

Search history

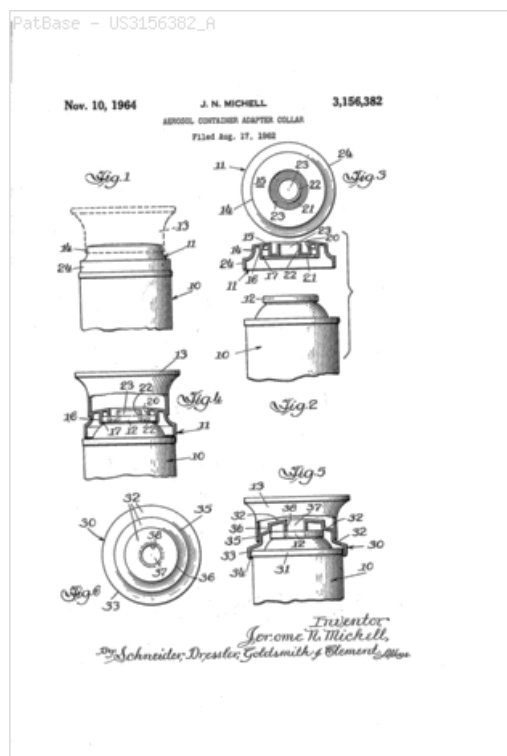
Search 1: FT=(OVERCAP~ AND FITMENT~) (Results 142)

Title: AEROSOL CONTAINER ADAPTER COLLAR**Priority:** US19620217616 19620817

Family:	Publication number	Publication date	Application number	Application date
	US3156382 A	19641110	US19620217616	19620817

Probable Assignee: W R FRANK PACKAGING ENGINEERS**Assignee(s):(std):** W R FRANK PACKAGING ENGINEERS**Assignee(s):** W R FRANK PACKAGING ENGINEERS INC**Inventor(s):(std):** MICHELL JEROME N**International class**
(IPC 8-9): B65D83/14 (Advanced/Invention);
B65D83/14 (Core/Invention)**International class**
(IPC 1-7): B65D83/14**CPC:** B65D83/40**European class:** B65D83/14R**US class:** 222/182 222/402.13 222/562[Classification Explorer](#)**Cited documents:** US3112048 A, US3075673 A, US3013700 A, US2831613 A, US2767888 A,**Forward Citations:** US9802751, US9802750, US9737902, US8985398, US8870030, US8479752, US8146782, US5310096, US5279444, US5209380, US3768703, US3567077, US3454200, US2015251202, US2015014366, US2013277397, US2012199612, US2011000979, US2007267448, FR2625730, EP0323874, CN103459268, CN103459268, CN103429506,**Abstract:**

(Claim 1) 1. An adapter collar for an aerosol container having a container top outer rim, a mounting cup rim and an aerosol valve positioned above said rim which comprises: an annular ring having inner and outer diameters and a downwardly extending flange, said flange being adapted to seat the rim of one of the outer rim of the container top rim and the mounting cup rim, the inner diameter of the annular ring being larger than the diameter of the aerosol valve button positioned above the rim, said annular ring having a plurality of steps on its upper surface portion, each step having a part which is disposed in a vertical direction, the vertical parts of said steps being located at different distances from the center of the adapter collar, and each of said vertical parts being adapted to receive and coact with a container cap to hold the same, so that the adapter collar may be used with various sizes of container caps.



Title: Apparatus for treating and advancing filamentary material

Priority: GB19630037847 19630926 US19640380757 19640707 GB19640036652 19640907
GB19650027032 19640907 FR19640988553 19640918 LU19640046981 19640919
CH19640012320 19640922 DE1964M062518 19640922

Family:	Publication number	Publication date	Application number	Application date
	AT255637 B	19670710	AT19640008228	19640925
	AU4931164 A1	19660317	AU19640049311	19640915
	BE653627 A	19650325		00000000
	CH429012 A	19670131	CH19640012468	19640925
	CH455895 A	19680515	CH19640012320	19640922
	DE1486192 A1	19690403	DE19651486192	19650701
	DE1496192 A1	19690327	DE19641496192	19640922
	DE1496192 B2	19701105	DE19641496192	19640922
	DE1966793 U	19670824	DE1964B059114U	19640921
	ES304434 A1	19650316	ES19640304434	19640926
	FI41984 B	19691231	FI19640002031	19640924
	FI41984 C	19700410	FI19640002031	19640924
	FR1440358 A	19660527	FR19650023175	19650701
	FR1447963 A	19660805	FR19640988553	19640918
	GB1036869 A	19660720	GB19650025961	19650618
	GB1050429 A	19661207	GB19640036652	19640907
	GB1050430 A	19661207	GB19650027032	19640907
	GB1082452 A	19670906	GB19630037847	19630926
	IL22112 A1	19680125	IL19640022112	19640918
	LU46381 A	19720101		19640624
	LU46981 A	19641119		19640919
	LU46987 A	19641121		19640921
	NL6411128 A	19650329	NL19640011128	19640924
	NO119190 B	19700406	NO19640154808	19640918
	US3241209 A	19660322	US19640380757	19640707
	US3296680 A	19670110	US19640396176	19640914

Probable Assignee: BRITISH NYLON SPINNERS LTD

Assignee(s):(std): ALLIED CHEM ; BRITISH NYLON SPINNERS LTD ; ICI LTD ; MALLORY BATTERIES LTD

Assignee(s): IMP CHEMICAL IND LTD ; ALLIED CHEMICAL CORP

Inventor(s):(std): FREDERICK THOMAS JAMES ; IWNICKI KURT ; JAMES FREDERICK THOMAS ; KURT IWNICKI ; ROBERT TAYLOR JOHN ; RUBEN SAMUEL ; SAMUEL RUBEN ; TAYLOR JOHN R ; THOMAS JAMES FREDERICK ; THOMAS J ; IWNICKI K

Inventor(s): KURT JANICKI AND JAMES FREDERICK THOMAS

International class (IPC 8-9): B65D1/02 B65D23/08 B65D25/16 B65D77/04 B65H51/20 D02G1/12 H01M10/24 H01M10/36 H01M4/02 H01M4/64 (Advanced/Invention)

International class (IPC 1-7): B65D23/08 B65D55/02 D01D D02G1/12 D02G1/20 G06F19/00 G06K9/03 H01M35/03

CPC: D02G1/12 B65D1/0223 B65D23/0885 B65D2501/0036 H01M10/36 H01M4/02 H01M4/64 H01M10/24

European class: B65D1/02D B65D23/08F D02G1/12 H01M10/24 H01M10/36 H01M4/02 H01M4/64 L65D501/02Y1C Y02E60/12D

US class: 215/13.1 28/250

[Classification Explorer](#)

Cited documents: US3217482 A, US3108352 A, US3096562 A, US3070250 A, US2920799 A, US2760252 A, GB776218 A, FR1293579 A, BE547883 A, AU214707,

Forward Citations: WO16101943, USD588361, US7669725, US4908919, US4880119, US4566690, US4546529, US4501710, US4462143, US4345617, US4301578, US4095318, US3902231, US3900121, US3782889, US3667702, US3425106, US3337930, US2013277326, US2010102019, US2007142188, US2005056610, GB2152468, FR2903973, FR2772730, EP0926079, EP0381157, DE2632082, DE2035212, DE102014019509, DE102014019509, CN104260971, CN104260971,

Abstract: 1,036,869. Bottle assembly. ALLIED CHEMICAL CORPORATION. June 18, 1965 [July 7. 1964], No. 25961/65. Heading B8D. A bottle of breakable material e.g. porcelain, ceramic material or glass, has a protective casing 6, Fig. 1 (not shown), the bottle neck being held in an annular sealing ring flanged externally to fit an opening in the top of the casing 6 and internally to engage the bottle neck below a bead 5 formed on the neck. A metal cap 16 forms a push-fit over a screw cap on the bottle and engages a vertical face of the sealing ring. A lining 8 of corrugated fibreboard lies between the bottle and casing which is of metal e.g. steel or aluminium; alternatively the lining may be of felt, cotton or foam plastics. The sealing ring may be thermoplastic, e.g. polyethylene, p.v.c., polytetrafluorethylene, polychlorotrifluorethylene, polypropylene or rubber.

Title:

SAFETY PACKAGE FOR DANGEROUS LIQUIDS

Priority:

US19650508732 19651119

Family:

Publication number	Publication date	Application number	Application date
DE1298931 B	19690703	DE1966A054121	19661118
FR1500715 A	19671103	FR19660084208	19661118
GB1125186 A	19680828	GB19660050747	19661111
US3308980 A	19670314	US19650508732	19651119

Probable Assignee:

ALLIED CHEM

Assignee(s):(std):

ALLIED CHEM

Assignee(s):

ALLIED CHEMICAL CORP

Inventor(s):(std):

TAYLOR JOHN R ; ROBERT TAYLOR JOHN

International class (IPC 8-9):

B65D23/08 B65D51/18 B65D77/04 B65D81/00 B65D81/05 (Advanced/Invention); B65D23/00 B65D51/18 B65D77/04 B65D81/00 B65D81/05 (Core/Invention)

International class (IPC 1-7):

B65D23/08 B65D51/18

CPC:

B65D23/0885 B65D51/18 B65D77/0486 B65D81/00 B65D81/05 B65D2251/0015 B65D2251/0078

European class:

B65D23/08F B65D51/18 B65D77/04F1 B65D81/00 B65D81/05 L65D251/00Y2D L65D251/00Y6D

US class:

215/13.1 220/62.22

Classification Explorer

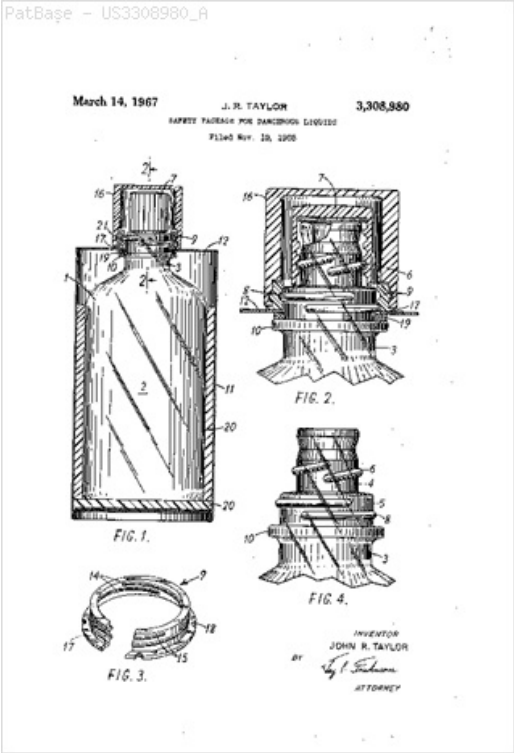
Cited documents:

US2695719 A, US2376064 A, US1996674 A, US1435723 A,

Forward Citations:

US9757306, US9637270, US9552947, US9505527, US9327886, US9315289, US8365941, US5904267, US5069351, US4811858, US4382512, US2017101227, US2017073110, US2014263319, US2013032564, US2012144783, US2010288723, US2009266737, GB2408259, GB2213457, FR2903973, FR2599339, CN104960769,

Abstract:
1,125,186. Bottle assembly; caps for bottles. ALLIED CHEMICAL CORP. 11 Nov., 1966 [19 Nov., 1965], No. 50747/66. Headings B8D and B8T. A container assembly comprises a bottle 1 having a flange 10 which forms a seating for the apertured upper end 12 of a protective casing 11 secured to the flange 10 by an internally screw-threaded collar 9. After the bottle is secured in the casing 11, padding 20 is inserted and a base member crimped or seamed to the casing. A gasket 19 forms a seal round the bottle neck, and the upper end of the neck, of reduced diameter, is screw-threaded to receive a cap 7. An outer cap 16 engages screw-threads on the outside of the collar 9. The screwthreaded parts of the assembly may be replaced by friction-fitted parts. The bottle may be of glass or porcelain, and the casing of sheet metal, thermosetting or thermoplastic resin. The padding may be of polyurethane foam, corrugated fibre board, felt, cotton or excelsior.



Title:

Priority:

Family:

Probable Assignee:

Assignee(s):(std):

Assignee(s):

Inventor(s):(std):

Inventor(s):

International class (IPC 8-9):

International class (IPC 1-7):

CPC:

European class:

US class:

Classification Explorer

Cited documents:

Forward Citations:

ACTUATOR-OVERCAP FOR AEROSOL DISPENSERS

US19690807338 19690314

Publication number

Publication date

Application number

Application date

US3531026 A

19700929

US19690807338

19690314

RISDON MFG CO

RISDON MFG CO

RISDON MFG CO THE

VENUS FRANK JR

FRANK VENUS JR

B65D83/16 (Advanced/Invention);
B65D83/14 (Advanced/Non-invention);
B65D83/16 (Core/Invention);
B65D83/14 (Core/Non-invention)

B65D47/26 B65D83/00 B65D83/14

B65D83/205 B65D83/228 B65D2215/04

B65D83/16B2C L65D215/04 L65D583/14Y2D

222/402.11

[Classification Explorer](#)

US3347423 A, US3291346 A, US3252626 A,

US8276832, US7850046, US5484088, US5388730, US4889262, US3738537, US3642179, US2011017781, US2008251538, FR2723926, FR2541749, FR2521531, FR2494671, EP0850852, EP0699596, DE2946700.

Abstract:

1. An actuator-**overcap** for an aerosol dispenser having a valve with an axially projecting tubulaer discharge stem longitudinally depressible to open the valve and permit fluid produci to be discharged through the stem, said actuator-**overcap** comprising an open-ended cylindrical cap member having provision at its lower end for mounting it to the valved end of a dispenser and for enclosing said valved end, and and aperture in its side wall; a button member fully recessed in and substantially fillin gthe upper open end of said cap member with the inner periphery of said cap and the outer periphery of said button in closely spaced but relatively slidable juxtaposition, said button having a socket formed in its undersurface for fluid tight reception therein of the stem of a dispenser, a laterally projecting spout having a discharge orifice at its outer end and internal duct means communicating said socket with said orifice, said laterally projecting spout extending through said aperture in said side wall of said cap member, said aperture being sufficiently larger than said spout to allow limited axial and ro-tational movement of said button relative to said cap; radially projecting means formed in the periphery of one of said cap and button members, and cooperating recess means formed in the other and receiving said projections to trap said members loosely to-gether, said radially projecting and receiving recess means providing a lost-motion connection axially of the members and being disposed at an axial location to avoid valve-actuating contact of said button member with the valve stem of a dispenser when the actuator-**overcap** assembly is mounted on the valved end of the dispenser. 2. An actuator-**overcap** for an aerosol dispenser having a valve with an axially projecting tubulaer discharge stem longitudinally depressible to open the valve and permit fluid produci to be discharged through the stem, said actuator-**overcap** comprising an open-ended cylindrical cap member having provision at its lower end for mounting it to the valved end of a dispenser and for enclosing said valved end, and a circular inner periphery at the opening in its upper end; a button member having a circular outer periphery and being fully recessed in and substantially filling the upper open end of said cap member, with the inner of periphery of said cap and the outer periphery of said button in closely spaced but relatively slidable juxtaposition, said button having a socket formed in its undersurface for fluid tight reception therein of the stem of the dispenser, a discharge orifice in said button and internal duct means communicating said socket with said orifice; radially projecting diametrically opposed stub axles on the circular periphery of said button, and cooperating recess formed in the adjacent periphery of said cap, said recesses being elongated axially of said cap to provide a lost motion connection axially of the cap and button members, said recesses being con-toured to provide lateral sockets having restricted entry ways for the rotative reception of said stub axles to lock said button against axial movement relative to said cap. 3. An actuator-**overcap** for an aerosol dispenser having a "valve with an axially projecting tubulaer discharge stem longitudinally depressible to open the valve and permit fluid produci to be discharged through the stem, said actuator-**overcap** comprising an open-ended cylindrical cap member having provision at its lower end for mounting it to the valved end of a dispenser and for enclosing said valved end; a button member fully recessed in a substantially filling the upper end of said cap member with the inner periphery of said cap and the outer periphery of said button in closely spaced but relatively slidable juxtaposition, said button having a socket formed on its undersurface for fluid tight reception therein of the stem of the dispenser, a discharge orifice in said button and internal duct means communicating said socket with said orifice; said cap and button members being formed in their adjacent peripheries with sets of cooperating radiai projections, wherein each set consists of a single projection on one of said members and a pair of projections forming a recess between them on the other of said members, with the first projection overlapping and being loosely straddled by the projections in said other member to trap said members axially of said cap and provide an axial lost motion connection. 4. An actuator-**overcap** for an aerosol dispenser as de-fined in claim 3, wherein said sets of projections are po-sitioned axially of said actuator-**overcap** assembly at a location which prevents direct contact of said button with the valve stem of the dispenser during mounting of the actuator-**overcap** assembly on the dispenser, the overlap-ping of said projections being of such limited radial ex-tent as to permit said actuator member to be forced in-wardly of said **overcap** member to engage the stem of the valve thereby after assembly to the container. Référencés Cited

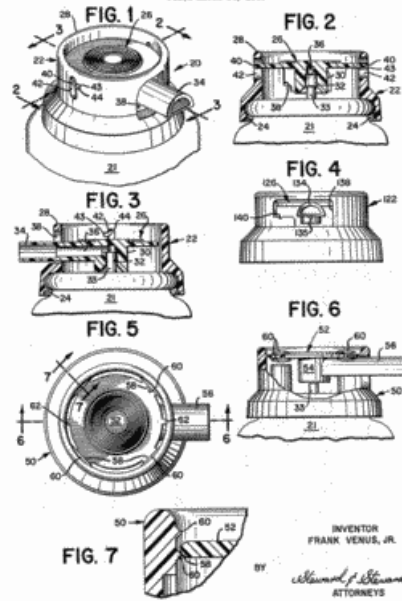
Sept. 29, 1970

F. VENUS, JR.

3,531,026

ACTUATOR-OVERCAP FOR AEROSOL DISPENSERS

Filed March 14, 1969



Title:

SPRAY DISPENSING CAP AND HINGED CLOSURE

Priority:

US19690874595 19691106

Family:

Publication number	Publication date	Application number	Application date
US3710989 A	19730116	US19690874595	19691106

Probable Assignee:

MONSANTO CO

Assignee(s):(std):

MONSANTO CO

Assignee(s):

MONSANTO CO US

Inventor(s):(std):

ARMOUR D

Inventor(s):

ARMOUR D US

International class (IPC 8-9):

B65D47/14 (Advanced/Invention);
B65D47/12 (Core/Invention)

International class (IPC 1-7):

B67D3/00

CPC:

B65D47/148

European class:

B65D47/14D1

US class:

222/211 222/212 222/562

Classification Explorer

Cited documents:

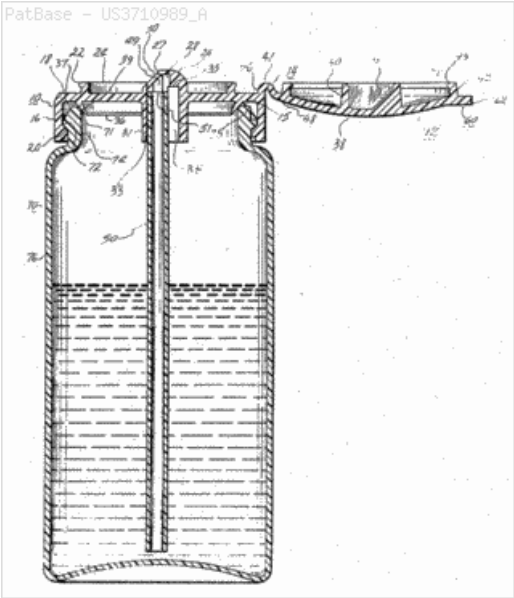
US3474936 A, US3471064 A, US3381860 A, US3155285 A, US3124281 A,

Forward Citations:

US8910948, US8783133, US8474828, US8292302, US7651102, US7284759, US6250568, US5683016, US5474210, US5328058, US5246145, US5011048, US4600130, US4470521, US4307748, US4230277, US3837535, US2011185844, US2010084417, US2008011783, US2005258181, US2005109889, DE10325254,

Abstract:

A one piece plastic dispensing and closure device, including a base cap for mounting over the mouth of a resilient walled container, and a sealing **overcap** hinged to the base cap. The base cap has an angular spray opening and houses a delivery tube. The **overcap** has a portion adapted to seal the periphery of the spray opening and a tab extension to facilitate its movement to an open or closed position. Both the tab and flexible hinge lie within the perimeter of the base cap when the **overcap** is in the closed position so as to prevent interference with capping equipment. The base cap also has a flexible seal ring to prevent leakage despite variations in the container and/or cap dimensions. A stop member is provided on the interior of the base cap and a cooperating protrusion on the exterior of the container to assist in orienting the direction of the spray with respect to the container.

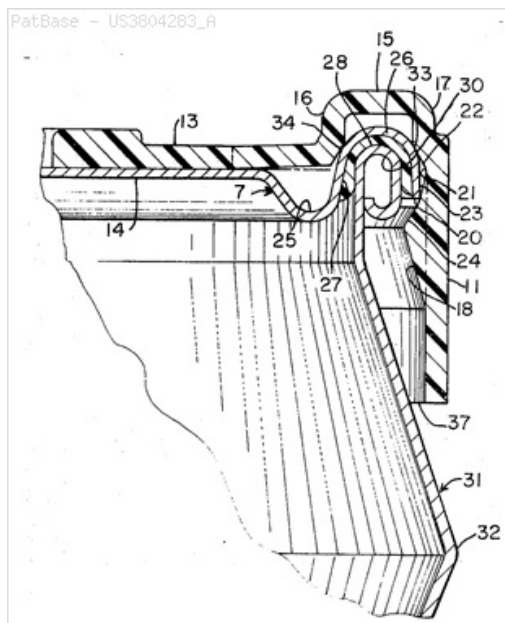


Title: COMPOSITE CLOSURE CAP**Priority:** US19720278187 19720807**Family:**

Publication number	Publication date	Application number	Application date
AU197358925 A1	19750206	AU19730058925	19730806
AU471220 B2	19760415	AU19730058925	19730806
DE2334730 A1	19740221	DE19732334730	19730707
DE2334730 C2	19840719	DE19732334730	19730707
GB1432057 A	19760414	GB19730035918	19730727
IT993694 A	19750930	IT19730027621	19730807
US3804283 A	19740416	US19720278187	19720807
ZA7301158 A	19741030	ZA19730001158	19730219

Probable Assignee: CONTINENTAL CAN CO**Assignee(s):(std):** CONTINENTAL CAN CO ; CONTINENTAL GROUP**Assignee(s):** THE CONTINENTAL GROUP INC NEW YORK N Y US ; CONTINENTAL CAN CO INC ; CONTINENTAL CAN CO INC US**Inventor(s):(std):** FRANKENBERG H ; FRANKENBERG HENRY E**Inventor(s):** E FRANKENBERG HENRY ; FRANKENBERG HENRY E HINSDALE ILL US ; FRANKENBERG H US**International class**
(IPC 8-9): B65D55/08 (Advanced/Invention);
B65D55/02 (Core/Invention)**International class**
(IPC 1-7): B65D17/06 B65D17/16 B65D41/02 B65D41/40 B65D41/48 B65D41/52 B65D43/16 B65D51/14
B65D51/18 B65D51/24 B65D55/02 B65D55/06 B65D7/40 B65G67/02**CPC:** B65D55/0863**European class:** B65D55/08C**US class:** 215/262 215/274 215/305 215/351[Classification Explorer](#)**Cited documents:** US3708083 A, US3690499 A, US3656648 A, US3630405 A, US3596790 A, US3460701 A,**Forward Citations:** US5785203, GB2405869, GB2405869, GB2405869, FR2666306, EP0545566, EP0474544, DE2504803,**Abstract:**

A composite closure cap comprising a plastic **fitment** or **overcap** retaining a gasketed closure lid and adapted for high speed machine press-on application and convenient pull-off removal with respect to a container the top opening of which provides an annular top seal finish. A tamper-proof lift ring or tab is integrally hinged to the **fitment** and frangibly connected to the **fitment** so as to be non-operative until visibly released.



Title: Vacuum package with improved closure

Priority: US19730351132 19730416

Family:	Publication number	Publication date	Application number	Application date
	CA1023298 A1	19771227	CA19740189370	19740103
	DE2405939 A1	19741017	DE19742405939	19740208
	GB1470585 A	19770414	GB19740012559	19740321
	US3907158 A	19750923	US19730351132	19730416

Probable Assignee: CONTINENTAL CAN CO

Assignee(s):(std): CONTINENTAL CAN CO

Assignee(s): CONTINENTAL CAN CO INC ; CONTINENTAL CAN COMPANY INC ; FRANKENBERG HENRY E ; SECURITY PACIFIC BUSINESS CREDIT INC ; SECURITY PACIFIC NATIONAL BANK

Inventor(s):(std): FRANKENBERG HENRY E

Inventor(s): E FRANKENBERG HENRY

International class (IPC 8-9): B65D43/10 B65D51/18 B65D55/08 G01R13/20 G01T1/36 (Advanced/Invention); B65D43/08 B65D51/18 B65D55/02 G01R13/20 G01T1/00 (Core/Invention)

International class (IPC 1-7): B65D17/06 B65D41/18 B65D41/48 B65D43/10 B65D51/18 B65D55/02

CPC: B65D55/0863

European class: B65D55/08C

US class: 215/305 220/269 220/352

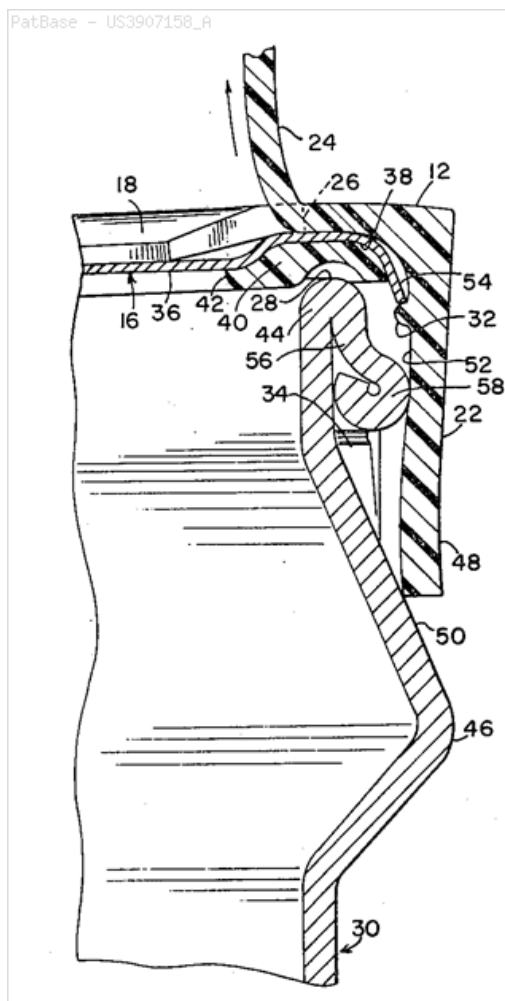
[Classification Explorer](#)

Cited documents: US3770156 A, US3510023 A, US3460701 A, US2893456 A,

Forward Citations: USRE32927, US8678212, US8418870, US5875915, US4830214, US4793510, US4627550, US4574975, US2011121009, US2010096355, US2009223986, US2008185383, US2007023434, GB2121673, FR2666306, EP0474544,

Abstract:

A vacuum package utilizes a novel composite closure cap which includes a plastic **fitment** or **overcap** retaining a gasketed rigid closure lid and adapted for high speed machine press-on application and convenient pull-off removal with respect to a container, the top opening of which provides an annular top seal finish. The plastic **fitment** has lid-engaging lugs which, upon lifting of a pull tab which is an integral part of the plastic **fitment**, lifts the closure lid, thereby breaking the vacuum. The hinge line of the pull tab is located at the end of a radius on the end panel of the plastic **fitment**, which radius is shorter than the radius to the lid-engaging lug. The lid-engaging lug in the region of the tab is thus biased radially inwardly against the circumference of the lid, thereby enhancing the operation of the plastic **fitment** to break the vacuum within the container when the pull tab is pulled axially.



Priority: US19730344740 19730326 US19730351132 19730416 JP19740015157U 19740207
JP19740031812U 19740322

Family:	Publication number	Publication date	Application number	Application date
	JP49146982 U1	19741218	JP19740031812U	19740322
	JP49147257 U1	19741219	JP19740015157U	19740207
	JP54017424 Y1	19790705	JP19740031812U	19740322
	JP54017424 Y2	19790705	JP19740031812U	19740322
	JP55006360 Y1	19800213	JP19740015157U	19740207
	JP55006360 Y2	19800213	JP19740015157U	19740207

International class
(IPC 8-9): B65D51/18 B65D55/08 G01R13/20 G01T1/36 (Advanced/Invention);
B65D51/18 B65D55/02 G01R13/20 G01T1/00 (Core/Invention)

International class
(IPC 1-7): B65D51/18 G01R13/20 G01T1/00 G01T1/36

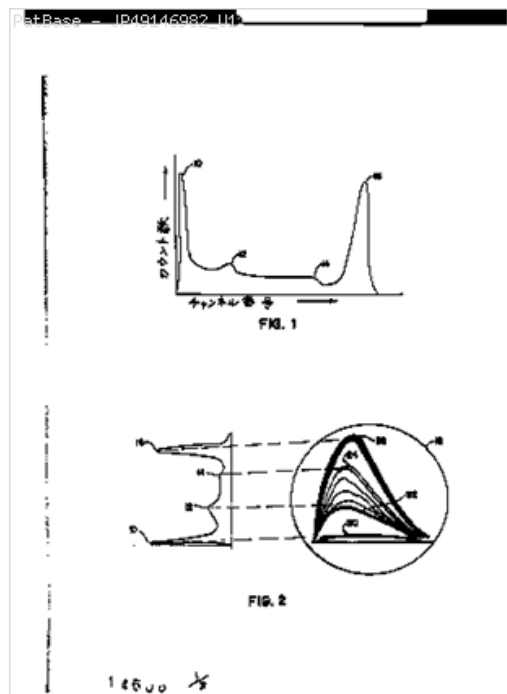
CPC: G01T1/36

European class: B65D55/08C G01T1/36

[Classification Explorer](#)

Abstract:

A gamma ray spectrometer having a plurality of presettable channels, a given channel being selectable for displaying on a cathode ray tube a trace proportional to the energy of the gamma ray of a given sample and the intensity of the given energy event. The cathode ray tube is originally biased so that the beam is below the face of the tube and therefore not displayed. A sweep gate signal for the cathode ray tube is driven by the selected channel for deflecting the beam onto the face of the tube and for selectively blanking and unblanking the cathode ray tube in response to the sweep gate signal for displaying on the cathode ray tube only that trace indicative of the selected channel, the height of the trace on the tube being indicative of the energy while the intensity of the trace so displayed is proportional to the count rate.



Title: Composite closure
Priority: US19730423247 19731210 JP19740082640U 19740712
Family:

Publication number	Publication date	Application number	Application date
AU197476223 A1	19760610	AU19740076223	19741209
BE823100 A	19750609	BE19740151284	19741209
CA1015313 A1	19770809	CA19740199577	19740509
DE2432444 A1	19750612	DE19742432444	19740706
DE2432444 C2	19841108	DE19742432444	19740706
DK150454 B	19870302	DK19740006395	19741209
DK150454 C	19871026	DK19740006395	19741209
DK639574 A	19750818	DK19740006395	19741209
ES208256 U	19760401	ES19740208256U	19741210
ES208256 Y	19760716	ES19740208256U	19741210
FI355074 A	19750611	FI19740003550	19741210
FI54267 B	19780731	FI19740003550	19741210
FI54267 C	19781110	FI19740003550	19741210
GB1439109 A	19760609	GB19740052625	19741205
IT1026926 A	19781020	IT19740030361	19741210
JP50088356 U1	19750726	JP19740082640U	19740712
JP54022124 Y1	19790803	JP19740082640U	19740712
JP54022124 Y2	19790803	JP19740082640U	19740712
NL7415911 A	19750612	NL19740015911	19741206
NO133098 B	19751201	NO19740004390	19741205
NO133098 C	19760310	NO19740004390	19741205
NO744390 A	19750707	NO19740004390	19741205
SE389319 B	19761101	SE19740015169	19741204
SE389319 C	19770210	SE19740015169	19741204
SE7415169 A	19750611	SE19740015169	19741204
US3866782 A	19750218	US19730423247	19731210
ZA7402070 A	19751126	ZA19740002070	19740401

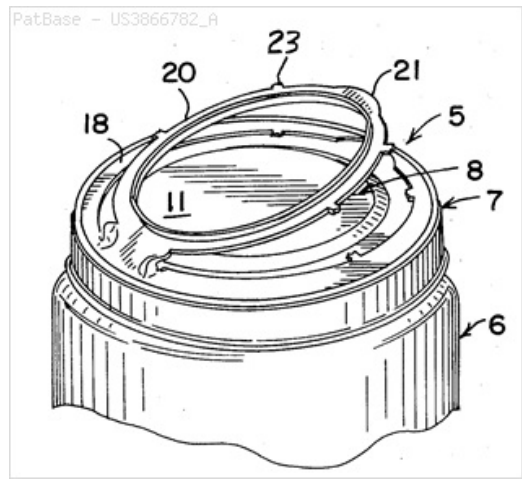
Probable Assignee: CONTINENTAL CAN CO
Assignee(s):(std): CONTINENTAL GROUP ; CONTINENTAL CAN CO
Assignee(s): CONTINENTAL CAN CO INC ; CONTINENTAL CAN CO INC NEW YORK N Y V ST A ; THE CONTINENTAL GROUP INC NEW YORK N Y US ; THE CONTINENTAL GROUP INC ; CONTINENTAL CAN COMPANY INC ; CONTINENTAL CAN COMPANY ; CONTINENTAL CAN COMPANY INC TE NEW YORK ; WESTFALL JAMES E
Inventor(s):(std): JAMES ERWIN WESTFALL ; WESTFALL J ; WESTFALL J E ; WESTFALL JAMES E ; WESTFALL JAMES ERWIN
Inventor(s): WESTFALL JAMES E WESTERN SPRINGS ILL US ; WESTFALL JAMES E WESTERN SPRINGS ILL V ST A
International class (IPC 8-9): B65D17/34 B65D41/46 B65D45/30 B65D51/14 B65D51/18 B65D55/08 (Advanced/Invention); B65D51/18 (Advanced/Non-invention); B65D17/28 B65D41/32 B65D45/00 B65D51/00 B65D51/18 B65D55/02 (Core/Invention)
International class (IPC 1-7): B65D17/34 B65D41/16 B65D41/18 B65D41/32 B65D41/46 B65D51/18 B65D51/22 B65D55/00 B65D55/02 B65D55/06 B67B
CPC: B65D45/30 B65D51/145 B65D55/0863
European class: B65D45/30 B65D51/14B B65D55/08C
US class: 215/253 215/274 215/305

[Classification Explorer](#)

Cited documents: US3690499 A, US3665648 A, US3656648 A, US3460701 A, DE2217325 A1, DE1761121 A1,
Forward Citations: WO16174089, WO05087602, USD632962, US9840356, US9546018, US9446890, US9278786, US8522997, US8418870, US8272526, US8047387, US6766917, US6223922, US5341949, US5341947, US5269429, US5048706, US5029718, US5004110, US4948039, US4830214, US4727999, US4712690, US4627550, US4560076, US4516684, US4197956, US3993210, US3976215, US2015251819, US2012241456, US2011297678, US2011147396, US2011000912, US2009223986, US2008245763, US2005218106, US2003136753, NL1013957, GB2122178, FR3035644, EP2130780, EP0498954, EP0356758, EP0021728, CN104986429,

Abstract:

A composite press on, pull-off closure cap for hermetically sealing and maintaining a vacuum in a container. The cap is comprised of two parts, one part being an integrally formed, semi-rigid plastic **fitment** with a top including a lift or pull ring and with a depending skirt, and the second part being a relatively rigid, disc-shaped gasketed closure element. The closure element is retained within the **fitment** and when the lift ring is pulled upwardly, shoulder means on the interior of the **fitment** engage with the peripheral edge of the closure element and carry it along with the **fitment** during removal. The pull ring or lift ring is retained in inoperative condition by means of frangible connections until such time as it is desired to remove the closure cap. Thereupon, on lifting up on the ring the frangible connections are readily broken and on further lifting and pulling the lift ring through its hinge connection to the remainder of the **fitment** serves to remove the cap. As an improvement, the closure cap has thinned sections at the opposite ends of the hinge. During raising of the lift ring these thin sections are permanently stretched thereby accomplishing two functions. First, the stretching prevents breakage or tearing of the main part of the hinge. Second, the lift ring is prevented from returning or being restored to its original inoperative condition thereby giving the impression that the cap has not been tampered with and that the package has not previously been opened.



Title: METHOD OF, AND DISPENSER FOR INTRODUCING AN OPHTHALMIC PRODUCT INTO THE OCCULAR CAVITY

Priority: US19750571291 19750424 US19750571292 19750424 US19750571293 19750424
US19750571294 19750424

Family:

Publication number	Publication date	Application number	Application date
JP51146789 A2	19761216	JP19760047138	19760424
US4002168 A	19770111	US19750571294	19750424

Probable Assignee: TOAA HARI PETAASON

Assignee(s):(std): PETERSON TOR ; TOAA HARI PETAASON

Inventor(s):(std): PETERSON TOR ; TOAA HARI PETAASON

International class (IPC 8-9): A61F9/00 A61J1/05 B65D23/00 B65D47/18 B65D51/24 (Advanced/Invention);
A61F9/00 A61J1/05 B65D23/00 B65D47/06 B65D51/24 (Core/Invention)

International class (IPC 1-7): A61F9/00 A61M31/00 B65D83/00

CPC: A61F9/0008 A61F9/0026 B65D23/003 B65D47/18 B65D51/24 B65D51/242 A61M11/008 A61M15/08
A61M2210/0612

European class: A61F9/00B A61F9/00B4 B65D23/00D B65D47/18 B65D51/24 B65D51/24B

US class: 128/233 222/421 604/298 604/302

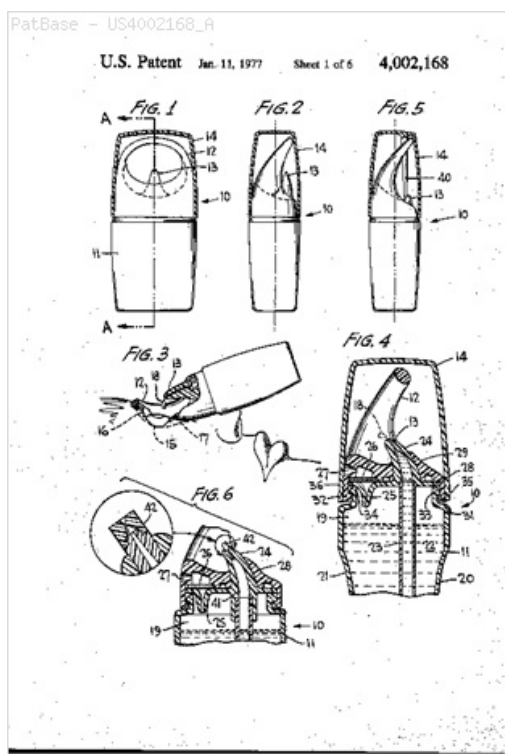
[Classification Explorer](#)

Cited documents: US3872866 A, US3279466 A, US2898911 A, US2754821 A, US2722216 A, GB1208686 A,

Forward Citations: WO9640025, WO9513087, WO9209523, WO9015015, WO12045135, WO05063165, USRE37016, USD463216, USD452415, USD452116, USD450535, USD448976, USD448242, US9763826, US9642742, US9486356, US9087145, US9033941, US8936021, US8733935, US8684980, US8545463, US8348912, US8034036, US8012136, US7883031, US7832594, US7527613, US7147121, US7077831, US6708850, US6422415, US6398766, US6116457, US6050445, US5902292, US5639378, US5612361, US5607410, US5578019, US5545617, US5496471, US5429621, US5417349, US5320254, US5265770, US5221027, US5219101, US5183184, US5080800, US5059188, US5056689, US5025957, US5002206, US4987597, US4960407, US4909801, US4834727, US4531944, US4471890, US4392590, US2015313757, US2015037262, US2014371688, US2011098664, US2010270322, US2009212133, US2009149829, US2008302828, US2008255527, US2008057023, US2007262096, US2007145076, US2007119969, US2007119968, US2005131358, US2005072788, US2004195253, JP5018535, GB2509618, GB2509618, GB2244480, GB2244480, FR2694492, FR2511242, EP2981234, EP1698317, EP0500172, EP0459498, EP0439999, EP0093492, EP0029147, AU644944, AU631278,

Abstract:

A dispenser suitable for storing and dispensing an ophthalmic product and a method of dispensing the product into an ocular cavity while maintaining the dispensing orifice of the dispenser free from contact with the ocular cavity is described. The dispenser comprises a container with a cavity for containing a product to be dispensed, pump means, product dispensing valve means, and pressure equalizing valve means. A positioning/guard fixedly secured to the container cooperates therewith to positively position and anthroprometrically locate the dispensing orifice relative to the ocular cavity. The product is dispensed into the eye without loss of product due to inadvertent closing or blinking of the eye as a result of fear of a sharp object and also places the product properly for most effective results.



Title: Pump dispensers
Priority: GB19770040093 19770927 GB19780038002 19780925 CA19780312209 19780927
Family:

Publication number	Publication date	Application number	Application date
CA1088900 A1	19801104	CA19780312209	19780927
DE2842073 A1	19790405	DE19782842073	19780927
DK426978 A	19790328	DK19780004269	19780926
FR2404130 A1	19790420	FR19780027633	19780927
GB2005344 A1	19790419	GB19780038002	19780925
GB2005344 B2	19820415	GB19780038002	19780925
JP54093213 A2	19790724	JP19780119031	19780927
NO783258 A	19790328	NO19780003258	19780926
SE7810107 A	19790328	SE19780010107D	19780926
US4220264 A	19800902	US19780946116	19780927

Probable Assignee: UNILEVER LTD
Assignee(s):(std): LEVER BROTHERS LTD ; UNILEVER LTD ; UNILEVER NV
Assignee(s): UNILEVER N V ; UNILEVER LIMITED ; GAMADIA RUSTOM K ; LEVER BROTHERS
Inventor(s):(std): GAMADIA R K ; GAMADIA RUSTOM K ; GAMADIA RUSTOM KOOVERJI ; RASUTON KUUBERUJI
GAMADEIA
Inventor(s): KOOVERJI GAMADIA RUSTOM ; R K GAMADIA
Agent(s): BERESKIN AND PARR
International class
(IPC 8-9): B05B11/00 B05B9/08 B65D47/34 B65D83/14 (Advanced/Invention);
B05B11/00 B05B9/08 B65D47/34 (Core/Invention)
International class
(IPC 1-7): B05B11/00 B05B11/02 B65D37/00 B65D83/14 F04B43/08 F04B43/12 F04B9/14
CPC: B05B9/0883
European class: B05B9/08C6B
US class: 222/207 222/211 222/214 222/336

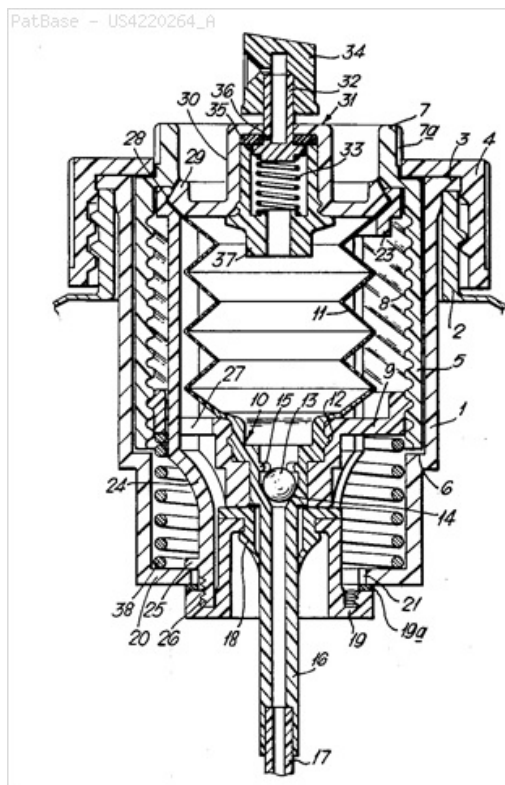
[Classification Explorer](#)

Cited documents: US4142653 A, US4136802 A,

Forward Citations: WO9906701, WO9324238, WO11015849, WO03015930, USRE37047, US9751102, US9532684, US9415401, US8616414, US8360287, US8177101, US7845521, US7793803, US7568596, US7246723, US7025233, US6708852, US6302101, US6279784, US6179170, US5944702, US5746728, US5685869, US5664703, US5613957, US5561901, US5518147, US5476195, US5439178, US5248847, US5238150, US5186361, US5042696, US4915601, US4892232, US4858788, US4684045, US4421166, US4402461, US2017157631, US2015196173, US2010200615, US2009294477, US2009140009, US2006163286, US2005189382, US2004149777, US2004055457, FR2766879, FR2703930, FR2695575, EP1674162, EP1674162, EP1427537, EP1170062, EP1170062, EP1000246, EP0312722, EP0304567, EP0262484, DE4206524, DE3928521, DE3521611, DE3509178,

Abstract:

A hand operated pump dispenser adapted to be fitted to a fluid container to dispense the fluid as a spray has a discharge reservoir in the form of a bellows having an inlet closed by a one way valve allowing fluid into the bellows and a finger operated discharge valve, the bellows being charged and discharged by movement of the inlet relative to the housing, the charging movement of the bellows inlet also energizing an energy storage spring and being effected either by rotation or downward pressure on a first actuating member.



Title: Child-resistant closures for container mounted spray dispensers

Priority: US19780887144 19780316 US19790008222 19790131 CA19790323625 19790315
CA19790331628 19790711

Family:	Publication number	Publication date	Application number	Application date
	AU197944848 A1	19790920	AU19790044848	19790306
	AU197948533 A1	19800807	AU19790048533	19790629
	BE874919 A	19790716	BE19790194084	19790316
	BE880168 A	19800317	BE19790198213	19791120
	BR7901617 A	19791016	BR19790001617	19790315
	BR7905398 A	19801014	BR19790005398	19790822
	CA1107699 A1	19810825	CA19790323625	19790315
	CA1130764 A1	19820831	CA19790331628	19790711
	CH630312 A	19820615	CH19790002457	19790315
	DE2909948 A1	19790927	DE19792909948	19790314
	DE2948862 A1	19800807	DE19792948862	19791205
	DK107979 A	19790917	DK19790001079	19790315
	DK424979 A	19800801	DK19790004249	19791009
	FR2419878 A1	19791012	FR19790006618	19790315
	FR2447870 A1	19800829	FR19790021170	19790822
	GB2016429 A1	19790926	GB19790009137	19790315
	GB2016429 B2	19821117	GB19790009137	19790315
	GB2041339 A1	19800910	GB19800002956	19800129
	IT1118121 A	19860224	IT19790049882	19790727
	IT1192669 A	19880504	IT19790048354	19790315
	IT7948354 A0	19790315	IT19790048354	19790315
	IT7949882 A0	19790727	IT19790049882	19790727
	JP54136990 A2	19791024	JP19790030961	19790316
	JP55102454 A2	19800805	JP19790092502	19790720
	KR19830001101 A	19830429	KR19790002910	19790825
	MX148356 A	19830414	MX19790176938	19790315
	NL7902123 A	19790918	NL19790002123	19790316
	NL7905531 A	19800804	NL19790005531	19790716
	NO790891 A	19790918	NO19790000891	19790315
	NO792374 A	19800801	NO19790002374	19790717
	NZ189768 A	19830617	NZ19790189768	19790226
	NZ191257 A	19830614	NZ19790191257	19790809
	SE7902350 A	19790917	SE19790002350	19790315
	SE7902350 L	19790917	SE19790002350	19790315
	US4346821 A	19820831	US19790008222	19790131
	ZA7900909 A	19800227	ZA19790000909	19790226
	ZA7903156 A	19800625	ZA19790003156	19790625

Probable Assignee: AFA PRODUCTS INC

Assignee(s):(std): AFA CORP SOCIETA DELLO STATO D ; AFA CONSOLIDATED CORP ; AFA CORP

Assignee(s): AFA CORP SOC DELLO STATO DELLA FLORIDA ; AFA ACQUISITION CORP ; AFA CONSOLIDATED A CORP OF FL CORP ; AFA PRODUCTS INC ; WAYNESBORO TEXTILES INC ; NATIONSCREDIT COMMERCIAL CORP ; NATIONSCREDIT COMMERCIAL CORP ; AFA SOCIETA DELLO STATO DELLA FLO CORP ; AFA TE MIAMI FLORIDA VER ST V AM CORP ; AFA SOCIETA DELLO STATO CORP ; AFA SOCIETA DELLO STATO DELLA FLORIDA CORP ; WALLACE FRED E ; WESNER WALTER H ; AFA THE CORP

Inventor(s):(std): FURETSUDO II UORASU ; FURETSUDO EDOWAADO UORASU ; WALLACE FRED E ; WALLACE F E ; UORUTAA EICHI UESUNAA ; UORUTAA HAABAATO UESUNAA ; WESNER W ; WALLACE F ; WESNER WALTER H ; WESNER W H

Inventor(s): W H WESNER ; WALTER H WESNER ; FRED E WALLACE ; E WALLACE FRED ; F E WALLACE ; H WESNER WALTER

Agent(s): PHILLIPS ORMONDE AND FITZPATRICK; BORDEN LADNER GERVAIS LLP

International class (IPC 8-9): B05B11/00 B05B3/00 B05B3/18 B05B9/00 B65D47/34 B65D83/14 B65D83/40 (Advanced/Invention); B05B3/00 B65D47/34 B65D83/40 (Advanced/Non-invention); B05B11/00 B65D47/34 B65D83/14 B65D83/40 (Core/Invention)

International class (IPC 1-7): A62C11/04 B05B1/28 B05B11/00 B05B11/06 B05B15/00 B05B3/00 B05B3/18 B05B9/00 B05B9/043 B65D25/46 B65D47/20 B65D47/26 B65D47/34 B65D5/32 B65D55/02 B65D55/12 B65D83/00 B65D83/14 B65D85/82 B67D3/00 B67D5/42

CPC: B05B11/0032 B05B11/3045 B05B11/3057 B65D83/40

European class: B05B11/00B3F B05B11/30H1B B65D83/40 L05B11/00P1 L05B11/30H3F2

US class: 215/274 222/153 222/153.02 222/153.09 222/153.14 222/383.1 222/536

[Classification Explorer](#)

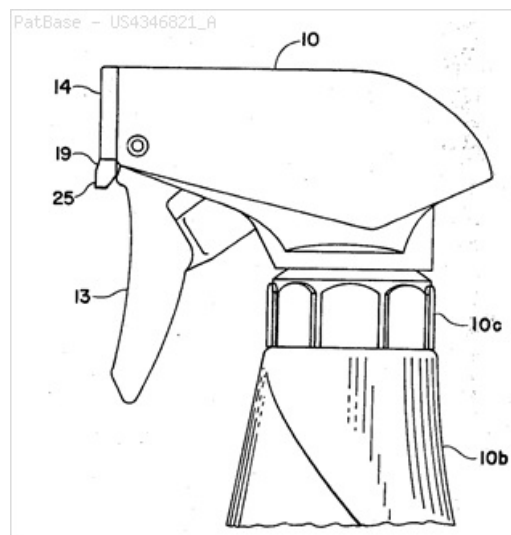
Cited documents: US4144983 A, US4117945 A, US3973700 A, US3927834 A, US3865313 A, US3830392 A, US3830391, US3786964 A, US3759426 A, US3655099 A, US3650473 A, US3104039 A, US2971680 A, JP53005417 A2, JP52097414 A2, FR2419878,

Forward Citations: WO9638372, WO9316953, WO16009192, WO11117526, WO07118785, USD445681, US8408422, US7303150, US7036689, US7032777, US6845922, US6729560, US6550694, US6286728, US6286723, US6244469, US6196423, US5848733, US5823395, US5687880, US5657907, US5656227, US5649646, US5590834, US5564604, US5360127, US5238152, US5228600, US5161716, US5050779, US4955511, US4946074, US4934568, US4516695, US4455440, US4441633, US2012318825, US2011031281, US2010320237, US2007119982, US2007114303, US2005082311, GB2278556, GB2278556, GB2261657, GB2261657, FR2957903, FR2528328, FR2447870, EP2189388, EP1844862, EP0872283, EP0810036, EP0466368, EP0097094, EP0061233, DE4390810, DE3544985, CN102917804,

Abstract:

A child-resistant safety closure is provided for closing the outlet of a hand-operated fluid product sprayer dispenser used on a

container to prevent leaks from the container during periods of non-use and to resist accidental use by children or unwary adults. The closure cannot be moved from an "outlet closed" position to an "outlet open" position without the performance of at least two discrete, predetermined definite actions by the user to first disable a lock and then to linearly or rotatably move the cap into the "outlet open" position to permit spraying or dispensing. A closing member is connected to the bottom portion of the sprayer for removably mounting the sprayer to the container and closing the same. The member and the sprayer to which it is connected cannot be removed without the performance of at least two discrete, predetermined definite actions, which actions are difficult if not impossible for young children to perform.



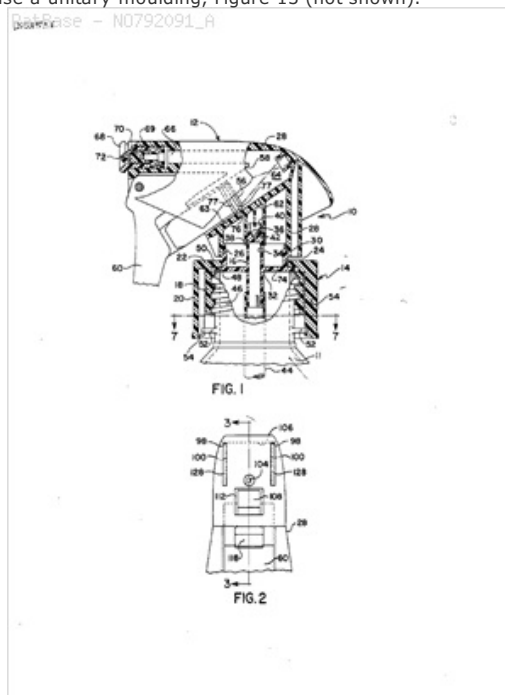
Title: Child-Resistant Dispenser and Closure
Priority: US19780918003 19780622 CA19790326170 19790424
Family:

Publication number	Publication date	Application number	Application date
AU197946312 A1	19800103	AU19790046312	19790420
BE877212 A	19791015	BE19790195921	19790622
BR7903931 A	19800304	BR19790003931	19790621
CA1132505 A1	19820928	CA19790326170	19790424
CH634269 A	19830131	CH19790005818	19790621
DE2924735 A1	19800110	DE19792924735	19790620
DK261879 A	19791223	DK19790002618	19790621
ES481829 A1	19800216	ES19790481829	19790622
FR2435969 A1	19800411	FR19790012614	19790517
FR2435969 B3	19820326	FR19790012614	19790517
GB2023556 A1	19800103	GB19790021585	19790621
GB2023556 B2	19830427	GB19790021585	19790621
IT1117194 A	19860217	IT19790049118	19790522
IT7949118 A0	19790522	IT19790049118	19790522
JP55027094 A2	19800226	JP19790079013	19790622
NL7903873 A	19791228	NL19790003873	19790516
NO792091 A	19791228	NO19790002091	19790621
SE7905212 A	19791223	SE19790005212	19790613
SE7905212 L	19791223	SE19790005212	19790613
ZA7901890 A	19800528	ZA19790001890	19790420

Probable Assignee: AFA CORP
Assignee(s):(std): AFA CORP
Assignee(s): AFA TE MIAMI FLORIDA VER ST V AM CORP ; AFA THE CORP ; KEARNEY EDWARD R
Inventor(s):(std): KEARNEY E ; KEARNEY E R ; KEARNEY EDWARD R ; EDOWAADO AARU KANII
Inventor(s): EDWARD R KEARNEY ; E R KEARNEY ; R KEARNEY EDWARD
Agent(s): PHILLIPS ORMONDE AND FITZPATRICK; GOWLING LAFLEUR HENDERSON LLP
International class (IPC 8-9): B05B11/00 B05B7/00 B05B9/043 (Advanced/Invention); B05B7/00 (Advanced/Non-invention); B05B11/00 B05B7/00 (Core/Invention)
International class (IPC 1-7): B05B11/00 B05B11/02 B05B15/00 B05B7/02 B05B9/043 B65D41/04 B65D47/32 B65D47/34 B65D51/18 B65D51/24 B65D55/02 B65D55/08 B65D55/12 B65D83/14 F04B9/14
CPC: B05B11/0032 B05B11/3045 B05B11/3057
European class: B05B11/00B3F B05B11/00P9B2 B05B11/30H1B L05B11/00P9H6T L05B11/30H3F2
[Classification Explorer](#)
Forward Citations: US4934568, EP0061233, DE3544985,

Abstract:

A combined child-resistant dispenser and closure assembly for a container 11 has a spraying section 12 and a closure 14 which can be removed for refilling the container. The closure section 14 includes a threaded closure cap 18. The container neck has a pair of radial locking lugs 52 which engage cooperating projections 54 on the cap when the latter is screwed onto the container neck. The closure section can be opened by distorting the skirt 20 to disengage the projections and unscrewing the cap from the container neck. Closure section 14 and coupling members 16 may comprise a unitary moulding, Figure 13 (not shown).



