PatBase - Search results 03 April 2020
Search query (17): FT=(CONTAINER~ AND DISPENSER~ OR ADMINISTRATOR~ AND FLUIS~ OR LIQUID~ AND DROPPER~) AND IC =(B65D AND B05B)
Results: 1369

Search history

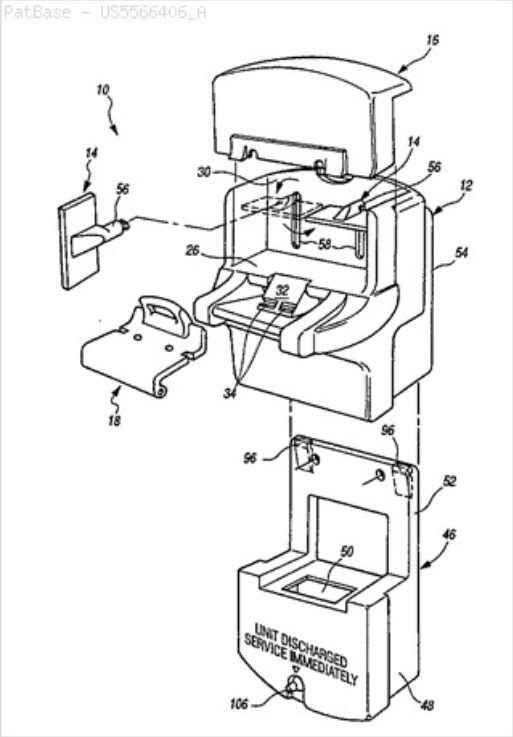
Search 1:	FT=(CONTAINER~ AND DISPENSER~ OR ADMINISTRATOR~ AND FLUIS~ OR LIQUID~ AND PHARMACEUTICAL~) (Results 79553)
Search 2:	FT=(CONTAINER~ AND DISPENSER~ OR ADMINISTRATOR~ AND FLUIS~ OR LIQUID~ AND PHARMACEUTICAL~) AND IC =(A61M) (Results 7040)
Search 3:	FT=(CONTAINER~ AND DISPENSER~ OR ADMINISTRATOR~ AND FLUIS~ OR LIQUID~ AND PHARMACEUTICAL~) AND IC =(B05B) (Results 1575)
Search 4:	FT=(CONTAINER~ AND DISPENSER~ OR ADMINISTRATOR~ AND FLUIS~ OR LIQUID~ AND PHARMACEUTICAL~) AND IC =(B65D) (Results 4265)
Search 5:	FT=(CONTAINER~ AND DISPENSER~ OR ADMINISTRATOR~ AND FLUIS~ OR LIQUID~ AND BELLOW~ DROPPER~) AND IC =(B65D) (Results 0)
Search 6:	FT=(DISPENSER~ OR ADMINISTRATOR~ AND FLUIS~ AND BELLOW~AND DROPPER~) AND IC =(B65D) (Results 0)
Search 7:	FT=(DISPENSER~ AND FLUIS~ AND BELLOW~AND DROPPER~) AND IC =(B65D) (Results 0)
Search 8:	FT=(DISPENSER~ AND FLUIS~ AND BELOW~AND DROPPER~) AND IC =(B65D) (Results 0)
Search 9:	FT=(DISPENSER~ AND BELLOW~AND DROPPER~) AND IC =(B65D) (Results 0)
Search 10:	FT=(CONTAINER~ AND DISPENSER~ OR ADMINISTRATOR~ AND FLUIS~ OR LIQUID~ AND BELLOW~ DROPPER~) (Results 0)
Search 11:	FT=(BELLOW~AND DROPPER~) (Results 0)
Search 12:	dropper and adaptor and bottle and such (Results 84)
Search 13:	BELLOW DROPPER (Results 0)
Search 14:	FT=(CONTAINER~ AND DISPENSER~ OR ADMINISTRATOR~ AND FLUIS~ OR LIQUID~ AND DROPPER~) AND IC =(B65D) (Results 8693)
Search 15:	FT=(CONTAINER~ AND DISPENSER~ OR ADMINISTRATOR~ AND FLUIS~ OR LIQUID~ AND PHARMACEUTICAL~AND DROPPER~) AND IC =(B65D) (Results 0)
Search 16:	FT=(CONTAINER~ AND DISPENSER~ OR ADMINISTRATOR~ AND FLUIS~ OR LIQUID~ AND DROPPER~AND VERTICAL~) AND IC =(B65D) (Results 0)
Search 17:	FT=(CONTAINER~ AND DISPENSER~ OR ADMINISTRATOR~ AND FLUIS~ OR LIQUID~ AND DROPPER~) AND IC =(B65D AND B05B) (Results 1369)

50) Family number: 15395044 (US5566406A)

Title: Self-**contained** emergency eye wash station

Abstract: A self-**contained** emergency eye wash station for **dispensing** eye wash fluid **contained** in a flexible **container** comprises a housing, a reservoir, and a platen. The housing supports the flexible **container** and supports a nozzle in fluid communication with the flexible **container**. The nozzle **dispenses** the eye wash fluid from the flexible **container**. The housing includes a drain capturing the eye wash fluid **dispensed** from the nozzle. The reservoir collects the eye wash fluid captured by the drain, and the reservoir is slidably mounted to the housing. The platen is connected to the reservoir. The platen is slidably movable relative to the housing and is located immediately above the flexible **container**. The platen presses downward on the flexible **container** with a downward force proportional to a weight of the eye wash fluid collected in the reservoir. The transfer of the weight of the eye wash fluid collected in the reservoir to the platen maintains a constant flow of eye wash fluid **dispensed** from the nozzle.

Classifications:
International (IPC 8-9): A61H35/02 (Advanced/Invention); A61H35/00 (Core/Invention)
International (IPC 1-7): A61H33/00 A61H35/02 A61M35/00 B05B9/00 B65D1/32 B65D35/56
CPC: A61H35/02
European: A61H35/02
US: 222/105 222/95 239/108 239/121 239/327 239/379 239/562 4/620 604/294 604/295 604/296



Family:

Publication number	Publication date	Application number	Application date
CA2177094 AA	19961127	CA19962177094	19960522
CA2177094 C	20071106	CA19962177094	19960522
CA2571661 AA	19961127	CA19962571661	19960522
CA2571661 C	20091229	CA19962571661	19960522
CA2575966 AA	19961127	CA19962575966	19960522
CA2575966 C	20100126	CA19962575966	19960522
DE69622639 D1	20020905	DE19966022639	19960528
DE69622639 T2	20021205	DE19966022639T	19960528
DE69635497 D1	20051229	DE19966035497	19960528
DE69635497 T2	20060727	DE19966035497T	19960528
EP0744170 A2	19961127	EP19960108489	19960528
EP0744170 A3	19970820	EP19960108489	19960528
EP0744170 B1	20020731	EP19960108489	19960528
EP1118317 A2	20010725	EP20010109792	19960528
EP1118317 A3	20031126	EP20010109792	19960528
EP1118317 B1	20051123	EP20010109792	19960528
EP1547569 A2	20050629	EP20050000620	19960528
US5566406 A	19961022	US19950451191	19950526
US5695124 A	19971209	US19960655764	19960530
US5850641 A	19981222	US19970906997	19970806

Priority:

US19950451191 19950526 CA19962177094 19960522 CA19962571661 19960522
CA19962575966 19960522 EP19960108489 19960528 EP20010109792 19960528
US19960655764 19960530 US19970906997 19970806 CA20072177094 20070124
CA20072177094 20070227

Probable Assignee: HONEYWELL SAFETY PRODUCTS USA INC

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Agent(s):	MARKS AND CLERK; GOWLING LAFLEUR HENDERSON LLP
Designated states:	DE FR GB IT

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CA2177094 AA	19961127	LSPB	+	published / reissued	
CA2177094 AA	20030416	LSES	+EEER	EXAMINATION REQUEST	
CA2177094 C	20071106	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2177094 C	20160726	LSLE	-MKEX	EXPIRY	EFFECTIVE DATE : 20160524
CA2177094 C	20160522	PEXP		Calculated Patent Term Expiry	
CA2571661 AA	19961127	LSPB	+	published / reissued	
CA2571661 AA	20070112	LSES	+EEER	EXAMINATION REQUEST	
CA2571661 C	20091229	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2571661 C	20160726	LSLE	-MKEX	EXPIRY	EFFECTIVE DATE : 20160524
CA2571661 C	20160522	PEXP		Calculated Patent Term Expiry	
CA2575966 AA	19961127	LSPB	+	published / reissued	
CA2575966 AA	20070112	LSES	+EEER	EXAMINATION REQUEST	
CA2575966 C	20100126	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2575966 C	20160726	LSLE	-MKEX	EXPIRY	EFFECTIVE DATE : 20160524
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DE69622639 D1	20090326	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69622639 T2	20021205	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69622639 T2	20160528	PEXP		Calculated Patent Term Expiry	
DE69635497 D1	20061214	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69635497 D1	20090326	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69635497 T2	20060727	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69635497 T2	20160528	PEXP		Calculated Patent Term Expiry	
EP0744170 A2	19961127	LSPB	+	published / reissued	
EP0744170 A2	19980408	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19980212
EP0744170 A2	20001108	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20000921

