

59 Documents

Publication numbers	Title	Current assignees
EP-714368 A1	Closure cap with warranty ring	CROWN CORK
EP3464098 A1	Container cap comprising tamper evidence means	NESTEC
EP-650444 A1	Tamper evident closure	BERRY PLASTICS
EP-632782 A1	Tamper-indicating closure	CROWN HOLDINGS, ...
GB200709820 D0	Closure with frangible tamper-evident band	ABACUS
EP3411301 A1	Tamper evidence bridges	NIAGARA BOTTLING
EP-621199 A1	Assembly of a container and a closure with tamper evidence structure	COLGATE PALMOLIVE
EP1660379 A1	Closure with frangible tamper-evident band	RBC TRUSTEES CI TRUSTEE
EP3105137 A1	Improved tamper-evident closure	REYNOLDS CONSUMER PRODUCTS, ...
EP1853492 A2	Anti-backoff, low application torque, tamper evident plastic closure and container system with enhanced visual tamper evidency	ALCAN PACKAGING PHARMACEUTICAL & PERSONAL CARE
EP-801005 A1	Closure device and container	ALCOA CLOSURE SYSTEMS
EP-532471 A1	Plastic closure for container.	ZELLER PLASTIK, ...
EP-854095 A1	Closure device and container	SUNTORY, ...
IT2002MI2330 A1	Chiusura con sigillo di garanzia per contenitori di liquidi, particolarmente bottiglie	GUALA CLOSURES
EP1660383 A1	Closure with an optical tamper indicator for alcoholic beverage bottles	GUALA CLOSURES
EP-273858 A1	Tamper-evident closure, method and apparatus for its forming	ALFATECHNIC
EP-673346 A1	Container with integrally molded closure/tamper indicator.	BALL PACKAGING EUROPE
EP-641721 A1	Screwcap with tamper evidence band, package provided with such a cap, method of making such a cap and such a package	BASF COATINGS
EP1976778 A2	Blow-molded container having thread groove	AMCOR RIGID PLASTICS
WO200895863 A1	Tamper evident closure and container for receiving tamper evident closure and combination thereof	OBRIST CLOSURES SWITZERLAND
EP-109593 A2	Tamper-indicative closures and containers	TBL DEVELOPMENT
EP-667827 A1	Container closure with tamper evident ring	BEESON & SONS
EP3350094 A1	Head stand closure with a tamper-evident seal	OBRIST CLOSURES SWITZERLAND
EP1833732 A1	Tamper-evident closure and bead on container neck	RBC TRUSTEES

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JP4676558 B1	Container lid and questionnaire system using container lid	TAGUCHI MASAYUKI
EP2268554 A2	Tamper -evident package with improved opening performance	CLOSURE SYSTEMS INTERNATIONAL
WO200567616 A2	Closure and container system and method	BERRY STERLING, ...
EP3099596 A1	A tamper -evident closure	OBRIST CLOSURES SWITZERLAND
EP3031743 A1	Tamper evident security closure to access opening of a container , in particular a bottle	HSIL
EP1330396 A1	Closure lid and resealable closure system	SEAQUIST CLOSURES FOREIGN
EP2915585 A1	Tamper -evident closure assembly having two tamper -evidencing members, and related methods	FISHER SCIENTIFIC
US20070017891 A1	Composite two-piece tamper -evident closure with a seal -delay-release feature and a method therefor	BERRY STERLING, ...
EP2694386 A1	Closure with folded-up tamper evident band	CREANOVA UNIVERSAL CLOSURES
WO9937549 A1	Tamper -evident container closure	BENNETT PAUL H., ...
EP3337732 A1	Container orifice reducer with tamper evident seal	CSP TECHNOLOGIES
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EP-367369 A1	Tamper -indicating closure for a container and improved capping without top loading.	OWENS ILLINOIS CLOSURE
EP2822869 A1	Tamper -evident closure with tear-off seal	GUALA CLOSURES
EP1892194 A1	A tamper -evident closure	OBRIST CLOSURES SWITZERLAND
EP-592580 A1	Container-closure assembly	BEESON & SONS
EP1595812 A2	Tamper evident closure with reclose feature	SONOCO DEVELOPMENT
EP1545999 A1	Tamper evident closure with locking band	OBRIST CLOSURES SWITZERLAND
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EP-765279 A1	Container and closure having an outer foil cover	SMITHKLINE BEECHAM

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EP-941938 A2	Tamper resistant bottle cap and neck	BLACKHAWK MOLDING
EP-662913 A1	Tamper -indicating plastic closure with pilfer band having staggered scores.	REYNOLDS CONSUMER PRODUCTS, ...
EP-457961 A2	Tamper evident closure and associated method	TSL
EP2523865 A2	Tamper evident closure	GUALA CLOSURES
EP-775075 A1	Child resistant bottle closure	PROCTER & GAMBLE
EP2969823 A2	Container having a tamper -indicating component	OWENS BROCKWAY GLASS CONTAINER
WO200431043 A1	Closure having tamper -evidencing label	PORTOLA PACKAGING
EP1556280 A2	Tamper evident bottle cap	PORTOLA PACKAGING

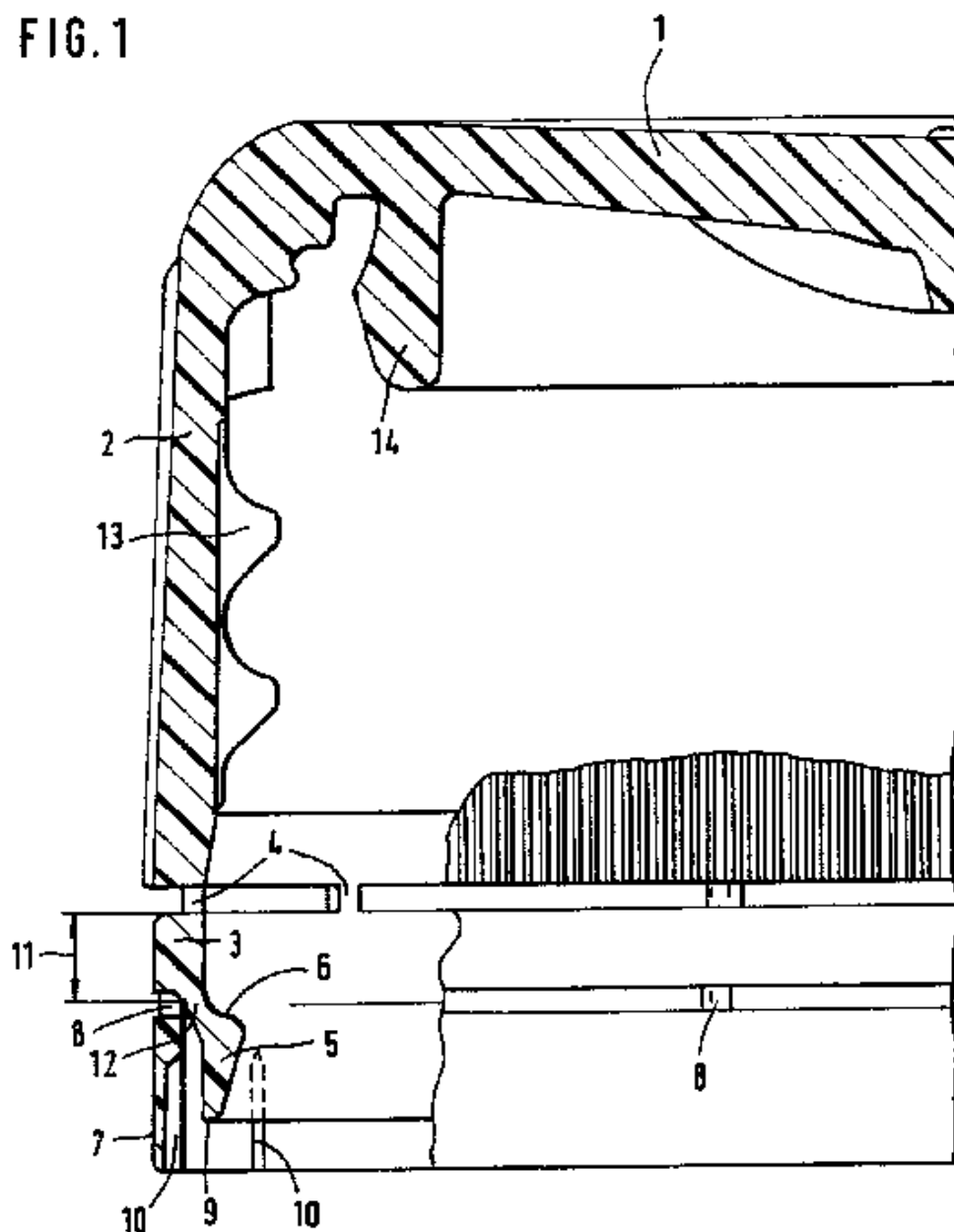
Title

(EP-714368)

Closure cap with warranty ring

Images

FIG. 1



Publication numbers with kind code & date

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Abstract

(EP0714368)

Closure caps with warranty strips (3) are used as a visible indication to everyone that a **container** has not been opened. The warranty strip is intended to exclude, as far as possible, the possibility of such a **container** being opened unnoticed. The invention calls for an additional security ring so that the warranty strip (3) cannot be stretched out and pulled undamaged over the bulge round the **container** mouth. This security ring (7) is located coaxial to the actual warranty ring (3). It is joined to the warranty ring and surrounds primarily the lower part (5) of the warranty ring. Access to the actual warranty ring (3) is thus made significantly more difficult. In a preferred embodiment of the invention, the security ring has weak zones (10) which will tear when the ring is tampered with so that any such tampering becomes clearly visible.

Inventors

PFEFFERKORN GEORG

KIRCHGESSNER MICHAEL

BOESL UDO

Latest standardized assignees - inventors removed

CROWN CORK

Family 2/59 - FAMPAT - ©Questel

Title

(EP3464098)

Container cap comprising **tamper evidence** means

Images

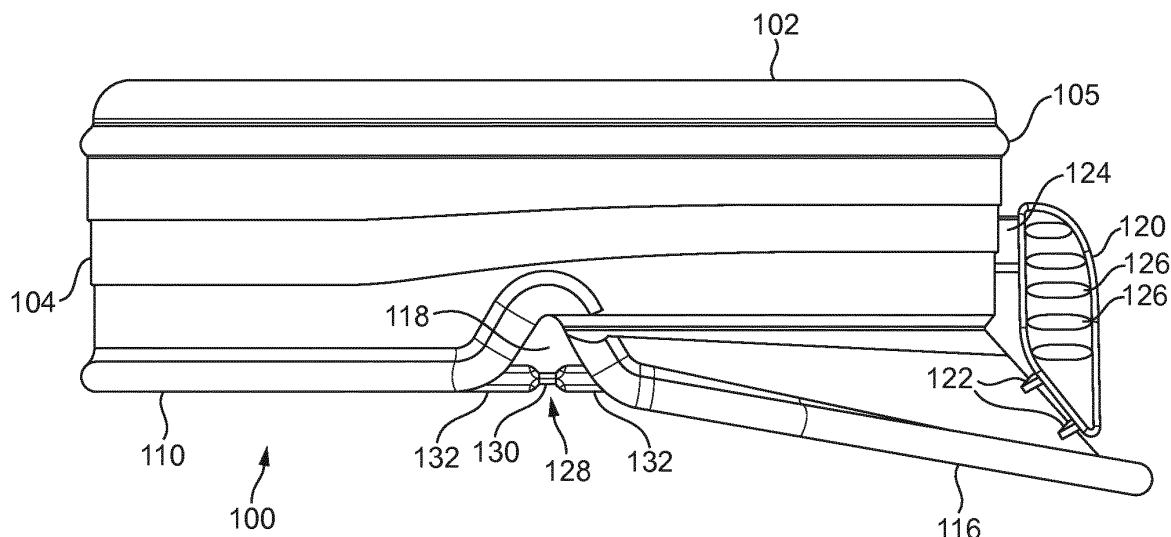


FIG. 5B

Publication numbers with kind code & date

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WO2017/211703	A1	2017-12-14	WO2017211703

**Abstract**

(EP3464098)

A cap (100) for a **container** comprises a disc-shaped top section (102), an annular side section (104) projecting from said disc-shaped top section (102), and a locking flange (110) disposed at an extremity of said annular side section (104) opposite said disc-shaped top section (102), and further comprises a locking flap (116) extending from said annular side section (104), which is mobile between a locked first position wherein a portion (114) of the locking flange (110) extends inwardly from the annular side section (104), and an unlocked second position wherein the locking flange (110) is at least partially recessed relative to the annular side section (104). First **tamper evidence** means formed as partially frangible tab (120) and second **tamper evidence** means (128) are proposed. A package comprising a **container** and proposed cap (100) is also proposed.

Inventors

CERVENY JEAN-PAUL

Latest standardized assignees - inventors removed

NESTEC

Family 3/59 - FAMPAT - ©Questel

Title

(EP-650444)

Tamper evident **closure****Images**

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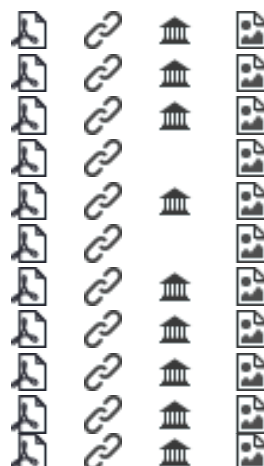
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A1 1994-02-03 CA2140273

WO94/02371

A1 1994-02-03 WO9402371

**Abstract**

(EP0650444)

A **container** closer (10) particularly for use on screw top containers such as carbonated beverage containers, the **container closure** (10) having a generally cylindrical continuous **tamper** evident band (11) joined by a plurality of frangible bridges (13) to the free edge of a skirt (16) of the **closure** (10). The band (11) has a segmented internal rib (18) which engages an external retaining flange of the **container** when the **closure** (10) is applied to the **container** so that on removal of the **closure** (10) the **tamper** evident band (11) remains on the **container** or is visually clearly damaged by removal of the **closure** (10) from the **container**. The band (11) is provided with longitudinal reinforcement by projections (25 and 28) or other areas of thickening (26) to provide the band (11) with longitudinal stiffness while still permitting it to expand over the retaining flange on the **container**. The rib (18) has a first annular side (21), the first annular side (21) having a compound surface comprising a radially outer frusto-conical portion (23) which assists in the molding of the rib (18) and a radially inner substantially planar portion (24) which increases the difficulty of removing the **closure** (10) intact from the **container** without rupturing the bridges joining the **tamper** evident band (11) from the remainder of the **closure** (10).

Inventors

TANSEY CHARLES MARTIN

DRUITT RODNEY MALCOLM

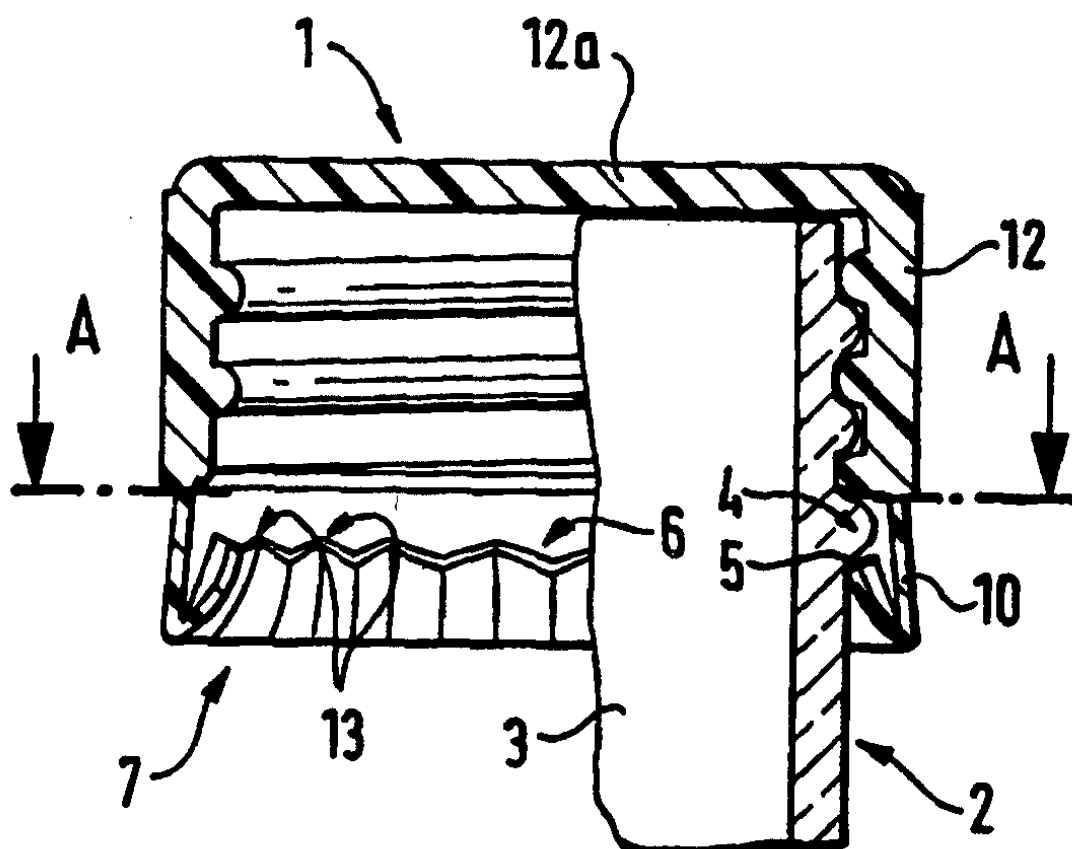
Latest standardized assignees - inventors removed

BERRY PLASTICS

Family 4/59 - FAMPAT - ©Questel

Title

(EP-632782)

Tamper-indicating **closure****Images**

Publication numbers with kind code & date

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DE69323423	D1	1999-03-18	DE69323423				
AT176437	T	1999-02-15	ATE176437				
EP0632782	B1	1999-02-03	EP-632782				
PL172627	B1	1997-10-31	PL-172627				
BR9305948	A	1997-10-21	BR9305948				
CO4410219	A1	1997-01-09	CO4410219A1				
AU672477	B2	1996-10-03	AU-672477				
IL108003	B	1996-09-12	IL-108003				
MA23495	A1	1995-12-31	MA--23495				
NZ259353	A	1995-12-21	NZ-259353				
JPH07504147	A	1995-05-11	JP07504147				
US5400913	A	1995-03-28	US5400913				
KR19957000198	A	1995-01-16	KR19957000198				
KR950700198	A	1995-01-16	KR19950700198				
EP0632782	A1	1995-01-11	EP-632782				
PL304895	A1	1995-01-09	PL93304895				
CN1091384	A	1994-08-31	CN1091384				
ZA9309601	B	1994-08-11	ZA9309601				
AU5813594	A	1994-07-19	AU9458135				
CA2130259	A1	1994-07-07	CA2130259				
WO94/14673	A1	1994-07-07	WO9414673				
IL108003	A	1994-04-12	IL-108003				

Abstract

(EP0632782)

A **tamper**-indicating **closure** serves as a **closure** for a **container** (2) which, at its **container** neck (3), possesses at least one locking surface (5) with which the retaining elements (6) of the **tamper**-indicating band (7) are able to engage. The **tamper**-indicating band (7) possesses an upper portion (10) which extends downwards from the cap skirt (12) and which is connected with this by a frangible line (11). A plurality of retaining elements (6) are provided on the upper portion (10) of the **tamper**-indicating band (7). The retaining elements (6) are in each case connected with the adjacent retaining element by a flexible web (13). Each of the retaining elements (6) possesses at least one wedge shape (8) on its surface oriented towards the **container** neck (3).

Inventors

KELLY RONALD L

Latest standardized assignees - inventors removed

CROWN HOLDINGS

OBRIST CLOSURES SWITZERLAND

Family 5/59 - FAMPAT - ©Questel

Title

(GB2435038)

Closure with frangible **tamper**-evident band

Images

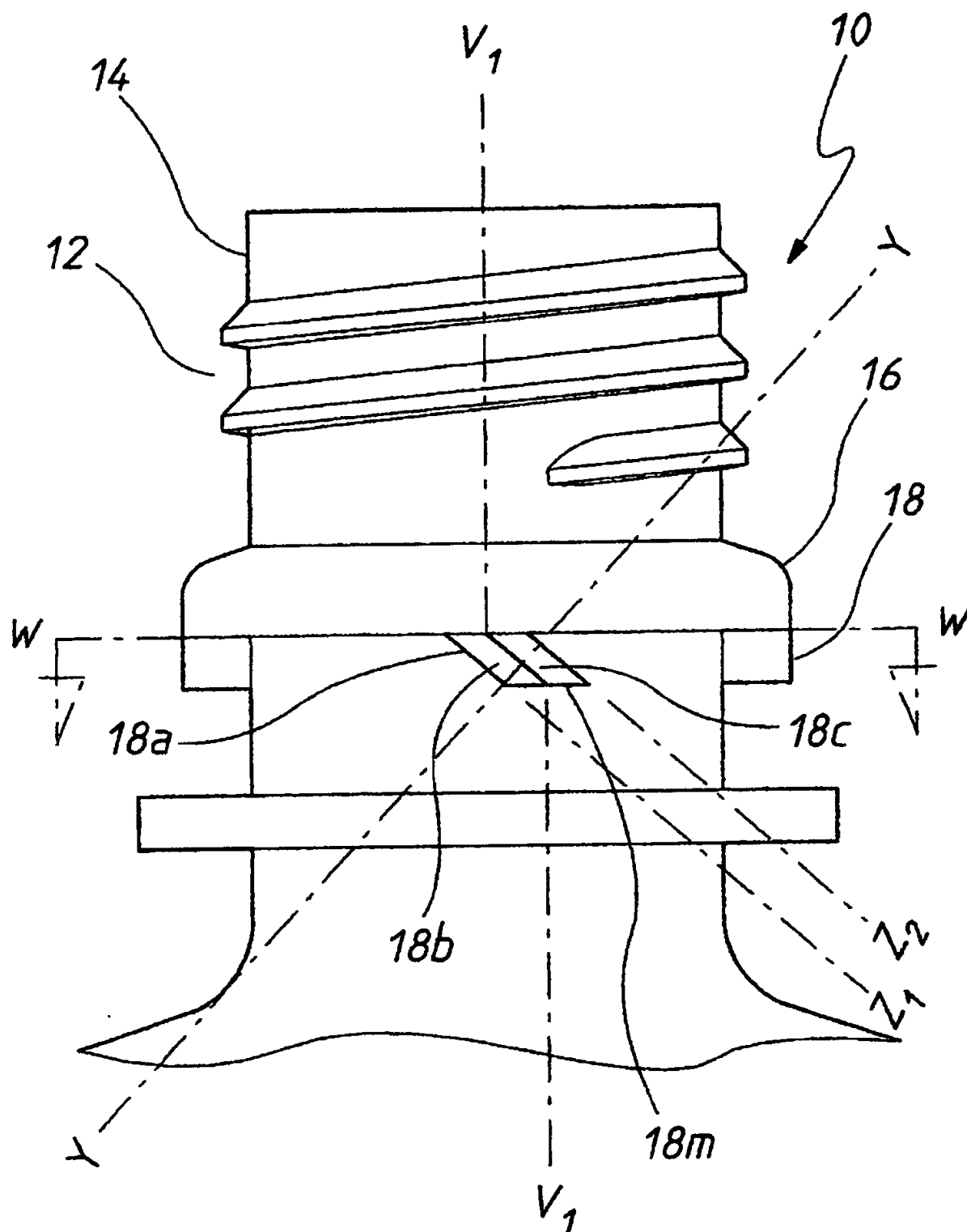


FIG 1

Publication numbers with kind code & date

GB2435038	B	2008-05-21	GB2435038
GB2435038	A	2007-08-15	GB2435038
GB0709820	D0	2007-07-04	GB200709820



Abstract

(GB0709820)

A closure 100 for connection to a container, said closure comprises a dispensing orifice 22 for dispensing contents from the container, and a cover 540 for covering and sealing the dispensing orifice, the cover including a tamper evidence band 543,

such that upon removal of the cover from the **closure**, the **tamper evidence** band indicates that the cover has been at least partially removed from the **closure**. The cover may be provided with a flap (fig 36, 88) for covering the dispensing orifice, the flap may be connected to the cover along a hinge line (fig 35, 80).

Inventors

HIGGINS CHRISTOPHER LYNDON

Latest standardized assignees - inventors removed

ABACUS

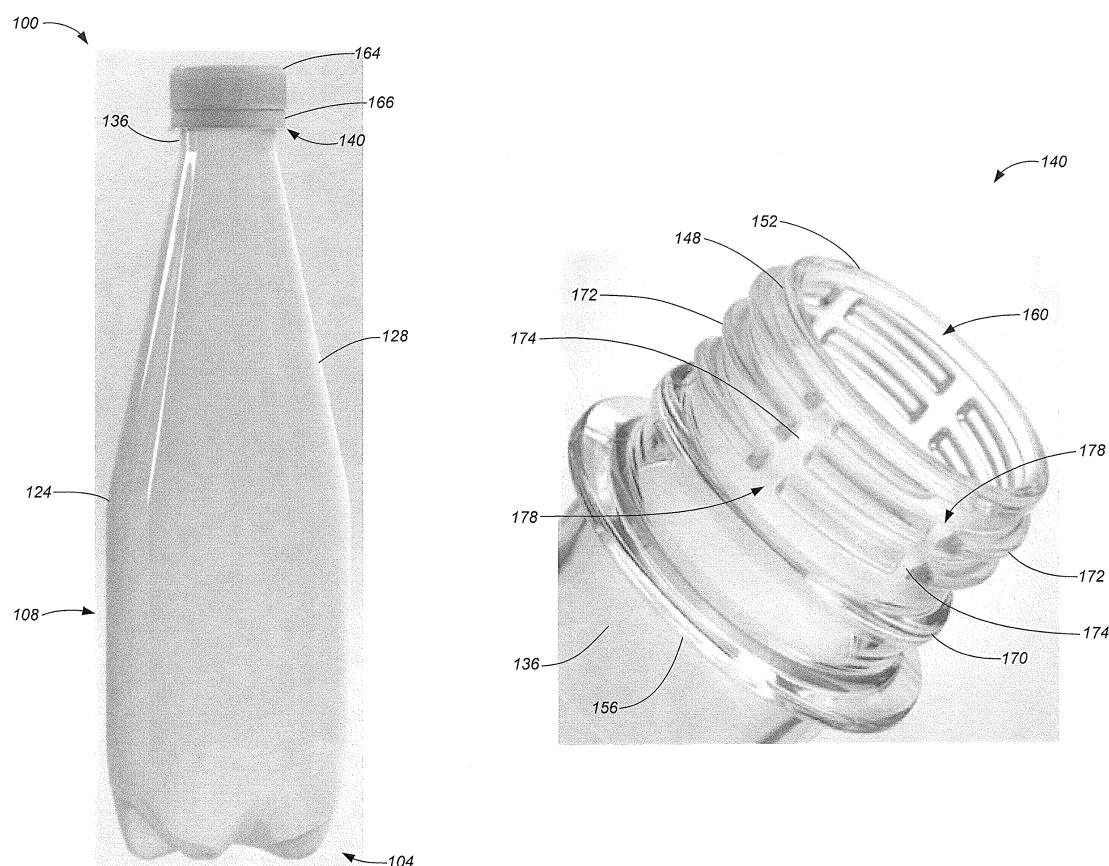
Family 6/59 - FAMPAT - ©Questel

Title

(EP3411301)

Tamper evidence bridges

Images



Publication numbers with kind code & date

EP3411301	A4	2019-10-09	EP3411301
US10377534	B2	2019-08-13	US10377534
US20190241325	A1	2019-08-08	US20190241325
CN109415141	A	2019-03-01	CN109415141
JP2019503313	A	2019-02-07	JP2019503313
BR112018015742	A2	2019-01-08	BR112018015742
IN201817032208	A	2019-01-04	IN201817032208
EP3411301	A1	2018-12-12	EP3411301
CO2018008194	A2	2018-08-21	CO2018008194
AU2017215352	A1	2018-08-16	AU2017215352
BR112018015742	A1	2018-08-14	BR112018015742
CA3013581	A1	2017-08-10	CA3013581



[WO2017/136590](#)

A1 2017-08-10 WO2017136590

[US20170217646](#)

A1 2017-08-03 US20170217646

**Abstract**

(EP3411301)

An apparatus and a method are provided for a **container** cap comprising a plurality of **tamper evidence** bridges configured to provide **evidence** that the **container** cap has been removed from a **container** by other than a manufacturer of the **container**. The **tamper evidence** bridges comprise a small tab of material that extends from a bottom-most edge of the **container** cap to a neck ring of the **container**. The **tamper evidence** bridges are configured to break, or snap, when the **container** cap is rotated relative to the neck ring. Broken **tamper evidence** bridges provide readily visible **evidence** to an end-user of the **container** that the **container** cap has been removed by other than the manufacturer of the **container**. The high visibility of the **tamper evidence** bridges serves to discourage vendors from attempting to refill and resale of the used containers.

