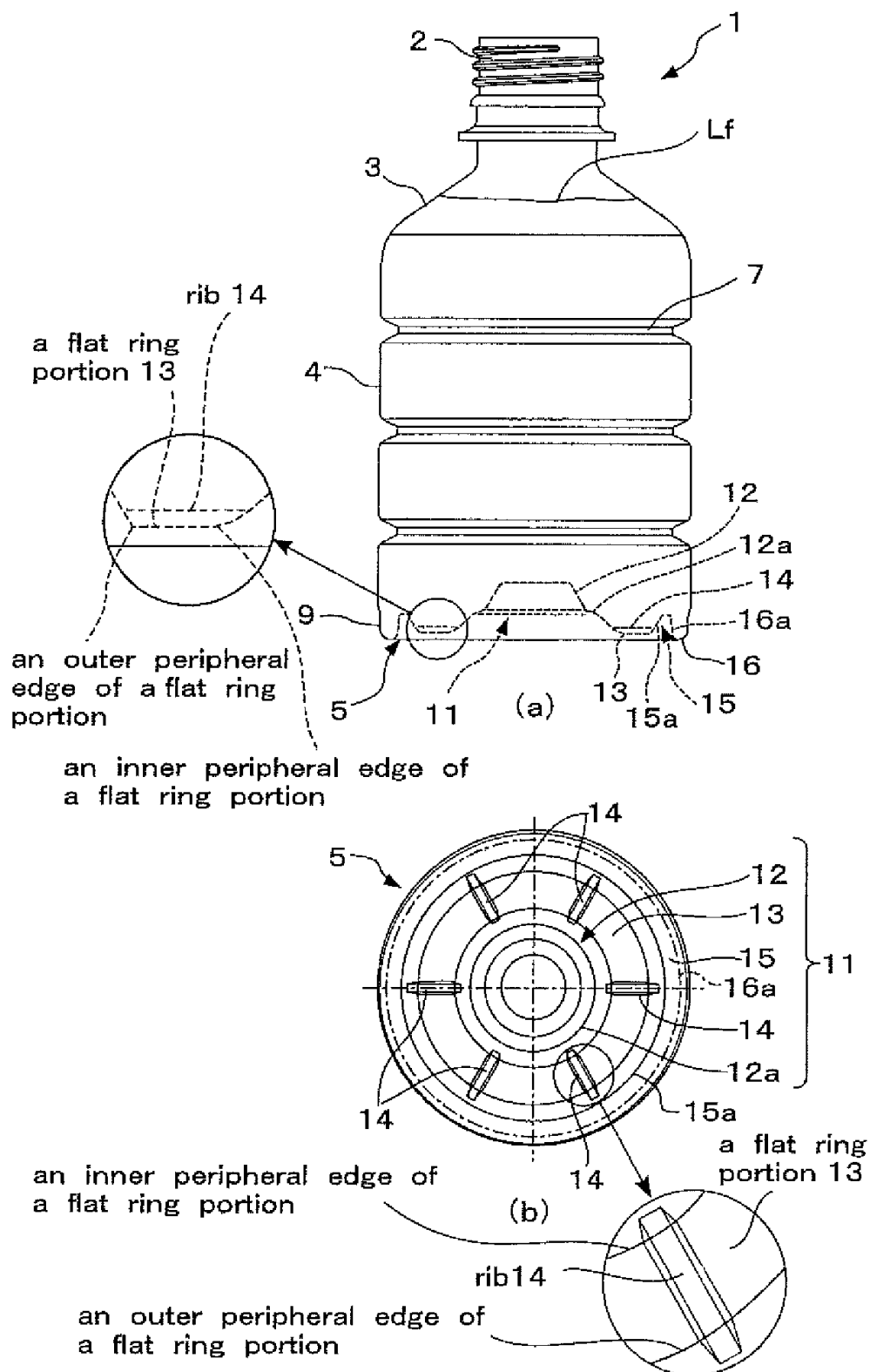
Family 86/100 - FAMPAT - ©Questel

Title

(EP2612820)

Synthetic resin bottle body

Images



Publication data including kind & date

CA2808996	A1	2012-03-08	CA2808996
WO2012029487	A1	2012-03-08	WO201229487
JP2012051588	A	2012-03-15	JP2012051588
CN102612469	A	2012-07-25	CN102612469
AU2011297320	A1	2013-04-04	AU2011297320
AU2011297320	A8	2013-05-23	AU2011297320
EP2612820	A1	2013-07-10	EP2612820
US20130180943	A1	2013-07-18	US20130180943



KR20130106758	A	2013-09-30	KR20130106758				
JP5408501	B2	2014-02-05	JP5408501				
AU2011297320	B2	2014-07-24	AU2011297320				
EP2612820	A4	2015-02-18	EP2612820				
US9227759	B2	2016-01-05	US9227759				
CN102612469	B	2016-07-13	CN102612469B				
CA2808996	C	2017-12-12	CA2808996				
KR101823165	B1	2018-01-29	KR101823165				

Abstract

(EP2612820)

A technical problem to be solved by this invention is to create a bottom wall structure that enables the bottom to perform a satisfactory vacuum absorbing function when the bottom plate is allowed to draw upward smoothly with the progress of pressure reduction. This problem is achieved by a biaxially stretched, blow molded synthetic resin bottle with a bottom (5) comprising a sunken bottom portion (11), which deforms as it draws upward in a direction of bottle inside and which comprises a ring groove (15) formed by being successively connected to an inner peripheral edge of a ground contact portion (16) disposed at the foot of an outer peripheral wall of the bottom (5), a central concave portion (12) disposed at a center of the bottom (5), and a flat ring portion (13) disposed between an inner peripheral edge of the ring groove (15) and the central concave portion (12), wherein the sunken bottom portion (11) is characterized by comprising a plurality of short slim ribs (14) disposed at several points of the flat ring portion (13).

Inventors

KURIHARA GORO

Latest standardized assignees - inventors removed

YOSHINO KOGYOSHO

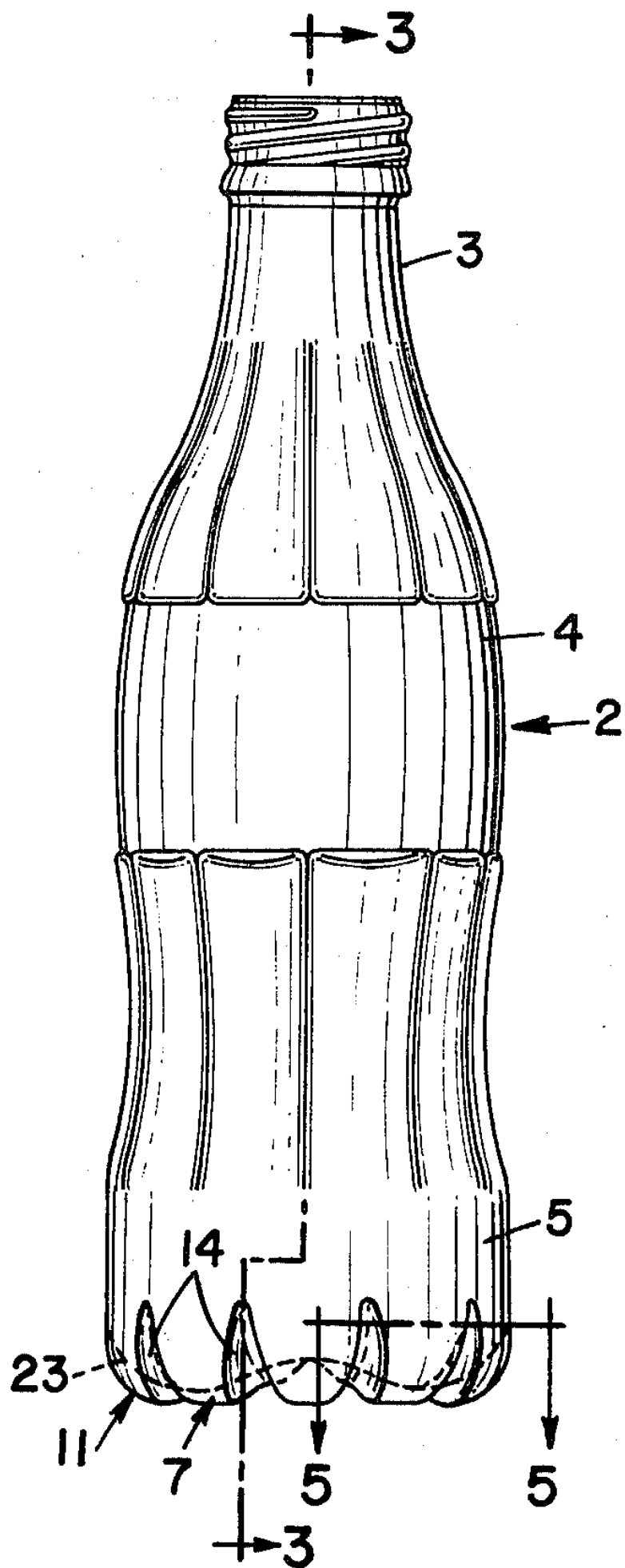
Family 87/100 - FAMPAT - ©Questel

Title

(US3871541)