Title: Container closure
Priority: US19790071318 19790830
Family:

Publication number	Publication date	Application number	Application date
DE3028281 A1	19820218	DE19803028281	19800725
DE3028281 C2	19830105	DE19803028281	19800725
ES258141 U	19811116	ES19800258141U	19800728
ES258141 Y	19820516	ES19800258141U	19800728
GB2058025 A1	19810408	GB19800020358	19800620
GB2058025 B2	19830810	GB19800020358	19800620
GR69317 B	19820514	GR19800162338	19800701
JP56041160 A2	19810417	JP19800103536	19800728
US4227617 A	19801014	US19790071318	19790830

Probable Assignee: SILGAN CONTAINERS CORP
Assignee(s):(std): ALUMINUM CO OF AMERICA
Assignee(s): ALUMINUM COMPANY OF AMERICA ; ALUMINUM COMPANY OF AMERICA PITTSBURGH PA US ; SILGAN CONTAINERS CORP ; BANKERS TRUST CO ; ALUMINIUM COMPANY OF AMERICA
Inventor(s):(std): ALBRECHT LEMAN P ; LAMAN PAUL ALBRECHT ; REEMAN POORU ARUBUREHITO ; UIRUBAAN KOI UIRISU ; WILBURN COY WILLIS ; WILLIS W COY
Inventor(s): WILLIS WILBURN COY ; ALBRECHT LAMAN PAUL ; WILBURN COY WILLIS HAGERSTOWN IND ; WILBURN COY WILLIS HAGERSTOWN IND US ; LAMAN PAUL ALBRECHT RICHMOND IND ; LAMAN PAUL ALBRECHT RICHMOND IND US
International class (IPC 8-9): B65D39/04 B65D51/00 B65D51/18 B65D55/08 B65D81/24 (Advanced/Invention); B65D39/00 B65D51/00 B65D51/18 B65D55/02 B65D81/24 (Core/Invention)
International class (IPC 1-7): A61J1/00 B65D39/04 B65D41/32 B65D41/40 B65D41/42 B65D41/58 B65D41/62 B65D51/24 B65D55/08 B65D81/18
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European class: B65D51/00B
US class: 215/249 215/251 215/255

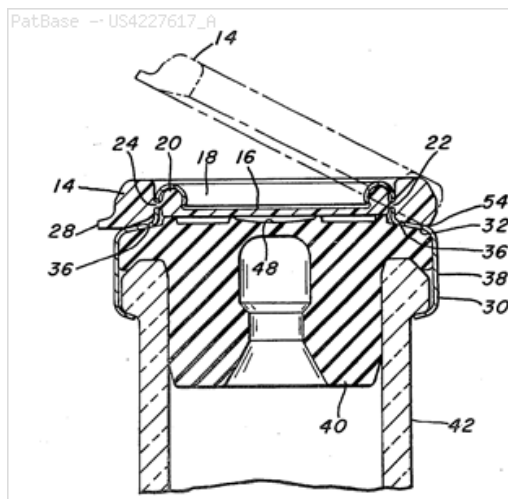
[Classification Explorer](#)

Cited documents: US3888377 A, US3750820 A, US3612340 A, US3587897 A, US3358865 A, US3193128 A, US3071274 A, US2465269 A, DE2361350 B1,

Forward Citations: US9555940, US8640899, US8100008, US7507336, US5931828, US5433330, US5232109, US4863453, US4471879, US4456138, US2016200489, US2010016824, US2009193890, US2009145872, US2006237353, JP61069054, JP6099997, JP60240660, JP60041337, JP3549907, FR2516480, DE3336344,

Abstract:

A container closure assembly for maintaining a sterile sealed container is provided having a ferrule having a top annular portion and a depending skirt portion for securing a resilient stopper for sealing the mouth of a container to the container, and a ring **fitment** for opening the closure assembly overlying and interlocking with the ferrule. The ferrule includes a central opening in the top annular portion, upwardly projecting locking portions about the periphery of the opening and a weakening line radially outwardly of and concentric with the locking portions. The **fitment** includes a disk portion and a concentric outer lifting ring hingedly connected to the inner disk portion for opening the closure assembly. The disk portion is secured within the opening of the top portion of the ferrule by the locking projections.



Title:	COMBINATION QUICK DISCONNECT COUPLING AND LIQUID CUTOFF VALVE			
Priority:	US19800219017 19801222			
Family:	Publication number	Publication date	Application number	Application date
	US4338933 A	19820713	US19800219017	19801222
Probable Assignee:	ABBOTT LABORATORIES			
Assignee(s):(std):	ABBOTT LAB			
Assignee(s):	ABBOTT LABORATORIES ; ABBOTT LABORATORIES N CHICAGO IL A CORP			
Inventor(s):(std):	BAYARD MICHAEL A ; TURNBULL JAMES A			
International class (IPC 8-9):	A61M39/14 (Advanced/Invention);			
	A61M39/00 (Core/Invention)			
International class (IPC 1-7):	A61M5/14			
CPC:	A61M39/14 A61M2039/1033 A61M2039/1066 Y10S604/905			
European class:	A61M39/14 K61M39/10G K61M39/10U			
US class:	128/214R 251/149.1 604/411 604/905			

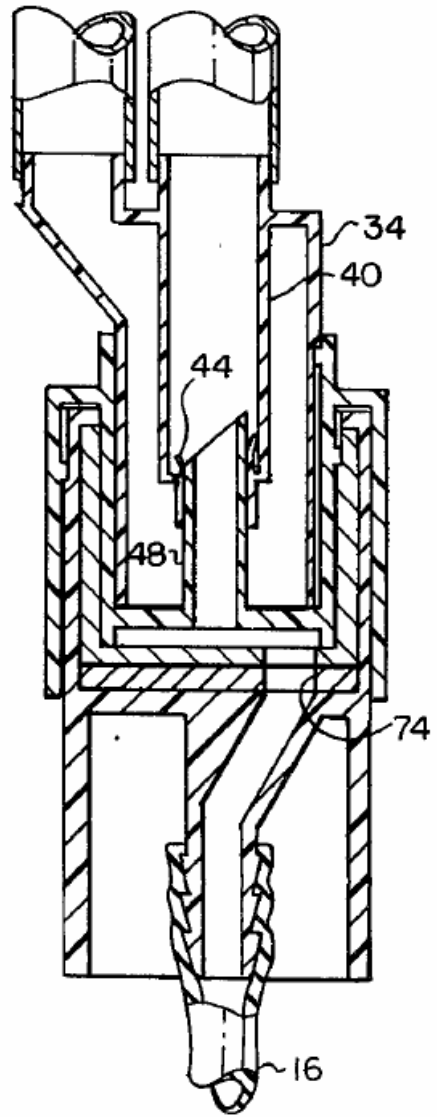
[Classification Explorer](#)

Cited documents: US968711 A, US808446 A, US745815 A, US4201406 A, US4186752 A, US4161949 A, US4133312 A, US4080965 A, US4076285 A, US4056116 A, US4055179 A, US4046145 A, US4030494 A, US4022205 A, US4019512 A, US3986508 A, US3876234 A, US3707972 A, US3626980 A, US3588149 A, US2502206 A, US2275477 A, US1580312 A,

Forward Citations: WO12177820, USRE43142, USD793551, USD786427, USD644731, US9931454, US9895527, US9884176, US9877475, US9827410, US9750926, US9743660, US9586003, US9565854, US9555180, US9533137, US9440060, US9415200, US9278206, US9238129, US9205243, US9192753, US9186494, US9044544, US8992489, US8986243, US8936905, US8911109, US8870850, US8864725, US8852167, US8764702, US8758306, US8709797, US8647312, US8628515, US8597230, US8540698, US8469545, US8454579, US8444628, US8398607, US8377039, US8257299, US8222027, US8221391, US8197087, US8157761, US8105314, US8083709, US8002765, US7947032, US7931627, US7922211, US7887104, US7824393, US7763199, US7736328, US7722576, US7722575, US7717887, US7717886, US7717885, US7717884, US7717883, US7713250, US7713249, US7713248, US7713247, US7708714, US7670322, US7635357, US7628774, US7611503, US7497849, US7025744, US6916309, US6758833, US6695817, US6682509, US6669681, US6669673, US6635044, US6599273, US6572592, US6440107, US6344033, US6261282, US6132403, US6096011, US6024720, US5957898, US5954708, US5928204, US5873862, US5830180, US5810792, US5800383, US5776116, US5715863, US5688254, US5685866, US5657963, US5645539, US5533996, US5423775, US5391163, US5344414, US5292308, US5281206, US5199947, US5156603, US5088984, US4878516, US4752292, US4745950, US4735608, US4655741, US4617012, US4568330, US4541457, US4507113, US4436125, US4433971, US2015276114, US2015217104, US2013157249, US2011092828, US2010241088, US2010229366, US2010196873, US2010179489, US2010130920, US2010130919, US2010130918, US2009148934, US2009012459, US2009012458, US2009012455, US2009012451, US2008217915, US2008086087, US2007129705, US2007112313, US2006276758, US2006271016, US2006270999, US2006264910, US2006264854, US2006264853, US2006264852, US2006264844, US2006224127, US2006212005, US2006211998, US2006200096, US2006173420, US2006004331, US2005197646, US2004068239, US2004068238, US2004030321, US2004002684, US2003028182, US2002040207, EP1279409, EP1009360, EP1009360, EP0118474, EP0114677, CN106264707,

Abstract:

A combination quick disconnect coupling and liquid cutoff valve comprises a first tubular member, and a second tubular member having a cylindrical sheath slidably disposed about and extending therefrom, sized for telescopic insertion into the first tubular member. The first and second tubular members may be coupled together and retained in that position as required. Two fluid passageways extend through the second tubular member. A third tubular member is concentrically positioned within the second tubular member and has a resilient, releasable, penetrable diaphragm at one end. A piercing pin is disposed within the movable cylindrical sheath so that when the piercing pin is exterior to the diaphragm, a first liquid passes through the connector, but when the piercing pin is inserted through the penetrable diaphragm, a second liquid passes through the connector and the flow of the first liquid is shut off.



Title: Sealing means for a snap-on fitment
Priority: US19810333749 19811223 CA19820418097 19821220
Family:

Publication number	Publication date	Application number	Application date
AU198291694 A1	19830630	AU19820091694	19821220
AU553604 B2	19860724	AU19820091694	19821220
BE895474 A	19830415	BE19820209810	19821223
CA1188257 A1	19850604	CA19820418097	19821220
DE3247252 A1	19830804	DE19823247252	19821221
DK553082 A	19830624	DK19820005530	19821213
FR2519940 A1	19830722	FR19820021580	19821222
GB2111961 A1	19830713	GB19820035302	19821210
GB2111961 B2	19850904	GB19820035302	19821210
GR77827 B	19840925	GR19820170081	19821215
IT1189444 A	19880204	IT19820049729	19821222
IT8249729 A0	19821222	IT19820049729	19821222
JP58112960 A2	19830705	JP19820234984	19821222
LU84542 A	19830613	LU19820084542	19821221
NL8204926 A	19830718	NL19820004926	19821221
US4387819 A	19830614	US19810333749	19811223

Probable Assignee: CORSETTE D F
Assignee(s):(std): CORSETTE DOUGLAS FRANK ; CORSETTE F DOUGLAS ; CORSETTE D F
Assignee(s): CORSETTE DF ; CORSETTE DOUGLAS ; CORSETTE DOUGLAS F ; DOUGLAS FRANK CORSETTE ; DAGURASU EFU KOOSSETSUTO ; DOUGLAS F CORSETTE ; DOUGLAS FRANK CORSETTE TE LOS ANGELES CALIFORNIE VER ST V AM
Inventor(s):(std): CORSETTE DOUGLAS F ; CORSETTE DOUGLAS FRANK ; DOUGLAS CORSETTE F ; CORSETTE F ; DAGURASU EFU KOOSSETSUTO ; CORSETTE F DOUGLAS
Inventor(s): F CORSETTE ; DOUGLAS F CORSETTE ; DOUGLAS FRANK CORSETTE ; F CORSETTE DOUGLAS
Agent(s): FINCHAM ERIC
International class (IPC 8-9): B65D41/18 B65D47/10 B65D47/12 B65D47/36 (Advanced/Invention); B65D47/00 B65D47/06 B65D47/12 (Core/Invention)
International class (IPC 1-7): B65D41/18 B65D41/28 B65D41/48 B65D41/62 B65D47/10 B65D47/12 B65D47/14 B65D47/36 B65D51/18 B65D51/20
CPC: B65D47/10 B65D47/128
European class: B65D47/10 B65D47/12D1
US class: 215/273 215/344 222/546 222/569

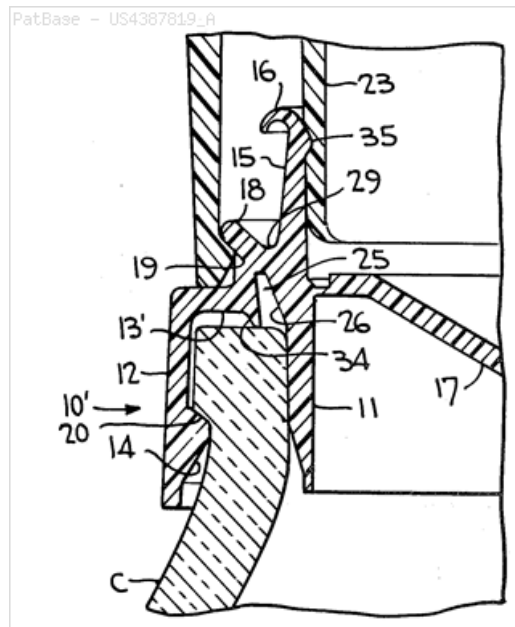
[Classification Explorer](#)

Cited documents: US4179044 A, US4171749 A, US3888373 A, US3860152 A, US3707240 A, US3343700 A, US3254785 A, US3099361 A, US29850 A, US2670885 A, GB1500369 A, FR2381678 A1, FR2203747 A1,

Forward Citations: WO9002692, WO06093579, USD773930, USD771489, USD698608, USD698198, US9974419, US9802738, US8845602, US8827094, US8573423, US8534510, US8474646, US8267274, US7963409, US7909204, US7677423, US7334705, US7216779, US7213727, US7194890, US7175051, US6705495, US6648188, US6260723, US5782388, US5735417, US5454489, US5330083, US5328058, US5246145, US5024341, US4982876, US4660748, US4568005, US2016145013, US2014131398, US2013112689, US2011192818, US2011095058, US2009242564, US2009218351, US2008142473, US2008141454, US2007267383, US2006289570, US2006201977, US2006191933, US2005247728, US2005023293, US2004217083, US2004118881, US2004079766, US2004065686, US2004065665, US2004026464, US2004026450, JP6018260, JP5868583, JP5014629, JP2012030873, JP2007176577, GB2416535, GB2416535, GB2218696, GB2218696, FR2922529, FR2749565, EP0846628, EP0449373, AU2006219092,

Abstract:

A sealing element for a snap-on **fitment** has spaced apart inner and outer skirts engageable with opposite sides of the container neck, an annular wall interconnecting the skirts and an extension from the annular wall forming a **fitment** engaging portion. An annular snap bead extends from the connecting annular wall to facilitate snap engagement with the **fitment**, and the engaging portion has an inner sealing surface and a seal bead adjacent its outer end. The connecting wall has an annular relieved section opening into the space between the skirts so that any distortions imposed upon the snap bead and upon the sealing surface as occasioned by any dimensional and/or shape irregularities in the container neck are reduced by the relief provided between inner and outer engagements with the container neck. This results in an isolation of any distortions of the skirts relative to one another, an isolation of any outer skirt distortion relative to the snap bead, an isolation of any inner skirt distortion relative to the sealing surface, and the maintenance of dimensional stability between the snap bead and the sealing surface.



Title: CONTINUOUS DISCHARGE AEROSOL ACTUATOR
Priority: US19810268262 19810529 AU19830011903 19830228 BR19830000980 19830228
ZA19830001340 19830228 EP19830102074 19830303

Family:	Publication number	Publication date	Application number	Application date
	AU198311903 A1	19840906	AU19830011903	19830228
	BR8300980 A	19841002	BR19830000980	19830228
	EP0119278 A1	19840926	EP19830102074	19830303
	US4381065 A	19830426	US19810268262	19810529
	ZA8301340 A	19831130	ZA19830001340	19830228

Probable Assignee: PRECISION VALVE CORP
Assignee(s):(std): PRECISION VALVE CORP
Inventor(s):(std): HAYES THOMAS D ; HAYES THOMAS
Inventor(s): THOMAS D HAYES
Agent(s): FB RICE; FB RICE PTY LTD
Designated states: DE FR GB IT NL
International class (IPC 8-9): B65D83/14 B65D83/16 (Advanced/Invention);
B65D83/14 (Advanced/Non-invention);
B65D83/16 (Core/Invention);
B65D83/14 (Core/Non-invention)

International class (IPC 1-7): B05B1/32 B65B B65D55/02 B65D83/14

CPC: B65D83/206 B65D83/24 B65D83/228 B65D2215/04

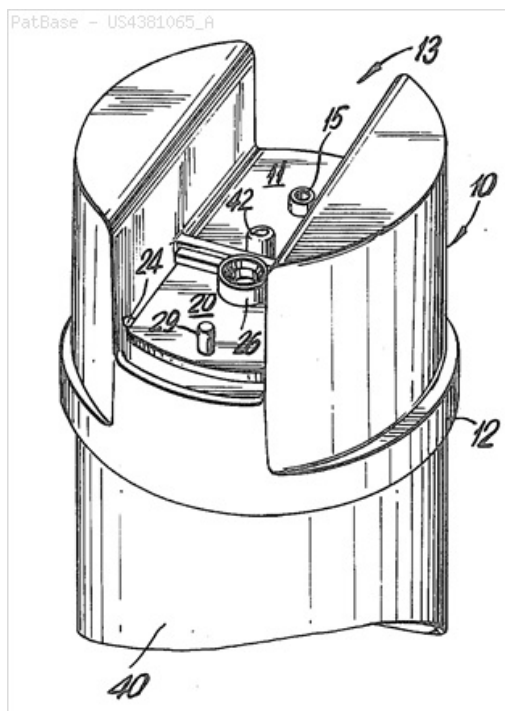
European class: B65D83/20C B65D83/22B B65D83/22D4 L65D215/04

US class: 222/153 222/153.02 222/153.06 222/153.12 222/402.14

[Classification Explorer](#)

Cited documents: US4325497 A, US4013231 A, US3610479 A, US3269614 A, US3185350 A, US3109565 A, FR2271995 A1, WO03024836, USD592055, USD488379, USD474403, US9540164, US9511927, US6742717, US6382469, US5791524, US5503303, US5119970, US4941600, US2007181609, FR2971997, EP1432626, EP1118554, AU2012244226,

Abstract:
An actuator cap for a pressurized aerosol dispenser includes an integrally hinged actuator tab secured with tamper proof frangible webs. The webs must be broken and the tab rotated about the hinge to engage the container valve stem. Detents on the tab and cap latch the valve open for continuous discharge.



Title: OVERCAP FOR SPICE CANISTER
Priority: US19820397609 19820712 CA19820415433 19821112
Family:

Publication number	Publication date	Application number	Application date
AU198291154 A1	19840119	AU19820091154	19821206
AU558693 B2	19870205	AU19820091154	19821206
CA1180304 A1	19850102	CA19820415433	19821112
MX154331 A	19870714	MX19820195593	19821213
US4437593 A	19840320	US19820397609	19820712

Probable Assignee: PORTOLA PACKAGING INC
Assignee(s):(std): SCARIONI C J ; FAULSTICH S L ; WINDER D ; THREE SISTERS RANCH ETS ; BULLOCK J J
Assignee(s): BULLOCK JOSEPH J III ; CAP SNAP CO ; CHASE MANHATTAN BANK (NATIONAL ASSOCIATION) AGENT ; BANKERS TRUST CO ; THREE SISTERS RANCH ENTERPRISES A CAPARTNERSHIP CO ; SECURITY PACIFIC BUSINESS CREDIT INC ; THREE SISTERS RANCH ENTERPRISES ; THREE SISTERS RANCH ENTERPRISES PARTNERSHIP ; THREE SISTERS RANCH ENTERPRISES A CA PARTNERSHIP C ; SECURITY PACIFIC BUSINESS CREDIT INC A CORP OF DE ; THREE SISTERS RANCH ENTERPRISES A CA PARTNERSHIP COMPOSED OF CAROL J SCARIONI DARMA WINDER SHIRLEY L FAULSTICH AND JOSEPH J BULLOCK III ; SCARIONI CJ WINDER D FAULSTICH SL BULLOCK JJ ; CHASE MANHATTAN BANK AS AGENT ; HELLER FINANCIAL INC ; PORTOLA PACKAGING INC ; SCARIONI C J WINDER D FAULSTICH S L BULLOCK J J ; CHASE MANHATTAN BANK NATIONAL ASSOCIATION AGENT AS ; HELLER FINANCIAL INC A DE CORP ; HELLER FINANCIAL INC A DELAWARE BUSINESS TRUST ; CHASE MANHATTAN BANK (NATIONAL ASSOCIATION) AGENT AS
Inventor(s):(std): BULLOCK III JOSEPH J ; BULLOCK JOSEPH J ; BULLOCK JOSEPH J III
Inventor(s): JOSEPH J BULLOCK ; JOSEPH J BULLOCK III
Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; RIDOUT AND MAYBEE LLP
International class (IPC 8-9): B65D41/48 B65D47/18 B65D83/06 (Advanced/Invention); B65D41/32 B65D47/06 B65D83/06 (Core/Invention)
International class (IPC 1-7): A47G23/06 B65D41/48 B65D51/18 B65D55/06 B65D83/06
CPC: Y10S215/901 B65D41/48 B65D47/185 B65D83/06 B65D2101/0053
European class: B65D41/48 B65D47/18A B65D83/06 L65D101/00A3E
US class: 215/256 215/31 215/386 215/43 215/45 215/901 222/153.07 222/541 222/565

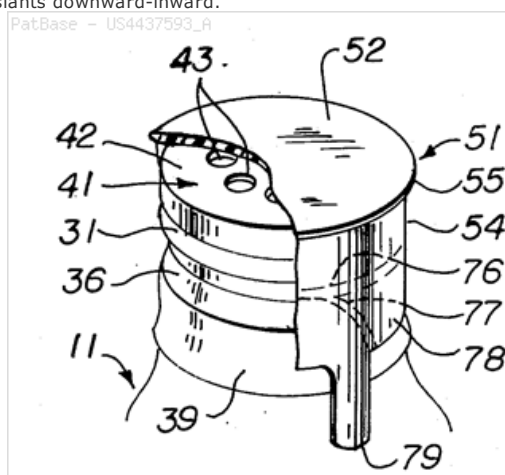
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Cited documents: US4166552, US3885695, US2576416,

Forward Citations: USRE33764, USD517408, USD495256, USD447056, US8793968, US8317054, US8113377, US7731048, US7318436, US7261217, US7228979, US7152760, US7114627, US7021482, US7014075, US6988642, US6422411, US6279774, US6073809, US5873484, US5862953, US5680968, US5577527, US5467879, US5184746, US5183171, US5007559, US4784296, US4676389, US4632265, US4577771, US2017369228, US2017081095, US2015197379, US2010270301, US2010176080, US2008232927, US2007215619, US2007108210, US2007056972, US2006144874, US2006118556, US2005092751, US2005056281, US2005040168, US2004251228, US2004155072, US2004079765, EP1256524, EP0176279,

Abstract:

A container neck has a bead mating with the internal bead on the lower end of the skirt of a sifter **fitment**. A plastic tamper-proof cap fits over the **fitment** and has a skirt having two vertically spaced internal beads locking under the shoulders of external beads on the container neck. The cap skirt has a first score line immediately above the lower internal cap bead and a second score line extending from the first score line to the bottom edge of the cap skirt. Preferably both the internal cap beads are interrupted. The cap has a peripheral flange, the underside of which slants downward-inward.



Title:

Closure for domed beverage containers and the like

Priority:

US19830463230 19830202

Family:

Publication number	Publication date	Application number	Application date
US4440310 A	19840403	US19830463230	19830202

Probable Assignee:

CONTINENTAL GROUP

Assignee(s):(std):

CONTINENTAL GROUP

Assignee(s):

CONTINENTAL GROUP INC ; THE CONTINENTAL GROUP INC

Inventor(s):(std):

HEYN WILLIAM M

International class (IPC 8-9):

B65D17/50 B65D47/36 (Advanced/Invention);
B65D17/00 B65D47/00 (Core/Invention)

International class (IPC 1-7):

B65D17/34

CPC:

B65D17/508 B65D47/36 B65D2517/0013 B65D2517/0098 B65D2517/5081

European class:

B65D17/50B2A B65D47/36 L65D517/00Y2B L65D517/00Y9 L65D517/50Q1B

US class:

220/258 220/258.2 220/270 220/307

[Classification Explorer](#)

Cited documents:

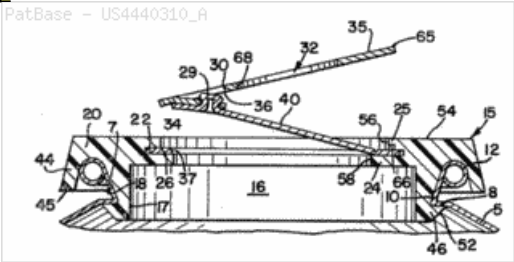
US4369888 A, US4350261 A, US4344545 A,

Forward Citations:

US9546018, US9278786, US8931656, US8833585, US8733567, US8336726, US8336725, US8272526, US8240498, US7918359, US6193094, US6045004, US5769277, US5755360, US4807769, US4762246, US4756443, US2012241456, US2011233227, US2010294768, US2009179033, US2009173737, US2009008400, US2008110887, US2007262079, US2007068943,

Abstract:

A closure for a container in which a plastic closure part is tightly fitted into the container neck and a tab-operable disk in which the tab is releasably interlocked with the plastic part. The disk may also be directly mounted within an end portion of a container body and the container body may be provided with a replaceable **overcap**.



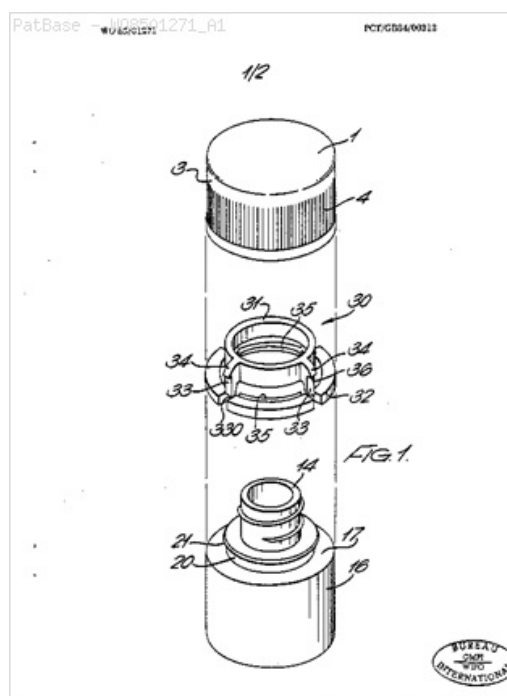
Title: CLOSURES FOR CONTAINERS
Priority: GB19830024789 19830915 WO1984GB00313 19840913
Family:

Publication number	Publication date	Application number	Application date
AU198434312 A1	19850411	AU19840034312	19840913
EP0156850 A1	19851009	EP19840903491	19840913
ES289582 U	19860601	ES19840289582U	19840912
ES289582 Y	19870201	ES19840289582U	19840912
ES289582 Y1	19870227	ES19840289582U	19840912
GB2155449 A1	19850925	GB19850011596	19840913
GB2155449 B2	19870916	GB19850011596	19840913
GB8324789 A0	19831019	GB19830024789	19830915
GB8511596 A0	19850612	GB19850011596	19840913
IE56845 B	19920101	IE19840002152	19840821
IE842152 L	19850315	IE19840002152	19840821
IT1175741 A	19870715	IT19840022674	19840914
IT8422674 A0	19840914	IT19840022674	19840914
PT79174 A	19841001	PT19840079174	19840905
PT79174 B	19860602	PT19840079174	19840905
WO8501271 A1	19850328	WO1984GB00313	19840913

Probable Assignee: UNITED GLASS LTD
Assignee(s):(std): UNITED GLASS LIMITED ; UNITED GLASS LTD
Inventor(s):(std): JOHN WHITEHEAD PETER ; MICHAEL WITT ; WHITEHEAD PETER JOHN ; WITT MICHAEL
Inventor(s): PETER JOHN WHITEHEAD
Designated states: AT AU BE CH DE DK FI FR GB JP LI LU NL NO SE US
International class (IPC 8-9): B65D41/34 B65D55/08 (Advanced/Invention); B65D41/34 B65D55/02 (Core/Invention)
International class (IPC 1-7): B65D41/32 B65D41/34 B65D49/00 B65D55/08 B67B
CPC: B65D41/3438 B65D55/0845
European class: B65D41/34C3 B65D55/08B2A
[Classification Explorer](#)
Cited documents: GB2102774 A1, FR2290364 A1, FR1457341 A, EP0086970 A2, DE2802126 A1, DE2530699 A1,
Forward Citations: WO9921773, GB2198715, EP1027263, EP0661215, EP0214711,

Abstract:

A pilferproof closure comprises a cap (1) adapted for screw-threaded connection with the container or with, for example, a non-refillable **fitment** (11) affixed thereto, a frangible ring (30) axially movable with the cap on the container or **fitment**, and means formed on the ring and on the container or **fitment** which come into engagement during removal of the cap from the container or **fitment** and permit complete removal of the cap only after fracture of the frangible ring. The frangible ring may consist of an upper annular ring (31) integrally attached to a lower annular ring (32) through bridges (33), the upward extensions of which form buttresses (34) which extend radially outwardly of the upper annulus (31). The cap (1) cannot be removed unless the ring (30) is first fractured.



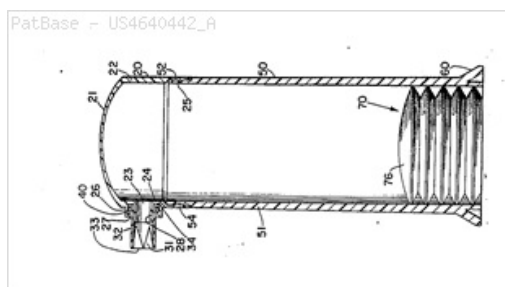
Title: Dispensing package and follower device
Priority: US19830546344 19831031 CA19840466646 19841030 US19850759390 19850726
Family:

Publication number	Publication date	Application number	Application date
CA1258661 A1	19890822	CA19840466646	19841030
EG16842 A	19900830	EG19840000665	19841030
EP0140445 A2	19850508	EP19840201525	19841022
EP0140445 A3	19860813	EP19840201525	19841022
ES290199 U	19860816	ES19840290199U	19841030
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ES293629 U	19860816	ES19860293629U	19860416
ES293629 Y	19880416	ES19860293629U	19860416
ES293629 Y1	19880513	ES19860293629U	19860416
GB2149019 A1	19850605	GB19840027191	19841026
GB2149019 B2	19870729	GB19840027191	19841026
GB8427191 A0	19841205	GB19840027191	19841026
GR80773 B	19850107	GR19840180773	19841029
JP1073375 U1	19890517	JP19880142672U	19881031
JP1847355 Y	19910523	JP19880142672U	19841031
JP1851102 Y	19910828	JP19840165609U	19841031
JP2017650 Y2	19900517	JP19840165609U	19841031
JP2017651 Y2	19900517	JP19880142672U	19881031
JP60104268 U1	19850716	JP19840165609U	19841031
MX162236 A	19910412	MX19840203257	19841031
PH21931 A	19880415	PH19840031375	19841026
US4640442 A	19870203	US19850759390	19850726

Probable Assignee: PROCTER AND GAMBLE
Assignee(s):(std): PROCTER AND GAMBLE ; THE PROCTER AND GAMBLE COMPANY
Assignee(s): DROBISH JAMES L ; PROCTER AND GAMBLE CO ; PROCTER AND GAMBLE CO THE ; PROCTER AND GAMBLE COMPANY THE
Inventor(s):(std): DROBISH JAMES L ; DROBISH JAMES LEE ; JAMES LEE DROBISH ; JAMES DROBISH LEE ; DROBISH LEE JAMES
Agent(s): SIM AND MCBURNEY
Designated states: AT BE CH DE FR IT LI LU NL SE
International class (IPC 8-9): B05B9/04 B05B9/047 B05C5/00 B65D37/00 B65D47/34 B65D83/00 B65D83/76 (Advanced/Invention); B05B9/04 B05C5/00 B65D47/34 B65D83/00 B65D83/76 (Core/Invention)
International class (IPC 1-7): B05B9/04 B05B9/047 B05C5/00 B65D37/00 B65D47/34 B65D83/00 B65D83/76 B65D88/54 B67D5/42 G01F11/06
CPC: B65D83/0033 B65D83/0005
European class: B65D83/00A B65D83/00A4
US class: 220/93 222/209 222/213 222/386.5 401/141 401/176
[Classification Explorer](#)
Cited documents: US889499 A, US673236 A, US4533069 A, US4474313 A, US4413759 A, US4402431 A, US4213545 A, US4169547 A, US4154371 A, US4109833 A, US4108219 A, US3915352 A, US3854826 A, US3828988 A, US3768705 A, US3766918 A, US3721371 A, US3381863 A, US3361305 A, US3338447 A, US3315847 A, US3217936 A, US3184120 A, US31408 A, US3088636 A, US2954890 A, US2902190 A, US2669370 A, US2606529 A, US2577780 A, US2098408 A, US1961554 A, US1939569 A, US1804627 A, US1199765 A, SE197618 C1, LU76090 A, GB1552446 A, GB1515657 A, GB1442491 A, GB1050837 A, FR875780 A, DE2920915 A1,
Forward Citations: US7527446, US5794107, US5139178, US5115948, US5088630, US4966312, US4938393, US4830229, US4804115, US4759461, US2013008921, US2011259845, US2006245814, US2004245292, JP2125765, FR2702197, EP0316102,

Abstract:

A dispenser for a product is described which incorporates a follower piston slidably mounted therewithin. The dispenser comprises an axially extending bore of a tubular container body for housing a product to be dispensed and having an upper end from which the product is dispensed and an open lower end. The follower piston is slidably mounted within the lower end of the bore of the container body to support the product thereabove. The piston is constructed of resilient material and comprises a face portion adapted to contact the product and a peripherally attached sidewall. The sidewall further comprises at least one integral peripheral contact band conforming to the shape of the cross section of the bore, and is adapted to virtually resiliently extend or contract in response to axial forces exerted on the face portion with such change in length resulting in an inversely proportional virtual change in lateral dimension of the peripheral contact band. The peripheral contact band is dimensioned to provide an interference fit within the bore which exerts a predetermined normal force against the inner surfaces of the bore in static condition.



Title: Pump-type dispenser
Priority: US19830546343 19831031
Family:

Publication number	Publication date	Application number	Application date
EP0140447 A2	19850508	EP19840201527	19841022
EP0140447 A3	19860820	EP19840201527	19841022
ES289618 U	19860401	ES19840289618U	19841030
ES289618 Y	19870716	ES19840289618U	19841030
ES289618 Y1	19870814	ES19840289618U	19841030
GB2149020 A1	19850605	GB19840027193	19841026
GB2149020 B2	19870701	GB19840027193	19841026
GB8427193 A0	19841205	GB19840027193	19841026
GR80775 B	19850220	GR19840180775	19841029
JP60091273 U1	19850622	JP19840165611U	19841031
PH21836 A	19880317	PH19840031374	19841026
US4533069 A	19850806	US19830546343	19831031

Probable Assignee: PROCTER AND GAMBLE
Assignee(s):(std): PROCTER AND GAMBLE ; THE PROCTER AND GAMBLE COMPANY
Assignee(s): PROCTER AND GAMBLE CO
Inventor(s):(std): DROBISH JAMES L ; DROBISH JAMES LEE ; DROBISH LEE JAMES ; JAMES DROBISH LEE ; JAMES LEE DROBISH
Designated states: AT BE CH DE FR IT LI LU NL SE
International class (IPC 8-9): B05B9/04 B65D47/34 B65D83/00 (Advanced/Invention); B05B9/04 B65D47/34 B65D83/00 (Core/Invention)
International class (IPC 1-7): B05B9/04 B65D37/00 B65D47/34 B65D83/00 B65D83/14
CPC: B65D83/0033
European class: B65D83/00A4
US class: 222/209 222/259 222/260 222/386.5

[Classification Explorer](#)

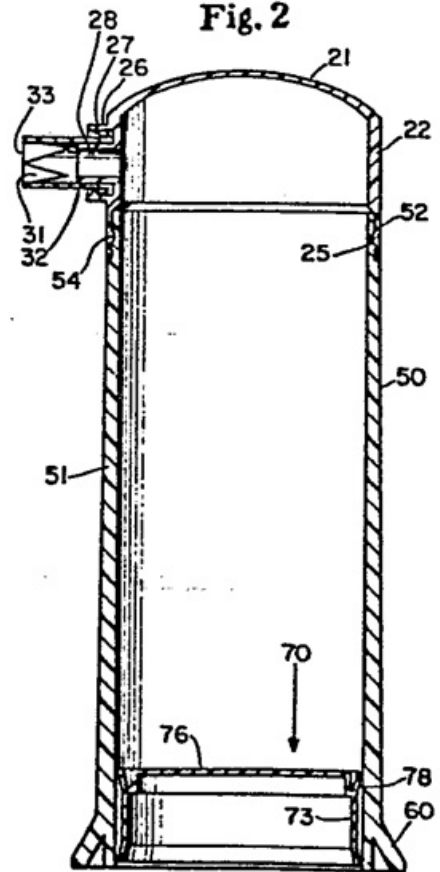
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Forward Citations: WO8604984, US8556131, US8297476, US6880732, US6183615, US5850948, US5655688, US5178300, US4938393, US4917556, US4830229, US4830221, US4804115, US4749108, US4742940, US4705951, US4696415, US4671432, US4640442, US2010116850, US2009230152, US2009008413, US2004134929, GB2285487,

Abstract:

A pump-type dispenser for a fluid product is described which incorporates a single outlet check valve and a follower piston slidably mounted therewithin. The dispenser includes an axially extending bore of a tubular container body for housing a product to be dispensed and having an upper end from which the product is dispensed and an open lower end. The follower piston is slidably mounted within the lower end of the bore of the container body to support the product thereabove. The piston is constructed of resilient material and comprises a face portion adapted to contact the product and a peripherally attached sidewall. The sidewall is formed with at least one peripheral contact band conforming to the shape of the cross section of the bore, and having the peripheral contact band dimensioned to provide an interference fit within the bore which exerts a predetermined normal force against the inner surfaces of the bore in static condition, thereby establishing a predetermined frictional resistance to movement of the piston within the bore. The predetermined frictional resistance is substantially equivalent in both upward and downward directions of axial displacement of the piston within the bore.

Fig. 2



Title: FLEXIBLE CONTAINER INCLUDING SELF-SEALING DISPENSING VALVE TO PROVIDE AUTOMATIC SHUT-OFF AND LEAK RESISTANT INVERTED STORAGE

Priority: US19840604782 19840427 US19840656397 19841001 EP19850200589 19850417
CA19850480200 19850426

Family:	Publication number	Publication date	Application number	Application date
	AT73086 E	19920315	AT19850200589T	19850417
	AU198541694 A1	19851031	AU19850041694	19850424
	AU575155 B2	19880721	AU19850041694	19850424
	CA1271458 A1	19900710	CA19850480200	19850426
	DE3585455 D1	19920409	DE19853585455	19850417
	DK168477 B1	19940405	DK19850001872	19850426
	DK187285 A	19851028	DK19850001872	19850426
	DK187285 A0	19850426	DK19850001872	19850426
	EG16970 A	19910830	EG19850000267	19850424
	EP0160336 A2	19851106	EP19850200589	19850417
	EP0160336 A3	19870415	EP19850200589	19850417
	EP0160336 B1	19920304	EP19850200589	19850417
	ES286370 U	19851116	ES19850286370U	19850426
	ES286370 Y	19860601	ES19850286370U	19850426
	ES286370 Y1	19860625	ES19850286370U	19850426
	FI81761 B	19900831	FI19850001657	19850426
	FI81761 C	19901210	FI19850001657	19850426
	FI851657 A	19851028	FI19850001657	19850426
	FI851657 A0	19850426	FI19850001657	19850426
	FI851657 L	19851028	FI19850001657	19850426
	GB2158049 A1	19851106	GB19850010233	19850422
	GB2158049 B2	19871007	GB19850010233	19850422
	GB8510233 A0	19850530	GB19850010233	19850422
	GR851023 B	19850614	GR19850101023	19850426
	HK57990 A	19900810	HK19900000579	19900802
	IE57957 B	19930519	IE19850001074	19851126
	IE851074 L	19851027	IE19850001074	19851126
	JP61033927 A2	19860218	JP19850090763	19850426
	KR930004461 Y1	19930716	KR19850004684U	19850424
	MA20421 A1	19851231	MA19850020645	19850426
	MX163063 A	19910812	MX19850205113	19850426
	MX163063 B	19910812	MX19850205113	19850426
	PH23706 A	19890927	PH19850032191	19850425
	SG9090425 A	19900817	SG19900090425	19900620
	US4728006 A	19880301	US19840656397	19841001

Probable Assignee: PROCTER AND GAMBLE

Assignee(s):(std): PROCTER AND GAMBLE ; PROCTER AND GAMBLE CO THE ; THE PROCTER AND GAMBLE CO ; PROCTER AND GAMBLE COMPANY THE ; THE PROCTER AND GAMBLE COMPANY

Assignee(s): TASKE LEO E ; DROBISH JAMES L ; THE PROCTER AND GAMBLE CO CINCINNATI OHIO US ; PROCTER AND GAMBLE CO ; PROCTER AND GAMBLE CO AN OH CORP

Inventor(s):(std): DROBISHI JAMES L ; JAMES LEE DROBISH ; JIEEMUZU RII DOROBISHIYU ; LEO EDWARD TASKE ; REO EDOWAADO TASUKE ; TASKE LEO E ; DROBISH JAMES L ; TASKE LEO EDWARD ; DROBISH JAMES LEE

Inventor(s): TASKE LEO EDWARD CINCINNATI OHIO 45247 US ; DROBISH JAMES LEE CINCINNATI OHIO 45215 US

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; KIRBY EADES GALE BAKER

Designated states: AT BE CH DE FR IT LI LU NL SE

International class (IPC 8-9): B05B11/04 B65D1/32 B65D23/00 B65D35/50 B65D35/52 B65D47/20 (Advanced/Invention); B65D1/00 B65D23/00 B65D35/00 B65D47/04 (Core/Invention)

International class (IPC 1-7): A47K5/122 B05B11/04 B65D1/00 B65D1/32 B65D25/00 B65D35/28 B65D35/44 B65D35/50 B65D47/00 B65D47/06 B65D47/44 B65D85/72 B65DA

CPC: Y10T137/7885 Y10T137/7895 B65D47/2031 B65D1/32 B65D23/003

European class: B65D1/32 B65D23/00D B65D47/20E2

US class: 137/849 137/859 222/181 222/181.3 222/213 222/490 222/494

[Classification Explorer](#)

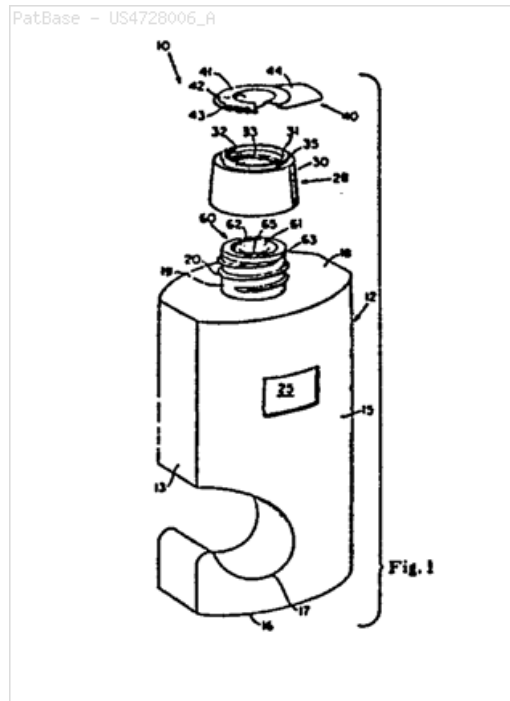
Cited documents: US666145 A, US591067 A, US4519530 A, US4420101 A, US4408702 A, US4397132 A, US4388735 A, US4356935 A, US4314658 A, US4252257 A, US4226342 A, US4222126 A, US4201491 A, US4183684 A, US4166553 A, US4163503 A, US4139124 A, US4133457 A, US4109836 A, US4096597 A, US4074944 A, US4008968 A, US3998360 A, US3981106 A, US3979163 A, US3957078 A, US3945060 A, US3754690 A, US3726436 A, US3674183 A, US3669323 A, US3445042 A, US3428223 A, US3405850 A, US3349972 A, US3342379 A, US3320972 A, US3258175 A, US3241726 A, US3226761 A, US3192894 A, US3067787 A, US3016172 A, US3012698 A, US2957501 A, US2942762 A, US2937795 A, US2936932 A, US2926692 A, US2887709 A, US2818089 A, US2802607 A, US2758755 A, US2743852 A, US2688979 A, US2682057 A, US2670757 A, US2643408 A, US2611515 A, US2594040 A, US2577780 A, US2513272 A, US2505441 A, US2441649 A, US2392085 A, US2362523 A, US2352642 A, US2234558 A, US2193517 A, US2175052 A, US2161230 A, US2092757 A, US1989715 A, US1989714 A, US1989201 A, US1989145 A, US1951544 A, US1859397 A, US1845918 A, US1825553 A, US1607993 A, US1242654 A, US1206661 A, US1122868 A, SU145824 T, GB764928 A, GB2098958 A1, GB1046518 A, FR996998 A, EP0108636 A2, DE696571 A, DE2128875 A1, DE1486403 A1, CH357149 A,

Forward Citations: WO9944750, WO9908519, WO9906296, WO9858847, WO9838102, WO9708979, WO9405552, WO16057623, WO15175663, WO14064675, WO13138087, WO13133869, WO13088112, WO12058802, WO09023508, WO06138323, WO06081858, WO05116497, WO05110875, WO03007770, WO0211894, WO0206129, WO0172594, WO0108994, WO0104011, USRE39520, USRE37016, USD817175, USD743261, USD738732, USD720622, USD719450, USD716147, USD671359, USD532637, USD509738, USD463216, USD452415, USD452116, USD450535, USD448976, USD448242, USD441292, USD438801,

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Abstract:

A resiliently deformable container having at least one discharge orifice equipped with a self-sealing dispensing valve, said valve having a resiliently deformable, concave shaped portion with its perimeter sealingly secured across the container's discharge orifice. The self-sealing valve is secured across the orifice so that it is inwardly concave when the container is in an undeformed condition. The concave shaped portion of the valve includes at least one substantially linear slit extending through the thickness of the valve. The valve requires the attainment of a threshold opening pressure to effect inversion from a concave at rest position in order to dispense the package contents. By providing a container with sufficient flexibility to permit manual deformation and sufficient resilience to return substantially to its undeformed configuration when the externally applied forces are removed, a void volume equivalent to the amount of fluid material discharged from the package is provided inside the container after removal of the applied forces. This aids in closing the self-sealing valve which, after venting the container to the atmosphere, returns to an inwardly concave, sealed position until sufficiently large external forces are again applied to the container to effect inversion of the valve and consequent material discharge.



Title: Spray nozzle
Priority: US19830505384 19830617
Family:

Publication number	Publication date	Application number	Application date
US4530466 A	19850723	US19830505384	19830617

Probable Assignee: TREDEGAR MOLDED PRODUCTS CO

Assignee(s):(std): ETHYL MOLDED PROD

Assignee(s): ETHYL MOLDED PRODUCTS CO ; ETHYL MOLDED PRODUCTS COMPANY ; ETHYL PRODUCTS CO ; TREDEGAR MOLDED PRODUCTS CO

Inventor(s):(std): HOLDER BILLY W ; ROUNKLES RODNEY G

International class (IPC 8-9): B05B11/04 B05B7/10 (Advanced/Invention); B05B11/04 B05B7/02 (Core/Invention)

International class (IPC 1-7): B05B7/32

CPC: B05B7/10 B05B11/043

European class: B05B11/04D1 B05B7/10

US class: 222/211 239/327 239/434

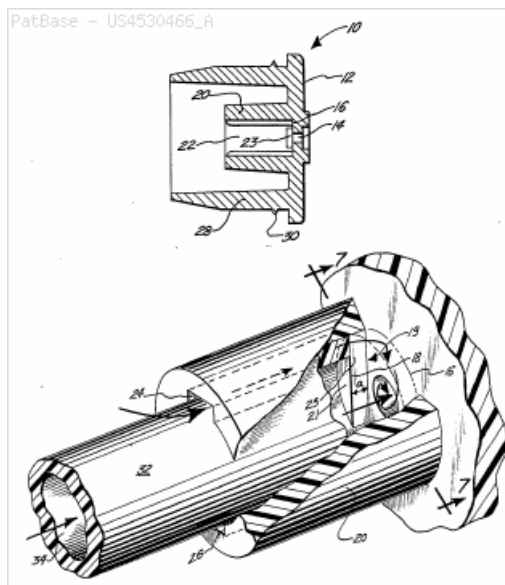
[Classification Explorer](#)

Cited documents: US4122979 A, US3679137 A, US3447551 A, US3176883 A, US2987261 A, US2676060 A, US2571921 A,

Forward Citations: WO05120719, WO04046694, US8167178, US7161674, US7079244, US6398133, US5400923, US5269445, US5114033, US4730751, US2006186899, US2004109386, EP0310569,

Abstract:

This invention relates to a spray nozzle for **fitment** to a "squeeze" container. The nozzle features a gas-liquid mixing chamber which provides for axial and radial mixing of fluids in the container during the dispensing cycle. The spray nozzle of this invention provides a spray dispensing mode even when the container is inverted.

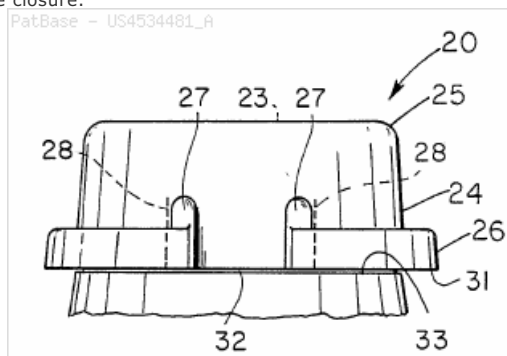


Title: Snap-on, tamper-evident container closure**Priority:** US19840636910 19840802

Family:	Publication number	Publication date	Application number	Application date
	US4534481 A	19850813	US19840636910	19840802

Probable Assignee: RIEKE CORP**Assignee(s):(std):** RIEKE CORP**Assignee(s):** CHASE MANHATTAN BANK COLLATERAL AGENT AS ; MASCOTECH INC ; METALDYNE CORP**Inventor(s):(std):** BAUGHMAN GARY M ; SUMMERS KENNETH L**International class (IPC 8-9):** B65D41/48 (Advanced/Invention);
B65D41/32 (Core/Invention)**International class (IPC 1-7):** B65D41/32 B65D41/48**CPC:** B65D41/48**European class:** B65D41/48**US class:** 215/253 215/255 215/256 215/321[Classification Explorer](#)**Cited documents:** US4326649 A, US4320843 A, US4230229 A, US4227619 A, US4197960 A, US3986627 A, US3976215 A, US3952901 A, US3902621 A, US3866784 A, US3820678 A, US3690499 A, US3462035 A,**Forward Citations:** WO9700210, USD440494, US9649254, US9592936, US9533800, US9321562, US8365940, US8276773, US8272542, US8240492, US8061544, US8047387, US7628283, US7080749, US6116444, US5799813, US5762217, US5292017, US5048706, US4984716, US4834252, US4703864, US2011024381, US2010200534, US2010051652, US2009266834, US2008245763, US2008169263, US2008099424, US2007181526, US2007062944, US2005121451, JP2009078819, GB2182915, GB2182915, EP0833781, EP0775642, AU2004296245,**Abstract:**

A flexible, snap-on closure for use in combination with a container neck in order to seal closed a container in a tamper-evident manner includes a flexible closure having a top surface, a cylindrical side wall, an inwardly protruding annular rib and an inwardly opening annular channel. The container neck is compatibly configured with a top rim defining the container opening and an outwardly opening annular channel disposed below the top rim such that the annular rib is configured to fit within the outwardly opening channel and the inwardly opening annular channel is configured to snugly receive the top rim. The closure further includes a bail handle attached to the side wall by means of two attachment ribs which are integral with the bail handle. The side wall of the closure includes score lines, there being one line on opposite sides of each attachment rib, such that upward lifting on the bail handle which is attached to the side wall by means of three frangible elements, results in the breaking of those frangible elements and the severing of the score lines such that the lower portion of the closure side wall is flared outwardly in order for the closure to be removed from the container neck. The closure has an increased axial height which is sufficient relative to its diameter to prevent removal of the closure without some disruption of the closure.



Title: Multi-functional laundry product and employment of same during fabric laundering

Priority: US19840597127 19840405 US19850689293 19850107 US19860872264 19860609

Family:

Publication number	Publication date	Application number	Application date
AU198540715 A1	19851010	AU19850040715	19850402
EP0157653 A2	19851009	EP19850302408	19850404
EP0157653 A3	19870902	EP19850302408	19850404
JP61000166 A2	19860106	JP19850072462	19850405
US4563186 A	19860107	US19840597127	19840405
US4636328 A	19870113	US19850689293	19850107
US4720351 A	19880119	US19860872264	19860609

Probable Assignee: DAIL CORP

Assignee(s):(std): PUREX CORP ; PUREX CORP LTD

Assignee(s): DAIL CORP ; DIAL CORP ; PUREX A DE CORP CORP

Inventor(s):(std): FLYNN BRIAN P ; EVANS GEORGE D ; WINETZKY DEBORAH S ; JIYOOJI DEII EBUANSU ; DEBORA ESU WAINETSUKII ; BURAIAN PII FURIN

Inventor(s): GEORGE D EVANS ; DEBORAH S WINETZKY ; BRIAN P FLYNN

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD

Designated states: AT BE CH DE FR GB IT LI LU NL SE

International class (IPC 8-9): B65D51/28 B65D81/32 C11D11/00 C11D17/04 (Advanced/Invention); B65D51/24 B65D81/32 C11D11/00 C11D17/04 (Core/Invention)

International class (IPC 1-7): B65D51/28 B65D79/00 B65D81/32 C11D1/14 C11D1/28 C11D17/00 C11D17/04 C11D7/18 D06L3/02 D06M11/04

CPC: B65D51/28 B65D81/32 C11D11/0017 C11D11/0064 C11D17/041

European class: B65D51/28 B65D81/32 C11D11/00B2A C11D11/00B8 C11D17/04B

US class: 206/216 206/219 206/221 206/229 206/568 215/227 215/6 220/23 220/522 252/134 252/174 252/174.13 252/174.25 252/8.6 252/8.8 252/90 252/91 252/92 510/277 510/283 510/284 510/293 510/306 510/308 510/320 510/321 510/322 510/329 510/330 510/441 510/515 8/137 8/147

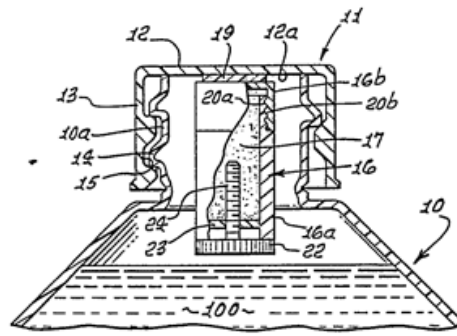
[Classification Explorer](#)

Cited documents: US988031 A, US937049 A, US856064 A, US815883 A, US814503 A, US611008 A, US59338 A, US498875 A, US4524078 A, US4504407 A, US4483439 A, US4386696 A, US4272386 A, US4264007 A, US4250043 A, US4233325 A, US4221291 A, US4206068 A, US4203851 A, US4024952 A, US3986987 A, US3953353 A, US3924741 A, US3896033 A, US3882034 A, US3861870 A, US3840136 A, US3671439 A, US3661789 A, US3658204 A, US360460 A, US3538005 A, US3537898 A, US3413128 A, US3347403 A, US3079022 A, US3061549 A, US3052371 A, US2941689 A, US2629508 A, US2619448 A, US2493922 A, US2491663 A, US2385648 A, US2362223 A, US2352951 A, US2334546 A, US2321998 A, US2310491 A, US2302933 A, US2276678 A, US2086119 A, US2072630 A, US2048219 A, US2031381 A, US2011399 A, US1993978 A, US1922434 A, US1918308 A, US1918307 A, US1913950 A, US1912438 A, US1904777 A, US1875325 A, US180132 A, US1781094 A, US1780728 A, US1742279 A, US1686354 A, US1657312 A, US1609447 A, US1590069 A, US1583038 A, US1489993 A, US14688 A, US1466593 A, US1427820 A, US1337034 A, US1280534 A, US1255772 A, US1127292 A, US1007679 A, US1002293 A, GB996193 A, GB676072 A, GB667535 A, GB370168 A, FR63463 E, FR1046877 A, DE167793 A,

Forward Citations: WO9807638, WO9720980, WO9712024, WO9703240, WO9700738, WO9209737, WO9209736, WO9206174, WO07082567, WO06038026, WO05032685, WO05032685, WO0222772, WO02074658, WO0198449, WO0190475, WO0190294, WO0104261, WO0104260, US9598211, US9574164, US9366468, US9365334, US9238541, US9216843, US8939311, US8915371, US8822399, US8757408, US8469221, US8262741, US8216993, US8192692, US7973003, US7966684, US7962976, US7837741, US7739891, US7695524, US7669726, US7651532, US7614513, US7540376, US7534304, US7531493, US7513132, US7484675, US7328788, US7087437, US6971521, US6846332, US6838423, US6832867, US6769631, US6375041, US6310025, US6145685, US6116440, US6073757, US6047818, US6036017, US6032820, US6024767, US6021903, US6010540, US5997585, US5981459, US5968202, US5951716, US5908473, US5876462, US5872090, US5866524, US5865851, US5806707, US5767055, US5445747, US5388298, US5384060, US5361918, US5355541, US5328069, US5318183, US5288421, US5288420, US5279409, US5145595, US5067623, US5056681, US5050757, US4950083, US4903828, US4897358, US4865189, US4858758, US4848621, US4835804, US4730381, US4709425, US4678103, US4667818, US4606775, US2017028092, US2016257465, US2014360908, US2014183225, US2013263424, US2012172278, US2011309075, US2011278195, US2011220680, US2011089189, US2010294739, US2010240565, US2010059523, US2010051576, US2010050344, US2009266737, US2009172891, US2009114615, US2009020535, US2008245801, US2008189872, US2008164266, US2008083432, US2008011779, US2007215496, US2007051689, US2007045342, US2007003441, US2006286677, US2006260065, US2006115384, US2006115383, US2006110295, US2006058216, US2005224099, US2005222002, US2005150059, US2005096243, US2005096242, US2005092352, US2005092033, US2005091756, US2005091755, US2005087455, US2005087453, US2005072855, US2005071928, US2005059162, US2004163986, US2004117919, US2002166779, US2002077265, US2002056163, GB2432194, GB2432194, GB2388363, GB2362152, GB2307903, GB2263484, GB2263484, EP3011859, EP2128038, EP1600396, EP1317524, EP1283863, EP1078980, EP1069180, EP1069178, EP1069177, EP0843603, EP0687637, EP0176124, EP0176124, DE4418487, DE4418487, AU720040,

Abstract:

The invention relates generally to products useful for home laundering, and more particularly to a product which incorporates a prespotter with a detergent and having one or more of the following separate functions: detergency, fabric softening, stain removal, bleaching, and bluing; with the advantage being that both the detergent and the prespotter are uniquely packaged together as one product, negating the need to purchase and store separate products for each end use function, and also, unavoidably providing presentation of the pre-spotter to the detergent user at the time of laundering. The invention also concerns methods of use of such products during laundering.