Inventors

HANAN JAY CLARKE

Latest standardized assignees - inventors removed

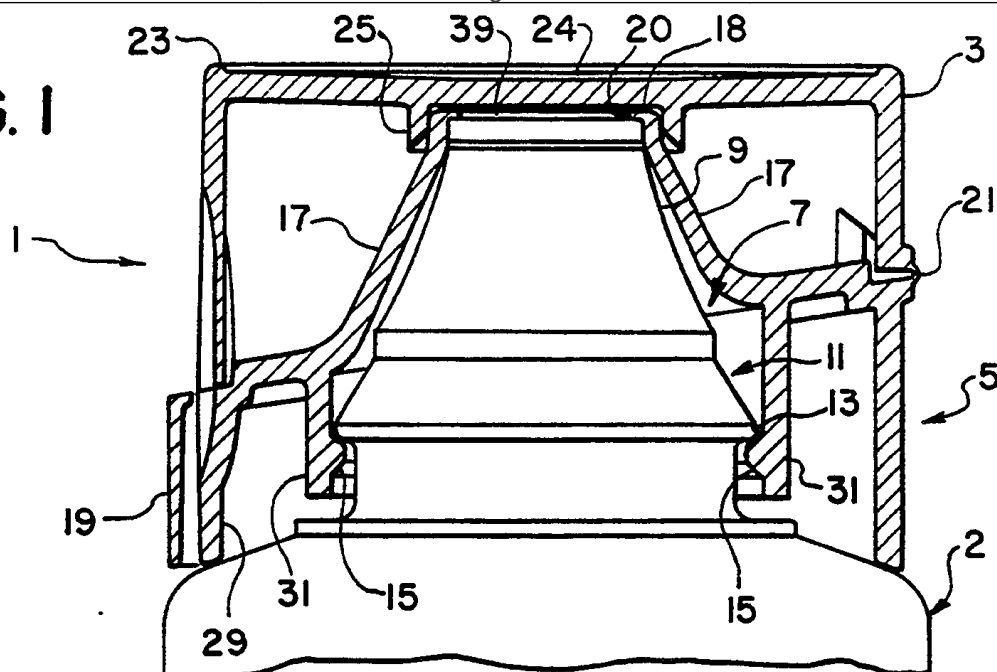
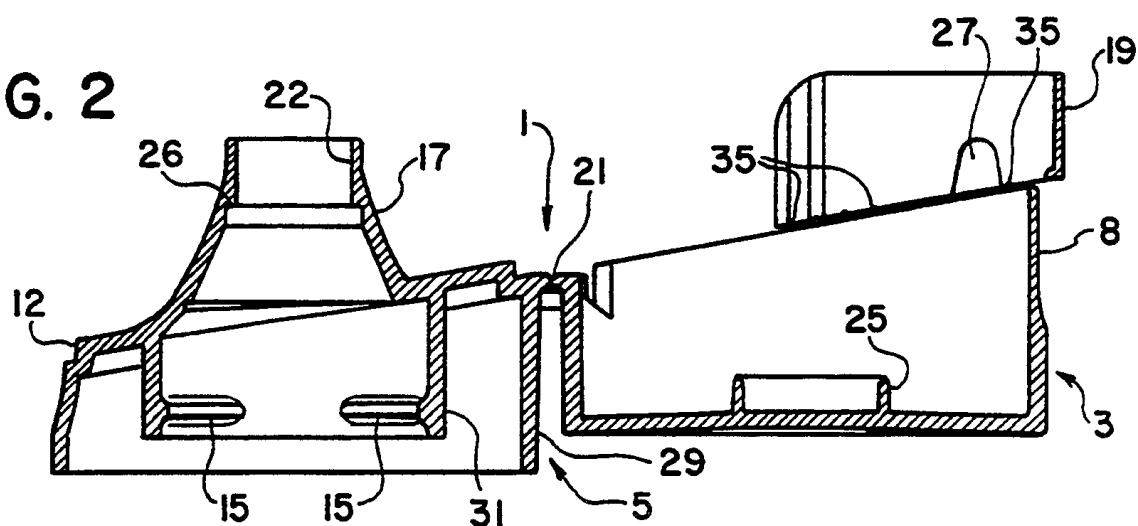
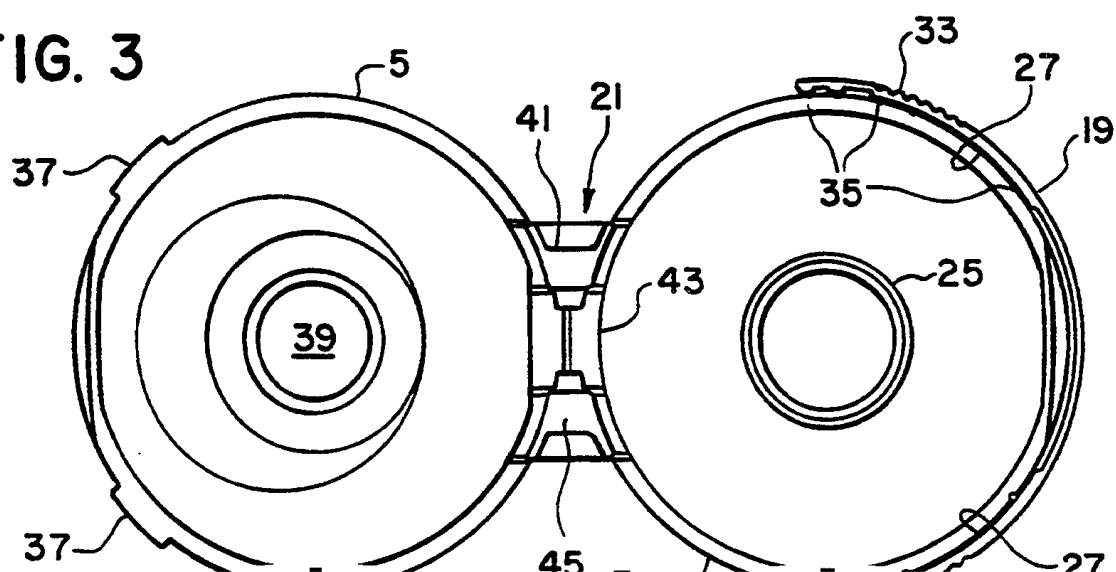
NIAGARA BOTTLING

Family 7/59 - FAMPAT - ©Questel

Title

(EP-621199)

Assembly of a **container** and a **closure** with **tamper evidence** structure**Images**

FIG. 1**FIG. 2****FIG. 3**

Publication numbers with kind code & date

CA2121086

C 2005-10-04 CA2121086

DK0621199

T3 1999-07-05 DK-621199T



DE69414162	T2	1999-06-17	DE69414162				
DE69414162	D1	1998-12-03	DE69414162				
AT172684	T	1998-11-15	ATE172684				
EP0621199	B1	1998-10-28	EP-621199				
NZ260261	A	1997-03-24	NZ-260261				
AU676007	B2	1997-02-27	AU-676007				
ZA9402476	B	1995-10-11	ZA9402476				
CO4180571	A1	1995-06-07	CO4180571A1				
US5386918	A	1995-02-07	US5386918				
AU5931594	A	1994-10-27	AU9459315				
EP0621199	A1	1994-10-26	EP-621199				
BR9401559	A	1994-10-25	BR9401559				
CA2121086	A1	1994-10-23	CA2121086				
BRPI9401559	A1	1994-06-14	BR9401559				

Abstract

(EP0621199)

Disclosed is a **closure** (1) for a **container** (2), the **closure** (1) having a lid (3) hinged to a base (5). The base (5) of the **closure** (1) has structure (15) for locking the **closure** (1) on a dispensing nozzle (7) of the **container** (2). The **closure** (1) has **tamper evidence** structure, to indicate whether the lid (3) and base (5) have been separated (that is, whether the **closure** has previously been opened). The **tamper evidence** structure includes a tear band (19); the **closure** (1) cannot be opened without removal of the tear band (19). The **closure** (1) is configured, and positioned relative to the dispensing nozzle (7), such that relatively little area of the **closure** (1) contacts the material dispensed from the **container** (2) as the material is dispensed, thereby reducing absorption of material components (e.g., flavors and/or oils of the material dispensed) by the **closure**. The top surface of the **closure** lid is configured such that the **container** (2) and **closure** (1) can be stably stood on end on the **closure** lid (3) when the lid (3) is in the closed position. The **closure** (1) can be held at least two positions on the dispensing nozzle (7), a first position where the **closure** (1) is locked on the dispensing nozzle (7) and a second position where the **closure** (1) is held on the dispensing nozzle (7) but not locked thereon.

Inventors

NEVERAS GEORGE J

BLASIN CLAUDE

Latest standardized assignees - inventors removed

COLGATE PALMOLIVE

Family 8/59 - FAMPAT - ©Questel

Title

(EP1660379)

Closure with frangible **tamper**-evident band

Images

KR20060042422	A	2006-05-12	KR20060042422				
AU2004261315	B2	2006-05-04	AU2004261315				
AU2004261315	C1	2006-05-04	AU2004261315				
GB0604470	D0	2006-04-12	GB200604470				
AU2004261315	A1	2005-02-10	AU2004261315				
CA2534758	A1	2005-02-10	CA2534758				
WO2005/012125	A1	2005-02-10	WO200512125				
AU2003904044	A0	2003-08-14	AU2003904044				

Abstract

(EP1660379)

This invention relates to closures for containers, and more particularly to **tamper**-evident closures for containers. One aspect of the invention provides a **container** and a **closure** for connection to said **container**, said **closure** including: an upper wall (102), a skirt (104) formed integrally with and extending downwardly from said upper wall, said skirt adapted to engage with a neck portion of the **container** to secure the **closure** to the **container**; a **tamper**-evident band (110) frangibly connected to said skirt; the neck (10) of the **container** including a plurality of discretely spaced projections (18) extending outwardly from said neck and adapted to engage with tabs (122) on said **tamper**-evident band to facilitate breaking of the band (110) from the skirt of the **closure**.

Inventors

HIGGINS CHRISTOPHER LYNDON

Latest standardized assignees - inventors removed

RBC TRUSTEES CI TRUSTEE

Family 9/59 - FAMPAT - ©Questel

Title

(EP3105137)

Improved **tamper**-evident **closure****Images**

IN201647027142	A	2016-08-31	IN201647027142
BR112016017544	A1	2016-08-09	BR112016017544
WO2015/123666	A1	2015-08-20	WO2015123666



Abstract

(EP3105137)

Embodiments of a **tamper**-evident **closure** are disclosed which prevent unauthorized access to a **container** and its contents, deterring adulteration or introduction of counterfeit product. In one embodiment the **tamper**-evident **closure** can be fitted to an associated **container** and **closure**, and includes a portion which is removed by fracture of the **tamper**-evident **closure** to gain access to the **container closure**. In another embodiment, an arrangement of wedge-like tongues permit fitment of the **tamper**-evident **closure** to associated **container** for **temper-evidence**. In another embodiment, the **tamper**-evident **closure** is joined by frangible bridges to the **container closure** to provide the desired **tamper-evidence**. In another embodiment, the **tamper**-evident **closure** is movable axially of the associated **container closure** to thereby provide **evidence** of removal.

Inventors

ELLIOTT DANIEL

Latest standardized assignees - inventors removed

REYNOLDS CONSUMER PRODUCTS

PACTIV PACKAGING

PACTIV

REYNOLDS PRESTO PRODUCTS

GRAHAM PACKAGING

EVERGREEN PACKAGING

GRAHAM PACKAGING PET TECHNOLOGIES

CLOSURE SYSTEMS INTERNATIONAL

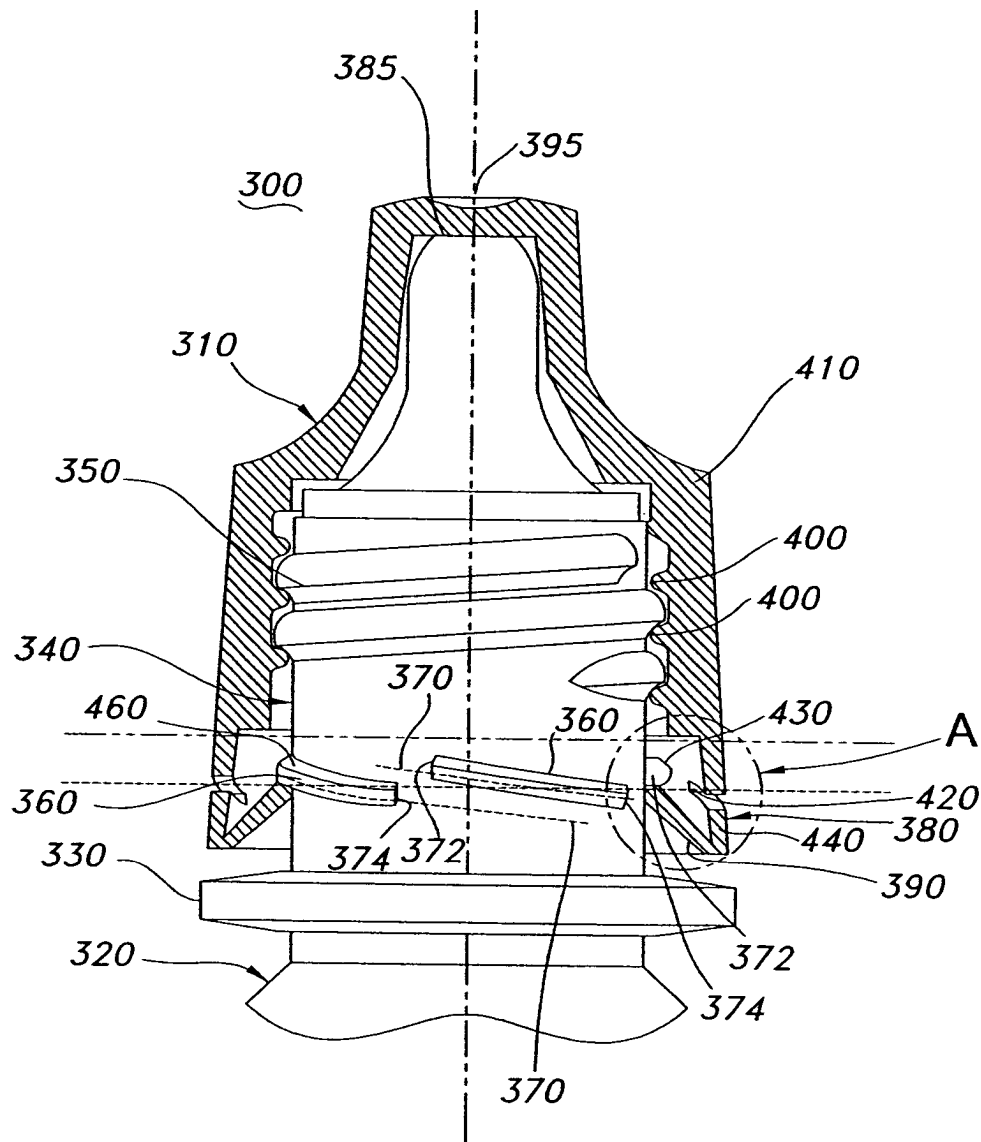
Family 10/59 - FAMPAT - ©Questel

Title

(EP1853492)

Anti-backoff, low application torque, **tamper** evident plastic **closure** and **container** system with enhanced visual **tamper** evidency

Images



Publication numbers with kind code & date

ES2362906	T3	2011-07-14	ES2362906
DE602006021148	D1	2011-05-19	DE602006021148
AT504516	T	2011-04-15	ATE504516
EP1853492	B1	2011-04-06	EP1853492
BRPI0606362	A2	2009-06-23	BR200606362
EP1853492	A4	2009-06-10	EP1853492
US7451885	B2	2008-11-18	US7451885
EP1853492	A2	2007-11-14	EP1853492
MX2007008627	A	2007-09-12	MX2007008627
WO2006/083654	A3	2007-04-05	WO200683654
AU2006211468	A1	2006-08-10	AU2006211468
CA2596246	A1	2006-08-10	CA2596246
WO2006/083654	A2	2006-08-10	WO200683654
US20060169666	A1	2006-08-03	US20060169666



Abstract

(EP1853492)

A **container** (320,500,600,800) for use with a **closure** (320,310) is provided, and includes a receptacle, a neck (340,510,610) extending therefrom, a **closure-engaging thread segment** (350,520,620,820) arranged on the neck of the

container to engage the **closure** thread segment (400) arranged on the **closure**, and a plurality of spaced apart protrusions (360,530,630,830) protruding radially toward the **closure** from the neck of the **container**, the plurality of spaced apart protrusions forming a protrusion pattern that has a composite orientation (370,550,650,850) that is helically opposite that of the **closure**-engaging thread segment to engage and to separate the frangible **tamper**-evident band portion (380) from the **closure** when the **closure** is rotated off of the neck. With this structure, the **closure** and **container** system provides an improved anti-backoff, **tamper** evident **closure** and **container** system that reduces torque used to initially apply the **closure** to the **container** and improves reliably by reducing stress on the component parts, while desirably preventing backoff from occurring.

Inventors

NYMAN HENRY H

CISTONE DAVID R

YEAGER DON

THOMAS THOMAS

Latest standardized assignees - inventors removed

ALCAN PACKAGING PHARMACEUTICAL & PERSONAL CARE

Family 11/59 - FAMPAT - ©Questel

Title

(EP-801005)

Closure device and **container****Images**

KR100222112	B1	1999-10-01	KR100222112				
US5860542	A	1999-01-19	US5860542				
TW329415	B	1998-04-11	TW-329415				
BR9607711	A	1998-01-13	BR9607711				
CN1168122	A	1997-12-17	CN1168122				
KR19977007022	A	1997-12-01	KR19977007022				
KR970707022	A	1997-12-01	KR19970707022				
EP0801005	A1	1997-10-15	EP-801005				
MX9703162	A	1997-07-31	MX9703162				
AU1432497	A	1997-06-05	AU9714324				
WO97/18139	A1	1997-05-22	WO9718139				

Abstract

(EP0801005)

A **closure** device, which comprises a **container** (21) and a cap (1) of synthetic resin adapted for closing a mouth (21A) of the **container** and having a **tamper**-evident property, and the **container** therefor. The **closure** device comprises a **container** (21) and a cap (1) of synthetic resin mounted to a mouth (21A) of the **container**. The cap (1) of synthetic resin comprises a cap body (4) composed of a roof plate (2) and a cylindrical portion (3) suspending from a peripheral edge of the roof plate, and the cylindrical portion (3) is sectioned into a main portion (8) above a severable weakened line (7) and a **tamper**-evident ring portion (9) below the severable weakened line, the main portion (8) being formed at its inner wall surface with a threaded portion (10) and the **tamper**-evident ring portion (9) being formed at its inner wall surface with fallable latch projections (11). The **container** (21) comprises a male thread (22) formed on a top outer periphery of the mouth (21A), an annular bulged portion (23) formed below the male thread (22), and at least one depressing portion (24) provided contiguous to the bulged portion (23) and adapted for engaging with the latch projections (11) of the cap (1) to depress the latch projections (11) when the cap (1) of synthetic resin mounted to the **container** mouth (21A) is turned in a cap opening direction.

Inventors

TAKAMATSU KOUICHI

Latest standardized assignees - inventors removed

ALCOA CLOSURE SYSTEMS

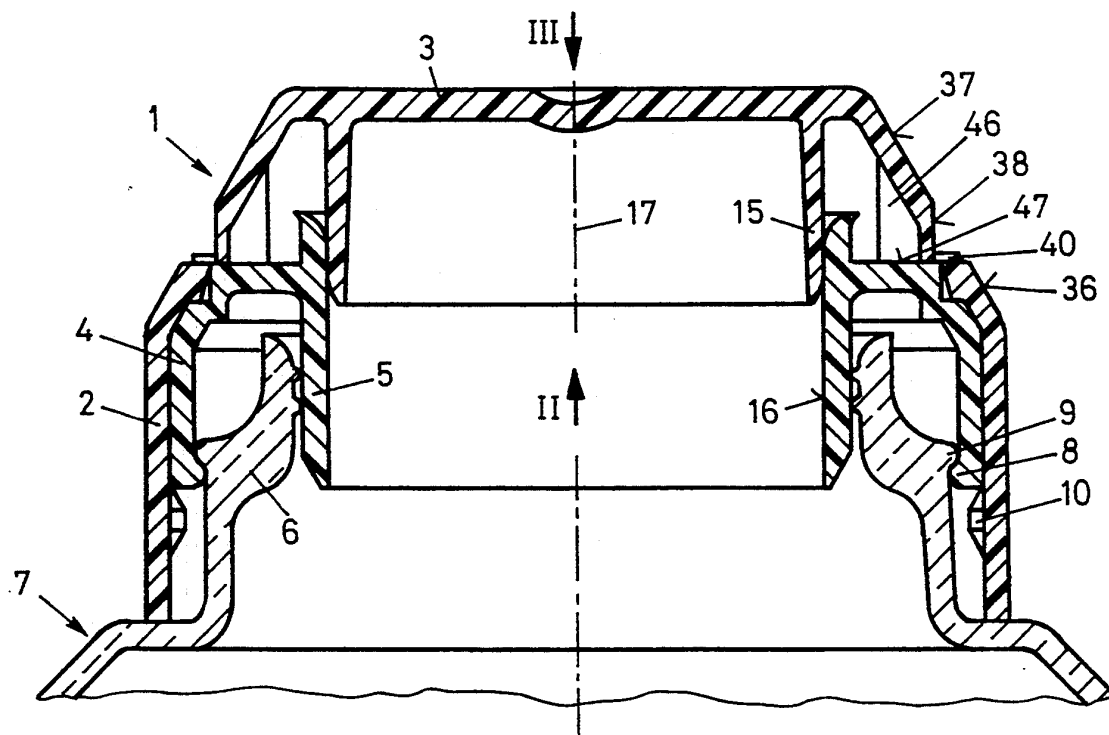
Family 12/59 - FAMPAT - ©Questel

Title

(EP-532471)

Plastic **closure** for **container**.

Images



Publication numbers with kind code & date

DE59202222	D1	1995-06-22	DE59202222
EP0532471	B1	1995-05-17	EP-532471
US5335802	A	1994-08-09	US5335802
CH683611	A5	1994-04-15	CH-683611
EP0532471	A1	1993-03-17	EP-532471



Abstract

(EP0532471)

The **closure** (1) consists of a tubular bottom part (2) and a lid (3). Viewed in the direction of the axis (17) of the bottom part (2), in the closed state the outer contour of the lid (3) is within the inner contour of the bottom part (2). The lid and the bottom part are connected integrally to one another via a snap-action hinge and are injection-moulded in the closed state. With spacing from the snap-action hinge, the lid and bottom part are additionally connected to one another via intended breaking webs (40) which form a safeguard against undetected premature opening of the **closure** (**tamper evidence**). The **closure** allows a marked increase in productivity during manufacture.

Inventors

BRACH ULRICH
THANISCH KLAUS

Latest standardized assignees - inventors removed

ZELLER PLASTIK
OBRIST CLOSURES SWITZERLAND

Family 13/59 - FAMPAT - ©Questel

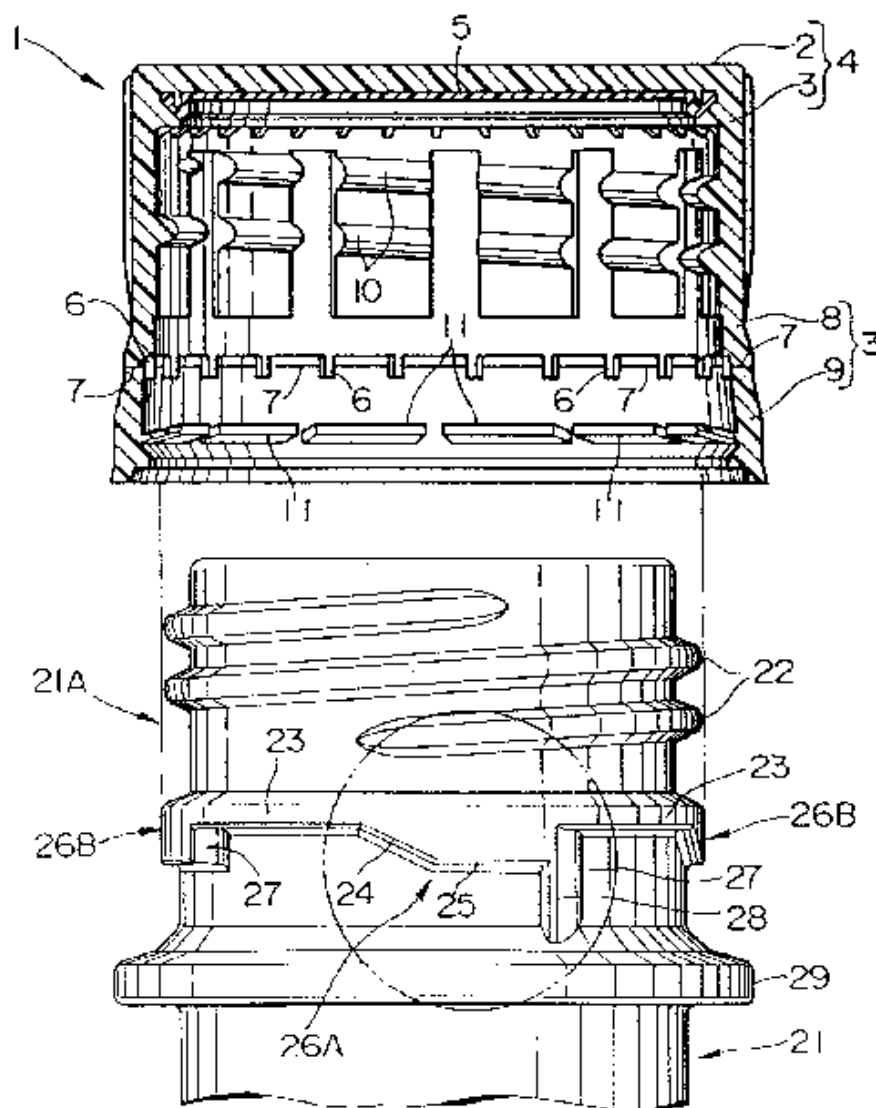
Title

(EP-854095)

Closure device and **container**

Images

FIG.1



Publication numbers with kind code & date

CA2226573	C	2006-09-26	CA2226573
KR100528251	B1	2006-05-09	KR100528251
CN1070446	C	2001-09-05	CN1070446C
DE69703425	T2	2001-03-15	DE69703425
ES2152660	T3	2001-02-01	ES2152660
DE69703425	D1	2000-12-07	DE69703425
EP0854095	B1	2000-11-02	EP-854095
AU719199	B2	2000-05-04	AU-719199
US5950850	A	1999-09-14	US5950850
KR19990028986	A	1999-04-15	KR19990028986



CN1193308	A	1998-09-16	CN1193308
EP0854095	A4	1998-08-19	EP-854095
EP0854095	A1	1998-07-22	EP-854095
AU2522497	A	1997-12-05	AU9725224
CA2226573	A1	1997-11-20	CA2226573
WO97/43190	A1	1997-11-20	WO9743190



Abstract

(EP0854095)

A **closure** device composed of a **container** and a cap of synthetic resin mounted to the neck of the **container**. The cap of synthetic resin comprises a cap body composed of a top plate portion and a cylindrical portion depending from a peripheral edge of the top plate portion. The cylindrical portion is compartmented by a severable weakened line into a main portion above the weakened line and a lower **tamper-evidence** ring portion, the main portion being formed at its inner wall surface with a thread, and the **tamper-evidence** ring portion being provided at its inner wall surface with fallable engaging projections. The **container** is formed at an outer periphery of the upper end of the neck thereof with a male thread and below the male thread with an annular expanded portion. Provided contiguous to the expanded portion is at least bridge extending means comprising depressing portions, which engage with the engaging projections of the cap to depress the same when the cap of synthetic resin mounted to the **container** neck is turned in an opening direction, and extended step portions adapted to engage with the engaging projections depressed by the depressing portions to prevent upward movement of the engaging projections.

Inventors

TAKAMATSU KOUICHI

GOMI TATSUYA

Latest standardized assignees - inventors removed

SUNTORY

ALCOA CLOSURE SYSTEMS

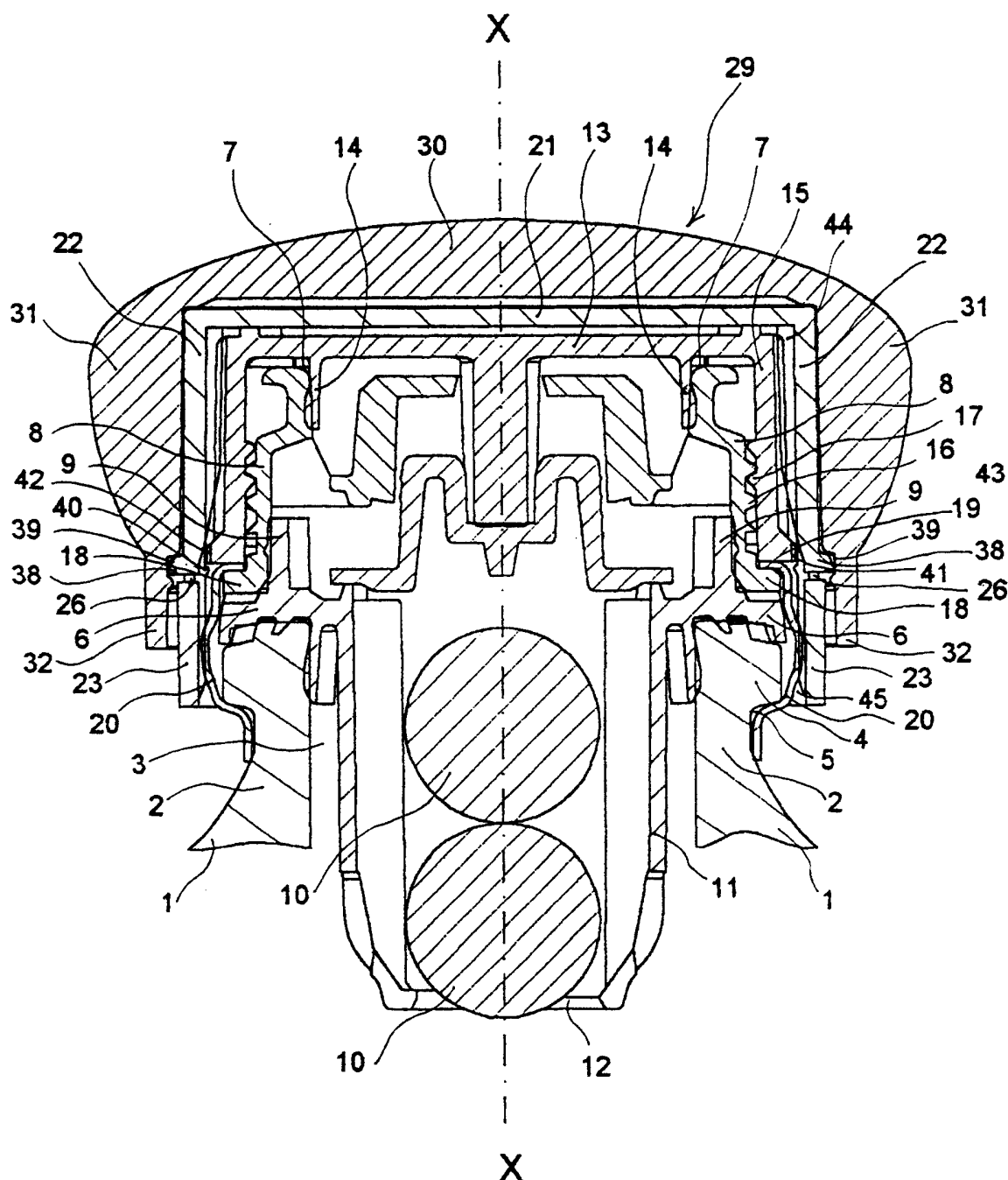
Family 14/59 - FAMPAT - ©Questel

Title

(IT2002MI2330)

Chiusura con sigillo di garanzia per contenitori di liquidi, particolarmente bottiglie

Images



Publication numbers with kind code & date

KR100985326	B1	2010-10-05	KR100985326
CN100354190	C	2007-12-12	CN100354190C
MXPA03009968	A	2005-04-19	MX2003PA009968
KR20040038799	A	2004-05-08	KR20040038799
CN1493506	A	2004-05-05	CN1493506
ITMI20022330	A1	2004-05-01	IT2002MI2330



Abstract

(ITMI20022330)

PURPOSE: A **closure** with **tamper**-evident **seal** for containers of liquid, particularly for bottles, is provided to equip the bottles with a sealing device which shows the **tamper evidence** when they are firstly opened. CONSTITUTION: The **closure** includes: an opening(3), axially extended from a **container** body(1), arranged on the end of a **container** neck(2), and having a ring rim(4), radially expanding to the surroundings; an unopened outlet(8), arranged on the opening(3), and having valve units(10,12) and an outlet orifice(7) to prevent the liquid from being flowed in the **container**, but to enable the flowing-out therefrom; a radially expanded rim(4), whose one side is engaged with the outlet(8) and other side solidly fixes the outlet(8) to the neck(2); a circular skirt(20), arranged around the neck(2) so to be axially engaged therewith; a cap(13), with a tubular

sleeve(15); a screw unit(16) between the inner wall of the sleeve(15) and the outlet(8); and a cover(29) for both sleeve and outlet.