Bottom structure for plastic containers

Images



Publication data including kind & date

DE2352738	A1	1974-09-12	DE2352738
FR2219077	A1	1974-09-20	FR2219077
JPS49117188	A	1974-11-08	JP49117188
US3871541	A	1975-03-18	US3871541
AU6136773	A	1975-04-17	AU7361367
GB1406958	A	1975-09-17	GB1406958
CA993814	A	1976-07-27	CA-993814
SE396931	B	1977-10-10	SE-396931
FR2219077	B1	1979-03-23	FR2219077

**Abstract**

(US3871541)

A bottom structure for containers particularly suited for carbonated beverage bottles. The bottom end is formed with a domed center portion and an intersecting downwardly convexed semi-torus portion which is interrupted by a plurality of radially arranged rib configurations extending from the side wall of the bottle inwardly to the juncture of the aforesaid portions and form a plurality of downwardly bulged legs arranged in a rosette pattern and adapted to be loaded in bend in opposition to a compression loading on the dome portion when subjected to internal fluid pressure and heat to provide a novel creep resistant structure.

Inventors

ADOMAITIS DOMAS

Latest standardized assignees - inventors removed

CONTINENTAL CAN

Family 88/100 - FAMPAT - ©Questel

Title

(EP2643225)

Combined petaloid base of a container

Images

The invention relates to a plastic container (1) including a body (2) and a petaloid base (3) forming an extension of the body (2), the base (3) including a generally convex base wall (4), wherein feet (5) project therefrom, said feet being formed by outgrowths separated in pairs by portions of the base wall forming hollow valleys (13) which extend radially from a central area (6) of the base up to a periphery (7) of the base, wherein in said container each valley (13) gradually widens from the central area (6) towards the periphery (7) and has a concave portion (15) located adjacent to the periphery (7).

Inventors

BOUKOBZA MICHEL

Latest standardized assignees - inventors removed

SIDEL PARTICIPATIONS

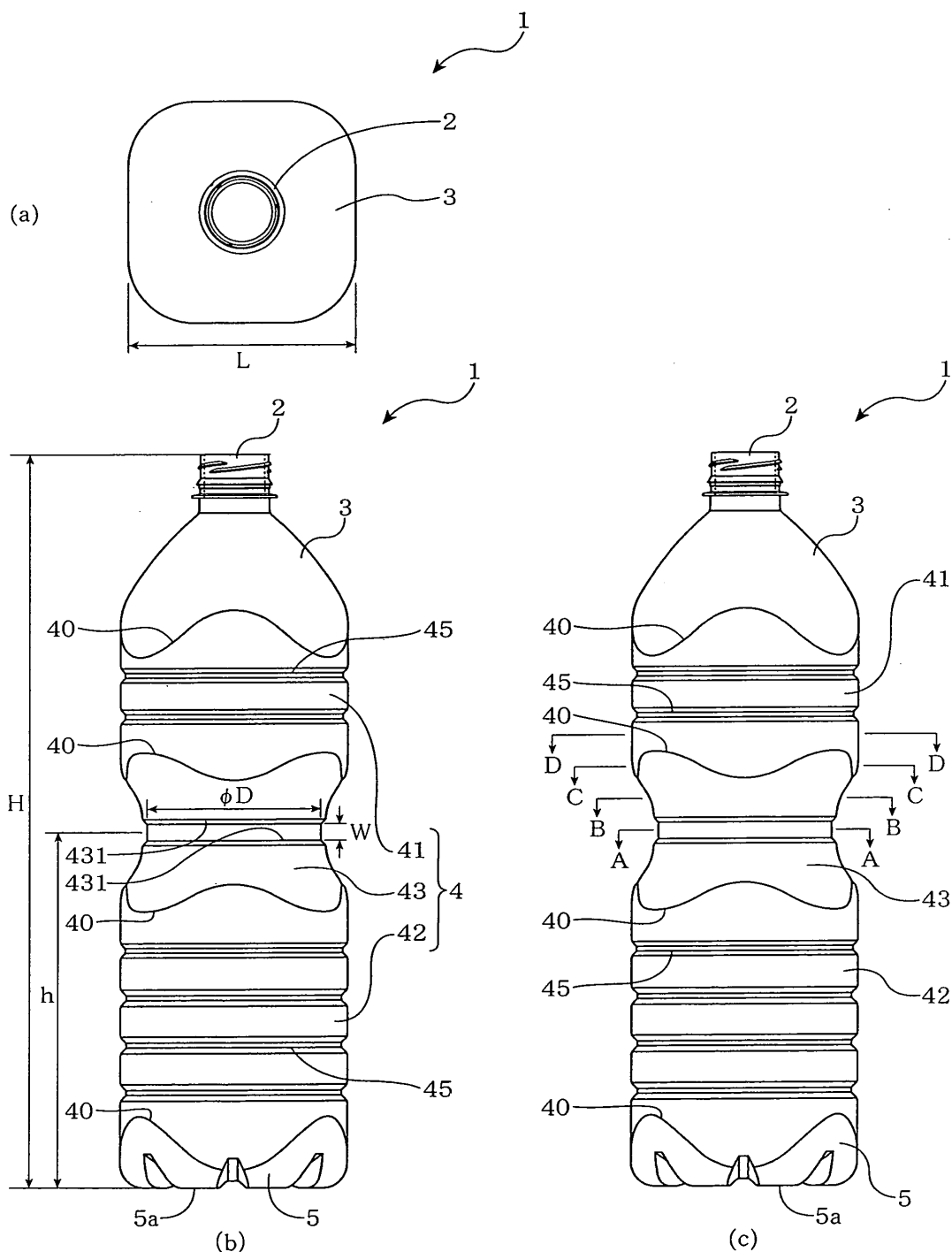
Family 89/100 - FAMPAT - ©Questel

Title

(WO200928571)

Synthetic resin container

Images



Publication data including kind & date

WO2009028571	A1	2009-03-05	WO200928571
KR20100049559	A	2010-05-12	KR20100049559
US20100163515	A1	2010-07-01	US20100163515
CN101790482	A	2010-07-28	CN101790482
JPWO2009028571	A1	2010-12-02	JP2009028571W
CN101790482	B	2011-08-31	CN101790482B
JP5282246	B2	2013-09-04	JP5282246
US8567625	B2	2013-10-29	US8567625



Abstract

(WO200928571)

A synthetic resin container has a mouth (2), shoulders (3), a trunk (4), and a bottom (5). The trunk (4) has upper and lower square tube sections (41, 42). A section between the upper square tube section (41) located on the shoulder (3) side and the lower square tube section (42) located on the bottom (5) side is narrowed down into a circular tube shape to form a

circular tube-shaped narrow section (43).