Title: ADJUSTABLE STRENGTH LAUNDRY BLEACHING USING A TWO COMPARTMENT PACKAGE

Priority: US19840596669 19840404 US19860834366 19860228

Family:

Publication number	Publication date	Application number	Application date
AU198540760 A1	19851010	AU19850040760	19850403
EP0158508 A2	19851016	EP19850302342	19850403
EP0158508 A3	19870902	EP19850302342	19850403
JP61060477 A2	19860328	JP19850071866	19850404
US4776972 A	19881011	US19860834366	19860228

Probable Assignee: DAIL CORP

Assignee(s):(std): PIYUURETSUKUSU CORP ; PUREX CORP

Assignee(s): PUREX 5101 CLARK AVENUE LAKEWOOD CALIFORNIA A CORP OF DE CORP ; DAIL CORP ; DIAL CORP

Inventor(s):(std): HUDSON JOHN O ; JIYON ETSUCHI BAARETSUTO ; JIYON OO HADOSON ; JIYOOJI DEII EBUANSU ; BARRETT JOHN H ; EVANS GEORGE D

Inventor(s): GEORGE D EVANS ; JOHN H BARRETT ; JOHN O HUDSON

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD

Designated states: AT BE CH DE FR GB IT LI LU NL SE

International class (IPC 8-9): B65D51/28 B65D81/32 C11D17/00 D06F39/02 (Advanced/Invention); C11D17/00 D06F39/02 (Advanced/Non-invention); B65D51/24 B65D81/32 C11D17/00 D06F39/02 (Core/Invention)

International class (IPC 1-7): B65D51/28 B65D79/00 B65D81/32 C11D17/00 C11D17/04 D06F39/02 D06L3/00 D06L3/02 D06L3/06

CPC: Y10S215/08 B65D81/3205 B65D51/28 B65D81/3216 B65D81/3233

European class: B65D51/28 B65D81/32B B65D81/32C B65D81/32D

US class: 206/216 206/219 206/221 206/568 215/10 215/6 215/DIG.8 220/23 220/521 252/186.38 252/89.1 252/90 252/95 252/99 510/277 510/293 510/295 510/309 510/513

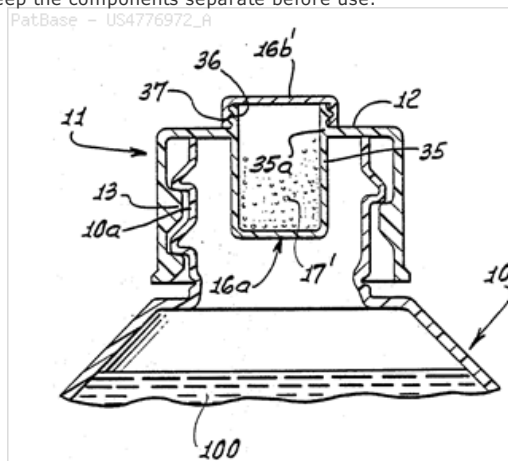
[Classification Explorer](#)

Cited documents: US4269722 A, US4235599 A, US4206068 A, US4116878 A, US4028263 A, US4003841 A, US3968048 A, US3537898 A, US2766796 A, US2629508 A, US2385648 A, US2321998 A, US2072630 A, US1918307 A, US1657312 A, US1466593 A, US1427820 A, GB771889 A, GB676072 A, GB370168 A, FR1046877 A,

Forward Citations: WO9965468, WO07030511, WO06118699, US9908665, US9327876, US9238541, US8915371, US8858650, US8424696, US7540376, US7531493, US7506782, US7328788, US7285522, US7249690, US7175037, US7172086, US6962254, US6929119, US6598762, US6386358, US6164485, US6116440, US6113257, US6109431, US6089389, US6073757, US6045254, US5909753, US5767055, US5735320, US5687588, US5669519, US5607072, US5525299, US5489027, US5489026, US5465835, US5411155, US5384138, US5318183, US5238131, US5135116, US5114011, US5029701, US2015083687, US2014183225, US2013263424, US2011024311, US2010282704, US2010236952, US2009266737, US2009165214, US2009057312, US2008102174, US2008102173, US2008099506, US2008099352, US2008099351, US2006243694, US2006205626, US2006137998, US2006046946, US2006006077, US2005284835, US2005236424, US2005218015, US2005178739, US2005087455, US2005087453, US2005029130, US2003075460, US2002019328, JP62030198, JP1784656, FR2627160, EP2837577, EP2368810, EP0372195, DE4091102, DE102006002864,

Abstract:

The invention relates to products useful for home laundering, and more particularly to adjustable strength bleaching compositions, highly advantageous packaging of such compositions, and a method of bleaching involving the combination of the two. More specifically, the invention concerns a highly practical and saleable laundry aid which can be used both on sensitive fabrics/dyes as an all-fabric safe oxygen bleach, and on less vulnerable fabrics/dyes as a much more effective hypochlorite bleach of potency similar to that of liquid chlorine bleach. The invention is concerned with the use of an alkali metal halide activator with an oxygen bleach which is packaged in a two compartment package to keep the components separate before use.

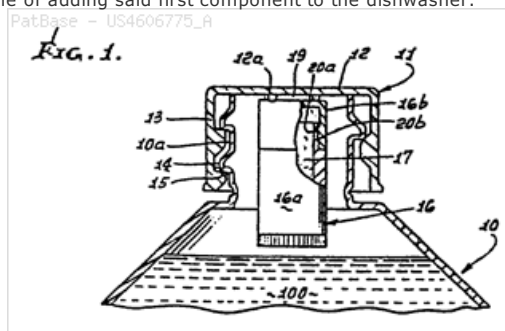


Title: Automatic dishwasher in a dual functioning system**Priority:** US19840597025 19840405

Family:	Publication number	Publication date	Application number	Application date
	AU198540716 A1	19851010	AU19850040716	19850402
	EP0176163 A1	19860402	EP19850302409	19850404
	JP60253427 A2	19851214	JP19850072463	19850405
	US4606775 A	19860819	US19840597025	19840405

Probable Assignee: DAIL CORP**Assignee(s):(std):** PUREX CORP ; PUREX CORP LTD**Assignee(s):** DAIL CORP ; DIAL CORP ; PII ACQUISITIONS INC**Inventor(s):(std):** BOAN WILLIAM J ; EVANS GEORGE D ; JIYOOJI DEII EBUANSU ; ROBINSON RONALD A ; RONARUDO EI ROBINSON ; UIRIAMU JIEI BOUN**Inventor(s):** WILLIAM J BOAN ; RONALD A ROBINSON ; GEORGE D EVANS**Agent(s):** SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD**Designated states:** AT BE CH DE FR GB IT LI LU NL SE**International class (IPC 8-9):** A47L15/44 B65D51/28 C11D11/00 C11D17/04 C11D3/395 (Advanced/Invention); A47L15/44 B65D51/24 C11D11/00 C11D17/04 C11D3/395 (Core/Invention)**International class (IPC 1-7):** A47L15/44 B08B7/04 B65D81/32 C11D17/00 C11D17/04 C11D3/395**CPC:** A47L15/4418 B65D51/28 C11D3/395 C11D11/0035 C11D17/041**European class:** A47L15/44B B65D51/28 C11D11/00B2D4 C11D17/04B C11D3/395**US class:** 134/18 134/25.2 206/219 220/23 220/522 252/90 252/92 510/220 510/439[Classification Explorer](#)**Cited documents:** US4563186 A, US4460490 A, US4418819 A, US4286016 A, US4253842 A, US4123375 A, US3893607 A, US3406695 A, US3306858 A, US2671037 A, US2629508 A, US2493922 A, US2491663 A, US2385648 A, US2321998 A, US1609447 A, JP53028061 B4, JP53014754 B4, JP28005600 Y1, JP27003090 Y1, JP11000163 U1, GB1599245 A, GB1584410 A, FR1368126 A, DE2820318 A1, DE2742683 A1, DE2552506 A1,**Forward Citations:** WO9846718, WO9821114, WO9220774, WO9100226, WO0208370, WO0208370, WO0046341, US8955536, US8920743, US8647567, US8616375, US7858574, US7829516, US7759299, US7638473, US7524803, US7517846, US7452853, US7196045, US7196044, US7135448, US6790817, US6617297, US6455484, US6211129, US6042744, US5612305, US5447648, US5318713, US4893726, US4872466, US4810306, US4667818, US2010242997, US2009266737, US2009088357, US2009038649, US2008269098, US2008020960, US2007149431, US2006270580, US2006059961, US2005227901, US2005020464, US2005003979, US2004266651, JP6236315, JP2015124358, GB2417250, FR2649077, EP1026230, EP0975730, EP0938433, EP0561446, AU745509,**Abstract:**

The method of washing articles in an automatic dishwasher includes the steps: (a) providing a first volume of a first treating component for use in the dishwasher, (b) providing a second volume of a second treating component in close transported association with the first volume, but isolated therefrom, for presentation at the time of use of said first component, (c) one of said first and second components consisting essentially of nonionic surfactant, and the other of said first and second components consisting essentially of chlorine release agent, and (d) separating some of said second component from said close association with the first component and employing same in the dishwasher at the time of adding said first component to the dishwasher.

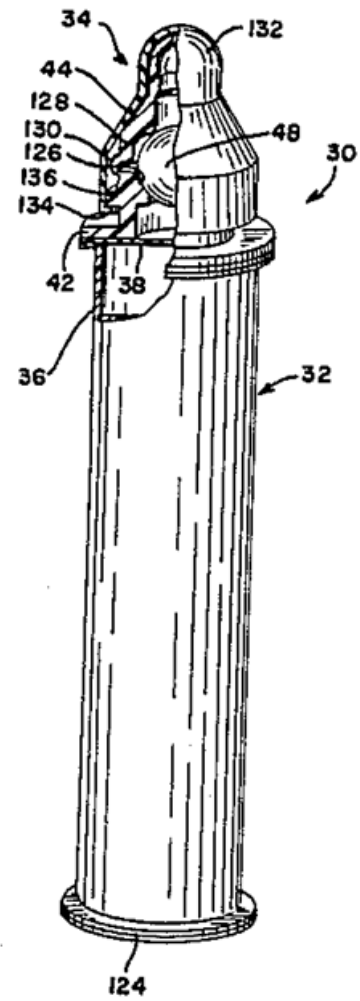


Title: Self-opening nipple construction and nursing container**Priority:** US19840599305 19840412 US19860840523 19860313

Family:	Publication number	Publication date	Application number	Application date
	EP0176568 A1	19860409	EP19850901886	19850405
	US4640424 A	19870203	US19860840523	19860313
	WO8504573 A1	19851024	WO1985US00578	19850405
	ZA8502696 A	19851224	ZA19850002696	19850411

Probable Assignee: BAXTER TRAVENOL LAB**Assignee(s):(std):** BAXTER TRAVENOL LAB**Assignee(s):** BAXTER TRAVENOL LABORATORIES INC**Inventor(s):(std):** LEONARD A WHITE ; WHITE LEONARD A**Designated states:** AT BE CH DE FR GB IT JP LI LU NL SE**International class** A61J11/00 A61J9/00 B65D51/22 (Advanced/Invention);**(IPC 8-9):** A61J11/00 A61J9/00 B65D51/18 (Core/Invention)**International class** A61J11/00 A61J9/00 A61J9/08 B65D41/56 B65D51/22
(IPC 1-7):**CPC:** A61J9/005 A61J11/0095 B65D51/226 B65D2251/0025 B65D2251/0056 B65D2251/0093 A61J9/00**European class:** A61J11/00Z6 A61J9/00 A61J9/00C B65D51/22 B65D51/22A3 L65D251/00Y2J L65D251/00Y4J
L65D251/00Y6M**US class:** 206/603 215/11.1 215/11.4 215/11C 215/11R 222/490 222/541 222/541.2 222/83 426/115 426/117[Classification Explorer](#)**Cited documents:** US4412623 A, US4247001 A, US4238040 A, US3952897 A, US3838784 A, US3779413 A, US3747791 A, US3687076 A, US3635724 A, US3519157 A, US3439824 A, US3334764 A, US3266910 A, US3220588 A, US3187918 A, US3146904 A, US3138278 A, US3113569 A, US2960088 A, US2616581 A, US2493380 A, US2487236 A, GB1335381 A, GB1323928 A, CA909723 A, CA622306 A,**Forward Citations:** WO11157393, USRE45194, US9730861, US9717656, US8770450, US8685347, US8597235, US8545439, US8070014, US8057762, US8052944, US7824922, US7691332, US7294308, US7204380, US7073674, US7032764, US6893612, US6737091, US6543611, US6513650, US6422415, US6293431, US6223940, US6112919, US6045004, US6039207, US5890621, US5354274, US5176561, US4946062, US4898291, US4836404, US2011284402, US2011095059, US2010270322, US2010190215, US2009208966, US2009050648, US2009008287, US2006226109, US2006157437, US2005220943, US2005079633, US2005072788, US2005053698, US2004210253, US2004040972, US2004035815, US2002127147, GB2472129, GB2472129, EP1145983, EP0747294, DE202010011158, DE102010024873,**Abstract:**

A nipple assembly is disclosed for attachment to sealed nursing containers which includes accessing means for accessing the container contents by manipulating the nipple assembly. In one embodiment, the accessing means is disposed within a flexible nipple and is movable to pierce the container wall upon lateral compression or squeezing of the nipple. Other embodiments access the container contents by axially compressing or rotating the nipple assembly. Protective covers for the nipple assemblies are disclosed which cooperate to permit the particular manual manipulation needed to access the contents without direct human contact with the nipple surface. Also shown are particular features of a flexible container to which the nipple assemblies may be attached.



Title: Combination container with membrane sealed finish and tamper-indicating dispensing closure

Priority: US19840669483 19841108 CA19850491350 19850923

Family:	Publication number	Publication date	Application number	Application date
	CA1236795 A1	19880517	CA19850491350	19850923
	DE3535520 A1	19860507	DE19853535520	19851004
	DE3535520 C2	19880623	DE19853535520	19851004
	GB2166718 A1	19860514	GB19850027407	19851107
	GB2166718 B2	19880901	GB19850027407	19851107
	US4583665 A	19860422	US19840669483	19841108

Probable Assignee: OWENS ILLINOIS CLOSURE INC

Assignee(s):(std): OWENS ILLINOIS INC

Assignee(s): OWENS ILLINOIS INC A CORP OF OHIO ; OWENS ILLINOIS INC TOLEDO OHIO US ; BARRIAC JACQUES J ; OWENS ILLINOIS CLOSURE INC

Inventor(s):(std): BARRIAC JACQUES J ; BARRIAC JACQUES JEAN

Inventor(s): JACQUES JEAN BARRIAC ; JEAN BARRIAC JACQUES ; BARRIAC JACQUES JEAN TOLEDO OHIO US

Agent(s): GOWLING LAFLEUR HENDERSON LLP

International class B65D47/28 B65D51/22 B65D55/08 B67B7/86 (Advanced/Invention);
(IPC 8-9): B65D47/04 B65D51/18 B65D55/02 (Core/Invention)

International class B65D47/10 B65D47/26 B65D51/20 B65D51/22 B67B7/86 G03G15/047 G03G21/00
(IPC 1-7):

CPC: B65D47/286 B65D51/225 B65D55/089 B65D2251/0015 B65D2251/0025 B65D2251/0093

European class: B65D47/28D B65D51/22 B65D51/22A1F B65D55/08F L65D251/00Y2D L65D251/00Y2J L65D251/00Y6M

US class: 215/232 215/249 215/351 222/153 222/153.06 222/541 222/541.2 222/83 222/91

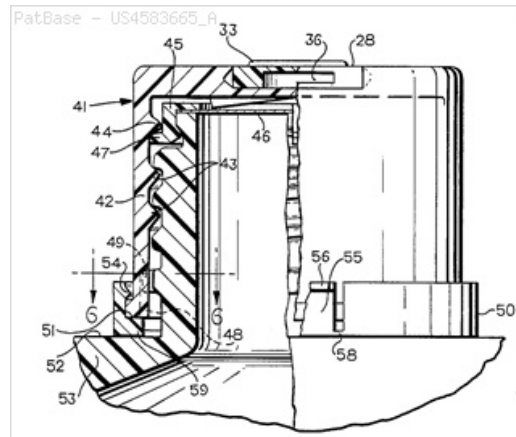
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Cited documents: US4418834 A, US4396655 A, US4390552 A, US4307821 A, US4234103 A, US3928109 A, US3182858 A, GB367366 A, GB2017063 A1, DE1250338 B,

Forward Citations: WO08048406, US8939328, US8845602, US8650839, US8251236, US8100277, US8070014, US7798359, US7780024, US7766178, US7743952, US7644902, US6948630, US6886716, US6758376, US6427881, US6056142, US6045004, US6003728, US5992668, US5927549, US5927532, US5891380, US5853109, US5687885, US5549389, US5255813, US5248054, US5236108, US4925068, US4760941, US2011056995, US2009050648, US2008141454, US2008093396, US2007125785, US2004245279, US2004200855, US2003116522, TWI535493, GB2316397, GB2316397, GB2300628, GB2300628, GB2284192, FR2622546, FR2615828, EP0613833, EP0530677, EP0344357, EP0339939, EP0339939, EP0293290, EP0264257, EP0264257, CN104169185, CN104169185, AU2009244603,

Abstract:

A tamper-indicating closure system used with a container that has a sealing disc over the neck of the container. The closure threads onto the container neck but is held against threading down below a predetermined level by a rupturable tear band between the bottom of the closure and the shoulder of the container. A pourout dispenser feature is incorporated in the closure and after the tear band is removed, the continued threading-on of the closure will cause a member in the closure to rupture the sealing disc and the contents of the container can be poured therefrom through the closure. If the tear band is intact, tampering has not occurred.

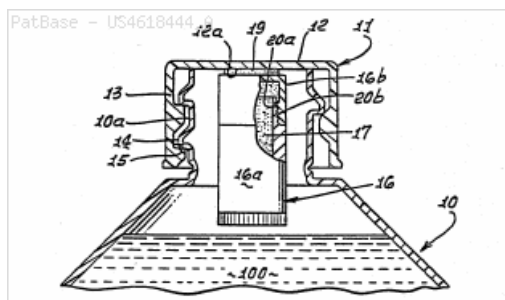


Title: Household laundry detergent with dual strength bleach**Priority:** US19840651579 19840917

Family:	Publication number	Publication date	Application number	Application date
	US4618444 A	19861021	US19840651579	19840917

Probable Assignee: PUREX CORP**Assignee(s):(std):** PUREX CORP**Inventor(s):(std):** BARRETT JOHN ; HUDSON JOHN O ; SCHLEIEN MICKEY M**International class (IPC 8-9):** C11D17/04 C11D3/39 (Advanced/Invention);
C11D17/04 C11D3/39 (Core/Invention)**International class (IPC 1-7):** C11D17/00**CPC:** C11D3/3932 C11D17/041**European class:** C11D17/04B C11D3/39B2F**US class:** 206/219 215/227 215/6 220/23 220/522 252/186.26 252/186.27 252/92 510/108 510/277 510/298 510/305 510/306 510/309 8/111 8/137[Classification Explorer](#)**Cited documents:** US4505407 A, US4428749 A, US4387809 A, US4319614 A, US4294397 A, US4286711 A, US4264007 A, US4235343 A, US4196808 A, US4123376 A, US4116878 A, US4114784 A, US4028263 A, US4024952 A, US3904058 A, US3901386 A, US3893280 A, US3870147 A, US3840136 A, US3797646 A, US3768688 A, US3732999 A, US3616897 A, US3581927 A, US3567105 A, US3458446 A, US3347403 A, US3311226 A, US3307687 A, US3241738 A, US3195719 A, US3128878 A, US3095109 A, US3079022 A, US2985289 A, US2979193 A, US2941689 A, US2896810 A, US2781141 A, US2766796 A, US2619448 A, US2493922 A, US2352951 A, US2334546 A, US2310491 A, US2302933 A, US2250666 A, US2086119 A, US2048219 A, US2011399 A, US1657312 A, US1466593 A, FR1568919 A, DE2525878 A1, DE1269992 B,**Forward Citations:** WO9846718, WO9733567, WO9701486, WO06010889, WO0009094, WO0009094, US9752105, US9670434, US9023784, US8987331, US8915371, US8871699, US8789716, US8716339, US8479936, US8469221, US8464910, US8328032, US7798358, US7669726, US7638470, US7614513, US7531493, US7159741, US6598762, US6412526, US6390292, US6386778, US6363978, US6263923, US6250346, US6047818, US6042744, US6024954, US5817337, US5786317, US5741520, US5736165, US5648074, US5424078, US5361918, US5338480, US5336434, US5324447, US5318183, US5306440, US5270002, US5197636, US4808236, US4709425, US2013263424, US2011303561, US2011278195, US2011089189, US2010230375, US2010143496, US2010116346, US2010025399, US2009324746, US2009266737, US2009180923, US2008261848, US2008245801, US2008164266, US2008087668, US2007161539, US2007051689, US2007045342, US2006178289, US2006102202, US2006086738, US2006058216, US2006019865, US2005229951, US2005167296, US2005067414, US2005013763, US2002019328, EP2157161, EP0975730, DE10039987, BG64923, AU2005266182,**Abstract:**

The invention relates generally to products useful for home laundering, and more particularly to adjustable strength bleaching compositions, highly advantageous packaging of such compositions, and a method of bleaching involving the combination of the two. More specifically the invention relates to a home laundering composition containing a fabric-safe peroxygen bleach and an accompanying bleach activator system providing a convenient and effective means of achieving stronger bleaching action whenever desirable.



Title:	APPLICATOR ASSEMBLY																																																			
Priority:	US19860837535 19860310 US19910780544 19911022		CA19870530818 19870227 US19880246457 19880919																																																	
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Probable Assignee:	WEST PHARMACEUTICAL SERVICES INC																																																			
Assignee(s):(std):	WEST CO ; WIMMER PHARMA GUMMI GMBH ; WATERS WILLIAM E																																																			
Assignee(s):	WEST PHARMACEUTICAL SERVICES INC ; WEST CO INC ; WALTERS RALPH G ; FRIEDRICH PETER ; HARMAN ARLINGTON R JR ; PHARMA GUMMI WIMMER WEST GMBH ; PHARMA GUMMI WIMMER WEST GMBH FA ; VOYTILLA JOSEPH M																																																			
Inventor(s):(std):	FRIEDRICH PETER ; HARMAN ARLINGTON R ; HARMAN ARLINGTON R JR ; HARMAN JR ARLINGTON R ; PETER FRIEDRICH ; VOYTILLA JOSEPH M ; WALTERS RALPH G ; WATERS WILLIAM E																																																			
Agent(s):	BORDEN LADNER GERVAIS LLP																																																			
Designated states:	AT BE CH DE ES FR GB IT LI NL SE																																																			
International class (IPC 8-9):	B05C17/00 G01F11/28 (Advanced/Invention); G01F11/00 (Core/Invention)																																																			
International class (IPC 1-7):	A45D34/00 A61M35/00 B05C11/11 B05C17/00 B65D35/40 B65D47/00 B65D47/20 B65D47/42 G01F																																																			
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Abstract:

Applicator assembly comprising a container for liquids having a bottom wall member, a cap member having means for detachably securing it over a discharge opening in the container. An upstanding wall and a bottom wall having an upstanding post member having an opening communicating with the interior of the container define a measuring chamber for a predetermined measured quantity of the liquid with a cylindrical wall portion of the cap member. An elongated tubular member is mounted in the opening in the post member extending downwardly into the container adjacent the lowest portion of the bottom wall member. A valve seat plate member is mounted at the open end of the cylindrical wall portion and has a wall portion terminating in a valve opening which is tapered towards the valve opening and functions as a funnel during discharge of contents to ensure complete transfer from the measuring chamber to a dispensing chamber above the measuring chamber. A flexible dauber having outlet holes is mounted over the outer end of the valve seat plate member and having a depending valve element biased solely by the dauber to normally seal the valve opening therein. The valve member is actuatable inwardly by pressure to overcome the bias of the dauber to permit flow of fluid from the measuring chamber to an enclosed dispensing chamber defined by dauber and valve seat plate member.

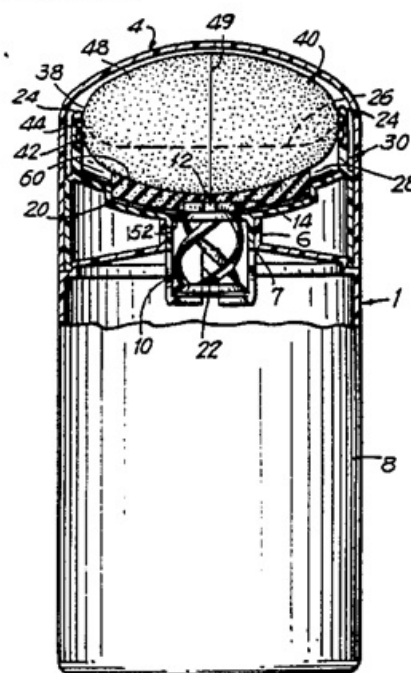
Title: Spring-loaded oval roller dispensing package**Priority:** US19850723118 19850415 US19860886593 19860716

Family:	Publication number	Publication date	Application number	Application date
	GB2195585 A1	19880413	GB19870016537	19870714
	GB8716537 A0	19870819	GB19870016537	19870714
	US4723860 A	19880209	US19860886593	19860716

Probable Assignee: LEVER BROTHERS LTD**Assignee(s):(std):** LEVER BROTHERS LTD ; UNILEVER PLC**Assignee(s):** LEVER BROTHERS COMPANY**Inventor(s):(std):** GIBLIN EDWARD J ; GIBLIN SUSAN B ; GIBLING SUSAN B ; GIBLING EDWARD J**Inventor(s):** SUSAN B GIBLING ; EDWARD J GIBLING**International class**
(IPC 8-9): A45D34/04 (Advanced/Invention)**International class**
(IPC 1-7): A45D34/04 B05C17/02 B43K1/08**CPC:** A45D34/041 A45D2200/1018**European class:** A45D34/04B K45D200/10B2**US class:** 401/206 401/208 401/214 401/219 401/220[Classification Explorer](#)**Cited documents:** US554189 A, US4281779 A, US4168128 A, US4150904 A, US4143668 A, US3379490 A, US3263265 A, US3235900 A, US3203026 A, US3134131 A, US3095598 A, US3075230 A, US3069718 A, US3039732 A, GB496670 A, FR962771 A, DE208946 A,**Forward Citations:** WO9734706, WO9513046, WO16209638, WO02051283, WO0018589, USD727422, USD726957, USD439700, USD423713, US9955766, US9877564, US8974134, US8591134, US8382727, US7596974, US7422389, US7396179, US7344328, US7293930, US6857806, US6729788, US6715326, US6682244, US6386782, US6155736, US6053650, US6042289, US6001181, US5843413, US5810495, US5678940, US5586694, US5526960, US5417505, US5213431, US5116156, US5051016, US2016249727, US2011280647, US2011211902, US2011182652, US2010116213, US2007217859, US2006222445, US2006045609, US2004129284, US2004091303, US2003031500, ITTO20100331, FR2952512, FR2640590, EP2361526, EP1190640, EP0374049, EP0363137, DE10047448, CN105856901, CN105774303, CN103569484, CN103569484, CN102821647, CN102821647,**Abstract:**

A dispensing package is provided for delivery of liquids such as antiperspirants. The package has a **fitment** mounted upon a container holding liquid product. Within the **fitment** is a socket cradling an oval roller. At either ends of the socket are a pair of arms which communicate with the ends of the oval through a movement means permitting the oval to travel vertically within the socket. A spring with one or more upward protruding spuds is thrust from below through a floor base aperture and presses against the oval roller. Normally the spring pushes the spud through the aperture to seal the container. When the roller is pressed against a treating surface, e.g. skin, the roller pushes downward upon the spud thereby opening the floor base aperture permitting product to exit the container and be spread by the roller onto treatment surfaces.

PatBase - US4723860_A



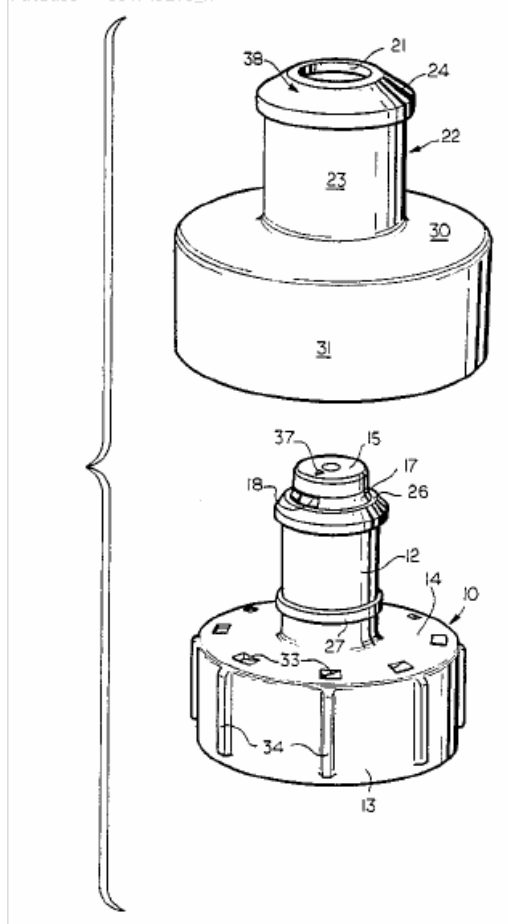
Title: Child resistant dispensing closure system**Priority:** US19870001614 19870108

Family:	Publication number	Publication date	Application number	Application date
	US4749103 A	19880607	US19870001614	19870108

Probable Assignee: OWENS ILLINOIS CLOSURE INC**Assignee(s):(std):** OWENS ILLINOIS CLOSURE INC**Assignee(s):** OWENS ILLINOIS INC ; OWENS ILLINOIS INC A CORP OF OH**Inventor(s):(std):** BARRIAC JACQUES J**International class**
(IPC 8-9): B65D47/24 B65D50/06 (Advanced/Invention);
B65D47/04 B65D50/00 (Core/Invention)**CPC:** B65D47/243 B65D50/061**European class:** B65D47/24A2 B65D50/06B**US class:** 222/153 222/153.14 222/48 222/525[Classification Explorer](#)**Cited documents:** US4479589 A, US4420096 A, US4162746 A, US4065037 A, US4020981 A, US3782574 A, US3777936 A, US3599845 A, US3559832 A, US3305127 A, US3032240 A, FR913033 A,**Forward Citations:** WO9852862, WO9620889, WO09111474, WO09111474, WO04092032, USD419447, US8523024, US8512313, US8292101, US8109396, US8025183, US7861873, US7815061, US7686194, US7228979, US7143911, US7143911, US6913244, US6871764, US6866164, US6698605, US6568566, US6085947, US6073809, US6039218, US5890633, US5862953, US5850951, US5699924, US5507416, US5465876, US5261567, US5097990, US2011204099, US2011106060, US2011049195, US2008164282, US2007138179, US2006283896, US2006226173, US2005040190, US2004129741, US2003222103, US2003035866, FR2768131, AU732886,**Abstract:**

A child resistant dispensing closure having a pourout style spout that is telescopically mounted on a cylindrical extension of the closure. The closure is described with two embodiments of a push-pull spout. In both cases the closure threads onto a container finish and a pourout spout of the push-pull type is mounted on a cylindrical extension of the closure. The closure extension has a side opening adjacent the closed upper end through which the contents may be dispensed. The spout effectively closes the opening when in assembled form. Interengaging beads and lugs formed on the exterior of said closure and interior of said spout define the only relative rotational position that permits the spout being pulled up on the closure to uncover the opening therein. The proper rotational position is indicated when indicia on the spout and closure are aligned.

PatBase - US4749103_A



Title: Bimodal storage and dispensing package including self-sealing dispensing valve to provide automatic shut-off and leak-resistant inverted storage

Priority: US19860944632 19861219 US19870109663 19871015 EP19870202497 19871214
EP19870202497 19871214 EP19870202497 19871214 CA19870554807 19871218

Family:	Publication number	Publication date	Application number	Application date
	AT78228 E	19920815	AT19870202497T	19871214
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	TR24274 A	19910729	TR19870000005	19871221
	US4749108 A	19880607	US19870109663	19871015

Probable Assignee: OWENS ILLINOIS CLOSURE INC

Assignee(s):(std): PROCTER AND GAMBLE ; DORNBUSCH ARTHUR H

Assignee(s): DROBISH JAMES L ; OWENS ILLINOIS CLOSURE INC ; BLAUT ROBERT W ; PROCTER AND GAMBLE CO ; THE PROCTER AND GAMBLE COMPANY ; PROCTER AND GAMBLE COMPANY THE ; THE PROCTER AND GAMBLE CO ; THE PROCTER AND GAMBLE CO CINCINNATI OHIO US ; PROCTER AND GAMBLE CO THE ; TASKE LEO E ; SCHANZLE ROGER E

Inventor(s):(std): AASAA HARORUDO DOONBUTSUSHIYU ; BLAUT R W ; BLAUT ROBERT WILLIAM ; DORNBUSCH A H ; DORNBUSCH ARTHUR HAROLD ; DORNBUSCH ARTHUR H ; DROBISH JAMES LEE ; DROBISH J L ; DROBISH JAMES LEE ; EDWARD TASKE LEO ; EVAN SCHANZLE ROGER ; HAROLD DORNBUSCH ARTHUR ; JIEEMUZU RII DROBISHIYU ; LEE DROBISH JAMES ; REO EDOWAADO TASUKU ; ROBAATO UIRIAMU BURAUTO ; WILLIAM BLAUT ROBERT ; TASKE LEO E ; SCHANZLE ROGER E ; ROGER EVAN SCHANZLE ; LEO EDWARD TASKE ; JAMES LEE DROBISH ; DROBISH JAMES L ; DORNBUSCH ARTHUR H ; BLAUT ROBERT W ; ARTHUR HAROLD DORNBUSCH ; ROJIYAA EBAN SHIYANZURU ; SCHANZLE R E ; SCHANZLE ROGER EVAN ; TASKE L E ; TASKE LEO EDWARD

Inventor(s): TASKE LEO EDWARD CINCINNATI OHIO 45247 US ; SCHANZLE ROGER EVAN CINCINNATI OHIO 45242 US ; ROBERT WILLIAM BLAUT ; DROBISH JAMES LEE CINCINNATI OHIO 45215 US ; DORNBUSCH ARTHUR HAROLD CINCINNATI OHIO 45211 US

Agent(s): PHILLIPS ORMONDE FITZPATRICK; KIRBY EADES GALE BAKER

Designated states: AT BE CH DE ES FR GB GR IT LI LU NL SE

International class (IPC 8-9): B65D1/32 B65D23/00 B65D35/48 B65D35/52 B65D47/06 B65D47/08 B65D47/20 B65D47/44 B65D5/40 B65D85/72 (Advanced/Invention); B65D47/06 (Advanced/Non-invention); B65D1/00 B65D23/00 B65D35/00 B65D47/00 B65D47/04 B65D47/06 B65D47/08 B65D5/00 B65D85/72 (Core/Invention); B65D (Subclass/Invention)

International class (IPC 1-7): A47K5/122 A61K31/485 A61K9/00 A61L15/14 B65BA B65D1/32 B65D35/48 B65D35/50 B65D35/52 B65D41/62 B65D47/04 B65D47/06 B65D47/20 B65D47/44 B65D5/40 B65D5/72 B65D65/00 B65D85/72 B67D3/04 F16K21/04 F16K7/12

CPC: B65D47/043 B65D23/00 B65D47/0885 B65D47/2031

European class: B65D23/00 B65D47/04A B65D47/08D4C1 B65D47/20E2

US class: 222/212 222/490 222/494 222/545 222/556

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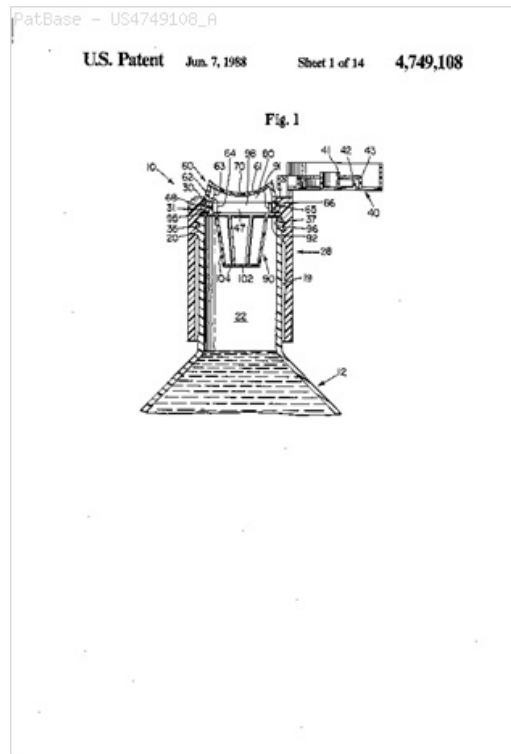
Cited documents: US4660747 A, US4646945 A, US4600131 A, US4580701 A, US4565306 A, US4564130 A, US4533069 A, US4519530 A, US4474313 A, US4457454 A, US4433800 A, US4420101 A, US4408702 A, US4356935 A, US4349134 A, US4314658 A, US4241855 A, US4226342 A, US4139124 A, US4133457 A, US4124150 A, US4096597 A, US3980211 A, US3893593 A, US3884394 A, US3822811 A, US3693847 A, US3693843 A, US3674183 A, US3669323 A, US3618825 A, US3445042 A, US3418055 A, US3273754 A, US3258175 A, US3241726 A, US3182694 A, US3091373 A, US3067787 A, US3016172 A, US3012698 A, US3007614 A, US2957501 A, US2942762 A, US2753091 A, US2743852 A, US2718987 A, US2688979 A, US2684789 A, US2670757 A, US2625306 A, US2611515 A, US2571010 A, US2441649 A, US2193517 A, US2176513 A, US2175052 A, US2098799 A, US1989715 A, US1989714 A, US1989145 A, US1825553 A, US1242654 A, US1206661 A, SU145824 T, JP61033927 A2, GB764928 A, GB2158049 A1, GB2098958 A1, GB1046518 A, FR996998 A, EP0160336 A2, DE969571 A, DE1486403 A1,

Forward Citations:

WO9838102, WO9818565, WO9731837, WO9730905, WO9534500, WO9400363, WO9204244, WO16057623, WO15175663, WO12177623, WO09130723, WO07015752, WO07015752, WO03028898, WO03002417, WO0132552, USRE39520, USD817175, USD768490, USD738732, USD720622, USD629685, USD621260, USD463216, USD452415, USD452116, USD450535, USD448976, USD448242, USD441292, USD438801, USD426464, US9833799, US9598209, US9580214, US8844767, US8794489, US8777505, US8678249, US8608034, US8505188, US8469241, US8397957, US8336745, US8316890, US8302824, US8087547, US8038041, US7980432, US7861393, US7731066, US7628297, US7503469, US7500582, US7299952, US7255250, US7152763, US7147121, US7077296, US7041246, US6910607, US6786363, US6766915, US6726063, US6705492, US6673295, US6672487, US6530504, US6427874, US6422415, US6405901, US6293437, US6283317, US6279783, US6273296, US6269837, US6230940, US6131806, US6116457, US6112951, US6102245, US6095382, US6089419, US6089418, US6089411, US6079594, US6065642, US6056142, US6050451, US6050435, US6045004, US6039224, US6006960, US6003728, US5992668, US5950878, US5927567, US5927566, US5927549, US5897033, US5894967, US5890621, US5853109, US5842618, US5839614, US5819984, US5743443, US5680969, US5667107, US5642860, US5632420, US5626262, US5531363, US5439143, US5409144, US5390805, US5377877, US5346108, US5339995, US5328058, US5307955, US5246145, US5213236, US5115950, US5074440, US5033655, US5018646, US5012956, US5005737, US4991745, US4969581, US4925055, US2016052695, US2013326996, US2013274693, US2013020327, US2011163134, US2010206916, US2010116371, US2009314856, US2009314792, US2009212078, US2008054027, US2008029548, US2007289651, US2007251079, US2007029352, US2007023462, US2006201976, US2006037975, US2006006203, US2006006202, US2005279781, US2005269373, US2005115984, US2004195253, US2004118858, US2004036195, JP6048455, JP5938256, JP5938255, JP3464164, JP3444914, JP3423636, JP3307892, JP2013209151, JP2013177196, JP11292162, JP11278560, JP11278505, FR2768130, FR2768129, FR2745552, FR2666308, EP2422644, EP2074052, EP1497192, EP1273525, EP1078863, EP0994037, EP0903301, EP0863343, EP0824469, EP0794127, EP0794126, EP0713832, EP0555623, EP0545678, EP0495440, EP0495435, EP0442379, EP0412390, CZ301127, CN102123921, AU766739, AU712818, AU700130, AU685616, AU659047, AU646916, AU642800, AU626444, AU621021, AU2006276269,

Abstract:

A flexible storage and dispensing package for fluid material. The package has a first mode of operation capable of storing the fluid material without leakage when the package is subjected to unintentional external forces and a second mode of operation capable of dispensing the fluid material when the package is subjected to external forces intentionally applied by the user. The second mode of operation is capable of dispensing the fluid material through a discharge orifice in response to manually applied forces and of automatically ceasing the dispensing operation when the manually applied forces are removed. The package is also resistant to leakage in the second mode of operation when stored with its discharge orifice downwardly oriented intermediate dispensing cycles.

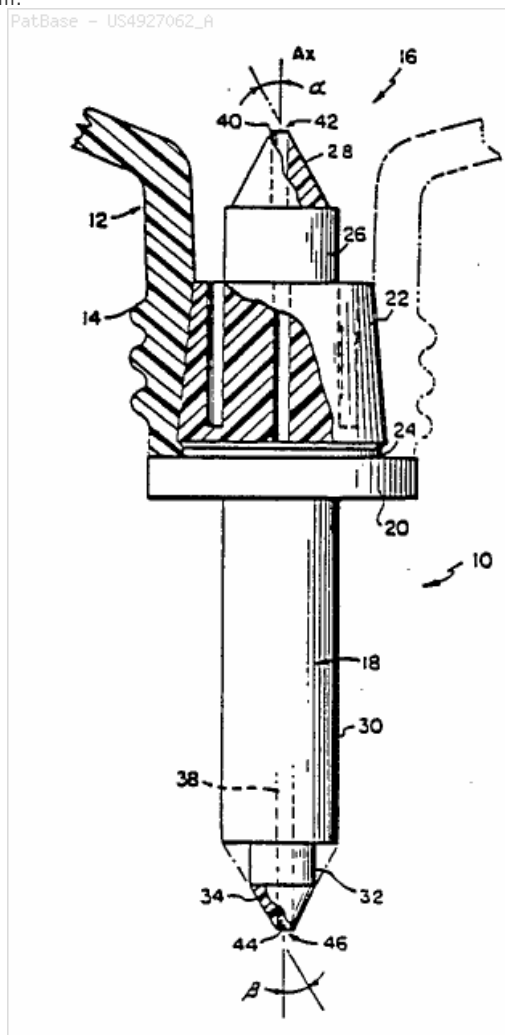


Title: Precision micro-liter drop dispenser**Priority:** US19880247864 19880922

Family:	Publication number	Publication date	Application number	Application date
	US4927062 A	19900522	US19880247864	19880922

Probable Assignee: WALSH JAMES W**Assignee(s):(std):** WALSH JAMES W**Inventor(s):(std):** WALSH JAMES W**International class**
(IPC 1-7): B65D47/18**CPC:** B01L3/0272 B65D47/18**European class:** B01L3/02D12 B65D47/18**US class:** 222/211 222/420 422/930 604/295[Classification Explorer](#)**Cited documents:** US4498609 A, US4408699 A, US4234103 A, US4030640 A, US3921460 A, US3788528 A, US3308999 A, US3233785 A, US3186450 A, US2987223 A, US2896237 A, US2734665 A, US2706582 A, US2540360 A, US2522832 A, US2363474 A, US1153810 A, GB521237 A, DE2355057 A1, DE2039964 A1,**Forward Citations:** WO9310852, USRE37047, US9610192, US9549847, US9087145, US8936021, US8734408, US8733935, US8684980, US8545463, US8252234, US8246589, US8122849, US8101244, US8012136, US7883031, US7846140, US7758553, US7563256, US6869421, US6506890, US6463879, US6281005, US6129248, US5944702, US5875931, US5685869, US5613957, US5578020, US5514118, US5431314, US5411175, US5320845, US5269445, US5249711, US5163929, US2017295904, US2010286634, US2010286633, US2010022971, US2007233021, US2007233020, US2006243696, US2006116649, US2006081726, US2006032873, US2006017916, US2006016830, US2006002986, US2006002594, US2006001866, US2006000470, US2004111070, JP4796307, JP2006213350, EP2004271, EP0741297,**Abstract:**

The present invention provides a dropper tip suitable for dispensing small-volume droplets of fluid with a minimum drop-to-drop volumetric variation. The dropper tip includes a minimum-surface dispensing tip and a similar minimum-surface interior configuration that minimizes the surface area available at the entry port of the dispenser tip for the aggregation or adhesion of bubbles. In the preferred embodiment, the minimum-surface configuration allows for uniform drop formation at the tip whether or not the dropper is in a vertically inverted or inclined position when dispensing. The interior configuration likewise minimizes the surface area available for air bubbles to congregate or adhere and thereby minimizes the probability of an air bubble reentering the dropper tip when dispensing the second or subsequent drop. A cap effects sealing on a surface other than the tip so that repeated capping and uncapping will not degrade the minimum-surface rim.



Title:

UNIT DOSE PACKAGE

Priority:

US19890299489 19890123 AU19900049761 19900214 EP19900102893 19900214

Family:

Publication number	Publication date	Application number	Application date
AU199049761 A1	19910815	AU19900049761	19900214
AU640629 B2	19930902	AU19900049761	19900214
EP0442007 A1	19910821	EP19900102893	19900214
US5000314 A	19910319	US19890299489	19890123

Probable Assignee:

BRISTOL MYERS SQUIBB CO

Assignee(s):(std):

BRISTOL MYERS CO ; SQUIBB BRISTOL MYERS CO

Assignee(s):

BRISTOL MYERS COMPANY ; BRISTOL MYERS SQUIBB CO ; BRISTOL MYERS SQUIBB COMPANY

Inventor(s):(std):

FULLER RONALD C ; TAO MICHAEL C

Inventor(s):

MICHAEL C TAO ; RONALD C FULLER

Agent(s):

PHILLIPS ORMONDE FITZPATRICK

Designated states:

AT BE CH DE DK ES FR GB GR IT LI LU NL SE

International class (IPC 8-9):

A61J1/00 A61J1/20 A61J9/00 B65D51/20 B65D81/32 (Advanced/Invention);
A61J1/00 A61J1/20 A61J9/00 (Advanced/Non-invention);
B65D51/18 B65D81/32 (Core/Invention);
A61J1/00 A61J1/14 A61J9/00 (Core/Non-invention)

International class (IPC 1-7):

B65D25/08 B65D81/32 B65D83/06

CPC:

Y10S215/08 B65D81/3205 A61J1/2093 A61J9/00 B65D51/20 B65D2251/0018 B65D2251/0093
A61J1/2031

European class:

B65D51/20 B65D81/32B K61J1/00M4 K61J1/20A4C K61J1/20D K61J9/00 L65D251/00Y2F
L65D251/00Y6M

US class:

206/219 206/221 215/DIG.8

Classification Explorer

Cited documents:

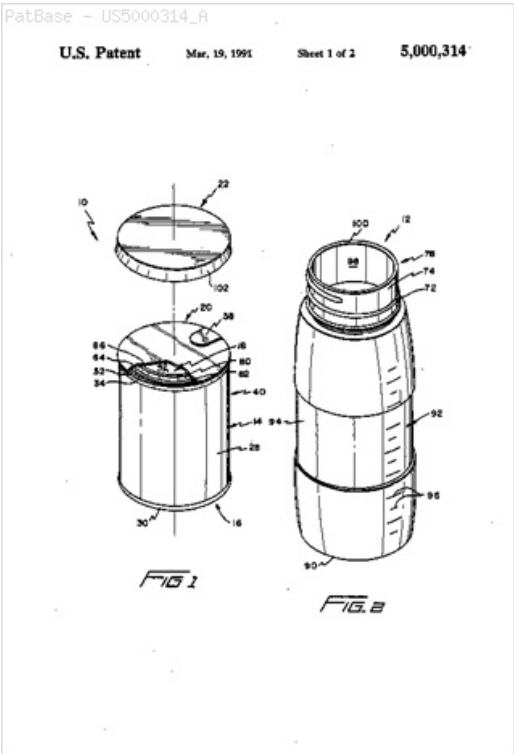
USRE29916 E, US4846342 A, US4818114 A, US4762224 A, US4757916 A, US4702390 A, US4693366 A, US4614437 A, US4264007 A, US4196841 A, US4157147 A, US3924741 A, US3891125 A, US3888224 A, US3802604 A, US3796813 A, US3796337 A, US3720524 A, US3720522 A, US3489306 A, US3281008 A, US3156369 A, US3039601 A, US2876113 A, US2784949 A, US1960858 A, US1731847 A, US1064442 A, FR2142762 A1, EP0230273 A2, AU7924087 A1, AU558973 B2, AU426828 B2, AU138016 A1,

Forward Citations:

WO9935080, WO9930669, WO9818000, WO17146600, WO14117124, WO13037615, WO05070774, US8870844, US8541037, US8499971, US8226126, US8142827, US8011534, US7934622, US7909210, US7635012, US7607460, US7506754, US7308915, US7306117, US7244247, US7083043, US6959807, US6945394, US6814229, US6612428, US6533113, US6527110, US6180149, US5941380, US5525299, US5462101, US5277303, US2013326996, US2011266247, US2011220678, US2011168582, US2011054437, US2011042944, US2010187257, US2009260690, US2008302751, US2008054001, US2007289670, US2007289663, US2007095854, US2006252146, US2006237095, US2006186013, US2006137998, US2006011497, US2005127101, US2005127021, US2005118309, US2004089563, US2004045841, JP5730011, JP2012140155, JP2010052825, EP1933644, EP1877536, EP0573781,

Abstract:

A unit dose package, which is usable with a bottle to reconstruct the contents of the package, has a plastic **fitment** which defines a mouth opening for the package. The plastic **fitment** is bonded to a wall of the package and has a channel which receives the neck of the bottle. A flexible foil membrane seal is removably attached to this plastic **fitment** and is covered by a protective **overcap**.

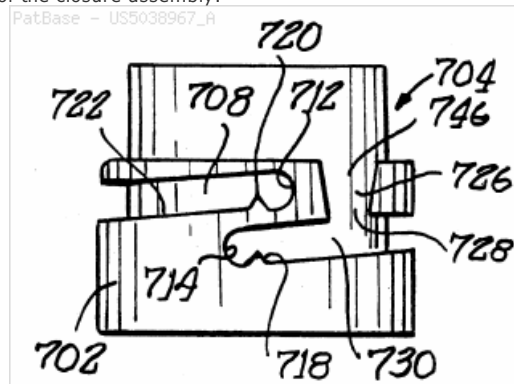


Title: Container with captive cap and internally valved closure**Priority:** US19890396934 19890822 US19910744254 19910813

Publication number	Publication date	Application number	Application date
US5038967 A	19910813	US19890396934	19890822
US5110017 A	19920505	US19910744254	19910813

Probable Assignee: KRANSON IND INC**Assignee(s):(std):** BRAUN CO W**Assignee(s):** GENERAL ELECTRIC CAPITAL AGENT AS CORP ; GENERAL ELECTRIC CAPITAL CORP ; W BRAUN CO ; KRANSON IND ; LATHAM AND WATKINS ; W BRAUN COMPANY ; KRANSON IND INC ; KRANSON IND INC A CORP OF MISSOURI ; W BRAUN CO LLC ; W BRAUN CO A CORP OF DELAWARE ; TRICORBRAUN INC ; ANTARES CAPITAL AGENT AS CORP ; ANTARES CAPITAL CORP**Inventor(s):(std):** BRAUN MORRIS**International class**
(IPC 8-9): A45D34/04 B65D47/24 B65D47/42 (Advanced/Invention);
A45D34/04 B65D47/00 B65D47/04 (Core/Invention)**International class**
(IPC 1-7): B65D47/00 B67D3/00**CPC:** A45D34/041 B65D47/242 B65D47/42**European class:** A45D34/04B B65D47/24A1 B65D47/42**US class:** 215/218 215/256 215/331 215/338 222/519 222/520 222/549 401/208 401/268[Classification Explorer](#)**Cited documents:** US920273 A, US757912 A, US730367 A, US5038967 A, US4927065 A, US4412634 A, US4289248 A, US3542258 A, US3317093 A, US3261515 A, US2915227 A, US2165825 A, US1590822 A, SE318820 B,**Forward Citations:** WO9731833, WO9621601, WO13178665, WO10073546, WO07112569, WO06090061, WO06090061, WO03088802, WO0140071, US9776771, US9624010, US9284106, US9272825, US9174778, US7837724, US7828166, US6796737, US6758376, US6739781, US6631832, US6427881, US6290103, US6230944, US6206230, US6085922, US6056161, US5947345, US5850950, US5772076, US5715977, US5308182, US5240155, US5110017, US2015144665, US2014252038, US2013327795, US2012305563, US2008302836, US2005228475, US2004126178, JP5485914, JP5485914, JP2010073546, FR2991303, FR2882505, EP1496785, EP1015339, EP0883552, EP0709039, EP0558273,**Abstract:**

A one-piece closure cap for a dispensing container. The cap, which is captive on the container body, is threadedly mounted for restricted rotation on the neck of the container so that upon elevation of the cap there is established a product release passage from the mouth of the container through product discharge ports formed in a surmounting top wall of the cap. Mechanical stops are provided to limit the degree of threaded rotation of the closure cap on the neck of the container to preclude inadvertent separation of the cap from the body of the container. The container neck is also formed adjacent an upper end thereof with a radially outwardly extending annular sealing bead which engages and stressingly abuts a circumscribing facing inner wall of the cap to prevent contents of the container from contaminating the threads of the closure assembly.



Title:

UNIT DOSE PACKAGE

Priority:

CA19902010005 19900215

Family:

Publication number	Publication date	Application number	Application date
CA2010005 AA	19910814	CA19902010005	19900215
CA2010005 C	20000613	CA19902010005	19900215

Probable Assignee:

BRISTOL MYERS SQUIBB CO

Assignee(s):(std):

SQUIBB BRISTOL MYERS CO

Assignee(s):

TAO MICHAEL C ; BRISTOL MYERS CO ; BRISTOL MYERS SQUIBB CO ; BRISTOL MYERS SQUIBB COMPANY ; FULLER RONALD C

Inventor(s):(std):

FULLER RONALD C ; TAO MICHAEL C

Agent(s):

GOWLING LAFLEUR HENDERSON LLP

International class (IPC 8-9):

B65D81/36 (Advanced/Invention);
B65D81/00 (Core/Invention)

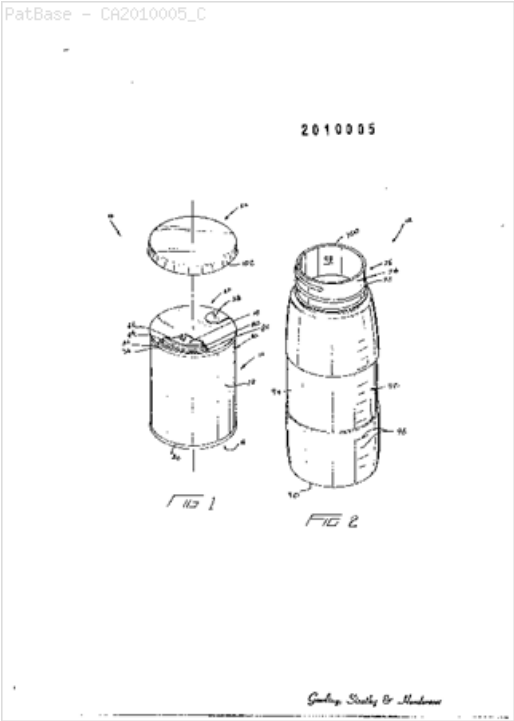
International class (IPC 1-7):

B65D81/36

Classification Explorer

Abstract:

A unit dose package, which is usable with a bottle to reconstitute the contents of the package, has a plastic **fitment** which defines a mouth opening for the package. The plastic **fitment** is bonded to a wall of the package and has a channel which receives the neck of the bottle. A flexible foil membrane seal is removably attached to this plastic **fitment** and is covered by a protective **overcap**.