(From KR20040038799 A)

Inventors

BATTEGAZZORE PIERO

Latest standardized assignees - inventors removed

GUALA CLOSURES

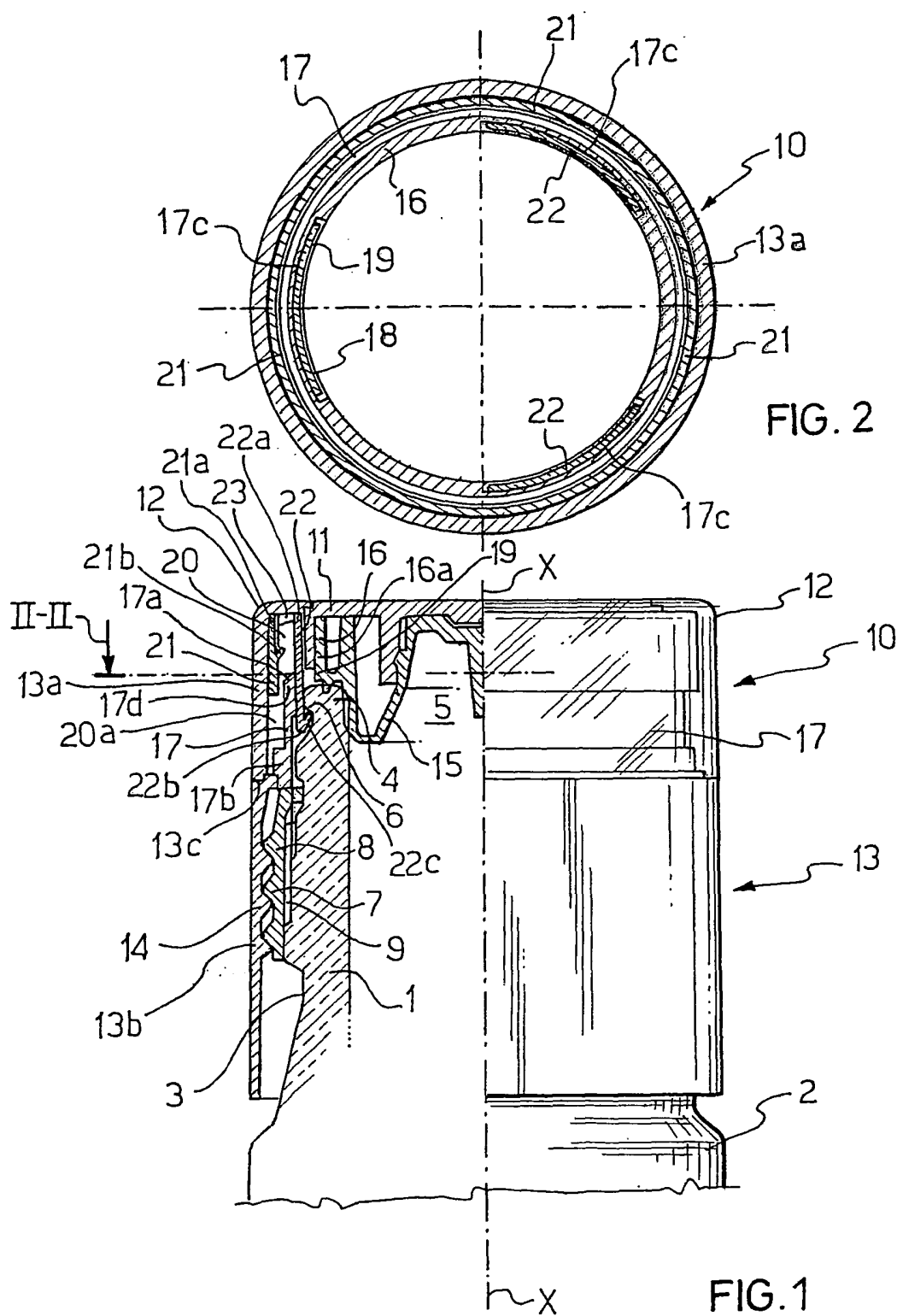
Family 15/59 - FAMPAT - ©Questel

Title

(EP1660383)

Closure with an optical **tamper** indicator for alcoholic beverage bottles

Images



Publication numbers with kind code & date

KR100982879	B1	2010-09-16	KR100982879
CN100503383	C	2009-06-24	CN100503383C
IN230700	B	2009-03-27	IN-230700
ES2306926	T3	2008-11-16	ES2306926
DE60322601	D1	2008-09-11	DE60322601
AT402880	T	2008-08-15	ATE402880
EP1660383	B1	2008-07-30	EP1660383
UA80918	C2	2007-11-12	UA--80918



IN1124/CHENP/2006	A	2007-08-31	IN2006CN01124				
EA007707	B1	2006-12-29	EA---7707				
CN1826271	A	2006-08-30	CN1826271				
EA200600523	A1	2006-08-25	EA200600523				
KR20060090220	A	2006-08-10	KR20060090220				
EP1660383	A1	2006-05-31	EP1660383				
MXPA06002129	A	2006-05-17	MX2006PA002129				
AU2003265155	A1	2005-03-16	AU2003265155				
WO2005/021400	A1	2005-03-10	WO200521400				

Abstract

(EP1660383)

The present invention relates to a **closure** with an optical **tamper** indicator for containers for fluids. The **closure** comprises: a cap (10) having a top wall (11) and a tubular skirt (13) provided with an internal thread (14), a first collar (16, 24) provided on the top wall (11) of the cap, a second collar (17, 27) which extends towards the top wall (11) of the cap, the second collar (17, 27) being substantially parallel to the inner surface of the tubular skirt (13) and to the first collar (16, 24) but spaced radially from the skirt (13) by an annular space (20) and from the first collar (16, 24) by a radial space (18), at least one first element (21, 31) positioned in the annular space (20), at least one second element (22, 26) positioned in the radial space (18) provided with means (22c, 26a) for connection to the neck (1) of the **container**, preventing axial movements, means (19, 23, 17c) positioned between the first element (21, 31) and the second element (22, 26) in order to bring about the appearance of a visible sign meaning "open" on a portion of the tubular skirt (13) of the cap, indicating the first opening of the **closure**.

Inventors

BATTEGAZZORE PIERO

Latest standardized assignees - inventors removed

GUALA CLOSURES

Family 16/59 - FAMPAT - ©Questel

Title

(EP-273858)

Tamper-evident **closure**, method and apparatus for its forming

Images

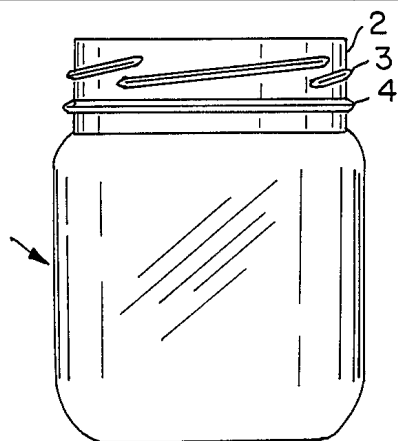


FIG. 1

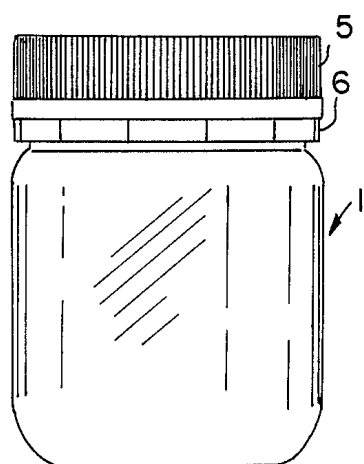


FIG. 2

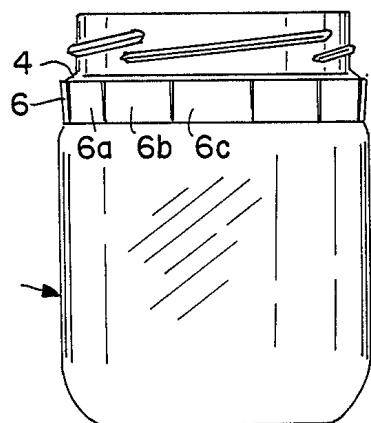


FIG. 3

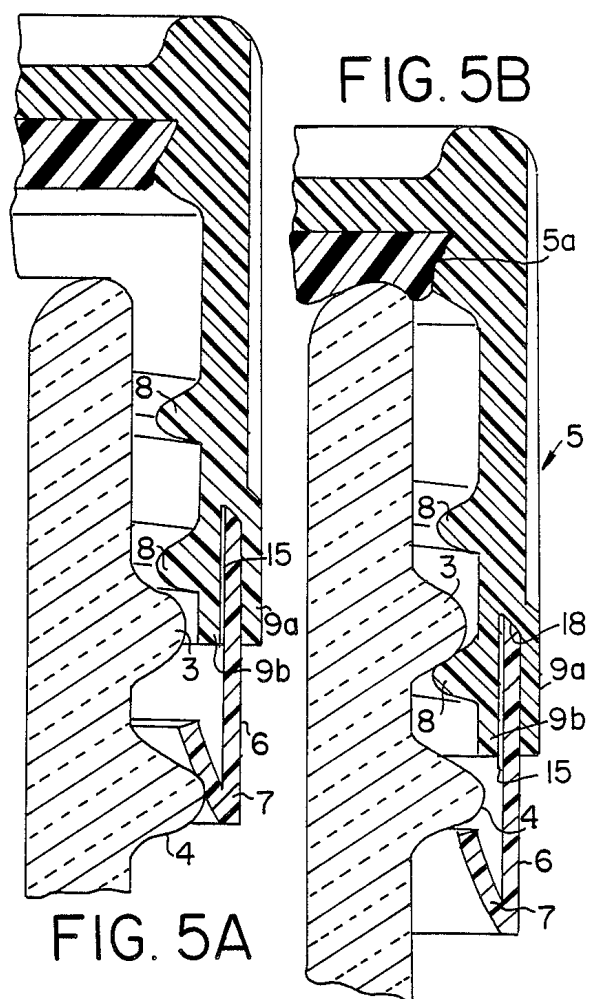


FIG. 5A

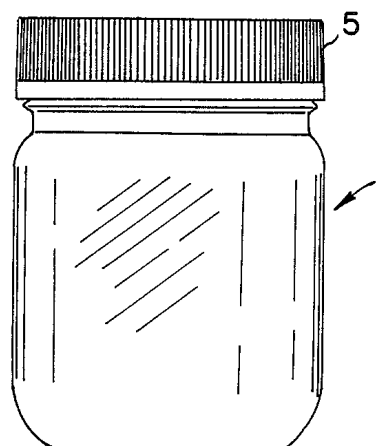


FIG 4

Publication numbers with kind code & date

AU612606	B2	1991-07-18	AU-612606
DE3770793	D1	1991-07-18	DE3770793
AT64350	T	1991-06-15	ATE064350
EP0273858	B1	1991-06-12	EP-273858
US4793499	A	1988-12-27	US4793499
ZA8708149	B	1988-10-26	ZA8708149
EP0273858	A1	1988-07-06	EP-273858
AU8070087	A	1988-05-19	AU8780700



DK564287	A	1988-05-15	DK8705642
DK564287	D0	1987-10-27	DK8705642
GB8627251	D0	1986-12-17	GB8627251

**Abstract**

(EP0273858)

A **tamper**-evident **closure** device comprises a **closure** 5 having an internally threaded skirt with a groove therein between radially outer and inner skirt portions 9a and 9b, to receive a **tamper-evidence** band 6 complete with an inwardly extending bead 7 which engages under a transfer ring 4 of a **container** 1 to hold the **tamper**-evident band 6 down and hence separate it from the **closure** 5 as the **closure** is unscrewed from the **container** 1. A method of simultaneously stripping the **closure** and **tamper-evidence** band from a common mould core is also disclosed.

Inventors

DUBACH, WERNER F.

SINNOT, KENNETH MARTIN

Latest standardized assignees - inventors removed

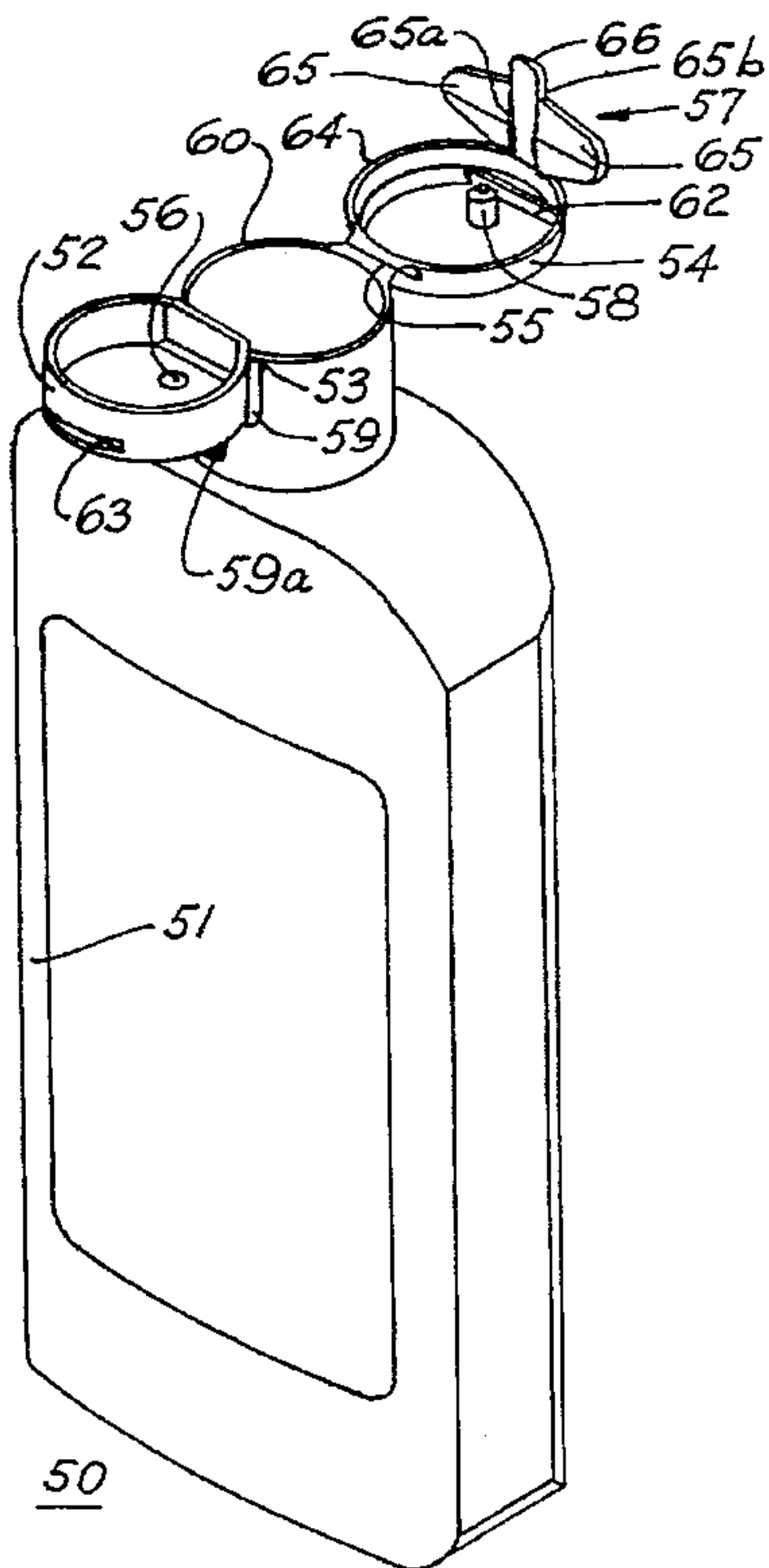
ALFATECHNIC

Family 17/59 - FAMPAT - ©Questel

Title

(EP-673346)

Container with integrally molded **closure/tamper** indicator.**Images**



Publication numbers with kind code & date

US5662245	A	1997-09-02	US5662245
EP0673346	A4	1996-05-01	EP-673346
EP0673346	A1	1995-09-27	EP-673346
AU5851794	A	1994-07-19	AU9458517
CA2151921	A1	1994-07-07	CA2151921
WO94/14696	A1	1994-07-07	WO9414696

**Abstract**

(EP0673346)

An integrally molded double cap (50) **container** is produced by an injection blow molding process wherein a parison (126) is formed by an injection molding process, the parison having solid components including an orifice cap (52), a sealing cap (54), and a finish portion (60), the parison and the integral solid components being transferred as a unit to a blow molding apparatus (104, 105) for expanding the parison to form the blow molded **container** body. The integrally molded **container** includes a **tamper** indicating system molded integrally with the **container closure**, the **tamper** indicating system (57) having a securing tab (66) adapted to be permanently secured to the **container** after the **container** has been filled and closed to secure the sealing cap to the **container** preventing removal of the sealing cap unless connection between the sealing cap and the securing tab is broken, providing a visual indication that the **container** has been previously opened or tampered with.

Inventors

GRANT CHRIS

Latest standardized assignees - inventors removed

BALL PACKAGING EUROPE

Family 18/59 - FAMPAT - ©Questel

Title

(EP-641721)

Screwcap with **tamper evidence** band, package provided with such a cap, method of making such a cap and such a package

Images

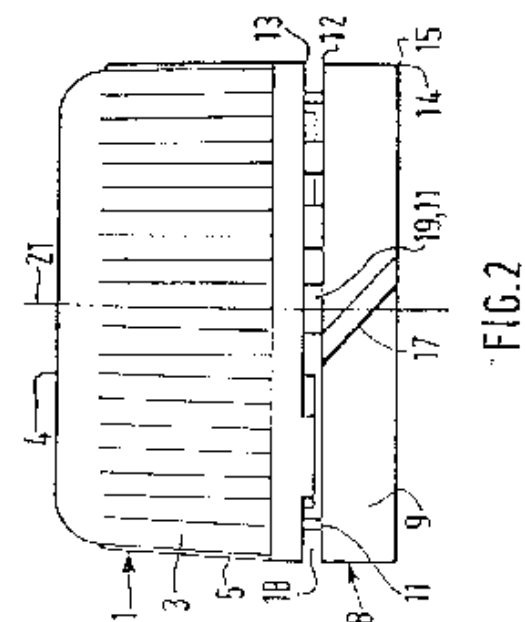


FIG. 2

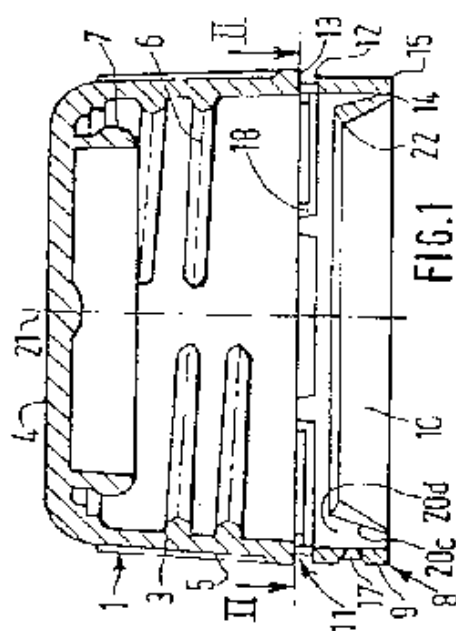


FIG. 1

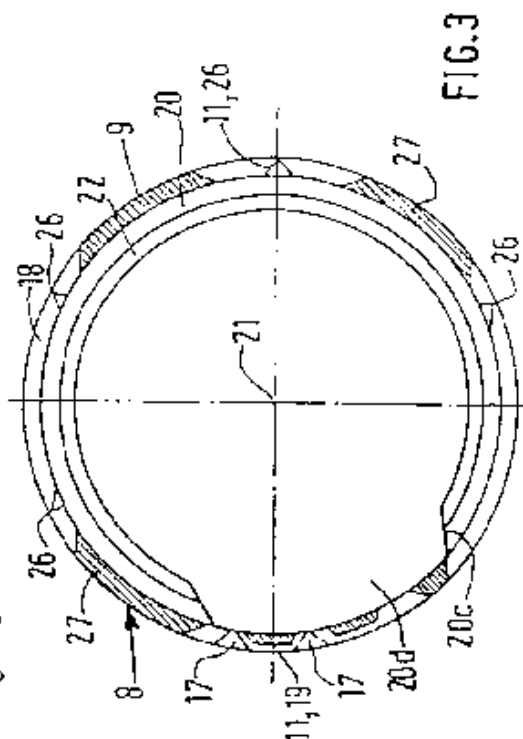


FIG. 3

Publication numbers with kind code & date

ES2169070	T3	2002-07-01	ES2169070
DE59409993	D1	2002-01-17	DE59409993
AT210171	T	2001-12-15	ATE210171
EP0692007	B1	2001-12-05	EP-692007
DE69427561	T2	2001-10-18	DE69427561
ES2158882	T3	2001-09-16	ES2158882
DE69427561	D1	2001-08-02	DE69427561
AT202529	T	2001-07-15	ATE202529
EP0641721	B1	2001-06-27	EP-641721
CA2170881	C	2000-02-15	CA2170881



CN1045273	C	1999-09-29	CN1045273C				
JP2820798	B2	1998-11-05	JP2820798				
SG52502	A1	1998-09-28	SG--52502				
US5779075	A	1998-07-14	US5779075				
US5716678	A	1998-02-10	US5716678				
JPH08512016	A	1996-12-17	JP08512016				
BR9407399	A	1996-11-05	BR9407399				
KR19967004769	A	1996-10-09	KR19967004769				
KR960704769	A	1996-10-09	KR19960704769				
CN1115975	A	1996-01-31	CN1115975				
EP0692007	A1	1996-01-17	EP-692007				
CA2170881	A1	1995-03-09	CA2170881				
WO95/06598	A1	1995-03-09	WO9506598				
EP0641721	A1	1995-03-08	EP-641721				
ES1028707	U	1995-03-01	ES1028707U				
ZA9401850	B	1995-01-24	ZA9401850				
AU6536294	A	1994-10-24	AU9465362				
WO94/22969	A1	1994-10-13	WO9422969				
DE4310414	A1	1994-10-06	DE4310414				

Abstract

(EP0641721)

The invention relates to a plastic screw cap comprising a capping (stopping) part (3); possible sealing means (7) which are attached to or integral with the capping part (3); and, in a single piece with the capping part (3), a **tamper evidence** band (8). According to the invention, the cap comprises a zone (17) which can be broken off from the outer part (9), permitting its opening during unscrewing of the cap (1), ends, on the one hand, in an empty space (18) between the outer part (9) and the skirt (5), which empty space (18) terminates in the downstream direction with respect to the direction of unscrewing of the cap (1) in at least one attachment (19) which cannot be broken during unscrewing of the cap (1) belonging to the said linking means (11), and, on the other hand, in either a breakable zone (20a) or a cut (20b) or an interruption of continuity (20c) of the inner part (10) so that, when the cap (1) is unscrewed, the **tamper evidence** strip (8) remains attached to the capping part (3).

Inventors

SALMON PIERRE

RACINE JEAN-PATRICE

Latest standardized assignees - inventors removed

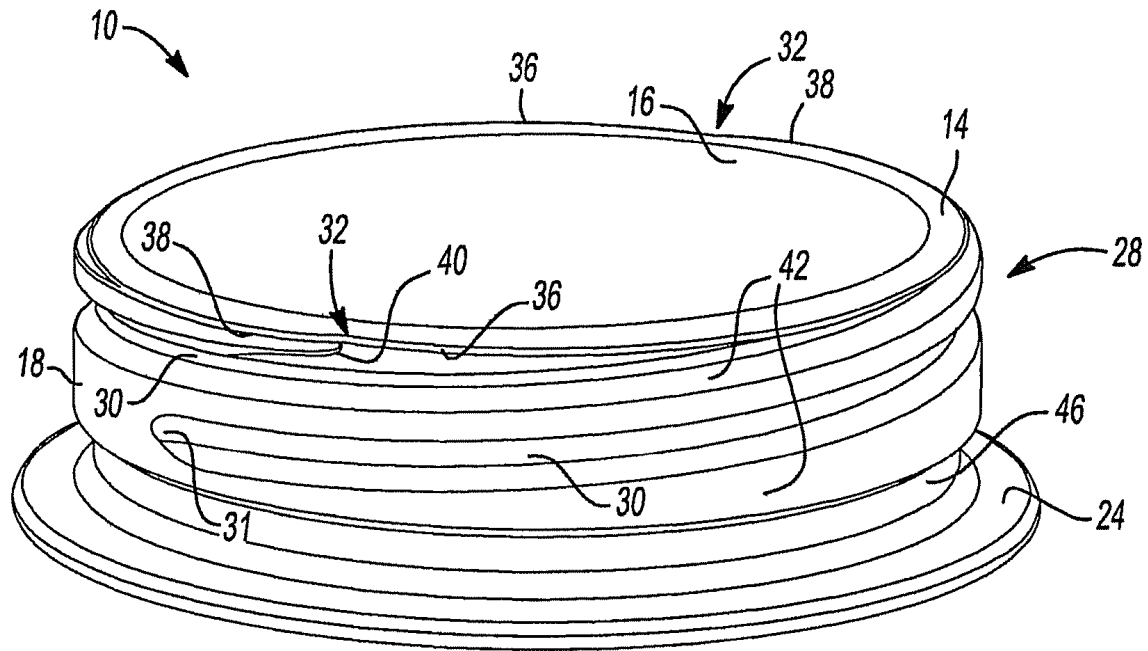
BASF COATINGS

Family 19/59 - FAMPAT - ©Questel

Title

(EP1976778)

Blow-molded **container** having thread groove**Images**



Publication numbers with kind code & date

US8413829	B2	2013-04-09	US8413829
US8308002	B2	2012-11-13	US8308002
BRPI0707317	A2	2011-05-03	BR200707317
BRPI0707319	A2	2011-05-03	BR200707319
US7918355	B2	2011-04-05	US7918355
US7918356	B2	2011-04-05	US7918356
EP1976778	A4	2011-01-26	EP1976778
EP1976779	A4	2011-01-26	EP1976779
US20100270255	A1	2010-10-28	US20100270255
US20100270256	A1	2010-10-28	US20100270256
JP2009524561	A	2009-07-02	JP2009524561
JP2009524562	A	2009-07-02	JP2009524562
KR20080106912	A	2008-12-09	KR20080106912
KR20080104275	A	2008-12-02	KR20080104275
IN6513/DELNP/2008	A	2008-10-24	IN2008DN06513
IN6515/DELNP/2008	A	2008-10-24	IN2008DN06515
EP1976778	A2	2008-10-08	EP1976778
EP1976779	A2	2008-10-08	EP1976779
MX2008009571	A	2008-09-03	MX2008009571
MX2008009572	A	2008-09-03	MX2008009572
WO2007/089552	A3	2008-04-24	WO200789552
WO2007/089566	A3	2007-12-21	WO200789566
AU2007210085	A1	2007-08-09	AU2007210085
AU2007210163	A1	2007-08-09	AU2007210163
CA2640456	A1	2007-08-09	CA2640456
CA2640457	A1	2007-08-09	CA2640457
WO2007/089552	A2	2007-08-09	WO200789552
WO2007/089566	A2	2007-08-09	WO200789566
US20070175854	A1	2007-08-02	US20070175854
US20070175855	A1	2007-08-02	US20070175855



Abstract

(EP1976778)

A blow-molded plastic **container** includes an upper portion having a finish, a body portion and a base. At least one groove is formed in a radial sidewall of the finish. The groove slopes gradually downward along the radial sidewall and away from an opening into the **container**. A method of making the blow-molded plastic **container** includes disposing a preform into a mold cavity having a surface defining a body forming region, a finish forming region and a moil forming region. The preform is blown against the mold surface to form an intermediate **container** having a body portion, a finish and a moil portion. The moil is severed from the finish to define the opening into the **container**. A **closure** member is adapted to selectively mate with the finish on the **container**. At least one thread is formed on the **closure** member.

Inventors

PENNY MICHAEL E

Latest standardized assignees - inventors removed

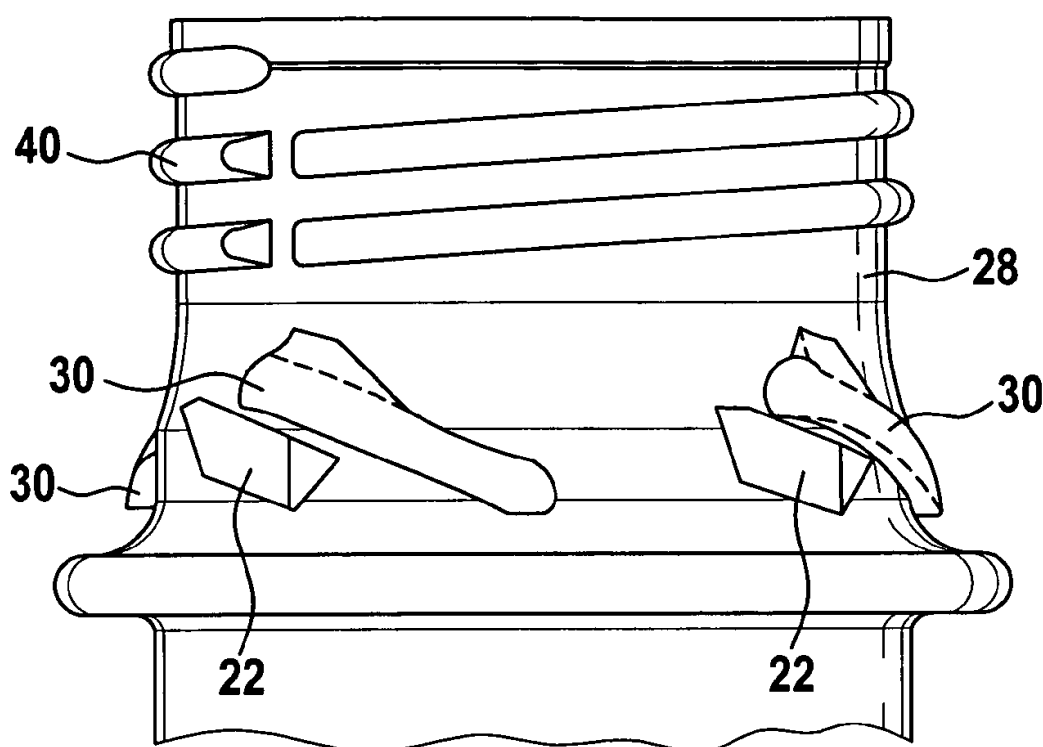
AMCOR RIGID PLASTICS

Family 20/59 - FAMPAT - ©Questel

Title

(WO200895863)

Tamper evident **closure** and **container** for receiving **tamper** evident **closure** and combination thereof

Images**Fig. 5c****Publication numbers with kind code & date**[WO2008/095863](#)

A1 2008-08-14 WO200895863

**Abstract**

(WO2008/095863)

A **container** assembly comprising a **container** finish and a **tamper** evident **closure** in sealing contact. The **tamper** evident **closure** (10) having a lower **tamper** evident band (18) frangibly connected to an upper body portion (16) and inwardly protruding projections (22) positioned on the **tamper** evident band (18). The projections are configured to engage with corresponding retaining projections (30) on the outer surface of the **container** finish (28). Such engagement occurs when

an axially rotational force is applied to the **closure** in an opening direction, resulting in the **tamper** evident band (18) rupturing from the upper body portion (16) before the sealing contact is broken.