Inventors

NEMOTO YOSHINORI

Latest standardized assignees - inventors removed

TOYO SEIKAN KAISHA

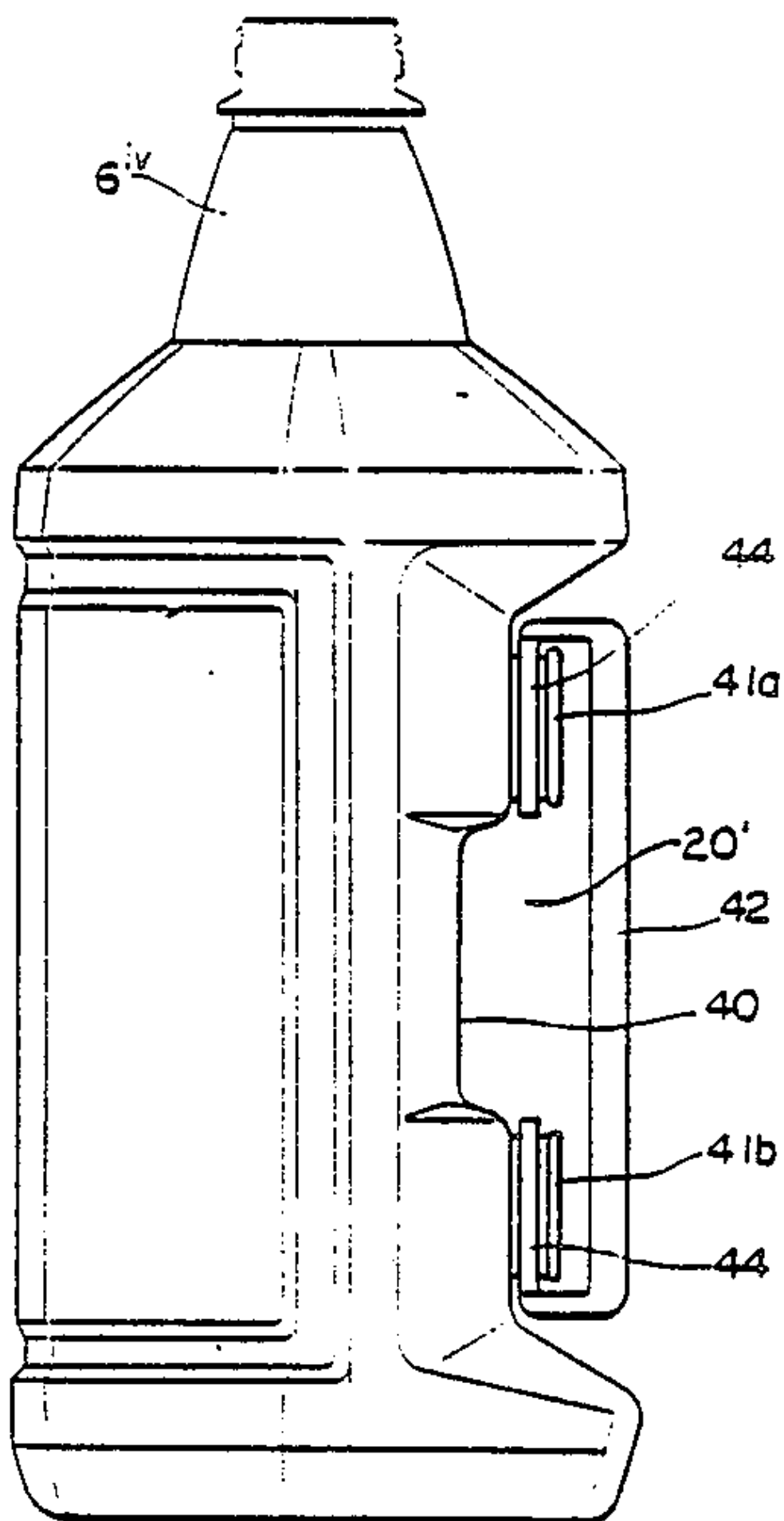
Family 90/100 - FAMPAT - ©Questel

Title

(US4915241)

Synthetic resin bottle furnished with handgrip and method for manufacturing the same

Images



Publication data including kind & date

JPS63232144	A	1988-09-28	JP63232144
KR19880010987	A	1988-10-25	KR19880010987
JP01020126	A	1989-01-24	JP01020126
JPS6420126	A	1989-01-24	JP64020126
JPH01178424	A	1989-07-14	JP01178424
US4915241	A	1990-04-10	US4915241
JPH0427108	B2	1992-05-11	JP92027108
JP1742913	C	1993-03-15	JP1742913
JP1827878	C	1994-02-28	JP1827878
JP1827859	C	1994-02-28	JP1827859

**Abstract**

(US4915241)

A synthetic resin bottle has a main body of synthetic resin molded in accordance with biaxial orientation. A handgrip is provided which has an attaching section surrounding a handgrip supporting portion of the main body, and a handgrip section extending outwardly and integrally from the attaching section. The handgrip is molded by means of injection molding to attach integrally to the body.

Inventors

MORIMURA AKIHITO

MIYAZAKI SHINICHI

YASUDA YOSUKE

MIURA MASAKI

Latest standardized assignees - inventors removed

TOYO SEIKAN KAISHA

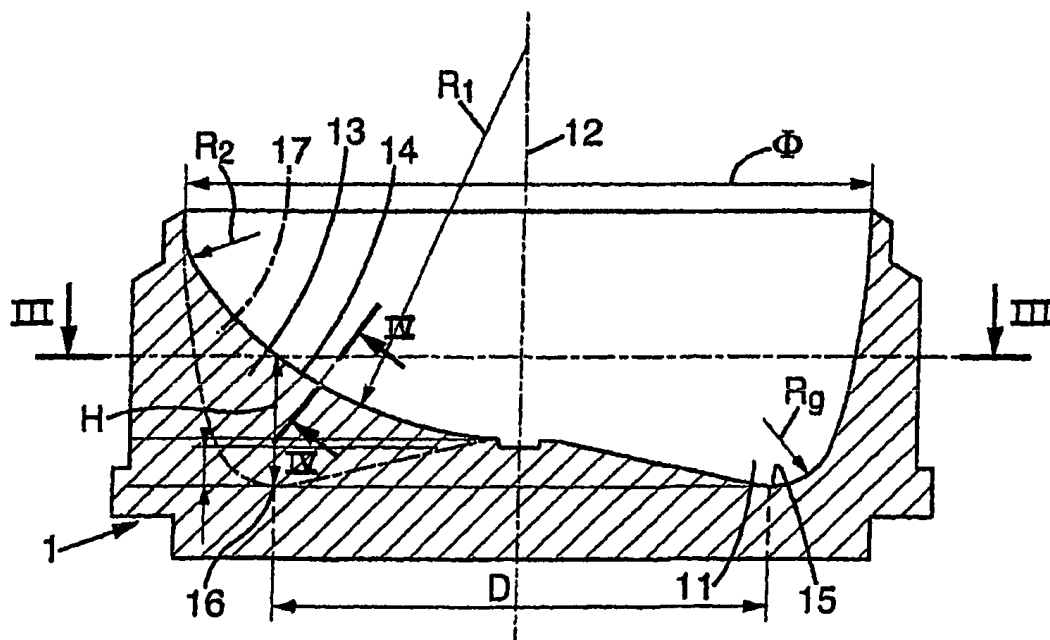
Family 91/100 - FAMPAT - ©Questel

Title

(EP1945518)

Mold base for mold manufacturing thermoplastic containers, and molding device equipped with at least one mold provided with such a base

Images



Publication data including kind & date

FR2892048	A1	2007-04-20	FR2892048
WO2007045749	A1	2007-04-26	WO200745749
FR2892048	B1	2008-01-04	FR2892048
EP1945518	A1	2008-07-23	EP1945518
CN101282881	A	2008-10-08	CN101282881
JP2009511303	A	2009-03-19	JP2009511303
US20090263534	A1	2009-10-22	US20090263534
CN101282881	B	2010-12-08	CN101282881B
US7891968	B2	2011-02-22	US7891968
EP1945518	B1	2011-04-06	EP1945518
AT504502	T	2011-04-15	ATE504502
DE602006021214	D1	2011-05-19	DE602006021214
ES2364181	T3	2011-08-26	ES2364181



Abstract

(EP1945518)

The invention concerns a mold base (1) for a blow- or stretch-blow molding of thermoplastic containers having a petaloid base with 5 stems which are separated by radiating troughs with convex radially curvilinear base, said base being connected to a body with a diameter F of 85 to 95 mm; the base comprises 5 cavities (11) separated by radiating ridge lines (13) with concave radial ridge (4) having a radius of 2 to 5 mm; the bases (15) of the cavities (11) have each a width of 1.5 to 3.5 mm and are distributed over a circular contour (16) of diameter of base D of 60 to 66 mm; the height (H) of the ridge line is 16.5 to 18 mm; the flanks (17) of the ridge lines are axially concave and the tangent planes at origin form an angle of 52° to 88° .