EP0744170 A2	20020731	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP0744170 A2	20030723	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20030506
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EP0744170 A2	20071124	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20070523 YEAR OF FEE PAYMENT : 12
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EP0744170 A2	20090128	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20080528
EP0744170 A2	20090227	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20090119
EP0744170 A2	20090430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20081202
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EP1118317 A2	20010725	LSPB	+	published / reissued	
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EP1118317 A2	20090227	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20090119
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US5566406 A	19950528	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FENDALL COMPANY, ILLINOIS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DEMENY, ROBERT L.; HURLEY, ROBERT B.; REEL/FRAME:007497/0126; SIGNING DATES FROM 19950516 TO 19950525
US5566406 A	19961010	LSGT	PAT1	Patented Case	
US5566406 A	19961010	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5566406 A	19970211	LSRE	CC	CERTIFICATE OF CORRECTION	
US5566406 A	20000412	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
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					ASSIGNORS INTEREST; ASSIGNOR:FENDALL COMPANY A DELAWARE CORPORATION; REEL/FRAME:011325/0447 EFFECTIVE DATE : 20000801
US5566406 A	20040317	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
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US5566406 A	20141010	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HONEYWELL SAFETY PRODUCTS USA, INC., RHODE ISLAND OLDPARTY : CHANGE OF NAME; ASSIGNOR:SPERIAN PROTECTION AMERICAS, INC.; REEL/FRAME:033951/0056 EFFECTIVE DATE : 20140101
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US5695124 A	19971209	LSGT	+	granted / extensions (spc, cpc, pte)	
US5695124 A	19971126	LSGT	PAT1	Patented Case	
US5695124 A	19971126	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5695124 A	20001127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FENDALL ACQUISITION COMPANY, PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:FENDALL COMPANY A DELAWARE CORPORATION; REEL/FRAME:011325/0447 EFFECTIVE DATE : 20000801
US5695124 A	20010524	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5695124 A	20050512	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
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					OLDPARTY : CHANGE OF NAME; ASSIGNOR:FENDALL ACQUISITION COMPANY; REEL/FRAME:019466/0799 EFFECTIVE DATE : 20000803
US5695124 A	20070627	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BACOU-DALLOZ EYE & FACE PROTECTION, INC., RHODE IS OLDPARTY : MERGER; ASSIGNOR:FENDALL, INC.; REEL/FRAME:019477/0708 EFFECTIVE DATE : 20061227
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US5695124 A	20140114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FENDALL COMPANY, ILLINOIS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:RIBACK, RICHARD J.; REEL/FRAME:031960/0908 EFFECTIVE DATE : 19960208
US5695124 A	20141008	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPERIAN PROTECTION AMERICAS, INC., RHODE ISLAND OLDPARTY : MERGER; ASSIGNOR:SPERIAN EYE & FACE PROTECTION, INC.; REEL/FRAME:033917/0554 EFFECTIVE DATE : 20131220
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US5850641 A	19981222	LSGT	+	granted / extensions (spc, cpc, pte)	
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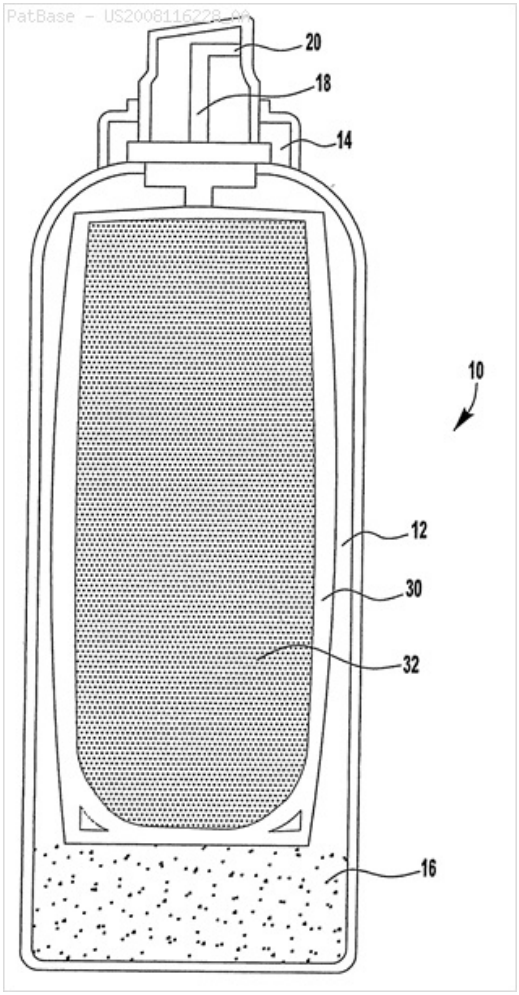
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US5850641 A	20060526	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
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US5850641 A	20070627	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BACOU-DALLOZ EYE & FACE PROTECTION, INC., RHODE IS OLDPARTY : MERGER; ASSIGNOR:FENDALL, INC.; REEL/FRAME:019477/0708 EFFECTIVE DATE : 20061227
US5850641 A	20071128	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPERIAN EYE & FACE PROTECTION, INC., RHODE ISLAND OLDPARTY : CHANGE OF NAME; ASSIGNOR:BACOU-DALLOZ EYE & FACE PROTECTION, INC.; REEL/FRAME:020166/0203 EFFECTIVE DATE : 20070726
US5850641 A	20071128	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPERIAN EYE & FACE PROTECTION, INC.,RHODE ISLAND OLDPARTY : CHANGE OF NAME; ASSIGNOR:BACOU-DALLOZ EYE & FACE PROTECTION, INC.; REEL/FRAME:020166/0203 EFFECTIVE DATE : 20070726
US5850641 A	20100201	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5850641 A	20131226	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FENDALL COMPANY, ILLINOIS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DEMENY, RODNEY L; HURLEY, ROBERT B; SIGNING DATES FROM 19950516 TO 19950525; REEL/FRAME:031851/0041
US5850641 A	20140114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FENDALL COMPANY, ILLINOIS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:RIBACK, RICHARD J.; REEL/FRAME:031960/0908 EFFECTIVE DATE : 19960208
US5850641 A	20141008	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPERIAN PROTECTION AMERICAS, INC., RHODE ISLAND OLDPARTY : MERGER; ASSIGNOR:SPERIAN EYE & FACE PROTECTION, INC.; REEL/FRAME:033917/0554 EFFECTIVE DATE : 20131220
US5850641 A	20141010	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HONEYWELL SAFETY PRODUCTS USA, INC., RHODE ISLAND OLDPARTY : CHANGE OF NAME; ASSIGNOR:SPERIAN PROTECTION AMERICAS, INC.; REEL/FRAME:033951/0056 EFFECTIVE DATE : 20140101
US5850641 A	20170806	PEXP		Calculated Patent Term Expiry	

51) Family number: 41820046 (US2008116228A)

Title: CARBON FILLED PRESSURIZED **CONTAINER** AND METHOD OF MAKING SAME

Abstract: A **container** for releasable pressurized gas or other active ingredient is provided. The **container** is packed with activated carbon loaded with adsorbed propellant. The **container** provides a replacement for the hydrocarbon or hydrofluorocarbon propellants currently used in aerosols, dusters and foghorns. A method for making such a replacement system is also provided.

Classifications:
International (IPC 8-9): B05B B05B9/08 B65D B65D83/14 B65D83/62 B65D83/64 B67D5/42 B67D7/60 G01F11/00 (Advanced/Invention); B05B B65D (Subclass/Invention)
CPC: B65D83/663 B65D83/62 B65D83/64 Y10T29/49
European: B65D83/62 B65D83/64
US: 222/386.5 222/386.500P 222/389 222/389S 222/402.1 222/402.100S 29/592 29/592S



Family:

Publication number	Publication date	Application number	Application date
AU2007323596 AA	20080529	AU20070323596	20071121
AU2007323596 BB	20110908	AU20070323596	20071121
CN101568390 A	20091028	CN200780048180	20071121
CN101568390 B	20130619	CN200780048180	20071121
DE602007034982 D1	20140306	DE200760034982T	20071121
EP2094395 A2	20090902	EP20070868823	20071121
EP2094395 B1	20170614	EP20070868823	20071121
HK1133228 A1	20100319	HK20100100491	20100115
HK1133228 B	20180316	HK20100100491	20100115
HK1166963 A1	20140417	HK20120107627	20100115
HK1166963 A1	20121116	HK20120107627	20100115
HK1166963 B	20140417	HK20120107627	20100115
NZ577000 A	20111028	NZ20070577000	20071121
US2008116228 AA	20080522	US20070943865	20071121
US9981800 BB	20180529	US20070943865	20071121
WO08064293 A2	20080529	WO2007US85351	20071121
WO08064293 A3	20080724	WO2007US85351	20071121

Priority:

US20060866879P 20061122 EP20110193017 20071121 US20070943865 20071121
WO2007US85351 20071121 HK20100100491 20100115

Probable Assignee: CALGON CARBON CORP

Assignee(s): (std): CALGON CARBON CORP ; RYAN THOMAS ANTHONY ; SHARROCK HARRY ; TOWNEND NEIL D

Assignee(s): CALGON CARBON CORP PITTSBURGH

Inventor(s): (std): ANTHONY RYAN THOMAS ; HARRY SHARROCK ; RYAN THOMAS ANTHONY ; TOWNEND NEIL D ; SHARROCK HARRY

Inventor(s): THOMAS ANTHONY RYAN ; NEIL D TOWNEND

Agent(s): MALLESONS STEPHEN JAQUES; MINTER ELLISON; KING AND WOOD MALLESONS; MUELLER BORE AND PARTNER PATENTANWAELTE PARTG MBB; NASH DAVID ALLAN; JSM; SPRUSON AND FERGUSON HONG KONG LTD; ELLA CHEONG HONG KONG LTD; COHEN AND GRIGSBY PC; PEPPER HAMILTON LLP;

WETTACH THOMAS C 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 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

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU2007323596 AA	20080529	LSPB	+	published / reissued	
AU2007323596 BB	20110908	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2007323596 BB	20120119	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2007323596 BB	20271121	PEXP		Calculated Patent Term Expiry	
CN101568390 A	20091028	LSPB	+	published / reissued	
CN101568390 A	20091028	LSPB	+C06	PUBLICATION	
CN101568390 B	20130619	LSGT	+	granted / extensions (spc, cpc, pte)	
CN101568390 B	20130619	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN101568390 B	20271121	PEXP		Calculated Patent Term Expiry	
EP2094395 A2	20090902	LSPB	+	published / reissued	
EP2094395 A2	20090902	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20090617
EP2094395 A2	20100113	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20091215
EP2094395 A2	20170118	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20161220
EP2094395 B1	20170614	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2094395 B1	20170614	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2094395 B1	20170615	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2094395 B1	20170615	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 900453 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170615
EP2094395 B1	20170712	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2094395 B1	20170727	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602007051355 COUNTRY OF REF DOCUMENT : DE
EP2094395 B1	20171025	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2094395 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614

EP2094395 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP2094395 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP2094395 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170915
EP2094395 B1	20171115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 900453 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170614
EP2094395 B1	20171127	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
EP2094395 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP2094395 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP2094395 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP2094395 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170914
EP2094395 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP2094395 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP2094395 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP2094395 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP2094395 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP2094395 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171129 YEAR OF FEE PAYMENT : 11
EP2094395 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171127 YEAR OF FEE PAYMENT : 11
EP2094395 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP2094395 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171014
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EP2094395 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20171127 YEAR OF FEE PAYMENT : 11
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EP2094395 B1	20180316	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : GR REF DOCUMENT NUMBER : 1133228 COUNTRY OF REF DOCUMENT : HK
EP2094395 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614

EP2094395 B1	20180523	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20180315
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EP2094395 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20171130
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EP2094395 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20191127 YEAR OF FEE PAYMENT : 13
EP2094395 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20191125 YEAR OF FEE PAYMENT : 13
EP2094395 B1	20271121	PEXP		Calculated Patent Term Expiry	
HK1133228 A1	20100319	LSPB	+	published / reissued	
HK1133228 B	20180316	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1133228 B	20300115	PEXP		Calculated Patent Term Expiry	
HK1166963 A1	20121116	LSPB	+	published / reissued	
HK1166963 A1	20140417	LSPB	+	published / reissued	
HK1166963 A1	20300115	PEXP		Calculated Patent Term Expiry	
HK1166963 A1	20300115	PEXP		Calculated Patent Term Expiry	
HK1166963 B	20140417	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1166963 B	20300115	PEXP		Calculated Patent Term Expiry	
NZ577000 A	20111028	LSPB	+	published / reissued	
NZ577000 A	20120224	LSGT	+PSEA	PATENT SEALED	
NZ577000 A	20120330	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ577000 A	20141128	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 21 NOV 2015 BY COMPUTER PACKAGES INC EFFECTIVE DATE : 20141031
NZ577000 A	20151127	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 21 NOV 2016 BY COMPUTER PACKAGES INC EFFECTIVE DATE : 20151031
NZ577000 A	20161125	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 21 NOV 2017 BY COMPUTER PACKAGES INC EFFECTIVE DATE : 20161101
NZ577000 A	20171124	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 21 NOV 2018 BY COMPUTER PACKAGES INC EFFECTIVE DATE : 20171031
NZ577000 A	20181130	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 21 NOV 2019 BY COMPUTER PACKAGES INC EFFECTIVE DATE : 20181031
NZ577000 A	20191129	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 21 NOV 2020 BY COMPUTER PACKAGES INC EFFECTIVE DATE : 20191031

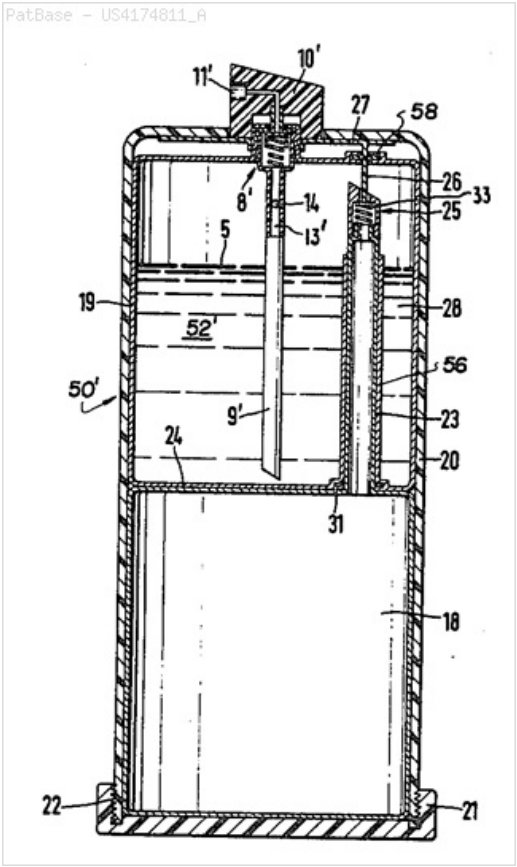
US2008116228 AA	20080522	LSPB	+	published / reissued	
US2008116228 AA	20100429	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CALGON CARBON CORPORATION,PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RYAN, THOMAS ANTHONY; SHARROCK, HARRY; TOWNEND, NEIL D.; SIGNING DATES FROM 20100426 TO 20100429; REEL/FRAME:024307/0988
US2008116228 AA	20100429	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CALGON CARBON CORPORATION, PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RYAN, THOMAS ANTHONY; SHARROCK, HARRY; TOWNEND, NEIL D.; SIGNING DATES FROM 20100426 TO 20100429; REEL/FRAME:024307/0988
US2008116228 AA	20150914	LSAL	APL5	On Appeal -- Awaiting Decision by the Board of Appeals	
US2008116228 AA	20171115	LSAL	BDR1	Board of Appeals Decision Rendered	
US2008116228 AA	20180118	LSES	+ALW2	Allowed -- Notice of Allowance Not Yet Mailed	
US2008116228 AA	20180118	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2008116228 AA	20180423	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2008116228 AA	20180424	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2008116228 AA	20180509	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9981800 BB	20180529	LSGT	+	granted / extensions (spc, cpc, pte)	
US9981800 BB	20180509	LSGT	PAT1	Patented Case	
US9981800 BB	20320521	PEXP		Calculated Patent Term Expiry (PTA 1643 days)	
WO08064293 A2	20080529	LSPB	+	published / reissued	
WO08064293 A2	20071121	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200780048180.9 COUNTRY OF REF DOCUMENT : CN
WO08064293 A3	20090514	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007323596 COUNTRY OF REF DOCUMENT : AU
WO08064293 A3	20090515	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 577000 COUNTRY OF REF DOCUMENT : NZ
WO08064293 A3	20090522	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007868823 COUNTRY OF REF DOCUMENT : EP
WO08064293 A3	20090523	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO08064293 A3	20090611	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2007323596 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20071121 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

52) Family number: 16502046 (US4174811A)

Title: Fluid substance sprayer having propellant gas and substance refill

Abstract: A fluid substance sprayer for spraying substances, such as **liquids**, paste, etc., includes a **container** for the substance with a lifting tube extending downwardly into the lowermost portion of the **container** and terminating at its upper end in a discharge fitting which includes a valve for closing off the lifting tube and opening it under the control of an actuator for the discharge of the substance out through a conduit terminating in a nozzle discharge. A filling tube is also provided on the interior of the **container** and it connects to a filling valve. A propelling gas, such as air, may be charged into the **container** through the valve to the top of the **container** above the substance level. An air opening is advantageously provided in the lifting tube or in the connecting discharge conduit of the discharge fitting to permit either a portion of the propelling fluid to flow into the lifting tube or discharge conduit or outside air, for the purpose of insuring atomization of the fluid so that it discharges in a spray. One construction includes a separate outer **container** having a discharge fitting and which accommodates a separate **container** for the substance to be sprayed and a separate **container** for the propellant gas which may be inserted into an openable bottom.