Title: Nipple fitment with safety overcap

Priority: US19880289936 19881227 US19900538594 19900614

Family:

Publication number	Publication date	Application number	Application date
US5112628 A	19920512	US19900538594	19900614

Probable Assignee: SABIC INNOVATIVE PLASTICS IP BV

Assignee(s):(std): GEN ELECTRIC

Assignee(s): GENERAL ELECTRIC COMPANY ; SABIC INNOVATIVE PLASTICS IP BV ; CITIBANK NA ; CITIBANK NA COLLATERAL AGENT AS

Inventor(s):(std): CONRAD GEORGE R

International class (IPC 8-9): A61J11/00 (Advanced/Invention); A61J11/00 (Core/Invention)

International class (IPC 1-7): A61J9/00 B65D41/04 B65D41/34 B65D49/12

CPC: A61J9/008 A61J11/008

European class: A61J11/00Z2 A61J9/00E

US class: 215/11.1 215/258 215/271 215/276 426/115 426/117 426/131 426/87

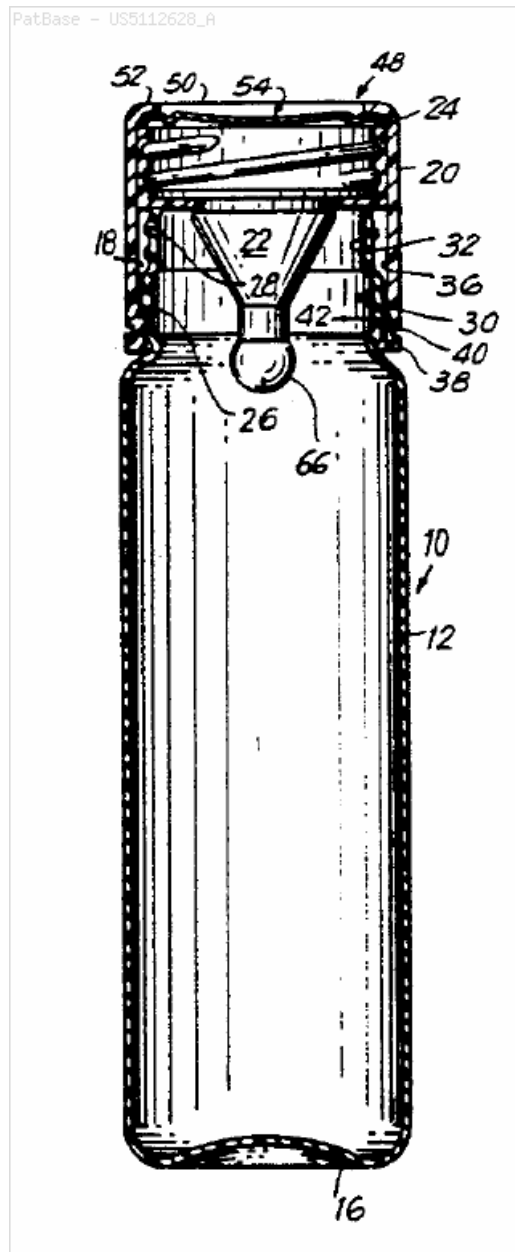
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Cited documents: US4830251 A, US4813561 A, US4809858 A, US4807770 A, US4765498 A, US4669623 A, US4567993 A, US4533059 A, US3944102 A, US3804952 A, US3779413 A, US3770154 A, US3746198 A, US3393817 A, US3329295 A, US3307728 A, US2864520 A, US2843281 A, US2796188 A, US2746631 A, US2643785 A, US2519986 A, US225752 A, US2040798 A, US2027430 A, US1570732 A,

Forward Citations: US8561834, US8109396, US8016150, US7815061, US7686183, US7632457, US7484633, US7143911, US7143911, US6884447, US6871764, US6786344, US6739465, US5813517, US2010224525, US2010187247, US2009152228, US2007051691, US2007051690, US2005040190, US2004198623, US2004129741, US2003192851, US2002182292,

Abstract:

A bottle feeder comprises a tamper evident **overcap**, which captures a nipple and hold-down cap and has a pop-up indicator to insure the integrity of the bottle is discribed. Upon removal of the **overcap** the tamper evident band remains on the bottle and the pop-up indicator indicates the feeder has been opened. The nipple and hold-down cap can be withdrawn from the **overcap** and placed on the bottle for use.



Title: Roll-on dispenser with flexible valve

Priority: US19920938748 19920902

Family:	Publication number	Publication date	Application number	Application date
	US5213431 A	19930525	US19920938748	19920902

Probable Assignee: CHESEBROUGH PONDS USA

Assignee(s):(std): CHESEBROUGH PONDS USA

Assignee(s): CHESEBROUGH POND'S USA CO ; CHESEBROUGH POND'S USA CO ; CHESEBROUGH POND S U CO SA ; CHESEBROUGH POND S USA CO ; CHESEBROUGH POND S USA CO DIVISION OF CONOPCO INC

Inventor(s):(std): GENTILE JAMES L ; MEENAN JOSEPH E

International class
(IPC 8-9): A45D34/04 B65D47/24 (Advanced/Invention);
A45D34/04 B65D47/04 (Core/Invention)

International class
(IPC 1-7): A45D34/04

CPC: A45D34/041 B65D47/243

European class: A45D34/04B B65D47/24A2

US class: 401/208 401/213 401/219

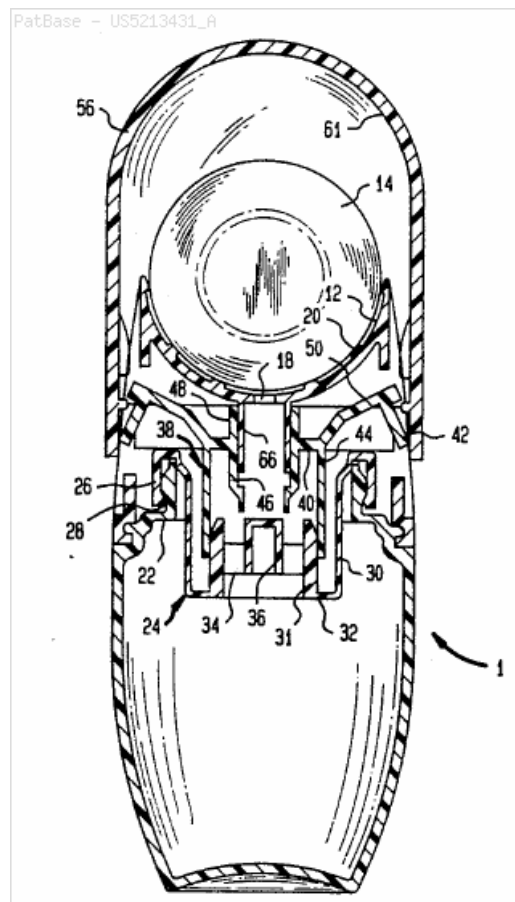
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Cited documents: US5051016 A, US5026193 A, US4909265 A, US4723860 A, US4168128 A, US3263265 A, US3235900 A, US3134131 A, US3095598 A, US3039132 A, DE3829395 A1,

Forward Citations: WO12076404, WO10076912, WO0018589, USD715106, USD708402, US8899863, US8382727, US8083428, US7841797, US7775735, US7674061, US7651292, US7618209, US7618208, US7537574, US7293931, US7229229, US6905274, US6857806, US6682244, US6513999, US6454135, US6155736, US6042289, US5709492, US2012177434, US2008210159, US2007014625, US2006263141, US2006029455, US2006027590, US2006018704, US2006018703, US2005249541, US2005184095, US2005169693, US2005020948, US2004206768, US2004091303, ITMI20131518, FR2879417, EP1673997, EP1618810, EP0709039,

Abstract:

A dispensing device is provided including a container having a neck, a **fitment** mounted on the container having an elongated socket for receiving a roller therewithin and a valve member slidably mounted on the neck and communicating with an inner surface of the elongated socket. The valve member includes a transverse wall with a switch rib jutting outward from an upper surface thereof and projecting through a window formed on the wall of the **fitment**. A pair of slots flank the switch rib and partially traverse across the upper surface thereof and completely across a skirt projecting downwardly from the upper surface. Additionally, there may be a cutout area located between the slots. Both the slots and cutout area provide flexibility to the switch rib. Fluid communication between the container and **fitment** is achieved when a cap covering the **fitment** is removed. During removal, a projection on an inner surface of the cap catches the switch rib thereby moving the valve member upward and then through flexing of the switch rib disengaging same.



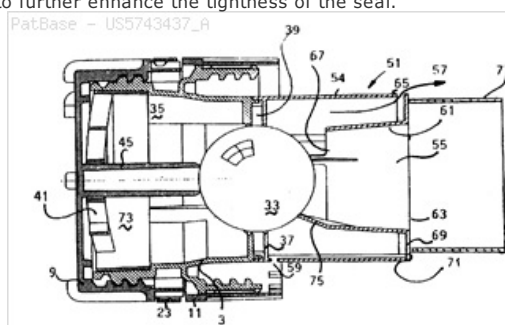
Title: CLOSURE FOR CONTAINERS FOR LIQUID
Priority: EP19930870128 19930708 CA19942127087 19940629 EP19940870116 19940708
Family:

Publication number	Publication date	Application number	Application date
AT151038 E	19970415	AT19940870116T	19940708
AU199465912 A1	19950119	AU19940065912	19940624
AU685110 B2	19980115	AU19940065912	19940624
CA2127087 AA	19950109	CA19942127087	19940629
DE69402363 D1	19970507	DE19946002363	19940708
DE69402363 T2	19971016	DE19946002363T	19940708
DK0633195 T3	19970728	DK19940870116T	19940708
EP0633195 A1	19950111	EP19940870116	19940708
EP0633195 B1	19970402	EP19940870116	19940708
ES2101480 T3	19970701	ES19940870116T	19940708
US5743437 A	19980428	US19940272187	19940708

Probable Assignee: MONSANTO CO
Assignee(s):(std): MONSANTO EUROPE SA
Assignee(s): MOORE DAVID ; HARRIS CHRISTOPHER ; MONSANTO CO ; MONSANTO EUROPE S A ; MONSANTO EUROPE S A BRUESSEL BRUXELLES BE
Inventor(s):(std): HARRIS CHRISTOPHER ; MOORE DAVID
Inventor(s): MOORE DAVID ELMESTHORPE LEICESTERSHIRE LE9 7SA GB ; HARRIS CHRISTOPHER OAKHAM LEICESTERSHIRE LE15 6UN ; HARRIS CHRISTOPHER OAKHAM LEICESTERSHIRE LE15... ; HARRIS CHRISTOPHER OAKHAM LEICESTERSHIRE LE15 6UN GB ; CHRISTOPHER HARRIS ; DAVID MOORE
Agent(s): E F WELLINGTON AND CO; FETHERSTONHAUGH AND CO
Designated states: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
International class (IPC 8-9): B65D41/34 B65D47/20 B65D47/30 B65D49/04 (Advanced/Invention)
International class (IPC 1-7): B65D47/20 B65D47/30 B65D47/32 B65D49/02 B65D49/04 B65D49/04 B65D51/18
CPC: Y02W30/807 B65D41/3419 B65D47/20 B65D49/04 B65D2101/0038
European class: B65D41/34A3 B65D47/20 B65D49/04 L65D101/00A3C
US class: 215/21 222/147 222/153.07 222/547
[Classification Explorer](#)
Cited documents: US4458817 A, US4382520 A, US4232795 A, US3399811 A, US3179300 A, US2835411 A, US2673655 A, US2110261 A, US2078251 A, SE189456 C1, IT643759 A, GB914311 A, GB700127 A, GB2236999 A1, GB1245034 A, GB1138326 A, FR471256 A, DE4008442 A1, CA692600 A, AU4083978 A1,
Forward Citations: WO9636542, WO16035102, WO09127496, WO09056379, WO07108957, WO07108957, WO06021596, WO05110883, WO0017091, US9322481, US9145240, US8919615, US8668099, US8663170, US8556136, US8448604, US8402999, US8056761, US7874308, US7219820, US7165568, US7140519, US7117818, US6866170, US6758165, US6447194, US6230937, US6053375, US2016229601, US2014319178, US2013284765, US2011114677, US2010282174, US2010207046, US2009173283, US2009032533, US2008157018, US2008017676, US2007090131, US2006289569, US2006243744, US2005109283, US2004256004, US2003233986, GB2459519, GB2459519, FR2803580, EP2055646, EP1752382, EA017652, CN105324312, AU688219,

Abstract:

A reusable closure for placement within the neck of a returnable and reusable container for liquid includes an improved sealing device for preventing contamination of the container. The sealing device achieves a tight seal between a ball and a valve seat within the closure. A cap abutment or spring may optionally be provided to further enhance the tightness of the seal.



Title: PRODUCT DISPENSER WITH ENLARGED NON-DISPENSING APPLICATION/DISTRIBUTION SURFACE
Priority: US19940209032 19940309 WO1994US04769 19940428 US19950550547 19951107
Family:

Publication number	Publication date	Application number	Application date
AU199469051 A1	19950925	AU19940069051	19940428
BRPI9408548 A	19970819	BR1994PI08548	19940428
CA2184990 AA	19960906	CA19942184990	19940428
CL1994000597 A1	19950510	CL19940000597	19940427
EP0748175 A1	19961218	EP19940917284	19940428
FI963507 A	19960906	FI19960003507	19960906
FI963507 A0	19960906	FI19960003507	19960906
JP9510119 T2	19971014	JP19950523419T	19940428
NO963727 A	19961108	NO19960003727	19960906
NO963727 A0	19960906	NO19960003727	19960906
US5553957 A	19960910	US19950550547	19951107
WO9524141 A1	19950914	WO1994US04769	19940428

Probable Assignee: PROCTER AND GAMBLE

Assignee(s):(std): PROCTER AND GAMBLE

Assignee(s): PROCTER AND GAMBLE CO ; PROCTER AND GAMBLE CO THE ; THE PROCTER AND GAMBLE COMPANY ; PROCTER AND GAMBLE COMPANY THE ; TAYLOR JOANN LEE ; PROTER AND GAMBLE CO ; DORNBUSCH ARTHUR HAROLD ; KENNEALLY DIANNA CHUTE

Inventor(s):(std): DORNBUSCH ARTHUR H ; DORNBUSCH ARTHUR HAROLD ; KENNEALLY DIANNA C ; KENNEALLY DIANNA CHUTE ; TAYLOR JOANN L ; TAYLOR JOANN LEE

Inventor(s): JOANN LEE TAYLOR ; ARTHUR HAROLD DORNBUSCH ; DIANNA CHUTE KENNEALLY

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; DIMOCK STRATTON CLARIZIO LLP; HARNEKCER

Designated states: AT AU BE BR CA CH DE DK ES FI FR GB GR IE IT JP LI LU MC NL NO NZ PT SE

International class A45D34/04 (Advanced/Invention);
(IPC 8-9): A45D34/04 (Core/Invention)

International class A45D A45D A45D34/04
(IPC 1-7):

CPC: A45D34/041

European class: A45D34/04B

US class: 401/209 401/21 401/213 401/216

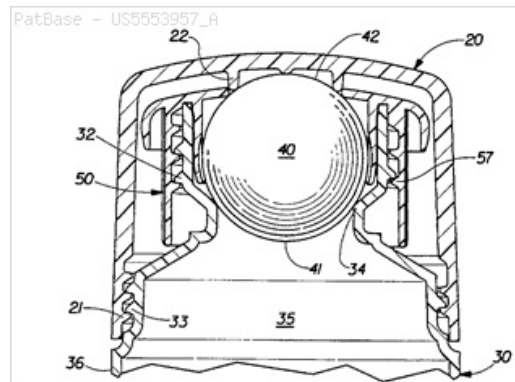
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Forward Citations: WO11144332, WO06007991, WO04098347, USD708402, USD689332, USD577584, USD577583, USD462905, USD446723, US9211228, US8956066, US8939669, US8596220, US8371244, US8192100, US7674061, US7618209, US7425102, US7311462, US7117818, US6932530, US6709415, US6584465, US6511657, US6340356, US5937866, US2015360014, US2014163443, US2013064596, US2012074179, US2012067290, US2010313817, US2010256100, US2010180543, US2009263435, US2008310908, US2008107475, US2008107474, US2007059090, US2006165475, US2005276772, US2005109283, US2004141934, NL1023384, KR101286087, FR3007981, ES2413163, EP1618808, EP1399122, EP1270080,

Abstract:

The present invention relates to improved product dispensers for various spreadable products, including fluids, suspensions, lotions, creams, emulsions, and gels. In a preferred embodiment of the present invention, the dispenser is in the form of an improved roll-on type applicator with an enlarged application/distribution surface in the form of a dome with an aperture for exposing a portion of the rotating element. As product is expressed from the gap between the element and dome, it follows the surface of the element into contact with the desired surface and is thereby applied to this surface. Excess product not applied to the desired surface by the element either follows the element surface through the gap between the element and the dome back into the container or is sheared from the element surface by the edge of the aperture in the dome. This sheared-off product flows onto the dome surface or contacts other pans of the desired receiving surface and is distributed by the application/distribution surface of the dome, which functions both as a secondary applicator for this undistributed product and as a primary distributor for evening out the total product distribution on the desired surface, thus providing an improved means of uniformly applying and distributing product dispensed by the rotating element. The resulting roll-on applicator enables the product to be more easily applied in a consistent, less messy fashion, and the simplicity of the package construction equates to a very user-friendly package which is cost effective to produce and reliable in operation.



Title: Thumb actuated flexible tube and closure system

Priority: US19940228048 19940415 US19940228055 19940415 US19940356936 19941215
 US19950371905 19950112 AU19950016179 19950329 CA19952145946 19950330
 US19950493837 19950622 CA19962179350 19960618 US19960735580 19961023
 US19970804509 19970224 US19970942115 19971001 CA19972218510 19971016
 US19980089656 19980603 AU19980079968 19980813 CA19982248391 19980925

Family:	Publication number	Publication date	Application number	Application date
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	AU199516179 A1	19951026	AU19950016179	19950329
	AU199742749 A1	19980430	AU19970042749	19971021
	AU199879968 A1	19981112	AU19980079968	19980813
	AU691244 B2	19980514	AU19950016179	19950329
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	AU726981 B2	20001130	AU19980079968	19980813
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	BRPI9602872 A	19990615	BR1996PI02872	19960621
	BRPI9705112 A	19990803	BR1997PI05112	19971022
	BRPI9804436 A	19991214	BR1998PI04436	19980930
	CA2145946 AA	19951016	CA19952145946	19950330
	CA2145946 C	20060321	CA19952145946	19950330
	CA2179350 AA	19961223	CA19962179350	19960618
	CA2179350 C	20071218	CA19962179350	19960618
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	CO4410365 A1	19970109	CO19950015246	19950412
	CO4770870 A1	19990430	CO19970062040	19971022
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	DE69513430 T2	20000621	DE19956013430T	19950405
	DE69626721 D1	20030424	DE19966026721	19960620
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	EP0677374 A2	19951018	EP19950105065	19950405
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	EP0677374 B1	19991124	EP19950105065	19950405
	EP0749909 A2	19961227	EP19960109967	19960620
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	EP0749909 B1	20030319	EP19960109967	19960620
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	MX9708140 A1	19980430	MX19970008140	19971022
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	US5962096 A	19991005	US19970804509	19970224
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	ZA9709503 A	19980512	ZA19970009503	19971023

Probable Assignee: GRAHAM PACKAGING PLASTIC PRODUCTS INC

Assignee(s):(std): OWENS BROCKWAY PLASTIC PROD INC ; OWENS BROCKWAY PLASTIC PRODUCT ; OWENS BUROTSUKUUEI PLAST PROD ; OWENS ILLINOIS PLASTIC PROD ; OWENS BROCKWAY PLASTICS PRODUC ; OWENS BROCKWAY PLASTIC PRODUCTS INC ; OWENS BROCKWAY PLASTIC PROD ; OWENS BROCKWAY PLASTIC PROD IN ; GRAHAM PACKAGING PLASTIC PRODUCTS INC ; GRAHAM PACKAGING PLASTIC PRODU

Assignee(s): HARBINGER CAPITAL PARTNERS MASTER FUND I LTD ; O I BROCKWAY PLASTICS INC ; OAK HILL SECURITIES FUND LP ; WACHOVIA CAPITAL FINANCE CORP ; WACHOVIA CAPITAL FINANCE CENTRAL CORP ; OWENS BROCKWAY PLASTIC PRODUCTS INC TOLEDO ; SMITH ROGER P ; WACHOVIA CAPITAL FINANCE (CENTRAL) CORP ; PLASOWENS BROCKWAY TIC PRODUETS INC ; OWENS ILLINOIS CLOSURE INC ; OWENS ILLINOIS CLOSURE INC ; OWENS ILLINOIS PLASTIC PRODUCTS INC ; OWENS BUROTSUKUUUI PLAST PROD INC ; OWENS BROCKWAY PLASTICS PRODUCTS INC ; GRAHAM PACKAGING CO ; GRAHAM PACKAGING CO LP ; NORTON MICHAEL D ; LUGAR JEFFERY S ; KRALL THOMAS J ; KAMINSKI RONALD S ; GEARHART KENT A ; AFA PRODUCTS INC ; AFA PRODUCTS INC DELAWARE CORP ; BLISS EARNEST E III ; CIT GROUP BUSINESS CREDIT INC ; DEUTSCHE BANK AG ; CONTINENTALAFA DISPENSING CO ; CONTINENTAL SPRAYERS INT ; CIT GROUP BUSINESS CREDIT INC COLLATERAL AGENT AS ; CONTINENTAL SPRAYERS INT INC A DELAWARE CORP ; DEUTSCHE BANK CAYMAN ISLANDS BRANCH AG ; DEUTSCHE BANK CAYMAN ISLANDS BRANCH SECOND LIEN CO ; DEUTSCHE BANK CAYMAN ISLANDS BRANCH SECOND LIEN COLLATERAL AGENT AG AS

Inventor(s):(std): KAMINSKI RONALD S ; KRALL THOMAS J ; TOOMASU JIEI KURAARU ; SMITH ROGER P ; RONARUDO ESU KAMINSUKII ; ROJIYAA PII SUMISU ; NORTON MICHAEL D ; LUGAR JEFFREY S ; LUGAR JEFFERY S ; GEARHART KENT A ; THOMAS J KRALL ; RONALD S KAMINSKI ; ROGER P SMITH ; BLISS III EARNEST E ; BLISS EARNEST E III ; MICHAEL D NORTON ; JEFFERY S LUGAR ; BLISS EARNEST E

Inventor(s): EARNEST E BLISS ; EARNEST E III BLISS ; KENT A GEARHART ; THOMAS J KRIL ; ROGAR P SMITH ; EARNEST E BLISS III

Agent(s): SHELSTON IP; SHELSTON IP PTY LTD; GOWLING LAFLEUR HENDERSON LLP; RAMIRO CASTRO DUQUE

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

International class (IPC 8-9): A45D34/04 A45D40/00 B05B11/00 B29B11/08 B29C45/00 B29C47/00 B29C47/54 B29C49/00 B29C49/02 B29C49/04 B29C49/06 B29C49/24 B29C49/42 B29C49/50 B29C49/52 B29C49/56 B29C49/76 B29C65/08 B29C65/56 B29C69/00 B29D23/20 B65C3/16 B65C9/04 B65D35/00 B65D35/02 B65D35/08 B65D35/28 B65D47/34 B67B3/20 (Advanced/Invention); A45D40/00 B29C45/00 B29C49/04 B29C49/06 B29C49/24 B29C49/42 B29C49/50 B29C69/00 B29K23/00 B29L22/00 B29L23/20 B65D35/02 (Advanced/Non-invention); B05B11/00 B29C45/00 B29C47/00 B29C49/02 B29C49/04 B29C49/24 B29C49/42 B29C49/50 B29C49/56 B29D23/20 B65D35/00 B65D35/02 B67B3/00 (Core/Invention); B29C69/00 (Core/Non-invention)

International class (IPC 1-7): A45D40/00 B05B11/00 B23P11/00 B23P19/00 B29B11/08 B29C45/00 B29C47/00 B29C47/54 B29C49/02 B29C49/04 B29C49/06 B29C49/24 B29C49/42 B29C49/50 B29C49/52 B29C49/54 B29C49/56 B29C49/64 B29C49/76 B29D1/00 B29D22/00 B29D23/20 B29K23/00 B29L22/00 B29L23/20 B65C9/04 B65D1/32 B65D35/00 B65D35/02 B65D35/08 B65D35/28 B65D35/54 B65D37/00 B65D47/34 B65D83/14 B67B3/00 B67B3/20 B67D3/00 F16L11/00

CPC: B29C65/56 B29C65/069 B29C47/0004 B29C47/0023 B29C47/0026 B29C47/003 B29C47/0033 B29C47/0038 B29C65/561 B29C65/7838 B29C66/30223 B29C66/63 B29K2021/00 B29K2105/0044 B65C9/04 B29B2911/14593 B29B2911/14653 B29C2795/00 B29C2795/007 B29K2023/06 B65C3/16 B65D35/28 B29C66/542 B29C66/83221 B29C65/08 Y10T428/1352 Y10T428/139 Y10T428/1397 Y10T29/49881 Y10T29/5137 Y10T29/5152 Y10T29/53322 Y10T29/53374 Y10T29/53404 Y10T428/24802 B67B3/20 B29C49/022 B29C2793/00 B29C2795/002 B29D23/20 B29K2023/0633 B29L2023/20 B29L2031/7142 B29L2031/7152 B29L2031/7158 B65D35/08 B65D47/242 B29C66/8322 B29C66/73921 B05B11/0043 B05B11/3001 B05B11/3046 B05B11/3047 B05B11/3054 B29C66/71 B05B11/3061 B29C66/112 B29C66/131 B29C66/232 B29C66/53243 B29C66/534 B29C65/7844 B29C66/43123 B29C65/0672 B29C66/5344 B29C49/04 B29C49/06 B29C49/24 B29C66/1222 B29C66/1224 B29C66/12425

European class: B05B11/00B5A2 B05B11/00P9N B05B11/30C B05B11/30H1D B05B11/30H1D2 B05B11/30H5 B29C47/00B B29C49/02B B29C65/08 B29C65/56 B29C65/56B B29C65/56H2 B29C65/78D10 B29C65/78F2 B29C66/30223 B29C66/534 B29C66/63 B29C66/83221 B29D23/20 B65C3/16 B65C9/04 B65D35/08 B65D35/28 B65D47/24A1 B67B3/20 L05B11/30H3B3 L29B911/14F2 L29B911/14F4 L29C47/00J10 L29C47/00J6 L29C47/00J7 L29C47/00J9 L29C47/00L L29C65/06B L29C65/56B L29C793/00 L29C795/00 L29C795/00B L29C795/00D L29K105/00E18 L29K21/00 L29K23/06 L29K23/06B5 L29L23/20 L29L31/7142 L29L31/7152 L29L31/7158

US class: 206/277 215/2 215/371 220/608 222/107 222/215 222/321.9 222/505 222/521 222/92 222/96 264/509 264/524 264/539 29/35.5 29/456 29/564.1 29/773 29/785 29/792 427/493 428/195 428/195.1 428/35.7 428/36.9 428/36.92 53/331.2 53/331.5 53/490 53/561

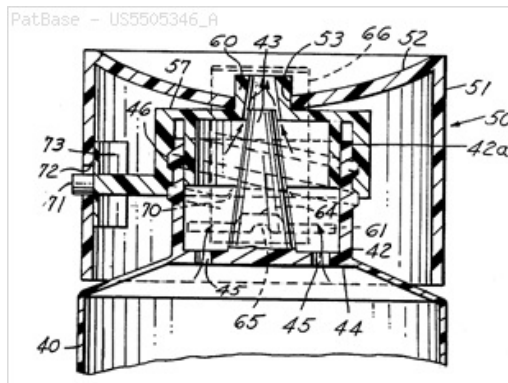
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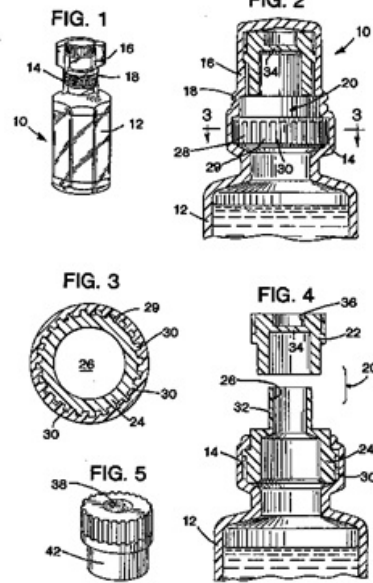
Forward Citations: WO9819928, WO9740972, WO17158209, WO12150417, WO12018956, WO12018956, WO12018732, WO09147254, WO08025333, WO08025333, WO08025332, WO08025332, WO05072931, WO04074115, WO04074115, WO04018296, WO04018296, USRE39727, USD800560, USD780584, USD698662, USD697816, USD696965, USD684275, USD649461, USD447060, US9561518, US9469428, US9314956, US8955292, US8906187, US8795579, US8444894, US7926244, US7874466, US7770746, US7472809, US7448187, US7204381, US7036692, US7025235, US6938803, US6752779, US6726064, US6702978, US6702155, US6691394, US6673301, US6622878, US6564978, US6543650, US6537244, US6393689, US6250509, US6247218, US6205743, US6168041, US6082078, US6047525, US5988443, US5988413, US5962096, US5954231, US5954224, US5950880, US5806721, US5800770, US2016325895, US2013125431, US2012110950, US2010108724, US2009324864, US2009210825, US2009101554, US2009098990, US2009065528, US2009026221, US2008236110, US2008230569, US2008105328, US2007290414, US2007224373, US2007085026, US2007084557, US2007084556, US2006283145, US2006105077, US2006091101, US2006071031, US2005285000, US2005167451, US2005098582, US2004166344, US2004159680, US2004144806, US2004118477, US2004108342, US2004013326, US2003121876, US2003094464, US2002185778, KR101542786, JP2010274981, GB2328438, GB2328438, FR2974792, FR2859199, FR2846593, FR2843709, FR2766119, ES2293821, EP2601037,

Abstract:

A thumb actuated flexible tube and closure system comprising a flexible plastic tube having a finish for dispensing a product when the tube is in an inverted position. The finish has an integral transverse wall, an integral post extending upwardly from the transverse wall and an integral cylindrical wall extending upwardly from said transverse wall. The transverse wall has at least one opening therethrough. An inner closure is provided and has a base wall and integral spaced inner and outer walls defining an annular space for receiving the finish of the plastic tube. At least one of the walls has threads thereon for rotatably engaging the finish. The base wall of the inner closure has a portion sealingly engaging the post on the finish such that rotation of the inner closure moves said sealing portion into and out of engagement with said post. An **overcap** closure is provided and has a base wall with an opening aligned with the sealing portion of said closure. The **overcap** and finish have interengaging elements to hold the **overcap** against rotational movement. The **overcap** includes a peripheral wall having an opening therein. A finger engaging portion on the inner closure extends through the opening in the **overcap** closure adapted to be engaged by a thumb of the user as the plastic tube is held in inverted position to rotate the inner closure and move the inner closure into and out of sealing position with the post on the finish.



Title:	Torque-resistant closure for a hermetically sealed container																																																																															
Priority:	US19940253111 19940602		US19950377814 19950125																																																																													
	US19970805245 19970224																																																																															
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Publication number	Publication date	Application number	Application date																																																																													
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US5740931 A	19980421	US19960688366	19960730																																																																													
Probable Assignee:	CATALENT PHARMA SOLUTIONS INC																																																																															
Assignee(s):(std):	AUTOMATIC LIQUID PACKAGING																																																																															
Assignee(s):	AUTOMATIC LIQUID PACKAGING INC ; CARDINAL HEALTH 400 INC ; CATALENT PHARMA SOLUTIONS INC ; CATALENT PHARMA SOLUTIONS LLC ; MORGAN STANLEY SENIOR FUNDING INC ; CATALENT USA WOODSTOCK INC ; CATALENT USA PACKAGING LLC ; CATALENT USA PAINTBALL INC																																																																															
Inventor(s):(std):	WEILER GERHARD H ; WEILER C H ; GAAHAADO EICHI UEIRAA																																																																															
Inventor(s):	CH WEILER ; C H WEILER ; GERHARD H WEILER																																																																															
Agent(s):	GRIFFITH HACK; KAWAGUCHI YOSHIO																																																																															
Designated states:	CH DE FR GB IE IT LI SE																																																																															
International class (IPC 8-9):	B29C49/04 B29C49/48 B29C70/70 B65D1/00 B65D1/02 B65D41/04 (Advanced/Invention); B29C49/04 B65D1/00 B65D41/04 (Advanced/Non-invention); B29C49/48 B29C70/00 B65D1/02 (Core/Invention); B29C49/04 (Core/Non-invention)																																																																															
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US class:	141/329 215/247 215/251 215/253 215/355 215/357 215/43 215/48 215/50 604/256 604/411 604/414 604/415 604/86 604/905																																																																															
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Cited documents:	US5595314 A, US5569235 A, US5533993 A, US5501676 A, US5451374 A, US5398679 A, US5395365 A, US5257650 A, US5156598 A, US5135513 A, US5060827 A, US4997217 A, US4901873 A, US4856794 A, US4821897 A, US4735608 A, US4723672 A, US4707966, US4610374 A, US4607868 A, US4596110 A, US4596110, US4569456 A, US4539172 A, US4526279 A, US4463862 A, US4294250 A, US4261474 A, US4176755 A, US4020839 A, US3744656 A, US3356244 A, US2847007 A, US2649090 A, JP5873537, DE2501428 A1, CA989331 A1,																																																																															
Forward Citations:	WO9831599, WO9830188, WO14018847, WO08098602, WO08035150, WO0027750, USD801522, USD767124, USD765837, USD757933, USD737436, USD734868, USD720451, USD674088, USD669980, USD641080, USD424440, US9943463, US9839580, US9801786, US9795536, US9718572, US9339438, US9283324, US9132063, US8998875, US8979792, US8905994, US8882726, US8852145, US8753325, US8752598, US8684994, US8608723, US8540100, US8435210, US8317743, US8251972, US8226627, US8070739, US8066688, US8022375, US8021325, US8016809, US7879018, US7641851, US7425209, US7358505, US7074216, US6890328, US6875203, US6852103, US6796971, US6610040, US6585714, US6582415, US6571971, US6517768, US6390458, US6326010, US6237789, US6237649, US6197936, US6173852, US6159192, US6139934, US6113583, US6092682, US6090092, US6090091, US6071270, US6068148, US6063068, US6022339, US6019750, US5989237, US5878900, US5740931, US5718346, US2016075455, US2014291277, US2014231456, US2013178806, US2010326022, US2010140515, US2010065526, US2008300570, US2008070001, US2007071924, US2005137566, US2005135965, US2005133729, US2004241041, US2004199139, US2002123736, RU2644257, RU2620979, JP6240131, JP2016060208, JP2015529490, JP11347101, EP2998097, EP2066570, EP2066570, EP1345647, EP1345647, EP0995419, EP0960820, EP0952950, EP0803442, DE102008025172, CN106243153, CN105416811, CN102261420, AU725401, AU2013295636,																																																																															
Abstract:	An improved closure insert is provided for throat region of a blow-molded container. This closure insert is provided with a scabrous perimeter and is permanently molded into the container throat region during container formation from a parison. The resulting seal resists loosening or disturbance when off-axis force or torque force is applied to the closure insert during container opening. The closure insert can be a subassembly constituted by removable parts that provide a variety of access options to the container contents.																																																																															



Title: Dispensing package for viscous liquid product

Priority: US19960604588 19960221 CA19972198065 19970220 EP19970301094 19970220
US19980140987 19980827

Family:	Publication number	Publication date	Application number	Application date
	AT241522 E	20030615	AT19970301094T	19970220
	AU199714862 A1	19970828	AU19970014862	19970221
	AU711301 B2	19991007	AU19970014862	19970221
	AU711301 C	20011129	AU19970014862	19970221
	BRPI9701051 A	19981215	BR1997PI01051	19970221
	CA2198065 AA	19970821	CA19972198065	19970220
	CA2198065 C	20041123	CA19972198065	19970220
	DE69722283 D1	20030703	DE19976022283	19970220
	DE69722283 T2	20040129	DE19976022283T	19970220
	DK0791542 T3	20030901	DK19970301094T	19970220
	EP0791542 A2	19970827	EP19970301094	19970220
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	EP0791542 B1	20030528	EP19970301094	19970220
	EP1321375 A2	20030625	EP20030075379	19970220
	EP1321375 A3	20051214	EP20030075379	19970220
	ES2201244 T3	20040316	ES19970301094T	19970220
	MX9701324 A1	19980628	MX19970001324	19970221
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	PT791542 T	20030930	PT19970301094T	19970220
	TH14056 B	20030103	TH19971000620	19970220
	TH40893 A	20001025	TH19971000620	19970220
	US5918777 A	19990706	US19960604588	19960221
	US6041975 A	20000328	US19980140987	19980827
	ZA9701531 A	19970828	ZA19970001531	19970221

Probable Assignee: GRAHAM PACKAGING PLASTIC PRODUCTS INC

Assignee(s):(std): OWENS BROCKWAY PLASTIC PROD

Assignee(s): GRAHAM PACKAGING PLASTIC PRODUCTS INC ; OWENS BROCKWAY PLASTIC PRODUCTS INC ; GRAHAM PACKAGING CO ; GRAHAM PACKAGING CO LP ; REYNOLDS GROUP HOLDINGS INC ; OWENS BROCKWAY PLASTIC PRODUCTS INC TOLEDO ; FLAK FRANK ; BANK OF NEW YORK MELLON ; DEUTSCHE BANK AG ; DEUTSCHE BANK CAYMAN ISLANDS BRANCH AG ; DEUTSCHE BANK CAYMAN ISLANDS BRANCH SECOND LIEN CO ; DEUTSCHE BANK CAYMAN ISLANDS BRANCH SECOND LIEN COLLATERAL AGENT AG AS

Inventor(s):(std): FLAK FRANK

Inventor(s): FRANK FLAK

Agent(s): SHELSTON IP; SHELSTON IP PTY LTD; GOWLING LAFLEUR HENDERSON LLP

Designated states: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

International class (IPC 8-9): B65D47/08 B65D47/20 B65D47/30 (Advanced/Invention)

International class (IPC 1-7): B65D37/00 B65D47/06 B65D47/08 B65D47/20 B65D47/30 B65D85/22

CPC: B65D47/0838 B65D47/2006 B65D47/2031 B65D47/305

European class: B65D47/08B4C B65D47/20C B65D47/20E2 B65D47/30B

US class: 222/212

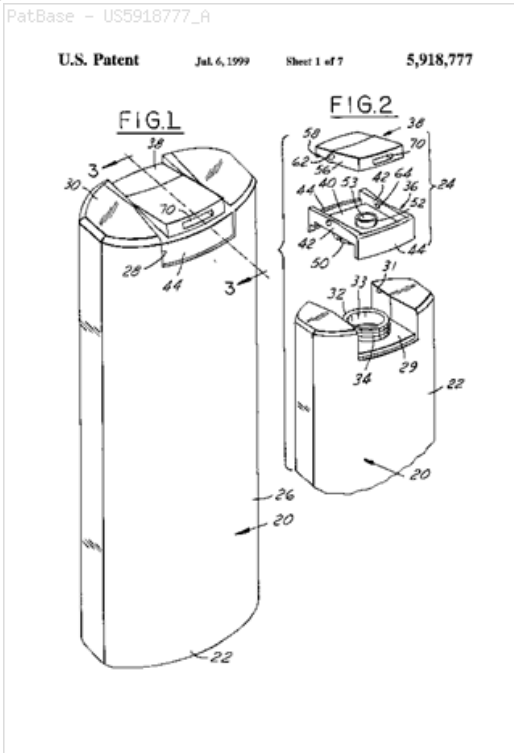
[Classification Explorer](#)

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Forward Citations: WO16164999, WO12097267, WO12097251, WO12097248, WO11085736, WO08073360, USD480003, USD473457, USD472460, USD425407, US9944439, US9346200, US9221209, US8881959, US8646659, US8251218, US8074849, US7874466, US7721922, US6705492, US6536617, US6357625, US6325252, US6311878, US6041975, US2017066549, US2013075430, US2013048679, US2012181292, US2010276460, US2010084424, US2010072224, US2005250658, US2004079769, JP6022468, JP2014501668, JP2013545684, GB2389575, EP1808379, EP1808379, EP1451075, EP0990593, CN103201185, CN103201185, CN103201180, CN102502059, CN102502032, CN102502032, CN102502031, CN102502030, CN102502029, CN102431711, AU774907,

Abstract:
A dispensing package including a plastic container having a surface recessed in portion of the container and an opening in the recessed portion of the container and a valve system in overlying position to the opening and including a valve member movable manually from a closed position to an open dispensing position is disclosed. The container has a flexible portion which can be squeezed for dispensing the product through the opening. In one form, the valve system comprises a **fitment** and a toggle valve pivoted on the **fitment**. The toggle valve includes a discharge passage which is closed and opened so that the product can be

In another form, the valve system consists of a **fitment** having an opening and a valve member hinged to the **fitment**. In another form, the valve system comprises a valve member which engages a complementary surface on the opening of the container and is movable by a toggle action. The recess may extend partially across the upper surface of the container and is completely across the upper surface of the container. In some forms, the plastic container has a modified upper surface to minimize accumulation of liquid product adjacent the outlet of the container.



Title: Wick-based liquid emanation system with child-resistant overcap
Priority: US19960673393 19960628 US19960673393 19960628 WO1997US11104 19970626
US20010875172 20010607

Family:	Publication number	Publication date	Application number	Application date
	AR007652 AA	19991110	AR1997P102862	19970627
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	ZA9705685 A	19980320	ZA19970005685	19970626

Probable Assignee: S C JOHNSON AND SON INC
Assignee(s):(std): JOHNSON AND SON INC S C ; S C JOHNSON AND SON INC
Assignee(s): SC JOHNSON AND SON INC ; WEFLER MARK E ; GREATBATCH KEITH J
Inventor(s):(std): GREATBATCH K J ; GREATBATCH KEITH J ; K J GREATBATCH ; KEITH J GREATBATCH ; M E WEFLER ; MARK E WEFLER ; WEFLER M E ; WEFLER MARK E ; WELFER MARK E
Inventor(s): GREATBATCH J ; WEFLER E
Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; BERESKIN AND PARR LLP SENCRL SRL
Designated states: AT AU BE BR CA CH CN DE DK ES FI FR GB GR IE IT JP KR LI LU MC MX NL NZ PT SE
International class (IPC 8-9): A01M1/20 A01M13/00 A61L9/03 A61L9/12 B65D85/00 (Advanced/Invention); A01M1/20 A61L9/03 A61L9/12 (Advanced/Non-invention)
International class (IPC 1-7): A01M1/20 A01M13/00 A24F25/00 A61L9/03 A61L9/12
CPC: A01M1/2044 A01M1/2077 A61L9/03 A61L9/12
European class: A01M1/20A A01M1/20A1 A01M1/20C2L A01M1/20C4G A61L9/03 A61L9/12
US class: 239/44 239/46

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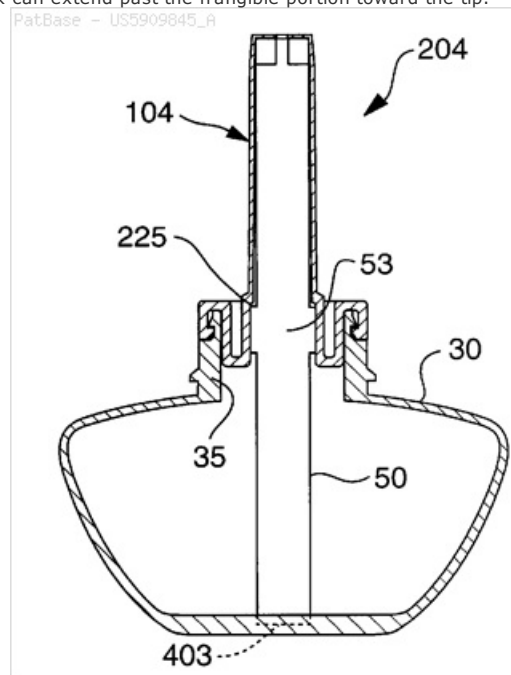
Cited documents: US5622314 A, US5437410 A, US5249695 A, US5201440 A, US5121859 A, US5077102 A, US4915301 A, US4757911 A, US4739928 A, US4520431 A, US4496307 A, US3724756 A, US3083858 A, US2930063 A, US1586044 A, IT477291 A, FR747069 A, FR688320 A, EP0740941 A1, AU664685 B3, AU664685 B3, AU3579497 A1,

Forward Citations: WO11088097, WO11081657, WO11081656, WO11081655, WO11081654, WO05002636, WO05002635, WO05000370, WO04032984, WO03003826, USD674475, USD666705, USD651088, USD650684, USD650683, USD650682, USD650681, USD646573, USD626845, USD618550, USD614755, USD588252, USD582534, USD581035, USD556312, USD551750, USD546931, USD542400, USD541922, US9987386, US9975673, US9884133, US9717814, US9648943, US9554641, US9453652, US9402700, US9237798, US9167886, US9050380, US8997753, US8920168, US8879898, US8733670, US8721962, US8651395, US8517728, US8506196, US8398326, US8349251, US8320751, US8292193, US8210448, US8157188, US8119064, US8061628, US8016207, US7997508, US7981367, US7932482, US7883028, US7845213, US7840123, US7824627, US7744833, US7712248, US7687744, US7681806, US7643734, US7628338, US7589340, US7584901, US7540473, US7540432, US7503668, US7467944, US7416766, US7364610, US7350720, US7309024, US7281811, US7281670, US7244398, US7157057, US7032831, US6996335, US6966665, US6938883, US6931202, US6792199, US6786427, US6768865, US6697571, US6661967, US6659301, US6619560, US6454126, US6446880, US6236807, US6104867, US2011139892, US2011139891, US2011139885, US2011139884, US2011031327, US2011024519, US2010178042, US2010147972, US2010038442, US2009291400, US2009278554, US2009261179, US2009134239, US2008138051, US2008135640, US2008093475, US2008069725, US2007290064, US2007238060, US2007237498, US2007042149, US2007022881, US2006289669, US2006219800, US2006186218, US2006163376, US2006131439, US2006110297, US2006110144, US2006022064, US2005201944, US2005195598, US2005191481, US2005180736, US2005169813, US2005127108, US2005068777, US2005002834, US2004265189, US2004265164, US2004264169, US2004262788, US2004262420, US2004262419, US2004216369, US2004195245, US2004182949, US2004118936, US2004074982, US2004071456, US2004033171, US2003138241, US2003086815, US2002136542, US2002016786, JP2002200152, GB2359255, GB2359255, FR2803527, ES2646757, ES2239505, EP3053853, EP2301332, EP2241338, EP2238989, EP1779871, EP1558298, EP1547623,

Abstract:

A child-resistant, wick-based liquid emanation system includes a container which is capable of containing liquid and has an opening. A wick is partially disposed within the container and extends through the opening of the container. A hollow **overcap** encases the extended portion of the wick and has a closed, separable tip and an open base attached to cover the opening of the container. The system is activated by separating the tip from the **overcap**. A retainer may be provided for obstructing complete removal of the wick from the container through the **overcap** after the tip is separated from the **overcap**. The retainer can include a shoulder disposed in the **overcap** between the tip and the base to retain the wick toward the base of the **overcap**. Alternatively, a protrusion from the wick can engage an inner surface of the **overcap** or the container. In this case, the **overcap**

can have a frangible portion facilitating separation of the tip, and the wick can extend past the frangible portion toward the tip.



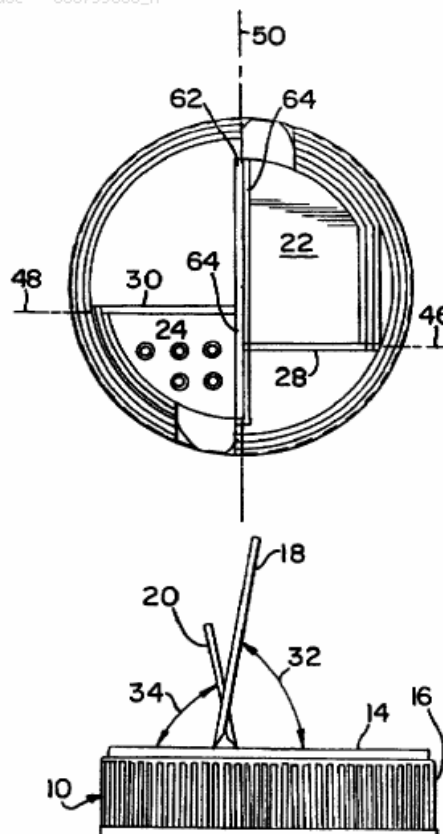
Title: Dual opening container cap**Priority:** US19970790107 19970129

Family:	Publication number	Publication date	Application number	Application date
	US5799838 A	19980901	US19970790107	19970129

Probable Assignee: PHOENIX CLOSURES**Assignee(s):(std):** PHOENIX CLOSURES INC**Assignee(s):** PHOENIX CLOSURES**Inventor(s):(std):** MILLER ALBERT R**International class**
(IPC 8-9): B65D47/08 (Advanced/Invention);
B65D47/08 (Core/Invention)**International class**
(IPC 1-7): B67D3/00**CPC:** B65D47/0847**European class:** B65D47/08B4F**US class:** 215/237 220/254 220/254.2 220/339 222/480 222/482 222/556[Classification Explorer](#)**Cited documents:** US5219100 A, US5139181 A, US4925067 A, US4898292 A, US4714181 A, US4693399 A,**Forward Citations:** USD776526, USD714144, USD682710, USD679181, USD676334, USD670573, USD669367, USD663631, USD660719, USD660718, USD652719, USD652718, USD652298, USD649406, USD644101, USD641642, USD641238, USD640921, USD636220, USD634643, USD632570, USD632569, USD632568, USD632567, USD632566, USD632565, USD632564, USD632560, USD629702, USD628903, USD623074, USD623073, USD623072, USD621719, USD620809, USD582274, USD582273, USD561032, USD558926, USD538160, USD537341, USD533452, USD532691, USD532298, USD530610, USD529800, USD527627, USD522362, USD513452, USD509426, USD474402, USD467801, USD466408, USD465732, USD464886, USD464567, USD462613, USD456713, USD450586, USD450584, USD448668, USD448296, USD446722, USD438469, USD425412, US9868572, US9475623, US9061796, US8955705, US8899437, US8545120, US8403161, US7377707, US7299946, US7134575, US7121438, US6814990, US6742666, US6732873, US6691901, US6488427, US6488187, US6460718, US6341720, US6299033, US6276853, US6250507, US6158632, US6079586, US5960999, US2010320206, US2010270330, US2010176125, US2008053811, US2007007310, US2006108382, US2004234321, US2004217136, US2003161912, US2003071041, TWI481533, AU735568, AU735568,**Abstract:**

A dual opening dispensing closure for use with an associated container includes a closure cap having a circular top wall portion and a depending annular skirt portion depending from the top wall portion. The top wall portion defines a pair of open dispensing regions. The cap includes a pair of flap-like cover portions. Each cover portion is adapted to cover a respective one of the dispensing regions. Each cover portion is connected to the top wall portion by a respective hinge region. Each hinge region defines a hinge line. The hinge lines are in spaced relation to one another and are separated from one another by a secant line extending across the cap. The hinge lines can be parallel to one another and formed generally perpendicular to the secant line. The cover portions are pivotable between an open position and a closed position independent of one another, and can be configured to pivot between the open and closed positions without interfering with pivoting of the other cover portion.

PatBase - US5799838_A



Title: TAMPER-EVIDENT CONTAINER CLOSURE

Priority: AU1997PP00628 19971128 AU19990015520 19981130 WO1998AU00997 19981130

Family:

Publication number	Publication date	Application number	Application date
AU062897 A0	19980108	AU1997PP00628	19971128
AU199915520 A1	19990616	AU19990015520	19981130
AU62897 A0	19980108	AU1997PP00628	19971128
WO9928205 A1	19990610	WO1998AU00997	19981130

Probable Assignee: C T E B EQUIPMENT PTY LTD

Assignee(s):(std): BROWN PETER WILLIAM ; C T E B EQUIPMENT PTY LTD ; HIGGINS CHRISTOPHER LYNDON ; IRWIN LIAM STEPHEN ; MCFADYEN ROBERT

Assignee(s): CTEB EQUIPMENT PTY LTD

Inventor(s):(std): BROWN PETER WILLIAM ; HIGGINS CHRISTOPHER LYNDON ; IRWIN LIAM STEPHEN ; MCFADYEN ROBERT

Inventor(s): PETER WILLIAM BROWN ; ROBERT MCFADYEN ; LIAM STEPHEN IRWIN ; CHRISTOPHER LYNDON HIGGINS

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CY CZ DE DK EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT UA UG US UZ VN YU ZW

International class (IPC 8-9): B65D41/34 B65D50/04 B65D55/02 (Advanced/Invention); B65D41/34 B65D50/00 B65D55/02 (Core/Invention)

International class (IPC 1-7): B65D41/34 B65D50/04 B65D55/02

CPC: B65D50/048 B65D55/024

European class: B65D50/04F4 B65D55/02F

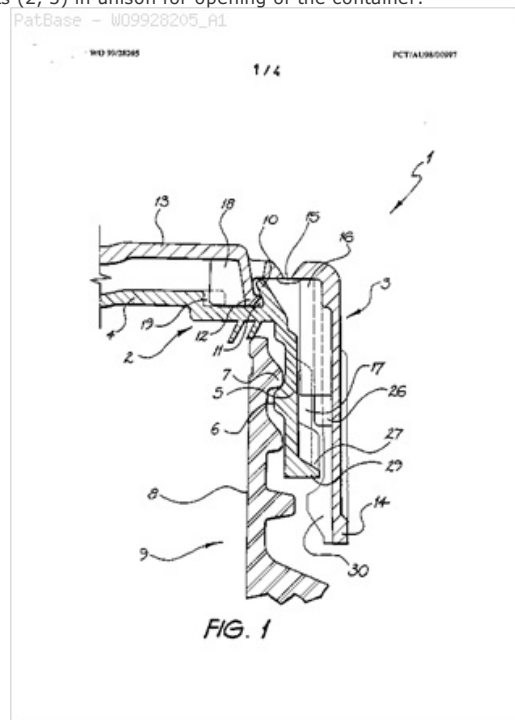
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Cited documents: WO8204029 A1, AU3459795 A1, AU2011197 A1,

Forward Citations: WO17153655, WO15111774, WO14056016, WO08088715, US9926115, US7815063, US6938757, KR101479069, GB2379656, FR3048683, EP2634109, CN105026279, AU2013330198,

Abstract:

A tamper-evident and optionally child-resistant closure (1) for application to a container neck (8) includes inner (2) and outer (3) components both of which comprise respectively a top wall (4, 13) and a peripheral skirt (5, 14) for both rotational and axial movement of the outer component (3) relative to the inner component (2). Rotation of the closure (1) in the anti-clockwise direction, as in opening the container, causes breakage of frangible bridge members (15) which join the outer peripheral skirt (14) to the top wall (13) whereupon the outer peripheral skirt (14) moves downward relative to the inner peripheral skirt (5) to reveal the colour of the inner component (2) through a gap (22), the presence of which indicates that the container has previously been opened or that the closure has been tampered with. The closure (1) optionally also includes a child-resistant feature requiring the outer peripheral skirt (14) to be squeezed out of round at predetermined points to cause engagement between lugs (26, 27) allowing rotation of the inner and outer components (2, 3) in unison for opening of the container.



Title: Seed planter press-wheel assembly
Priority: AU1998PP02793 19980406 AU19990023592 19990406 US20000570472 20000512

Family:	Publication number	Publication date	Application number	Application date
	AU199923592 A1	19991014	AU19990023592	19990406
	AU279398 A0	19980430	AU1998PP02793	19980406
	AU742309 B2	20011220	AU19990023592	19990406
	US6295939 BA	20011002	US20000570472	20000512

Probable Assignee: EMMS R E A
Assignee(s):(std): EMMS R E A ; RONALD EMIN ARTHUR EMMS
Assignee(s): EMMS RONALD EMIN ARTHUR
Inventor(s):(std): EMMS RONALD EMIN ARTHUR ; SHARMAN MICHAEL DAVID
Inventor(s): RONALD EMIN ARTHUR EMMS ; MICHAEL DAVID SHARMAN
Agent(s): MADDERNS; MADDERNS PATENT AND TRADE MARK ATTORNEYS
International class
(IPC 8-9): A01C5/06 (Advanced/Invention);
A01C5/00 (Core/Invention)
International class
(IPC 1-7): A01C5/00 A01C5/06
CPC: A01C5/068
European class: A01C5/06C1
US class: 111/194 172/519 301/644

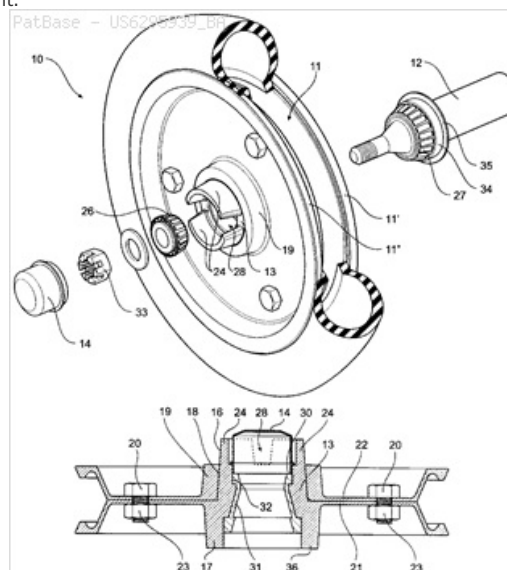
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Cited documents: USD412711 S1, US5676429 A, US5533793 A, US4986606 A, US4537449 A, US4398478 A, US4273057 A, US2731900 A, US2152957 A, US1579044 A, US1282305 A, US1105665 A, GB583446 A,

Forward Citations: US9854734, US2015223389, US2015223388, US2015223384, US2013333599, US2004089209, FR3017266, EP3257345, EP2904890, EP2183949, EP1461988, CN103125179, CN103125179,

Abstract:

The invention relates to a press-wheel assembly of the kind used with seed planting machines and which includes a press-wheel (11) formed by a pair of mating wheel halves (11', 11''), the inner wheel half (11') being provided with an integrally formed hub (13) which projects through a central bore formed in the outer wheel half (11''), the projecting hub portion being constructed and arranged so as to permit the **fitment** of a protective end cap (14) within its open outer end. The cap (14) when fitted to the hub (13) has its skirt surrounded and thereby protected by the walls of the projecting hub portion. Openings (28) in the projecting hub portion are provided to allow the insertion of a hand tool for manually removing the end cap from the wheel hub. Desirably the cap (14) is secured to the inside of the hub by means of an interference fit.