Inventors

WIDMER SEBASTEN CEDRIC

DREYER LINO

ROUCHON JUILEN

Latest standardized assignees - inventors removed

OBRIST CLOSURES SWITZERLAND

Family 21/59 - FAMPAT - ©Questel

Title

(EP-109593)

Tamper-indicative closures and containers

Images

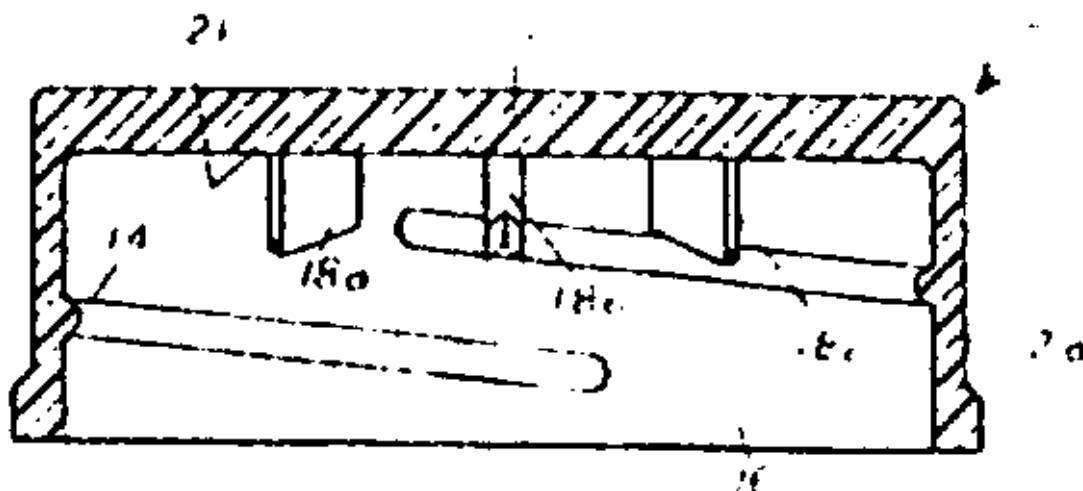


FIG. 2

Publication numbers with kind code & date

DE3375899	D1	1988-04-14	DE3375899
AT32865	T	1988-03-15	ATE032865
EP0109593	B1	1988-03-09	EP-109593
AU568515	B2	1988-01-07	AU-568515
NZ206139	A	1986-12-05	NZ-206139
EP0109593	A3	1985-08-14	EP-109593
EP0109593	A2	1984-05-30	EP-109593



AU2106083	A	1984-05-17	AU8321060
NO834100	L	1984-05-14	NO-834100
FI834142	A	1984-05-13	FI8304142
IL70135	A	1984-02-29	IL--70135
FI834142	A0	1983-11-11	FI8304142
IL70135	B	1983-11-04	IL--70135



Abstract

(EP0109593)

A **container closure** for providing **tamper** indication includes a **closure** member defining **container** closing expanse, a **tamper**-indicating element in the **closure** interiorly of the **closure** member and an element movable with the **closure** member for both retaining the **tamper**-indicating element with the **closure** member and for selectively tearing the **tamper**-indicating element upon opening movement of the **closure**. The retaining-tearing element is inaccessible through the closing expanse of said **closure** member and the **closure** affords visibility therethrough of the **tamper**-indicating element.

Inventors

TOWNS, EDWARD J.

BROWN, EDWARD M.

LESTER, WILLIAM M.

Latest standardized assignees - inventors removed

TBL DEVELOPMENT

Family 22/59 - FAMPAT - ©Questel

Title

(EP-667827)

Container closure with **tamper** evident ring

Images

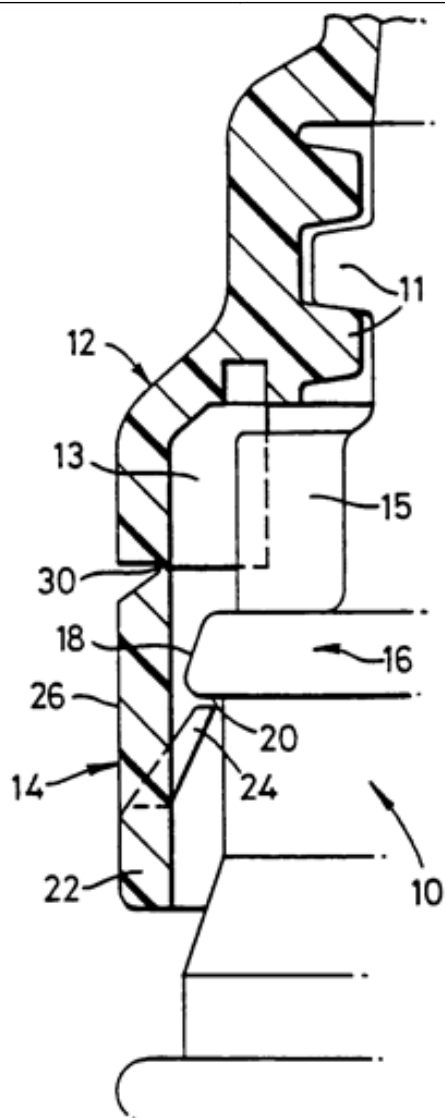


FIG. 1

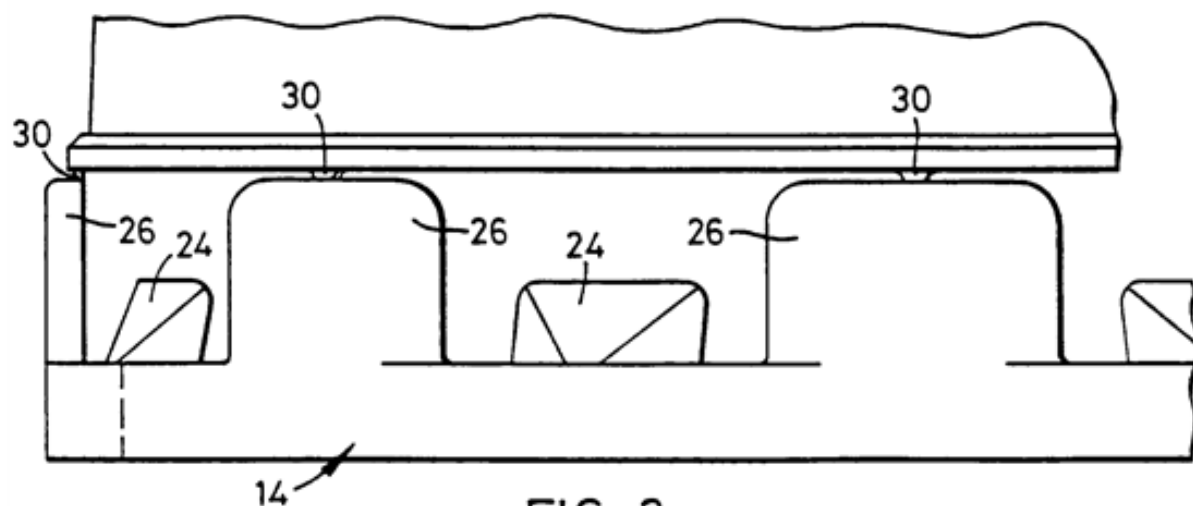
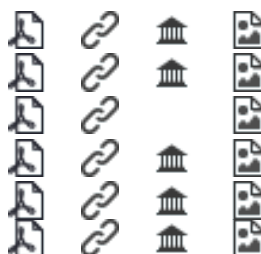


FIG 2

Publication numbers with kind code & date

CA2148370	C	2005-05-10	CA2148370
JP3552720	B2	2004-05-14	JP3552720
RU2105706	C1	1998-02-27	RU2105706
AU683857	B2	1997-11-27	AU-683857
ES2103502	T3	1997-09-16	ES2103502



DE69309951	T2	1997-07-31	DE69309951
DE69309951	D1	1997-05-22	DE69309951
EP0667827	B1	1997-04-16	EP-667827
RU95113173	A	1997-03-20	RU95113173
RU95113173	A1	1997-03-20	RU95113173
JPH08503189	A	1996-04-09	JP08503189
EP0667827	A1	1995-08-23	EP-667827
WO94/11267	A3	1994-09-29	WO9411267
AU5430994	A	1994-06-08	AU9454309
CA2148370	A1	1994-05-26	CA2148370
WO94/11267	A2	1994-05-26	WO9411267



Abstract

(EP0667827)

A **closure** is threadably securable to a **container** neck (70). The **closure** carries a **tamper** evident ring (80) which includes a collar from which extend a plurality of inwardly inclined resilient tabs (82). The tabs can flex outwardly relative to each other without stressing substantially the collar to enable the ring to fit easily over a projecting bead (72) on the neck. Ratchet stops (74) on the neck engage the tabs (82) to enable the ring to rotate relative to the neck in a screwing-on direction, but to restrict rotation in the opposite direction. When the **closure** is removed for the first time, the tabs (82) abut the ratchet stops (74) and the bead (72) to release the ring from the **closure** and to retain the ring securely on the neck. The ring can be of plastics and integrally joined to the **closure** by severable connections.

Inventors

KING WITNEY MILNER

KING ROGER MILNER

Latest standardized assignees - inventors removed

BEESON & SONS

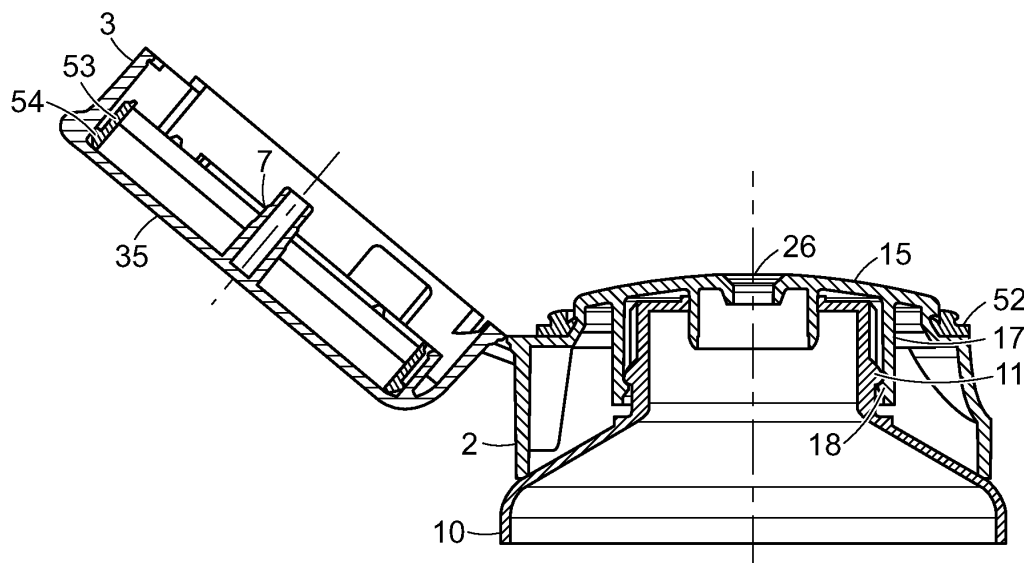
Family 23/59 - FAMPAT - ©Questel

Title

(EP3350094)

Head stand **closure** with a **tamper**-evident **seal**

Images



Publication numbers with kind code & date

EP3350094	B1	2019-10-02	EP3350094				
US10358273	B2	2019-07-23	US10358273				
US20180257831	A1	2018-09-13	US20180257831				
EP3350094	A1	2018-07-25	EP3350094				
CN108290668	A	2018-07-17	CN108290668				
BR112018005016	A1	2018-04-03	BR112018005016				
WO2017/045889	A1	2017-03-23	WO201745889				
GB201516189	D0	2015-10-28	GB201516189				

Abstract

(EP3350094)

A head stand **container closure** is provided. The **closure** comprises a base (2), and a lid (3) having a top plate (35) upon which the **closure** rests in use. The base is attachable to a **container** (10) and the lid is attached or attachable to the base. The **closure** comprises an internal **tamper**-evident member comprising a part (5) which is initially spaced from the lid top plate and upon first opening of the **closure** the part moves to or towards the top plate when the head is in a head down orientation.

Inventors

BENOIT-GONIN CLAUDE

BARDET PHILIPPE

Latest standardized assignees - inventors removed

OBRIST CLOSURES SWITZERLAND

Family 24/59 - FAMPAT - ©Questel

Title

(EP1833732)

Tamper-evident **closure** and bead on **container** neck**Images**

wall (102); a skirt (104) formed integrally with and extending downwardly from said upper wall, said skirt adapted to engage with a neck portion of the **container** to secure the **closure** to the **container**; a **tamper**-evident band (110) frangibly connected to said skirt; the neck of a **container** including a **tamper** bead adapted to engage with tabs (122) on said **tamper**-evident band to facilitate separation of the band (110) from the skirt of the **closure** and an inwardly and downwardly sloping **container** neck surface beneath said **tamper** bead, said inwardly and downwardly sloping surface urging said separated **tamper**-evident band downwards away from said skirt.

Inventors

HIGGINS CHRISTOPHER LYNDON

Latest standardized assignees - inventors removed

RBC TRUSTEES

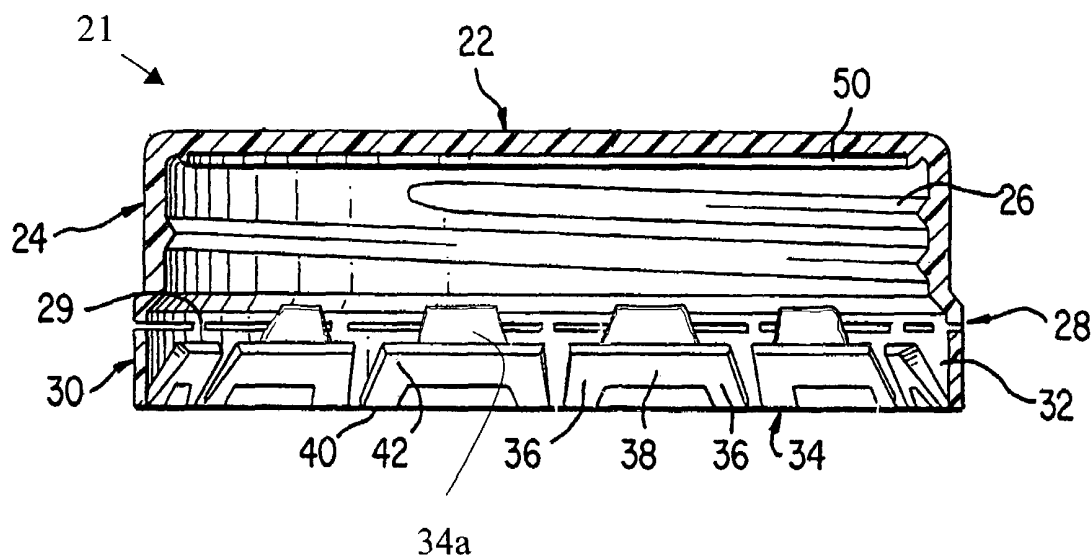
Family 25/59 - FAMPAT - ©Questel

Title

(EP1701889)

Tamper indicating **closure** with foldable tab

Images



Publication numbers with kind code & date

IL176573	B	2010-10-31	IL-176573
CA2551700	C	2009-06-16	CA2551700
AU2005204644	B2	2008-06-26	AU2005204644
US7344039	B2	2008-03-18	US7344039
EP1701889	A4	2008-01-16	EP1701889
IL176573	A	2006-10-31	IL-176573
EP1701889	A2	2006-09-20	EP1701889
WO2005/067588	A3	2006-05-04	WO200567588
US20050189312	A1	2005-09-01	US20050189312
AU2005204644	A1	2005-07-28	AU2005204644
CA2551700	A1	2005-07-28	CA2551700
WO2005/067588	A2	2005-07-28	WO200567588



Abstract

(EP1701889)

A **tamper** indicating **closure** (20) includes a top wall (22) and a skirt (24) depending from the top wall. A **tamper** indicating band (30) is connected to the skirt along a frangible line (28). The **tamper** indicating band includes a ring (32) and at least one tab (34), the at least one tab having a bi-pair of extending members (36) angled toward one another and connected by

a transverse member (38). The shape of the tab allows it be molded in a downward orientation and later folded to a stable, upward orientation without reheating or otherwise resetting the tab. The tab also includes a tab extension (34a) arranged on at least one of the transverse member (38) and at least one extending member (36) or at least one tab (34) and extending in a direction of extension of the extending members from at least one tab (34), the tab extension configured to engage at least one **container** profile (16).

Inventors

BIXLER FREDERICK L

CONERS DOUG

ROCHOW DON

Latest standardized assignees - inventors removed

BERRY STERLING

LANDIS PLASTICS

GRAFCO INDUSTRIES PARTNERSHIP

SUN COAST INDUSTRIES

SETCO

CAPTIVE PLASTICS

TUBED PRODUCTS

BERRY PLASTICS

BERRY GLOBAL

PESCOR

BPREX HEALTHCARE PACKAGING

FIBERWEB

BERRY GLOBAL FILMS

AVINTIV SPECIALTY MATERIALS

BERRY FILM PRODUCTS

PROVIDENCIA

PLIANT

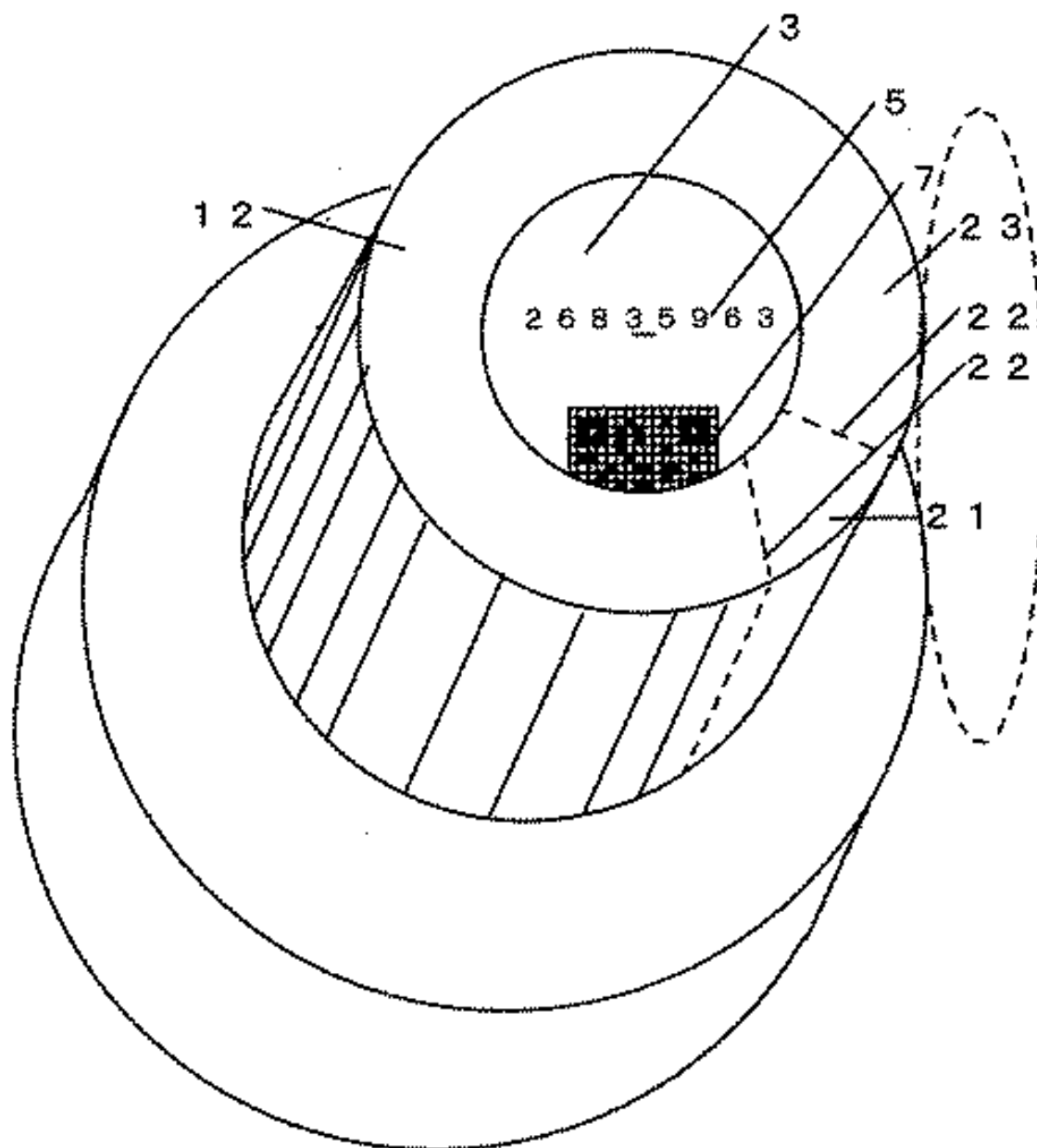
PRIME LABEL & SCREEN

Family 26/59 - FAMPAT - ©Questel

Title

(JP2011184080)

Container lid and questionnaire system using **container** lid**Images**



Publication numbers with kind code & date

JP2011184080	A	2011-09-22	JP2011184080
JP4676558	B1	2011-02-04	JP4676558



Abstract

(JP4676558)

PROBLEM TO BE SOLVED: To provide a **container** having a simple and low cost structure which can perform concealment and indication freely, a two-dimensional code of which can be read only after opening the **container** without being read unjustly by a non-purchaser of merchandise, when the two-dimensional code is attached to a merchandise **container** used for collecting information related to a single merchandise after use, which is most needed for inviting customers in an information collection system to control evaluation after use of a user from manufacturing consistently.

SOLUTION: The whole or a part of the **container** or a lid for storing the merchandise is sealed with a **tamper evidence** mechanism together with the two-dimensional code. A sealing member is broken in an irreversible shape by applying force in the opening direction of the **tamper evidence** mechanism to leave an **evidence** for modification or opening and since the **container** has the structure capable of performing concealment and indication of the two-dimensional code freely, the two-dimensional code can not be unjustly read by a non-purchaser of the merchandise.

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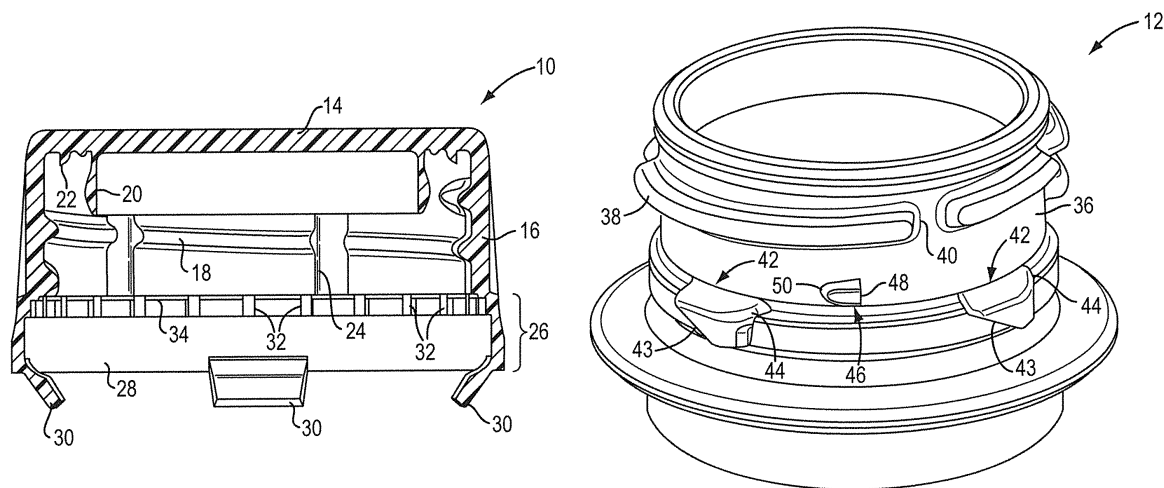
Inventors

TAGUCHI MASAYUKI

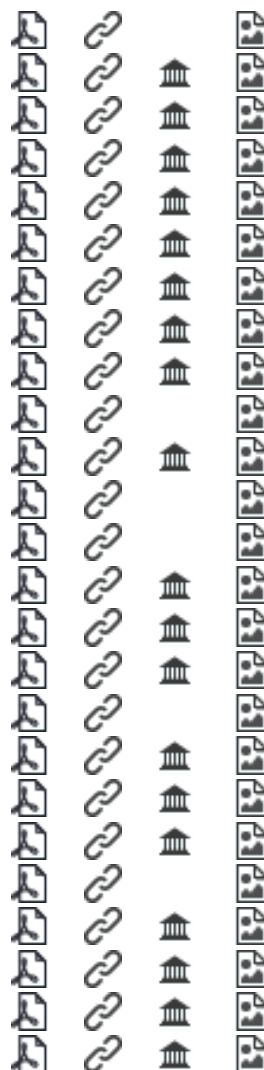
Family 27/59 - FAMPAT - ©Questel

Title

(EP3388358)

Tamper-evident package with improved opening performance**Images****Publication numbers with kind code & date**

HUE040345	T2	2019-03-28	HUE040345
USRE47156	E1	2018-12-11	USRE47156
EP3388358	A1	2018-10-17	EP3388358
ES2682462	T3	2018-09-20	ES2682462
IN201848025858	A	2018-07-20	IN201848025858
EP2268554	B1	2018-06-06	EP2268554
BRPI0911576	A2	2017-06-20	BR200911576
AU2009260868	B2	2015-07-02	AU2009260868
US8807360	B2	2014-08-19	US8807360
RU2507137	C2	2014-02-20	RU2507137
CN102015472	B	2013-08-28	CN102015472B
EG26024	A	2012-12-11	EG--26024
RU2010148807	A	2012-06-10	RU2010148807
EP2268554	A4	2011-12-07	EP2268554
IN6911/CHENP/2010	A	2011-07-08	IN2010CN06911
JP2011519330	A	2011-07-07	JP2011519330
ZA201006949	B	2011-06-29	ZA201006949
CN102015472	A	2011-04-13	CN102015472
US20110024423	A1	2011-02-03	US20110024423
EP2268554	A2	2011-01-05	EP2268554
MX2010011796	A	2010-11-30	MX2010011796
WO2009/154666	A3	2010-02-18	WO2009154666
AU2009260868	A1	2009-12-23	AU2009260868
CA2721234	A1	2009-12-23	CA2721234
WO2009/154666	A2	2009-12-23	WO2009154666

**Abstract**

(EP3388358)

The invention relates to a **tamper**-evident package, comprising a **container** having a neck portion having an external, helical thread formation thereon; and a **closure** having a top wall portion and a skirt portion having a mating formation, said **closure** including a sealing portion to sealingly engage the neck portion, said **closure** including a **tamper**-evident band, frangibly connected to said skirt portion, to engage said **container** during removal of said **closure**, including inwardly extending flexible projections, said sealing portion of said **closure** being positioned relative to said thread formations to move out of sealing engagement with said **container** after engagement of said **tamper**-evident band with said **container**, and fracture of said frangible connection, said **closure** being applied to said **container**, and being movable through a predetermined angle prior to engagement of said **tamper**-evident band with said **container** for fracture of said frangible connection

Inventors

MCBRIDE STEVE

ERSPAMER JOHN

GEVERS DAVE

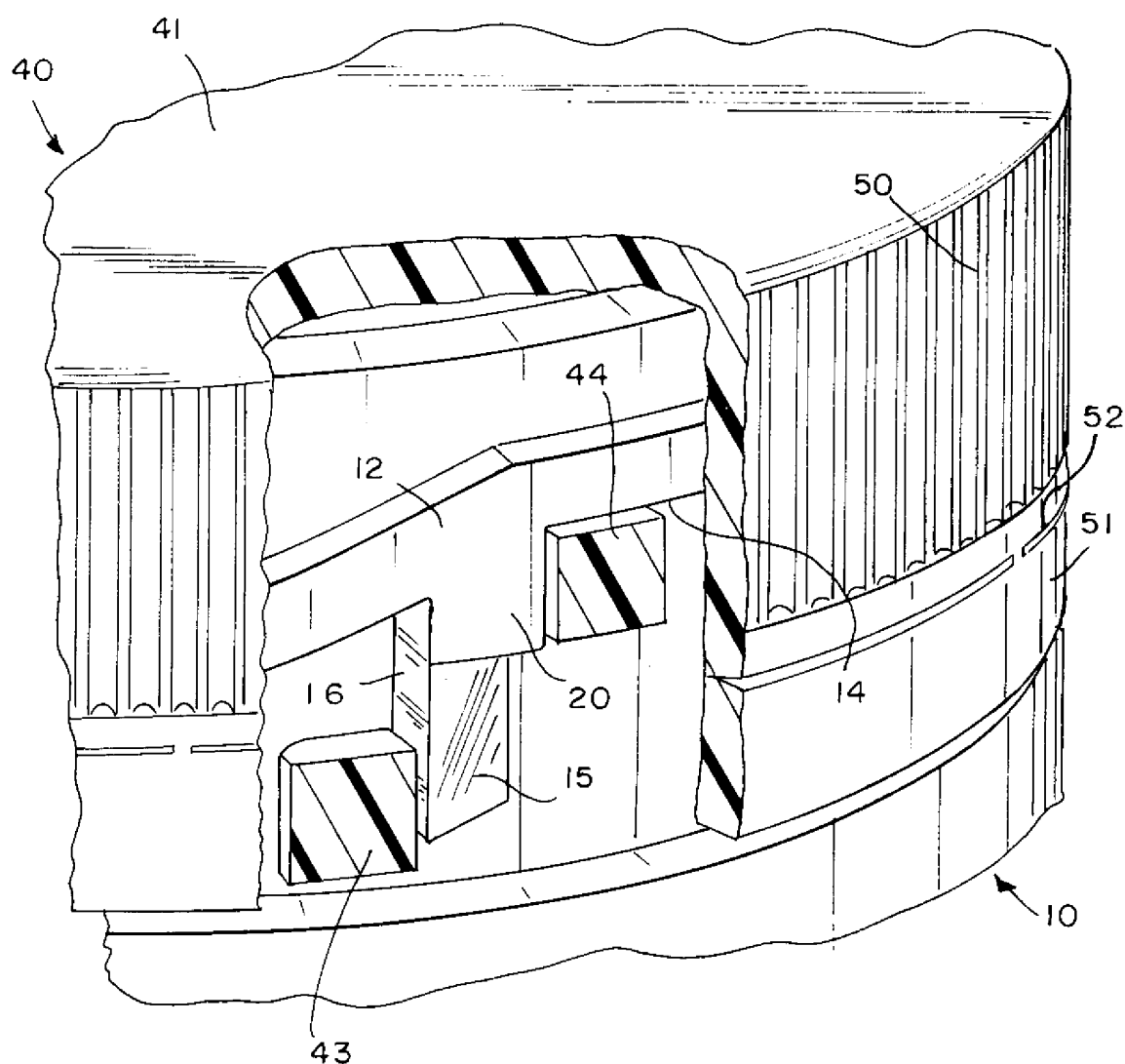
SMEYAK LARRY

Latest standardized assignees - inventors removed**CLOSURE** SYSTEMS INTERNATIONAL

Family 28/59 - FAMPAT - ©Questel

Title

(WO200567616)

Closure and **container** system and method**Images**

CA2551717	C	2010-06-22	CA2551717				
US7198170	B2	2007-04-03	US7198170				
WO2005/067616	A3	2006-09-08	WO200567616				
CA2551717	A1	2005-07-28	CA2551717				
WO2005/067616	A2	2005-07-28	WO200567616				
US20050145629	A1	2005-07-07	US20050145629				

Abstract

(WO2005/067616)

A system includes a **container** (10) including projections (12) equi-spaced around a neck region (18). Each of the projections includes a cam surface (15), a lock surface (16), a ramp (13), and a clamping surface (14). The system also include a **closure** (40) including a **closure** plane (41) and a circumferentially depending outer skirt (50) extending from the **closure** plane, a **tamper**-evident arrangement (51) frangibly connected to an edge of the outer skirt opposite the **closure** plane, and pairs of lugs equi-spaced around an inner sidewall formed by the outer skirt and the **tamper**-evident arrangement. A lock lug (43) of each pair of lugs is arranged on the **tamper**-evident arrangement and a sealing lug (44) of each pair of lugs is arranged on the outer skirt. In the system, each lock lug is adapted to engage the cam surface of a corresponding projection and each sealing lug is adapted to the ramp of the corresponding projection during the initial application operation. The lock lug is adapted to engage the lock surface of the corresponding projection and the sealing lug is adapted to engage the clamping surface of the corresponding projection after the initial application operation.