Inventors

LESUEUR FRANCOIS

Latest standardized assignees - inventors removed

SIDEL PARTICIPATIONS

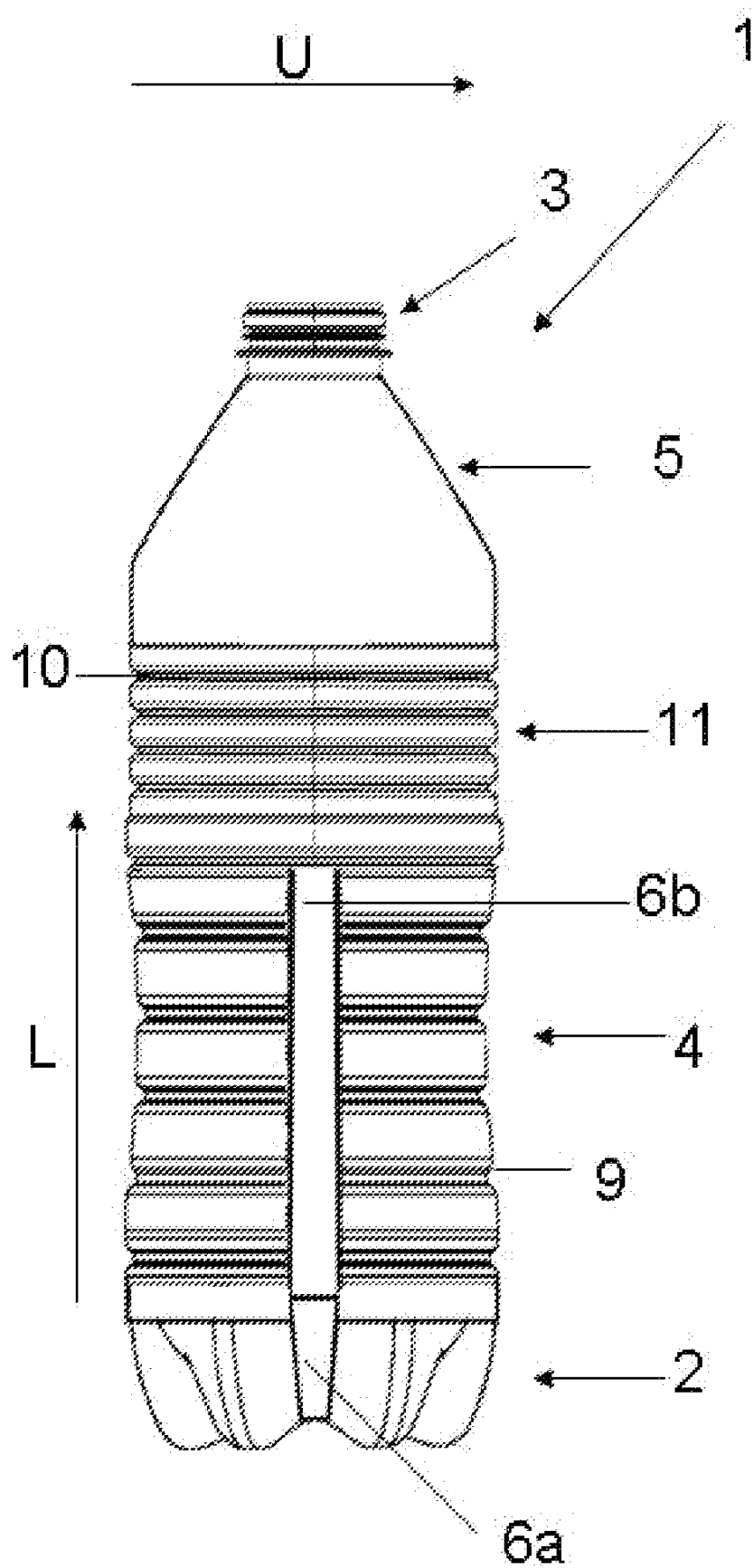
Family 92/100 - FAMPAT - ©Questel

Title

(US20140238951)

Plastic container

Images



Publication data including kind & date

US20130213925	A1	2013-08-22	US20130213925
DE102012003219	A1	2013-08-22	DE102012003219
US20140238951	A1	2014-08-28	US20140238951

**Abstract**

(US20140238951)

Plastic container (1) being composed of a neck (3), a shoulder (5), a body (4) and a base section (2), where the base section (2) comprises at least two tie members (6a) extending from a central area (8) to the side wall of the base (2).According to the invention, the tie members (6b, 6c) and/or the function of the tie members (6b, 6c) of the base (2) at least in certain areas extend into the body section (4) or into the body (4) and the shoulder section (5) of the plastic container (1).

Inventors

FORSTHÖVEL JOCHEN

SCHAU ALEXANDER

HÜTTNER GERALD

PEYKOFF ANDREW DIMITRI

HANAN JAY CLARKE

Latest standardized assignees - inventors removed

NIAGARA BOTTLING

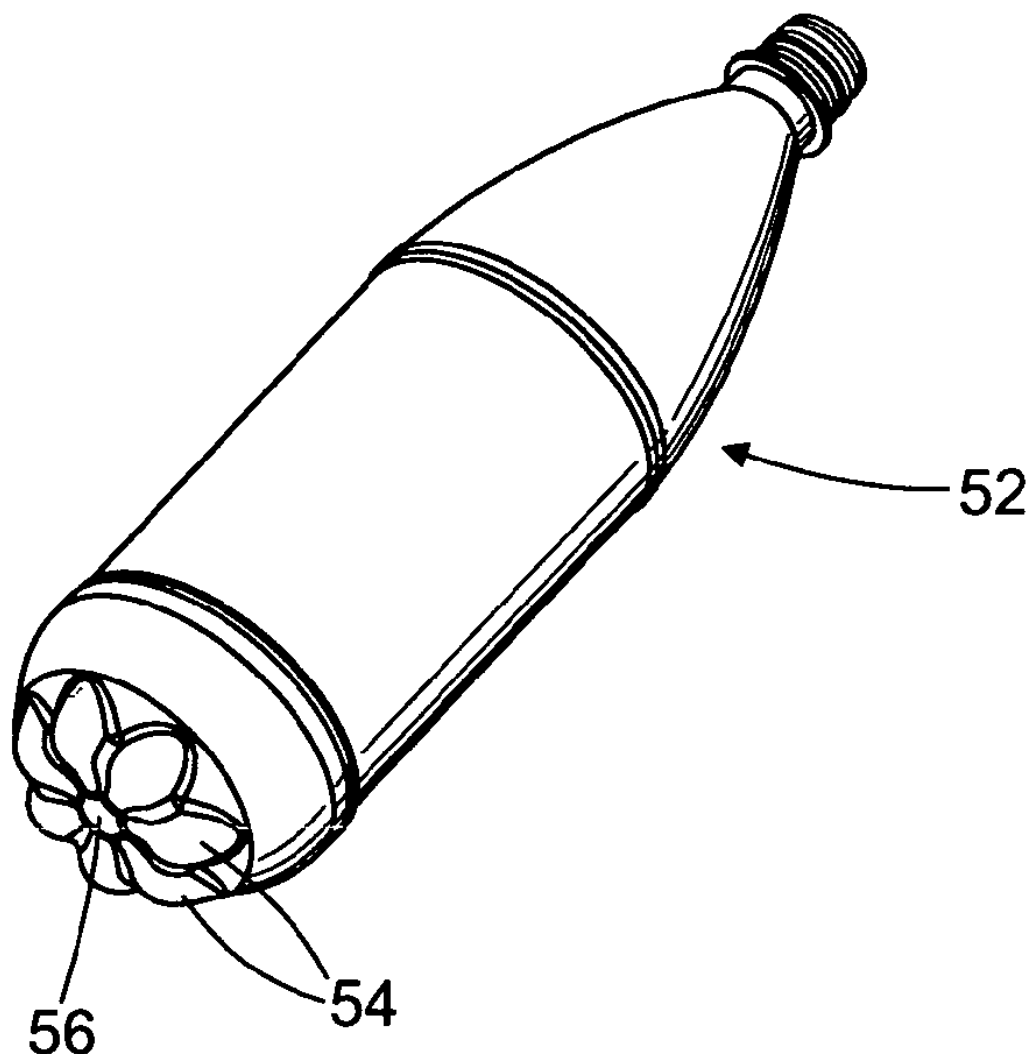
Family 93/100 - FAMPAT - ©Questel

Title

(EP2555984)

Petaloid base for a self-standing container and container therefor

Images



Publication data including kind & date

GB201005717	D0	2010-05-19	GB201005717
GB201105839	D0	2011-05-18	GB201105839
GB2479451	A	2011-10-12	GB2479451
GB2479360	A	2011-10-12	GB2479360
WO2011124626	A2	2011-10-13	WO2011124626
WO2011124626	A3	2011-12-01	WO2011124626
AU2011237887	A1	2012-11-15	AU2011237887
GB2479451	B	2012-12-26	GB2479451
EP2555984	A2	2013-02-13	EP2555984
US20130062306	A1	2013-03-14	US20130062306
CN103003161	A	2013-03-27	CN103003161
JP2013523549	A	2013-06-17	JP2013523549
BR112012025471	A1	2013-06-25	BR112012025471
ZA201208013	B	2014-03-26	ZA201208013
MX2012011595	A	2014-04-25	MX2012011595
RU2012147015	A	2014-05-20	RU2012147015
IN9222/DELNP/2012	A	2014-06-13	IN2012DN09222
JP5641267	B2	2014-12-17	JP5641267



UA109276	C2	2015-08-10	UA-109276				
AU2011237887	B2	2016-01-28	AU2011237887				
CN103003161	B	2016-03-30	CN103003161B				
EP2555984	B1	2016-08-24	EP2555984				
RU2598995	C2	2016-10-10	RU2598995				
PT2555984	T	2016-11-16	PT2555984T				
RU2598995	C9	2016-11-20	RU2598995				
DK2555984	T3	2016-12-05	DK2555984T				
ES2602135	T3	2017-02-17	ES2602135				
PL2555984	T3	2017-02-28	PL2555984				
HUE033351	T2	2017-11-28	HUE033351				

Abstract

(EP2555984)

A petaloid base (14) for a self-standing container (10) has an approximately hemispherical underlying base contour and a plurality of ovoid foot formations (16) that interrupt and project from the underlying base contour to define a corresponding plurality of feet. Its shape resists stress cracking, maximises capacity relative to the height of the container and reduces the surface area the base and hence material usage in comparison with equivalent known designs.