Title: Apparatus and method for pre-capping containers
Priority: US19980079357P 19980325 US19980159152 19980923
Family:

Publication number	Publication date	Application number	Application date
US6115992 A	20000912	US19980159152	19980923

Probable Assignee: NEW ENGLAND MACHINERY INC
Assignee(s):(std): NEW ENGLAND MACH
Assignee(s): NEW ENGLAND MACHINERY INC
Inventor(s):(std): BANKUTY GEZA E ; PERAZZO NICHOLAS J

International class
 (IPC 8-9): B65B7/28 (Advanced/Invention);
 B65B7/28 (Core/Invention)

International class
 (IPC 1-7): B65B7/28

CPC: B65B7/28 B65B7/2835

European class: B65B7/28 B65B7/28E

US class: 53/308 53/317 53/331.5

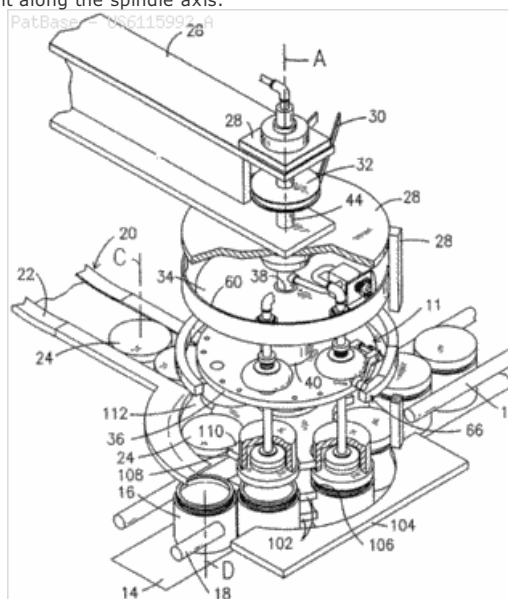
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Cited documents: USRE32237, US5437140 A, US5218811 A, US5115617 A, US5012630 A, US4663913 A, US4658565 A, US4624098 A, US4308707 A, US4205502 A, US3986323 A, US3874147 A, US3724166 A, US3408788 A, US3253388 A, US3242632 A, US32237 A,

Forward Citations: US9174832, US9052299, US8955292, US8935902, US8798788, US8774962, US8413410, US8353145, US7874127, US7836669, US7770358, US7661245, US7603828, US7565784, US7565782, US7503154, US6430896, US6276113, US2016009427, US2012186200, US2012167526, US2012110950, US2012110949, US2010307108, US2010192514, US2008230552, US2008216299, US2008202069, US2008172987, US2008127611, US2007234682, US2006284862, US2005274092, US2005113968, US2004226261, JP6224736, JP2016512186,

Abstract:

An improved pre-capping machine and method for pre-capping containers that are advanced along a predetermined path by standard conveyor systems. The present invention pretightens caps, plugs, **overcaps** and other **fitments** to ensure that they are squarely placed on the containers, without damage to the containers, in preparation for their final closure. The apparatus comprises a spindle assembly, having a longitudinal spindle axis, that is connected to a frame for movement of the spindle assembly along the spindle axis. The spindle assembly comprises a cap gripper that is configured to hold a cap centered over the open end of a container so that axes through the cap, the open end of the container and the spindle assembly generally coincide. To place a cap on the container, the spindle is released for free movement along the spindle axis.



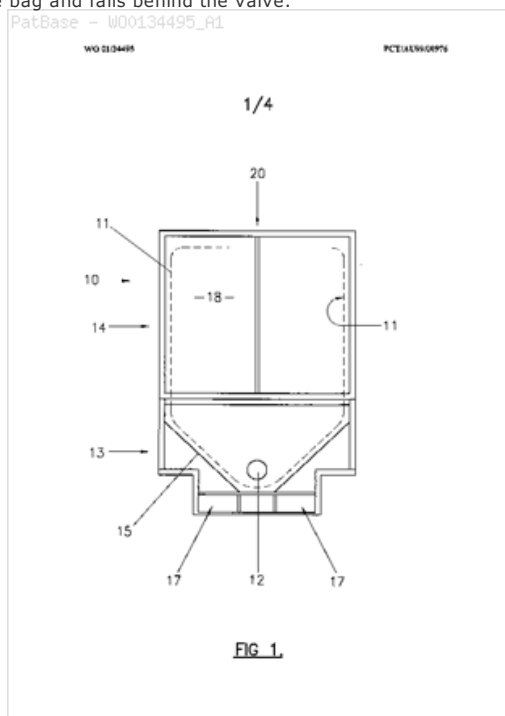
Title: A CONTAINER
Priority: WO1999AU00976 19991105
Family:

Publication number	Publication date	Application number	Application date
AU200015330 A1	20010606	AU20000015330	19991105
AU200015330 A5	20010606	AU20000015330	19991105
WO0134495 A1	20010517	WO1999AU00976	19991105

Probable Assignee: FOOD SPECTRUM PTY LTD
Assignee(s):(std): FOOD SPECTRUM PTY LTD ; LANCASTER PETER ; LANCASTER ROBYN
Inventor(s):(std): LANCASTER PETER ; LANCASTER ROBYN
Inventor(s): PETER LANCASTER ; ROBYN LANCASTER
Designated states: AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CR CU CY CZ DE DK DM EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
International class (IPC 8-9): B65D77/06 (Advanced/Invention); B65D77/06 (Core/Invention)
International class (IPC 1-7): B65D77/06
CPC: B65D77/06
European class: B65D77/06
[Classification Explorer](#)
Cited documents: WO9902425 A1, AU8960298 A1, AU5033396 A1,
Forward Citations: WO05082715, EP1930031,

Abstract:

A system for packaging aseptic product, the system comprising a rigid outer container (10), an aseptic bag (11) within the container, the bag having an inlet, and a separate outlet (12) which is closed off by a perforatable membrane, and a valve (111) which is attached relative to the container, the valve having an inlet which is connected to the outlet, the valve being opened and the membrane being perforated by a perforation means (112) passing through the open valve, the valve then being closed, the bag then being filled, through the inlet, with product which passes into the bag and falls behind the valve.



Title:

Container cap with locking cover

Priority:

US19990428187 19991027

Family:

Publication number	Publication date	Application number	Application date
US6250507 BA	20010626	US19990428187	19991027

Probable Assignee:

PHOENIX CLOSURES INC

Assignee(s):(std):

PHOENIX CLOSURES INC

Inventor(s):(std):

EKKERT LEN

International class (IPC 8-9):

B65D47/08 (Advanced/Invention);
B65D47/08 (Core/Invention)

International class (IPC 1-7):

B67B5/00

CPC:

B65D47/0852 B65D2251/1025

European class:

B65D47/08B4F1 L65D251/10D1

US class:

222/153.14 222/480

Classification Explorer

Cited documents:

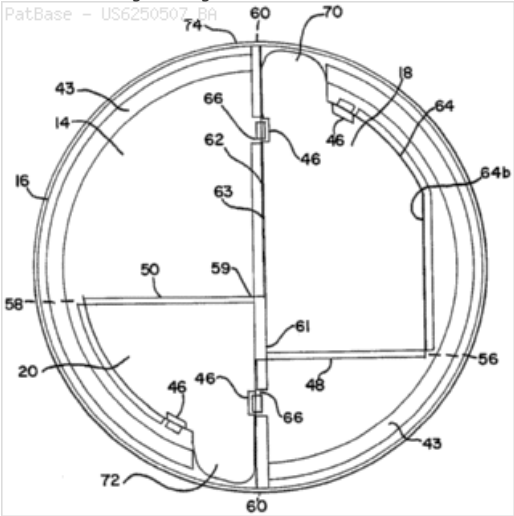
USD278602 S1, US5799838 A, US5788108 A, US5752615 A, US5636732 A, US5219100 A, US5139181 A, US4936494 A, US4925067 A, US4898292 A, US4714181 A, US4693399 A, US4303176 A,

Forward Citations:

WO09111862, USD747649, USD747199, USD714144, USD679181, USD582274, USD582273, USD533452, USD532691, USD532298, USD530610, USD513452, USD509426, US9878833, US9868572, US9475623, US8955705, US8899437, US8857644, US7134575, US2010126992, US2008302797, US2004226950,

Abstract:

A locking closure for use with an associated container includes a closure cap having a top wall portion and a depending skirt portion depending from the top wall portion. The top wall portion further defines a dispensing region therein, and a door for covering the dispensing region. The door has a top surface and a bottom surface defining a thickness, and the door is connected to the top wall portion at a hinge region. The door is pivotable about the hinge region to traverse a path between an open condition and a closed condition. The closure includes a latch having a base portion integral with the top wall that extends generally transverse therefrom. The latch further includes a hook portion integral with the base portion, the hook portion extending from the base portion and intersecting the path defined by the door. The hook portion is spaced from the top wall and defines an engaging surface and a locking surface. The locking surface generally opposes the top wall portion, and the engaging surface inclines downward as it extends toward the door. The locking surface maintains the door in the closed condition and the engaging surface is configured to urge the hook portion out of the path of the door during closing of the door.



Title: AEROSOL MDI OVERCAP CONTAINING DESICCANT COUVERCLE D'INHALATEUR-DOSEUR CONTENANT UN DESHYDRATANT

Priority: US20000204252P 20000515 WO2001US15551 20010515

Family:

Publication number	Publication date	Application number	Application date
AU2001264594 AA	20011126	AU20010264594	20010515
EP1353854 A2	20031022	EP20010939031	20010515
JP2004501032 T2	20040115	JP20010584137T	20010515
WO0187731 A2	20011122	WO2001US15551	20010515
WO0187731 A3	20030828	WO2001US15551	20010515

Probable Assignee: GLAXOSMITHKLINE PLC

Assignee(s):(std): GLAXO GROUP LTD ; GLAXOSMITHKLINE PLC ; HERMAN CRAIG STEVEN ; PISCULLI VINCENT P JR ; HAAN RICHARD J ; ASHURST IAN CARL

Assignee(s): GLAXO GROUP LIMITED ; PISCULLI VINCENT P

Inventor(s):(std): HAAN RICHARD J ; PISCULLI VINCENT P JR ; HERMAN CRAIG STEVEN ; ASHURST IAN CARL ; PISCULLI VINCENT P

Inventor(s): CRAIG STEVEN HERMAN ; VINCENT P JR PISCULLI ; IAN CARL ASHURST

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

International class (IPC 8-9): B65D51/30 B65D83/14 (Advanced/Invention); B65D51/24 B65D83/14 (Core/Invention)

International class (IPC 1-7): B65D51/30 B65D83/14 B65D83/40

CPC: B65D51/30 B65D83/40

European class: B65D51/30 B65D83/40

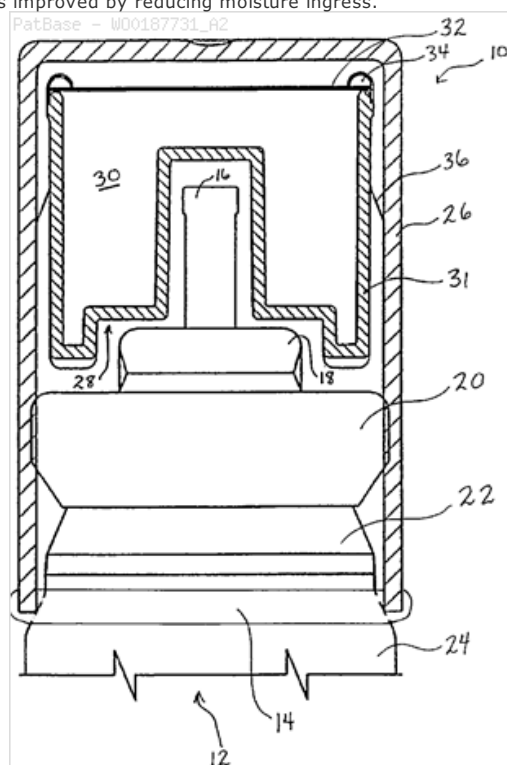
[Classification Explorer](#)

Cited documents: WO9632151 A1, US5749496 A, US5186775 A, US4834234 A, US4769395 A, DE1962685 U,

Forward Citations: WO11039196, US7828150, US7617932, US7516845, US6679374,

Abstract:

The subject matter relates to an **overcap** (10) containing a desiccant (30) for use with a metered dose inhaler (12) to adsorb moisture. The **overcap** advantageously reduces the amount and rate of moisture ingress into the metered dose inhaler. The operation of metered dose inhalers containing agrosopic drug particles is improved by reducing moisture ingress.



Title: Fitment and resealable dispensing closure assembly for high-pressure sealing and bi-modal dispensing
Priority: US20000579323 20000525 US20010811098 20010316 WO2001US15977 20010517
Family:

Publication number	Publication date	Application number	Application date
AR028930 AA	20030528	AR2001P102518	20010524
AU2001264648 AA	20011203	AU20010264648	20010517
AU2001264648 BB	20050224	AU20010264648	20010517
AU200164648 A1	20011203	AU20010064648	20010517
AU200164648 A5	20011203	AU20010064648	20010517
BRPI0111064 A	20040113	BR2001PI11064	20010517
CA2406252 AA	20021016	CA20012406252	20010517
CN1280175 C	20061018	CN20018010089	20010517
CN1438967 A	20030827	CN20018010089	20010517
CZ20023847 A3	20030416	CZ20020003847	20010517
CZ302284 B6	20110202	CZ20020003847	20010517
EP1322542 A1	20030702	EP20010939091	20010517
EP1322542 A4	20060215	EP20010939091	20010517
MXPA02011589 A1	20030327	MX2002PA11589	20010517
PL198315 B1	20080630	PL20010364527	20010517
PL364527 A1	20041213	PL20010364527	20010517
RU2002134907 A	20040420	RU20020134907	20010517
RU2266852 C2	20051227	RU20020134907	20010517
US2001052531 AA	20011220	US20010811098	20010316
US6334555 BA	20020101	US20010811098	20010316
WO0189983 A1	20011129	WO2001US15977	20010517

Probable Assignee: SEQUIST CLOSURES FOREIGN INC
Assignee(s):(std): SEQUIST CLOSURES ; SEQUIST CLOSURES FOREIGN INC
Assignee(s): SMITH KELLY A ; BLOMDAHL CORINNE M ; RANDALL JEFFREY T
Inventor(s):(std): BLOMDAHL C M ; BLOMDAHL J T RANDALL K A SMITH ; CM BLOMDAHL ; JT RANDALL ; KA SMITH ; RANDALL J T ; SMITH K A ; SMITH KELLY A ; SMITH KELLI A ; REHNDALL DZHEFFRI T ; RANDALL JEFFREY T ; BLOMDAL KORINN M ; BLOMDAHL CORINNE M
Inventor(s): K A SMITH ; JT RANDALL KA SMITH CM BLOMDAHL ; J T RANDALL ; C M BLOMDAHL ; SMITH KELLY ; KELLY A SMITH ; CORINNE M BLOMDAHL ; J T RANDALL K A SMITH C M BLOMDAHL ; JEFFREY T RANDALL
Agent(s): SPRUSON AND FERGUSON; FETHERSTONHAUGH AND CO
Designated states: AT AU BE BR CA CH CN CY CZ DE DK ES FI FR GB GR IE IT LU MC MX NL PL PT RU SE TR
International class (IPC 8-9): B65D41/34 B65D47/04 B65D47/08 B65D47/24 B67D5/32 B67D7/32 B67D7/34 F17C13/06 (Advanced/Invention)
International class (IPC 1-7): B65D47/00 B65D47/04 B67D3/00 B67D5/32
CPC: B65D47/0809 B65D47/242
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US class: 222/521 222/545 222/545S 222/546 222/546S

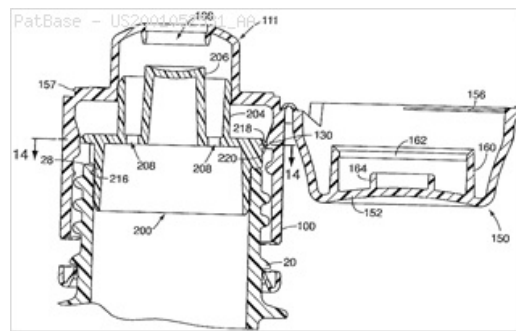
[Classification Explorer](#)

Cited documents: US6095382 A, US6065648 A, US6062441 A, US6059132 A, US6039218 A, US6024256 A, US5938086 A, US5810185 A, US5772076 A, US5743444 A, US5692651 A, US5680969 A, US5562220 A, US5456374 A, US5431305 A, US5421487 A, US5377873 A, US5325999 A, US5295597 A, US5267673 A, US5145094 A, US5145083 A, US5125539 A, US5111977 A, US5111949 A, US5104008 A, US4941598 A, US4867354 A, US4805807 A, US4785978 A, US4690304 A, US4569456 A, US4561570 A, US4506809 A, US4358031 A, US3901410 A, US3887116 A, US3297212 A, US3273754 A, US3194453 A, US3123259 A, US3010619 A, US2808169 A, US2759643 A, FR2716170 A3, EP0759876 A1, EP0467554 A1, EP0439109 A2, DE4328582 A1,

Forward Citations: WO15073256, WO13003474, WO13003474, WO07091209, WO06083994, WO04101384, USD499793, USD484061, US9932158, US9828146, US8613378, US8544685, US8459502, US8403159, US8205762, US7967160, US7900789, US7510095, US7331491, US7182230, US6786363, US6672487, US2016016706, US2012160882, US2011155688, US2011056982, US2011006031, US2009308832, US2009095700, US2008296251, US2008210712, US2008029557, US2007215627, US2007199914, US2007108153, US2006273095, US2006102654, US2004232167, US2004178231, JP2008162597, ITM120102372, ES2244281, EP2468657, EP1816084, EP1619135, EP1619135, EP1582475, EP1582475, CN102616453,

Abstract:

A **fitment** is provided for incorporation into a closure assembly to provide at least one high-pressure seal suitable for maintaining high-positive pressures in a container having pressurized contents, such as carbonated beverages. The **fitment** and closure assembly also provide for bi-modal dispensing operations, because the **fitment** it can be removed from the closure assembly to provide alternative flow characteristics from the container through the closure assembly. The **fitment** may also be provided with one or more projections adapted to engage a thread on the closure body such that rotation of the closure body relative to the container results in removal of the **fitment** from the container. The **fitment** may also be provided with one or more projections for engaging the closure body to limit its movement relative to the container, thereby defining a fully open dispensing position of the closure body. The projection(s) preferably take the form of a plurality of radially extending ratchet shaped projections or the form of a single, helical flange extending around a peripheral surface of the **fitment**. A closure assembly incorporating the **fitment** also may include a plurality of seals formed between various features on the **fitment** and the closure body, which may include a hinged lid, to enhance the sealing characteristics of the closure assembly.

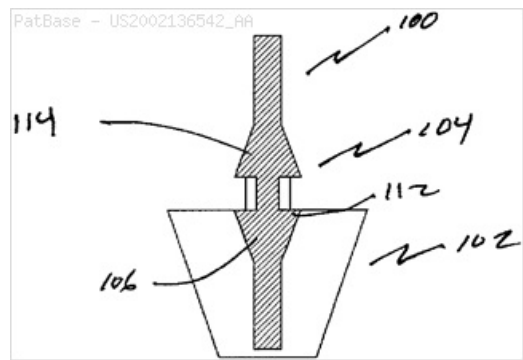


Title:	METHOD AND APPARATUS FOR FASTENING A FLUID TRANSPORT MECHANISM TO A CONTAINER			
Priority:	US20000239621P 20001009	US20010974634 20011009	US20010974779 20011009	
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Family:	Publication number	Publication date	Application number	Application date
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	US2005191481 AA	20050901	US20050906764	20050304
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	WO0231413 A3	20020808	WO2001US31461	20011009
Probable Assignee:	DIAL CORP			
Assignee(s):(std):	HE MENGTAO PETE ; PARK DEBRA ; STATHAKIS KRISTOPHER J ; THR DIAL CORP ; TRIPLETT CARL ; WOLPERT CHRISTOPHER J ; DIAL CORP			
Assignee(s):	HE MENGTAO P			
Inventor(s):(std):	HE MENGTAO P ; HE MENGTAO PETE ; PARK DEBRA ; STATHAKIS KRISTOPHER J ; TRIPLETT CARL ; WOLPERT CHRISTOPHER J			
Inventor(s):	WOLPERT CHRISTOPHER ; STATHAKIS KRISTOPHER ; KRISTOPHER J STATHAKIS ; MENGTAO PETE HE ; CARL TRIPLETT ; CHRISTOPHER J WOLPERT ; DEBRA PARK ; HE MENGTAO			
Agent(s):	SMART AND BIGGAR; SNELL AND WILMER LLP			
Designated states:	AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW			
International class (IPC 8-9):	A24F25/00 A61L9/03 A61L9/04 A61L9/12 B32B3/00 B32B3/26 F23D3/08 F24F6/00 F24F6/08 (Advanced/Invention)			
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European class:	A61L9/03W A61L9/12W			
US class:	122/366 122/366S 239/44 239/44S 392/395 392/395P 428/304.4 428/304.400P 428/304.400S 428/313.3 428/313.300S 428/313.5 428/313.500P 428/315.7 428/315.700S			

[Classification Explorer](#)

Cited documents:	US6104867 A, US6024012 A, US5976503 A, US5945094 A, US5909845 A, US5853633 A, US5839290 A, US5788155 A, US5749520 A, US5749519 A, US5647053 A, US5591395 A, US5411351 A, US5259555 A, US5121881 A, US5031635 A, US5000383 A, US4925327 A, US4915301 A, US4913350 A, US4849606 A, US4765396 A, US4739928 A, US4735626 A, US4663315 A, US4621768 A, US4419326 A, US4413779 A, US4356969 A, US4286754 A, US3954927 A, US3790081 A, US3129888 A, US2804291 A,
Forward Citations:	WO18029044, WO18029043, WO15070085, WO14105365, WO14074467, WO13025585, WO11146175, WO11146175, WO11146174, WO11146174, WO05110500, WO05110500, WO05044318, WO05021055, WO05002636, WO05000370, WO05000018, WO04084958, WO04032984, USD800286, USD674475, USD666705, USD556312, USD546931, USD542400, USD541922, US9861773, US9861772, US9743691, US9694097, US9694096, US9555203, US9427711, US9381266, US9352288, US9259035, US9149552, US9132204, US9095175, US8919662, US8757147, US8746240, US8733670, US8721962, US8677679, US8632059, US8550068, US8349251, US8328115, US8314591, US8292196, US8157188, US8119064, US7997772, US7950595, US7932482, US7883028, US7845213, US7824627, US7767877, US7744833, US7687744, US7681806, US7643734, US7628338, US7589340, US7540473, US7540432, US7503668, US7481571, US7469842, US7350720, US7309024, US7281811, US7281670, US7244398, US7157057, US7032831, US6966665, US6938883, US6871794, US2014205272, US2011108630, US2011072711, US2010176210, US2010147972, US2010065653, US2010059601, US2009185950, US2009045266, US2008230622, US2008093475, US2007290064, US2007235552, US2007187524, US2006289669, US2006170119, US2006131439, US2006022064, US2006011733, US2005247802, US2004265196, US2004265189, US2004264169, US2004262788, US2004262420, US2004262419, US2004243077, US2004184969, US2004182949, US2004074982, US2004067172, JP2007512863, GB2538000, ES2382850, EP3282813, EP3282812, EP2727609, EP2241338, EP2030637, EP2011522, EP1985316, EP1935638, EP1842562, EP1779871, EP1767227, EP1762254, EP1762253, EP1613361, EP1558298,

Abstract:
The present invention relates generally to the fastening of a fluid transport mechanism to a fluid reservoir, and optionally, to various mechanisms which increase the effectiveness of the vaporizing units within which such devices may be employed. For example, the fluid transport mechanism is suitably fastened to the reservoir and removal of the transport mechanism is substantially inhibited by a retaining force provided by one or more fastening features. That is, the transport mechanism is fabricated or suitably augmented such that once it has been inserted into the reservoir, it is not easily removable without significant force or through the use of tools. The retaining force is a force which opposes other forces applied to the transport mechanism which would tend to remove the fluid transport mechanism. For example, the retaining force is provided, at least in part, by fastening features configured on the fluid transport mechanism and/or other components, such as a **fitment** or a sleeve, which engages the transport mechanism and likewise inhibits its removal by directing the retaining force in a direction opposite to that which is needed to remove the transport mechanism from the reservoir. Thus, the fastening elements may suitably comprise various configurations of the transport mechanism itself, components attached to or part of the reservoir, or various combinations of the forgoing, all of which provide an effective retaining force which aids in inhibiting removal of the transport mechanism.

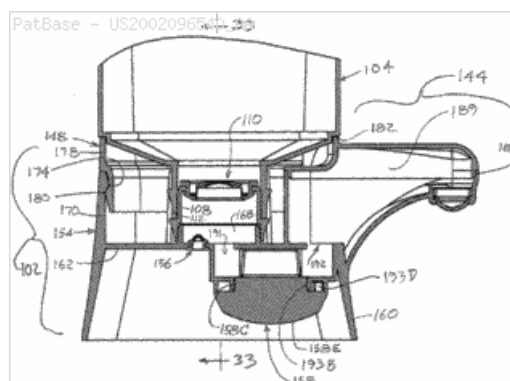


Title: Inverted package dispensing system**Priority:** US20010769572 20010125

Family:	Publication number	Publication date	Application number	Application date
	US2002096540 AA	20020725	US20010769572	20010125
	US6494346 BB	20021217	US20010769572	20010125

Probable Assignee: SEAQUIST CLOSURES FOREIGN INC**Assignee(s):(std):** GROSS RICHARD A ; HICKOK ALAN P ; SCHANTZ DANIEL G ; SEAQUIST CLOSURES ; SEAQUIST CLOSURES FOREIGN INC ; SOCIER TIMOTHY R**Inventor(s):(std):** GROSS RICHARD A ; HICKOK ALAN P ; SCHANTZ DANIEL G ; SOCIER TIMOTHY R**International class (IPC 8-9):** A45D34/00 B65D47/20 B67D3/00 (Advanced/Invention);
A45D33/02 (Advanced/Non-invention);
A45D34/00 B65D47/04 B67D3/00 (Core/Invention);
A45D33/00 (Core/Non-invention)**International class (IPC 1-7):** B65D35/38 B65D5/72 B67D5/06**CPC:** A45D33/02 A45D34/00 B65D47/2031 B67D3/0029**European class:** A45D34/00 B65D47/20E2 B67D3/00H K45D33/02**US class:** 222/185.1 222/212 222/481 222/481.5 222/490 222/494[Classification Explorer](#)**Cited documents:** US5868288 A, US5819984 A, US5655687 A, US5626262 A, US5133482 A, US5060830 A, US5033655 A, US4930668 A, US4516697 A,**Forward Citations:** WO16057623, USD671359, USD596029, USD582274, USD582273, USD563220, USD533452, USD532691, USD532298, USD530610, USD513452, USD509426, US9815680, US9327882, US9079694, US8875953, US8827106, US8544693, US8402999, US8215344, US8113247, US8082956, US8066158, US7861393, US7824545, US7766057, US7708035, US7654419, US7503469, US7299952, US7255250, US7152763, US6691901, US2018029861, US2017101254, US2016183739, US2014131397, US2012261376, US2010276456, US2010276455, US2009301572, US2009095775, US2009095774, US2008302711, US2008277020, US2008185071, US2008142421, US2007289991, US2007251079, US2006243756, US2006201976, US2006060609, US2006006203, US2006006202, US2005279781, US2004226950, US2002074367, EP1546022,**Abstract:**

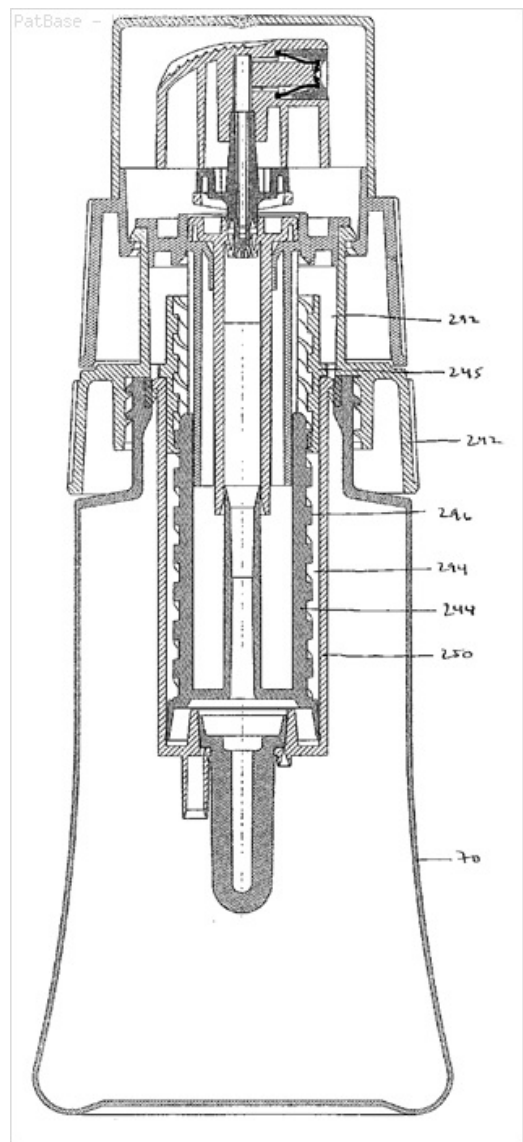
A dispensing system is provided to dispense a fluent product from a container that has an opening to the container interior. A support base is provided for supporting the container with the container opening oriented at least somewhat downwardly to accommodate gravity flow of the fluent material out of the container through the container opening. The support base has (1) a receiving aperture for receiving the container opening, (2) a discharge aperture, and (3) a flow path extending between the receiving aperture and the discharge aperture.



Title:	Non-chemical aerosol dispenser																																																																								
Priority:	US20010933574 20010820 US20020487298 20020820	JP20030520478 20020820 WO2002US26547 20020820	JP20050240514 20020820 US20040487298 20040220																																																																						
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Probable Assignee:	ALTERNATIVE PACKAGING SOLUTIONS LP																																																																								
Assignee(s):(std):	ALTERNATIVE PACKAGING SOLUTIONS LLC ; ALTERNATIVE PACKAGING SOLUTIONS LLP ; ALTERNATIVE PACKAGING SOLUTION ; BLAKE WILLIAM S																																																																								
Assignee(s):	ALTERNATIVE PACKAGING SOLUTIONS LP ; INT MOLDED PACKAGING CORP ; ALTERNATIVE PACKAGING SOLUTIONS L P ; ALTERNATIVE PACKAGING SOLUTIONS LP ; ALTERNATIVE PACKING SOLUTIONS LP																																																																								
Inventor(s):(std):	BLAKE WILLIAM ; BLAKE WILLIAM S																																																																								
Agent(s):	PILLEP BERNHARD ET AL; BRYAN CAVE LLP																																																																								
Designated states:	AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW																																																																								
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Abstract:

A mechanically pressurized aerosol dispensing system comprising a cap which houses a piston, an actuator moveably attached to the cap, forming together with the cap a dispensing head assembly, and an expandable elastic reservoir. The system is fitted over a standard container holding a liquid product, and includes a dip tube assembly to draw liquid into the dispensing head assembly, where the contents are released through the dispensing head assembly, via the aerosol nozzle and valve. A twist of the threaded cap raises a piston, thereby opening a charging chamber within the dispensing head assembly. This creates a vacuum with the resulting suction pulling the product up through the dip tube to fill the charging chamber. Twisting the cap in the opposite direction lowers the piston in a downstroke which closes the charging chamber, forcing the product into the expandable elastic reservoir where it is then discharged through the nozzle.

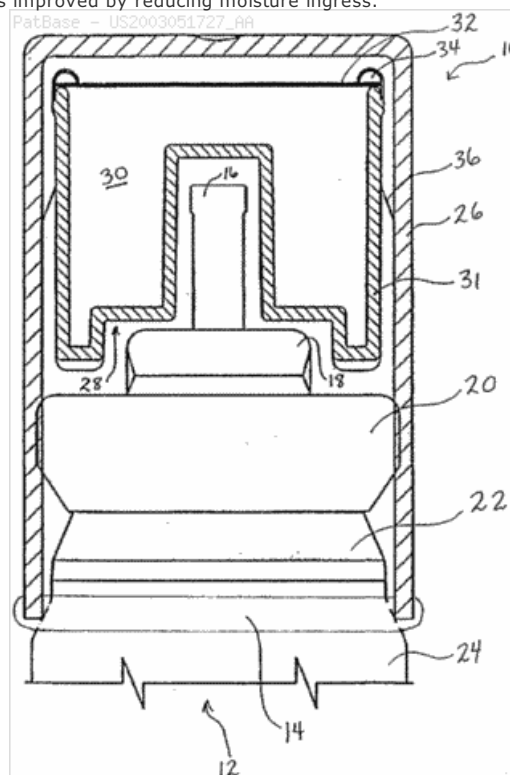


Title: AEROSOL MDI OVERCAP CONTAINING DESICCANT**Priority:** US20020275229 20021104

Publication number	Publication date	Application number	Application date
US2003051727 AA	20030320	US20020275229	20021104

Probable Assignee: SMITHKLINE BEECHAM CORP**Assignee(s):** HAAN RICHARD J ; HERMAN CRAIG STEVEN ; PISCULLI JR VINCENT P ; SMITHKLINE BEECHAM CORP**Inventor(s):(std):** HAAN RICHARD J ; HERMAN CRAIG STEVEN ; PISCULLI JR VINCENT P**International class (IPC 8-9):** A61M15/00 B65D51/30 B65D83/14 (Advanced/Invention);
A61M15/00 B65D51/24 B65D83/14 (Core/Invention)**International class (IPC 1-7):** A45C11/04 A61M15/00 A61M16/00 B65D81/26 F17C11/00**CPC:** A61M15/009 B65D51/30 B65D83/40**European class:** A61M15/00P B65D51/30 B65D83/40**US class:** 128/200.11 128/200.110P 206/204 206/204S 206/6 206/6S[Classification Explorer](#)**Cited documents:** US6484718 BA, US6328032 BA, US6131566 A, US5740792 A, US5687710 A, US4811571 A, US2746796 A,**Forward Citations:** WO10005946, WO10005946, WO07037748, US2007068524,**Abstract:**

The subject matter relates to an **overcap** (10) containing a desiccant (30) for use with a metered dose inhaler (12) to adsorb moisture. The **overcap** advantageously reduces the amount and rate of moisture ingress into the metered dose inhaler. The operation of metered dose inhalers containing agrosopic drug particles is improved by reducing moisture ingress.



Title:	TWO PART CLEANING FORMULA RESULTING IN AN EFFERVESCENT LIQUID			
Priority:	US20020216407 20020809		WO2003US24932 20030807	
Family:	Publication number	Publication date	Application number	Application date
	AU2003259705 AA	20040225	AU20030259705	20030807
	BRPI0305715 A	20040928	BR2003PI05715	20030807
	CA2493969 AA	20050125	CA20032493969	20030807
	EP1474503 A1	20041110	EP20030785087	20030807
	JP2005535751 T2	20051124	JP20040527924T	20030807
	US6583103 BA	20030624	US20020216407	20020809
	WO04015052 A1	20040219	WO2003US24932	20030807
Probable Assignee:	SC JOHNSON AND SON INC			
Assignee(s):(std):	JOHNSON AND SON INC S C ; S C JOHNSON			
Assignee(s):	S C JOHNSON AND SON INC ; SC JOHNSON AND SON INC ; KLINKHAMMER MICHAEL E			
Inventor(s):(std):	KLINKHAMMER MICHAEL E			
Inventor(s):	MICHAEL E KLINKHAMMER			
Agent(s):	SPRUSON AND FERGUSON; BERESKIN AND PARR LLP SENCRL SRL			
Designated states:	AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW			
International class (IPC 8-9):	B01D19/04 C11D17/04 C11D17/08 C11D3/00 C11D3/02 C11D3/04 C11D3/06 C11D3/10 C11D3/20 C11D3/33 C11D3/34 C11D3/37 (Advanced/Invention); B01D19/02 C11D17/04 C11D17/08 C11D3/00 C11D3/02 C11D3/04 C11D3/06 C11D3/10 C11D3/20 C11D3/26 C11D3/34 C11D3/37 (Core/Invention)			
International class (IPC 1-7):	B01D19/04 C11D17/04 C11D17/08 C11D3/02 C11D3/04 C11D3/06 C11D3/10 C11D3/20 C11D3/33 C11D3/34 C11D3/37 C11D7/08 C11D7/12			
CPC:	B65D81/3288 C11D17/041 C11D3/0052 C11D3/042 C11D3/10 C11D3/2068 C11D3/2075			
European class:	C11D17/04B C11D3/00B10 C11D3/04A C11D3/10 C11D3/20C C11D3/20E			
US class:	510/117 510/191 510/406 510/477 510/478 510/509			

[Classification Explorer](#)

Cited documents:	WO9833880 A1, WO0222467 A1, WO0218528 A1, WO0100765 A1, US6313086 BA, US6302969 BB, US6290872 BA, US6273960 BA, US6245157 BA, US6223942 BA, US6177092 BA, US6136768 A, US6127330 A, US6126697 A, US6065643 A, US5975335 A, US5968453 A, US5962393 A, US5958454 A, US5948792 A, US5931172 A, US5885949 A, US5865345 A, US5862949 A, US5804546 A, US5797986 A, US5776877 A, US5770554 A, US5767055 A, US5747439 A, US5718729 A, US5683976 A, US5665427 A, US5630883 A, US5624465 A, US5613623 A, US5579957 A, US5578562 A, US5562856 A, US5455035 A, US5407595 A, US5392947 A, US5307954 A, US5286402 A, US5264146 A, US5198144 A, US5154917 A, US5141666 A, US5004591 A, US4990327 A, US4965019 A, US4897251 A, US4797231 A, US4707441 A, US4683008 A, US4683004 A, US4679706 A, US4666625 A, US4619710 A, US4522738 A, US4514326 A, US4456492 A, US4433013 A, US4417993 A, US4401490 A, US4348292 A, US4337318 A, US4336356 A, US4316824 A, US4272393 A, US4002571 A, US3866800 A, US3770641 A, US3762875 A, US3729553 A, US3723324 A, US3708431 A, US3341418 A, US3105615 A, US3032240 A, EP1153881 A1, EP0733097 A1,
Forward Citations:	WO09063393, WO08068463, WO08041045, WO05103218, WO05077766, WO05056427, USD729016, USD729015, USD539668, USD539667, USD514451, US9943080, US9872930, US9789216, US9516877, US9334098, US8846063, US8791057, US8784504, US8745771, US8739968, US8551928, US8338354, US8328118, US8193138, US8133403, US7906473, US7737103, US7638475, US7631386, US7378382, US7307052, US7300912, US7021499, US6758411, US2012108485, US2011218133, US2011215113, US2011212878, US2011212871, US2011139180, US2010264046, US2010150971, US2010144581, US2010132101, US2009124526, US2009032497, US2008025926, US2007220690, US2007093401, US2007037727, US2007028394, US2007004609, US2007000945, US2006005316, US2005282722, US2005250668, US2005029296, US2004234488, US2004063600, US2004026535, TW1532834, KR101339749, JP2015512402, JP2011514834, JP2011228364, JP2010132758, JP2006193631, GB2451163, GB2386604, GB2386603, GB2386603, EP2780439, EP2060622, EP1716048, DE10358536,

Abstract:
A liquid two part cleaning composition for hard surfaces, and a two chamber bottle for dispensing the cleaner are disclosed. The cleaner includes a first basic liquid and a second acidic liquid. At least one of the liquids includes a surfactant system. At least one of the liquids includes a foam inhibitor. When the first and second liquid are dispensed on a surface, carbon dioxide gas released instantaneously creates a quickly breaking foam on the surface. The bottle has horizontal orientation, of the first and second chamber that assures a user's thumb is on the front wall and a user's fingers are on the rear wall of the bottle when dispensing. The horizontal orientation provides an ergonomically advantageous wide range of motion. The positioning of a user's thumb on the front wall of the bottle allows for design adjustments in the bottle to achieve equal dispensing from both chambers.

FIG. 1

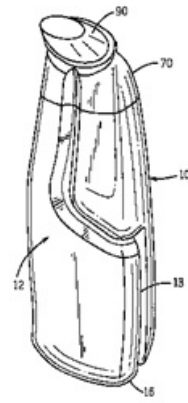
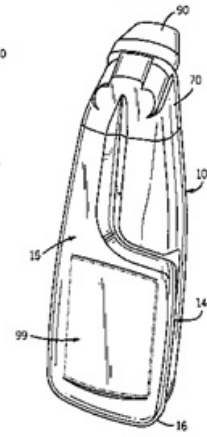


FIG. 2



Title: Method and apparatus for selective positioning a wick material in a vapor-dispensing device
Priority: US20020095788 20020311 CA20032421651 20030306 US20030666635 20030918
Family:

Publication number	Publication date	Application number	Application date
CA2421651 AA	20030911	CA20032421651	20030306
CA2421651 C	20080226	CA20032421651	20030306
US2003170014 AA	20030911	US20020095788	20020311
US2004062531 AA	20040401	US20030666635	20030918
US6697571 BB	20040224	US20020095788	20020311
US6889003 BB	20050503	US20030666635	20030918

Probable Assignee: HENKEL IP AND HOLDING GMBH

Assignee(s):(std): DIAL CORP

Assignee(s): HE MENGTAO PETE ; HENKEL IP AND HOLDING GMBH ; HENKEL US IV CORP ; PARK DEBRA ; STATHAKIS KRISTOPHER J ; WOLPERT CHRISTOPHER J ; TRIPLETT CARL

Inventor(s):(std): HE MENGTAO PETE ; PARK DEBRA ; STATHAKIS KRISTOPHER J ; TRIPLETT CARL ; WOLPERT CHRISTOPHER J ; PARK DERBA ; HE MENGATO PETE

Agent(s): SMART AND BIGGAR; SNELL AND WILMER LLP

International class A01M1/20 A61L9/03 (Advanced/Invention);

(IPC 8-9): A01M1/20 A61L9/015 (Core/Invention)

International class A61L9/03 F24F3/14 F24F6/08

(IPC 1-7):

CPC: A01M1/2077 A61L9/03

European class: A01M1/20A1 A01M1/20C4G A61L9/03

US class: 392/390 392/392 392/395 392/403 392/406

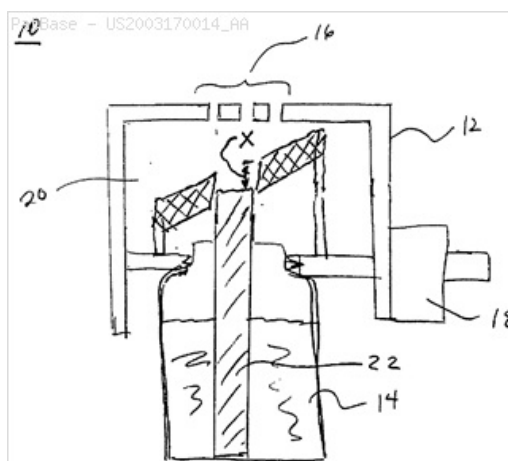
[Classification Explorer](#)

Cited documents: US6697571 BB, US6361752 BA, US6278840 BA, US6236807 BA, US6104867 A, US5940577 A, US5926614 A, US5909845 A, US5773795 A, US5647053 A, US5591395 A, US5522008 A, US5484086 A, US5290546 A, US5222186 A, US5161646 A, US5111477 A, US5095647 A, US5050762 A, US5038394 A, US5016772 A, US4874924 A, US4745705 A, US4739928 A, US4731520 A, US4724976 A, US4663315 A, US4467177 A, US3872280 A, US3723706 A, US2611068 A, US2597195 A, US1994932 A, US1944821 A,

Forward Citations: USD651088, USD650684, USD650683, USD650682, USD650681, USD646573, USD639923, USD584809, USD551750, USD546931, USD542400, USD541922, US9770524, US9669126, US9526808, US9370594, US9242020, US8897630, US8746587, US8733670, US8721962, US8651395, US8442390, US8349251, US8320751, US8210448, US8157188, US8119064, US8061628, US8016207, US7981367, US7932482, US7845213, US7840123, US7744833, US7694675, US7687744, US7643734, US7589340, US7540473, US7352960, US7281811, US6889003, US2014037273, US2013266297, US2011139892, US2011139891, US2011139890, US2011139885, US2011139884, US2011139883, US2011024519, US2010176210, US2010147972, US2010065653, US2008226269, US2008130266, US2008129226, US2008069725, US2006291826, US2006222347, US2006221594, US2006219962, US2006219800, US2006186218, US2006170119, US2006163376, US2006144395, US2005201944, US2005195598, US2004265196, US2004265164, US2004062531, US2004033171, US2002100833, EP1985316,

Abstract:

The present invention achieves advancement in the art by providing a method and apparatus for selective positioning of a wick material in a vapor-dispensing device that facilitates effective fragrance vapor delivery while offering significant advantages in manufacture, assembly, product performance, and product safety. In one embodiment, the wick is suitably selected and positioned such that sufficient surface area of the wick material is suitably exposed to the heating unit to enable effective evaporation of a vaporizable liquid, but the wick height relative to the heating element minimizes the amount of surface area of the wick in proximity to the heating element. Additionally, the positioning can reduce the need for protective **overcaps** and other apparatus for protecting the wick.



Title: RETURNABLE AND REUSABLE, BAG-IN-DRUM FLUID STORAGE AND DISPENSING CONTAINER SYSTEM

Priority: US20020139186 20020503 EP20030718527 20030428 EP20120157861 20030428
JP20040501286 20030428 JP20100178617 20030428 JP20150052065 20030428
JP20040501286T 20030428 WO2003US13116 20030428 US20040761457 20040120
US20050225409 20050913 JP20150052065 20150316 JP20150222875 20151113

Family:	Publication number	Publication date	Application number	Application date
	AU2003221784 AA	20031117	AU20030221784	20030428
	DE60345690 D1	20140327	DE20036045690	20030428
	DE60348783 D1	20160519	DE20036048783	20030428
	EP1501750 A1	20050202	EP20030718527	20030428
	EP1501750 A4	20090429	EP20030718527	20030428
	EP1501750 B1	20140212	EP20030718527	20030428
	EP2476634 A2	20120718	EP20120157861	20030428
	EP2476634 A3	20121114	EP20120157861	20030428
	EP2476634 B1	20160406	EP20120157861	20030428
	JP2005524584 T2	20050818	JP20040501286T	20030428
	JP2010280445 A2	20101216	JP20100178617	20100809
	JP2013136416 A2	20130711	JP20130015640	20130130
	JP2015110452 A2	20150618	JP20150052065	20150316
	JP2016026135 A2	20160212	JP20150222875	20151113
	KR100996782 B1	20101125	KR20047017728	20030428
	KR101099985 B1	20111228	KR20107009733	20030428
	KR101187542 B1	20121002	KR20117018037	20030428
	KR20040106461 A	20041217	KR20047017728	20030428
	KR20100053701 A	20100520	KR20107009733	20030428
	KR20110106430 A	20110928	KR20117018037	20030428
	MY129460 A	20070430	MY20030001216	20030402
	TW200307632 A	20031216	TW20030109692	20030425
	TWI301112 B	20080921	TW20030109692	20030425
	US2003205581 AA	20031106	US20020139186	20020503
	US2004149348 AA	20040805	US20040761457	20040120
	US2006006193 AA	20060112	US20050225409	20050913
	US6698619 BB	20040302	US20020139186	20020503
	US6942123 BB	20050913	US20040761457	20040120
	US7316329 BB	20080108	US20050225409	20050913
	WO03093141 A1	20031113	WO2003US13116	20030428

Probable Assignee: ADVANCED TECHNOLOGY MATERIALS INC

Assignee(s):(std): ADVANCED TECH MATERIALS ; ADVANCED TECHNOLOGY MATERIALS INC ; WERTENBERGER RICHARD

Assignee(s): ADVANCED TECHNOLOGY MATERIALS INC DANBURY ; GOLDMAN SACHS BANK USA COLLATERAL AGENT AS

Inventor(s):(std): WERTENBERGER RICHARD ; RICHARD WERTENBERGER

Inventor(s): WERTENBERGER RICHARD BLOOMINGTON ; WERTENBERGER RICHARD LAKEVILLE

Agent(s): SCHUESSLER ANDREA; ABG PATENTES SL; INABA YOSHIYUKI; TANAKA KATSURO; OHGA SHINJI; INTELCTUAL PROPERTY / TECHNOLOGY LAW; INTELCTUAL PROPERTY TECHNOLOGY LAW; HULTQUIST STEVEN; INTELCTUAL PROPERTY/TECHNOLOGY LAW; CHAPPUIS MARGARET; MARGARET; STEVEN; GUSTAFSON VINCENT K; SHOFI DAVID M; VINCENT K; DAVID M

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

International class (IPC 8-9): B65D21/02 B65D21/024 B65D25/18 B65D25/38 B65D35/56 B65D77/04 B65D77/06 B65D88/12 B65D88/22 B65D90/00 B65D90/04 B67D7/02 B67D7/72 C08J5/00 F17C13/00 H01L21/02 (Advanced/Invention); B65D25/18 B65D90/04 B67D7/72 H01L21/02 (Advanced/Non-invention)

International class (IPC 1-7): B65B3/16 B65D35/22 B65D77/06 B65D88/12 B65D88/22 B65D90/00 B65D90/04 F17C13/00

CPC: Y02W30/807 B67D7/0261 B65D77/06

European class: B65D77/06 B67D7/02E4B

US class: 141/114 222/1 222/105 222/107 222/129 222/129S 222/183 222/1S 222/394 222/400.7 222/464.1 222/94 222/94P

[Classification Explorer](#)

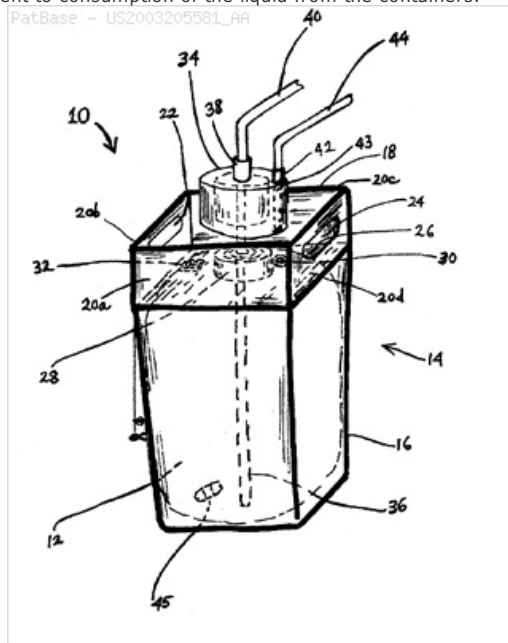
Cited documents: WO9601226 A1, WO02051369 A1, WO0151369 A1, US7153021 BB, US6942123 BB, US6698619 BB, US6648201 BA, US6502218 BA, US6192919 BA, US5750216 A, US5750216, US5750216, US5613622 A, US5555996 A, US5555996, US5555996, US5217138 A, US5102010 A, US4871087 A, US3945534 A, US3409714 A, US2003205285 AA, US2003102335 AA, US2003004808 AA, US2003004608 AA, US1998555996, US13918502, US13910402, TW421634, TW291831, TW254909, TW174329, JPS63258634, JP63258634 A2, JP6100087 A2, JP6064660 A2, JP6010898 A2, JP2002533214 T2, JP2002502778 T2, JP2001122334 A2, JP2000109195 A2, JP2000086902 A2, JP2000010915 A2, JP1162352 U1, JP1162352 U, JP11073219, EP1001265 A2, DE29819987 U1,

Forward Citations: WO16207695, WO15142805, WO15134905, WO15068120, WO12078977, WO12078977, WO12051093, WO12051093, WO11146102, WO11009154, WO10144439, WO09111719, WO09026324, WO06116428, USD702128, US9802808, US9802807, US9802749, US9695985, US9650169, US9637300, US9636626, US9618942, US9586188, US9556012, US9522773, US9518701, US9517873, US9468901, US9403632, US9290296, US9272840, US9234628, US9211993, US9187240, US9126749, US9126139, US9120616, US9090398, US9079758, US9073028, US9062829, US9061879, US9038855, US9031683, US8956337, US8955557, US8939950, US8920396, US8905984, US8894625, US8894624, US8894623, US8888753, US8858685, US8849448, US8844774, US8833609, US8733598, US8679231, US8567605, US8561653, US8540689, US8529533, US8507382, US8506689, US8506540, US8336734, US8322571, US8282714, US8191740, US8186569, US8150549, US8141755, US8052012, US8038039, US8002880, US7984845,

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Abstract:

A "bag-in-a-drum" container for storage and dispensing of fluids. The container is adapted to minimize volumetric space requirements in storage, transport and use of the container. The containers are usefully employed in a system of supplying liquid in containers to an end user market and refabricating containers subsequent to consumption of the liquid from the containers.



Title:

DISPENSING DEVICE

Priority:

US2002037771P 20020503 WO2003CH00270 20030425 US20040512666 20041208

Family:

Publication number	Publication date	Application number	Application date
AU2003218852 AA	20031117	AU20030218852	20030425
EP1503808 A1	20050209	EP20030714598	20030425
US2006175425 AA	20060810	US20030512666	20030425
WO03092750 A1	20031113	WO2003CH00270	20030425

Probable Assignee:

GIVAUDAN SA

Assignee(s):(std):

BROWN COLIN ; GIVAUDAN SA ; MCGEE THOMAS ; NAISH GUY EDWARD

Inventor(s):(std):

BROWN COLIN ; MCGEE THOMAS ; NAISH GUY EDWARD ; NAISH GUY E

Inventor(s):

THOMAS MCGEE ; NAISH GUY ; COLIN BROWN ; GUY EDWARD NAISH

Agent(s):

NORRIS MCLAUGHLIN AND MARCUS

Designated states:

AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

International class (IPC 8-9):

A01M1/20 A01M13/00 A61L9/03 A61L9/04 A61L9/12 (Advanced/Invention)

International class (IPC 1-7):

A01M1/20 A01M13/00 A61L9/03 A61L9/12 B60H3/00

CPC:

A01M1/2033 A01M1/2044 A01M1/2072 A01M1/2077 A61L9/037 A61L9/127

European class:

A01M1/20A A01M1/20A1 A01M1/20C2F A01M1/20C2L A01M1/20C4F A01M1/20C4G A01M13/00B A61L9/03W A61L9/12W

US class:

239/44 239/44P

[Classification Explorer](#)

Cited documents:

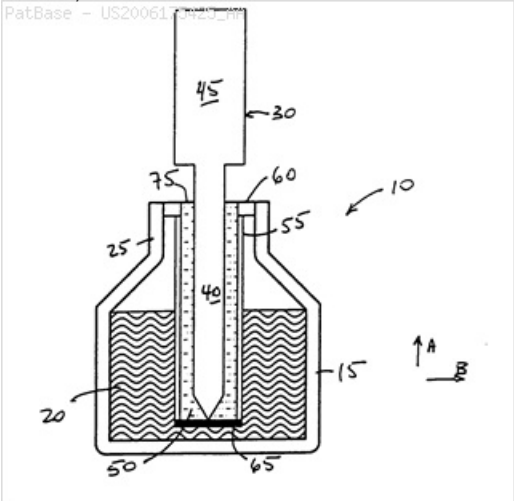
WO9816262 A1, US7032831 BB, US5095647 A, US5000383 A, US4915301 A, US4793476 A, US4732321 A, US3587968 A, GB2266054 A1, EP1088562 A1, EP0420144 A1,

Forward Citations:

WO16144733, WO12176003, WO12176001, WO09054910, WO08037101, WO07098627, WO07098627, WO06026877, WO05053756, WO05021054, US9783357, US9694358, US9655168, US9586719, US9486822, US9468697, US9439993, US9393334, US9393333, US9339578, US9266072, US9259750, US8750693, US8733670, US8157188, US7540473, US7281670, US2017362011, US2016354505, US2015305089, US2015217064, US2014301722, US2014197246, US2014161428, US2014153910, US2012024975, US2011020195, US2009266907, US2009101730, US2006131439, JP5806906, JP2013078533, GB2492635, GB2480906, GB2480906, GB2417902, EP2986328, EP2183967, EP1689451,

Abstract:

A device for dispensing a volatile liquid as a vapor to an ambient environment, i.e., a room or vehicle interior, which device comprises a reservoir of the volatile liquid, and a porous element which permits the passage of vapor therethrough but does not permit the passage of the volatile liquid therethrough, characterized in that the device greatly decreases the likelihood of undesired spillage of the volatile liquid from the device when the device held in any orientation.