Inventors

HERR JAMES E

Latest standardized assignees - inventors removed

BERRY STERLING

LANDIS PLASTICS

GRAFICO INDUSTRIES PARTNERSHIP

SUN COAST INDUSTRIES

SETCO

CAPTIVE PLASTICS

TUBED PRODUCTS

BERRY PLASTICS

BERRY GLOBAL

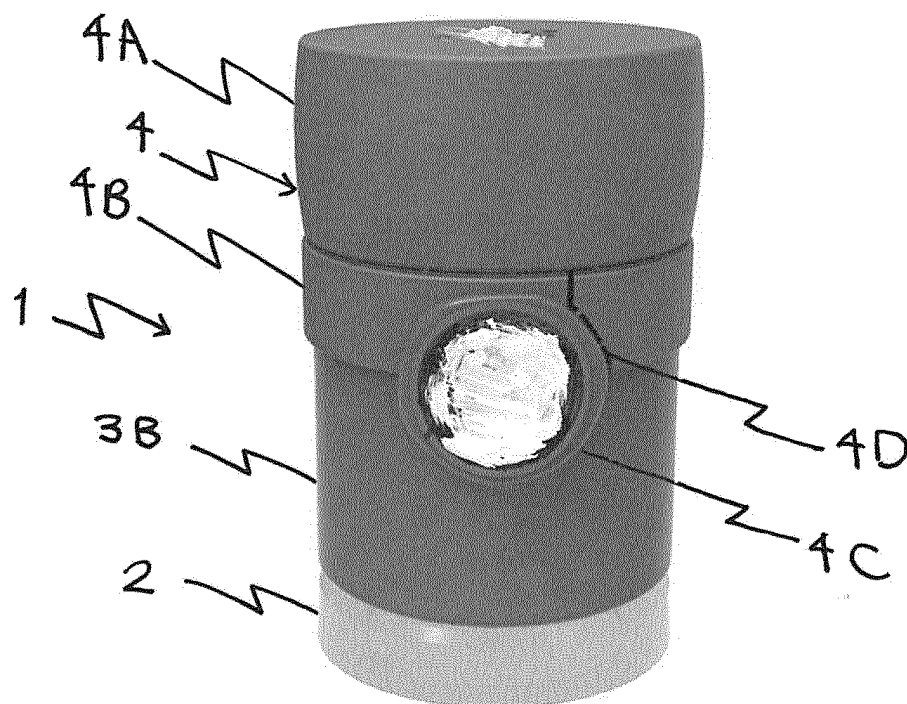
PESCOR

Family 29/59 - FAMPAT - ©Questel

Title

(EP3099596)

A **tamper**-evident **closure****Images**



Publication numbers with kind code & date

KR10-2019-0043647	A	2019-04-26	KR20190043647
RU2683359	C2	2019-03-28	RU2683359
CN105939941	B	2018-10-09	CN105939941B
RU2016134226	A3	2018-07-02	RU2016134226
RU2016134226	A	2018-03-05	RU2016134226
MX2016009649	A	2017-09-19	MX2016009649
TH165254	A	2017-07-20	TH-165254
US20170137189	A1	2017-05-18	US20170137189
JP2017507086	A	2017-03-16	JP2017507086
PH12016501501	A1	2017-02-06	PH12016501501
EP3099596	A1	2016-12-07	EP3099596
KR20160115950	A	2016-10-06	KR20160115950
CN105939941	A	2016-09-14	CN105939941
BR112016017783	A1	2016-08-09	BR112016017783
WO2015/113851	A1	2015-08-06	WO2015113851
GB201401682	D0	2014-03-19	GB201401682



Abstract

(EP3099596)

A **tamper**-evident **closure** (I) for a **container**, the **closure** comprising: a shell comprising a first shell part (3A) and a second shell part (3B); and a **tamper**-evident overcap, the overcap comprising a cap (4A) which is fixed to the exterior of the first shell part and a **tamper**-evident member (4B) which is releasably connected to the cap (4A) and releasably located around the exterior of at least part of the second shell part (3B), such that the first and second shell parts (3A, 3B) cannot be separated unless the member (4B) is released, and thereafter the cap (4A) is removable together with the first shell part (3A).

Inventors

MCPHERSON ALEXANDER DONALD MEIKLEM

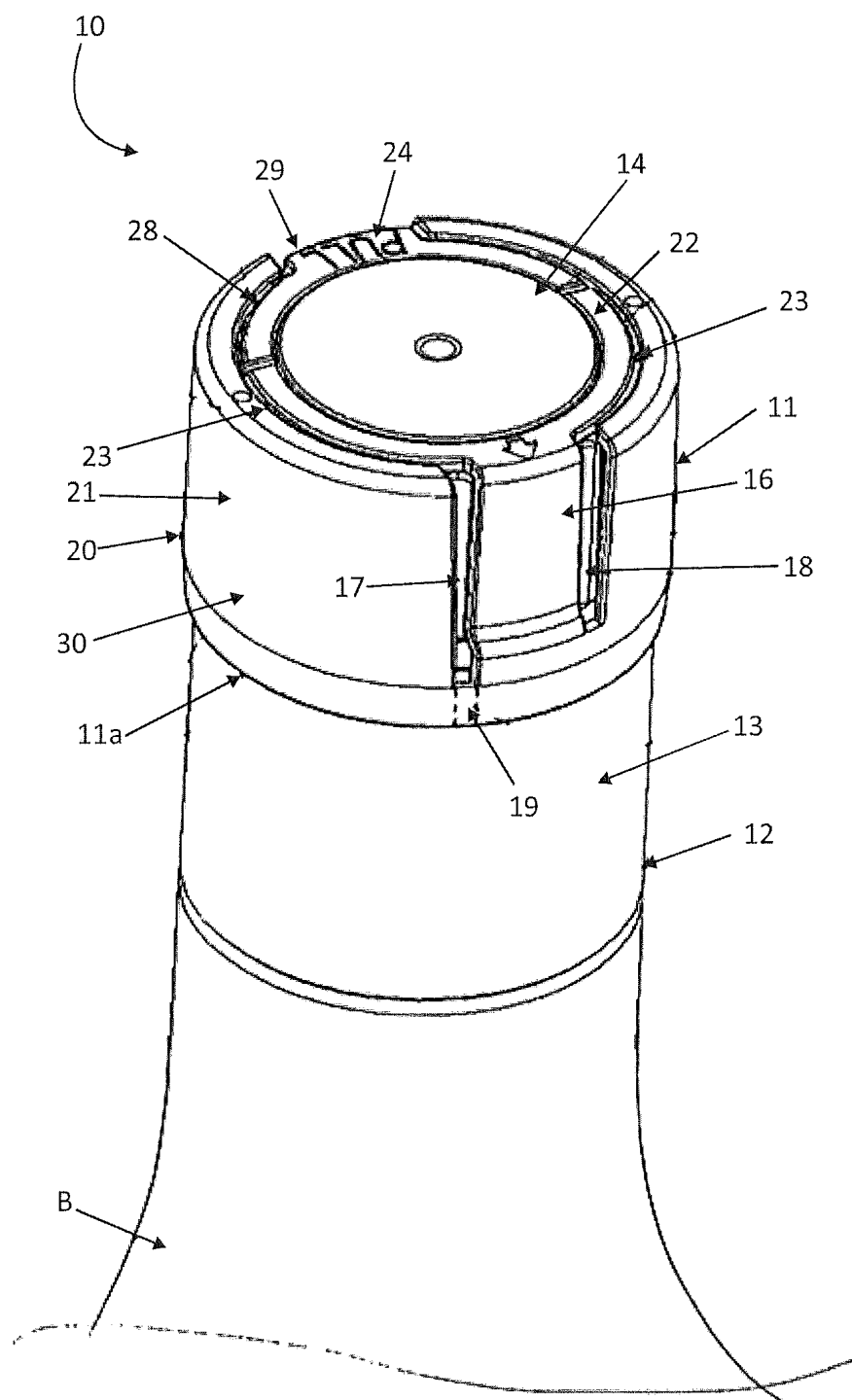
Latest standardized assignees - inventors removed

OBRIST CLOSURES SWITZERLAND

Family 30/59 - FAMPAT - ©Questel

Title

(EP3031743)

Tamper evident security **closure** to access opening of a **container**, in particular a **bottle****Images****Publication numbers with kind code & date**

RU2705038

C2 2019-11-01

RU2705038

RU2015141353

A3 2019-08-28

RU2015141353



EP3031743	B1	2019-07-17	EP3031743				
MX2015015583	A	2018-02-23	MX2015015583				
RU2015141353	A	2017-04-05	RU2015141353				
ZA201508140	B	2017-01-25	ZA201508140				
IN0817/KOL/2015	A	2016-08-26	IN2015KO00817				
CN105691875	A	2016-06-22	CN105691875				
DE102014018155	A1	2016-06-16	DE102014018155				
US20160167840	A1	2016-06-16	US20160167840				
WO2016/092483	A1	2016-06-16	WO201692483				
EP3031743	A1	2016-06-15	EP3031743				
BR102015026339	A2	2016-06-14	BR102015026339				
BR102015026339	A1	2016-03-15	BR102015026339				

Abstract

(EP3031743)

A **tamper** evident **closure** (10) for an access opening in a **container** (B), in particular a **bottle**, has a **closure** part (12) which is placeable onto the access opening in a sealing manner and has a bottom sleeve portion (13) and an upper cover portion (14), which are connected in one piece to each other via a first **tamper** evident indicator (15). Furthermore, a hood-like indicator cap (11) is provided which forms a second **tamper** evident indicator (20) and at least partially surrounds at least the cover portion (14) of the **closure** part (12), wherein access to the first **tamper** evident indicator is possible only when the indicator cap is destroyed. A tear off tab (16) is formed in the indicator cap (11), which tear off tab (16) is bounded by two grooves (17, 18) which are arranged at a distance and end at a distance from the bottom rim (11a) of the indicator cap (11), wherein at least one of the grooves (17, 18) is assigned a breaking point which extends as far as the bottom rim (11a) of the indicator cap (11).

Inventors

KLEPPSCH MATTHIAS

Latest standardized assignees - inventors removed

HSIL

Family 31/59 - FAMPAT - ©Questel

Title

(EP1330396)

Closure lid and resealable **closure** system

Images

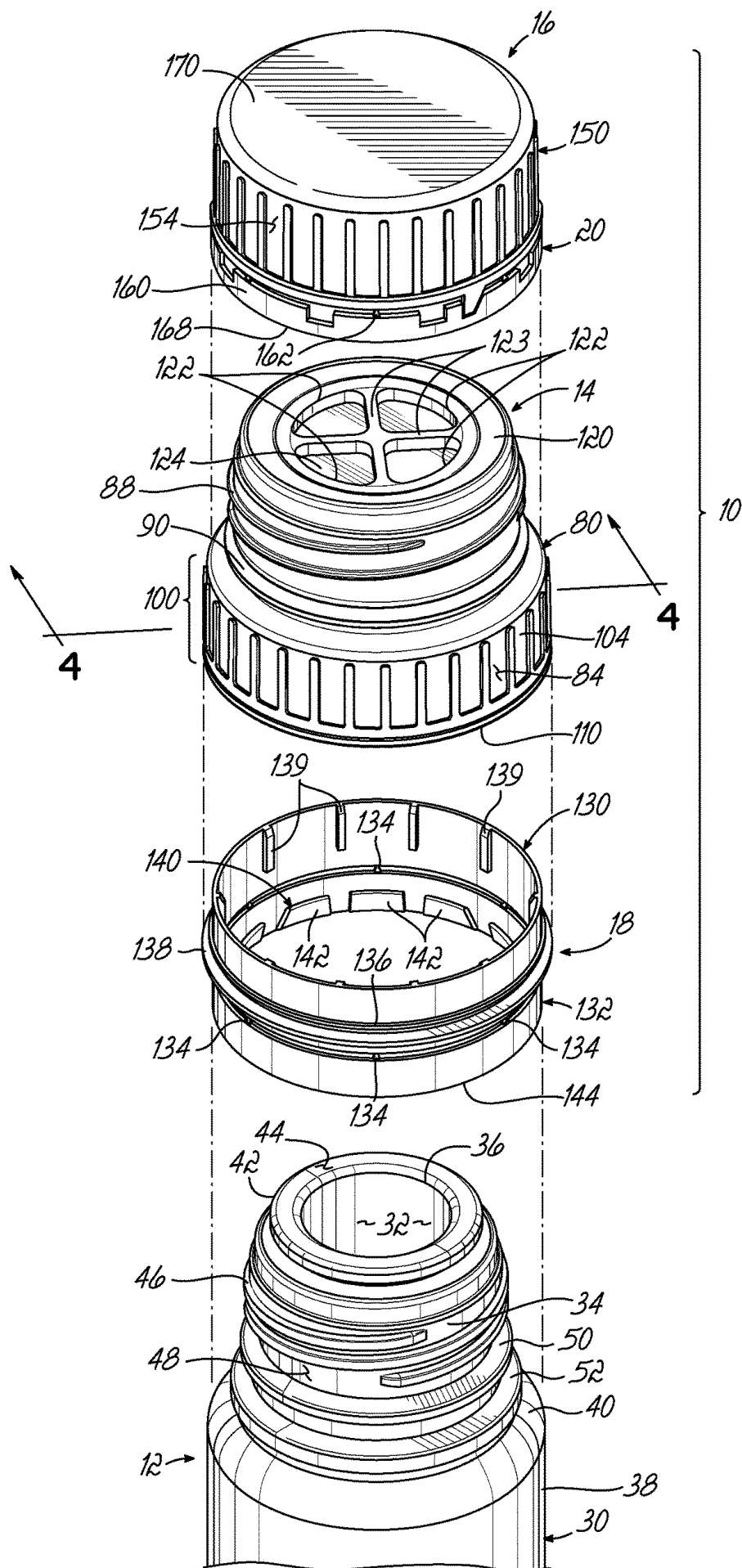
Family 32/59 - FAMPAT - ©Questel

Title

(EP2915585)

Tamper-evident **closure** assembly having two **tamper**-evidencing members, and related methods

Images



Publication numbers with kind code & date

EP2915585	B1	2018-07-18	EP2915585
CN104891002	B	2018-01-09	CN104891002B
US9758281	B2	2017-09-12	US9758281
US20150251820	A1	2015-09-10	US20150251820
CN104891002	A	2015-09-09	CN104891002
EP2915585	A1	2015-09-09	EP2915585

**Abstract**

(EP2915585)

A **tamper**-evident **closure** assembly (10) is provided for a **container** (12) having a neck (34) defining an opening (36). The **closure** assembly includes a base cap (14) configured for securing with the neck (34) and including an aperture (122) for providing access to the opening (36) of the **container** (12). The **closure** assembly (10) further includes an overcap (16) configured for securing with the base cap (14) and configured to cover the aperture (122) when the overcap (16) is secured to the base cap (14). First and second **tamper**-evidencing members (18 and 20) are associated with the base cap (14) and the overcap (16), respectively. The first **tamper**-evidencing member (18) provides an indication when the base cap (14) has been removed from the neck (34), and the second **tamper**-evidencing member (20) provides an indication when the overcap (16) has been removed from the base cap (14).

Inventors

GLASER JOHN T

RODRIGUEZ JACK A

Latest standardized assignees - inventors removed

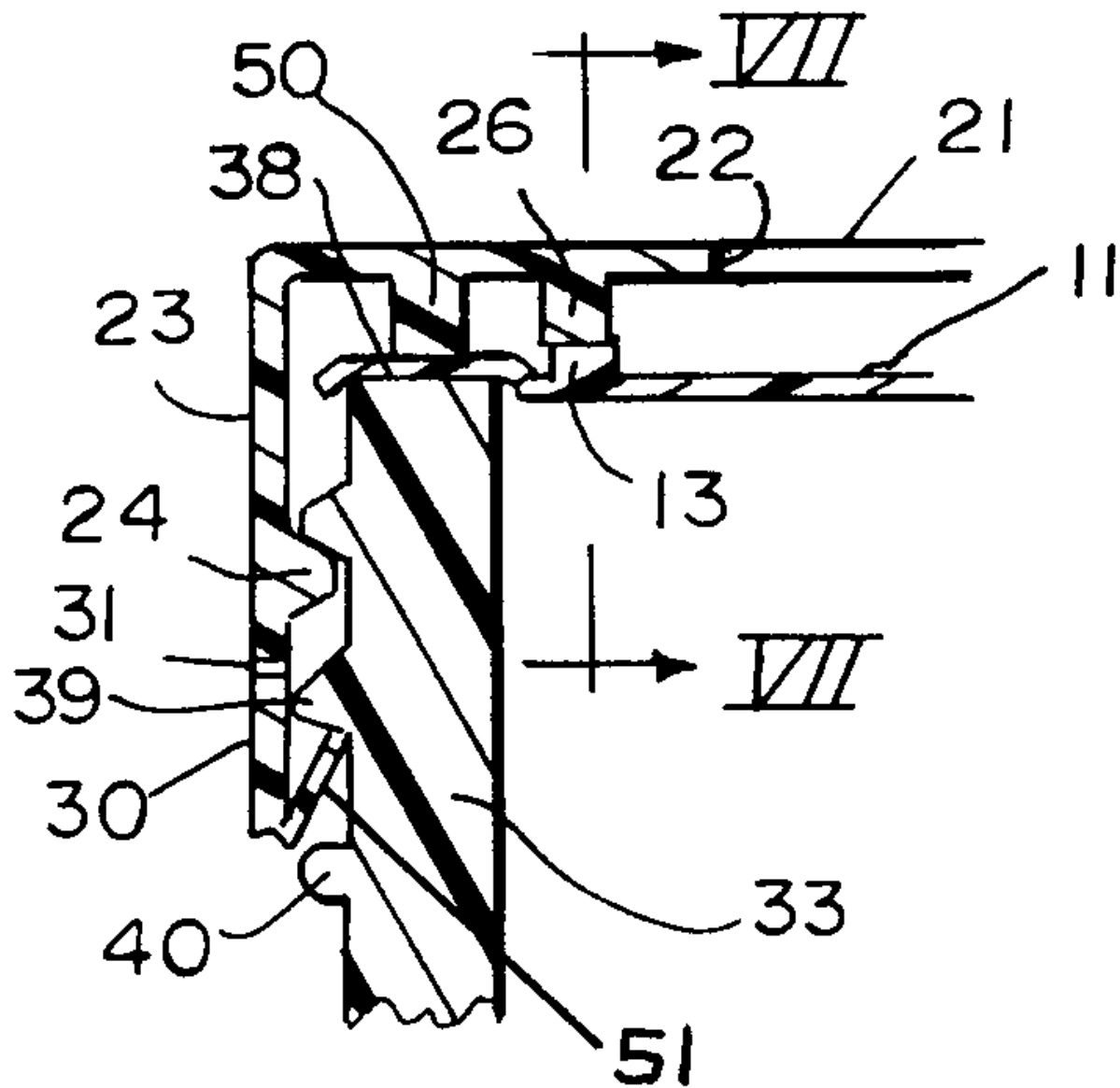
FISHER SCIENTIFIC

Family 33/59 - FAMPAT - ©Questel

Title

(US7549547)

Composite two-piece **tamper**-evident **closure** with a **seal**-delay-release feature and a method therefor**Images**



Publication numbers with kind code & date

CA2549447	C	2010-08-03	CA2549447
US7549547	B2	2009-06-23	US7549547
US20070017891	A1	2007-01-25	US20070017891
CA2549447	A1	2006-12-06	CA2549447



Abstract

(US20070017891)

A package includes a **container**, a **seal**, and a **closure**. The **container** is formed to include an interior region and an opening into the interior region. The **seal** is coupled to the **container** to close the opening. The **closure** is coupled to the **container** to cover the **seal**.

Inventors

HERR JAMES E
FRICKE MARK R

Latest standardized assignees - inventors removed

BERRY STERLING
LANDIS PLASTICS
GRAFCO INDUSTRIES PARTNERSHIP
SUN COAST INDUSTRIES
KERR
SETCO

CAPTIVE PLASTICS
TUBED PRODUCTS
BERRY PLASTICS
BERRY GLOBAL
PESCOR

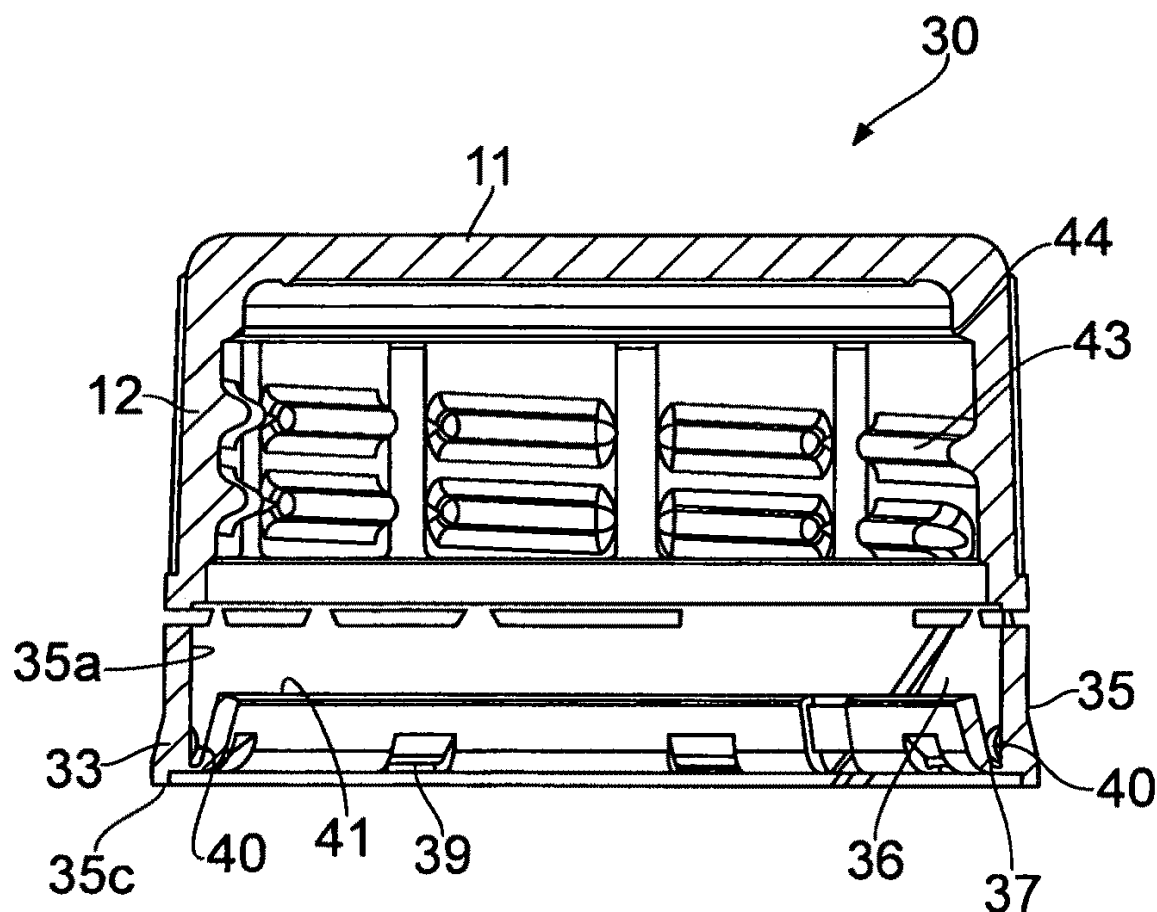
Family 34/59 - FAMPAT - ©Questel

Title

(EP2694386)

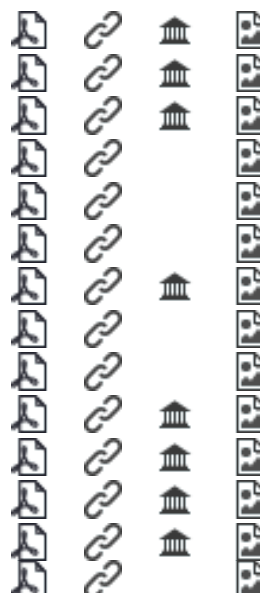
Closure with folded-up tamper evident band

Images



Publication numbers with kind code & date

CA2828903	C	2019-04-09	CA2828903
AU2012239853	B2	2018-02-22	AU2012239853
US9821934	B2	2017-11-21	US9821934
VN0017234	B	2017-08-25	VN--17234B
PL2694386	T3	2017-07-31	PL2694386
HK1194342	A1	2017-01-27	HK1194342
BR112013022363	A2	2016-12-06	BR112013022363
HUE027670	T2	2016-11-28	HUE027670
MX341462	B	2016-08-22	MX-341462
PT2694386	T	2016-08-03	PT2694386T
ES2578152	T3	2016-07-21	ES2578152
EP2694386	B1	2016-05-25	EP2694386
CN103635398	B	2016-03-02	CN103635398B



TH145697	A	2016-02-15	TH-145697				
EP2694386	A4	2015-04-29	EP2694386				
NZ614295	A	2014-10-31	NZ-614295				
CL2013002841	A1	2014-07-11	CL201302841				
US20140190968	A1	2014-07-10	US20140190968				
CN103635398	A	2014-03-12	CN103635398				
VN36827	A	2014-02-25	VN--36827				
EP2694386	A1	2014-02-12	EP2694386				
CO6852033	A2	2014-01-30	CO6852033				
WO2012/135906	A9	2014-01-09	WO2012135906				
BR112013022363	A1	2014-01-07	BR112013022363				
MX2013011445	A	2013-10-17	MX2013011445				
AU2012239853	A1	2013-09-05	AU2012239853				
CA2828903	A1	2012-10-11	CA2828903				
WO2012/135906	A1	2012-10-11	WO2012135906				

Abstract

(EP2694386)

A **closure** (10,30) attachable to a **container** having an opening. The **closure** (10,30) comprising a top portion (11) and a skirt portion (12) depending from the top portion (11). A **tamper** evident band (13,33) is joined to the skirt portion (12) by one or more frangible connectors (14,34). The band (13,33) comprises a first portion (15,35) extending generally away from the skirt portion (12) and a second portion (16,36) hingedly connected to the first portion (15,35) and movable between a first moldable orientation and at least a second operable orientation. For **closure** (10), the second portion (16) comprises a plurality of curved undercuts (18) extending at least partially into a cavity of the **closure** (10) when it is in its operable orientation. For **closure** (30), the inner surface (35a) of the first portion (35) can have a plurality of inwardly extending protuberances (40) positioned thereon.

Inventors

BEVAN DAVID

DRUITT RODNEY

Latest standardized assignees - inventors removed

CREANOVA UNIVERSAL CLOSURES

Family 35/59 - FAMPAT - ©Questel

Title

(WO9937549)

Tamper-evident **container closure**

Images

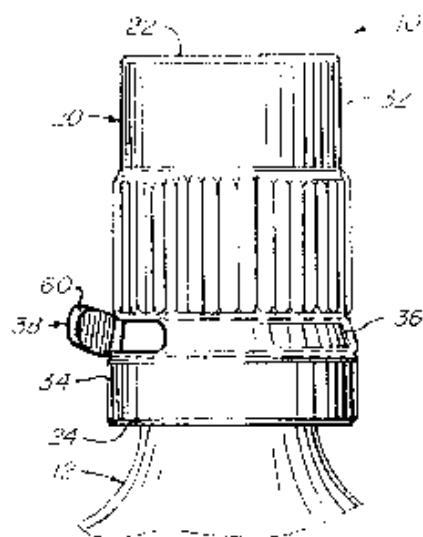


FIG. 1

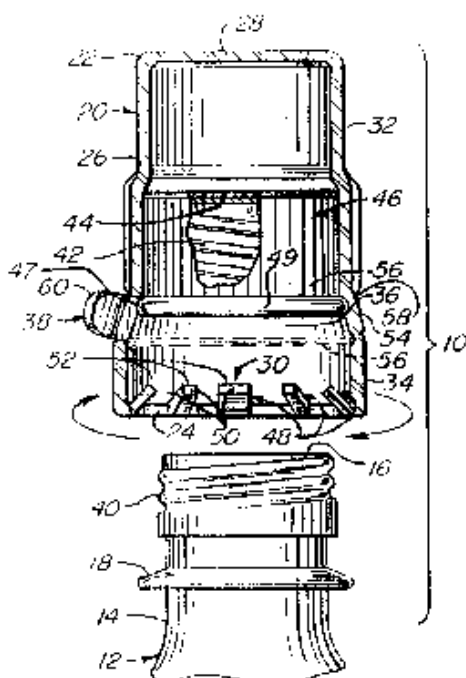


FIG. 2

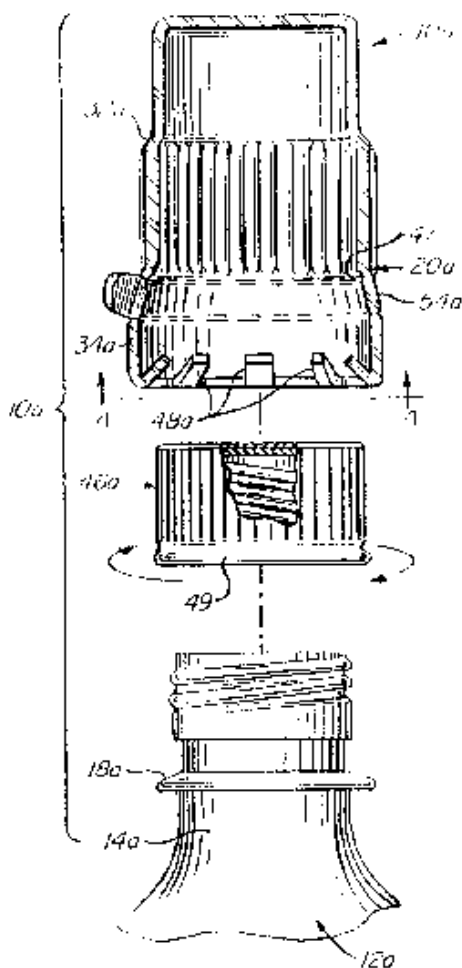


FIG. 3

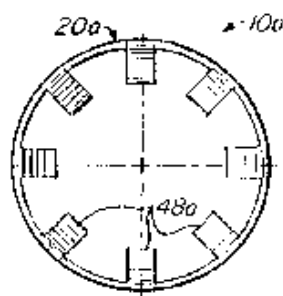


FIG. 4

Publication numbers with kind code & date

USRE40003	E1	2008-01-15	USRE40003
USRE39867	E1	2007-10-09	USRE39867
US6332550	B1	2001-12-25	US6332550
US6050436	A	2000-04-18	US6050436
WO99/37549	A1	1999-07-29	WO99/37549



Abstract

(WO99/37549)

A **tamper**-evident **closure** (10) for a **container** (12) includes an outer **tamper**-evident cap (20) engageable over an inner **container** sealing cap (46) which may form part of the **tamper**-evident **closure** or part of the **container**, cap retaining prongs (48) on the outer cap which permit placement of the outer cap on the **container** neck over the sealing cap but prevent

upward removal of the outer cap from the **container**, a tear strip (38) for severing the outer cap between its upper and lower ends to permit upward removal of the upper portion of the outer cap from the **container**, and a circumferential rupture line (36) along which the outer cap separates to **evidence** tampering if an attempt is made to forcibly remove the outer cap from the **container** without tearing strip from the outer cap.