Inventors

QUASTERS MIKAEL

Latest standardized assignees - inventors removed

PETAINER LIDKÖPING

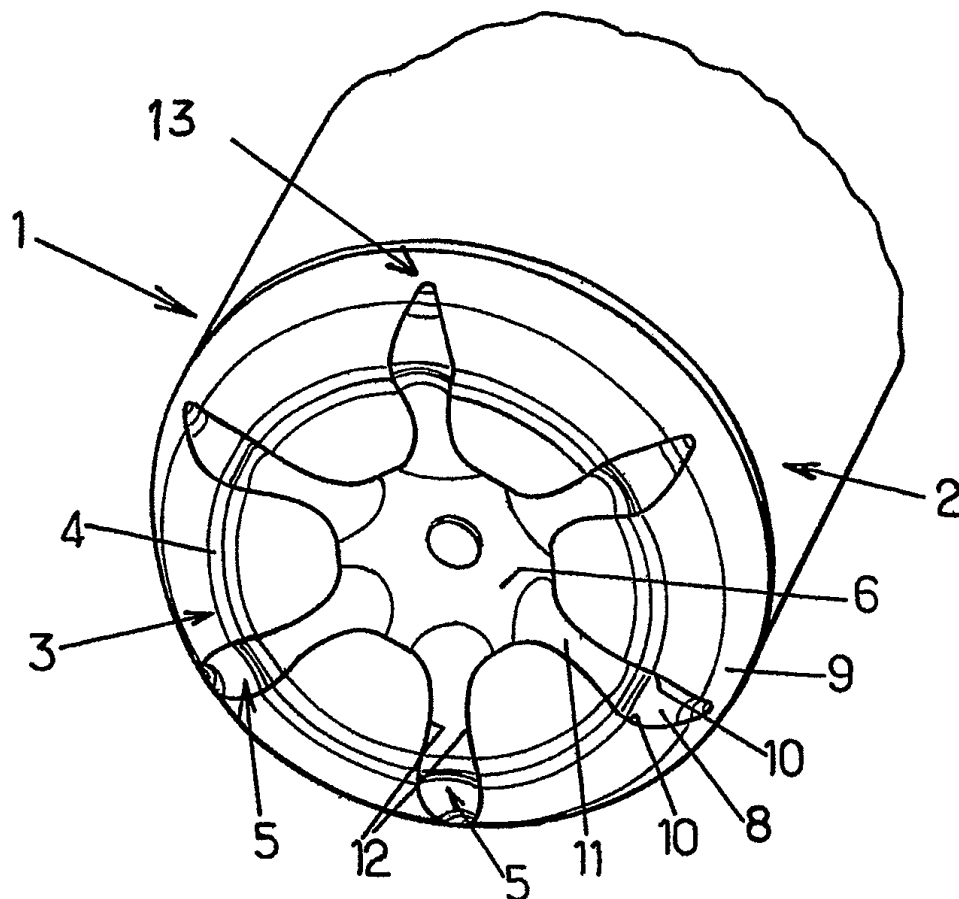
Family 94/100 - FAMPAT - ©Questel

Title

(EP1645515)

Thermoplastic material container

Images



Publication data including kind & date

EP1645515	A1	2006-04-12	EP1645515
WO2006037872	A1	2006-04-13	WO200637872
MX2007004132	A	2007-10-02	MX2007004132
CN101056798	A	2007-10-17	CN101056798
EP1645515	B1	2007-12-19	EP1645515
AT381490	T	2008-01-15	ATE381490
DE602004010814	D1	2008-01-31	DE602004010814
US20080035601	A1	2008-02-14	US20080035601
PT1645515	E	2008-03-27	PT1645515
ES2298697	T3	2008-05-16	ES2298697
DE602004010814	T2	2008-12-11	DE602004010814
US7703618	B2	2010-04-27	US7703618



Abstract

(EP1645515)

The bottle has a domed base (3) with an outward-facing cavity defining a planar peripheral annular seat (4) for supporting the bottle on a support. The base has several grooves (5) radiating from a center of the base. Each groove has a portion (8) of increased width in its zone of intersection with the seat. The portion has two edges (10) curved with relatively large radii of curvature and with respective concavities facing each other.

Inventors

DERRIEN MIKAEL

Latest standardized assignees - inventors removed

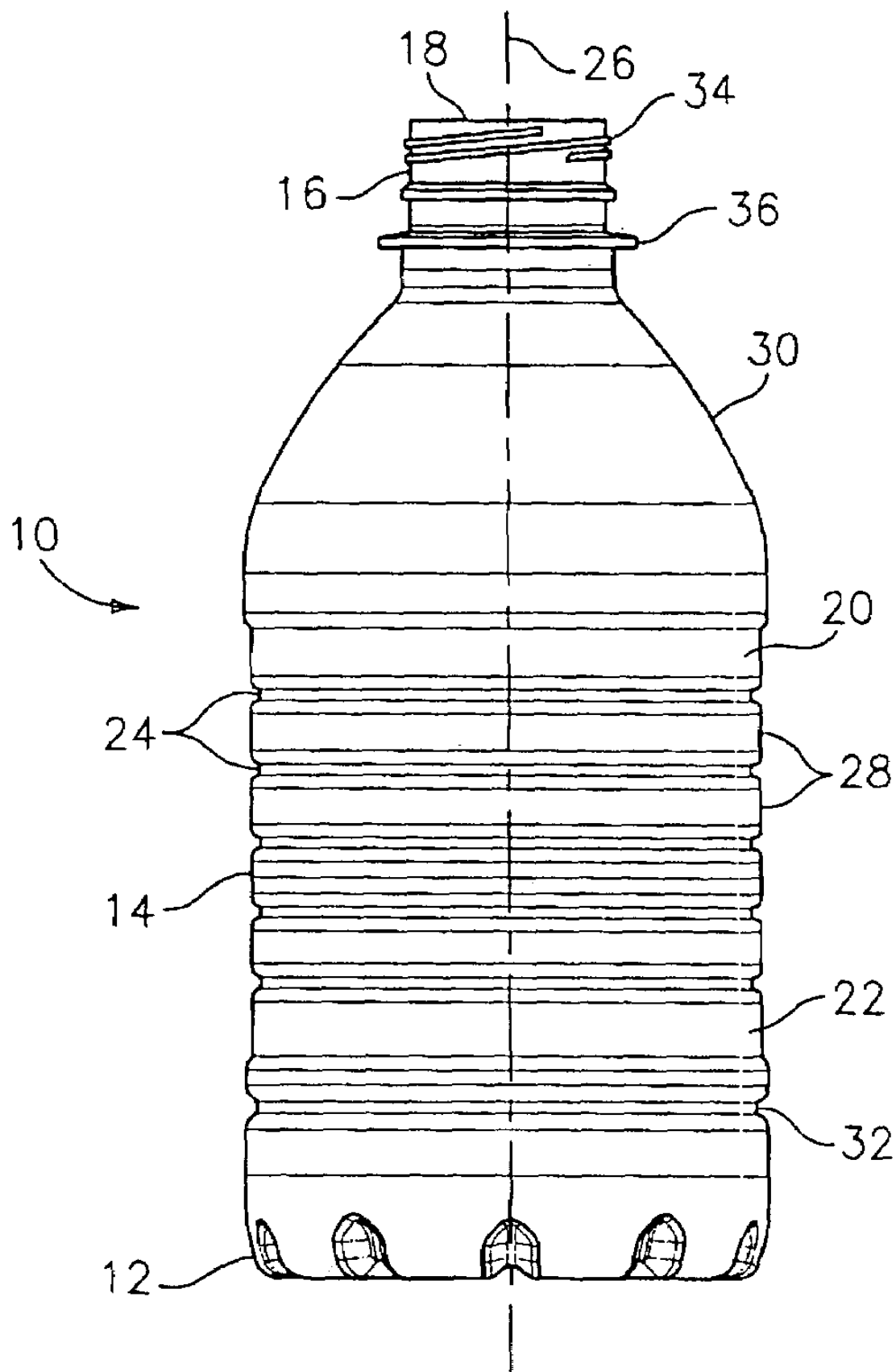
SIDEL PARTICIPATIONS

Family 95/100 - FAMPAT - ©Questel

Title

(EP2517968)

Container

Images

Publication data including kind & date

US20050127024	A1	2005-06-16	US20050127024				
US20050139571	A1	2005-06-30	US20050139571				
WO2005061337	A1	2005-07-07	WO200561337				
CA2545075	A1	2005-07-07	CA2545075				
WO2005060410	A2	2005-07-07	WO200560410				
CA2545057	A1	2005-07-07	CA2545057				
US6929139	B2	2005-08-16	US6929139				
US20050258127	A1	2005-11-24	US20050258127				
US6971530	B2	2005-12-06	US6971530				
WO2005060410	A3	2005-12-08	WO200560410				
EP1692043	A1	2006-08-23	EP1692043				
US7279207	B2	2007-10-09	US7279207				
CA2545075	C	2009-01-20	CA2545075				
CA2545057	C	2009-01-27	CA2545057				
EP1692043	A4	2010-07-07	EP1692043				
EP1692043	B1	2012-06-20	EP1692043				
ES2389769	T3	2012-10-31	ES2389769				
EP2517968	A1	2012-10-31	EP2517968				

Abstract

(EP2517968)

A blow molded plastic container having a circular base, a cylindrical sidewall extending upwardly from the base and a neck finish projecting upwardly from the sidewall. The sidewall includes a plurality of spaced apart, continuous, circumferential grooves (24) extending around the sidewall. The grooves are separated by raised areas (28).