Title:

DUAL BOTTLE FOR EVEN DISPENSING OF TWO FLOWABLE COMPOSITIONS

Priority:

US20020216513 20020809 WO2003US24962 20030807

Family:

Publication number	Publication date	Application number	Application date
AT307770 E	20051115	AT20030785106T	20030807
AU2003255242 AA	20040225	AU20030255242	20030807
AU2003255242 BB	20090129	AU20030255242	20030807
CA2493939 AA	20050125	CA20032493939	20030807
CA2493939 C	20070724	CA20032493939	20030807
DE60302034 D1	20051201	DE20036002034	20030807
DE60302034 T2	20060524	DE20036002034T	20030807
EP1427652 A1	20040616	EP20030785106	20030807
EP1427652 B1	20051026	EP20030785106	20030807
ES2247560 T3	20060301	ES20030785106T	20030807
JP2005535527 T2	20051124	JP20040527943T	20030807
US2004026535 AA	20040212	US20020216513	20020809
US6758411 BB	20040706	US20020216513	20020809
WO04014760 A1	20040219	WO2003US24962	20030807

Probable Assignee:

SC JOHNSON AND SON INC

Assignee(s):(std):

CONWAY SIMON M ; GREENE KEVIN J ; HARBUTT RICHARD P ; JOHNSON AND SON INC S C ; SNOW DAVID C ; S C JOHNSON

Assignee(s):

SC JOHNSON AND SON INC ; S C JOHNSON AND SON INC

Inventor(s):(std):

SNOW DAVID C ; HARBUTT RICHARD P ; GREENE KEVIN J ; CONWAY SIMON M ; SNOW C ; HARBUTT P ; GREENE J ; CONWAY M

Inventor(s):

DAVID C SNOW ; KEVIN J GREENE ; RICHARD P HARBUTT ; SIMON M CONWAY

Agent(s):

SPRUSON AND FERGUSON; BERESKIN AND PARR LLP SENCRL SRL

Designated states:

AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

International class (IPC 8-9):

B65D81/32 C11D17/00 C11D17/04 C11D17/08 (Advanced/Invention);
B65D81/32 C11D17/00 C11D17/04 C11D17/08 (Core/Invention)

International class (IPC 1-7):

A62C31/00 B65D1/32 B65D81/32 C11D17/0 C11D17/04 C11D17/08

CPC:

B65D81/3288 C11D17/041

European class:

B65D81/32L2 C11D17/04B

US class:

215/10 222/143 239/303 239/304 239/327 239/418 239/426 239/433 239/434 239/436 239/543 239/544

[Classification Explorer](#)

Cited documents:

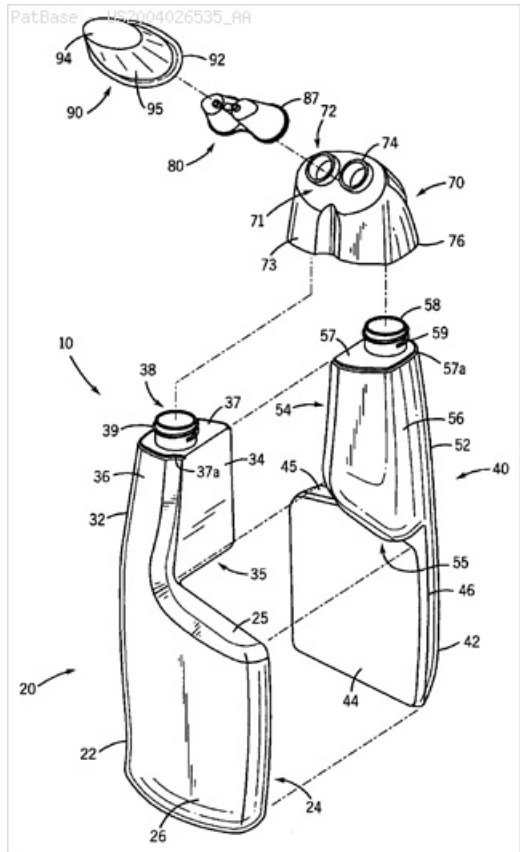
WO9955598 A1, WO9912846 A1, WO9907611 A1, WO9852864 A1, WO9833880 A1, WO9829320 A1, WO9824705 A1, WO9801385 A1, WO9402369 A1, WO0222467 A1, WO0170923, WO0130308 A1, WO0126821 A1, WO0100765 A1, WO0061713 A1, WO0061712 A1, WO0006456 A2, WO0003923 A1, USRE36035 E, USD63610 S1, USD448301 S1, USD372870 S1, USD333789 S1, USD153194 S1, USD152962 S1, USD135569 S1, USD110790 S1, US6613731 BA, US6583103 BA, US6540109 BA, US6458280 BA, US6435378 BA, US6419783 BA, US6325229 BA, US6223943 BA, US6223942 BA, US6114290 A, US6082588 A, US6065643 A, US6056154 A, US5954234 A, US5954231 A, US5954230 A, US5954213 A, US5947335 A, US5921440 A, US5899361 A, US5865345 A, US5862949 A, US5849241 A, US5823391 A, US5819994 A, US5804546 A, US5765725 A, US5653361 A, US5647513 A, US5647510 A, US5613623 A, US5611463 A, US5579957 A, US5562856 A, US5482170 A, US5411176 A, US5398846 A, US5392947 A, US5386928 A, US5356040 A, US5328056 A, US5303851 A, US5292039 A, US5289950 A, US5269441 A, US5252312 A, US5236108 A, US5154917 A, US5152432 A, US5143261 A, US5137178 A, US5119971 A, US5104008 A, US5052590 A, US5014881 A, US4993595 A, US4984715 A, US4974756 A, US4949880 A, US4940167 A, US4838457 A, US4522738 A, US4274556 A, US4196808 A, US4148417 A, US3822811 A, US3729553 A, US3467269 A, US3347420 A, US3341418 A, US3335912 A, US330515 A, US3182728 A, US3105615 A, US3032240 A, US1555676 A, US1363064 A, FR859730 A, FR2791041 B1, EP3117237, EP1153881 A1, EP1063172 A2, EP0873945 A1, EP0733097 A1, EP0695696 A1, DE9302239 U1, DE3117237 A1, DE1968065 U,

Forward Citations:

WO08131226, WO07093315, WO06079127, WO05080224, USD805401, USD803071, USD799008, USD787950, USD772073, USD768503, USD767346, USD764314, USD764313, USD755642, USD751901, USD747973, USD746154, USD743798, USD727749, USD706140, USD585277, US9834363, US9776787, US9597698, US9452440, US9446888, US8870027, US8827979, US8802061, US8746475, US8745771, US8739968, US8656845, US8616390, US8486380, US8474659, US8445247, US8371461, US8367597, US8337905, US8334120, US8304218, US8293221, US8283142, US8252562, US8240497, US8235239, US8222012, US8148316, US8148314, US8105810, US8084411, US8071525, US8062875, US8030038, US7935667, US7857913, US7737103, US7654415, US7594594, US7530475, US7448556, US7407117, US7152813, US7148187, US7021499, US2017066570, US2015336122, US2015306615, US2014246515, US2013240563, US2012240829, US2011081693, US2011042337, US2010264046, US2010237034, US2010140203, US2010132101, US2010116826, US2010116769, US2010116768, US2010087528, US2010086621, US2010086535, US2010086510, US2009124526, US2009053323, US2009020542, US2009020541, US2009004289, US2008283523, US2008269098, US2008233005, US2008093325, US2008025926, US2007158461, US2007114242, US2007075081, US2007029344, US2007028394, US2007007235, US2006293201, US2006198798, US2006091237, US2006054644, US2006032865, US2006005316, US2005282722, US2005161528, US2005150905, US2005139608, US2005029296, US2004266639, JP4733650, JP2016508100, JP2015221691, JP2008506017, JP2007522052, GB2540119, GB2460933, GB2460933, GB2459519, GB2459519, EP1935806, EP1716056, DE202009011682, DE10358536,

Abstract:

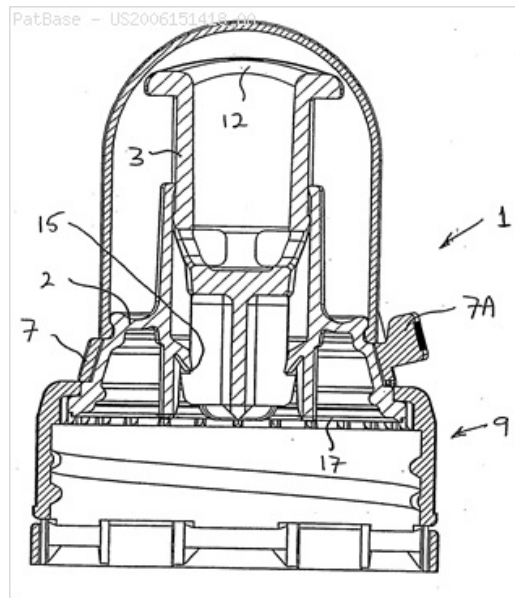
A liquid two part cleaning composition for hard surfaces, and a two chamber bottle for dispensing the cleaner are disclosed. The cleaner includes a first basic liquid and a second acidic liquid. At least one of the liquids includes a surfactant system. At least one of the liquids includes a foam inhibitor. When the first and second liquid are dispensed on a surface, carbon dioxide gas released instantaneously creates a quickly breaking foam on the surface. The bottle has horizontal orientation of the first and second chamber that assures a user's thumb is on the front wall and a user's fingers are on the rear wall of the bottle when dispensing. The horizontal orientation provides an ergonomically advantageous wide range of motion. The positioning of a user's thumb on the front wall of the bottle allows for design adjustments in the bottle to achieve equal dispensing from both chambers.



Title:	TAMPER EVIDENT CLOSURE ASSEMBLIES																																																												
Priority:	NZ20020523373 20021220		AU20030291786 20031219		WO2003NZ00291 20031219																																																								
	AU20100202106 20100525																																																												
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Publication number	Publication date	Application number	Application date																																																										
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WO04056670 A1	20040708	WO2003NZ00291	20031219																																																										
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Probable Assignee:	ALTO HOLDINGS LTD																																																												
Assignee(s):(std):	ALTO PACKAGING LTD ; ALTO PLASTICS LTD ; SCOTT EDWARD SEAN ; SCOTT EDWARD S ; ALTO HOLDINGS LTD																																																												
Assignee(s):	ALTO PACKAGING LIMITED ; ALTO HOLDINGS LIMITED ; ALTO PLASTICS LIMITED																																																												
Inventor(s):(std):	SCOTT EDWARD SEAN ; SEAN SCOTT EDWARD ; SCOTT EDWARD S																																																												
Inventor(s):	EDWARD SEAN SCOTT ; SCOTT EDWARD																																																												
Agent(s):	WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; A J PARK; AJ PARK; RICHES MCKENZIE AND HERBERT LLP; JACOBSON HOLMAN PLLC																																																												
Designated states:	AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW																																																												
International class (IPC 8-9):	A47G19/22 B65D39/00 B65D41/50 B65D47/12 B65D47/24 B65D47/26 B65D47/36 B65D51/18 B65D51/22 B65D83/00 B67D3/00 (Advanced/Invention); A47G19/22 B65D39/00 B65D47/04 B65D47/12 B65D51/18 B65D83/00 (Core/Invention); B65D (Subclass/Invention)																																																												
International class (IPC 1-7):	B65D41/50 B65D47/24 B65D47/26 B65D47/36																																																												
CPC:	B65D47/127 B65D47/24 B65D51/226 B65D2101/0038 B65D2251/0015 B65D2251/0056 B65D2251/0093																																																												
European class:	B65D47/12D B65D47/24 B65D51/22 B65D51/22A3 L65D101/00A3C L65D251/00Y2D L65D251/00Y4J L65D251/00Y6M																																																												
US class:	215/254 215/257 215/387 220/254.7 220/254.700 220/714 220/717 222/522																																																												
Classification Explorer																																																													
Cited documents:	WO03051734 A1, WO0136289 A1, USD419447 S1, US6772910 BA, US6659308 BA, US6477743 BA, US6321924 BA, US6257463 BA, US6257436 BA, US6116445 A, US5927549 A, US5680965 A, US5456374 A, US4610374 A, US3738545 A, AU2002359098 AA, AU2002259098,																																																												
Forward Citations:	WO16137782, WO14173952, WO10145714, WO09106509, WO07015649, WO06116248, US9714124, US9546027, US9452919, US9434516, US9033169, US8763830, US8490786, US8356711, US2015232318, US2015001261, US2014048537, US2013087523, US2013074448, US2012091134, US2011198309, US2011011824, US2011000800, US2010163509, US2010155401, US2010102021, US2009212061, US2008041809, EP2792612, DE102005012412, CN104443719, CN104326152,																																																												

Abstract:

A sipper type capping assembly engageable with a necked container so as not to pool condensation on the disc seal. It has a unitary moulding (1) adapted to define a detachable **overcap** (4) and at least the container engaging skirt (9). An insert (2) and a disc seal member (17) located within moulding (1), and a nozzle component (3) above the seal member is carried through the insert yet moveable relative thereto. In a non-dispensing condition, the nozzle component (3) and the insert (2) provide closure. In the dispensing condition of the nozzle component (3) relative to the insert (2) there is defined a liquid egress passageway. The insert and the nozzle component, when in or notionally considered in the non-dispensing condition, define together with the moulding a fully enclosed space about part of the nozzle component. When in or notionally considered in at least the dispensing condition, the moulding and the disc seal member fully enclose the nozzle component.



Title:

Cladding Assemblies and Methods (Flash/Clad TM Procedures)

Priority:

NZ20020523374 20021220

Family:

Publication number	Publication date	Application number	Application date
AU2003257906 AA	20040708	AU20030257906	20031029

Probable Assignee:

CARTER HOLT HARVEY LTD

Assignee(s):(std):

CARTER HOLT HARVEY LTD

Assignee(s):

CARTER HOLT HARVEY LIMITED

Inventor(s):(std):

WALL GILMORE JOHN

Inventor(s):

GILMORE JOHN WALL

Agent(s):

A J PARK; AJ PARK

International class (IPC 8-9):

E04B2/90 (Advanced/Invention);
E04B2/90 (Core/Invention)

International class (IPC 1-7):

E04B2/90

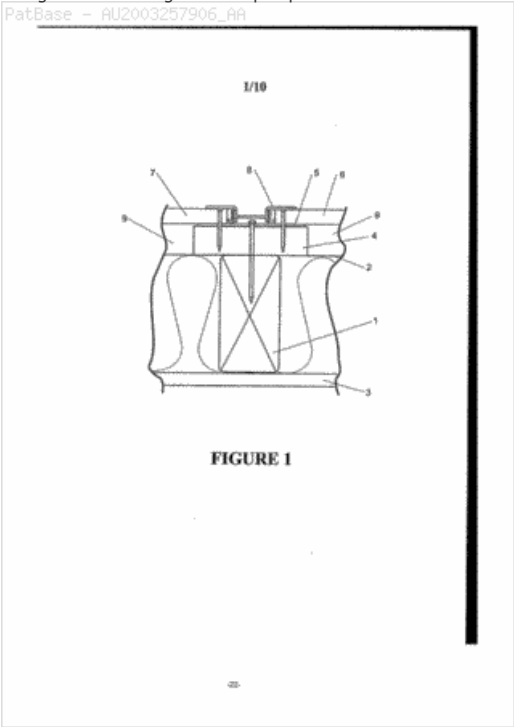
Classification Explorer

Forward Citations:

WO08043129, USD630340, USD629921, USD606672, USD606671, US8993462, US8689509, US8590217, US8484931, US8297018, US8281535, US7998571, US7993570, US7713615, US7524555, AU2006101045,

Abstract:

-18- ABSTRACT A method of construction which involves attaching an array of battens to the building envelope frame (through building wrap if present) and a corresponding array of a flashing back plate at least to the battens, fitting cladding panels each with at least one of its peripheries lapping part of a back plate and fixing each such panel through the lapped back plate into at least the batten, and providing a complementary flashing member that engages with otherwise still revealed flashing member engagement features of such a back plate to thereby provide coverage of at least some of the back plate lapping peripheries and/or coverage of the fixing of such peripheries. 1/10 Figure 1 -18- ABSTRACT A method of construction which involves attaching an array of battens to the building envelope frame (through building wrap if present) and a corresponding array of a flashing back plate at least to the battens, fitting cladding panels each with at least one of its peripheries lapping part of a back plate and fixing each such panel through the lapped back plate into at least the batten, and providing a complementary flashing member that engages with otherwise still revealed flashing member engagement features of such a back plate to thereby provide coverage of at least some of the back plate lapping peripheries and/or coverage of the fixing of such peripheries.



Title:	CLOSURE WITH FRANGIBLE TAMPER-EVIDENT BAND			
Priority:	AU20030900141 20030114	AU20030900678 20030217	AU20030904044 20030804	
	AU20030904196 20030808	AU20030904359 20030815	AU20030904527 20030822	
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	AU20060203297 20060801			

Family:	Publication number	Publication date	Application number	Application date
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Probable Assignee: RBC TRUSTEES CI LTD

Assignee(s):(std): ABACUS ; ABACUS C I LTD ; ABACUS C I LTD TRUSTEE OF T AS ; ABACUS C I LTD COMO FIDEI COMI ; ABACUS C I LTD TRUSTEE FOR AS ; ABACUS C I LTD AS TRUSTEE FOR ; ABACUS C I LTD AS TRUSTEE OF T ; CTECH EQUIPMENT PTY LTD ; WOOLFORD L ; RBC TRUSTEES CI LTD AS TRUSTEE ; HIGGINS CHRISTOPHER LYNDON ; CTECH CLOSURES PTY LTD ; ABACUS C I COMO FIDEI COMISSARIO DO FIDE LTD

Assignee(s): ABACUS C I LIMITED ; ABACUS TRUSTEE OF BAYVIEW TRUST AS LTD ; ABACUS COMO FIDEI COMISSARIO DO FIDEICOMISSO BAYVI ; ABACUS TRUSTEE FOR BAYVIEW TRUST AS LTD ; ABACUS C I TRUSTEE OF BAYVIEW TR AS LTD ; RBC TRUSTEES LTD ; RBC TRUSTEES CI LTD ; RBC TRUSTEES CI LIMITED AS TRUSTEE OF THE BAYVIEW TRUST ; ABACUS CI TRUSTEE OF BAYVIEW TRUST LTD AS ; ABACUS CI LTD ; RBC TRUSTEES (CI) LTD ; ABACUS CI LIMITED TRUSTEE FOR BAYVIEW TRUST AS ; ABACUS C I TRUSTEE FOR BAYVIEW T AS LTD ; ABACUS C I LIMITED AS TRUSTEE OF THE BAYVIEW TRUST ; ABACUS C I LIMITED COMO FIDEI COMISSARIO DO FIDEICOMISSO BAYVIEW TRUST ; ABACUS C I LIMITED AS TRUSTEE FOR THE BAYVIEW TRUST JERSEY ; ABACUS C I LIMITED AS TRUSTEE FOR THE BAYVIEW TRUST ; ABACUS LTD ; ABACUS C I TRUSTEE FOR BAYVIEW TR AS LTD ; ABACUS (C I) LIMITED AS TRUSTEE FOR THE... ; ABACUS (C I) LIMITED COMO FIDEI COMISSARIO DO... ; ABACUS (CI) LTD

Inventor(s):(std): HIGGINS CHRISTOPHER L ; HIGGINS CHRISTOPHER LYNDON ; LYNDON HIGGINS CHRISTOPHER ; PETER WILLIAM BROWN ; CHRISTOPHER LYNDON HIGGINS ; BROWN PETER WILLIAM

Inventor(s): HIGGINS CHRISTOPHER

Agent(s): SHELSTON IP; SHELSTON IP PTY LTD; BORDEN LADNER GERVAIS LLP; BROOKS KUSHMAN PC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class (IPC 8-9): B65D41/04 B65D41/32 B65D41/34 B65D47/06 B65D47/08 B65D47/20 B65D51/00 B65D51/28 B65D81/32 B65D83/00 (Advanced/Invention); B65D41/32 B65D41/34 (Advanced/Non-invention); B65D41/04 B65D41/32 B65D41/34 B65D47/04 B65D47/06 B65D47/08 B65D51/00 B65D51/24 (Core/Invention); B65D (Subclass/Invention)

International class (IPC 1-7): B65D101/00 B65D41/34 B65D47/20 B65D51/28

CPC: B65D51/2835 B65D47/06 B65D47/08 B65D41/3409 B65D51/2828 B65D41/0421 B65D41/0428 B65D41/3428 B65D47/0857 B65D51/2807 B65D2101/00

European class: B65D41/04B1A B65D41/04B2 B65D41/34 B65D41/34A1 B65D41/34C1 B65D47/06 B65D47/08

US class: 215/252

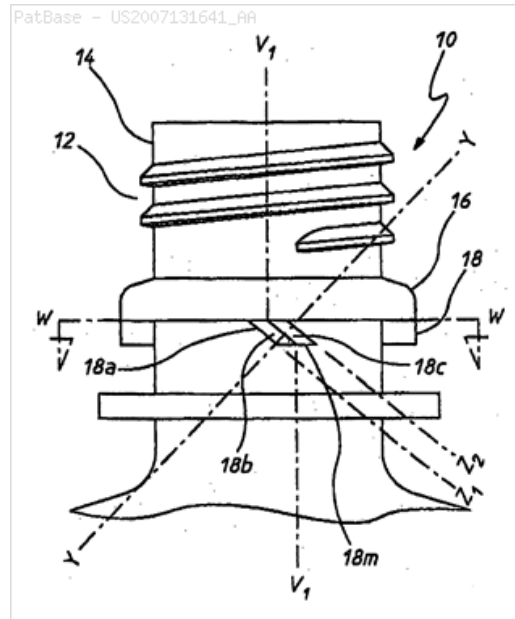
[Classification Explorer](#)

Cited documents: WO9840289 A1, WO9838104 A1, WO9743190 A1, WO05012125 A1, WO03010061 A2, WO03004369 A1, WO02062675 A1, WO0168469 A1, US6230884 BA, US6148996 A, US5950850 A, US5660288 A, US5346082 A, US5038951 A, US5020682 A, US4903865 A, US4813561 A, US4738370 A, US4458821 A, US4457438 A, US2003102280 AA, US2003015490 AA, JP8091402 A2, JP2003519602 T2, JP2003165555 A2, JP11100093 A2, JP11059791 A2, GB2222812 A1, EP1332977 A1, EP1316507 A2,

Forward Citations: WO18025593, WO16009192, WO15004352, WO12130916, WO09154666, WO09154666, WO08061766, WO07082322, WO06013443, WO06013443, WO05077777, US9943998, US9828146, US9731869, US9382044, US9061801, US8851310, US8807360, US8684225, US8684204, US8356711, US7775386, US2013313287, US2012292321, US2011024423, RU2507137, KR100951526, FR3008393, EP1778555,

Abstract:

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.



Title: METHOD OF JOINING SEPARABLE COMPONENTS AND CONTAINER CLOSURE SYSTEM FORMED BY THE SAME

Priority: US20030473847P 20030527 NZ20040543862 20040526 US20040854925 20040526
WO2004US16796 20040526 US20060610217 20061213 US20070929160 20071030
US20070929009 20071030 US20100704650 20100212 US20100892218 20100928
US20100965160 20101210

Family:	Publication number	Publication date	Application number	Application date
	AU2004243320 AA	20041209	AU20040243320	20040526
	AU2004243320 BB	20100325	AU20040243320	20040526
	CA2527007 AA	20051124	CA20042527007	20040526
	CA2527007 C	20091201	CA20042527007	20040526
	CN1816480 A	20060809	CN200480018967	20040526
	CN1816480 B	20100616	CN200480018967	20040526
	EP1636103 A2	20060322	EP20040753598	20040526
	MXPA05012719 A1	20060222	MX2005PA12719	20040526
	NZ543862 A	20080731	NZ20040543862	20040526
	NZ568141 A	20090925	NZ20040568141	20040526
	US2005092750 AA	20050505	US20040854925	20040526
	US2007095835 AA	20070503	US20060610217	20061213
	US2008179276 AA	20080731	US20070929160	20071030
	US2008272084 AA	20081106	US20070929009	20071030
	US2010140268 AA	20100610	US20100704650	20100212
	US2011011821 AA	20110120	US20100892218	20100928
	US2011100948 AA	20110505	US20100965160	20101210
	US7832579 BB	20101116	US20070929160	20071030
	WO04106172 A2	20041209	WO2004US16796	20040526
	WO04106172 A3	20050210	WO2004US16796	20040526
	WO11100394 A1	20110818	WO2011US24293	20110210
	ZA200509843 A	20070530	ZA20050009843	20040526

Probable Assignee: PORTOLA PACKAGING INC

Assignee(s):(std): ADAMS BRIAN ; PORTOLA PACKAGING INC ; LOHRMAN RICHARD ; PORTOLA PACKING INC

Assignee(s): GENERAL ELECTRIC CAPITAL US AGENT AND CANADIAN AGENT AS CORP ; PORTOLA PACKAGING INC MEXICO DE CV SA ; PORTOLA LTD ; PORTOLA PACKAGING CANADA LTD ; PORTOLA ALLIED TOOL INC ; WAYZATA INVESTMENT PARTNERS LLC ; WELLS FARGO FOOTHILL LLC AS AGENT ; WAYZATA INVESTMENT PARTNERS LLC AGENT FOR SUBORDI ; WELLS FARGO FOOTHILL LLC AGENT AS ; WAYZATA INVESTMENT PARTNERS LLC AGENT FOR SUBORDIN ; WAYZATA INVESTMENT PARTNERS LLC (AGENT FOR SUBORDINATED CREDITORS) ; WAYZATA INVESTMENT PARTNERS LLC AGENT FOR SUBORDINATED CREDITORS ; PORTOLA PACKAGING LTD ; PORTOLA TECH INT INC ; GENERAL ELECTRIC CAPITAL US AGENT AND CANADIAN AGE ; LOHRMAN RICHARD D ; ADAMS BRIAN M ; ASESORIA MAXIMA DE CV SA ; GENERAL ELECTRIC CAPITAL AGENT AS CORP ; GENERAL ELECTRIC CAPITAL CORP

Inventor(s):(std): KIM SUNGSUK STEVE ; SMITH GARY ; LOHRMAN RICHARD ; KIM SUNGSUK S ; HENNESSY TOM ; ADAMS BRIAN ; RICHARD LOHRMAN ; BRIAN ADAMS ; RICHARD ADAMS BRIAN LOHRMAN ; LOHRMAN RICHARD D ; ADAMS BRIAN M

Inventor(s): KIM SUNGSUK ; ADAMS BRIAN LOHRMAN RICHARD

Agent(s): DAVIES COLLISON CAVE PTY LTD; DAVIES COLLISON CAVE; SMART AND BIGGAR; DORSEY AND WHITNEY LLP, INTELLECTUAL PROPERTY DEPARTMENT; DORSEY AND WHITNEY LLP INTELLECTUAL PROPERTY DEPARTMENT; JAMES P HANRATH; ADAM K SACHAROFF MUCH SHELST FREED DENENBERG AMENT AND RUBENSTEIN PC; JAMES P; ADAM K; HANRATH JAMES ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MV MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class (IPC 8-9): B29C45/14 B29C45/16 B65D17/34 B65D39/00 B65D41/32 B65D43/16 B65D47/10 B65D47/36 B65D51/20 B65D53/00 (Advanced/Invention); B29C45/14 B29C45/16 B65D17/28 B65D39/00 B65D41/32 B65D43/16 B65D47/00 B65D47/06 B65D51/18 B65D53/00 (Core/Invention); B29C B65D (Subclass/Invention)

International class (IPC 1-7): B29C45/14 B65D0/00 B65D17/28 B65D17/34 B65D51/20

CPC: B29C45/16 B29C45/1657 B29C2045/1601 B29L2031/56 B65D47/103 B65D47/36 B65D47/0838

European class: B29C45/16 B65D47/08B4C B65D47/10A B65D47/36 L29C45/16A L29C45/16H L29L31/56

US class: 215/235 215/253 215/254 215/254S 215/255 215/256 215/270 215/270S 215/343 215/343S 215/346 215/355 215/355S 220/258.2 220/258.200P 220/258.200S 220/258.3 220/270 220/270P 220/270S

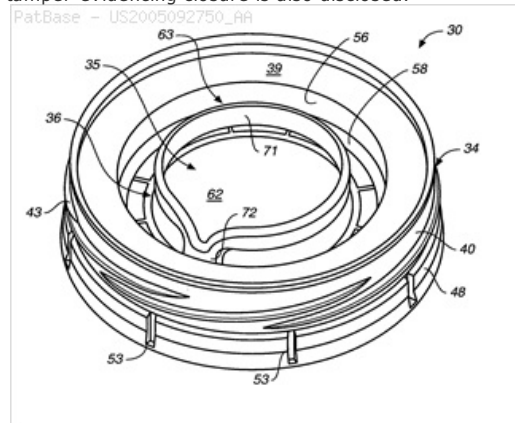
[Classification Explorer](#)

Cited documents: USRE29850 E, US7308988 BB, US7281636 BB, US7137519 BB, US7097057 BB, US6883689 BB, US6851586 BB, US6793101 BB, US6776314 BB, US6736280 BA, US6574848 BB, US6464096 BB, US6276543 BA, US6247605 BA, US6126026 A, US6116445 A, US6065634 A, US6016931 A, US5957315 A, US5934512 A, US5915579 A, US5915574 A, US5913437 A, US5875942 A, US5845801 A, US5810207 A, US5810184 A, US5785209 A, US5775360 A, US5755360 A, US5735426 A, US5660289 A, US5480045 A, US5456376 A, US5301849 A, US5295600 A, US5284265 A, US4919285 A, US4796770 A, US4760941 A, US4747498 A, US4682702 A, US4533062 A, US4501372 A, US4171749 A, US3282477 A, US3160327 A, US2008251573 AA, US2008179276 AA, US2006289376 AA, US2004065665 AA, US2003071007 AA, US2003010781 AA, US2001015355 AA, US2001011649 AA, US2001002661 AA, EP1239963 B1, DE10127823 C1, CA2442543 AA,

Forward Citations: WO16014033, WO11100394, WO07081656, USD671834, USD636673, USD636672, USD636671, USD634200, USD634199, USD633386, USD626413, USD626412, USD626410, USD605894, US9994371, US9914557, US9901972, US9598209, US9271589, US9248938, US9022250, US8991643, US8919601, US8887937, US8887936, US8881929, US8733567, US8720717, US8672165, US8672158, US8342344, US8231020, US8113374, US8033427, US7810681, US2017210519, US2015353242, US2015314915, US2013062359, US2012225166, US2012205339, US2011186536, US2010230410, US2010187245,

Abstract:

A tamper-evidencing closure for a container including a first component having a first interlocking structure and a second, plastics injection molded component having a second interlocking structure molded in situ against the first interlocking structure. The second interlocking structure is complementary in shape to the first interlocking structure and is in mechanical interlocking engagement with the first interlocking structure. The mechanical interlocking engagement is releasable without fracture of at least one of the first and second interlocking structures. A method of using the tamper-evidencing closure is also disclosed.



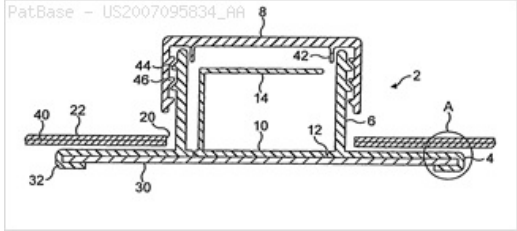
Title: FITMENTS
Priority: GB20030026619 20031104 GB20030026619 20031114 WO2004GB02744 20040625
Family:

Publication number	Publication date	Application number	Application date
AT388900 E	20080315	AT20040743095T	20040625
AU2004295141 AA	20050616	AU20040295141	20040625
BRPI0416043 A	20070102	BR2004PI16043	20040625
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CN1878700 A	20061213	CN200480033402	20040625
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DE602004012441 T8	20090716	DE200460012441T	20040625
DK1687212 T3	20080714	DK20040743095T	20040625
EP1687212 A1	20060809	EP20040743095	20040625
EP1687212 B1	20080312	EP20040743095	20040625
ES2303082 T3	20080801	ES20040743095T	20040625
GB200326619 A0	20031217	GB20030026619	20031114
GB2408040 A1	20050518	GB20030026619	20031114
GB2408040 B2	20051012	GB20030026619	20031114
MY130704 A	20070731	MY20040004706	20041110
NZ546726 A	20080926	NZ20040546726	20040625
RU2006118724 A	20071227	RU20060118724	20040625
RU2346863 C2	20090220	RU20060118724	20040625
TH72710 A	20051124	TH20041002671	20040714
TW200523178 A	20050716	TW20040119459	20040630
TWI311971 B	20090711	TW20040119459	20040630
US2007095834 AA	20070503	US20040595820	20040625
WO05054068 A1	20050616	WO2004GB02744	20040625
ZA200603666 A	20070926	ZA20060003666	20040625

Probable Assignee: BAPCO CLOSURES RESEARCH LTD
Assignee(s):(std): BAPCO CLOSURES RES LIMITE ; BAPCO CLOSURES RES LTD ; BAPCO CLOSURES RESEARCH LTD ; BEHPKO KLOUZHES RISECH LTD ; MCGEOUGH PETER MICHAEL ; SPRECKELSEN MCGEOUGH LTD ; VON SPRECKELSEN HENNING
Assignee(s): SPRECKELSEN MCGEOUGH LIMITED ; BAPCO CLOSURES RESEARCH LIMITE ; BAPCO CLOSURES RESEARCH LIMITED
Inventor(s):(std): MCGEOUGH PETER M ; MCGEOUGH PETER MICHAEL ; MCGEUGH PETER MICHAEL ; MICHAEL MCGEOUGH PETER ; MICHAEL SPRECKELSEN HENNING VO ; MKGEU PITER MAJKL ; PETER M MCGEOUGH ; PETER MICHAEL MCGEOUGH ; SPRECKELSEN HENNING VON ; FON SHPREKEL ZEN KHENNING ; HENNING VON SPRECKELSEN ; VON SPRECKELSEN HENNING
Inventor(s): MCGEOUGH PETER ; FON SHPREKEL'ZEN KHENNING ; SPRECKELSEN HENNING VON MCGEOUGH PETER MICHAEL
Agent(s): ALLENS ARTHUR ROBINSON PATENT AND TRADE MARKS ATTORNEYS; ALLENS PATENT AND TRADE MARK ATTORNEYS; GOWLING LAFLEUR HENDERSON LLP; COOKSON BARBARA ELIZABETH; CHRISTOPHER J KULISH ESQ
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
International class (IPC 8-9): B65D17/34 B65D45/28 B65D5/74 B65D51/20 (Advanced/Invention); B65D17/28 B65D5/74 B65D51/18 (Core/Invention); B65D (Subclass/Invention)
International class (IPC 1-7): B65D45/28 B65D47/10 B65D5/74
CPC: B65D5/749
European class: B65D5/74D1C
US class: 220/258.2 220/270
[Classification Explorer](#)
Cited documents: WO9961337, WO9841452, US6682686 BA, US6464096 BB, US6179147 BA, US6129228 A, US6047878 A, US5915574 A, US5890609 A, US5799840 A, US5765747 A, US5735426 A, US5632440 A, US5397013 A, US5303838 A, US5147591 A, US5133486 A, US5110040 A, US5069372 A, US4948015 A, US4887765 A, US4819819 A, US4815618 A, US3260411 A, US2006138137 AA, US2002033395 AA, US2001054616 AA, US2001015355 AA, JP2002332054, EP1127798,
Forward Citations: WO12085153, WO12085153, WO12048935, WO08035117, USD720227, USD645755, US9868587, US9452857, US9238531, US9145239, US9126719, US8807377, US8663419, US8430262, US2013273214, US2009308832, TWI537190, RU2596464, GB2457273, GB2454441, GB2454441, GB2444048, GB2444048, EP3180258, EP1925559, EA023634, CN103153801, AU2011315778,

Abstract:

A carton **fitment** (2) has a base flange (4) and a pour spout (6) closed by a screw on **overcap** (8). The base flange (4) has a barrier foil (30) coated on both sides with a plastic layer embedded in a sacrificial receiving wall (32) surrounding the periphery of the base flange (4).

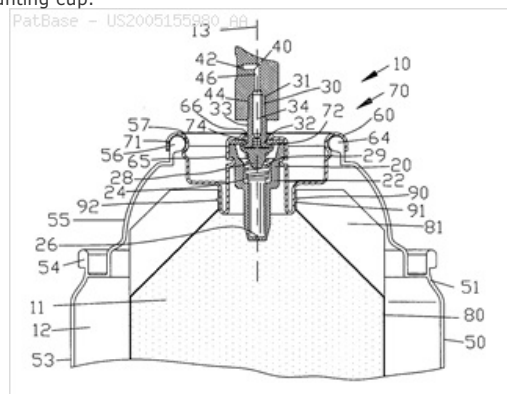


Title: AEROSOL MOUNTING CUP FOR CONNECTION TO A COLLAPSIBLE CONTAINER**Priority:** US20030441438P 20030121 US20040762003 20040121

Family:	Publication number	Publication date	Application number	Application date
	US2005155980 AA	20050721	US20040762003	20040121
	US7913877 BB	20110329	US20040762003	20040121

Probable Assignee: APTARGROUP INC**Assignee(s):(std):** APTARGROUP INC ; SEAQUIST PERFECT DISPENSING FO ; SEAQUIST PERFECT DISPENSING FOREIGN INC**Inventor(s):(std):** NEUHALFEN MARK**Agent(s):** ROBERT F FRIJOUF FRIJOUF RUST AND PYLE PA; FRIJOUF RUST AND PYLE PA**International class** B65D35/28 B65D83/14 B65D83/40 (Advanced/Invention);**(IPC 8-9):** B65D83/14 B65D83/40 (Core/Invention)**International class** B65D83/40**(IPC 1-7):****CPC:** B65D83/38 B65D83/62**European class:** B65D83/14L B65D83/14M1 B65D83/38 B65D83/62**US class:** 222/402.1 222/402.100S 222/95 222/95P[Classification Explorer](#)**Cited documents:** US6581807 BA, US6439430 BA, US6375049 BA, US6352182 BA, US6345739 BA, US6250505 BA, US6230943 BA, US6196275 BA, US6142344 A, US6085945 A, US6070763 A, US6050451 A, US6007884 A, US6000848 A, US5971613 A, US5971214 A, US5957333 A, US5919360 A, US5875939 A, US5873491 A, US5823383 A, US5819987 A, US5819986 A, US5699936 A, US5630530 A, US5617978 A, US5564591 A, US5540358 A, US5522526 A, US5511697 A, US5454488 A, US5324233 A, US5277336 A, US5275311 A, US5265765 A, US5261571 A, US5211316 A, US5190184 A, US5125546 A, US5115944 A, US5031384 A, US4949871 A, US4732299 A, US4513889 A, US4484351 A, US4452378 A, US4425177 A, US4405065 A, US4375743 A, US4346743 A, US4293353 A, US4185758 A, US4121737 A, US4098220 A, US4023607 A, US3992003 A, US3986641 A, US3940026 A, US3823849 A, US3770165 A, US3690524 A, US3662926 A, US3558397 A, US3477195 A, US3322590 A, US3245582 A, US3169670 A,**Forward Citations:** WO09030393, USD787326, US9845186, US9776785, US9592527, US9580233, US9573151, US9435120, US9415927, US9382060, US9248457, US9205437, US9156602, US9156042, US8967431, US8863994, US8752731, US8690081, US8678245, US8616417, US8616416, US8602266, US8573449, US8453875, US8336742, US8286839, US8261952, US8251255, US8240518, US8225966, US8074847, US2017113236, US2016167868, US2013082074, US2012325819, US2011303768, US2011168570, US2011108574, US2010308077, US2010288796, US2010252577, US2010206911, US2010200612, US2010147898, US2010108722, US2010038385, US2010012680, US2009314810, US2009212075, US2009166383, US2008197152, US2007241132, US2007228082, US2005092755, KR101809598, ITTO20100342,**Abstract:**

An improved mounting cup is disclosed for dispensing an aerosol product from a collapsible container within an aerosol container. The improved mounting cup comprises a peripheral rim located in proximity to an outer periphery of the mounting cup for sealing the mounting cup to the aerosol container. A turret is located in proximity to an inner periphery of the mounting cup for receiving an aerosol valve for dispensing the aerosol product from the collapsible container. A mounting surface is located intermediate the peripheral rim and the turret for securing the collapsible container to mounting cup.



Title:

SNAP-ON CLOSURE

Priority:

GB20040011386 20040521

Family:

Publication number	Publication date	Application number	Application date
GB200411386 A0	20040623	GB20040011386	20040521
GB2414230 A1	20051123	GB20040011386	20040521
WO05113361 A1	20051201	WO2005GB02009	20050523

Probable Assignee:

PORTOLA PACKAGING LTD

Assignee(s):(std):

MAVIN GERRY ; PORTOLA PACKAGING LTD ; STEPHENSON TIMOTHY

Assignee(s):

PORTOLA PACKAGING LIMITED

Inventor(s):(std):

MAVIN GERRY ; STEPHENSON TIMOTHY

Inventor(s):

TIMOTHY STEPHENSON ; GERRY MAVIN

Designated states:

AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class (IPC 8-9):

B65D41/17 B65D41/47 B65D43/02 B65D47/06 (Advanced/Invention); B65D41/02 B65D41/32 B65D43/02 B65D47/06 (Core/Invention)

International class (IPC 1-7):

B65D41/16 B65D41/17 B65D41/34 B65D41/46 B65D41/47 B65D43/2 B65D47/6

CPC:

B65D41/17 B65D41/47 B65D43/0204 B65D43/0256 B65D47/06 B65D2101/003 B65D2251/0015 B65D2251/0087 B65D2543/00092 B65D2543/00296 B65D2543/00509 B65D2543/00537 B65D2543/00555 B65D2543/00629 B65D2543/00685 B65D2543/0074 B65D2543/00796 B65D2543/00824

European class:

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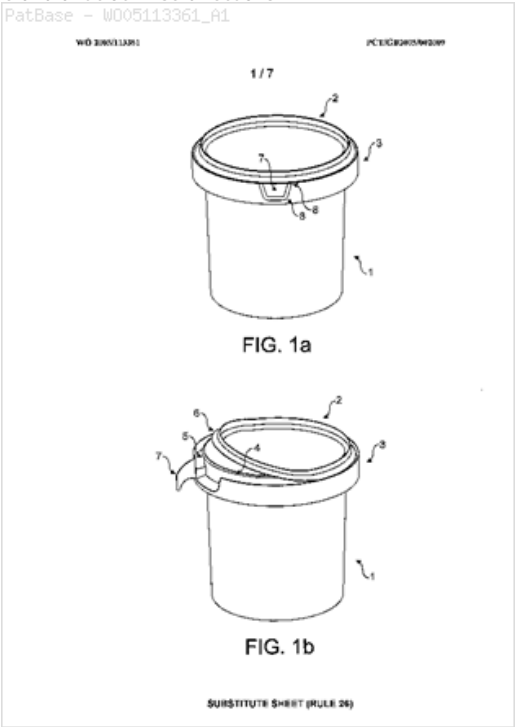
Classification Explorer

Cited documents:

US6330959 BA, US6095375 A, US5865331 A, US5779072 A, US4595111 A, US3677431 A, GB1260128 A, GB1199664 A, EP0882656 A1, EP0603978 A1,

Abstract:

A closure (30) for use, or in combination, with a member (10) defining an orifice, such as a container or **fitment** for attachment thereto, the closure comprising a first snap band formation (42) and the member comprising a second snap bead formation (18), the formations (18, 42) adapted to cooperate to provide a snap engagement retaining the closure with respect to the member while permitting at least limited rotation with respect to the member. The closure further comprises a third ramped formation (44) interengageable with a fourth ramped formation (46) associated with the member upon the at least limited rotation, the interengagement of the third and fourth formations urging the closure to move axially away from the member and overcome the snap engagement. The third and fourth formations may be a recess and a projection. A tamper evident band may carry the fourth formation. The rotation may be permitted in one or both of clockwise and anticlockwise directions.



Title: VEHICULAR CLEANING CONCENTRATE**Priority:** US20040870248 20040616 WO2005US19057 20050601

Family:	Publication number	Publication date	Application number	Application date
	AU2005264866 AA	20060126	AU20050264866	20050601
	AU2005264866 BB	20110224	AU20050264866	20050601
	CA2570927 AA	20061214	CA20052570927	20050601
	CA2570927 C	20130402	CA20052570927	20050601
	JP2008503606 T2	20080207	JP20070516523T	20050601
	MXPA06014475 A1	20070301	MX2006PA14475	20050601
	US2005282719 AA	20051222	US20040870248	20040616
	US7318871 BB	20080115	US20040870248	20040616
	WO06009604 A2	20060126	WO2005US19057	20050601
	WO06009604 A3	20060831	WO2005US19057	20050601

Probable Assignee: ARMOR ALL STP PRODUCTS CO**Assignee(s):(std):** SEROBIAN ASHOT K ; CLOROX CO ; ARMOR ALL STP PRODUCTS COMPANY ; EGAN VERONICA M**Assignee(s):** CLOROX CO1221 BROADWAYP.O. BOX 24305OAKLANDCA94612US ; KWISET CORP ; LIQUID HOLDING CO INC ; NATIONAL MFG CO ; DEUTSCHE BANK NEW YORK BRANCH COLLATERAL AGENT AG AS ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS ; ARMOR ALL STP PRODUCTS CO44 OLD RIDGEBURY ROADDANBURYCT06810US ; ARMOR ALL STP PRODUCTS CO ; APPLICA CONSUMER PRODUCTS INC ; APPLICA CONSUMER PRODUCTS INC A CORP OF FLORIDA ; THE CLOROX COMPANY ; THE ARMOR ALL STP PRODUCTS COMPANY ; PRICE PFISTER INC ; ROV HOLDING INC A CORP OF DELAWARE ; ROVCAL INC ; ROVCAL INC A CORP OF CALIFORNIA ; RUSSELL HOBBS INC A CORP OF DELAWARE ; SALIX ANIMAL HEALTH LLC ; SEED RESOURCES LLC ; SPECTRUM BRANDS INC ; SPECTRUM BRANDS INC A CORP OF DELAWARE ; SPECTRUM BRANDS INC SUCCESSOR IN INTEREST TO ROVCAL INC AS ; TELL MFG INC ; TETRA HOLDING US INC A CORP OF DELAWARE ; TETRA HOLDINGS US INC ; UNITED IND CORP ; UNITED IND SUCCESSOR IN INTEREST TO LIQUID HOLDING CO INC AS CORP ; UNITED PET GROUP INC ; UNITED PET GROUP INC A CORP OF DELAWARE**Inventor(s):(std):** EGAN VERONICA M ; SEROBIAN ASHOT K**Inventor(s):** SEROBIAN ASHOT KUS ; VERONICA M EGAN ; EGAN VERONICA MUS ; ASHOT K SEROBIAN**Agent(s):** GRIFFITH HACK; RICHES MCKENZIE AND HERBERT LLP; THE CLOROX COMPANY; COLLINS ERIN; ERIN**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW**International class (IPC 8-9):** B08B3/02 B08B3/04 B60S3/04 C11D1/00 C11D1/02 C11D1/66 C11D1/83 C11D11/00 C11D17/04 C11D3/04 C11D3/37 C11D3/43 C11D7/26 (Advanced/Invention); B08B3/00 B08B3/02 B08B3/04 B60S3/04 C11D1/00 C11D1/02 C11D1/66 C11D1/83 C11D11/00 C11D17/04 C11D3/00 C11D3/04 C11D3/37 C11D3/43 C11D7/22 (Core/Invention)**International class (IPC 1-7):** C11D7/26**CPC:** C11D1/02 C11D1/66 C11D1/83 C11D3/37 C11D3/3765 C11D3/3773 C11D11/0029 C11D17/003**European class:** C11D1/02 C11D1/66 C11D1/83 C11D11/00B2D2 C11D17/00B6 C11D3/37 C11D3/37C6F C11D3/37C8F**US class:** 134/39 134/40 134/42 510/183 510/189 510/243 510/245 510/405 510/535[Classification Explorer](#)**Cited documents:** WO0071655 A1, US6903062 BB, US6602350 BB, US6562142 BB, US6506715 BA, US6350725 BA, US6339054 BA, US5932023 A, US5759980 A, US5534199 A, US5516459 A, US2002173438 AA, US2002160924 AA, JPS5936200, JP9509438 T2, JP59036200 A2, JP2004519373 T2, JP2003502480 T2, JP2001515134 T2, JP2001511836 T2, JP2000510185 T2, JP10088196 A2,**Forward Citations:** WO15199928, US9663683, US9546274, US9399722, US9381812, US8987184, US8974589, US8846595, US8410038, US8372793, US2015368593, US2013224721, US2011082068, US2011061680, US2010305260, US2010147172, US2010037914, US2009312228, US2006135394, JP2014524963, GB2535075, EP1951853, CN106350295, CN105316117,**Abstract:**

The present invention relates generally to compositions, methods of use and kits for vehicular cleaning employing a cleaning concentrate containing at least one surfactant and at least one rheology modifier, optionally a solvent and/or optionally an alkalinity source, that exhibits a Vertical Cling parameter of between 1 and about 7 at a temperature of about 25 degrees centigrade on soiled surfaces to which the compositions are applied.

Title: RESEALABLE CLOSURES

Priority: GB20040016719 20040727 EP20050768024 20050727 WO2005GB50118 20050727
GB20060016931 20060829 GB20060016935 20060829 US20070572517 20070123
US20110092556 20110422 US20130043189 20131001

Family:	Publication number	Publication date	Application number	Application date
	AT540876 E	20120115	AT20050768024T	20050727
	AU2005266155 AA	20060202	AU20050266155	20050727
	AU2005266155 BB	20120628	AU20050266155	20050727
	CA2575514 AA	20070129	CA20052575514	20050727
	CA2575514 C	20130212	CA20052575514	20050727
	DE602005032137 D1	20120308	DE200560032137T	20050727
	EP1781550 A1	20070509	EP20050768024	20050727
	EP1781550 B1	20120111	EP20050768024	20050727
	ES2379270 T3	20120424	ES20050768024T	20050727
	GB200416719 A0	20040901	GB20040016719	20040727
	GB200616931 A0	20061004	GB20060016931	20040727
	GB200616935 A0	20061004	GB20060016935	20040727
	GB2416535 A1	20060201	GB20040016719	20040727
	GB2416535 B2	20061206	GB20040016719	20040727
	GB2426509 A1	20061129	GB20060016931	20040727
	GB2426509 B2	20070613	GB20060016931	20040727
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	US2007267383 AA	20071122	US20050572517	20050727
	US2011192818 AA	20110811	US20110092556	20110422
	US2014027476 AA	20140130	US20130043189	20131001
	US7963409 BB	20110621	US20050572517	20050727
	US8573423 BB	20131105	US20110092556	20110422
	US8827094 BB	20140909	US20130043189	20131001
	WO06010960 A1	20060202	WO2005GB50118	20050727
	WO06010960 B1	20061005	WO2005GB50118	20050727
	WO06010960 C1	20060720	WO2005GB50118	20050727
	ZA200700746 A	20080528	ZA20070000746	20050727

Probable Assignee: BAPCO CLOSURES RESEARCH LTD

Assignee(s):(std): BABCO CLOSURES RES LTD ; BAPCO CLOSURES RES LTD ; SPRECKELSEN MCGEOUGH LTD ; MCGEOUGH PETER MICHAEL ; VON SPRECKELSEN HENNING

Assignee(s): BAPCO CLOSURES RESEARCH LTD WOKING ; BAPCO CLOSURES RESEARCH LIMITED ; BAPCO CLOSURES RESEARCH LTD ; BABCO CLOSURES RESEARCH LTD

Inventor(s):(std): HENNING VON SPRECKELSEN ; MCGEOUGH PETER M ; MCGEOUGH PETER MICHAEL ; MICHAEL MCGEOUGH PETER ; SPRECKELSEN HENNING VON ; VON SPRECKELSEN HENNING

Inventor(s): VON SPRECKELSEN HENNING C O BAPCO CLOSURES... ; VON SPRECKELSEN HENNING C O BAPCO CLOSURES RESEARCH LTD HORSELL WOKING ; PETER MICHAEL MCGEOUGH ; MCGEOUGH PETER MICHAEL KELLS ; MCGEOUGH PETER

Agent(s): ALLENS ARTHUR ROBINSON PATENT AND TRADE MARKS ATTORNEYS; ALLENS PATENT AND TRADE MARK ATTORNEYS; GOWLING LAFLEUR HENDERSON LLP; COOKSON BARBARA ELIZABETH; CHRISTOPHER J KULISH ESQ; K AND L GATES LLP; COOPER AND DUNHAM LLP; JEFFREY L

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class (IPC 8-9): B65D41/00 B65D41/32 B65D45/00 B65D47/06 B65D47/10 B65D51/20 B65D53/00 B65D53/02 B65D55/06 (Advanced/Invention); B65D41/32 B65D45/00 B65D47/06 B65D51/18 B65D55/02 (Core/Invention); B65D (Subclass/Invention)

International class (IPC 1-7): B65D51/20 B65D55/06

CPC: B65D47/10 B65D41/32 B65D47/06 B65D51/20 B65D53/02 B65D55/066 B65D2101/0084 B65D2251/0015 B65D2251/0087 B65D2251/0093

European class: B65D41/32 B65D47/06 B65D47/10 B65D51/20 B65D53/02 B65D55/06D L65D101/00A6 L65D251/00Y2D L65D251/00Y6J L65D251/00Y6M

US class: 215/232 215/253 215/256 215/258 215/258.2 215/273 215/344 220/258.2 220/270 222/541.5 222/541.9

[Classification Explorer](#)

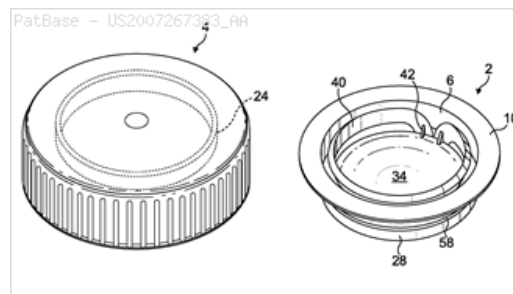
Cited documents: ZA200309139 A, ZA2003/09139, WO02064432 A2, US8573423 BB, US7963409 BB, US6422411 BA, US5810207 A, US4815618 A, US4682702 A, US4387819 A, US3860152 A, US2004217083 AA, US2004094551 AA, US2002000420 AA, JP2002326644 A2, GB2409855 A1, GB2399814 A1, GB2384478 A1, GB2337740 A1, GB2255083 A1, GB2218077 A1, GB2171680 A1, EP1547934 A1, EP1365957 A2,

Forward Citations: WO17145087, WO17053427, WO11135292, WO08035117, USD752978, US9963274, US9845186, US9828146, US9663277, US9272824, US9211978, US8827094, US8733567, US7973664, US7772981, US2015217910, US2014326725, US2014027476, US2013200036, US2009308832, GB2454441, GB2454441,

Abstract:

A closure (2) comprising a solid colour spout (6) and a transparent **overcap** (4) is adapted to be sealed to a container neck (50) by means of a double-sided foil (8). The **overcap** (4) has a depending valve (24), which engages with the spout (6) to hold these components together prior to assembly to the container. The spout (6) has a flange (10) adapted to seat on a rim (54) of the container neck and an annular wall (28) that is received within the container neck (50). The foil (8) is welded to the flange (10) and is also used to weld the closure (2) to a rim (54) of a container neck of standard threaded design. The **overcap** (4) can

screw to an external thread on the container neck. The primary ex-factory seal is provided by welding the assembled closure to the neck. The secondary seal is provided by the engagement of the **overcap** valve (24) with the spout (6). The invention discloses an improved method of assembly.