Classifications:
International (IPC 8-9): B05B7/04 B05B7/24 B65D83/14 (Advanced/Invention); B05B7/04 B05B7/24 B65D83/14 (Core/Invention)
International (IPC 1-7): B05B7/24 B05B7/32 B05B9/04 B65B31/00 B65D83/14
CPC: Y02W30/807 B65D83/42 B65D83/66
European: B65D83/14N B65D83/42 B65D83/66
US: 141/20 222/399 222/402.18 239/308 239/337



Family:

Publication number	Publication date	Application number	Application date
CA1087563 A1	19801014	CA19780296941	19780214
DE2744892 A1	19790412	DE19772744892	19771006
DE7730832 U1	19810319	DE19770030832U	19771006
FR2380075 A1	19780908	FR19780003981	19780213
JP53101706 A2	19780905	JP19780016379	19780215
US4174811 A	19791120	US19780876198	19780209

Priority:
DE19772706261 19770215 DE19772744892 19771006 CA19780296941 19780214

Probable Assignee: BINDER AIROTECHNIK
Assignee(s): (std): AIROTEHINIIKU JIIKUFURIITO BINDERU GMBH ; BINDER AIROTECHNIK
Assignee(s): FIRMA AIROTECHNIK SIEGFRIED BINDER GMBH ; BINDER AIROTECHNIK 7251 FRIOLZHEIM DE ; FIRMA AIROTECHNIK SIEGFRIED BINDER G M B H ; BINDER SIEGFRIED ; HERZOG KARL ; AIROTECHNIK S BINDER GMBH ; AIROTECHNIK SIEGFRIED BINDER GMBH ; AIROTECHNIK SIEGFRIED BINDER GMBH FA
Inventor(s): (std): JIIKUFURIITO BIRUDERU ; KAARU HERUTSUOOKU ; BINDER SIEGFRIED ; HERZOG KARL ; HERZOG KARL DIPL ING
Agent(s): MARKS AND CLERK

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE2744892 A1	19790412	LSPB	+	published / reissued	
DE2744892 A1	19831110	LSLE	-8139	DISPOSAL/NON-PAYMENT OF THE ANNUAL FEE	

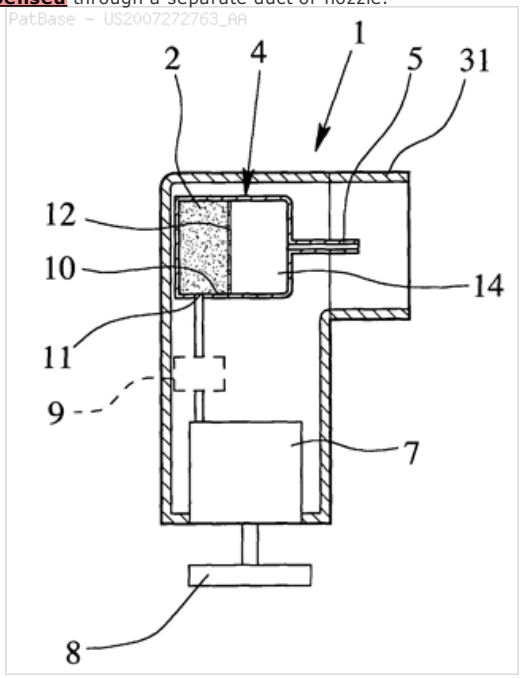
DE7730832 U1	19810319	LSGT	+	granted / extensions (spc, cpc, pte)
FR2380075 A1	19780908	LSPB	+	published / reissued
FR2380075 A1	19831223	LSLE	-ST	NOTIFICATION OF LAPSE
JP53101706 A2	19780905	LSPB	+	published / reissued
US4174811 A	19791120	LSGT	+	granted / extensions (spc, cpc, pte)

53) Family number: 32064047 (US2007272763A)

Title: **DISPENSING** DEVICE, STORAGE DEVICE AND METHOD FOR **DISPENSING** POWDER

Abstract: A **dispensing** device, a storage device and a method for **dispensing** powder in which powder is **dispensed** through a duct with a flat cross section to de-agglomerate the powder and to generate a spray with fine particle size. A storage chamber for the powder may be closed by a bursting element which is burst by pressurized gas for discharging the powder, the gas pressure reaching or exceeding a peak value before the bursting element bursts so that the powder is **dispensed** at a lower gas pressure. The powder may be forced through the duct by a gas pressure of less than 300 kPa to de-agglomerate the powder and/or to generate the spray. The storage device can have multiple storage chambers and associated ducts or nozzles, so that each dose of powder can be **dispensed** through a separate duct or nozzle.

Classifications:
International (IPC 8-9): A61J3/02 A61M A61M1/02 A61M11/00 A61M11/02 A61M13/00 A61M15/00 A62C13/62 A62C13/66 A62C5/02 B05B11/00 B05B7/26 B05B7/30 B05B9/00 B05B9/04 B65D83/00 B65D83/14 (Advanced/Invention);
A61J3/02 A61M15/00 (Advanced/Non-invention);
A61J3/00 A61M1/02 A61M11/00 A61M13/00 A61M15/00 A62C5/00 B05B11/00 B05B9/04 B65D83/00 B65D83/14 (Core/Invention);
A61M (Subclass/Invention)
International (IPC 1-7): A61M1/02 A61M15/00
CPC: A61M11/001 A61M11/002 A61M11/02 A61M15/0003 A61M15/002 A61M15/0028 A61M15/0031 A61M15/0033 A61M15/0045 A61M15/0048 A61M15/0051 A61M2202/064 A61M2205/073 A61M2205/8225 A61M2206/16
European: A61M11/02 A61M15/00C A61M15/00C2 K61M15/00A13 K61M15/00A4 K61M15/00C1B K61M15/00C1P K61M15/00C2B2 K61M15/00C2B6 K61M202/06B K61M205/07A1 K61M205/82C3 K61M206/16
US: 1/1 128/203.15 239/373 239/373S 239/565 239/565S 239/601 239/601S 239/8 239/8P



Family:

Publication number	Publication date	Application number	Application date
AU2005291427 AA	20060413	AU20050291427	20051006
BRPI0516477 A	20080902	BR2005PI16477	20051006
BRPI0516477 A8	20181023	BR2005PI16477	20051006
CA2581044 AA	20070321	CA20052581044	20051006
CA2581044 C	20130903	CA20052581044	20051006
CN101072599 A	20071114	CN200580041908	20051006
CN101072599 B	20100526	CN200580041908	20051006
CN101785892 A	20100728	CN201010104382	20051006
CN101785892 B	20141210	CN201010104382	20051006
DE602005053678 D1	20180412	DE200560053678T	20051006
EA200700743 A1	20071026	EA20070000743	20051006
ECSP077376 A	20070530	EC2007SP07376	20070405
EP1819388 A2	20070822	EP20050797355	20051006
EP2277577 A1	20110126	EP20100010487	20051006
EP2277577 B1	20180314	EP20100010487	20051006
GB200422106 A0	20041103	GB20040022106	20041006
GB200425289 A0	20041215	GB20040025289	20041117
GB200427552 A0	20050119	GB20040027552	20041215
GB200509108 A0	20050608	GB20050009108	20050504
HK1107289 A1	20080403	HK20080100580	20080117
HK1107289 A3	20080403	HK20080100580	20080117
IL182402 A0	20070724	IL20050182402	20051006
IN02268DN2007 A	20070803	IN2007DN02268	20070323
IN282534 B	20170421	IN2007DN02268	20070323
JP2008515499 T2	20080515	JP20070535090T	20051006
JP4908419 B2	20120404	JP20070535090T	20051006
KR20070073865 A	20070710	KR20077010109	20070503
MX2007004106 A1	20070614	MX20070004106	20051006
NO20071541 A	20070504	NO20070001541	20070323
NO20071541 L	20070504	NO20070001541	20070323
US2007272763 AA	20071129	US20070576853	20070801
US2012222675 AA	20120906	US20120469631	20120511
US9089658 BB	20150728	US20120469631	20120511
US9283335 BB	20160315	US20050576853	20051006
WO06037636 A2	20060413	WO2005EP10768	20051006
WO06037636 A3	20060720	WO2005EP10768	20051006
ZA200702060 A	20080925	ZA20070002060	20070309

Priority:
GB20040022106 20041006 GB20040025289 20041117 GB20040027552 20041215

GB20050009108 20050504 EP20050797355 20051006 EP20100010487 20051006
WO2005EP10768 20051006 WO2005EP10768 20051006 US20070576853 20070801
US20120469631 20120511

Probable Assignee: ZTE CORP

Assignee(s): (std): BOEHRINGER INGELHEIM GMBH ; BOEHRINGER INGELHEIM INT ; DUNNE STEPHEN T ; BOEHRINGER INGELHEIM MICROPART ; DUNNE STEPHEN TERENCE ; ROHRSCHNEIDER MARC ; BOEHRINGER INGELEIM INT GMBH ; BOEHRINGER INGELEIM INTERNAT GMBH ; BOEHRINGER INGELHEIM INTERNATIONAL GMBH ; MOSER ACHIM