Inventors

BENNETT PAUL H

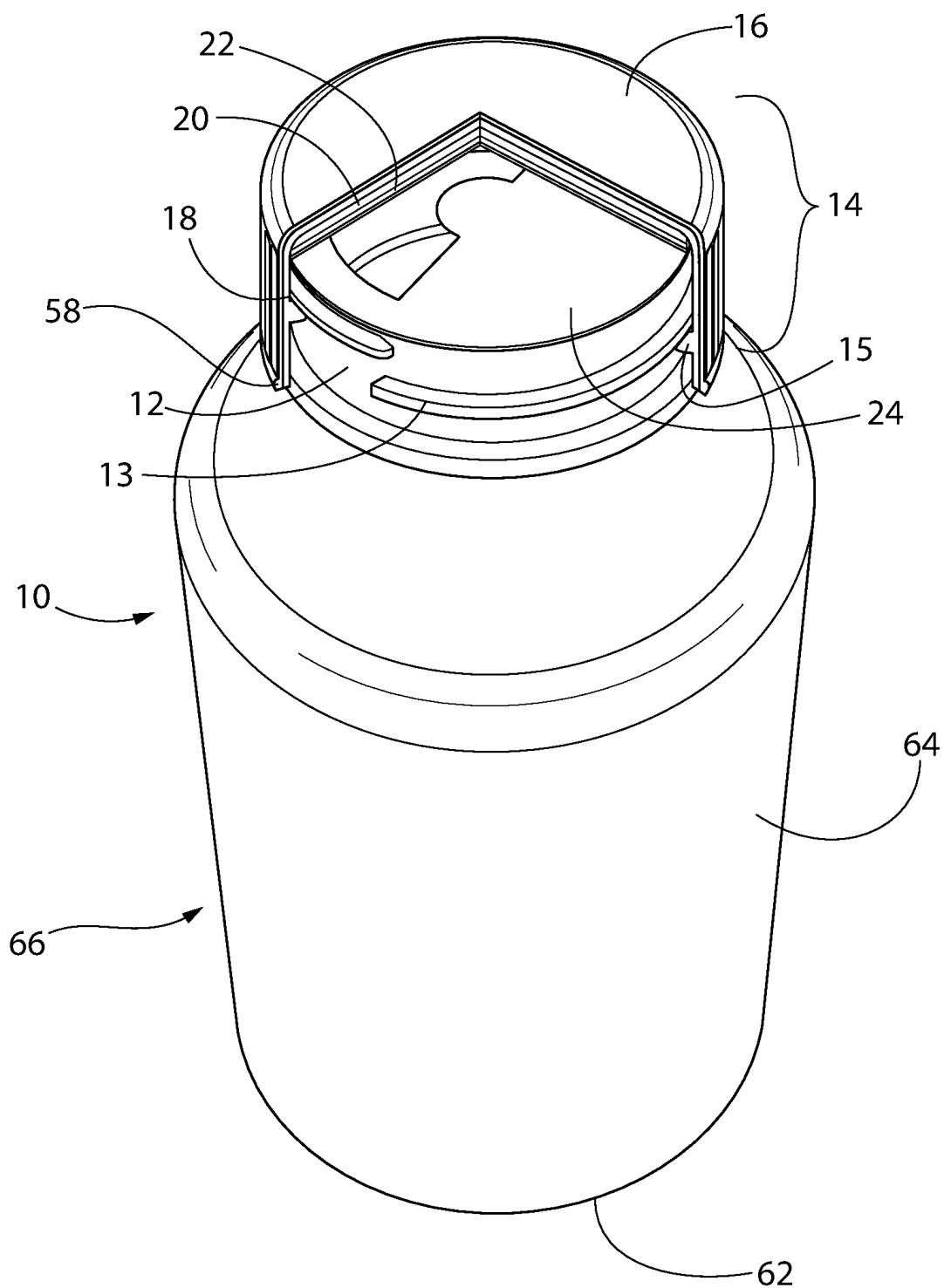
Family 36/59 - FAMPAT - ©Questel

Title

(EP3337732)

Container orifice reducer with **tamper** evident **seal**

Images



Publication numbers with kind code & date

JP2018525287	A	2018-09-06	JP2018525287
EP3337732	A1	2018-06-27	EP3337732
CN108137193	A	2018-06-08	CN108137193
CA2995824	A1	2017-02-23	CA2995824
US20170050774	A1	2017-02-23	US20170050774
WO2017/031139	A1	2017-02-23	WO201731139



Abstract

(EP3337732)

Containers with closures are disclosed. A **closure** may include at least a polymer orifice reducer (24) configured to be permanently secured to a rim (31) of an opening of a **container** and a flexible **tamper** evident **seal** (30) disposed on the topside of the orifice reducer (24). The flexible **tamper** evident **seal** (30), optionally foil, covers one or more openings (26) in the orifice reducer. Processes for permanently securing a **closure** to a **container**, optionally by forming a heat **seal** between the orifice reducer and **container** rim, are also disclosed.

Inventors

GIRAUD JEAN-PIERRE

LUCAS JR FRANKLIN LEE

Latest standardized assignees - inventors removed

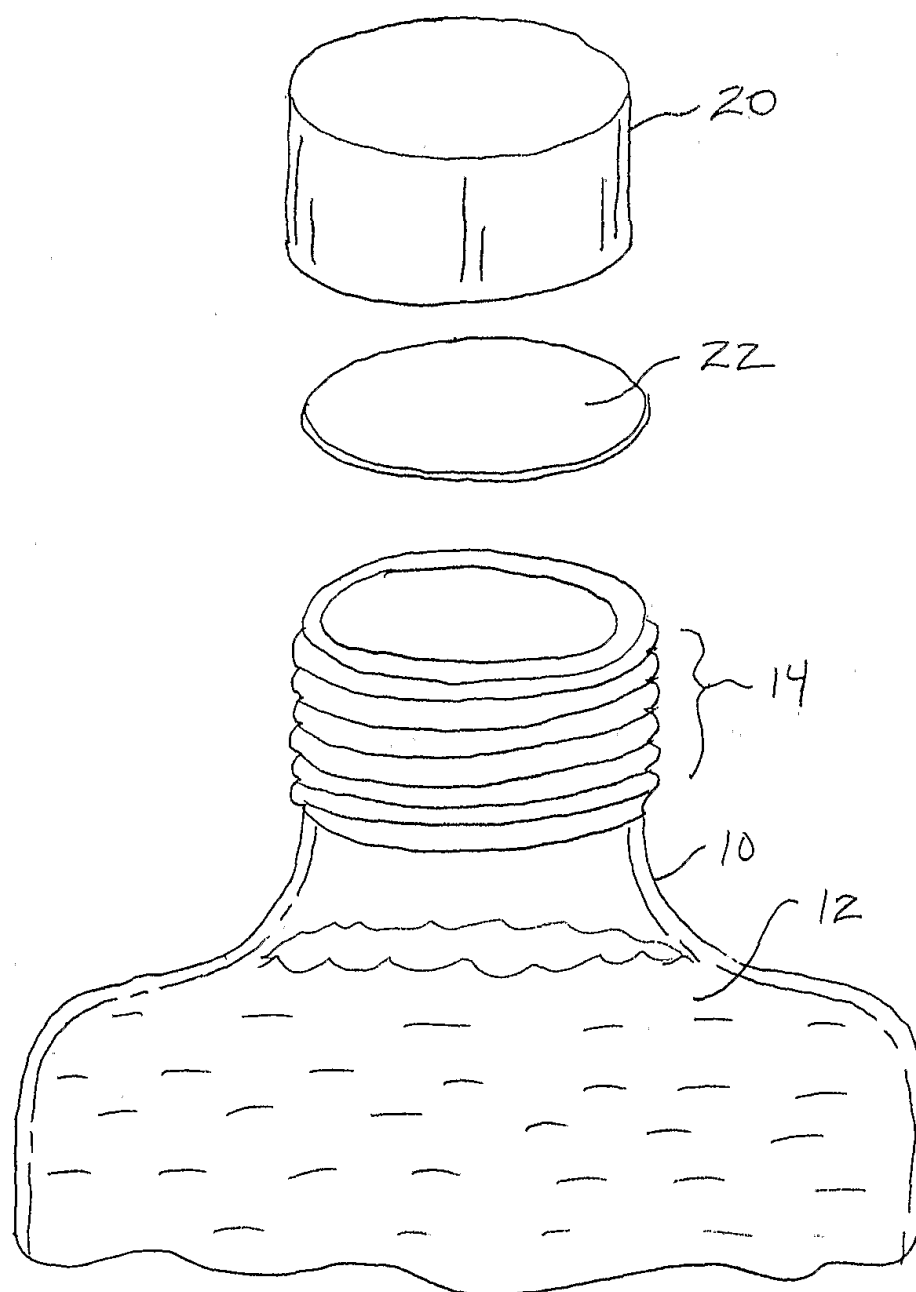
CSP TECHNOLOGIES

Family 37/59 - FAMPAT - ©Questel

Title

(WO200604665)

Scented **closure** for a **container** that utilizes a **tamper** resistant **seal****Images**



Publication numbers with kind code & date

WO2006/004665	A3	2007-03-29	WO200604665
WO2006/004665	A2	2006-01-12	WO200604665



Abstract

(WO2006/004665)

A system and method for packaging a scented product that enables the scented product to be sampled without any direct contact with the scented product. Packaging for the scented product is produced, wherein at least part of the packaging is made from a scented plastic or material. The portion of the packaging made from the scented packaging can be the **container**, **closure**, **tamper seal** or an external patch. The scented plastic used has scent characteristics that are matched to that of the scented product held within the packaging. Consequently, by smelling the scented plastic, a consumer will be presented with the same smell as the scented product. The aroma of the scented product can therefore be sampled without opening the packaging and breaking its **tamper** evident **seal**, potentially contaminating the scented product.

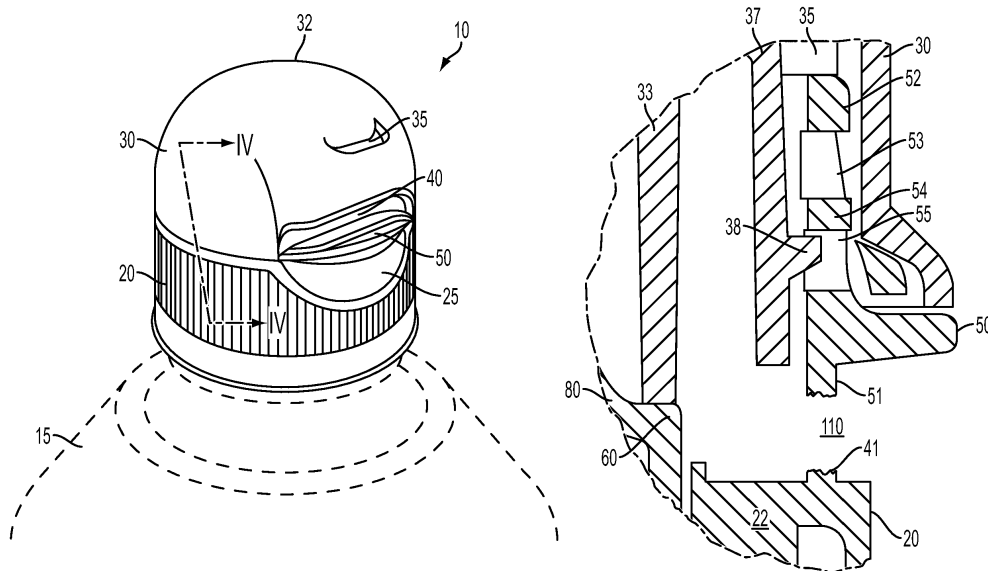
Inventors

LANDAU STEVEN

Family 38/59 - FAMPAT - ©Questel

Title

(EP2207729)

Tamper evident **closure****Images****Publication numbers with kind code & date**

EP2207729	B2	2015-12-16	EP2207729
US8490804	B2	2013-07-23	US8490804
PL2207729	T3	2011-12-30	PL2207729
ES2369958	T3	2011-12-09	ES2369958
PT2207729	E	2011-10-20	PT2207729
AT517040	T	2011-08-15	ATE517040
EP2207729	B1	2011-07-20	EP2207729
US20100264145	A1	2010-10-21	US20100264145
EP2207729	A1	2010-07-21	EP2207729
WO2009/056829	A1	2009-05-07	WO200956829
GB0721330	D0	2007-12-12	GB200721330

**Abstract**

(EP2207729)

Tamper-evident closures are known in which the **tamper-evidence** remains attached to the closures after initial opening. However, the **tamper-evidence** is not always that clear and therefore it is desirable to produce a **closure** which more clearly shows it has been initially opened. This may be achieved by having a **tamper**-evident **closure** (10) comprising a base (20), a lid (30), and a **tamper**-evident member (40) irreversibly moveable between a first position in which part of the member (40) is visible prior to initial opening of the **closure** (10) and a second position in which the said part is masked by the lid (30) so as to be partly hidden from view, the **tamper**-evident member (40) being moved from the first position to the second position upon initial opening of the **closure** (10).

Inventors

BENOIT-GONIN CLAUDE

BARDET PHILIPPE

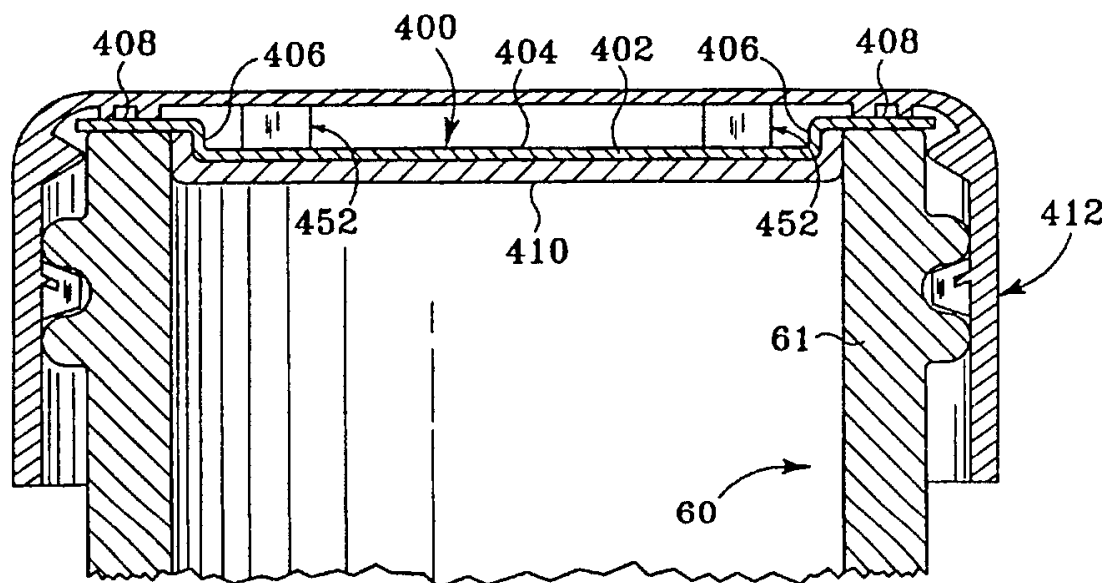
Latest standardized assignees - inventors removed

OBRIST CLOSURES SWITZERLAND

Family 39/59 - FAMPAT - ©Questel

Title

(EP-771290)

Tamper-evident **closure** system**Images****Publication numbers with kind code & date**

EP0771290	A4	1999-03-03	EP-771290
PL174528	B1	1998-08-31	PL-174528
AU691184	B2	1998-05-14	AU-691184
JPH10500650	A	1998-01-20	JP10500650
HUT76599	A	1997-10-28	HU-T76599
EP0771290	A1	1997-05-07	EP-771290
PL317607	A1	1997-04-14	PL94317607
HU9603381	D0	1997-01-28	HU9603381
AU7057794	A	1995-01-03	AU9470577
WO94/29186	A1	1994-12-22	WO9429186

**Abstract**

(EP0771290)

An inexpensive, multi-component **closure** for both pressurized and vacuum-packed containers (60), includes a **closure** disk (400) having a combination of features for forming an effective **seal** for the open mouth of such containers (60) and a screw cap (412), also with a combination of features, for carrying, by its rotation, the **closure** disk (400) into closing and sealing engagement with the open mouth (61) of the **container** (60). The **closure** disk (400) and screw cap (412), through their coaction, provide **tamper evidence** upon any subsequent counter-rotation of the screw cap (412), for example, as a user initiates opening of the **container** (60). Through their coaction, **closure** disk (400) and screw cap (412) also maintain an effective **seal** by controlling compression set of the **seal**, even if the **closure** is exposed to heavy top loads for long periods, such as in storage, and the subsequent removal of the load.

Inventors

WILDE SHELDON

Family 40/59 - FAMPAT - ©Questel

Title

(EP2093156)

Means for sealing **bottle** caps with **evidence** of opening

BRPI0716329	A2	2014-03-04	BR200716329
US8181803	B2	2012-05-22	US8181803
CU23799	A3	2012-03-15	CU--23799
ES2369196	T3	2011-11-28	ES2369196
RU2427514	C2	2011-08-27	RU2427514
AT515454	T	2011-07-15	ATE515454
EP2093156	B1	2011-07-06	EP2093156
RU2009119428	A	2010-12-10	RU2009119428
EA013202	B1	2010-04-30	EA--13202
US20090289027	A1	2009-11-26	US20090289027
CN101573274	A	2009-11-04	CN101573274
MX2009004455	A	2009-09-09	MX2009004455
EP2093156	A1	2009-08-26	EP2093156
IN2630/DELNP/2009	A	2009-06-19	IN2009DN02630
WO2008/049951	A8	2008-11-27	WO200849951
WO2008/049951	B1	2008-07-03	WO200849951
EA200702086	A1	2008-06-30	EA200702086
WO2008/049951	A1	2008-05-02	WO200849951



(EP2093156)

The present invention consists of an improvement made on the patent "Means for sealing bottle caps with evidence of opening" with Spanish application number P200202864, which made use of a concealed tongue that was revealed after the first opening without allowing to recover the original situation. The present invention maintains a connection between the top and bottom segments of the capsule, preventing their rotation relative to each other and providing an audible evidence

of opening.

Inventors

TORRENT ORTEGA DAVID

Latest standardized assignees - inventors removed

COMPANIA DE TAPONES IRRELLENABLES

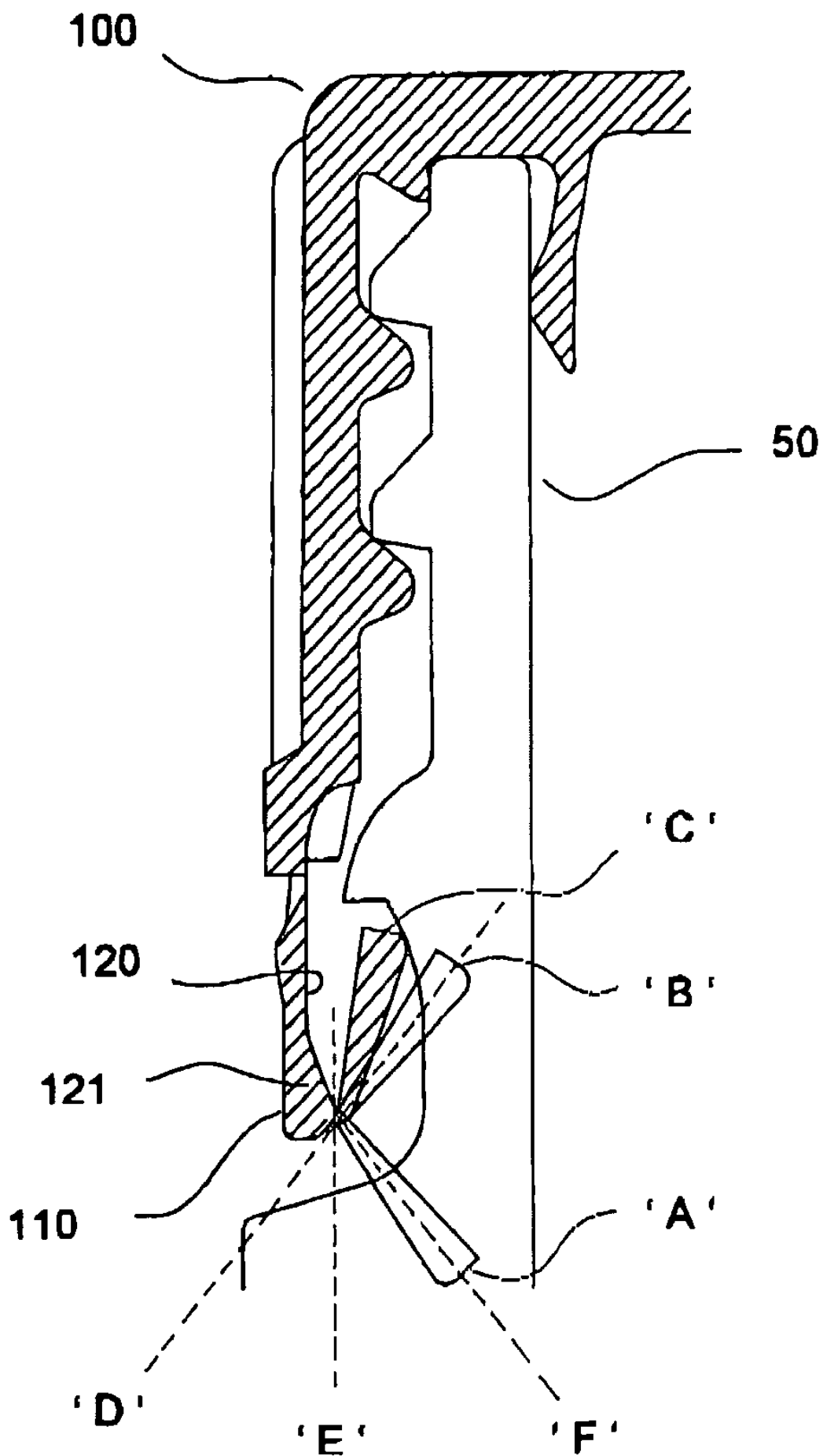
Family 41/59 - FAMPAT - ©Questel

Title

(WO200577777)

Closure with frangible **tamper**-evident band

Images



Abstract

(WO2005/077777)

This invention relates to closures for containers, and more particularly to **tamper**-evident closures for containers. One aspect of the invention provides a **container** and a **closure** for connection to said **container**, said **closure** including: an upper wall (102); a skirt (104) formed integrally with and extending downwardly from said upper wall, said skirt adapted to engage with a neck portion of the **container** to secure the **closure** to the **container**, a **tamper**-evident band (110) frangibly connected to said skirt; the neck (10) of the **container** including a plurality of discretely spaced projections (18) extending outwardly from said neck and adapted to engage with tabs (122) on said **tamper**-evident band to facilitate breaking of the band (110) from the skirt of the **closure**.

Inventors

HIGGINS CHRISTOPHER LYNDON

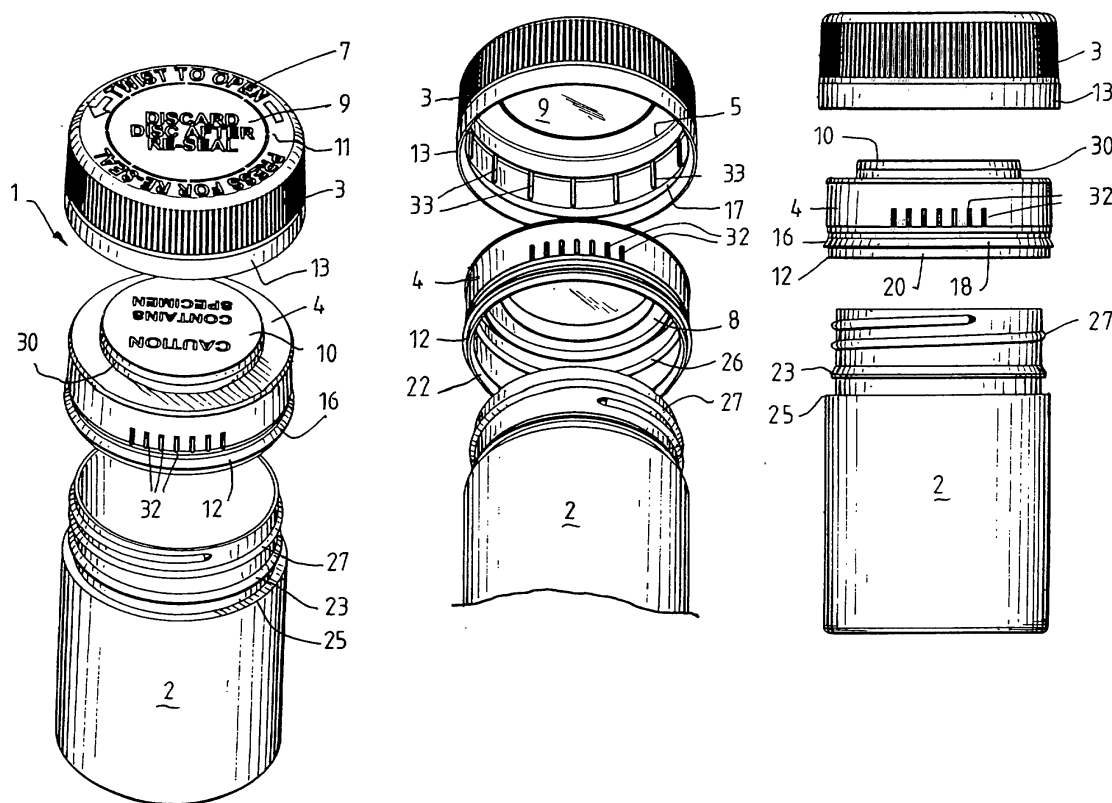
Latest standardized assignees - inventors removed

ABACUS

Family 42/59 - FAMPAT - ©Questel

Title

(WO200366467)

A **tamper** evident **closure****Images****Publication numbers with kind code & date**

AU2002227791

A1 2003-09-02

AU2002227791

WO03/66467

A1 2003-08-14

WO200366467

**Abstract**

(WO03/66467)

A **tamper** evident **closure** for a containers, such as specimen containers, is disclosed. The **closure** includes an inner cap (4) having a first **tamper** evident band (12) joined to the inner cap by a frangible portion (14) for **tamper** evidencing engagement with the **container**. The **closure** also includes an overcap (3) having a second **tamper** evident band (13) joined

to the overcap by a frangible portion (15) for **tamper** evidencing engagement with the **container**. The overcap is engageable with the inner cap and is selectively movable from a first position in which the second **tamper** evident band is not engaged with the **container** to a second position in which the second **tamper** evident band engages the **container**.

Inventors

HIGGINS PHILLIP

Latest standardized assignees - inventors removed

AMCOR PACKAGING

Family 43/59 - FAMPAT - ©Questel

Title

(EP-367369)

Tamper-indicating **closure** for a **container** and improved capping without top loading.**Images**

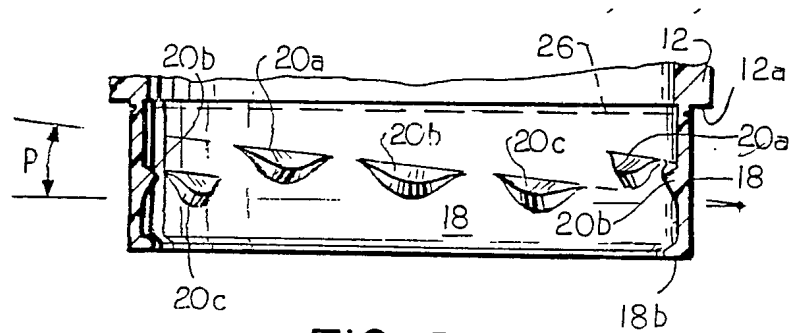


FIG. 3

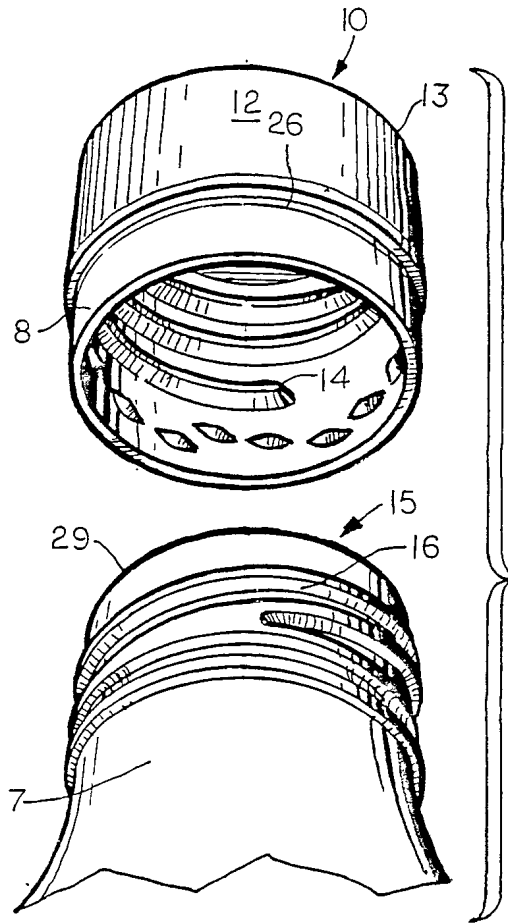


FIG. 1

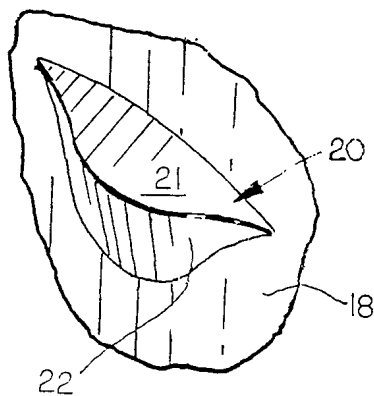


FIG. 4

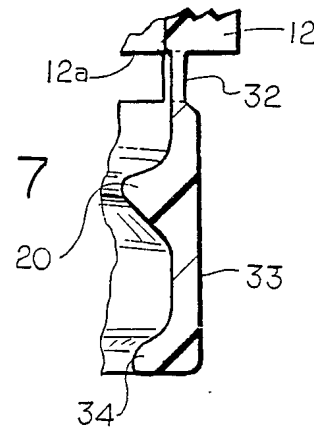


FIG. 7

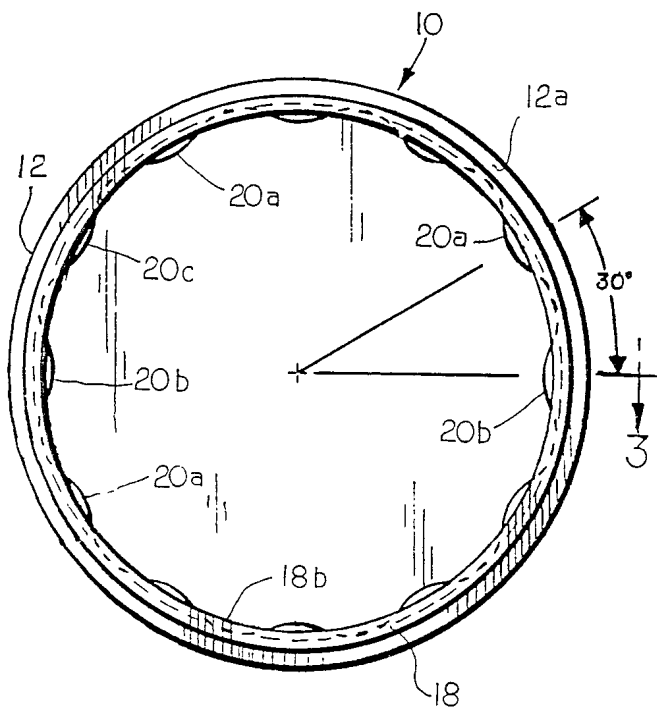


FIG. 2

Publication numbers with kind code & date

GR3015640	T3	1995-06-30	GR3015640
DE68920280	T2	1995-05-11	DE68920280
ES2067537	T3	1995-04-01	ES2067537
DE68920280	D1	1995-02-09	DE68920280



AT116246	T	1995-01-15	ATE116246				
EP0367369	B1	1994-12-28	EP-367369				
JP1878304	C	1994-10-07	JP1878304				
JPH06549	B2	1994-01-05	JP94000549				
CA1322186	C	1993-09-14	CA1322186				
MX168452	B	1993-05-25	MX-168452				
AU622549	B2	1992-04-09	AU-622549				
AU603511	B2	1990-11-15	AU-603511				
AU5489290	A	1990-09-06	AU9054892				
EP0367369	A1	1990-05-09	EP-367369				
JPH0257570	A	1990-02-27	JP02057570				
AU3325689	A	1990-02-01	AU8933256				
ZA8903139	B	1990-01-31	ZA8903139				
US4846361	A	1989-07-11	US4846361				

Abstract

(EP0367369)

A one-piece molded plastic **closure** (10) having a **tamper**-indicating band (18) connected to the **closure** skirt (12) by rupturable means. The **tamper** band uses series of solid interiorly projecting beads (20) that come in contact with a transfer bead (23) on the **container** (15) as the **closure** is unscrewed. The engagement of the beads (20a) and **container** (15) breaks the band (18) by rupture of the connection means. The beads in the band are arranged in tiers at three different heights on the band (20a, 20b, 20c). A thick cylindrical section at the bottom (34) of the band (18) assists initial capping. The beads are disposed in the band at an angle (P) equal to the pitch angle of the **container** threads (16). This eliminates need for top pressure in capping by the beads (20) following the **container** thread lowering and driving the beads over the **container**'s transfer bead (23) locking the band (18) in place.