Title: PLASTIC, SNAP-ON CAPSEAL
Priority: US20040990876 20041116 EP20050254107 20050630 CA20052511715 20050707
Family:

Publication number	Publication date	Application number	Application date
CA2511715 AA	20060516	CA20052511715	20050707
CA2511715 C	20131001	CA20052511715	20050707
DE602005048277 D1	20160225	DE200560048277T	20050630
EP1657175 A2	20060517	EP20050254107	20050630
EP1657175 A3	20080723	EP20050254107	20050630
EP1657175 B1	20160113	EP20050254107	20050630
ES2563306 T3	20160314	ES20050254107T	20050630
MXPA05006988 A1	20060518	MX2005PA06988	20050624
US2006102583 AA	20060518	US20040990876	20041116
US7568585 BB	20090804	US20040990876	20041116

Probable Assignee: RIEKE CORP
Assignee(s):(std): BAUGHMAN GARY M ; RIEKE CORP ; ROHR ROBERT D
Assignee(s): REESE PRODUCTS INC ; RESKA SPLINE PRODUCTS INC ; RICHARDS MICRO TOOL INC ; RIEKE LEASING CO INC ; RIEKE OF INDIANA INC ; RIEKE OF MEXICO INC ; TOWING HOLDING LLC ; TRIMAS CO LLC ; TRIMAS CORP ; TRIMAS INT HOLDINGS LLC ; WESBAR CORP ; RIEKE CORP AUBURN ; ARROW ENGINE CO ; BANK OF NEW YORK MELLON TRUST CO NA SECOND LIEN AG ; BANK OF NEW YORK MELLON TRUST CO NA SECOND LIEN AGENT AS ; BEAUMONT BOLT AND GASKET INC ; CEQUENT CONSUMER PRODUCTS INC ; CEQUENT PERFORMANCE PRODUCTS INC ; CEQUENT TOWING PRODUCTS INC ; COMPAC CORP ; CONSUMER PRODUCTS INC ; CUYAM CORP ; DEW TECHNOLOGIES INC ; DI RITE CO ; DRAW TITE INC ; ENTEGRA FASTENER CORP ; JPMORGAN CHASE BANK NA ; JPMORGAN CHASE BANK NA COLLATERAL AGENT AS ; FULTON PERFORMANCE PRODUCTS INC ; HAMMERBLOW ACQUISITION CORP ; HAMMERBLOW CO LLC ; HI VOL PRODUCTS LLC ; INDUSTRIAL BOLT AND GASKET INC ; KEO CUTTERS INC ; LAKE ERIE PRODUCTS CORP ; LAMONS GASKET CO ; LAMONS METAL GASKET CO ; LOUISIANA HOSE AND RUBBER CO ; MONOGRAM AEROSPACE FASTENERS INC ; NETCONG INVESTMENTS INC ; NI IND INC ; NI WEST INC ; NORRIS CYLINDER CO ; NORRIS ENVIRONMENTAL SERVICES INC ; NORRIS IND INC ; PLASTIC FORM INC

Inventor(s):(std): BAUGHMAN GARY M ; ROHR ROBERT D ; GARY M BAUGHMAN

Inventor(s): BAUGHMAN GARY ; ROHR ROBERT D LAOTTO ; BAUGHMAN GARY M AUBURN ; ROHR ROBERT

Agent(s): SMART AND BIGGAR; WAECHTERSCHAEUSER AND HARTZ PATENTANWALTSPARTNERSCHAFT MBB; SMITH NORMAN IAN ET AL; WILLIAMS MICHAEL IAN; TOMAS TESIFONTE ENRIQUE; WOODARD EMHARDT MORIARTY MCNETT AND HENRY LLP

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR YU

International class (IPC 8-9): B65D17/40 B65D39/08 B65D41/16 B65D41/32 B65D41/48 B65D43/18 B65D51/18 B65D51/20 B65D53/02 B65D55/02 B65D59/00 B65D6/40 (Advanced/Invention); B65D17/28 B65D39/00 B65D41/02 B65D41/32 B65D43/14 B65D51/18 B65D53/00 B65D55/02 B65D59/00 B65D6/00 (Core/Invention)

International class (IPC 1-7): B65D59/00

CPC: B65D39/088 B65D41/48 B65D51/18 B65D2101/0023 B65D2101/0038 B65D2251/0015 B65D2251/0018 B65D2251/0075

European class: B65D39/08A3 B65D41/48 B65D51/18 L65D101/00A3 L65D101/00A3C L65D251/00Y2D L65D251/00Y2F L65D251/00Y6B

US class: 215/216 215/254 215/256 215/317 220/257.2 220/259.4 220/274 220/276 220/601 220/780

[Classification Explorer](#)

Cited documents: WO05056412 A1, WO0138177 A2, US6726048 BB, US6136183 A, US5810190 A, US5460287 A, US5423441 A, US5292019 A, US5075951 A, US4919286 A, US4801032 A, US4597500 A, US4506797 A, US4230229 A, US4066182 A, US3927784 A, US2908417 A, US2004045965 AA, GB1350989 A, EP0156522 A1, DE29821764 U1, DE29821764 U, DE29713652 U1, DE29713652 U,

Forward Citations: WO08139196, WO08012783, USD782771, US9790009, US9725213, US9434518, US9371161, US8845602, US8813988, US8770648, US8746500, US8066139, US8061543, US2015096988, US2015034143, US2013257074, US2012038151, US2010314391, US2010301046, US2009200259, US2008141454, EP2987745, AU2008249810,

Abstract:

A unitary capseal for a closure that is installed in a container includes an annular sidewall, a generally circular top panel joined to the sidewall, a snap-on annular rim formed adjacent a lower edge of the sidewall, and an annular sealing lip formed adjacent the annular rim. The cooperating closure includes a serrated flange, a closing plug for threaded receipt by the flange, and a sealing gasket positioned therewith. The container end is formed around the flange interlocking with the flange serrations and creating an outer annular channel that receives the annular rim for a snap-on assembly of the capseal to the container end that in turn positions the capseal over and around the closure. The sealing lip extends radially outwardly from the sidewall and includes a concave surface facing the container end for sealing off the interior portions of the closure from collecting debris.

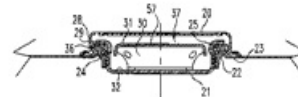


Fig. 1

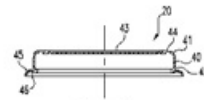


Fig. 2

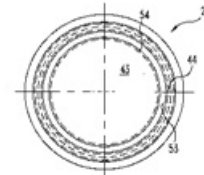


Fig. 3

Title:	METERED DOSE SQUEEZE DISPENSER			
Priority:	US20040993764 20041119	US20050251418 20051014	US20050251420 20051014	
Family:	Publication number	Publication date	Application number	Application date
	US2006108377 AA	20060525	US20040993764	20041119
	US2006108379 AA	20060525	US20050251418	20051014
	US2006110205 AA	20060525	US20050254632	20051020
	US2007205224 AA	20070906	US20050251420	20051014
	US7222755 BB	20070529	US20050251418	20051014
	US7331489 BB	20080219	US20050251420	20051014
	US7350673 BB	20080401	US20040993764	20041119
Probable Assignee:	GLYNNTECH INC			
	Assignee(s):(std): DEJONGE STUART W ; GLYNN KENNETH P ; GLYNNTECH INC			
	Inventor(s):(std): GLYNN KENNETH P ; DEJONGE STUART W			
	Inventor(s): GLYNN KENNETH ; DEJONGE STUART			
	Agent(s): KENNETH P GLYNN GLYNNTECH INC; KENNETH P GLYNN; KENNETH P; GLYNN ESQ KENNETH P; GLYNN KENNETH P			
	International class (IPC 8-9): A46B11/00 A46B11/04 A47L13/22 B65D37/00 B67D5/06 B67D5/60 B67D7/06 B67D7/78 (Advanced/Invention); B67D7/06 B67D7/78 (Core/Invention)			
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US class:	222/205 222/207 222/209 222/209S 222/211 222/456 222/464.2 222/464.4 222/464.400S 222/464.6			
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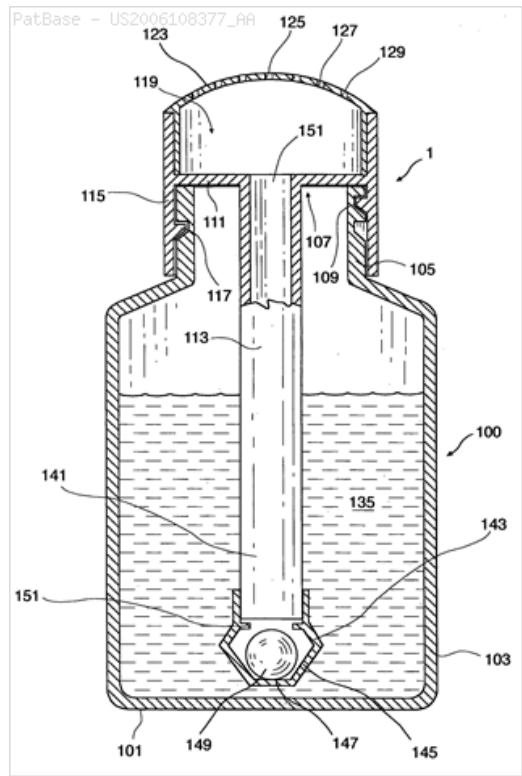
[Classification Explorer](#)

Cited documents: US7350673 BB, US7331489 BB, US7222755 BB, US6758620 BA, US6332564 BB, US5899624 A, US5657909 A, US56004 A, US5568990 A, US5547303 A, US5540355 A, US5251792 A, US5199808 A, US5127553 A, US5127552 A, US4940152 A, US4830235 A, US4779767 A, US4625897 A, US4541552 A, US4294293 A, US4211346 A, US4190180 A, US4162749 A, US4077547 A, US3878972 A, US3730398 A, US3663113 A, US3628700 A, US3507309 A, US3347420 A, US3263871 A, US3203454 A, US3178081 A, US2989216 A, US2986310 A, US2979236 A, US2942762 A, US2730270 A, US252519 A, US2483661 A, US2272442 A, US2007080180 AA, US2002094225 AA, US1761462 A, US1735784 A, US152332 A, PK110059, NL7712828 A, NL7613833 A, EP0383644 A1, DE3819098 A1, DE1075967 B,

Forward Citations: USD786709, USD749956, USD698657, USD656403, USD638299, USD636668, USD622149, USD596486, US9884017, US9849142, US9795564, US9789502, US9713643, US9682021, US9675700, US9668972, US9662298, US9636405, US9622947, US9604238, US9572775, US9549898, US9539208, US9492976, US9492412, US9463919, US9439857, US9423285, US9320705, US9297175, US9296601, US9265725, US9211259, US9167813, US9163970, US9161916, US9101662, US9072667, US9050253, US8992896, US8978936, US8974744, US8945516, US8925768, US8900554, US8900553, US8871184, US8865139, US8840869, US8795693, US8795635, US8741265, US8727244, US8722021, US8709385, US8703105, US8636982, US8618081, US8617100, US8518378, US8518376, US8512718, US8486376, US8486375, US8486374, US8481230, US8435498, US8434647, US8430278, US8376192, US8362091, US8343945, US8297539, US8028852, US7549816, US2015143752, US2014103006, US2013214007, US2013098944, US2012312702, US2012056009, US2011036927, US2010314418, US2010183953, US2009295147, US2009068118, US2007069046, US2006110205, US2006108377, CN103057845, CN103057845,

Abstract:

A liquid metered dispensing squeeze bottle includes: (a.) a squeezable container having an opening for dispensing liquid therefrom at one end and a bottom at the other end; (b.) a nonflexible trap chamber of a predetermined volume, connected to the opening of the container; (c.) a dip tube, and (d.) a one way valve at the bottom of the dip tube. In some embodiments, the one way valve system includes a generally inverted trapezoidal valve housing with tapered opposing sidewalls with an inlet orifice in each of said sidewalls, and an inverted trapezoidal valve having opposing slide valve ends, with a rest position when the bottle is upright wherein both inlet orifices are closed, a second position when the bottle is inverted 180 degrees wherein both inlet orifices are open to air, a third position when the bottle is upright and squeezed wherein at least one of the inlet orifices is open to air, and a fourth position when the bottle is rotated 90 degrees from upright wherein one of the inlet orifices is open to air and the other is closed.

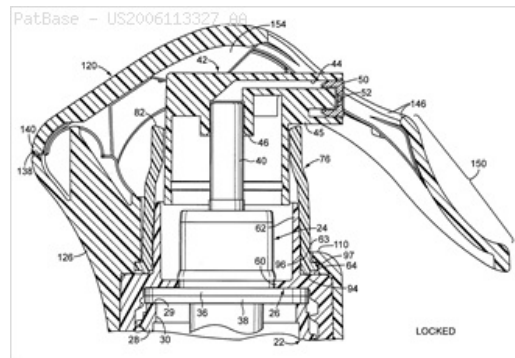


Title:	DISPENSER WITH LOCK																																																																				
Priority:	US20040218428 20041129 US20050268445 20051107		US20040218428F 20041129 EP20060785489 20060623		US20050176896 20050707 WO2006US24586 20060623																																																																
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Probable Assignee:	SEQUISTPERFECT DISPENSING FOREIGN INC																																																																				
Assignee(s):(std):	APTARGROUP INC ; SEAQUISPERFECT DISPENSING FORE ; SEAQUIST PERFECT DISPENSING FO ; SEAQUISTPERFECT DISPENSING FOR ; SEAQUISTPERFECT DISPENSING FOREIGN INC ; SEAQUIST PERFECT DISPENSING FOREIGN INC																																																																				
Assignee(s):	WALTERS PETER J ; SEQUISTPERFECT DISPENSING FOREIGN INC ; SEAQUISPERFECT DISPENSING FOREIGN INC ; APTARGROUP INC CRYSTAL LAKE																																																																				
Inventor(s):(std):	BRAUN CRAIG ; CHO SEAN ; CHO SEAN H ; CRAIG BRAUN ; HALLMAN PAUL ; HALLMAN PAUL E ; KSIAZK JASON ; KSIAZK JASON A ; WALTERS PETER ; WALTERS PETER J ; WERNER JONATHAN ; WERNER JONATHAN D																																																																				
Inventor(s):	WERNER JONATHAN D ALLGONQUIN ; WALTERS PETER J BARRINGTON ; KSIAZK JASON A ARLINGTON HEIGHTS ; PAUL E HALLMAN ; PETER J WALTERS ; SEAN H CHO ; HALLMAN PAUL E LAKEWOOD ; JASON A KSIAZK ; JONATHAN D WERNER ; CHO SEAN H SOUTH ELGIN ; BRAUN CRAIG ELGIN																																																																				
Agent(s):	BOEHMERT AND BOEHMERT ANWALTSPARTNERSCHAFT MBB PATENTANWAELTE RECHTSANWAELTE ; APPELT CHRISTIAN W ; WOOD PHILLIPS KATZ CLARK AND MORTIMER																																																																				
Designated states:	AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW																																																																				
International class (IPC 8-9):	B05B11/00 B05B9/04 B65D83/40 B65D83/76 B67B5/00 B67D5/40 B67D7/58 (Advanced/Invention)																																																																				
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US class:	222/153.11 222/153.110P 222/153.13 222/182 222/321.8 222/383.1 222/383.100P 222/402.13 222/402.15 D9/448																																																																				
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Forward Citations:	WO16066151, WO14128007, WO13163225, WO12151353, WO12151353, WO11150021, WO11117149, WO11034869, WO11030232, WO10121264, WO08090092, USD795635, USD787326, USD761650, USD746135, USD718624, USD717666, USD713251, USD710697, USD705060, USD698428, USD691488, USD688562, USD680879, USD678065, USD676760, USD675103, USD674276, USD672240, USD669353, USD665260, USD662426, USD661987, USD661187, USD653106, USD647805, USD636668, USD635854, USD629866, USD628067, USD627224, USD623942, USD622143, USD589795, USD588456, USD588004, USD587575, USD580760, USD580273, USD573463, USD573021, USD571203, USD553002, US9955765, US9789502, US9776785, US9745117, US9592527, US9586750, US9580233, US9435120, US9415927, US9382060, US9248457, US9156602, US9156042, US9004324, US8899448, US8807396, US8672189, US8608031, US8602269, US8528794, US8511514, US8444026, US8376192, US8336742, US8251255, US8225967, US7850046, US7798369, US7748572, US7686189, US7341056, US7249692, US2017120276, US2016242528, US2016198878, US2015239643, US2015076174, US2014084026, US2013001323, US2012280065, US2012241475, US2012006857, US2011284592, US2011233235, US2011068132, US2010320237, US2010303971, US2010276454, US2010237106, US2009188947, US2009145928, US2009127293, US2008273915, US2008251538, US2008173676, US2008173675, US2008110936, US2007119870, US2006138176, US2006113329, US2006006198, JP5813567,																																																																				

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Abstract:

A dispensing assembly is provided for a container of fluent material. A hand-operable dispenser cartridge is adapted to be mounted to the container. An actuator, which may include a nozzle or spout, is mounted on the cartridge. A locking sleeve is mounted around the cartridge and has an upper abutment edge and a recess. The locking sleeve can be rotated between a first rotated position preventing actuation of the dispensing assembly and a second rotated position permitting actuation of the dispensing assembly.



Title: PACKAGING SYSTEM FOR STORING AND MIXING SEPARATE INGREDIENT COMPONENTS
Priority: US20050112931 20050421

Family:	Publication number	Publication date	Application number	Application date
	US2006237095 AA	20061026	US20050112931	20050421
	US7308915 BB	20071218	US20050112931	20050421

Probable Assignee: JPRO DAIRY INT INC
Assignee(s):(std): JOHNS COREY N ; JOHNS GARRY P ; JPRO DAIRY INTERNATIONAL INC
Assignee(s): JPRO DAIRY INT ; JPRO DAIRY INT INC
Inventor(s):(std): JOHNS COREY N ; JOHNS GARRY P
Inventor(s): JOHNS COREY ; JOHNS GARRY
Agent(s): MYERS DAWES ANDRAS AND SHERMAN LLP; VIC
International class
(IPC 8-9): B65B1/04 (Advanced/Invention);
B65B1/04 (Core/Invention)
CPC: B65D81/3211
European class: B65D81/32B1
US class: 141/100 141/329

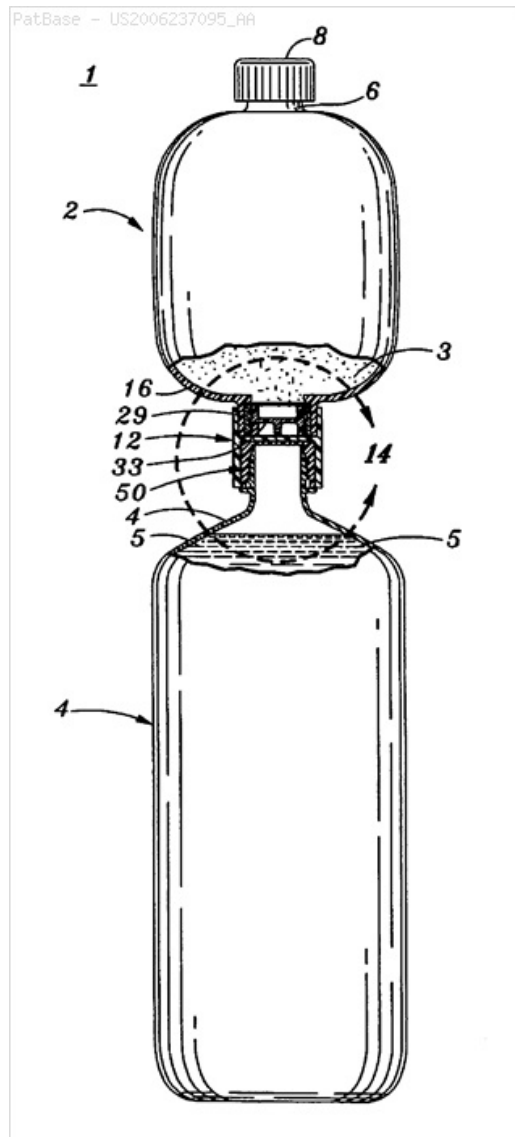
[Classification Explorer](#)

Cited documents: US7066323 BA, US6814229 BB, US6709424 BA, US6668875 BB, US6655524 BB, US6540070 BA, US6533113 BB, US6527110 BB, US6527109 BB, US6517878 BB, US6485479 BA, US6390342 BA, US6244433 BA, US6089389 A, US6045254 A, US5984141 A, US5941380 A, US5782345 A, US5743423 A, US5735320 A, US5525299 A, US5465835 A, US5366114 A, US5353928 A, US5297696 A, US5277303 A, US5209565 A, US5186323 A, US5000314 A, US4986322 A, US4982875 A, US4757916 A, US4465183 A, US3404811 A, US2876113 A, US2784949 A, US2631521 A, US2003153865 AA, US2003017236 AA, EP0692235 A1,

Forward Citations: WO12059915, WO11116767, USD736561, US9919860, US9688434, US9604765, US9346602, US9067254, US9004301, US8903528, US8870844, US8857232, US8800612, US8726710, US8726709, US8684208, US8627697, US8522968, US8474495, US8464633, US8448487, US8381561, US8360266, US8292099, US8230777, US8226126, US8020696, US2016368694, US2014019078, US2012017766, US2011198864, US2011147240, US2011114649, US2011113732, US2011054437, US2011042944, US2011042389, US2011036454, US2011011859, US2010288759, US2010163441, US2010100213, US2010095735, US2010095734, US2010095728, US2010095723, US2010095514, US2010084290, US2010012613, US2010012193, US2009127221, US2009120528, US2009057248, US2008296248, US2008290059, US2008289976, US2008169265, GB2501140, CN102874489,

Abstract:

A packaging system is provided for storing and mixing separate ingredient components. The system includes a first bottle used for storing a first ingredient component which includes a dispensing port disposed on a top end, a mixing port disposed on a bottom end, and a seal integrated within the mixing port. The system also includes a second bottle used for storing a second component ingredient which includes a bottle neck having an opening disposed therein wherein the neck is adapted to be installed into the mixing port of the first bottle. Also, an extended tip is formed on the distal end of the bottle neck. When the bottle neck of the second bottle is installed into the mixing port of the first bottle, the seal from the first bottle is broken by the extended tip from the second bottle establishing fluid communication between the first and second bottles and allowing the ingredient components to mix.



Title:

MATERIAL STORAGE AND DISPENSING PACKAGES AND METHODS

Priority:

US20050674577P 20050425 US20050674578P 20050425 US20050674579P 20050425
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Family:	Publication number	Publication date	Application number	Application date
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	WO06116389 A2	20061102	WO2006US15605	20060425
	WO06116389 A3	20071122	WO2006US15605	20060425

Probable Assignee:

ADVANCED TECHNOLOGY MATERIALS INC

Assignee(s):(std):

ADVANCED TECH MATERIALS ; ALBERG MICHELE ; O DOUGHERTY KEVIN T ; MIKKELSEN KIRK ; TOM GLENN M ; YAN HONGWEI ; KINGERY JOHN R ; MENNING JOSEPH ; TOKYO ELECTRON LTD

Assignee(s):

ENTEGRIS INC ; GOLDMAN SACHS BANK USA COLLATERAL AGENT AS ; ADVANCED TECHNOLOGY MATERIALS INC ; ADVANCED TECHNOLOGY MATERIALS INC DANBURY

Inventor(s):(std):

ALBERG MICHELE ; HONGWEI YAN ; HOYT TIM ; HOYT TIMOTHY ; JOE MENNING ; JOSEPH MENNING ; KINGERY JOHN R ; KIRK MIKKELSEN ; MENNING JOSEPH ; MICHELE ALBERG ; MIKKELSEN KIRK ; OLSON PATRICK M ; TOM GLENN M ; YAN HONG WEI ; YAN HONGWEI ; WARE DONALD D ; VAN BUSKIRK PETER C ; PETER C VAN BUSKIRK ; HOVINEN MINNA ; O DOUGHERTY KEVIN T ; MENNING JOSEPH P ; KEVIN T O DOUGHERTY ; JOHN R KINGERY ; GLENN M TOM ; ALBERG MICHELE J

Inventor(s):

JOSEPH P MENNING ; O DOUGHERTY KEVIN T ARDEN HILLS ; O'DOUGHERTY KEVIN T ; MICHELE J ALBERG ; TOM GLENN M BLOOMINGTON ; VAN BUSKIRK PETER C NEWTOWN ; WARE DONALD D ST PAUL ; MIKKELSEN KIRK CARVER ; KINGERY JOHN R EDEN PRAIRIE ; HOVINEN MINNA EDINA ; ALBERG MICHELE AND

Agent(s):

ABG PATENTES SL; INABA YOSHIYUKI; OHGA SHINJI; INTELLECTUAL PROPERTY / TECHNOLOGY LAW; INTELLECTUAL PROPERTY TECHNOLOGY LAW

Designated states:

AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class (IPC 8-9):

B01J4/00 B01J4/02 B32B27/32 B32B27/34 B32B3/26 B65B3/00 B65B31/00 B65D33/00 B65D35/28 B65D37/00 B65D65/40 B65D77/04 B65D81/00 B65D81/18 B65D81/20 B65D83/00 B67D5/00 B67D99/00 (Advanced/Invention); B65B3/00 H01L21/205 H01L21/306 (Advanced/Non-invention); B65B3/00 B65D65/40 B65D77/04 B65D83/00 (Core/Invention); H01L21/02 (Core/Non-invention)

CPC:

B65D33/00 B65B31/003 B65D83/0061 Y10T428/31757 B01J2219/00065 B01J2219/00067 B01J2219/00069 B01J2219/00164 B01J4/02 G01F23/18 Y10T428/249981 B65D83/62

European class:

B65B31/00A B65D83/00B1

US class:

222/1 222/105 222/105S 222/1S 222/95 222/95P 383/109 428/220 428/220S 428/316.6 428/316.600S 428/476.9 428/476.900S

[Classification Explorer](#)

Cited documents:

WO06116389 A2, WO06116389, WO04058425 A2, WO03066509 A2, WO03066509, WO0000767 A1, US7188644 BB, US6893672 BB, US6789699 BB, US6623866 BB, US6601732 BA, US6599639 BB, US6345739 BA, US6319317 BA, US6209344 BA, US6199599 BA, US6168048 BA, US6120860 A, US5957328 A, US5813571 A, US5711354 A, US5711354, US5277336 A, US5148945 A, US4635814 A, US4407873 A, US4320856 A, US3756459 A, US3756459, US3756367 A, US3756367, US3682355 A, US2592162 A, US2009020176 AA, US2007131644 AA, US2007113923 AA, US2006144726 AA, US2006000850 AA, US2005118374 AA, US2004069347 AA, US2004058453 AA, US2004058453, US2003205581 AA, US2003205581, US2003190272 AA, US2003190272, US2003168479 AA, US2002092582 AA, JP7024974 A2, JP7024974, JP62038232 A2, JP62038232, JP59081168 A2, JP59081168, JP2005507835 T2, JP2005507835, JP2005015061 A2, JP2005015061, JP2005010196 A2, JP2005010196, JP2004140066 A2, JP2004140066, JP2004058453, JP2003518591 T2, JP2003518591, JP2003190272, JP2001030471 A2, JP2001030471, JP2000109195 A2, JP2000109195, JP2000015082 A2, JP2000015082, JP10189438, JP10189438, GB2168314,

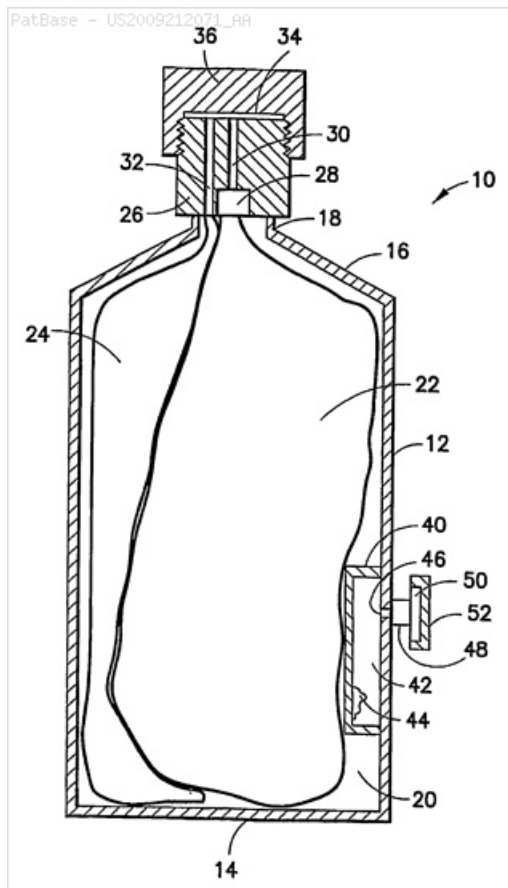
Forward Citations:

WO15134905, WO15105877, WO14107187, WO14070970, WO13055988, WO12135267, WO12135267, WO12051093, WO12051093, WO11046802, WO11046802, USD715143, US9937687, US9850059, US9802807, US9802806, US9770804, US9745181, US9713798, US9695985, US9650169, US9637300,

US9631774, US9580224, US9556012, US9522773, US9357763, US9211993, US9062828, US8844774, US8590744, US8507382, US8313821, US2017043994, US2016251209, US2016159519, US2016009472, US2015266657, US2014174032, US2014131380, US2014069916, US2013270303, US2013161349, US2013019989, US2009297769, US2009057347, US2007113923, TWI621571, TWI596047, TWI401465, KR101494628, KR101438507, JP4920678, JP2015042568, JP2014502235, JP2014223947, JP2013540080, JP2013516319, JP2008539145, EP3230173, EP3092016, EP2632815, DE102010038912, CN105934405, CN105531203, CN105470175, CN105460414, CN105435872, CN104944352, CN104768865, CN103974882, CN103558297, CN103558297, CN103347796, CN103261056, CN103261056, CN103249644, CN103068308, CN103068308, CN102844837, CN102619906, CN102548868, CN102548868, CN102149627,

Abstract:

Packages and methods for storage and dispensing of materials, e.g., high purity liquid reagents and chemical mechanical polishing compositions used in the manufacture of microelectronic device products, including containment structures and methods adapted for pressure-dispensing of high-purity liquids. Liner packaging of liquid or liquid-containing media is described, in which zero or near-zero head space conformations are employed to minimize adverse effects of particle generation, formation of bubbles and degradation of contained material.

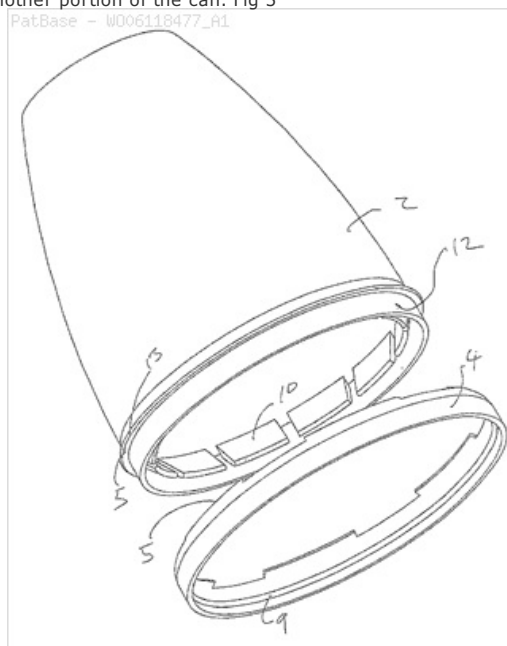


Title: TAMPER EVIDENT OR TAMPER PROOF CAP**Priority:** NZ20050539754 20050502 WO2006NZ00093 20060502

Family:	Publication number	Publication date	Application number	Application date
	AU2006241585 AA	20061109	AU20060241585	20060502
	NZ539754 A	20071130	NZ20050539754	20050502
	WO06118477 A1	20061109	WO2006NZ00093	20060502
	WO06118477 C1	20070118	WO2006NZ00093	20060502

Probable Assignee: WHURL PLASTICS LTD**Assignee(s):(std):** BLOOMFIELD JOHN IAN ; JOHN BLOOMFIELD ; WHURL PLASTICS LTD**Assignee(s):** WHURL PLASTICS LIMITED**Inventor(s):(std):** BLOOMFIELD JOHN IAN**Inventor(s):** JOHN IAN BLOOMFIELD**Agent(s):** PEGASUS IP; IP SOLVED ANZ PTY LTD**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW**International class (IPC 8-9):** B65D41/32 B65D41/46 B65D55/02 B65D55/08 B65D83/14 B65D83/40 B67B5/00 (Advanced/Invention); B65D41/32 B65D55/02 B65D83/14 B65D83/40 B67B5/00 (Core/Invention)**International class (IPC 1-7):** B65D41/32 B65D50/12 B65D55/02 B65D55/08 B65D83/40**CPC:** B65D41/46 B65D83/40**European class:** B65D41/46 B65D83/14 B65D83/40[Classification Explorer](#)**Cited documents:** WO0164549 A2, US5413235 A, US5341947 A, US3724724 A, GB2312423 A1, GB2305167 A1, GB1511582 A, GB1465287 A,**Forward Citations:** GB2481436, EP2746189, DE102012112568,**Abstract:**

There is a need for tamper-evident or tamper proof caps especially for aerosols as young teens may otherwise remove the cap of such a can, on a supermarket shelf, expose themselves to the contents of the can and replace the cap with no-one being any the wiser. This problem may be solved through the use of a tamper proof cap, for use with an aerosol can, the cap comprising a body having a proximal top portion and a distal base portion, wherein the distal base portion is provided with a plurality of concentric can engagement means, at least one of the engagement means being adapted to engage with one portion of the can, whilst at least one other engagement means is adapted to engage with another portion of the can. Fig 5



Title:

METHOD AND DEVICE FOR A CHILD RESISTANT DROPPER CLOSURE

Priority:

US20050147014 20050606

Family:

Publication number	Publication date	Application number	Application date
US2006273061 AA	20061207	US20050147014	20050606

Probable Assignee:

BERRY PLASTICS CORP

Assignee(s):(std):

FRICKE MARK

Assignee(s):

GRAFCO IND ; LANDIS PLASTICS LLC ; SETCO LLC ; TUBED PRODUCTS LLC ; CREDIT SUISSE CAYMAN ISLANDS BRANCH AS TERM... ; CREDIT SUISSE AS ADMINISTRATIVE AGENT ; CREDIT SUISSE CAYMAN ISLANDS BRANCH TERM COLLATERA ; GRAFCO IND PARTNERSHIP LTD ; CREDIT SUISSE ADMINISTRATIVE AGENT AS ; CREDIT SUISSE CAYMAN ISLANDS BRANCH TERM COLLATERAL AGENT AS ; CREDIT SUISSE CAYMAN ISLANDS BRANCH AS TERM COLLAT ; WELLS FARGO BANK NA ; WELLS FARGO BANK NA COLLATERAL AGENT AS ; BANK OF AMERICA NA ; BANK OF AMERICA NA ABL COLLATERAL AGENT AS ; BANK OF AMERICA NA COLLATERAL AGENT AS ; BERRY PLASTICS CORP ; BERRY STERLING CORP ; CAPTIVE PLASTICS INC

Inventor(s):(std):

FRICKE MARK

Agent(s):

BARNES AND THORNBURG LLP

International class (IPC 8-9):

B65D39/00 B65D41/06 (Advanced/Invention);
B65D39/00 B65D41/04 (Core/Invention)

CPC:

B01L3/0272 B65D41/06 B65D51/24

European class:

B65D41/06 B65D51/24 L01L3/02D12

US class:

215/228 215/332

[Classification Explorer](#)

Cited documents:

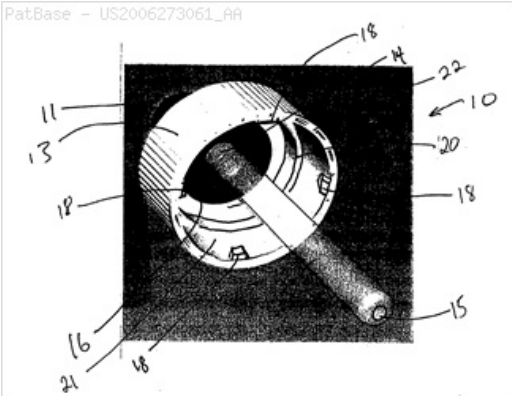
US7198170 BB, US6589484 BB, US6481600 BB, US6433541 BA, US6273152 BA, US6112779 A, US6045003 A, US5836359 A, US5746349 A, US5449078 A, US5316161 A, US5154702 A, US5092477 A, US4768682 A, US4633922 A, US4444327 A, US4416400 A, US4383618 A, US4366921 A, US4091948 A, US4056129 A, US3917096 A, US3881624 A, US3881527 A, US3756445 A, US3485403 A, US3200979 A, US3154116 A, US2802605 A, US2002125270 AA, US2001042572 AA, US2001002028 AA,

Forward Citations:

US9527655, US2013092759, US2008125633,

Abstract:

An apparatus includes a closure plane having an annular opening, a circumferentially depending outer skirt having on a radially inward side a plurality of first child-resistant engaging arrangements, and a circumferentially depending inner member arranged parallel to, and radially inward from, the circumferentially depending outer skirt. A dropper is provided which includes a bulb and pipette arranged in the annular opening of the closure plane, the pipette extending axially from the closure plane in a first direction of the outer skirt, the bulb forming an airtight seal with the pipette. A container is provided which includes a base and a sidewall. The sidewall extends circumferentially from the base and an edge of the sidewall away from the base forms a container neck. The container neck includes on an outward side a plurality of second child-resistant engaging arrangements. The closure is molded from one piece. Each of the first child-resistant engaging arrangements is adapted to engage with a corresponding second child-resistant engaging arrangement on the container neck. The circumferentially depending inner member is adapted to engage the container neck to bias the closure into an open position. A closure is provided which includes a closure plane having an annular opening, a circumferentially depending outer skirt having on a radially inward side a plurality of evenly spaced lugs, and a circumferentially depending inner member arranged parallel to, and radially inward from, the circumferentially depending outer skirt. Each of the lugs is adapted to engage with a corresponding bayonet on a container neck, the corresponding bayonet having a notch configured to accept the lug.



Title:

MIXING CONTAINER

Priority:

US20050167437 20050627

US20080151280 20080505

Family:

Publication number	Publication date	Application number	Application date
US2006289316 AA	20061228	US20050167437	20050627
US2008289976 AA	20081127	US20080151280	20080505
US7377383 BB	20080527	US20050167437	20050627
WO07002623 A2	20070104	WO2006US24881	20060627
WO07002623 A3	20071115	WO2006US24881	20060627

Probable Assignee:

HENRY JOHN R

Assignee(s):(std):

HENRY JOHN R

Inventor(s):(std):

HENRY JOHN R

Inventor(s):

HENRY JOHN

Agent(s):

JAMES C SIMMONS LAW OFFICE OF JAMES C SIMMONS; JAMES C SIMMONS; SIMMONS JAMES C ; JAMES C

Designated states:

AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9):

B65D25/08 B65D6/28 B65D85/62 B67D5/60 B67D7/78 (Advanced/Invention); B65D25/04 B65D6/00 B65D85/62 B67D7/78 (Core/Invention)

CPC:

B65D81/3211

European class:

B65D81/32B1

US class:

206/219 206/222 206/499 220/4.27 222/129 222/145.1 222/83

[Classification Explorer](#)

Cited documents:

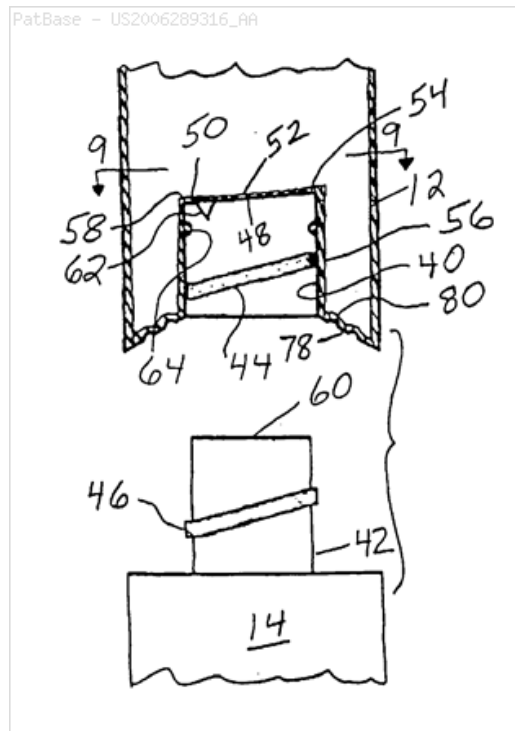
US7377383 BB, US7308915 BB, US7066323 BA, US6935493 BB, US6910573 BB, US6814229 BB, US6634821 BB, US6609634 BB, US6543645 BB, US6247586 BA, US6135275 A, US6073803 A, US6068396 A, US6065641 A, US5890596 A, US5884759 A, US5731291 A, US5647481 A, US5514394 A, US5411295 A, US5405051 A, US5398851 A, US5398850 A, US5385546 A, US5350372 A, US5336180 A, US5335773 A, US5277303 A, US5152965 A, US5071034 A, US4936445 A, US4871354 A, US4823946 A, US4785931 A, US4693366 A, US4682689 A, US4638927 A, US4271982 A, US4258845 A, US4244467 A, US4177938 A, US4067440 A, US3902596 A, US3809289 A, US3784005 A, US3610586 A, US3548562 A, US3443726 A, US3404811 A, US3349966 A, US3347410 A, US2631521 A, US2006237095 AA, US2002150658 AA, US2002130126 AA, US2002104766 AA,

Forward Citations:

WO13156932, WO12102814, WO11088432, WO11060292, WO10056881, WO10025392, WO10025392, WO09114754, USD672237, USD650294, USD649883, US9969538, US9771194, US9758283, US9718598, US9708109, US9688434, US9656782, US9567142, US9452870, US9415923, US9352287, US9272827, US9260284, US9248937, US9199779, US9114910, US9045262, US8987331, US8932539, US8815318, US8789716, US8740020, US8716339, US8714808, US8701906, US8617487, US8590753, US8485378, US8464910, US8365960, US8151985, US8141700, US8083055, US8061006, US8056726, US7850043, US2016214773, US2016113373, US2016029846, US2015203273, US2015068405, US2014319176, US2014061150, US2011110180, US2010236951, US2010120913, US2009277929, US2009127221, US2009057315, US2008314775, US2008289976, US2008169265, US2008035668, US2007280042, JP6146721, JP5767967, JP5613853, JP2015202435, JP2015199549, JP2012501281, ITMO20120095, GB2481645, GB2481645, EP3088327, EP2851056, EP2837580, EP2700455, EP2674373, EP2397421, EP2397421, CN103347799, CN103040376, CN102874489, CN102770199, CN102177078, AU2008284021,

Abstract:

A mixing container wherein two or more chamber members each contain a material to be mixed. A first chamber member has a threaded port. A second chamber member has a threaded neck which is threadedly receivable in the port to threadedly connect the chamber members. The neck has a terminal opening. A sealing member covers the opening. The first chamber member has a frangible portion which sealingly closes an inner end of the port and which is broken in as the neck bears there against as the neck is threadedly received in the port. A blade on the first chamber member punctures the neck sealing member as the neck sealing member bears against the blade as the neck is threadedly received in the port. This allows the materials in the chamber members to flow between the chamber members to be mixed. The container may also have an opening for dispensing the substance mixed therein.



Title:

CAP OR CLOSURE ASSEMBLIES, RETENTION FORM, MOULDINGS AND TOOLING

Priority:

NZ20050541604 20050801 NZ20050542859 20051005 NZ20050544060 20051208
NZ20060564975 20060727

Family:

Publication number	Publication date	Application number	Application date
AR056011 AA	20070912	AR2006P103345	20060801
NZ541604 A	20080430	NZ20050541604	20050801
WO07015649 A1	20070208	WO2006NZ00194	20060727

Probable Assignee:

ALTO PACKAGING LTD

Assignee(s):(std):

ALTO HOLDINGS LTD ; ALTO PACKAGING LTD ; NOONAN MICHAEL PATRICK

Assignee(s):

ALTO PACKAGING LIMITED ; ALTO HOLDINGS LIMITED

Inventor(s):(std):

NOONAN MICHAEL PATRICK

Designated states:

AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ
DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HN HR HU ID IE IL IN IS IT JP KE
KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI
NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ
UA UG US UZ VC VN ZA ZM ZW

International class
(IPC 8-9):

B65D41/34 B65D41/62 B65D43/06 B65D47/06 B65D50/00 B65D51/18 (Advanced/Invention);
B65D41/00 B65D41/34 B65D43/02 B65D47/06 B65D50/00 B65D51/18 (Core/Invention)

International class
(IPC 1-7):

B65D41/34 B65D41/62 B65D47/06 B65D47/20 B65D47/24

CPC:

B65D47/247

European class:

B65D47/24C2

[Classification Explorer](#)

Cited documents:

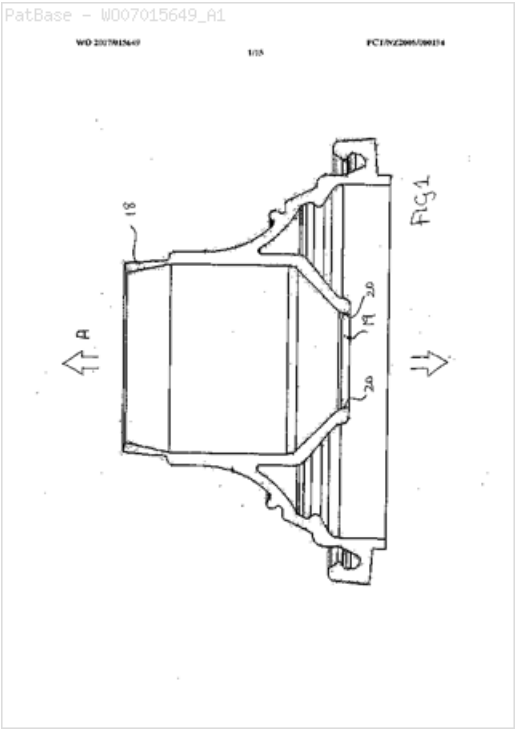
WO9832670 A1, WO04056670 A1, WO03051734 A1,

Forward Citations:

DE102008026449, CN104326152, CN102658906,

Abstract:

A sipper closure assembly having a folded in retention flange for a nozzle component thereof, the nozzle component being adapted to move to one limit of its reproducible reciprocal movement at which there is an interaction of said folded in flange (or part thereof) on said nozzle component.

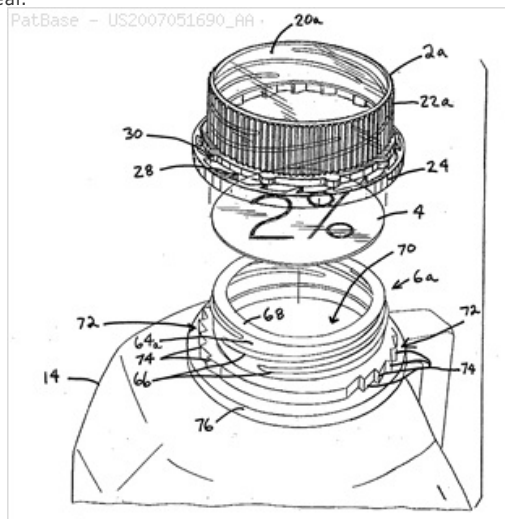


Title: CAP WITH VISIBLE TAMPER-INDICATING SEAL**Priority:** US20050222429 20050908 US20050273334 20051114

Family:	Publication number	Publication date	Application number	Application date
	GB200622677 A0	20061227	GB20060022677	20061114
	GB2432152 A1	20070516	GB20060022677	20061114
	US2007051690 AA	20070308	US20050222429	20050908
	US2007051691 AA	20070308	US20050273334	20051114

Probable Assignee: BLACKHAWK MOLDING CO INC**Assignee(s):(std):** BLACKHAWK MOLDING CO INC ; HIDDING DOUGLAS J**Assignee(s):** BLACKHAWK MOLDING CO**Inventor(s):(std):** HIDDING DOUGLAS J**Inventor(s):** DOUGLAS J HIDDING ; HIDDING DOUGLAS**Agent(s):** DAVID I ROCHE BAKER AND MCKENZIE LLP; DANIEL A TALLITSCH BAKER AND MCKENZIE LLP**International class**
(IPC 8-9): B65D41/00 B65D51/00 B65D51/18 B65D51/20 B65D55/02 (Advanced/Invention);
B65D41/00 B65D51/00 B65D51/18 (Core/Invention)**CPC:** B65D55/066 B65D41/045 B65D41/3409 B65D41/46 B65D51/20 B65D2203/02 B65D2251/0015
B65D2251/0093 B65D51/18 B65D55/02 B65D55/024 B65D55/026**European class:** B65D41/04D2 B65D41/34A1 B65D41/46 B65D51/18 B65D51/20 B65D55/02 B65D55/02F B65D55/02G
B65D55/06D L65D203/02 L65D251/00Y2D L65D251/00Y6M**US class:** 215/232 215/232S 215/252 220/258.1 220/258.100S[Classification Explorer](#)**Cited documents:** US6749078 BB, US6523710 BA, US6152529 A, US5896686 A, US5720392 A, US5704501 A, US5112628 A, US5092477 A, US5005719 A, US4984700 A, US4840281 A, US4822326 A, US4775184 A, US4747500 A, US4747499 A, US4747497 A, US4721217 A, US4666052 A, US4603785 A, US4602785 A, US4576297 A, US4553678 A, US4544073 A, US4526752 A, US4502605 A, US4069935 A, US3758608 A, US3548810 A, US3433380 A, US3019052 A, US2004020889 AA, US1985131 A, US1241171 A, GB2379656 A1, GB1442859 A,**Forward Citations:** WO16182217, WO12018994, WO10132767, WO08112221, US9311589, US9181001, US8523024, US8120484, US7967167, US7922961, US7850893, US7694845, US7388506, US2018065375, US2013287905, US2012031871, US2011209322, US2011204099, US2011100947, US2010288721, US2010180553, US2010043910, US2008309495, US2008223813, US2008110774, US2007182564, US2007145001, KR101648361, GB2443185,**Abstract:**

The inventions disclosed herein include a clear cap and tamper-indicating seal combination for containers. The preferred cap is at least partially non-opaque to allow a customer to perceive the tamper-indicating seal through the cap at the point of purchase. In a first embodiment, the tamper-indicating seal serves as a label, wherein the customer can perceive, through the cap, information such as printing which is indicative of the contents of the container. In a second embodiment, the tamper-indicating seal serves as a tamper evident seal, wherein the customer can perceive, through the cap, at the point of purchase, whether the seal has been breached. In a third embodiment, the tamper-indicating seal serves as both a label and a seal, wherein the tamper-indicating seal creates a liquid resistant seal between the cap and the opening of the container. In a fourth embodiment, the tamper-indicating seal serves as both a label and a tamper evident seal.



Title:PERFUMING METHOD AND PRODUCT

Priority:US20050714461P 20050906WO2006US34670 20060905US20060516355 20060906

Family:

Publication number	Publication date	Application number	Application date
AR055153 AA	20070808	AR2006P103886	20060906
AT466925 E	20100515	AT20060824897T	20060905
AU2006287554 AA	20070315	AU20060287554	20060905
BRPI0615698 A2	20110524	BR2006PI15698	20060905
CA2619388 AA	20080213	CA20062619388	20060905
CN101258233 A	20080903	CN200680032613	20060905
DE602006014169 D1	20100617	DE200660014169T	20060905
EP1922402 A1	20080521	EP20060824897	20060905
EP1922402 B1	20100505	EP20060824897	20060905
ES2345456 T3	20100923	ES20060824897T	20060905
JP2009507129 T2	20090219	JP20080530157T	20060905
MX2008003183 A1	20080318	MX20080003183	20060905
NO20081630 A	20080606	NO20080001630	20080402
RU2008107402 A	20091120	RU20080107402	20060905
RU2392301 C2	20100620	RU20080107402	20060905
US2007072785 AA	20070329	US20060516355	20060906
US7790662 BB	20100907	US20060516355	20060906
WO07030511 A1	20070315	WO2006US34670	20060905
ZA200801512 A	20081126	ZA20080001512	20080214

Probable Assignee:PROCTER AND GAMBLE CO

Assignee(s):(std):MERERE INGRID ; SMETS JOHAN ; SAHIN TOPKARA HILAL ; GRAY PETER GERARD ; PROCTER AND GAMBLE ; MARIANI MANUEL ; ORCHARD ALEX JAMES ; GRAY PETER G ; ORCHARD ALEX J ; CARRARA GIOVANNI ; D HARDEMARE REGIS ; BURCKETT ST LAURENT JAMES CHAR

Assignee(s):BURCKETT ST LAURENT JAMES CHARLES THEOPHILE ROGER ; DENUTTE HUGO ROBERT GERMAIN ; PROCTER AND GAMBLE CO ; THE PROCTER AND GAMBLE COMPANY ; DZE PROKTER EHND GEHMBL KOMPANI

Inventor(s):(std):BURCKETT ST LAURENT JAMES CHARLES T R ; BURCKETT ST LAURENT JAMES CHARLES THEOPHILE ; BURCKETT ST LAURENT JAMES CHARLES THEOPHILE ROGER ; BURCKETT ST LAURENT JAMES ; BURCKETT ST LAURENT JAMES CHAR ; BURCKETT ST LAURENT DZHEMS CHARL Z TEOFIL ; CARRARA GIOVANNI ; CARRERA GIOVANNI ; CHAR BURCKETT ST LAURENT JAMES ; D ARDEMAR REGIS ; D HARDEMARE REGIS ; DENUTTE HUGO ; DENUTTE HUGO ROBERT ; DENUTTE HUGO ROBERT GERMAIN ; DENUTTE KH JUGO ROBERT ZHERMEHN ; E HARDEMARE REGIS ; GERARD GRAY PETER ; GERMAIN DENUTTE HUGO ROBERT ; GIOVANNI CARRARA ; GRAY PETER ; GRAY PETER G ; GRAY PETER GERARD ; GREJ PITER GERARD ; HARDEMARE REGIS D ; HILAL SAHIN TOPKARA ; JAMES ORCHARD ALEX ; JOHAN SMETS ; KARRARA DZHIOVANNI ; LAURENT JAMES CHARLES THEOPHIL ; LAURENT JAMES CHARLES THEOPHILE ROGER BURCKETT ST ; MANUEL MARIANI ; INGRID MERERE ; MARIANI MANUEHL ; MARIANI MANUEL ; MERERE INDRID ; MERERE INGRID ; ORCHARD ALEKS DZHEJMS ; ORCHARD ALEX ; ORCHARD ALEX J ; ORCHARD ALEX JAMES ; ROGER BURCKETT ST LAURENT JAME ; SAHIN TOPKARA HILAL ; SAHIN TOPKARA HITAL ; SAKHIN TOPKARA KHILAL ; SMETS DZHOKHAN ; SMETS JOHAN ; TOPKARA HILAL SAHIN ; REGIS D HARDEMARE

Inventor(s):REGIS E HARDEMARE ; ALEX JAMES ORCHARD ; PETER GERARD GRAY ; MARIANI MANUEHL' ; JAMES CHARLES THEOPHILE ROGER BURCKETT ST LAURENT ; BURCKETT STLAURENT JAMES CHARLES THEOPHILE ROGER ; HUGO ROBERT GERMAIN DENUTTE ; DENUTTE KH'JUGO ROBERT ZHERMEHN ; D'ARDEMAR REGIS ; BURKETT ST. LAURENT DZHEMS CHARL'Z TEOFIL ; BURCKETT ST LAURENT JAMES CHARLES ; BURCKETT ST LAURENT JAMES CHARLES THEOPILE ROGER ; BURCKETT ST LAURENT JAMES CHARLES TR

Agent(s):PHILLIPS ORMONDE FITZPATRICK; KIRBY EADES GALE BAKER; KELLENBERGER JAKOB; THE PROCTER AND GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION; PROCTER AND GAMBLE CO INTELCTUAL PROPERTY DIVISION; MARIANNE; ARMINA E; LEONARD W

Designated states:AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9):B65D23/00 B65D83/00 C11D1/62 C11D17/00 C11D17/04 C11D17/08 C11D3/37 C11D3/386 C11D3/40 C11D3/50 (Advanced/Invention); B65D23/00 B65D83/00 C11D1/38 C11D17/00 C11D17/04 C11D17/08 C11D3/37 C11D3/38 C11D3/40 C11D3/50 (Core/Invention); B65D C11D (Subclass/Invention)

International class (IPC 1-7):C11D17/04 C11D3/386 C11D3/50

CPC:C11D3/386 C11D3/50 C11D3/502 C11D17/041 C11D17/00 D06F39/024

European class:C11D17/04B C11D3/386 C11D3/50 C11D3/50B D06F39/02C

US class:510/101 510/276 510/277 510/293 510/296 510/406 510/438 510/439 510/441 510/523

Classification Explorer

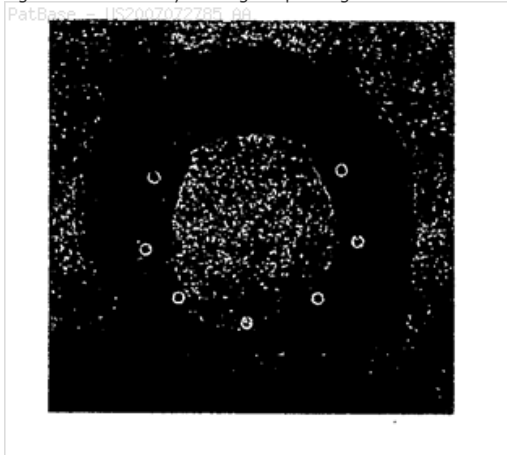
Cited documents:WO05049717 A2, WO0123274 A1, US6644511, US6398076, US5211874 A, US5108009, US5089167 A, US4858758 A, US4623698 A, US4550862 A, US2005272624 AA, JP62045699 A2, JP61000352 A2, JP3033196 A2, JP2007502340 T2, JP2005097552 A2, JP2004323039 A2, JP2003519721 T2, JP2003213074 A2, JP2002265724 A2, JP11029183 A2, GB2320490 A1, EP0158508 A2,

Forward Citations:WO15158183, WO08111007, WO08111007, US9896650, US9783711, US9580673, US9402794, US8907134, US8835371, US8629094, US8461093, US8450263, US8318222, US8236746, US8022026, US2015067972, US2014235525, US2013310293, US2011306537, US2011306536, US2011297698, US2011224127, US2011206793, US2011142785, US2011093703, US2011002871, US2010041578, US2009233836, US2007281877, JP2017039939, JP2016528945, JP2015028174, JP2013018971, JP2010519421, EP2743289, EP2743289, CN104662143,

Abstract:

One aspect of the invention relates to a laundry detergent product comprising (a) a package comprising (1) a container; and (2) a closure; (b) a fluid laundry detergent pourable at ambient storage temperature and comprising at least one material copourable from the package with the fluid laundry detergent, wherein the material is selected from: (1) a detergent-copourable perfume

composition; (2) a fabric care additive; (3) a laundry-specific deterative additive; (4) an enzyme; (5) a volatile malodorous compound; and (6) any combination thereof; (c) a headspace; and (d) a detergent-non-copourable perfume composition. Another aspect of the invention relates to methods for making or assembling the fluid laundry detergent package.