Assignee(s): ZTE CORP ; BOEHRINGER INGELEIM INTERNATIONAL GMBH ; BOEHRINGER INGELHEIM INT GMBH ; BOEHRINGER INGELHEIM MICROPARTS GMBH

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Agent(s): CALLINANS; FISHER ADAMS KELLY CALLINANS; SPRUSON AND FERGUSON; FETHERSTONHAUGH AND CO; HAECKEL STEFAN; VON ROHR PATENTANWAELTE PARTNERSCHAFT MBB; LIU SHEN AND ASSOCIATES; ROBERTS MLOTKOWSKI AND HOBBES; ROBERTS MLOTKOWSKI SAFRAN AND COLE PC; DAVID S

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 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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2005291427 AA	20060413	LSPB	+	published / reissued	
AU2005291427 AA	20091022	LSLE	-MK1	APPLICATION LAPSED SECTION 142(2)(A) - NO REQUEST FOR EXAMINATION IN RELEVANT PERIOD	
BRPI0516477 A	20080902	LSPB	+	published / reissued	
BRPI0516477 A8	20190409	LSES	B07D	TECHNICAL EXAMINATION (OPINION) RELATED TO ARTICLE 229 OF INDUSTRIAL PROPERTY LAW	TEXT : DE ACORDO COM O ARTIGO 229-C DA LEI NO 10196/2001, QUE MODIFICOU A LEI NO 9279/96, A CONCESSAO DA PATENTE ESTA CONDICIONADA A ANUENCIA PREVIA DA ANVISA. CONSIDERANDO A APROVACAO DOS TERMOS DO PARECER NO 337/PGF/EA/2010, BEM COMO A PORTARIA INTERMINISTERIAL NO 1065 DE 24/05/2012, ENCAMINHA-SE O PRESENTE PEDIDO PARA AS PROVIDENCIAS CABIVEIS.
CA2581044 AA	20070321	LSPB	+	published / reissued	
CA2581044 AA	20101005	LSES	+EER	EXAMINATION REQUEST	
CA2581044 C	20130903	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2581044 C	20251006	PEXP		Calculated Patent Term Expiry	
CN101072599 A	20071114	LSPB	+	published / reissued	
CN101072599 A	20071114	LSPB	+C06	PUBLICATION	
CN101072599 B	20100526	LSGT	+	granted / extensions (spc, cpc, pte)	
CN101072599 B	20100526	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN101072599 B	20251006	PEXP		Calculated Patent Term Expiry	
CN101785892 A	20100728	LSPB	+	published / reissued	
CN101785892 A	20100728	LSPB	+C06	PUBLICATION	
CN101785892 B	20141210	LSGT	+	granted / extensions (spc, cpc, pte)	
CN101785892 B	20141210	LSGT	+C14	GRANT OF	

				PATENT OR UTILITY MODEL	
CN101785892 B	20251006	PEXP		Calculated Patent Term Expiry	
EA200700743 A1	20071026	LSPB	+	published / reissued	
ECSP077376 A	20070530	LSPB	+	published / reissued	
EP1819388 A2	20070822	LSPB	+	published / reissued	
EP1819388 A2	20070822	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20070502
EP1819388 A2	20080618	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20080520
EP1819388 A2	20180718	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20180621
EP1819388 A2	20190501	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20181103
EP2277577 A1	20110126	LSPB	+	published / reissued	
EP2277577 A1	20110907	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110725
EP2277577 A1	20151111	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20151007
EP2277577 A1	20171122	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20171024
EP2277577 B1	20180314	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2277577 B1	20180314	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2277577 B1	20180315	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2277577 B1	20180315	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 978246 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20180315
EP2277577 B1	20180404	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2277577 B1	20180412	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602005053678 COUNTRY OF REF DOCUMENT : DE
EP2277577 B1	20180725	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2277577 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180314
EP2277577 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180314

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EP2277577 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180314
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EP2277577 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180615
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				EPO]	
EP2277577 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180314
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EP2277577 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180314
EP2277577 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180314
EP2277577 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180314
EP2277577 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180314
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EP2277577 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20181019 YEAR OF FEE PAYMENT : 14
EP2277577 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181023 YEAR OF FEE PAYMENT : 14
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EP2277577 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180314
EP2277577 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20181006
EP2277577 B1	20190724	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2277577 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20181031
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GB200422106 A0	20060201	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB200425289 A0	20060607	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB200427552 A0	20060308	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB200509108 A0	20060830	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
HK1107289 A1	20080403	LSPB	+	published / reissued	
HK1107289 A3	20080403	LSPB	+	published / reissued	
IN02268DN2007 A	20070803	LSPB	+	published / reissued	
IN282534 B	20170421	LSGT	+	granted / extensions (spc, cpc, pte)	
IN282534 B	20270323	PEXP		Calculated Patent Term Expiry	
JP2008515499 T2	20080515	LSPB	+	published / reissued	
JP2008515499 T2	20081002	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20081001
JP2008515499 T2	20081002	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20081001
JP2008515499 T2	20110118	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110117
JP2008515499 T2	20110408	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110407

JP2008515499 T2	20111012	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20111011
JP2008515499 T2	20111123	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20111122
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JP2008515499 T2	20111220	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20111219
JP2008515499 T2	20111222	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP2008515499 T2	20120119	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120112
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JP2008515499 T2	20120120	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 4908419 COUNTRY OF REF DOCUMENT : JP
JP4908419 B2	20120404	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4908419 B2	20120117	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4908419 B2	20150115	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4908419 B2	20150120	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
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JP4908419 B2	20170117	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4908419 B2	20180111	LSFE	R20	特許料納付書 (Patent fee payment form)	
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JP4908419 B2	20251006	PEXP		Calculated Patent Term Expiry	
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KR20070073865 A	20101107	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
MX2007004106 A1	20070614	LSPB	+	published / reissued	
MX2007004106 A1	20141031	LSWD	-FA	ABANDONMENT OR WITHDRAWAL	
NO20071541 A	20070504	LSPB	+	published / reissued	
NO20071541 A	20100531	LSRV	-FC2A	WITHDRAWAL, REJECTION OR DISMISSAL OF LAID OPEN PATENT APPLICATION	
US2007272763 AA	20071129	LSPB	+	published / reissued	
US2007272763 AA	20160224	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012222675 AA	20120906	LSPB	+	published / reissued	
US2012222675 AA	20150708	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9089658 BB	20150728	LSGT	+	granted / extensions (spc, cpc, pte)	
US9089658 BB	20120316	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ZTE CORPORATION, CHINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CUI, JINLONG; REEL/FRAME:027878/0011 EFFECTIVE DATE : 20120221
US9089658 BB	20150708	LSGT	PAT1	Patented Case	
US9089658 BB	20190121	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9089658 BB	20330302	PEXP		Calculated Patent Term Expiry (PTA 295 days)	
US9283335 BB	20160315	LSGT	+	granted / extensions (spc, cpc, pte)	
US9283335 BB	20070801	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOEHRINGER INGELHEIM INTERNATIONAL GMBH, GERMANY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DUNNE, STEPHEN TERENCE; ROHRSCHNEIDER, MARC; MOSER, ACHIM; REEL/FRAME:019629/0254; SIGNING DATES FROM 20070601 TO 20070613
US9283335 BB	20070801	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOEHRINGER INGELHEIM INTERNATIONAL GMBH, GERMANY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DUNNE, STEPHEN TERENCE; ROHRSCHNEIDER, MARC; MOSER, ACHIM; SIGNING DATES FROM 20070601 TO 20070613;

					REEL/FRAME:019629/0254
US9283335 BB	20151109	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US9283335 BB	20160224	LSGT	PAT1	Patented Case	
US9283335 BB	20190905	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9283335 BB	20271212	PEXP		Calculated Patent Term Expiry (PTA 797 days and a terminal disclaimer has been filed)	
WO06037636 A2	20060413	LSPB	+	published / reissued	
WO06037636 A3	20070321	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2581044 COUNTRY OF REF DOCUMENT : CA
WO06037636 A3	20070323	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2268/DELNP/2007 COUNTRY OF REF DOCUMENT : IN
WO06037636 A3	20070329	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 554204 COUNTRY OF REF DOCUMENT : NZ
WO06037636 A3	20070330	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2005291427 COUNTRY OF REF DOCUMENT : AU
WO06037636 A3	20070403	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 07033819 COUNTRY OF REF DOCUMENT : CO
WO06037636 A3	20070404	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12007500749 COUNTRY OF REF DOCUMENT : PH
WO06037636 A3	20070404	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2007/004106 COUNTRY OF REF DOCUMENT : MX
WO06037636 A3	20070406	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007535090 COUNTRY OF REF DOCUMENT : JP
WO06037636 A3	20070410	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 182402 COUNTRY OF REF DOCUMENT : IL
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WO06037636 A3	20070502	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2005797355 COUNTRY OF REF DOCUMENT : EP
WO06037636 A3	20070503	LSNP	+WWE	WIPO INFORMATION:	REF DOCUMENT NUMBER : 1020077010109

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WO06037636 A3	20070508	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200700743 COUNTRY OF REF DOCUMENT : EA
WO06037636 A3	20070606	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200580041908.6 COUNTRY OF REF DOCUMENT : CN
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WO06037636 A3	20070822	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2005797355 COUNTRY OF REF DOCUMENT : EP
WO06037636 A3	20071129	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 11576853 COUNTRY OF REF DOCUMENT : US
WO06037636 A3	20080902	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0516477 COUNTRY OF REF DOCUMENT : BR
ZA200702060 A	20080925	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA200702060 A	20270308	PEXP		Calculated Patent Term Expiry	

54) Family number: 50792047 (EP2431100A1)

Title: METHOD FOR MAKING A CARBON FILLED PRESSURIZED **CONTAINER**

Abstract: There is disclosed a method for making a **container** for releasing pressurized contents. The method comprises the steps of: introducing activated carbon into a **container**; introducing propellant into the **container** for adsorption onto the activated carbon to obtain a pressure of up to about 15 barg; and sealing the **container**.