Inventors

DARR RICHARD

Latest standardized assignees - inventors removed

PLASTIPAK PACKAGING

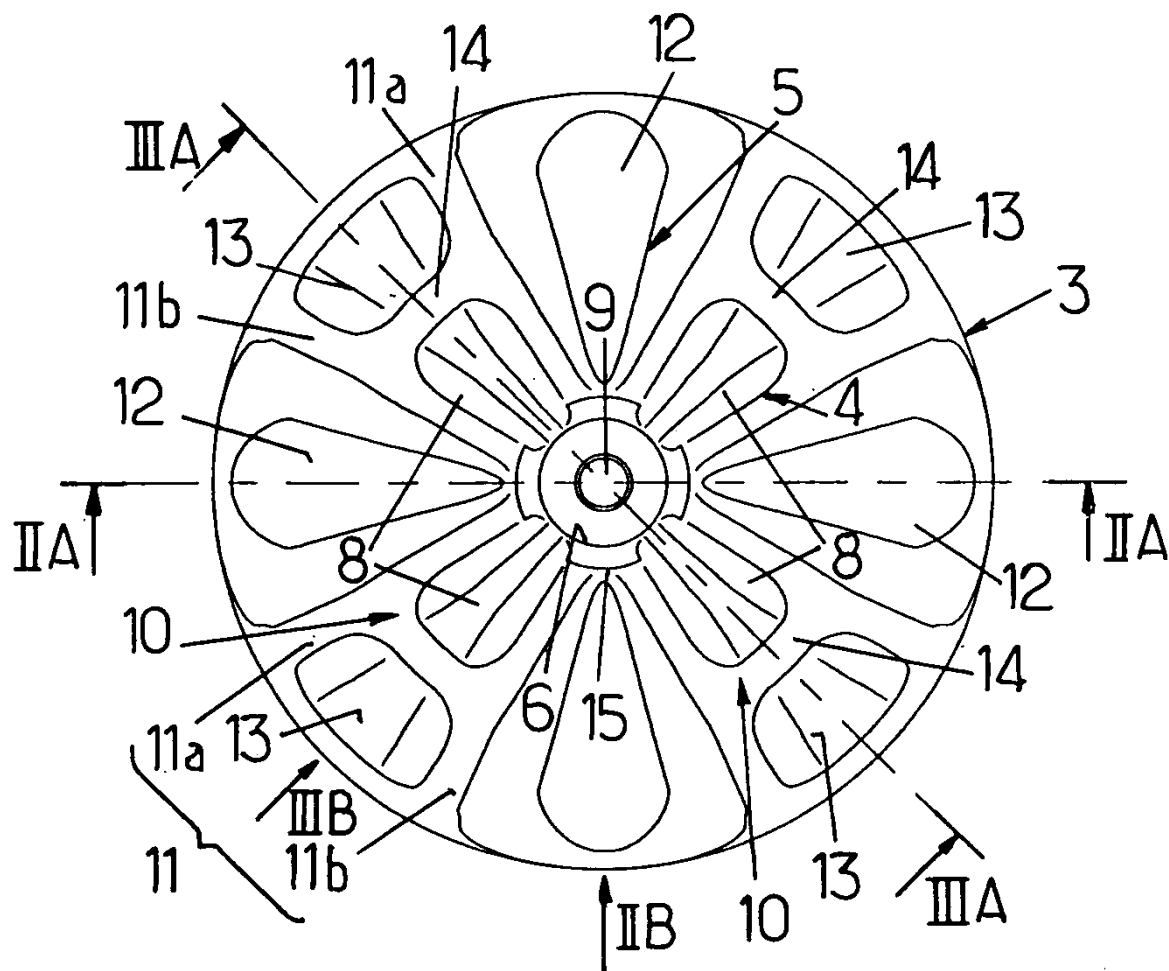
Family 96/100 - FAMPAT - ©Questel

Title

(EP1373076)

Thermoplastic container whereof the base comprises a cross-shaped impression

Images



Publication data including kind & date

FR2822804	A1	2002-10-04	FR2822804
WO02081312	A1	2002-10-17	WO200281312
CA2441593	A1	2002-10-17	CA2441593
KR20030094324	A	2003-12-11	KR20030094324
EP1373076	A1	2004-01-02	EP1373076
MXPA03009067	A	2004-02-17	MX2003PA009067
BR0208556	A	2004-03-02	BR200208556
BRPI0208556	A1	2004-03-02	BRPI0208556
US20040094502	A1	2004-05-20	US20040094502
CN1500049	A	2004-05-26	CN1500049
FR2822804	B1	2004-06-04	FR2822804
JP2004524236	A	2004-08-12	JP2004524236
EP1373076	B1	2004-12-29	EP1373076
AT285945	T	2005-01-15	ATE285945
DE60202450	D1	2005-02-03	DE60202450
PT1373076	E	2005-05-31	PT1373076
ES2235031	T3	2005-07-01	ES2235031
CN1236963	C	2006-01-18	CN1236963C
KR100547665	B1	2006-01-31	KR100547665
JP3741689	B2	2006-02-01	JP3741689
DE60202450	T2	2006-02-09	DE60202450
US7051889	B2	2006-05-30	US7051889
BRPI0208556	A2	2011-08-23	BR200208556
BR0208556	B1	2012-05-29	BR200208556



Abstract

(EP1373076)

The invention concerns a thermoplastic container obtained by blow-moulding of a preform, with a base (3) comprising in its central part a multiple-branch cross-shaped impression provided with a central recess (6) from which radial branches (8) radiate; the base (3) is of the petal-shaped type with at least three legs (10) formed by protuberances located near the periphery; there are as many legs as branches mutually aligned radially; each leg includes a notch for absorbing stresses (13) radially separated from the end of the respective branch.

Inventors

BOUKOBZA MICHEL

Latest standardized assignees - inventors removed

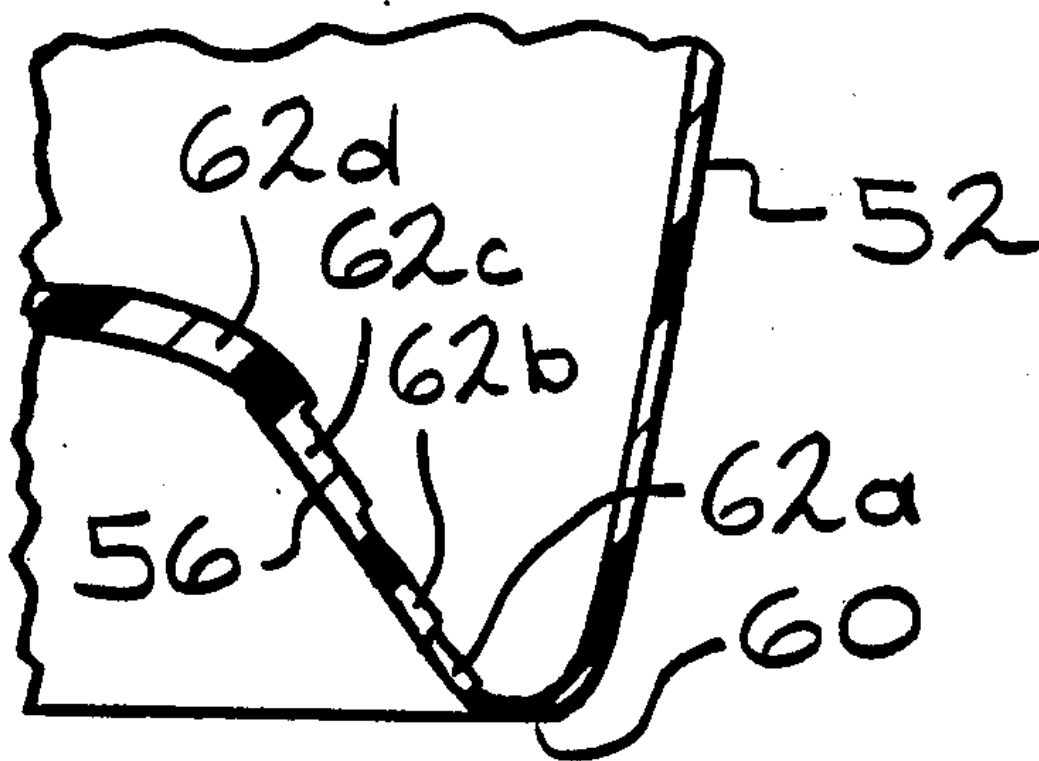
SIDEL

Family 97/100 - FAMPAT - ©Questel

Title

(US4892205)