Inventors

HAFFNER EUGENE F

Latest standardized assignees - inventors removed

OWENS ILLINOIS **CLOSURE**

Family 44/59 - FAMPAT - ©Questel

Title

(EP2822869)

Tamper-evident **closure** with tear-off **seal**

Images

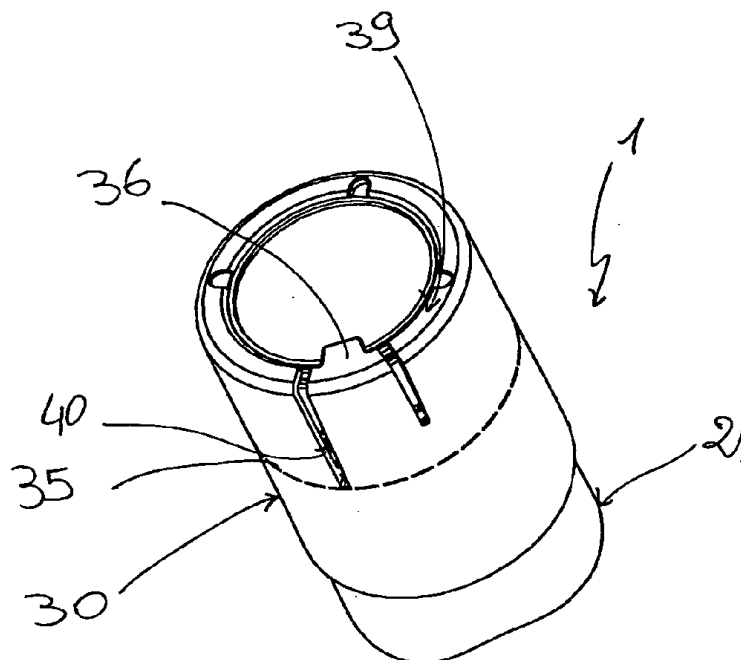


Fig. 1

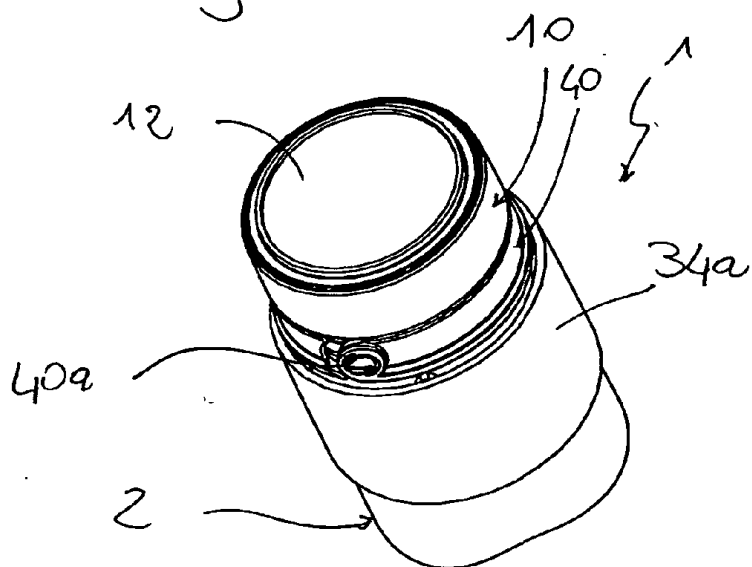


Fig. 2

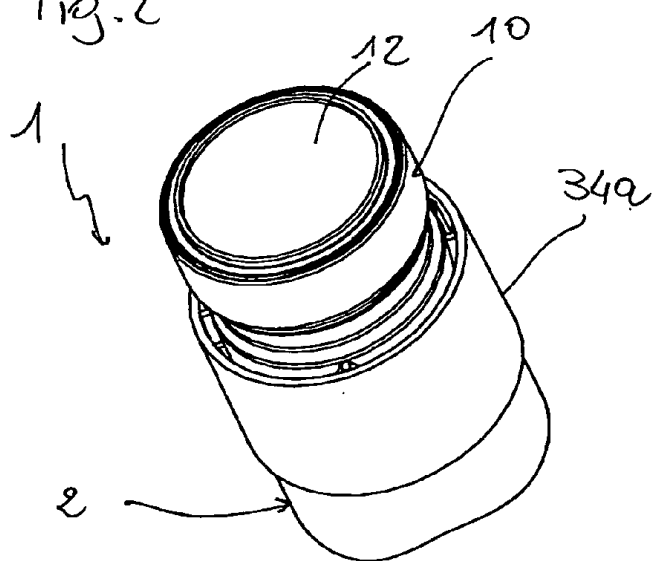


Fig. 3

Publication numbers with kind code & date

CN104136336	B	2017-07-28	CN104136336B				
UA113973	C2	2017-04-10	UA-113973				
EA025981	B1	2017-02-28	EA--25981				
ES2598854	T3	2017-01-30	ES2598854				
EP2822869	B1	2016-07-20	EP2822869				
IN6111/CHENP/2014	A	2016-07-01	IN2014CN06111				
EP2822869	A1	2015-01-14	EP2822869				
EA201400817	A1	2014-11-28	EA201400817				
CN104136336	A	2014-11-05	CN104136336				
WO2013/132384	A1	2013-09-12	WO2013132384				
ITMI20120361	A1	2013-09-08	IT2012MI0361				

Abstract

(EP2822869)

The present invention relates to a **tamper**-evident **closure** (1) for a **container** (2) having a mouth (3). The **closure** (1) comprises a cap (10) for closing the mouth (3) of the **container** (2), a capsule (30) associated outside with the cap (10) and having fixing means (31) for fixing the capsule to the **container**, **tamper**-evident means for providing **evidence** of first opening of the **closure** (1). The **tamper**-evident means comprise a first tear-off **seal** (36) configured to remove at least one portion of the capsule (30), once it has been torn off, and a second tear-off **seal** (40) for attaching the cap (10) to the **container** (2) and allowing removal of the cap (10) from the mouth (3) of the **container** (2), once it has been torn off.

Inventors

VIALE LUCA

GIOVANNINI MARCO

Latest standardized assignees - inventors removed

GUALA CLOSURES

Family 45/59 - FAMPAT - ©Questel

Title

(EP1892194)

A **tamper**-evident **closure****Images**

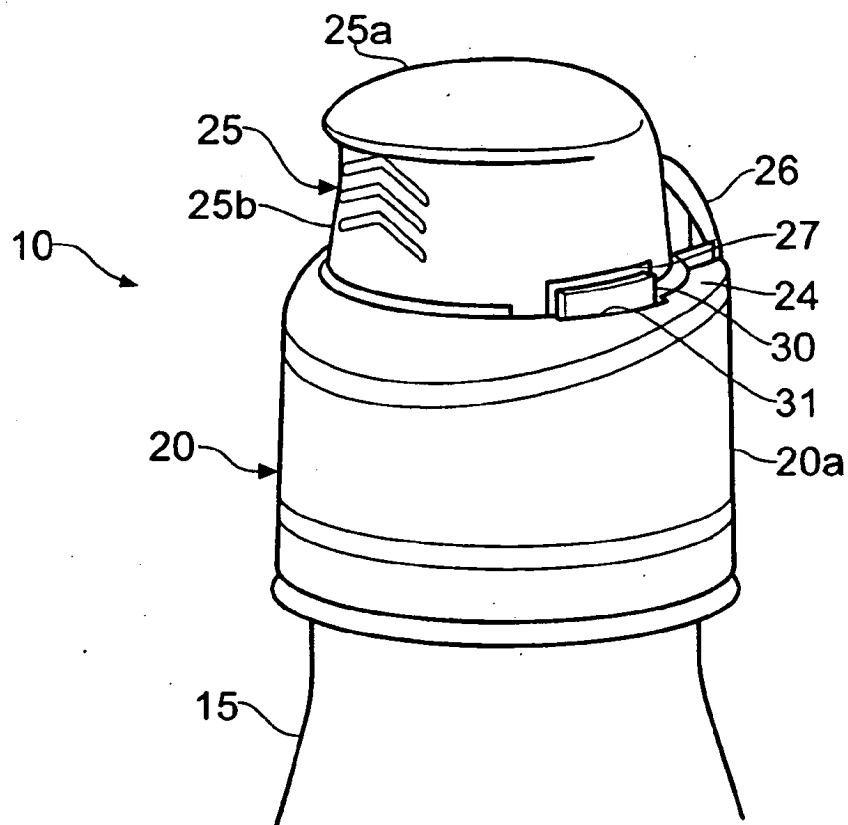


FIG. 1

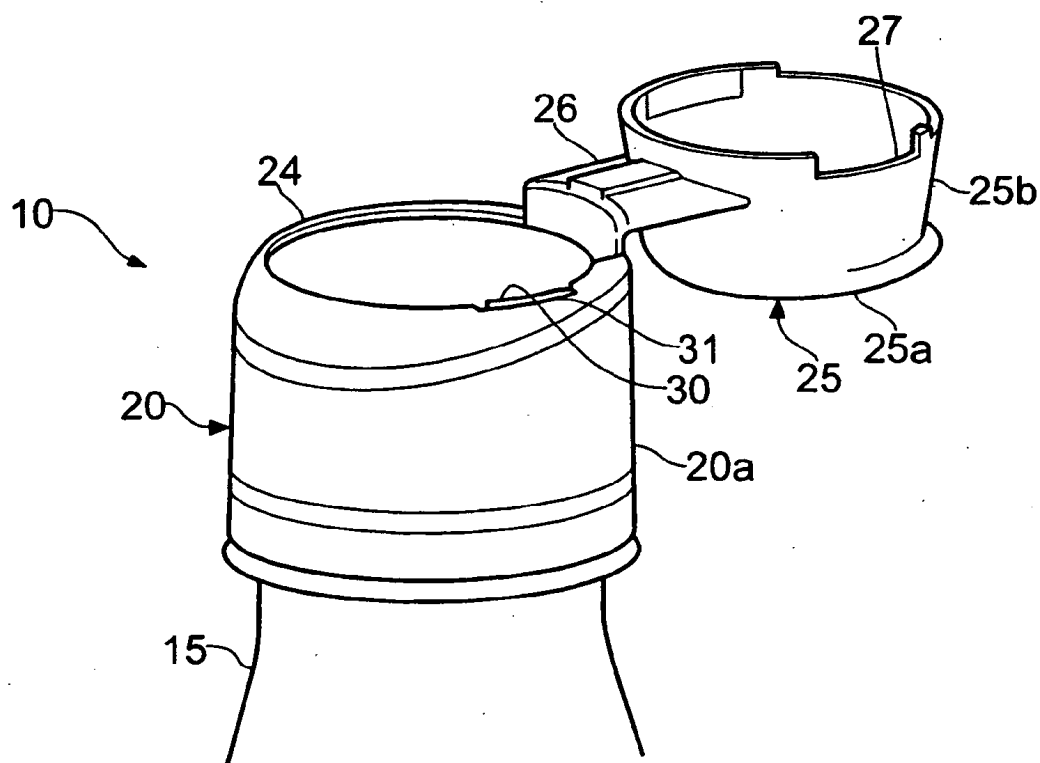


FIG. 2

Publication numbers with kind code & date

DE202007019300

U1 2012-02-02

DE202007019300

PL2213584

T3 2011-11-30

PL2213584



ES2366276	T3	2011-10-18	ES2366276				
PT2213584	E	2011-08-24	PT2213584				
AT512078	T	2011-06-15	ATE512078				
EP2213584	B1	2011-06-08	EP2213584				
PL1892194	T3	2010-11-30	PL1892194				
ES2347705	T3	2010-11-03	ES2347705				
PT1892194	E	2010-09-22	PT1892194				
DE602007007263	D1	2010-08-05	DE602007007263				
EP2213584	A1	2010-08-04	EP2213584				
AT471886	T	2010-07-15	ATE471886				
EP1892194	B1	2010-06-23	EP1892194				
GB2442227	A	2008-04-02	GB2442227				
EP1892194	A1	2008-02-27	EP1892194				
GB0616612	D0	2006-10-04	GB200616612				

Abstract

(EP1892194)

Tamper-evident closures are known in which the **tamper-evidence** remains attached to the closures after initial opening. However, the **tamper-evidence** is not always that clear and therefore it is desirable to produce a **closure** which more clearly shows it has been initially opened. This may be achieved by having a **tamper**-evident **closure** (10,110,310,410,510) comprising a base (20,320,420,520), a lid (25,325,425,525), a dispensing member (140,340,440,540), and a **tamper**-evident member (30,130,230,330,430,530) which is visible prior to first opening of the **closure** in use, and upon first opening of the **closure** becomes at least partly hidden from view, wherein, prior to first opening of the **closure** in use, the **tamper**-evident member masks at least part of the dispensing member, and upon first opening of the **closure** reveals at least part of the dispensing member whereby to indicate the **closure** has been opened at least once. The dispensing member may have a different colour from the base and/or lid to more clearly show that the **closure** has been initially opened and reclosed.

Inventors

LISTON CHRISTOPHER

BARDET PHILIPPE

BENOIT-GONIN CLAUDE

Latest standardized assignees - inventors removed

OBRIST CLOSURES SWITZERLAND

Family 46/59 - FAMPAT - ©Questel

Title

(EP-592580)

Container-closure assembly

Images

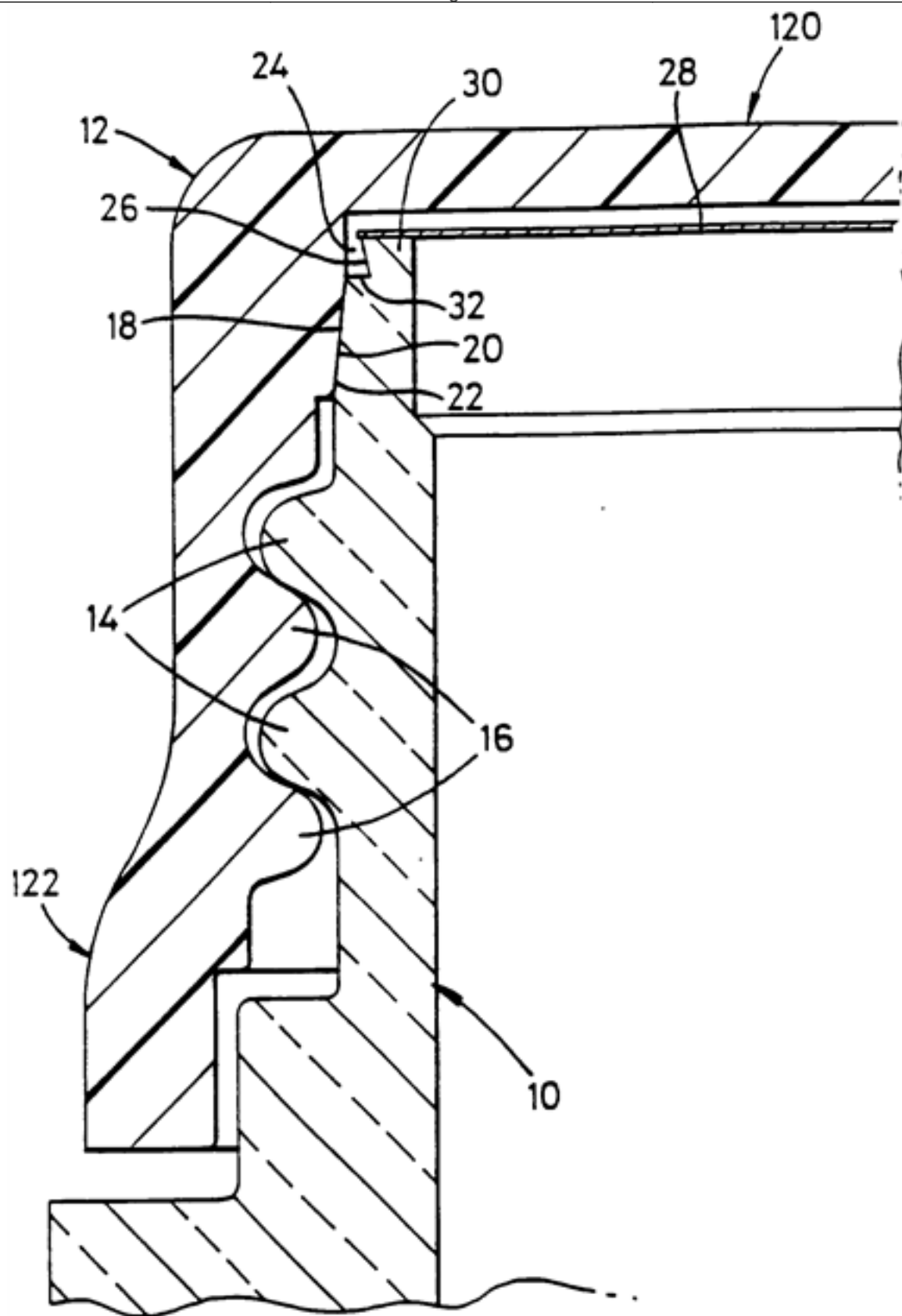


Fig. 1

Publication numbers with kind code & date

DE69232244	T2	2002-05-23	DE69232244
DK0794128	T3	2002-03-18	DK-794128T
ES2164298	T3	2002-02-16	ES2164298
DE69232244	D1	2002-01-10	DE69232244



AT209590	T	2001-12-15	ATE209590				
EP0794128	B1	2001-11-28	EP-794128				
DE69223788	T2	1998-08-06	DE69223788				
ES2111644	T3	1998-03-16	ES2111644				
DE69223788	D1	1998-02-05	DE69223788				
AT161501	T	1998-01-15	ATE161501				
EP0592580	B1	1997-12-29	EP-592580				
EP0794128	A1	1997-09-10	EP-794128				
AU670753	B2	1996-08-01	AU-670753				
PL169520	B1	1996-07-31	PL-169520				
GB2275048	B	1995-12-13	GB2275048				
BR9206260	A	1995-10-10	BR9206260				
GB2260534	B	1995-08-16	GB2260534				
JPH06509307	A	1994-10-20	JP06509307				
GB2275048	A	1994-08-17	GB2275048				
GB9400218	D0	1994-06-08	GB9400218				
EP0592580	A1	1994-04-20	EP-592580				
GB2260534	A	1993-04-21	GB2260534				
WO93/01098	A3	1993-04-01	WO9301098				
AU2320492	A	1993-02-11	AU9223204				
CA2113105	A1	1993-01-21	CA2113105				
WO93/01098	A2	1993-01-21	WO9301098				
GB9120264	D0	1991-11-06	GB9120264				

Abstract

(EP0592580)

A **container closure** assembly consisting of a **container** neck (10) having a radially outer sealing surface (20) and a corresponding **container closure** (12) with radially inner sealing surface (18) adapted to **seal** against the **container** neck sealing surface. Means are provided to secure the **closure** onto the **container** neck, said means being separate from the sealing surfaces (18, 20). When the **closure** is secured to the **container** neck, a clearance (24) exists between the outer lip surface and the inner **closure** surface. The **container** neck is sealed by a foil **seal** (28).

Inventors

KING ROGER MILNER

KING WITNEY MILNER

Latest standardized assignees - inventors removed

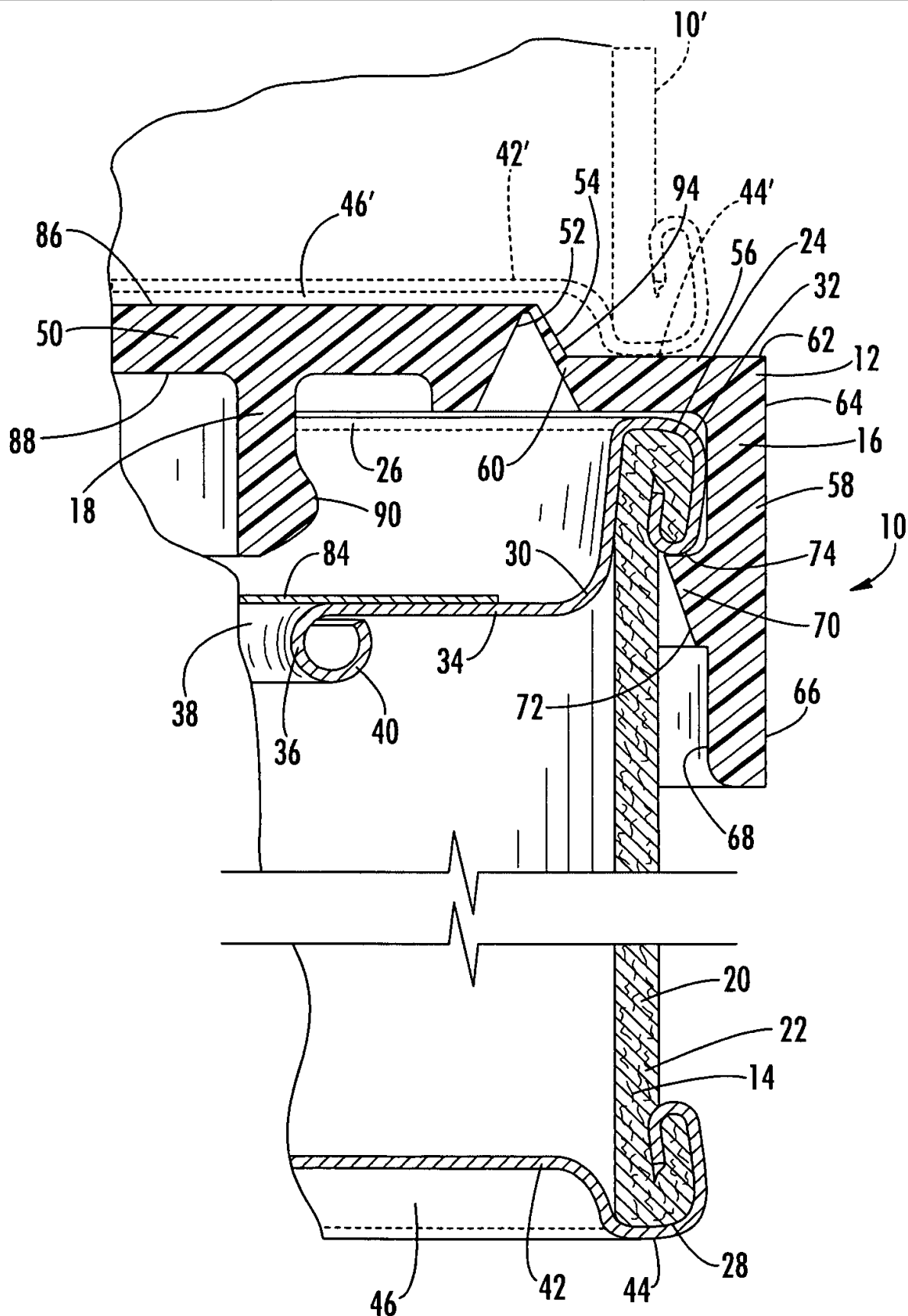
BEESON & SONS

Family 47/59 - FAMPAT - ©Questel

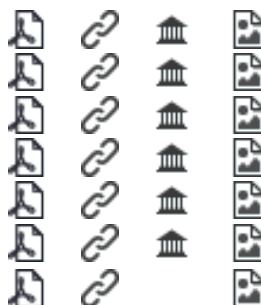
Title

(EP1595812)

Tamper evident **closure** with reclose feature**Images**


Publication numbers with kind code & date

EP1595812	B1	2012-03-14	EP1595812
EP1595812	A3	2008-10-08	EP1595812
US7311218	B2	2007-12-25	US7311218
BRPI0501929	A	2006-01-10	BR200501929
US20050252916	A1	2005-11-17	US20050252916
EP1595812	A2	2005-11-16	EP1595812
MXPA05005041	A	2005-11-16	MX2005PA005041



CA2506900

A1 2005-11-11 CA2506900



BRPI0501929

A1 2005-07-19 BR200501929

Abstract

(EP1595812)

There is provided a re-closable **closure** (12) for a **container** (10) wherein the re-closable **closure** (12) includes a **tamper-evident band** (16) that provides a stacking surface and stacking step for the stacking of another **container** and that provides clearance for a membrane lid (84) to **seal** the opening of the **container**. The **tamper-evident band** (16) is connected to a central portion (50) of the **closure** (12) by a frangible connecting member (54). The **tamper-evident band** (16) engages a top edge of the **container** (10) to connect the **closure** to the **container**. After the band (16) has been removed from the central portion (50) and the membrane lid (84) has been removed from the **container** (10), the central portion (50) may be connected to the **container** to re-close the opening of the **container** (10). The central portion (50) includes a plug portion (18) that fits into the opening to reseal the **container** after the initial opening of the **container**.

Inventors

VARADARAJAN KRISHNARAJU

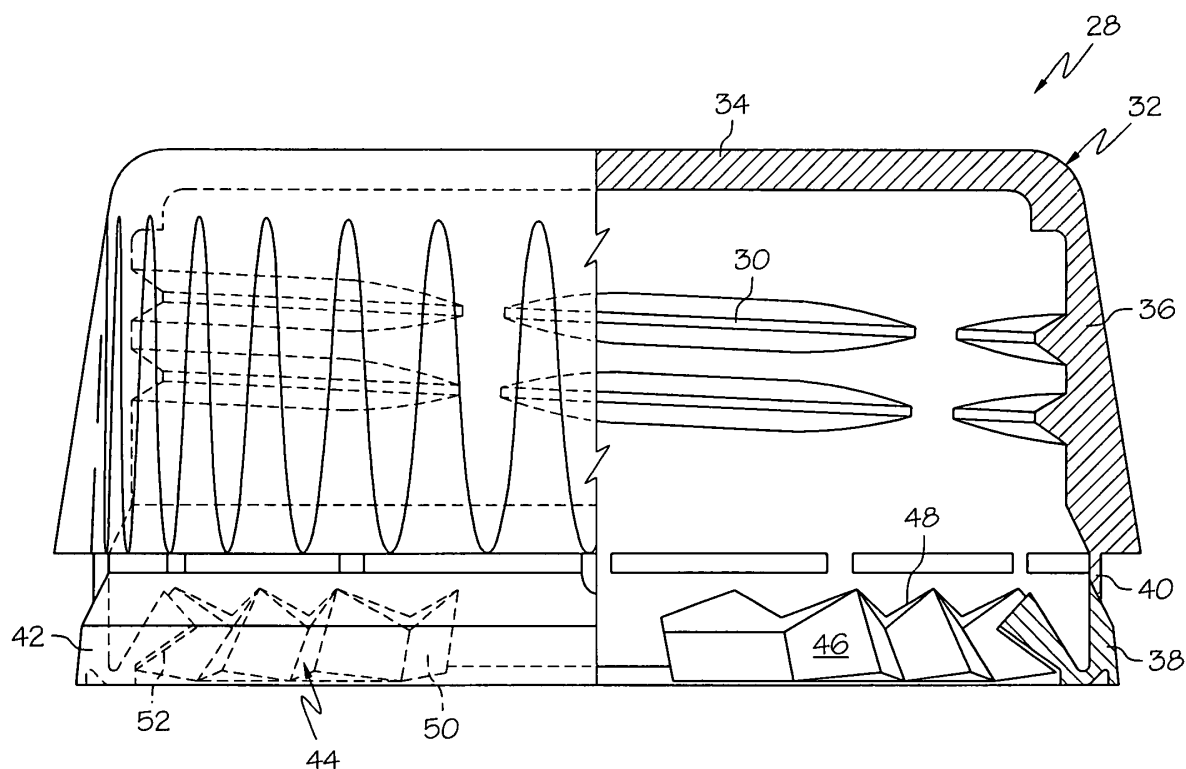
Latest standardized assignees - inventors removed

SONOCO DEVELOPMENT

Family 48/59 - FAMPAT - ©Questel

Title

(EP1545999)

Tamper evident **closure** with locking band**Images****Publication numbers with kind code & date**

IL166933

B 2010-02-17 IL-166933

US7637384

B2 2009-12-29 US7637384

AU2003302391

B2 2009-12-03 AU2003302391

PL202646

B1 2009-07-31 PL-202646

US7451898

B2 2008-11-18 US7451898

RU2337865

C2 2008-11-10 RU2337865

CN100396573

C 2008-06-25 CN100396573C



TNSN05066	A1	2007-05-14	TN0500066				
NZ538517	A	2006-10-27	NZ-538517				
PL374637	A1	2005-10-31	PL2003374637				
CN1681713	A	2005-10-12	CN1681713				
RU2005110659	A	2005-09-20	RU2005110659				
BR0314228	A	2005-07-26	BR200314228				
EP1545999	A1	2005-06-29	EP1545999				
MXPA05002803	A	2005-06-06	MX2005PA002803				
MA27400	A1	2005-06-01	MA--27400				
US20050072751	A1	2005-04-07	US20050072751				
US20040168999	A1	2004-09-02	US20040168999				
US20040155006	A1	2004-08-12	US20040155006				
AU2003302391	A1	2004-06-18	AU2003302391				
CA2497144	A1	2004-06-10	CA2497144				
WO2004/048220	A1	2004-06-10	WO200448220				
US20040045925	A1	2004-03-11	US20040045925				

Abstract

(EP1545999)

A **container** assembly (10) includes a **container** (12) that has an externally threaded finish portion and a retention structure (18) for preventing upward movement of a **tamper** evident band (38). The assembly (10) further includes a **closure** (28) having a body portion (32) of a base (34) and an internally threaded downwardly depending sidewall portion (36) that is sized and shaped to screw onto the **container** finish portion. The **closure** further includes a **tamper** evident band (38) that is frangibly connected to the sidewall portion (36) and that includes a main band portion (42) and a J-hook retention member (44). The retention member (44) includes a plurality of pleated retaining elements (46) for engaging the retention structure (18). At least one of the pleated retaining elements (46) is adapted to engage the **container** (12) so as to resist rotation with respect to the **container**. Separation of the **tamper** evident band (38) from the body portion (32) is better assured when the **closure** (28) is unscrewed from the **container** (12).