Classifications:
International (IPC 8-9): B05B9/08 B65D83/14 B65D83/62 B65D83/64 B67D7/60 (Advanced/Invention)
CPC: B65D83/62 B65D83/64 B65D83/663 Y10T29/49
European: B65D83/62 B65D83/64

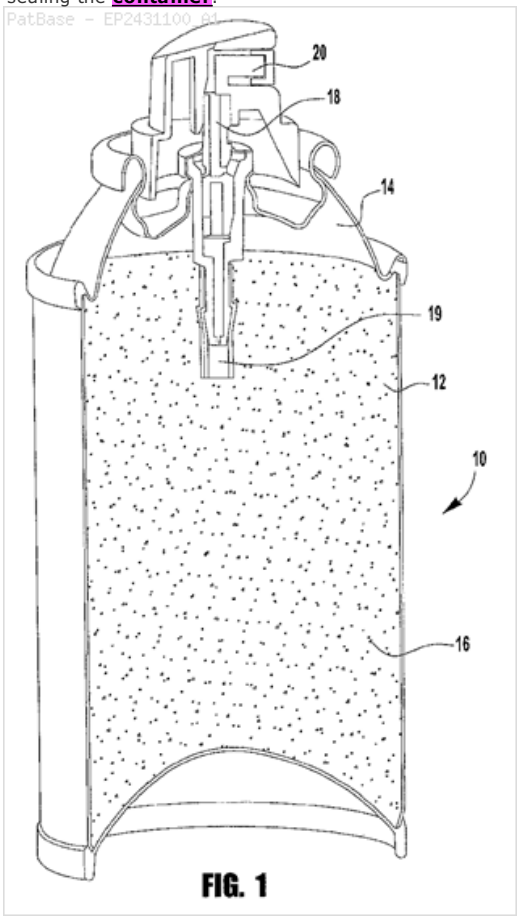


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
EP2431100 A1	20120321	EP20110193017	20071121
EP2431100 B1	20140122	EP20110193017	20071121

Priority:
US20060866879P 20061122 EP20070868823 20071121

Probable Assignee: CALGON CARBON CORP
Assignee(s): (std): CALGON CARBON CORP
Inventor(s): (std): RYAN THOMAS ANTHONY ; TOWNEND NEIL D ; SHARROCK HARRY
Agent(s): NASH DAVID ALLAN; MUELLER BORE AND PARTNER PATENTANWAELTE PARTG MBB
Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
EP2431100 A1	20120321	LSPB	+	published / reissued	
EP2431100 A1	20121031	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120917
EP2431100 A1	20130213	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20130117
EP2431100 A1	20131009	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20130910
EP2431100 A1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140522

EP2431100 A1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140122
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EP2431100 A1	20160129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20151127 YEAR OF FEE PAYMENT : 9
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EP2431100 B1	20140122	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2431100 B1	20140131	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2431100 B1	20140215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 650514 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140215
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EP2431100 B1	20140306	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602007034982 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140306
EP2431100 B1	20140326	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP2431100 B1	20140417	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : GR REF DOCUMENT NUMBER : 1166963 COUNTRY OF REF DOCUMENT : HK
EP2431100 B1	20140615	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 650514 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140122
EP2431100 B1	20140625	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2431100 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140522
EP2431100 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140122
EP2431100 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140122
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EP2431100 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140122
EP2431100 B1	20140930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140122
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EP2431100 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140122
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				NATIONAL OFFICE TO EPO]	WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140122
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EP2431100 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141130
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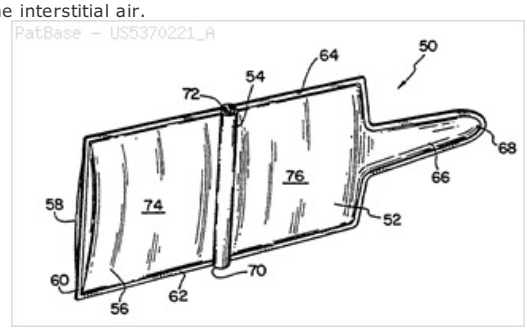
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EP2431100 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140122
EP2431100 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140122
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EP2431100 B1	20171127	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
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				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 11
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EP2431100 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20191125 YEAR OF FEE PAYMENT : 13
EP2431100 B1	20271121	PEXP		Calculated Patent Term Expiry	

55) Family number: 8452049 (US5370221A)

Title: FLEXIBLE PACKAGE FOR BONE CEMENT COMPONENTS

Abstract: A flexible **container** for packaging **liquid** and powder components that are to be mixed within the **container** to form a bone cement comprises a divider for dividing the **container** into first and second compartments and for isolating the components from one another, the first compartment **containing** the **liquid** component and the second compartment **containing** the powder component under vacuum, and a vacuum reservoir in communication with the second compartment, the vacuum reservoir being of sufficient size to receive substantially all residual interstitial gases from the powder component and thereby ensure thorough admixing of the **liquid** and powder components upon release of the divider. In an exemplary embodiment, the reservoir comprises an elongated cylinder which is either hollow and closed at least at one end by a respective filter element or formed of an open-cell foam, the interior of the hollow cylinder or the open-cell foam being of sufficient free volume to receive and hold under reduced pressure the interstitial air.



Classifications:
International (IPC 8-9): A61B17/56 A61B19/02 A61F2/32 A61F2/46 A61L24/00 A61L26/00 B01F13/00 B01F15/00 B01F15/02 B01F3/12 B05B11/02 B05C17/005 B05C17/01 B05C5/00 B65B29/10 B65D75/30 B65D81/32 C04B40/06 C09J5/00 (Advanced/Invention); A61B17/56 A61B19/02 A61F2/32 A61L24/00 A61L26/00 B01F13/00 B01F15/00 B01F3/12 B05B11/02 B05C5/00 C09J5/00 (Advanced/Non-invention);
A61B17/56 A61F2/46 A61L24/00 A61L26/00 B01F15/02 B05B11/02 B05C17/005 B05C5/00 B65B29/00 B65D81/32 C04B40/00 C09J5/00 (Core/Invention);
A61B19/00 A61F2/32 B01F13/00 B01F15/00 B01F3/12 (Core/Non-invention)
International (IPC 1-7): A61B17/56 A61B17/88 A61F1/00 A61F2/46 A61L24/00 A61L25/00 B01F13/00 B01F13/00 B05B11/02 B05C17/00 B05C17/005 B05C17/005 B05C5/00 B65B29/10 B65D25/08 B65D30/22 B65D75/30 B65D81/32 C04B40/06 C04B40/06 C09J5/00
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European: A61B17/88A2H B01F13/00K2B8 B01F15/00K60H B01F15/02B6 B01F15/02B6F B05C17/005F B05C17/005F4 B05C17/005R B05C17/01 B65B29/10 B65D81/32H B65D81/32H1 C04B40/06D2 K61B17/88A2H K61B19/02C9R K61B19/02P5 K61B19/02P5M K61F2/32 L01F13/00K2B L01F15/00K L01F215/00A34 L01F3/12H L05C17/01
US: 206/219 206/221 206/524.8 53/237 53/433 53/469 53/474 604/410 604/416

Family:

Publication number	Publication date	Application number	Application date
AT173994 E	19981215	AT19940907372T	19940128
AU199460986 A1	19940815	AU19940060986	19940128
AU682849 B2	19971023	AU19940060986	19940128
BRPI9405675 A	19951114	BR1994PI05675	19940128
CA2155022 AA	19950728	CA19942155022	19940128
CA2155022 C	20050823	CA19942155022	19940128
DE69414997 D1	19990114	DE19946014997	19940128
DE69414997 T2	19990422	DE19946014997T	19940128
DK0682621 T3	19990816	DK19940907372T	19940128
EP0682621 A1	19951122	EP19940907372	19940128
EP0682621 A4	19960807	EP19940907372	19940128
EP0682621 B1	19981202	EP19940907372	19940128
ES2124394 T3	19990201	ES19940907372T	19940128
JP3663209 B2	20050622	JP19940517376T	19940128
JP8508193 T2	19960903	JP19940517376T	19940128
US5370221 A	19941206	US19930113414	19930827
US5398483 A	19950321	US19930011339	19930129
WO9416951 A1	19940804	WO1994US01069	19940128