Concentric ribbed preform and bottle made from same

Images**Publication data including kind & date**[US4892205](#)

A 1990-01-09 US4892205

**Abstract**

(US4892205)

An improved preform is disclosed for molding plastic containers having a self-supporting base structure. The preform has a reinforcing section of concentric annular ribs near its closed end. The wall thickness of the preform is increased in the reinforcing section by a plurality having an increasing thickness in a direction toward the closed end of the preform. When blow molded into a final container, these concentric ribs form annular reinforcing ribs on the inner surface of the container base. These ribs are substantially concentric about the longitudinal axis of the container and are of decreasing thickness radially outward from the center. The ribs coact with other reinforcing ribs in the base structure to further increase the strength of the container base. During stretching of the preform prior to blow molding, the concentric ribs act to reduce the

stretching of the preform in the reinforcing section thus increasing the wall thickness of the base and thereby increasing the base strength.

Inventors

POWERS THOMAS F

KINSLOW WILLIAM G

Latest standardized assignees - inventors removed

BALL PACKAGING EUROPE

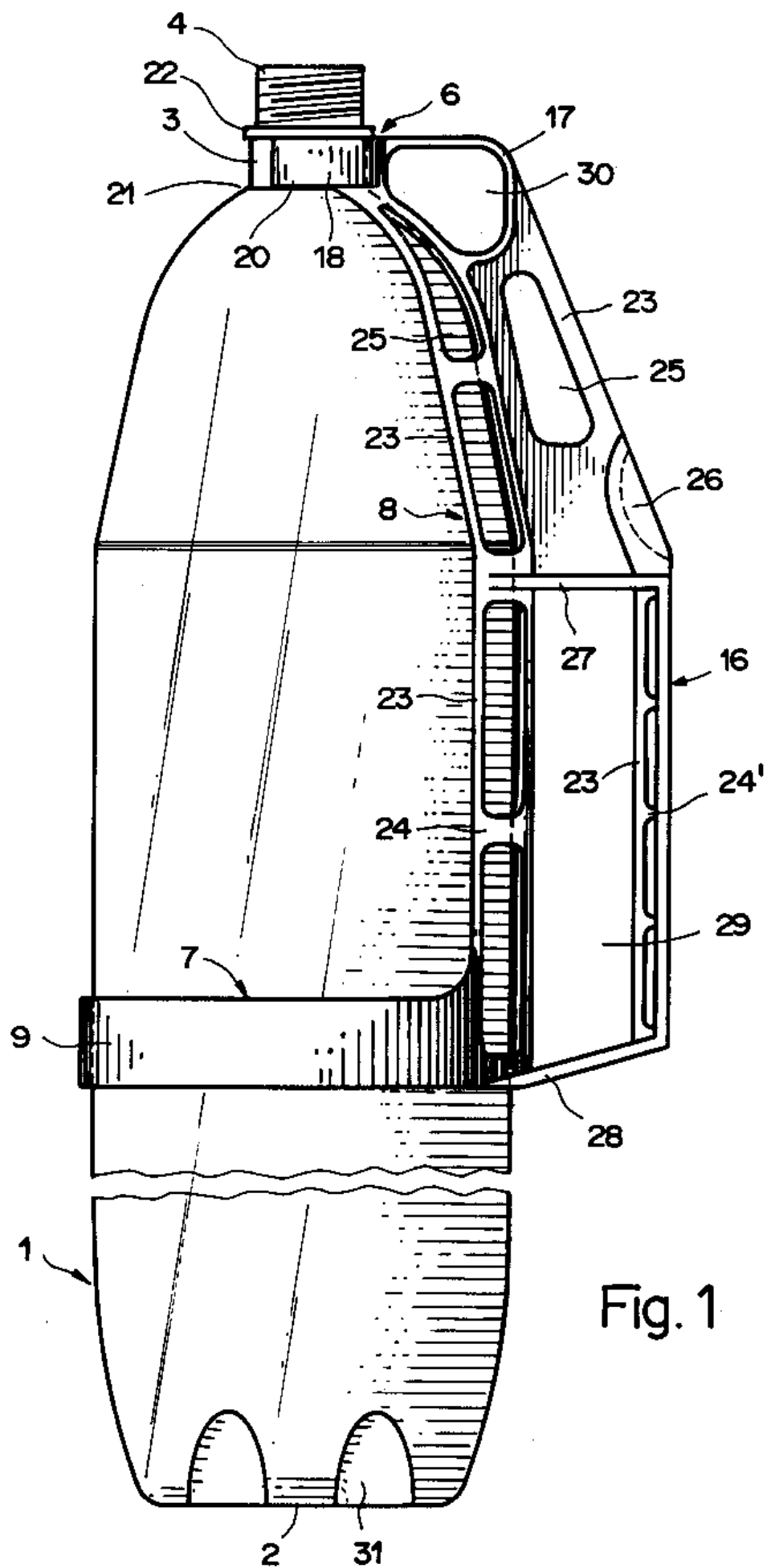
Family 98/100 - FAMPAT - ©Questel

Title

(EP-652158)

Device for holding an essentially cylindrical bottle.

Images



Publication data including kind & date

EP0652158

A1 1995-05-10 EP-652158

**Abstract**

(EP-652158)

The device is intended, in particular, for holding a plastic beverage bottle, a so-called PET bottle (1). The device comprises two holding means (6, 7) in each case for locally bounded holding of the bottle. The two holding means are joined together by a relatively rigid web (8). The second holding means (7) is designed as a ring (9), and the first holding means (6) is designed as a clip (18). The holding device is mounted on the bottle (1) to be held by the ring (9) being pushed over the bottle from above until the clip (18) lies in the region of the bottle neck (3). At that point, the clip (18) is snapped over the bottle neck in a radial direction relative to the bottle. (16) denotes a holding handle which extends in the longitudinal direction of the web (8). A thumb depression (26), together with the holding handle (16) serves for the simple tipping of the bottle when pouring out the liquid. Furthermore, (17) provides a carrying ring on which a PET bottle can be carried comfortably by one finger. The holding handle (16) projects from the PET bottle in a radial direction only to the extent that a plurality of bottles arranged adjacently can be stored essentially without wasting space if the carrying handle extends at an angle of about 45 DEG to the row of bottles. <IMAGE>