Inventors

SEIDITA THOMAS M

Latest standardized assignees - inventors removed

OBRIST CLOSURES SWITZERLAND

Family 49/59 - FAMPAT - ©Questel

Title

(EP2588384)

Closure with **tamper**-evident feature

Images

Inventors

MAZURKIEWICZ TIMOTHY M

ROBERTS CHARLES E

SMITH KELLY A

BAILEY ALBERT D JR

WISNIEWSKI JOHN

Latest standardized assignees - inventors removed

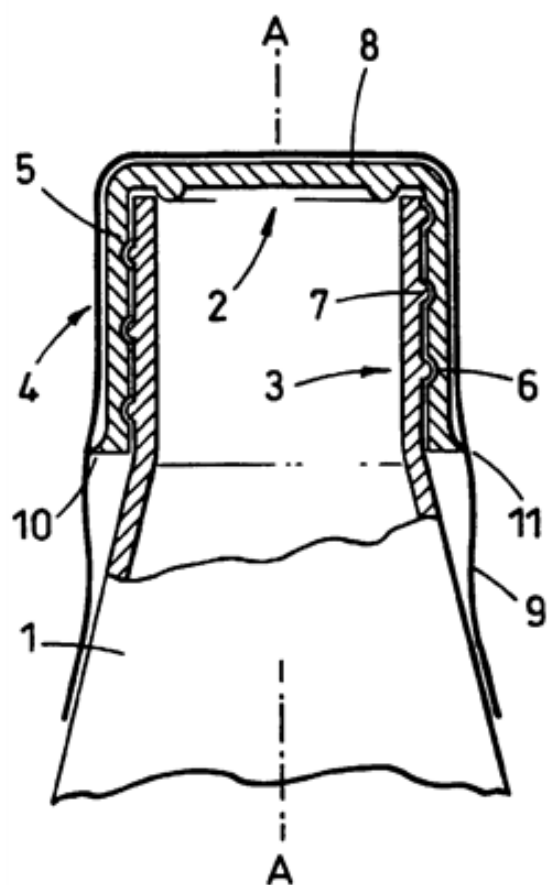
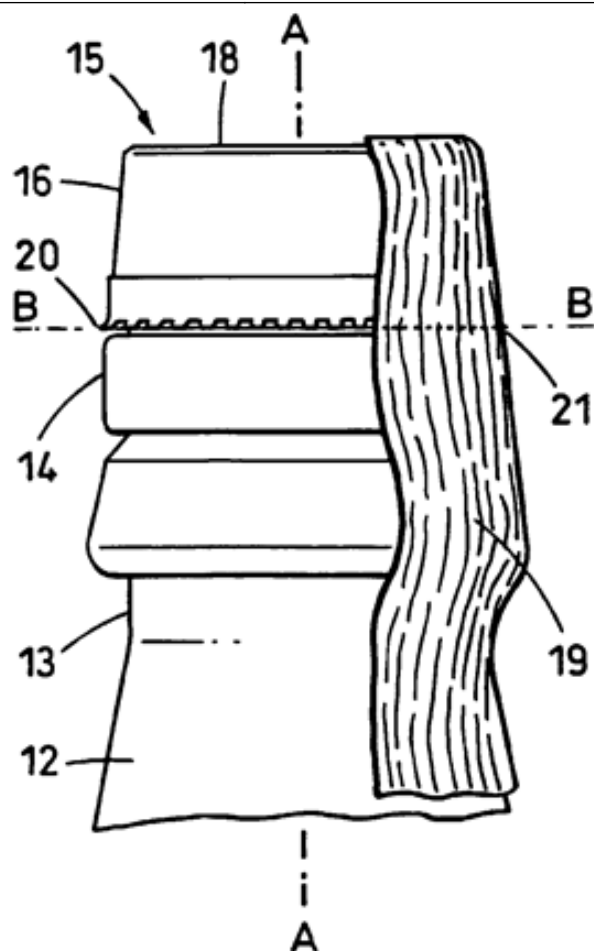
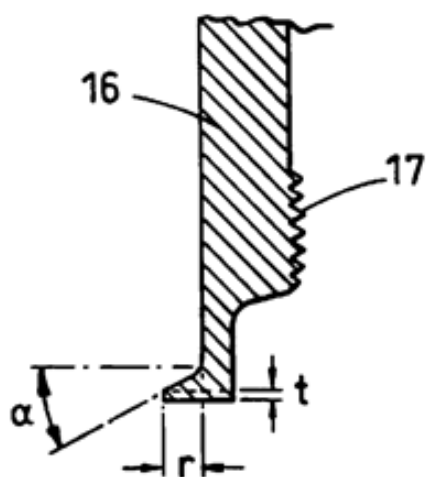
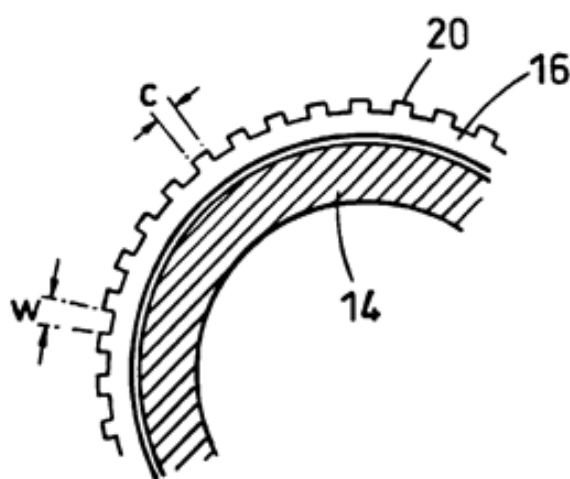
APTARGROUP

Family 50/59 - FAMPAT - ©Questel

Title

(EP-765279)

Container and **closure** having an outer foil cover**Images**

**Fig. 1****Fig. 2****Fig. 3****Fig. 4****Publication numbers with kind code & date**

KR100439445	B1	2004-09-30	KR100439445
CN1062231	C	2001-02-21	CN1062231C
HK1012318	A1	2000-11-03	HK1012318
DE69513397	T2	2000-05-11	DE69513397
ES2141362	T3	2000-03-16	ES2141362
DK765279			



	T3	2000-03-13	DK-765279T				
GR3031899	T3	2000-02-29	GR3031899				
SI0765279	T1	2000-02-29	SI-765279T				
DE69513397	D1	1999-12-23	DE69513397				
AT186702	T	1999-12-15	ATE186702				
EP0765279	B1	1999-11-17	EP-765279				
AU698837	B2	1998-11-12	AU-698837				
NZ289105	A	1998-10-28	NZ-289105				
TW335804	U	1998-07-01	TW-335804U				
GB2290536	B	1998-05-20	GB2290536				
JPH10502035	A	1998-02-24	JP10502035				
BR9508109	A	1997-08-12	BR9508109				
KR19977003892	A	1997-08-09	KR19977003892				
CN1151144	A	1997-06-04	CN1151144				
EP0765279	A1	1997-04-02	EP-765279				
ZA9505167	B	1996-04-29	ZA9505167				
AU2884995	A	1996-01-19	AU9528849				
WO96/00174	A1	1996-01-04	WO9600174				
GB2290536	A	1996-01-03	GB2290536				
GB9512244	D0	1995-08-16	GB9512244				
GB9412776	D0	1994-08-17	GB9412776				

Abstract

(EP0765279)

A **container** (1), suitable for pourable fluids such as beverages, having a **closure** (4) for the mouth (2) which is rotated relative to the **container** for opening, the **container** having an outer foil cover (9), the **closure** having a skirt portion (5) which descends around the neck (3) toward the base of the **container**, and having one or more external projections (10) that puncture or weaken the foil cover on rotation of the **closure**.

Inventors

GILES GEOFFREY ALAN

Latest standardized assignees - inventors removed

SMITHKLINE BEECHAM

Family 51/59 - FAMPAT - ©Questel

Title

(EP-489865)

Tamper indicating **closure** having retaining hoop with relief windows.

Images

Latest standardized assignees - inventors removed

ANCHOR HOCKING

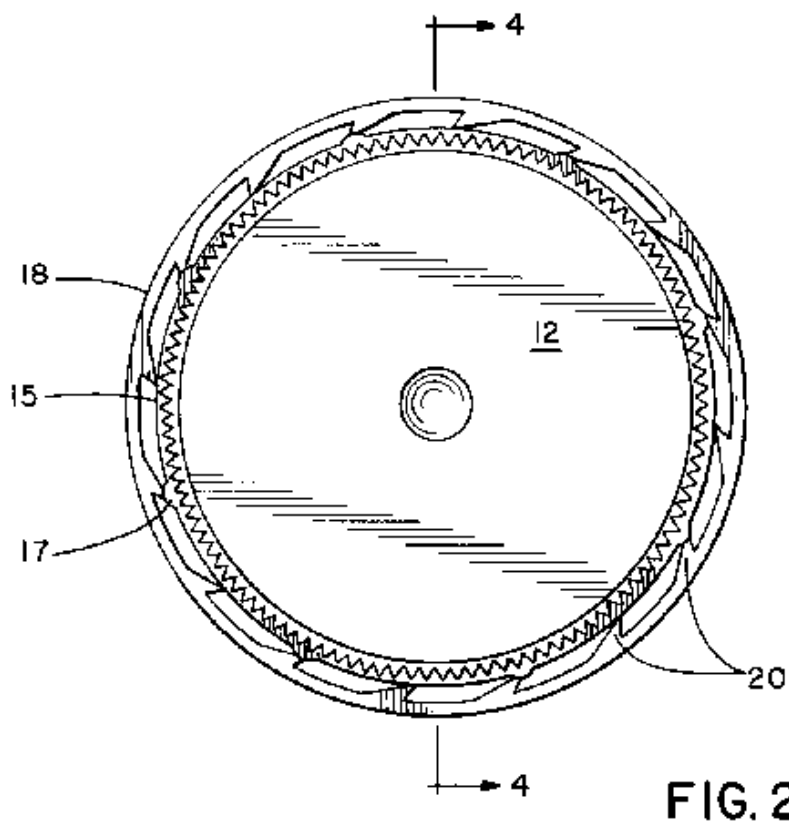
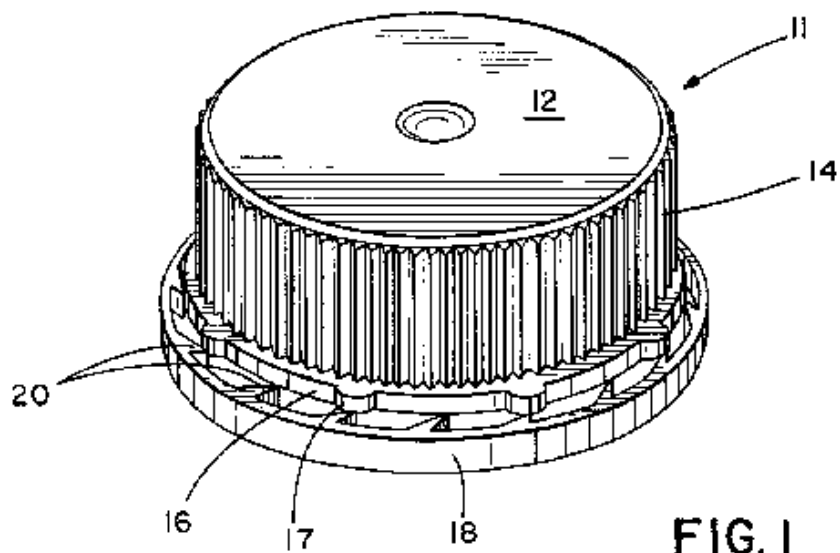
Family 52/59 - FAMPAT - ©Questel

Title

(EP-941938)

Tamper resistant bottle cap and neck

Images



Publication numbers with kind code & date

CA2261017	C	2005-06-14	CA2261017
ES2218951	T3	2004-11-16	ES2218951



HK1023759	A1	2004-09-24	HK1023759				
DE69916520	T2	2004-08-19	DE69916520				
DE69916520	D1	2004-05-27	DE69916520				
EP0941938	B1	2004-04-21	EP-941938				
CN1132766	C	2003-12-31	CN1132766C				
MXPA99001314	A	2002-06-19	MXPA99001314				
IL128333	B	2001-09-13	IL-128333				
EP0941938	A3	2000-12-27	EP-941938				
IL128333	A	2000-01-31	IL-128333				
CN1239058	A	1999-12-22	CN1239058				
US6003701	A	1999-12-21	US6003701				
EP0941938	A2	1999-09-15	EP-941938				
CA2261017	A1	1999-08-04	CA2261017				

Abstract

(EP0941938)

An improved **tamper** resistant **bottle** cap and neck for bottles which hold liquid is provided. The **bottle** cap of the present invention includes a circular cover, a skirt depending from the periphery of the cover, and a **tamper** evidencing ring with ratchet teeth which mesh with a matching set of ratchet teeth on a **bottle** neck. The skirt of the **bottle** cap includes an interior surface having threads for retaining the cap to a **bottle** neck and a lower end having a circumferential flange with semi-circular outwardly extending tabs. The **tamper** evidencing ring is connected to the flange by frangible connections between the outwardly extending tabs of the flange and the ratchet teeth of the **tamper** evidencing ring. The **bottle** neck of the present invention includes a cylindrical exterior surface having threads for retaining a **bottle** cap, a circumferential ratchet portion below the threads, and a circumferential transfer ring below the ratchet portion. The ratchet portion includes ratchet teeth for meshing with a matching set of ratchet teeth on a **bottle** cap. The transfer ring includes an annular top surface and an upwardly extending circumferential ridge on the periphery of the annular top surface. The design of the frangible connections on the **bottle** cap and the configuration of the ridge on the transfer ring of the **bottle** neck enhance the **tamper** resistance of a **bottle** including the **bottle** cap and **bottle** neck of the present invention.

Inventors

HIDDING WALTER E

HIDDING DOUGLAS J

HIDDING ROBERT D

Latest standardized assignees - inventors removed

BLACKHAWK MOLDING

Family 53/59 - FAMPAT - ©Questel

Title

(EP-662913)

Tamper-indicating plastic **closure** with pilfer band having staggered scores.

Images

[WO94/07753](#)

A1 1994-04-14 WO9407753

Abstract

(EP0662913)

A **tamper**-indicating plastic **closure** (10) includes an annular pilfer band (24) which is partially detachably connected to the skirt portion of the **closure**, whereby the pilfer band remains connected to the **closure** after **closure** removal from an associate **container**. The pilfer band includes a fracturable region which fractures during **closure** removal, whereby the pilfer band splits and separates. The fracturable region is defined by a pair of circumferentially and vertically spaced, staggered scores (40, 42) which are configured to facilitate high-speed manufacture, and consistent **tamper**-indication.

Inventors

KAMATH RAMESH

Latest standardized assignees - inventors removed

REYNOLDS CONSUMER PRODUCTS

SIG COMBIBLOG

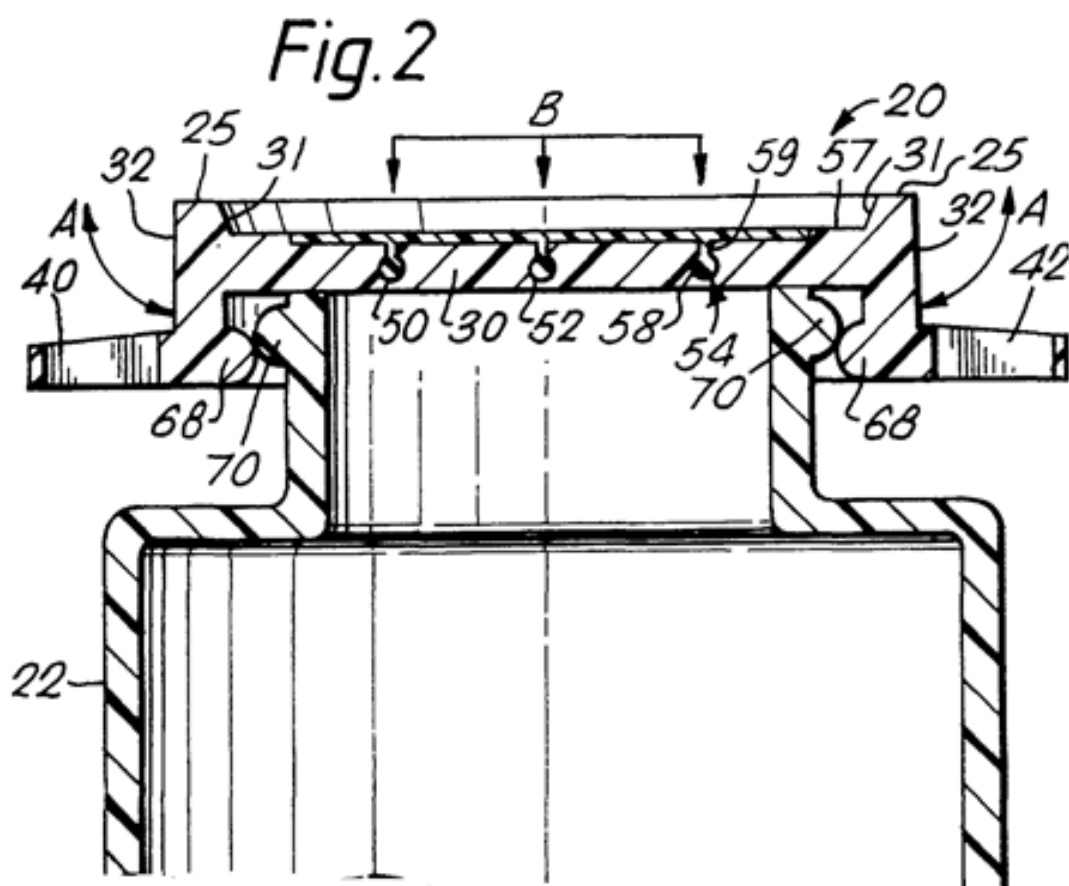
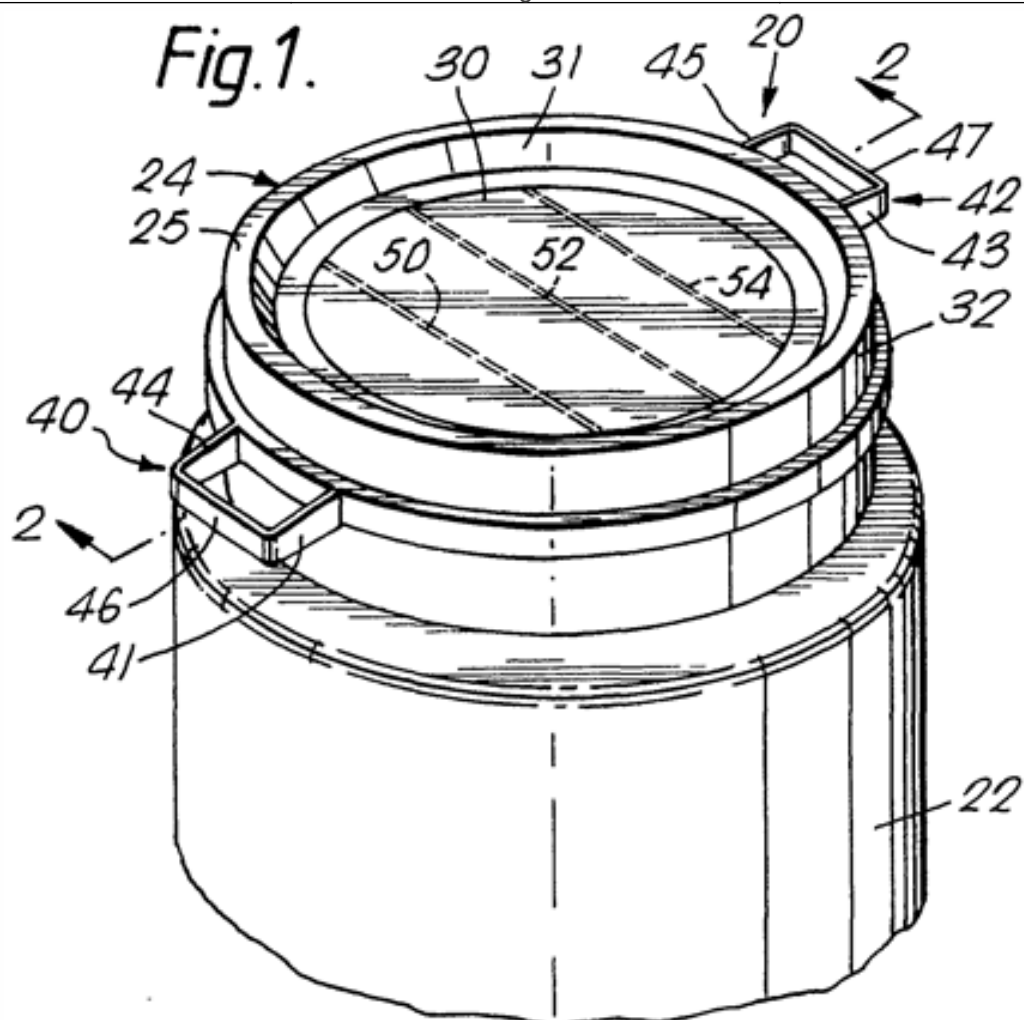
REYNOLDS FOIL

Family 54/59 - FAMPAT - ©Questel

Title

(EP-457961)

Tamper evident **closure** and associated method**Images**



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JPH0431255	A	1992-02-03	JP04031255
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(EP0457961)

A **container closure** 24 having a brittle resin thereon adapted to fracture when the **closure** 24 is tampered with, to provide **evidence** of such tampering, has an upwardly open groove or recess 50, 52, 54 therein to retain a portion of the brittle resin. In some embodiments, (Figures 1 to 6) the **closure** is resilient and is a snap-fit on the **container** (22). In another embodiment, (Figures 7 to 10), the **closure** comprises a pivotable portion (104) and a fixed portion (102). The pivotable and fixed portions have grooves which are filled with a brittle resin. When the rotatable portion is pivoted away from the fixed portion to open the **container**, a portion of the resin fractures, thus indicating tampering with the **container**. In another embodiment, (Figures 11 to 19), the **tamper** evident **closure** comprises a **closure** body (202) having an end wall (224) and a skirt (220) depending from the end wall and a **closure** lid movably secured to the **closure** body. The end wall and the **closure** lid define an upwardly open recess. A cured brittle layer (260) is disposed in the upwardly open recess such that a portion of the layer contacts the end wall and another portion of the layer contacts the **closure** lid, whereby relative movement of the **closure** lid away from the end wall will cause a readily visible irreversible fracture of the layer and separation of at least one piece of the layer from the **closure** lid and the end wall. An associated method is also provided.

CURIEL, YORAM

Latest standardized assignees - inventors removed

TSL

Family 55/59 - FAMPAT - ©Questel

Title

(EP2523865)

Tamper evident closure

Images

[WO2011/086407](#)

A2 2011-07-21 WO201186407

Abstract

(EP2523865)

The present invention relates to a **tamper** evident **closure** in which the outer portion (10) rises upon first opening, and having means that prevent such outer portion from falling back to the original position once it has risen. Therefore, the **tamper** evident effect is given by the misalignment of the outer portion and the central portion (8). The **closure** may be made of cork, possibly of synthetic nature, or of screw type, adapted to be tightened to a threaded pouring device applied to the neck of the **bottle**.

Inventors

GIOVANNINI MARCO

VIALE LUCA

Latest standardized assignees - inventors removed

GUALA CLOSURES

Family 56/59 - FAMPAT - ©Questel

Title

(EP-775075)

Child resistant **bottle closure****Images**

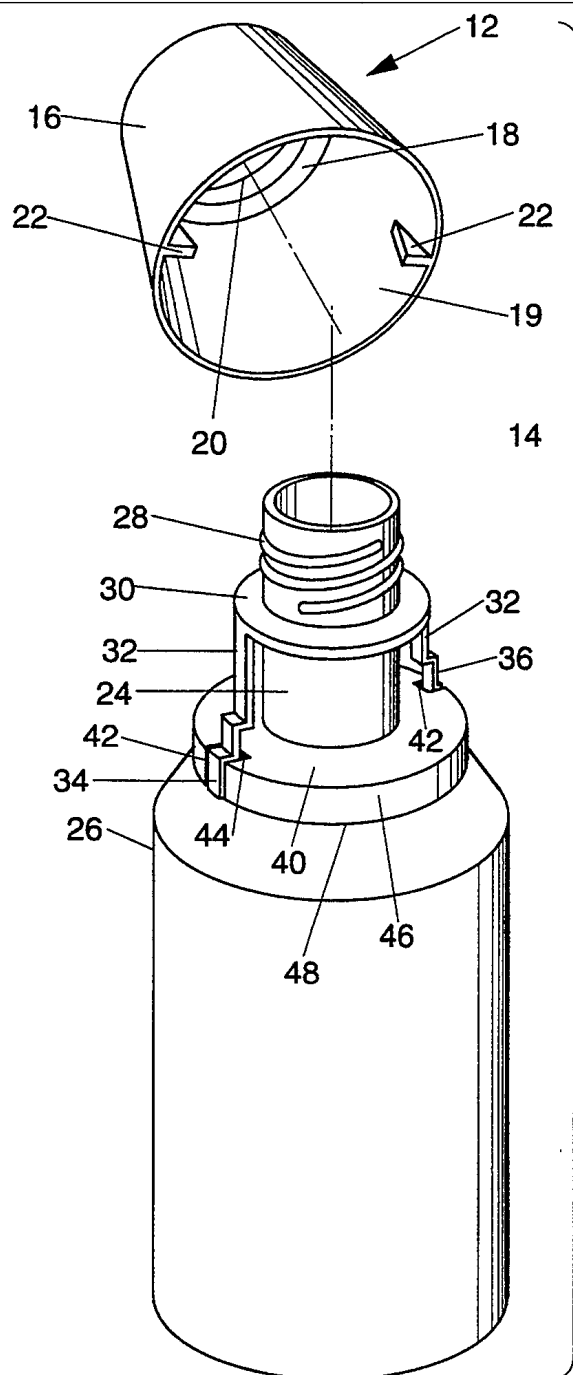


Fig. 1

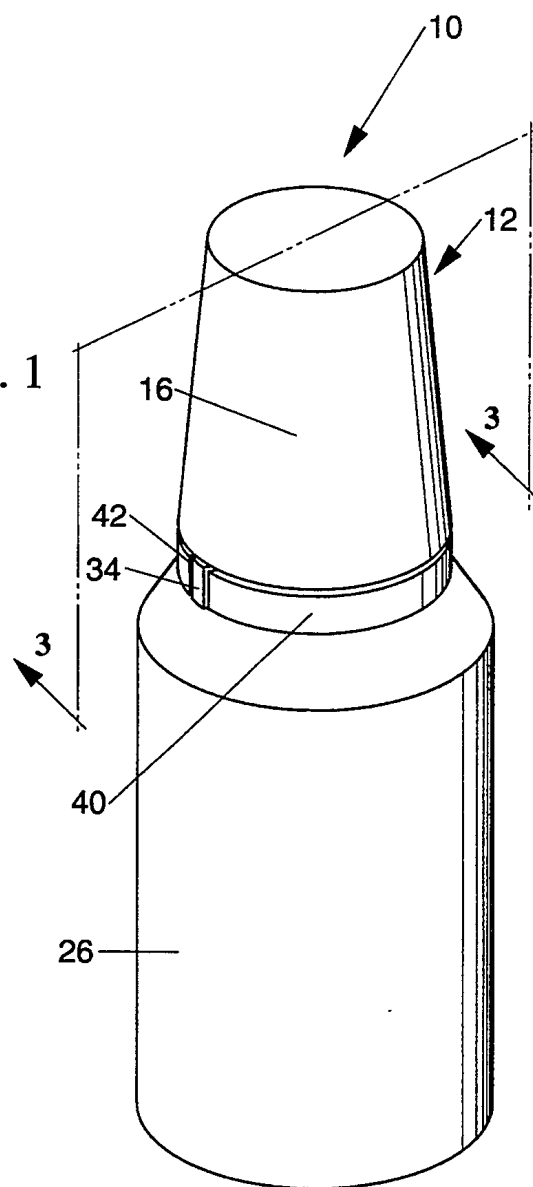


Fig. 2

Publication numbers with kind code & date

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US5413233	A	1995-05-09	US5413233				

Abstract

(EP0775075)

A package (10) suitable for storing and dispensing potentially dangerous material, which is resistant to opening by children yet readily openable by adults. The package is preferably a **bottle** (14) which has a body and a finish portion (24). The finish portion (24) has a threaded outer (28) end for mating with a **closure** (12). A resiliently deformable cantilevered beam (32) is connected to the finish portion (24) between the threaded outer end (28) and the body of the **bottle** (26). The beam (32) is angled outward and downward from the finish portion (24). The beam (32) has a substantially vertical locking surface (36) and a pushtab (34) spaced along the beam (32). The angle of the beam (32) is such that the pushtab (34) may be depressed substantially radially toward the finish portion (24). The locking surface (36) is located between the finish portion (24) and the pushtab (34) so that depression of the pushtab (34) results in a greater beam deflection and lower deflection force at the pushtab (34) than at the locking surface (36). A **bottle closure** (12) has threads for rotatably securing the **closure** (12) to the finish portion (24) of the **bottle**. The **closure** (12) also has a tooth projecting (22) radially inward from its lower inner surface and so shaped and positioned that it will engage the locking surface (36) of the resilient beam (32) whenever there is an attempt to unscrew the **closure**. It thereby prevents removal of the **closure** (12) until the pushtab (34) is manually depressed to disengage the **closure** tooth (22) from the locking surface (36) of the cantilevered beam (32).

Inventors

THOMAS JOHN HALL

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US20140263152	A1	2014-09-18	US20140263152				

Abstract

(EP2969823)

A **tamper**-evident product (10, 110, 210) and related methods of production. A **container** (12, 112, 212) includes a neck (24, 24', 124, 224), and a **tamper**-evidencing component (11, 11', 111, 211) separate from the **container** and carried by the neck of the **container** in direct contact with a corresponding portion of the **container** neck. The component is composed of material that has higher thermal conductivity than that of a material of the **container** so as to concentrate heat in the corresponding portion of the **container** neck. The neck is thermally responsive to application of heat pursuant to tampering with the product by at least one of the following responses: an irreversible change in visual appearance of the corresponding portion of the **container** neck, or fracture of the **container** neck at the corresponding portion of the **container** neck.

Inventors

SMITH ROGER P

BLOOM KENNETH S

Latest standardized assignees - inventors removedOWENS BROCKWAY GLASS **CONTAINER**

Family 58/59 - FAMPAT - ©Questel

Title

(WO200431043)

Closure having **tamper**-evidencing label**Images**

[WO2004/033312](#)

A2 2004-04-22 WO200433312

Abstract

(EP1556280)

A **closure** (410) for sealing the opening of a **container** (440). The **closure** includes an angled sealing plug (450) and an internal thread (422).

Inventors

MA MIKE X

ADAMS BRIAN M

Latest standardized assignees - inventors removed

PORTOLA PACKAGING