Title:

PACKAGED LIQUID LAUNDRY COMPOSITIONS

Priority:

US20050260903 20051028 CA20052529122 20051206

Family:

Publication number	Publication date	Application number	Application date
CA2529122 AA	20070428	CA20052529122	20051206
CA2529122 C	20120522	CA20052529122	20051206
US2007095779 AA	20070503	US20050260903	20051028
US7665638 BB	20100223	US20050260903	20051028

Probable Assignee:

HENKEL IP AND HOLDING GMBH

Assignee(s):(std):

CONOPCO INC D B A UNILEVER ; CONOPCO INC DBA UNILEVER ; UNILEVER PLC ; SUN PRODUCTS CORP

Assignee(s):

US BANK NATIONAL ASSOCIATION ; SUN PRODUCTS CANADA CORP ; SUN PRODUCTS SUCCESSOR IN INTEREST TO SPOTLESS AS ; SUN PRODUCTS F K A HUISH DETERGENTS INC CORP ; SUN PRODUCTS SUCCESSOR IN INTEREST TO SPOTLESS US ACQUISITIONS LLC CORP AS ; SUN PRODUCTS AS SUCCESSOR IN INTEREST TO SPOTLESS US ACQUISITIONS LLC CORP ; GARCIA RUIZ HUMBERTO ; SPOTLESS US ACQUISITIONS LLC ; JPMORGAN CHASE BANK NA ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS ; JPMORGAN CHASE BANK NA COLLATERAL AGENT AS ; MCNABB RICHARD PAUL ; SPOTLESS CANADIAN ACQUISITIONS CORP ; SPOTLESS ACQUISITION CORP ; SPOTLESS HOLDING CORP ; HENKEL US IV CORP ; HENKEL IP AND HOLDING GMBH ; CONOPCO INC

Inventor(s):(std):

GARCIA RUIZ HUMBERTO ; MCNABB RICHARD P ; MCNABB RICHARD PAUL

Inventor(s):

MCNABB RICHARD

Agent(s):

PARLEE MCLAWS LLP; GOWLING LAFLEUR HENDERSON LLP; GOWLING WLG CANADA LLP; UNILEVER INTELLECTUAL PROPERTY GROUP; STERNE KESSLER GOLDSTEIN AND FOX PLLC

International class (IPC 8-9):

B65D1/02 B65D1/40 B65D23/00 C11D17/04 (Advanced/Invention);
B65D1/02 B65D1/40 B65D23/00 C11D17/04 (Core/Invention)

CPC:

Y10T428/1331 B65D1/0223 B65D23/0878

European class:

B65D1/02D B65D23/08D5

US class:

215/12.2 222/108 222/566 40/310 428/35.1

Classification Explorer

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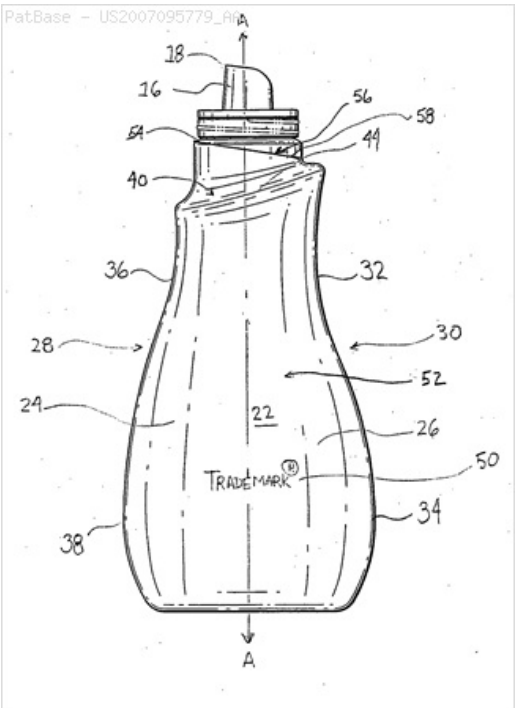
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Forward Citations:

WO14119552, WO11094739, WO11094378, WO10054057, USD788590, USD787944, USD761113, USD752986, USD724435, USD691481, USD668547, USD662423, USD651092, USD637916, USD627655, USD619008, US9821932, US2014319095, US2011240588, US2011226721, US2010107341, JP5784648, JP2014148340, EP2360101, EP2186734,

Abstract:

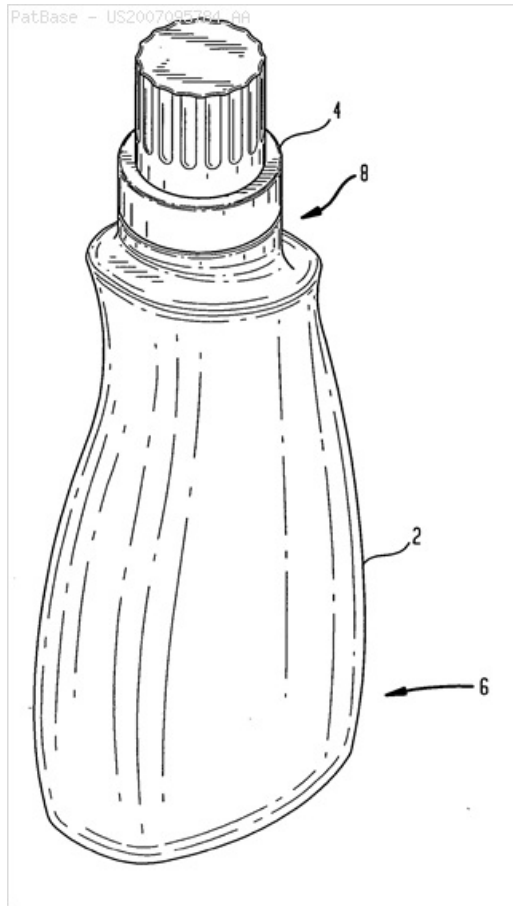
A laundry product is provided including a liquid concentrated detergent or fabric softening composition held in a dispensing bottle of a type not featuring a through-apertured gripping handle. The bottle includes a body having an open end terminating in a circular neck, first and second plane traversing a length of the bottle body with each bisecting the neck, the first and second planes being orthogonally oriented to one another, the first plane dividing front and rear major faces of the body into asymmetric first and second areas. A shrink sleeve is fitted over the body from a base of the neck down toward the closed end. A removable cap is fittable over the neck.



Title:	PACKAGE FOR LIQUID LAUNDRY PRODUCTS																																
Priority:	US20050260904 20051028 US20100379519F 20101119	CA20052529017 20051206 US20110391875F 20110513	US20100361176F 20100506																														
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Probable Assignee:	HENKEL IP AND HOLDING GMBH																																
Assignee(s):(std):	D B A UNILEVER ; GARCIA RUIZ HUMBERTO ; MCNABB RICHARD PAUL ; UNILEVER PLC ; SUN PRODUCTS CORP																																
Assignee(s):	US BANK NATIONAL ASSOCIATION ; SUN PRODUCTS SUCCESSOR IN INTEREST TO SPOTLESS AS ; SUN PRODUCTS F K A HUISH DETERGENTS INC CORP ; CONOPCO INC ; CONOPCO INC D B A UNILEVER ; SPOTLESS CANADIAN ACQUISITIONS CORP ; SUN PRODUCTS CANADA CORP ; SPOTLESS ACQUISITION CORP ; SPOTLESS HOLDING CORP ; SUN PRODUCTS AS SUCCESSOR IN INTEREST TO SPOTLESS US ACQUISITIONS LLC CORP ; HENKEL IP AND HOLDING GMBH ; SPOTLESS US ACQUISITIONS LLC ; JPMORGAN CHASE BANK NA ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS ; JPMORGAN CHASE BANK NA COLLATERAL AGENT AS																																
Inventor(s):(std):	GARCIA RUIZ HUMBERTO ; MCNABB RICHARD P ; MCNABB RICHARD PAUL																																
Inventor(s):	MCNABB RICHARD																																
Agent(s):	PARLEE MCLAWS LLP; GOWLING LAFLEUR HENDERSON LLP; GOWLING WLG CANADA LLP; UNILEVER INTELLECTUAL PROPERTY GROUP; STERNE KESSLER GOLDSTEIN AND FOX PLLC																																
International class (IPC 8-9):	B65D25/00 B65D25/42 B65D90/02 (Advanced/Invention); B65D25/00 B65D25/38 B65D90/02 (Core/Invention)																																
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Locarno class:	09/01																																
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Forward Citations:	USD788587, USD785457, USD785456, USD773929, USD772715, USD772714, USD761113, USD724950, USD713251, USD700056, USD691053, USD688563, USD682095, USD680879, USD680872, USD678073, USD675103, USD674276, USD673448, USD671409, USD669353, USD668547, USD665260, USD663618, USD662426, USD662423, USD661987, USD653106, USD652319, USD647805, USD637916, USD627655, US9446551, US8603557, US8511472, US7665638, US2015344218, US2014202977, US2013270215, US2011240588, US2011056903, US2010107341, US2010029586, US2007095779, JP2013136401,																																

Abstract:

A liquid laundry product dispensing bottle is provided of a type not featuring a through-apertured gripping handle. The bottle includes a body having an open end terminating in a circular neck fitted with a pour spout. Along an uppermost perimeter the spout has a leading edge to allow optimum pouring of liquid in one direction. A first and second plane traverses the length of the bottle body with each bisecting the spout, the first and second planes being orthogonally oriented to one another, the first plane dividing front and rear major faces of the body into asymmetric first and second areas, the first area including the leading edge of the spout. A gripping ledge is arranged adjacent the open end beneath the neck and angled diagonally downward. A removable cap is fittable over the neck and spout. The bottle includes several cues to allow a user to properly grip same. These cues include the angled gripping ledge, sidewall curvatures and trademark placement.



Title: DRINKING FITMENT**Priority:** GB20050026014 20051222 WO2006GB50464 20061219

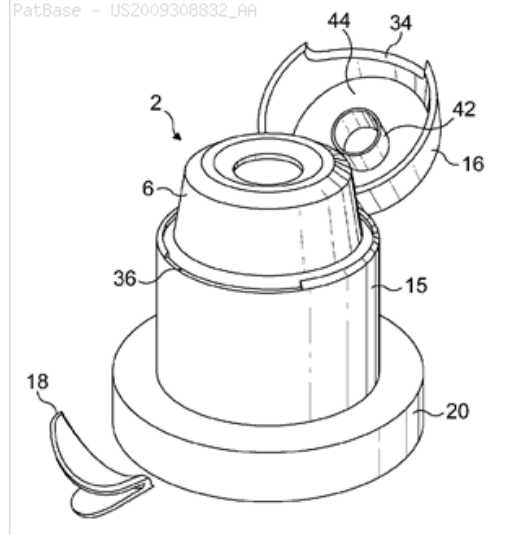
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	CN101331070 A	20081224	CN200680047716	20061219
	DE602006012545 D1	20100408	DE200660012545T	20061219
	EP1966059 A1	20080910	EP20060820689	20061219
	EP1966059 B1	20100224	EP20060820689	20061219
	ES2339597 T3	20100521	ES20060820689T	20061219
	GB200526014 A0	20060201	GB20050026014	20051222
	GB2433496 A1	20070627	GB20050026014	20051222
	GB2433496 B2	20071121	GB20050026014	20051222
	JP2009520656 T2	20090528	JP20080546641T	20061219
	NZ569099 A	20100226	NZ20060569099	20061219
	PT1966059 T	20100322	PT20060820689T	20061219
	RU2008129891 A	20100127	RU20080129891	20061219
	US2009308832 AA	20091217	US20060158660	20061219
	WO07072076 A1	20070628	WO2006GB50464	20061219
	ZA200805339 A	20090826	ZA20080005339	20061219

Probable Assignee: BAPCO CLOSURES RESEARCH LTD**Assignee(s):(std):** BAPCO CLOSURES RES LTD ; MCGEOUGH PETER ; VON SPRECKELSEN HENNING**Assignee(s):** BAPCO CLOSURES RESEARCH LIMITED ; BAPCO CLOSURES RESEARCH LTD**Inventor(s):(std):** MCGEOUGH PETER ; MCGEOUGH PETER MICHAEL ; MICHAEL MCGEOUGH PETER ; PETER MCGEOUGH ; SPRECKELSEN HENNING VON ; SPRECKELSON HENNING VON ; VON SPRECKELSEN HENNING ; VON SPRECKELSON HENNING ; HENNING VON SPRECKELSEN**Inventor(s):** HENNING VON SPRECKELSON ; PETER MICHAEL MCGEOUGH**Agent(s):** ALLENS ARTHUR ROBINSON PATENT AND TRADE MARKS ATTORNEYS; ALLENS PATENT AND TRADE MARK ATTORNEYS; GOWLING LAFLEUR HENDERSON LLP; COOKSON BARBARA ELIZABETH; CHRISTOPHER J KULISH PC**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**International class (IPC 8-9):** B65D41/00 B65D41/48 B65D41/58 B65D47/06 B65D47/08 B65D47/20 (Advanced/Invention); B65D41/00 B65D41/32 B65D47/04 B65D47/06 B65D47/08 (Core/Invention); B65D (Subclass/Invention)**CPC:** B65D47/0804 B65D2101/0023 B65D2251/20 B65D47/08 B65D2547/06**European class:** B65D47/08 B65D47/08B L65D101/00A3 L65D251/20 L65D547/06**US class:** 215/235 215/316[Classification Explorer](#)**Cited documents:** WO03051734 A1, US7578040 BB, US7537141 BA, US7419069 BB, US6877630 BB, US6334555 BA, US5743443 A, US5348184 A, US5054641 A, US4917267 A, US4537318 A, US4043475 A, US3363811 A, US2007267383 AA, US2007095834 AA, US2007029353 AA, US2007029352 AA, US2006289376 AA, US2005116382 AA, GB2406851 A1, EP1582475 A1,

DE102004045511 B3

Forward Citations: WO17053427, USD778725, USD757543, US9663277, US8931243, US2011283665, US2011108551, US2010107568, KR101576734, JP2014210613, GB2447661, CN106536148,**Abstract:**

A low-cost sportscap (2) has a nozzle (6) defining a drinking orifice. The nozzle is assembled from below into an outer shell (4) which is moulded as one piece and includes an **overcap** (16) and a base (14). A foil annulus (8) is used to seal a coupling part (50) of the nozzle to the outer shell (4) and also preferably to provide a mechanism by means of which the closure can be assembled to a container neck (10). A primary ex-factory seal is created by a valve (42) inside the **overcap** engaging with the drinking orifice. This can be resealed by the user when the **overcap** (16) is attached to the base by hinge means (32).

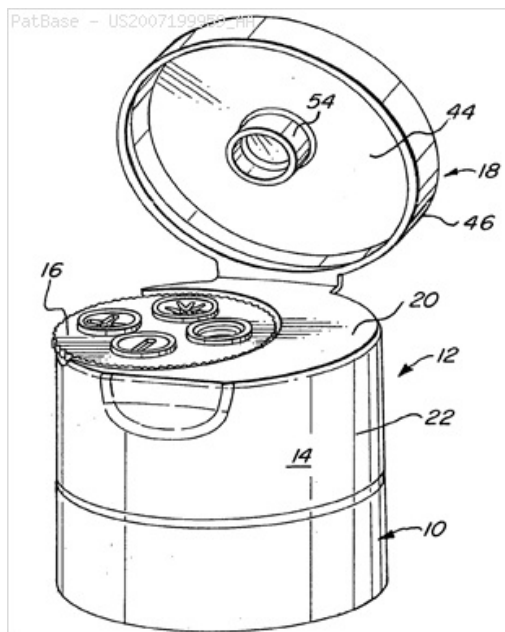


Title: CLOSURE WITH SELECTABLE DISPENSING ORIFICES**Priority:** US20060363631 20060228 CA20072573335 20070108

Family:	Publication number	Publication date	Application number	Application date
	CA2573335 AA	20070828	CA20072573335	20070108
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	MX2007002193 A1	20081119	MX20070002193	20070222
	US2007199959 AA	20070830	US20060363631	20060228
	US7766197 BB	20100803	US20060363631	20060228

Probable Assignee: SILGAN PLASTICS LLC**Assignee(s):(std):** SILGAN PLASTICS CORP**Assignee(s):** SILGAN PLASTICS LLC ; GETSY STEPHEN B**Inventor(s):(std):** GETSY STEPHEN B**Inventor(s):** STEPHEN B GETSY**Agent(s):** MARKS AND CLERK; PEPE AND HAZARD LLP; REINHART BOERNER VAN DEUREN SC**International class**
(IPC 8-9): B65D35/00 B65D35/38 B65D47/00 B65D47/06 B65D47/08 B65D51/18 B67D3/00 (Advanced/Invention);
B65D35/00 B65D35/24 B65D47/00 B65D47/06 B65D47/08 B65D51/18 B67D3/00 (Core/Invention)**CPC:** B65D47/265**European class:** B65D47/26D4**US class:** 220/253 222/107 222/142.7 222/480 222/548 222/556 222/575[Classification Explorer](#)**Cited documents:** US7201288 BB, US6766926 BA, US6766922 BB, US6488187 BB, US6446842 BB, US6286767 BA, US6003711 A, US5954241 A, US5738236 A, US5730322 A, US5421472 A, US5383582 A, US5269432 A, US5195645 A, US5123574 A, US4832219 A, US4699299 A, US4625898 A, US4611725 A, US4598837 A, US4489864 A, US4487324 A, US4346823 A, US3891128 A, US3100589 A, US3094283 A, US3058630 A, US2961133 A, US2817451 A, US2697485 A, US2007199962 AA, US2007144996 AA, US2006243759 AA, US2006237560 AA, US2006191932 AA, US2005061765 AA, US2003116879 AA, US2003042331 AA, US1769815 A, US1386043 A,**Forward Citations:** WO14040035, WO12121743, US9751248, US9494264, US9371164, US9204704, US9181005, US9067704, US8985369, US8561857, US8490906, US8251263, US7513399, US2014246430, US2014163468, US2013000659, US2011036875, US2010176080, US2010018975, US2009166361, US2007199962, KR200475561, JP2008094455, CN106144175, CN103347423, CN103347423,**Abstract:**

A dispenser for dispensing a viscous material in a selected one of a multiplicity of configurations comprises a container for a volume of a viscous material and having a squeezable body and a neck with a discharge opening at its upper end. Engaged on the container is a closure body of generally circular cross section having a top wall and a skirt, and the top wall has a discharge passage therethrough aligned with the discharge opening of the neck. The body top wall has a generally circular recess therein extending from the periphery thereof and beyond the discharge passage of the closure. Disposed in the circular recess is a generally circular rotating disc which has a multiplicity of discharge openings spaced about the disc in a circular array, and the discharge openings have a multiplicity of configurations. The disc is rotatable to align a selected discharge opening with the discharge passage in the top wall to permit viscous material to flow through the neck and the top wall of the closure body into and through a selected disc discharge opening.



Title: CLOSURE WITH SELECTABLE DISPENSING ORIFICES

Priority: US20060363632 20060228 CA20062550183 20060614

Family:

Publication number	Publication date	Application number	Application date
CA2550183 AA	20070828	CA20062550183	20060614
CA2550183 C	20100413	CA20062550183	20060614
MX2007002278 A1	20081119	MX20070002278	20070223
US2007199962 AA	20070830	US20060363632	20060228
US7513399 BB	20090407	US20060363632	20060228

Probable Assignee: SILGAN PLASTICS LLC

Assignee(s):(std): SILGAN PLASTICS CORP

Assignee(s): SILGAN PLASTICS LLC ; MENGEU GARY L

Inventor(s):(std): MENGEU GARY L

Inventor(s): GARY L MENGEU

Agent(s): MARKS AND CLERK; PEPE AND HAZARD LLP; FOLEY AND LARDNER LLP

International class (IPC 8-9): B65D1/32 B65D35/38 B65D5/72 B65D51/18 B65D83/00 B67D3/00 (Advanced/Invention); B65D1/00 B65D35/24 B65D5/72 B65D51/18 B65D83/00 B67D3/00 (Core/Invention)

CPC: B65D47/265

European class: B65D47/26D4

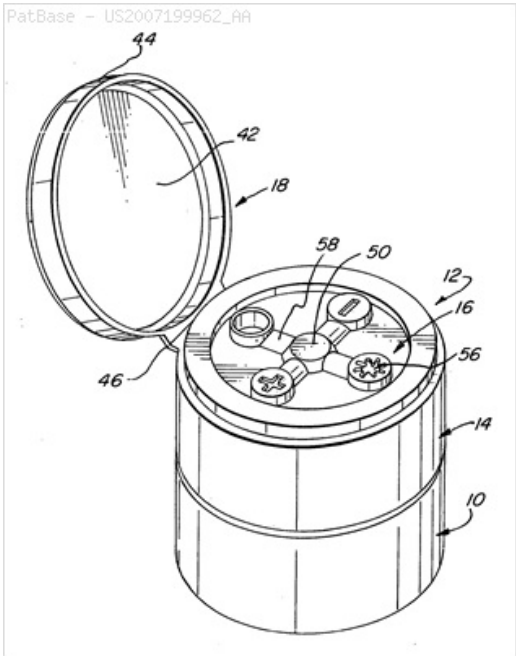
US class: 220/253 222/480 222/548 222/567 222/575

[Classification Explorer](#)

Cited documents: USD387722 S1, USD281061 S1, US6488187 BB, US6446842 BB, US6286767 BA, US6137419 A, US6065423 A, US5871254 A, US5738236 A, US5730322 A, US5421472 A, US5383582 A, US5269432 A, US5195645 A, US5123574 A, US5076636 A, US4863213 A, US4832219 A, US4699299 A, US4611725 A, US4489864 A, US4487324 A, US4346823 A, US3891128 A, US3094283 A, US2961133 A, US2697485 A, US2007199959 AA, US2006237560 AA, US2003042331 AA,

Forward Citations: WO15094234, USD604160, USD587581, US9751248, US9371164, US9181005, US9067704, US8985369, US8561857, US8251263, US7766197, US2014246430, US2013000659, US2011036875, US2011031251, US2010176080, US2010018975, US2009247966, US2009246376, US2009236305, US2007199959, KR200475561, JP2008094455, CN106144175,

Abstract:
A dispenser for dispensing a viscous material in a selected one of a multiplicity of configurations comprises a container having a squeezable body and neck with a discharge opening at its upper end. Engaged with the container is a closure body of generally circular cross section with a top wall and skirt. The top wall has a post with a discharge passage therethrough aligned with the neck discharge opening. A generally circular rotating disc is rotatably disposed on the closure body top wall and has a central hub seating said post. The post has an aperture alignable with the hub discharge passage for passage of viscous material therethrough. The disc has a multiplicity of flow openings spaced about the disc in a circular array and represents a multiplicity of configurations. The disc also has a multiplicity of flow channels extending from the post to the flow openings of the disc, and it is rotatable to align the flow channel of the selected flow opening with the aperture in the post to permit viscous material to flow through the neck and top wall of the closure body into the post and outwardly in flow channels to a selected disc discharge opening.



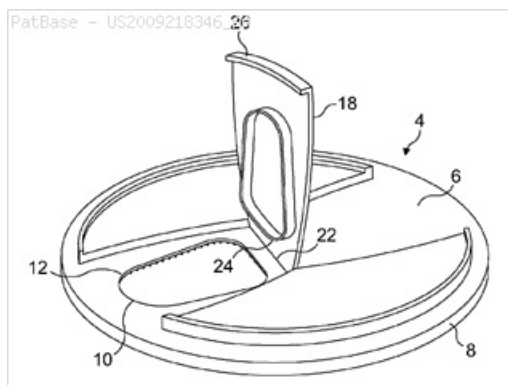
Title: PRE-FOILED CLOSURES
Priority: GB20060003728 20060224 WO2007GB50083 20070223
Family:

Publication number	Publication date	Application number	Application date
AU2007217151 AA	20070830	AU20070217151	20070223
BRPI0708270 A2	20110524	BR2007PI08270	20070223
CA2642684 AA	20080818	CA20072642684	20070223
CN101389544 A	20090318	CN200780006298	20070223
CN101389544 B	20100616	CN200780006298	20070223
EP1989125 A1	20081112	EP20070712966	20070223
GB200603728 A0	20060405	GB20060003728	20060224
GB2435467 A1	20070829	GB20060003728	20060224
GB2435467 B2	20080430	GB20060003728	20060224
HK1127326 A1	20101015	HK20090107277	20090807
HK1127326 A3	20090925	HK20090107277	20090807
IN03491KN2008 A	20090220	IN2008KN03491	20080827
JP2009527422 T2	20090730	JP20080555883T	20070223
MX2008010818 A1	20090107	MX20080010818	20070223
NZ570430 A	20110729	NZ20070570430	20070223
RU2008137729 A	20100327	RU20080137729	20070223
US2009218346 AA	20090903	US20070279598	20070223
WO07096674 A1	20070830	WO2007GB50083	20070223
ZA200807026 A	20100127	ZA20080007026	20070223

Probable Assignee: BAPCO CLOSURES RESEARCH LTD
Assignee(s):(std): BAPCO CLOSURES RES LTD ; MCDOWELL CRAIG ; MCGEOUGH PETER
Assignee(s): BAPCO CLOSURES RESEARCH LIMITED ; BAPCO CLOSURES RESEARCH LTD
Inventor(s):(std): CRAIG MCDOWELL ; MCDOWELL CRAIG ; MCGEOUGH PETER ; MCGEOUGH PETER MICHAEL ; PETER MCGEOUGH
Inventor(s): PETER MICHAEL MCGEOUGH
Agent(s): ALLENS ARTHUR ROBINSON PATENT AND TRADE MARKS ATTORNEYS; ALLENS PATENT AND TRADE MARK ATTORNEYS; GOWLING LAFLEUR HENDERSON LLP; COOKSON BARBARA ELIZABETH ET AL; K AND L GATES LLP
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW
International class (IPC 8-9): B65D17/00 B65D17/42 B65D47/08 B65D47/36 B65D51/20 B65D51/22 (Advanced/Invention); B65D17/00 B65D47/00 B65D47/08 B65D51/18 (Core/Invention); B65D (Subclass/Invention)
International class (IPC 1-7): B65D51/22
CPC: B65D17/4012 B65D47/36 B65D51/20 B65D51/22 B65D51/228 B65D2251/0009 B65D2251/0025 B65D2251/0093
European class: B65D17/16B2 B65D47/36 B65D51/20 B65D51/22 B65D51/22C L65D251/00Y2A L65D251/00Y2J L65D251/00Y6M
US class: 220/277
[Classification Explorer](#)
Cited documents: WO9313998 A1, US6845902 BA, US6206222 BA, US6164503 A, US5301827 A, US5094361 A, US4892217 A, US4813578 A, US4399924 A, US2001011649 AA, JP2005289389 A2, GB2404916 A1, GB2378437 A1, GB2377701 A1, GB235015, GB2350105 A1, GB2108464 A1, EP1266839 A2, EP0402310 A1, EP0331798 A2, DE4340553 A1,
DE202005010698 U1
Forward Citations: WO10012841, US9567143, JP2016088541, CN106414258,

Abstract:

A pre-foiled closure (2) for engaging over an open end of the container has an openable section (18) that can be pivoted relative to the non-openable section (6) of the closure. The openable section carries a foil retainer (24) which is welded to the foil. The closure is intended to be induction heat sealed to the rim of a container and can be opened by pivoting the openable section (18). This lifting action tears the foil and removes a portion of the foil attached to the foil retainer. This eliminates the need for a separate ring pull to open the closure.



Title:

MILLING APPARATUS

Priority:

NZ20060545960 20060315 NZ20060545960 20060316 US20060522524 20060918
EP20070747683 20070314 JP20090500311 20070314 NZ20070562603 20070314
JP20090500311T 20070314 WO2007NZ00055 20070314 US20100705394 20100212
US20110067706 20110621 US20120482361 20120529

Family:	Publication number	Publication date	Application number	Application date
	AU2007225516 AA	20070920	AU20070225516	20070314
	AU2007225516 BB	20101021	AU20070225516	20070314
	CA2646475 AA	20080911	CA20072646475	20070314
	CA2646475 C	20150428	CA20072646475	20070314
	CN101410185 A	20090415	CN200780009263	20070314
	CN101410185 B	20100616	CN200780009263	20070314
	DK1993734 T3	20170522	DK20070747683T	20070314
	DK1993734 T5	20170606	DK20070747683T	20070314
	EP1993734 A1	20081126	EP20070747683	20070314
	EP1993734 A4	20130123	EP20070747683	20070314
	EP1993734 B1	20170301	EP20070747683	20070314
	ES2622829 T3	20170707	ES20070747683T	20070314
	HK1125594 A3	20090814	HK20090104404	20090514
	JP2009530078 T2	20090827	JP20090500311T	20070314
	JP2013066891 A2	20130418	JP20120276877	20121219
	JP5596339 B2	20140924	JP20090500311T	20070314
	JP5801788 B2	20151028	JP20120276877	20121219
	MY148467 A	20130430	MY20080003533	20070314
	NZ545960 A	20080430	NZ20060545960	20060315
	US2007215732 AA	20070920	US20060522524	20060918
	US2010320300 AA	20101223	US20100705394	20100212
	US2011309175 AA	20111222	US20110067706	20110621
	US2013099033 AA	20130425	US20120482361	20120529
	US8888029 BB	20141118	US20120482361	20120529
	VN14413 A1	20150925	VN20080002530	20070314
	WO07105972 A1	20070920	WO2007NZ00055	20070314
	WO07105972 C1	20071108	WO2007NZ00055	20070314
	ZA200807884 A	20090930	ZA20080007884	20080912

Probable Assignee:

MCD TECHNOLOGY LTD

Assignee(s):(std):

BLACK BRYAN GEOFFREY ; ENVIRONMENTAL DECONTAMINATION ; MCD TECH LTD ; WILLIAMS OWEN ROSS ; MCD TECHNOLOGY LTD

Assignee(s):

MCD TECHNOLOGY LIMITED ; ENVIRONMENTAL DECONTAMINATION LIMITED ; ENVIRONMENTAL DECONTAMINATION LTD

Inventor(s):(std):

BLACK BRYAN GEOFFREY ; GEOFFREY BLACK BRYAN ; ROSS WILLIAMS OWEN ; WILLIAMS OWEN ROSS

Inventor(s):

OWEN ROSS WILLIAMS ; BRYAN GEOFFREY BLACK

Agent(s):

AJ PARK; A J PARK; RICHES MCKENZIE AND HERBERT LLP; THOMSON NEIL DAVID ET AL; BOULT WADE TENNANT; UNGRIA JAVIER; AOKI ATSUSHI; TSURUTA JUNICHI; SHIMADA TETSURO; JACOBSON HOLMAN PLLC; JACOBSON HOLMAN HERSHKOVITZ PLLC

Designated states:

AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9):

A62D3/00 B02C15/08 B02C17/00 B02C17/16 B02C19/00 B02C21/00 B02C23/00 B02C9/04 B09B3/00 B09C1/00 B09C1/06 B09C1/08 (Advanced/Invention);
A62D3/00 B02C15/00 B02C17/00 B02C17/16 B02C21/00 B09B3/00 B09C1/00 (Core/Invention);
A62D B02C B09B B09C (Subclass/Invention)

International class (IPC 1-7):

A62D3/00 B02C15/08 B02C17/16 B09B3/00 B09C1/00 B09C1/08

CPC:

B02C23/00 B02C21/00 B20C23/00 B20C17/16 B02C17/16 B02C21/007 B09C1/005

European class:

B02C17/16 B02C21/00C B09C1/00C

US class:

241/152.1 241/152.2 241/153 241/153P 241/170 241/170S 241/172 241/172S 241/195 241/195S 241/260.1 241/30 241/98 241/98P

[Classification Explorer](#)

Cited documents:

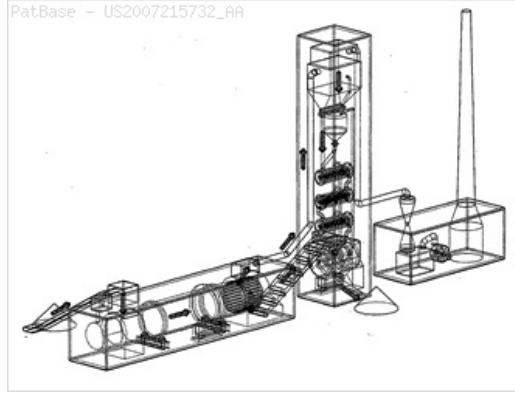
WO02072272 A1, WO0183127 A1, WO0183038 A1, US6742734 BB, US6648251 BA, US6460791 BA, US645422 A, US6450428 BA, US6158680 A, US6019300 A, US5648591 A, US5645229 A, US5427607 A, US4840315 A, US4738402 A, US4734960 A, US4512523 A, US4098465 A, US3774855 A, US3527419 A, US3295771 A, US3212723 A, US3059862 A, US2622855 A, US2571300 A, US2208077 A, US2121378 A, US2005040266 AA, US2004195413 AA, US2004021021 AA, US1977501 A, US1864973 A, US1636033 A, US1507605 A, JP9024356 A2, JP9024356, JP8089834 A2, JP8089834, JP7060228 A2, JP7060228, JP6015190 A2, JP6015190, JP55094654 A2, JP55094654, JP3288556 A2, JP3288556, JP2005125168 A2, JP2005125168, JP2005034801 A2, JP2005034801, JP2000093823 A2, JP2000093823, GB384736 A, DE10261204 A1,

Forward Citations:

USD739658, JP2015512780, DE102014101165, CN105597877, CN104338600, CN104138778, CN104138778, CN103978023,

Abstract:

Milling apparatus suitable for mechano-chemical breakdown of contaminated media reliant upon housed ball mill units each able to be cradle mounted to receive a rotational drive of a shaft and to feed material downwardly from housing to housing.



Title:

Priority:

Family:

TWIST CAP CLOSURE ASSEMBLY

WO2006NL00169 20060403 WO2007NL00093 20070403

Publication number	Publication date	Application number	Application date
AT454327 E	20100115	AT20070747275T	20070403
DE602007004204 D1	20100225	DE200760004204T	20070403
EP2013103 A1	20090114	EP20070747275	20070403
EP2013103 B1	20100106	EP20070747275	20070403
JP2009532299 T2	20090910	JP20090504136T	20070403
US2010230410 AA	20100916	US20070294443	20070403
WO07114692 A1	20071011	WO2007NL00093	20070403

Probable Assignee:

Assignee(s):(std):

Inventor(s):(std):

Agent(s):

Designated states:

International class

(IPC 8-9):

CPC:

European class:

US class:

Classification Explorer

Cited documents:

Forward Citations:

IPN IP BV

IPN IP B V ; IPN IP BV ; LAST LAURENS ; MOLEN PETER JAN VAN D ; VAN DER MOLEN PETER JAN

LAST LAURENS ; MOLEN PETER JAN VAN D ; VAN DER MOLEN PETER JAN

BROOKHUIS HENDRIK JAN ARNOLD; TROUTMAN SANDERS LLP,5200 BANK OF AMERICA PLAZA

AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

B23P11/00 B65D33/38 B65D41/36 B65D47/36 B65D51/22 (Advanced/Invention);
B23P11/00 B65D33/36 B65D41/34 B65D47/00 B65D51/18 (Core/Invention)

Y10T29/49826 B65D51/228

B65D51/22C

220/258.4 220/258.400P 220/259.3 220/259.300S 29/428 29/428S

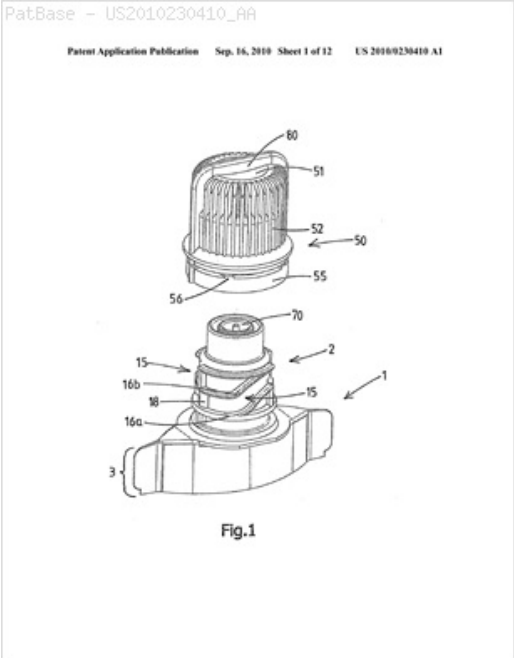
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WO9221585 A1, WO05066037 A1, WO03066461 A1, US7878353 BB, US7036683 BB, US6402019 BA, US5366114 A, US5020690 A, US4483464 A, US2006138137 AA, US2006071000 AA, US2005199573 AA, US2005092750 AA, US2004217083 AA, US2004094551 AA, US2004065665 AA, US2003071042 AA, US2003010781 AA, EP1627819 A1, EP1382540 A1,

WO17134580, US8893912, US2013292380, CN103688002, CN103688002,

Abstract:

A twist cap closure assembly comprising: an injection moulded thermoplastic base (1) including a tubular part, which has an interior side defining a channel in said tubular part and also has an exterior side, said tubular part forming a mouth of said channel at one end thereof, an injection moulded thermoplastic twist cap (50) adapted to be fitted on said tubular part of said base so as to close off the mouth in a closed position of said cap, said cap including a top wall and a downward skirt depending from said top wall, said skirt having an interior side, an exterior side and a lower edge, said exterior side of said tubular part and said interior side of said skirt having mating bayonet connector members, said bayonet connector members being adapted to hold said cap (50) in its closed position on said tubular part and allow for the cap to be twisted about a twist axis to release said cap (1) from the base so that the channel is opened, wherein a plug (70) is arranged within said tubular part of the base, said plug being injection moulded integrally with said base and forming a hermetic closure of said channel.



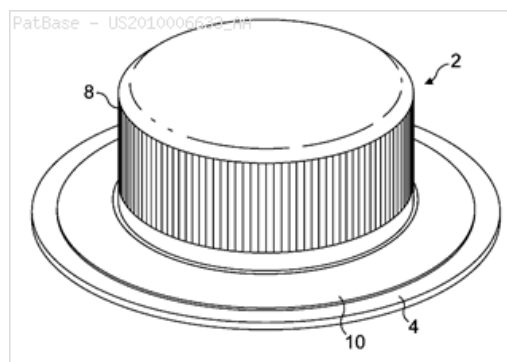
Title: CARTON FITMENTS
Priority: GB20060018462 20060920 WO2007GB50562 20070919
Family:

Publication number	Publication date	Application number	Application date
AU2007298741 AA	20080327	AU20070298741	20070919
EP2069134 A1	20090617	EP20070824811	20070919
GB200618462 A0	20061101	GB20060018462	20060920
GB200904334 A0	20090429	GB20090004334	20070919
GB2454441 A1	20090506	GB20090004334	20070919
GB2454441 B2	20110525	GB20090004334	20070919
US2010006633 AA	20100114	US20070439344	20070919
WO08035117 A1	20080327	WO2007GB50562	20070919

Probable Assignee: BAPCO CLOSURES RESEARCH LTD
Assignee(s):(std): BAPCO CLOSURES RES LTD ; FOWELL NEIL ; MCGEOUGH PETER MICHAEL
Assignee(s): BAPCO CLOSURES RESEARCH LIMITED ; BAPCO CLOSURES RESEARCH LTD
Inventor(s):(std): FOWELL NEIL ; MCGEOUGH PETER MICHAEL
Inventor(s): PETER MICHAEL MCGEOUGH ; NEIL FOWELL
Agent(s): ALLENS ARTHUR ROBINSON PATENT AND TRADE MARKS ATTORNEYS; ALLENS PATENT AND TRADE MARK ATTORNEYS; COOKSON BARBARA ELIZABETH; K AND L GATES LLP; FILEMOT TECHNOLOGY LAW LTD
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW
International class
 (IPC 8-9): B31B1/84 B65D43/00 B65D47/36 B65D5/74 B65D51/18 B65D51/20 (Advanced/Invention); B31B1/74 B65D43/00 B65D47/00 B65D5/74 B65D51/18 (Core/Invention)
CPC: B65D5/74 B65D47/36 B65D51/18 B65D51/185 B65D51/20 B65D5/746 B31B50/84
European class: B31B1/84 B65D47/36 B65D5/74 B65D5/74D B65D51/18 B65D51/18B B65D51/20 L31B201/90J
US class: 229/125.01 229/125.010P 493/87 493/87S
[Classification Explorer](#)
Cited documents: WO0006369 A1, GB2416535 A1, GB2408040 A1, EP1462379 A2,
Forward Citations: WO12004312, US9371146, US2012017540, TWI472137,

Abstract:

A carton **fitment** (2) for use in fresh packaging has a base flange (4) with an upstanding pour spout (6) adapted to be inserted through an opening in a carton such that the base flange seats inside the carton. A ring of induction heat sealing foil (10) is bonded to an exterior surface of the flange so that the **fitment** can be induction welded to a paperboard carton. The use of such **fitments** allows a carton erection and filling machine to be manufactured without the need for expensive ultrasonics welding equipment.



Title: ASSEMBLY OF CONTAINERS MADE OF PLASTICS AND LAMINATE MATERIAL COMPONENTS

Priority: GB20060023165 20061121

Family:	Publication number	Publication date	Application number	Application date
	EP1925559 A1	20080528	EP20070120852	20071116
	EP1925559 A8	20081112	EP20070120852	20071116
	GB200623165 A0	20061227	GB20060023165	20061121
	GB2444048 A1	20080528	GB20060023165	20061121
	GB2444048 B2	20081112	GB20060023165	20061121
	WO08062224 A1	20080529	WO2007GB50696	20071119

Probable Assignee: BAPCO CLOSURES RES LTD

Assignee(s):(std): BAPCO CLOSURES RES LTD ; FOWELL NEIL ; MCDOWELL CRAIG ; VON SPRECKEISEN HENNING

Assignee(s): BAPCO CLOSURES RESEARCH LIMITED ; BAPCO CLOSURES RESEARCH LTD

Inventor(s):(std): FOWELL NEIL ; MCDOWELL CRAIG ; SPRECKEISEN HENNING VON ; VON SPRECKEISEN HENNING

Inventor(s): CRAIG MCDOWELL ; NEIL FOWELL ; HENNING VON SPRECKEISEN

Agent(s): COOKSON BARBARA ELIZABETH; COOKSON BARBARA

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): B29C45/14 B29C65/70 B29C70/68 B29C70/76 B29C70/84 B65D5/74 B65D8/02 B65D8/04 B67C3/00 B67C3/02 (Advanced/Invention); B29C45/14 B29C65/70 B29C70/00 B65D5/74 B65D8/00 B65D8/04 B67C3/00 B67C3/02 (Core/Invention)

CPC: B29C45/14 B29C65/70 B29C70/68 B29C70/76 B29C70/84 B65D5/746 B67C3/00 B67C3/02 B29C66/8322 B65D11/04 B29C45/14467 B29C65/08 B29C65/3644 B29C65/3656 B29C65/368 B29C66/72321 B29K2023/0633 B29K2023/065 B29K2023/086 B29K2023/12 B29K2067/00 B29K2101/12 B29L2031/712 B29L2031/7158 B65D15/08 B29C66/5344 B29C66/542 B29C66/543 B29C66/73921 B29C66/71 B29C66/61 B29C66/612 B29C66/112 B29C66/1222 B29C66/1224 B29C66/131 B29C66/1312 B29C66/1122

European class: B29C45/14 B29C45/14G B29C65/08 B29C65/36B12 B29C65/36F2F B29C65/70 B29C66/534 B29C66/54 B29C66/72321 B29C70/68 B29C70/76 B29C70/84 B65D11/04 B65D15/08 B65D5/74D B67C3/00 B67C3/02 L29K101/12 L29K23/06B5 L29K23/06B9 L29K23/08D L29K23/12 L29K67/00 L29L31/712 L29L31/7158

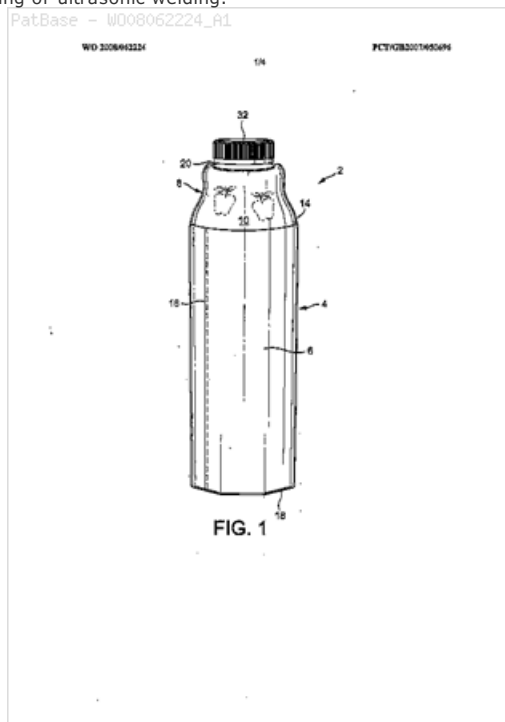
[Classification Explorer](#)

Cited documents: WO9832666 A1, WO06000820 A2, WO05032959, WO04054786 A1, WO03091125 A1, WO02070365, WO0029293 A1, US5735426 A, US3356263 A, US2005262813 AA, US2003015576, US2002175206 AA, GB2408040 A1, GB2110639 A1, GB0526014, EP1616800 A2, EP0893355 A2, EP0108166 A1,

Forward Citations: WO17053427, WO13072474, WO09154535, US9663277, US2015203236, KR20110031338, KR101693896, JP5400150, JP2011524828, EP2349671, EP2349671,

Abstract:

A container (2) is made of a bottom portion (4) formed from laminate material such as pa- perboard laminated with plastics and other materials, connected to an upper portion (8) assembled from a shoulder component (10) joined to a prefabricated neck and cap component (12). The neck and cap component is supplied to a filling line as a closed unit that can be located within a mould that is used to create the shoulder component and join it to the bottom portion of the container by means of in situ injection moulding. In an alternative embodiment the shoulder component is also prefabricated and is connected to the neck and cap component as well as the bottom portion by means of induction heat sealing or ultrasonic welding.



Title:

INTERNAL CONTAINER BORE MOUNT FITMENT

Priority:

US20060871723P 20061222 US20070520459 20071221 WO2007US88538 20071221
US20090520459 20090925 US20100848571 20100802

Family:

Publication number	Publication date	Application number	Application date
US2010012687 AA	20100121	US20070520459	20071221
US2010294812 AA	20101125	US20100848571	20100802
US7810681 BB	20101012	US20070520459	20071221
WO08080053 A1	20080703	WO2007US88538	20071221

Probable Assignee:

PORTOLA PACKAGING INC

Assignee(s):(std):

HENNESSY THOMAS ; LOHRMAN RICHARD ; PORTOLA PACKAGING INC ; SUNGSUK STEVE KIM

Assignee(s):

WELLS FARGO FOOTHILL LLC AGENT AS ; GENERAL ELECTRIC CAPITAL US AGENT AND CANADIAN AGE ; GENERAL ELECTRIC CAPITAL US AGENT AND CANADIAN AGENT AS CORP

Inventor(s):(std):

SUNGSUK STEVE KIM ; LOHRMAN RICHARD D ; LOHRMAN RICHARD ; KIM SUNGSUK STEVE ; HENNESSY THOMAS

Agent(s):

JAMES P HANRATH; JAMES P; ADAM K; HANRATH JAMES ET AL

Designated states:

AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9):

B65D47/10 (Advanced/Invention);
B65D47/06 (Core/Invention)

CPC:

B65D39/0005 B65D47/103

European class:

B65D39/00F B65D47/10A

US class:

215/255 220/258.2 222/541.9 222/541.900P

Classification Explorer

Cited documents:

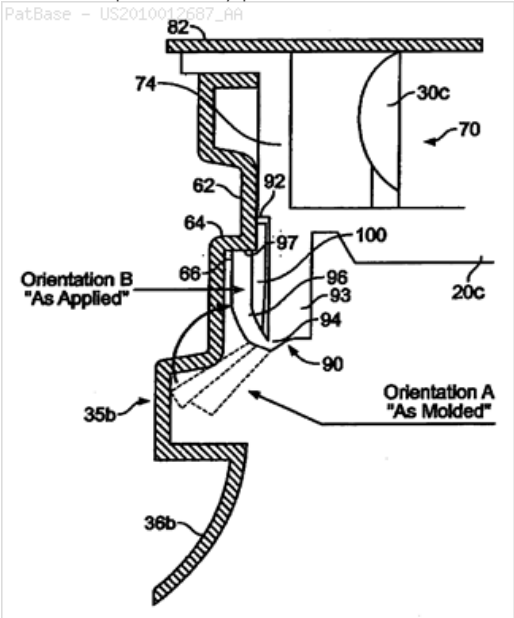
US7559432 BB, US7270246 BB, US7137523 BB, US6883689 BB, US6776314 BB, US6574848 BB, US5992659 A, US5934498 A, US5934489 A, US5810207 A, US5114507 A, US4921121 A, US4767020 A, US4706837 A, US4687116 A, US4643329 A, US4512486 A, US3860152 A, US3768692 A, US3462042 A, US3415411 A, US3341046 A, US3272381 A, US3247997 A, US2946478 A, US2008272084 AA, US2005092750 AA, US2004065665 AA, JP9142512 A2, JP2002037296 A2, DE10160362 A1,

Forward Citations:

WO15177205, US8757442, US8733600, US8733567, US2012241480, US2012187158, CN106715286, CH709672,

Abstract:

In an embodiment of the invention there is provided a membrane **fitment** designed and sized to be inserted into the orifice defined by a container. Retention structure on the **fitment** cooperates with complimentary structure on the internal wall of the container orifice to secure the **fitment** within the orifice such that the combination forms an excellent primary seal. Tamper evidence is offered by the normal requirement for initial membrane removal. Novel designs for the membrane, its associated pull ring, and the frangible removal structure are taught in various embodiments. The novel designs may promote facile initial removal suitable for a child. In addition, the novel designs avoid the potential hazards presented by prior art membranes.



Title:

PERFUMING METHOD AND PRODUCT

Priority:

US20070906709P 20070313

US20070002426 20071108

US20070002426P 20071108

WO20081B50932 20080313

Family:

Publication number	Publication date	Application number	Application date
CA2679120 AA	20090821	CA20082679120	20080313
EP2125552 A2	20091202	EP20080719685	20080313
JP2010519421 T2	20100603	JP20090550366T	20080313
WO08111007 A2	20080918	WO20081B50932	20080313
WO08111007 A3	20081106	WO20081B50932	20080313

Probable Assignee:

PROCTER AND GAMBLE

Assignee(s):(std):

BODET JEAN FRANCOIS ; CARRARA GIOVANNI ; CHUNG ALEX HAEJOON ; DITULLIO DANIEL DALE JR ; DYKSTRA ROBERT RICHARD ; FINLEY KRISTIN MARIE ; PROCTER AND GAMBLE ; KETCHA MARCIA MARY ; VINSON PHILLIP KYLE ; LIU ZAIYOU ; MORGAN GEORGE KAVIN III ; FOSSUM RENAE DIANNA

Assignee(s):

THE PROCTER AND GAMBLE COMPANY ; PROCTER AND GAMBLE CO

Inventor(s):(std):

BODET JEAN FRANCOIS ; CARRARA GIOVANNI ; CHUNG ALEX HAEJOON ; DITULLIO DANIEL DALE JR ; DYKSTRA ROBERT RICHARD ; FINLEY KRISTIN MARIE ; FOSSUM RENAE DIANNA ; KETCHA MARCIA MARY ; LIU ZAIYOU ; MORGAN GEORGE KAVIN III ; VINSON PHILLIP KYLE

Agent(s):

KIRBY EADES GALE BAKER; MATHER PETER GEOFFREY; THE PROCTER AND GAMBLE COMPANY

Designated states:

AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9):

B65D51/24 C11B9/00 C11D17/04 C11D3/50 D06M13/332 D06M13/46 D06M15/333 D06M15/643 (Advanced/Invention); B65D51/24 C11B9/00 C11D17/04 C11D3/50 D06M13/00 D06M15/21 D06M15/37 (Core/Invention)

CPC:

C11D17/041 C11D3/0015 C11D3/505

European class:

C11D17/04B C11D3/00B3L C11D3/50B2

Classification Explorer

Cited documents:

WO9411482 A1, WO07030511 A1, WO06031946 A1, WO04041232 A1, JP62045699 A2, JP2009507129 T2, JP2008512581 T2, JP2006515029 T2, JP2004535223 T2, JP2002520495 T2, JP2002506778 T2, EP1407753 A1, EP0483126 A2, DE19810886 A1,

Forward Citations:

WO10066585, JP2015520619, CN102245753,

Abstract:

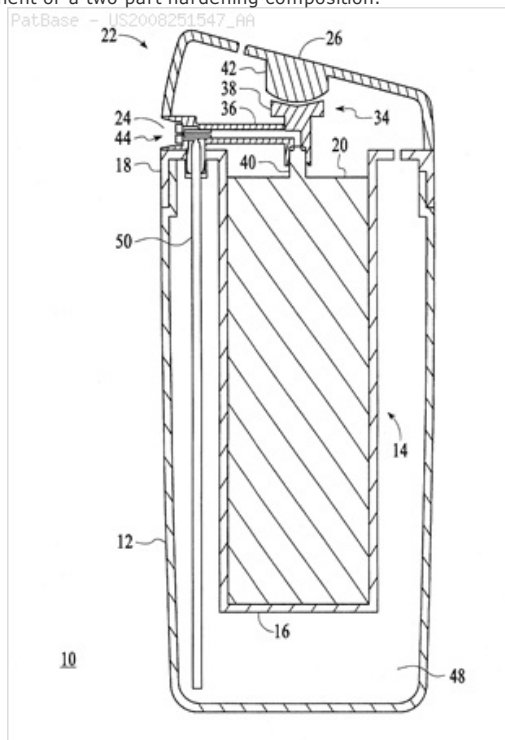
A fabric enhancer product comprising (a) a package comprising (1) a container; and (2) a closure; (b) a fabric enhancer comprising a material copourable from the package with the fabric enhancer, wherein the material is selected from: (1) a fabric enhancer-copourable perfume composition; (2) a fabric care additive; and (3) any combination thereof; (c) a headspace; and (d) a fabric enhancer-non-copourable perfume composition; wherein the pH of the fabric enhancer is less than 7.

Title: DUAL CHAMBER AEROSOL CONTAINER**Priority:** US20070734364 20070412

Family:	Publication number	Publication date	Application number	Application date
	US2008251547 AA	20081016	US20070734364	20070412
	US7789278 BB	20100907	US20070734364	20070412

Probable Assignee: CLOROX CO**Assignee(s):(std):** CLOROX CO ; RUIZ DE GOPEGUI RICARDO ; WANG MARCUS**Assignee(s):** THE CLOROX COMPANY**Inventor(s):(std):** RUIZ DE GOPEGUI RICARDO ; WANG MARCUS**Agent(s):** THE CLOROX COMPANY; CLOROX CO; DAVID**International class** A62C13/62 B65D83/14 (Advanced/Invention);**(IPC 8-9):** A62C13/00 B65D83/14 (Core/Invention)**CPC:** B05B7/2435**European class:** B05B7/24A3T**US class:** 222/136 222/145.5 222/182 222/399 222/402.13 222/402.18 222/635 239/303 239/308[Classification Explorer](#)**Cited documents:** WO04069667 A2, US7147172 BB, US6817493 BA, US6708852 BB, US6651650 BA, US6632347 BA, US6623695 BB, US6589509 BB, US6586063 BA, US6502766 BA, US6481435 BB, US6474513 BB, US6426066 BA, US6394364 BA, US6364172 BA, US6296744 BA, US6196275 BA, US6126810 A, US6092697 A, US6019252 A, US5730335 A, US5730326 A, US5716007 A, US5579944 A, US5553753 A, US5507420 A, US5281280 A, US5263519 A, US5232126 A, US5183185 A, US5152411 A, US5111971 A, US5086266 A, US5080826 A, US5022564 A, US4988017 A, US4909420 A, US4441632 A, US4441631 A, US4431119 A, US4308973 A, US3894659 A, US3653547 A, US3451596 A, US3420415 A, US3409180 A, US3401844 A, US3389837 A, US3388838 A, US3289949 A, US2005035213 AA, US2004256482 AA, US2004069667 AA, US2004042974 AA, US2003216271 AA, US2003186827 AA, US2003185704 AA, US2003178432 AA, US2003102328 AA, US2003052194 AA, US2002182262 AA, US2002179884 AA,**Forward Citations:** WO16187120, WO14035633, WO10132948, WO10076658, USD787326, USD658072, USD650290, USD644926, USD627663, US9981799, US9950821, US9776785, US9701430, US9649650, US9505509, US9435120, US9375538, US9248457, US9226495, US9180476, US9156602, US9156042, US8967436, US8927479, US8869842, US8857738, US8777065, US8777037, US8596498, US8336742, US8328122, US8251255, US2015014368, US2012153047, US2011168745, US2010282776, US2010090027, US2007154407, EA027073,**Abstract:**

An aerosol spray dispenser is disclosed that includes an outer housing that is circular, oval, or non-oval and in which an active composition to be dispensed is provided and a closure sleeve housing within the outer housing. An inner receptacle is provided within the closure sleeve housing and within the volume of the outer housing and contains a propellant to be dispensed. The inner housing may be concentrically located within the outer housing. An actuator assembly houses a nozzle that has a venturi constriction. A tube extends within the outer housing to provide the passage of active composition from within the outer housing by means of the venturi effect. A conduit for the passage of a propellant from the inner receptacle to the nozzle is provided. The propellant and the active composition are mixed and dispensed as a spray at a nozzle by action of the venturi effect. Materials that are not compatible with the active composition can be added to the propellant and effectively mixed and dispensed, for example a fragrance that is incompatible with hypochlorite or one component or a two part hardening composition.



Title: Tamper evident closure assemblies
Priority: NZ20020555687 20021220 NZ20030523373 20031219

Family:	Publication number	Publication date	Application number	Application date
	NZ555687 A	20081128	NZ20020555687	20021220

Probable Assignee: ALTO PACKAGING LTD

Assignee(s):(std): ALTO PACKAGING LTD

Assignee(s): ALTO PACKAGING LIMITED

Inventor(s):(std): SCOTT EDWARD SEAN

International class B65D41/50 B65D47/24 B65D47/26 B65D47/36
(IPC 1-7):

Abstract:

A one piece **overcap** moulding having an **overcap** region, an internally threaded skirt region, and a frangible link between the **overcap** and the threaded skirt region. There is no perforation in the **overcap** region, the threaded skirt region, the frangible link, or transitions therebetween, thereby ensuring initial fluid tightness.