Inventors

ZAEHNER VIKTOR

NYDEGGER DANIEL

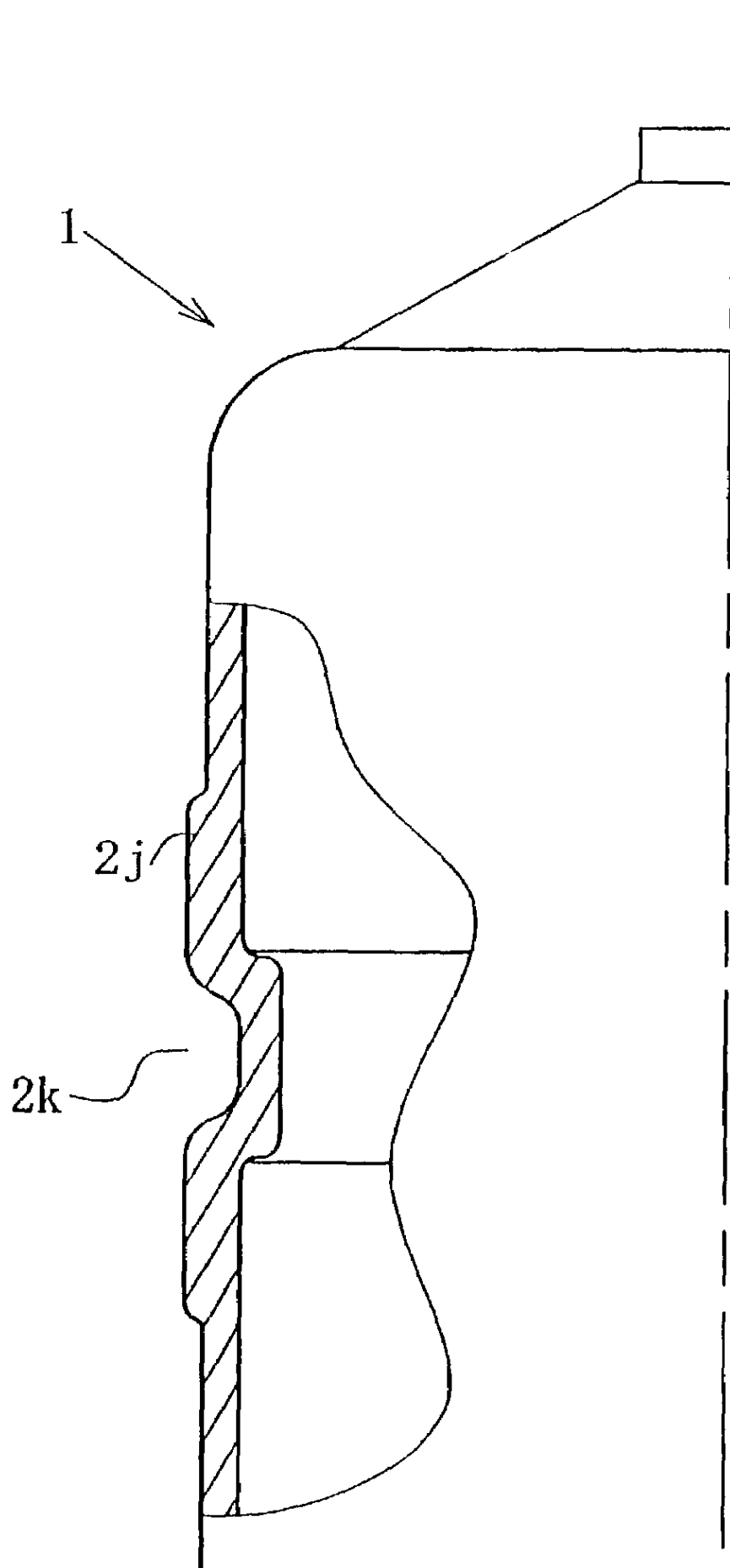
Family 99/100 - FAMPAT - ©Questel

Title

(EP1340683)

Plastic container and method of producing the same

Images



Publication data including kind & date

WO200246049	A1	2002-06-13	WO200246049				
CA2398364	A1	2002-06-13	CA2398364				
JP2002173124	A	2002-06-18	JP2002173124				
KR20020081265	A	2002-10-26	KR20020081265				
US20030000909	A1	2003-01-02	US20030000909				
EP1340683	A1	2003-09-03	EP1340683				
US7063222	B2	2006-06-20	US7063222				
JP3982173	B2	2007-09-26	JP3982173				
KR100806239	B1	2008-02-22	KR100806239				
EP1340683	A4	2009-05-20	EP1340683				
CA2398364	C	2009-06-30	CA2398364				

Abstract

(EP1340683)

In a plastic container manufactured by melting blow molding a heated and molten parison extruded from an extruder, a mouth 3 and/or a specified part of a body 2 has a thicker thickness than the body proper. One or more thick parts of the body 2 are continuously or discontinuously formed over part or all a peripheral, height or helical direction of the body of the container. The container enjoys enhanced rigidity, appearance and functionality even when the thickness of its body is considerably reduced.

Inventors

SAKAGUCHI TOSHIKI

MARUYAMA YUZURU

TANAKA KENJIRO

Latest standardized assignees - inventors removed

TOYO SEIKAN KAISHA

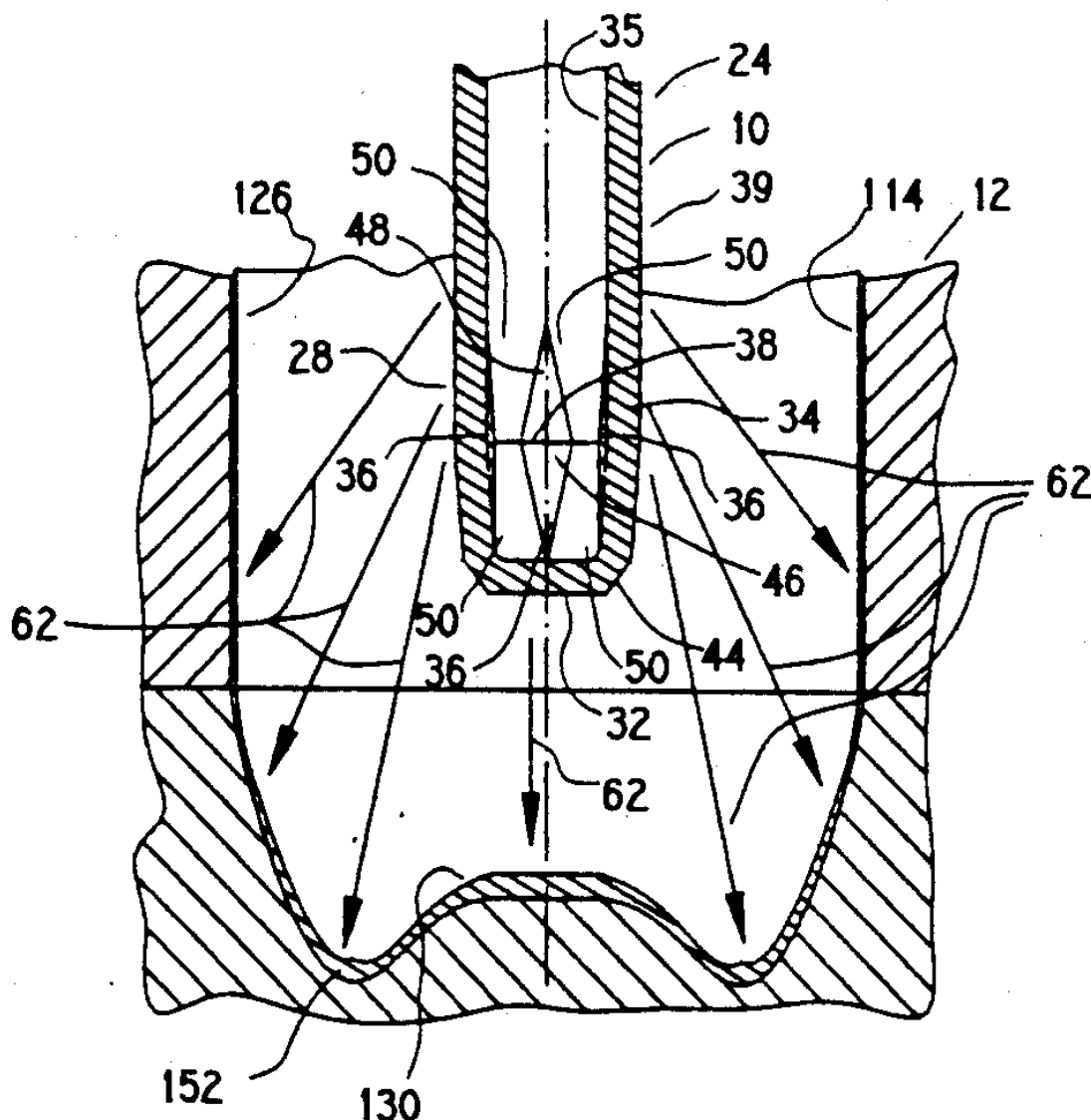
Family 100/100 - FAMPAT - ©Questel

Title

(US5047271)

Apparatus and process relating to a preform and a container with geodesic reinforcement

Images



Publication data including kind & date

US5047271

A 1991-09-10 US5047271



Abstract

(US5047271)

A preform (10) for producing a plastic preform for forming blow molded plastic containers which comprises: a neck portion (16) defining an opening; a tubular sidewall portion (24) depending therefrom; and an integral base structure (28) depending from the tubular sidewall portion to a closed end (32); the preform having an outside wall face and an inside wall face with one of these, in the base structure, having integrally formed thereon a plurality of filets (36), extending longitudinally of the preform and defining a reinforcement (38) of varying thickness spaced from the closed end and circumscribing the base structure, wherein the filets decrease progressively in width and radial thickness at least from the reinforcing ring toward the closed end. The preform is capable of forming a blow molded plastic container with a bottom portion (130) having a reinforcement of circumferentially continuous radially extending alterations in wall thickness with a regularly undulating cross-section along the circumference. Preferably the filets are integral with the inside wall face. The invention also covers a mold-core rod combination for making such a preform, a process of using such a preform to make plastic containers by stretch/blow molding and containers including containers when produced from said preforms or combinations, or by said process.

Inventors

FEDDERSEN FREDERICK J

CHENG JIZU J

Latest standardized assignees - inventors removed

FMT HOLDINGS