Priority:
US19930011339 19930129 US19930113414 19930827 WO1994US01069 19940128

Probable Assignee: BIOMET INC

Assignee(s): (std): BIOMET INC ; GILBERT RONALD LEE ; MAGNUSSON BENT ; POLYMERS RECONSTRUCTIVE AS ; SMITH DANIEL BRYCE

Assignee(s): BIOMET INC WARSAW IND US ; LVB ACQUISITION INC ; BANK OF AMERICA NA ; BANK OF AMERICA NA ADMINISTRATIVE AGENT FOR SECURE ; POLYMERS RECONSTRUCTIVE A S ; POLYMERS RECONSTRUCTIVE A S A CORP ; POLYMERS RECONSTRUCTION A S A CORP ; POLYMERS RECONSTRUCTIVE A S FARUM DK ; POLYMERS RECONSTRUCTION A S A OF DENMARK RUGMARKEN ; POLYMERS RECONSTRUCTIVE A S A OF DENMARK CORP ; POLYMERS RECONSTRUCTION A S A OF DENMARK RUGMARKEN 24 26 CORP ; BIOMET MFG ; BIOMET INC AIRPORT INDUSTRIAL PARK ; BIOMET MFG CORP ; BIOMER CV FRUITENIERSSTRAAT ; BIOMER CV ; BANK OF AMERICA NA ADMINISTRATIVE AGENT FOR SECURED PARTIES AS

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Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; MACRAE AND CO

Designated states: AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CZ DE DK ES FI FR GA GB GN GR HU IE IT JP KP KR KZ LI LK LU LV MC MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SK SN TD TG UA US UZ VN

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details

AT173994 E	19981215	LSGT	+	granted / extensions (spc, cpc, pte)	
AT173994 E	20041015	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT173994 E	20140128	PEXP		Calculated Patent Term Expiry	
AU199460986 A1	19940815	LSPB	+	published / reissued	
AU682849 B2	19971023	LSGT	+	granted / extensions (spc, cpc, pte)	
AU682849 B2	20031106	LSAS	PC	ASSIGNMENT REGISTERED	PARTYTYPE : OWNER OWNER : BIOMET, INC., BIOMER C.V. OLDPARTY : FORMER OWNER WAS: BIOMET, INC., POLYMERS RECONSTRUCTIVE A/S
AU682849 B2	20040826	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU682849 B2	20140128	PEXP		Calculated Patent Term Expiry	
BRPI9405675 A	19951114	LSPB	+	published / reissued	
BRPI9405675 A	20041214	LSRV	-B11B	DISMISSAL ACC. ART. 36, PAR 1 OF IPL - NO REPLY WITHIN 90 DAYS TO FULLFIL THE NECESSARY REQUIREMENTS	
BRPI9405675 A	20050705	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS APPROVED	TEXT : BIOMET, INC. (DK), BIOMER C.V. (NL)
CA2155022 AA	19950728	LSPB	+	published / reissued	
CA2155022 AA	20010129	LSES	+EEER	EXAMINATION REQUEST	
CA2155022 C	20050823	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2155022 C	20100128	LSLE	-MKLA	LAPSED	
CA2155022 C	20140128	PEXP		Calculated Patent Term Expiry	
DE69414997 D1	19991230	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69414997 D1	20020814	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	PARTYTYPE : OWNER OWNER : BIOMET, INC., WARSAW, IND., US BIOMER C.V., ZWIJND
DE69414997 T2	19990422	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69414997 T2	20140128	PEXP		Calculated Patent Term Expiry	
DK0682621 T3	19990816	LSGT	+	granted / extensions (spc, cpc, pte)	
DK0682621 T3	20140128	PEXP		Calculated Patent Term Expiry	
EP0682621 A1	19951122	LSPB	+	published / reissued	
EP0682621 A1	19951122	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19950803
EP0682621 A4	19960807	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 19960620
EP0682621 A4	19970319	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19970205
EP0682621 B1	19981202	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0682621 B1	19981215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0682621 B1	19990201	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2124394 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF

					DOCUMENT : T3 DESIGNATED STATE(S) :
EP0682621 B1	19991124	LSGT	+26N	NO OPPOSITION FILED	
EP0682621 B1	20020102	LSAS	NLS	NL: ASSIGNMENTS OF EP-PATENTS	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : BIOMER C.V.; BIOMET, INC.
EP0682621 B1	20021220	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20021220 YEAR OF FEE PAYMENT : 10
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EP0682621 B1	20030213	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20030213 YEAR OF FEE PAYMENT : 10
EP0682621 B1	20030225	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20030225 YEAR OF FEE PAYMENT : 10
EP0682621 B1	20031114	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : CH OWNER : BIOMET, INC. REF LEGAL EVENT CODE : PUEA OLDPARTY : BIOMET, INC.#P.O. BOX 587#WARSAW, IN 46580 (US) $ POLYMERS RECONSTRUCTIVE A/S#RUGMARKEN 24-26#3520 FARUM (DK) -TRANSFER TO- BIOMET, INC.#P.O. BOX 587#WARSAW, IN 46580 (US) $ BIOMER C.V.#FRUITENIERSSTRAAT 23#3334 KA ZWIJNDRECHT (NL)
EP0682621 B1	20040128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20040128
EP0682621 B1	20040128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20040128
EP0682621 B1	20040131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20040131
EP0682621 B1	20040131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20040131
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EP0682621 B1	20040216	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : PC2A
EP0682621 B1	20040731	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : *BIOMET INC. EFFECTIVE DATE : 20040131
EP0682621 B1	20040731	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : *BIOMER C.V. EFFECTIVE DATE : 20040131
EP0682621 B1	20040801	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20040801
EP0682621 B1	20040906	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP
EP0682621 B1	20040915	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0682621 B1	20040930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20040930
EP0682621 B1	20041001	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20040801
EP0682621 B1	20041029	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP0682621 B1	20080430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20080128 YEAR OF FEE PAYMENT : 15
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EP0682621 B1	20080530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20080129 YEAR OF FEE PAYMENT : 15
EP0682621 B1	20090915	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF COUNTRY CODE : EP
EP0682621 B1	20100329	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20090129
EP0682621 B1	20100430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090129
EP0682621 B1	20110331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090128
EP0682621 B1	20110531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : SE

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090129
EP0682621 B1	20130430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20130125 YEAR OF FEE PAYMENT : 20
EP0682621 B1	20130430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20130129 YEAR OF FEE PAYMENT : 20
EP0682621 B1	20140128	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69414997 COUNTRY OF REF DOCUMENT : DE
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EP0682621 B1	20140219	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20140127
EP0682621 B1	20140430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF EXPIRATION OF PROTECTION LAPSED DATE : 20140129
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EP0682621 B1	20140127	PEXP		Calculated Patent Term Expiry	
EP0682621 B1	20140128	PEXP		Calculated Patent Term Expiry	
ES2124394 T3	19990201	LSGT	+	granted / extensions (spc, cpc, pte)	
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ES2124394 T3	20140128	PEXP		Calculated Patent Term Expiry	
JP3663209 B2	20050622	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3663209 B2	20080527	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 4
JP3663209 B2	20090407	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 5
JP3663209 B2	20100406	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 6
JP3663209 B2	20110405	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
JP3663209 B2	20120410	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 8
JP3663209 B2	20130328	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 8
JP3663209 B2	20130402	LSFE	+FPAY	RENEWAL FEE PAYMENT	YEAR OF FEE PAYMENT : 9

				(EVENT DATE IS RENEWAL DATE OF DATABASE)	
JP3663209 B2	20140128	LSLE	-EXPY	CANCELLATION BECAUSE OF COMPLETION OF TERM	
JP3663209 B2	20140128	PEXP		Calculated Patent Term Expiry	
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JP8508193 T2	20040406	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20040406
JP8508193 T2	20040722	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20040702
JP8508193 T2	20040909	LSAS	A711	NOTIFICATION OF CHANGE IN APPLICANT	TEXT : JAPANESE INTERMEDIATE CODE: A711 EFFECTIVE DATE : 20040819
JP8508193 T2	20041224	LSAS	A711	NOTIFICATION OF CHANGE IN APPLICANT	TEXT : JAPANESE INTERMEDIATE CODE: A711 EFFECTIVE DATE : 20041202
JP8508193 T2	20050304	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP8508193 T2	20050315	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20050315
JP8508193 T2	20050331	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20050328
JP8508193 T2	20050401	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
US5370221 A	19941206	LSGT	+	granted / extensions (spc, cpc, pte)	
US5370221 A	19940311	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLYMERS RECONSTRUCTION A/S, A CORPORATION OF DENM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MAGNUSSON, BENT; REEL/FRAME:006899/0911 EFFECTIVE DATE : 19940221
US5370221 A	19940311	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOMET, INC. AIRPORT INDUSTRIAL PARK, INDIANA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SMITH, DANIEL BRYCE; GILBERT, RONALD LEE; REEL/FRAME:006899/0914 EFFECTIVE DATE : 19940221
US5370221 A	19941125	LSGT	PAT1	Patented Case	
US5370221 A	19941125	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5370221 A	19980608	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5370221 A	20011004	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOMER C.V., NETHERLANDS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POLYMERS RECONSTRUCTIVE A/S; REEL/FRAME:012232/0478 EFFECTIVE DATE : 20010713
US5370221 A	20020422	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5370221 A	20060412	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5370221 A	20070426	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOMET

					MANUFACTURING CORP., INDIANA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BIOMET, INC.; REEL/FRAME:019215/0234 EFFECTIVE DATE : 19990601
US5370221 A	20071210	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A., AS ADMINISTRATIVE AGENT FOR OLDPARTY : SECURITY AGREEMENT; ASSIGNORS:LVB ACQUISITION, INC.; BIOMET, INC.; REEL/FRAME:020362/0001 EFFECTIVE DATE : 20070925
US5370221 A	20151123	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LVB ACQUISITION, INC., INDIANA OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL 020362/ FRAME 0001; ASSIGNOR:BANK OF AMERICA, N.A., AS ADMINISTRATIVE AGENT; REEL/FRAME:037155/0133 EFFECTIVE DATE : 20150624
US5370221 A	20151123	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOMET, INC., INDIANA OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL 020362/ FRAME 0001; ASSIGNOR:BANK OF AMERICA, N.A., AS ADMINISTRATIVE AGENT; REEL/FRAME:037155/0133 EFFECTIVE DATE : 20150624
US5370221 A	20130827	PEXP		Calculated Patent Term Expiry	
US5398483 A	19950321	LSGT	+	granted / extensions (spc, cpc, pte)	
US5398483 A	19930405	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOMET, INC., INDIANA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SMITH, DANIEL BRYCE; GILBERT, RONALD LEE; REEL/FRAME:006666/0958 EFFECTIVE DATE : 19930318
US5398483 A	19940311	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLYMERS RECONSTRUCTIVE A/S, A CORPORATION OF DENM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BIOMET, INC.; REEL/FRAME:006899/0850 EFFECTIVE DATE : 19940221
US5398483 A	19950112	LSGT	PAT1	Patented Case	
US5398483 A	19950112	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5398483 A	19980918	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5398483 A	20010319	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : POLYMERS RECONSTRUCTIVE A/S, A CORPORATION OF DENM OLDPARTY : (ASSIGNOR ASSIGNS ONE-HALF INTEREST TO SAID ASSIGNEE). RE-RECORD TO CHANGE THE NATURE OF CONVEYANCE ON DOCUMENT PREVIOUSLY RECORDED AT REEL 6899, FRAME 0850; ASSIGNOR:BIOMET, INC., A CORPORATION OF INDIANA; REEL/FRAME:011575/0545 EFFECTIVE DATE : 19940221
US5398483 A	20011004	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOMER C.V., NETHERLANDS OLDPARTY : ASSIGNMENT OF

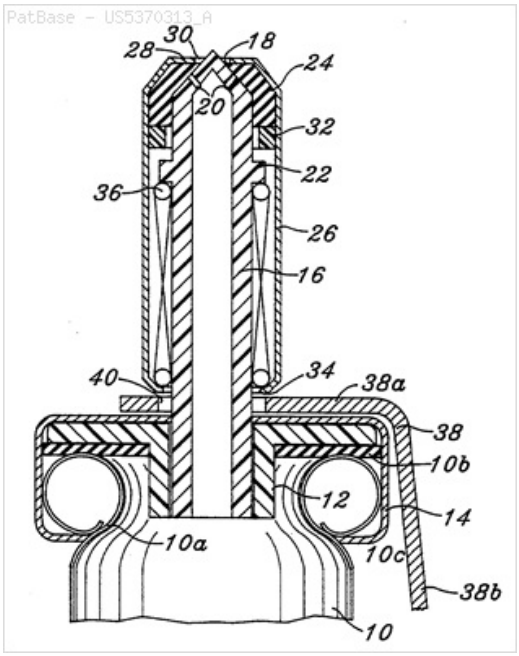
					ASSIGNORS INTEREST; ASSIGNOR:POLYMERS RECONSTRUCTIVE A/S; REEL/FRAME:012232/0478 EFFECTIVE DATE : 20010713
US5398483 A	20020429	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5398483 A	20060726	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5398483 A	20070426	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOMET MANUFACTURING CORP., INDIANA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BIOMET, INC.; REEL/FRAME:019215/0270 EFFECTIVE DATE : 19990601
US5398483 A	20071210	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A., AS ADMINISTRATIVE AGENT FOR OLDPARTY : SECURITY AGREEMENT; ASSIGNORS:LVB ACQUISITION, INC.; BIOMET, INC.; REEL/FRAME:020362/0001 EFFECTIVE DATE : 20070925
US5398483 A	20151123	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOMET, INC., INDIANA OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL 020362/ FRAME 0001; ASSIGNOR:BANK OF AMERICA, N.A., AS ADMINISTRATIVE AGENT; REEL/FRAME:037155/0133 EFFECTIVE DATE : 20150624
US5398483 A	20151123	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LVB ACQUISITION, INC., INDIANA OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL 020362/ FRAME 0001; ASSIGNOR:BANK OF AMERICA, N.A., AS ADMINISTRATIVE AGENT; REEL/FRAME:037155/0133 EFFECTIVE DATE : 20150624
US5398483 A	20130129	PEXP		Calculated Patent Term Expiry	
WO9416951 A1	19940804	LSPB	+	published / reissued	
WO9416951 A1	19950728	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2155022 COUNTRY OF REF DOCUMENT : CA
WO9416951 A1	19950803	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1994907372 COUNTRY OF REF DOCUMENT : EP
WO9416951 A1	19951116	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO9416951 A1	19951122	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1994907372 COUNTRY OF REF DOCUMENT : EP
WO9416951 A1	19981202	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1994907372 COUNTRY OF REF DOCUMENT : EP

56) Family number: 20370049 (US5370313A)

Title: STERILE **LIQUID** **DISPENSER**

Abstract: A hollow body has a connected tubular discharge stem. The stem has a tapered tip formed with at least one discharge passage. An annular gasket complementing the shape of the taper is normally seated on the tip and valves off the passage. A hollow tubular shell is over the stem and carries the gasket at its upper end. The shell encloses a spring working between the bottom of the shell and a fin on the stem spaced back from the tip. In operation, the shell is moved away from the body so **liquid** can discharge through the gasket.

Classifications:
International (IPC 8-9): A61J1/05 A61M11/00 B65D47/18 B65D47/24 B65D83/16 (Advanced/Invention);
A61J1/05 A61M11/00 (Advanced/Non-invention);
A61J1/05 A61M11/00 B65D47/04 B65D83/16 (Core/Invention)
International (IPC 1-7): A61F9/00 A61H35/02 A61J1/05 A61J1/14 A61M11/00 B05B11/00 B05B7/32 B65D47/18 B65D47/24 B65D81/24 B65D83/16 B65D83/44 B67D3/00
CPC: B05B11/3053 B65D47/243 B65D83/207
European: B05B11/00B9T B65D47/24A2 B65D83/20D
US: 222/402.15 222/509 222/514 239/337 239/488



Family:

Publication number	Publication date	Application number	Application date
AU199515211 A1	19950801	AU19950015211	19950110
AU687505 B2	19980226	AU19950015211	19950110
CA2180735 AA	19960708	CA19952180735	19950110
CA2180735 C	20021203	CA19952180735	19950110
CN1063682 C	20010328	CN19951091571	19950110
CN1147213 A	19970409	CN19951091571	19950110
DE69522549 D1	20011011	DE19956022549	19950110
DE69522549 T2	20020418	DE19956022549T	19950110
EP0740586 A1	19961106	EP19950906741	19950110
EP0740586 A4	19970416	EP19950906741	19950110
EP0740586 B1	20010905	EP19950906741	19950110
JP9507412 T2	19970729	JP19950518539T	19950110
US5370313 A	19941206	US19940179385	19940110
WO9518681 A1	19950713	WO1995US00020	19950110

Priority:
US19940179385 19940110 WO1995US00020 19950110

Probable Assignee: BESPAK PLC
Assignee(s): (std): BEARD WALTER C ; BESPAK PLC ; WALTER C BEARD
Assignee(s): BESPAK PLC BERGEN WAY KING S LYNNNORFOLK P ; BESPAK PLC KING S LYNN
Inventor(s): (std): BEARD WALTER C ; WALTER C BEARD
Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; RIDOUT AND MAYBEE LLP
Designated states: AT AU BE CA CH CN DE DK ES FR GB GR IE IT JP LU MC NL PT SE

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU199515211 A1	19950801	LSPB	+	published / reissued	
AU687505 B2	19980226	LSGT	+	granted / extensions (spc, cpc, pte)	
AU687505 B2	20040812	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU687505 B2	20150110	PEXP		Calculated Patent Term Expiry	
CA2180735 AA	19960708	LSPB	+	published / reissued	

CA2180735 AA	19971022	LSES	+EEER	EXAMINATION REQUEST	
CA2180735 C	20021203	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2180735 C	20060110	LSLE	-MKLA	LAPSED	
CA2180735 C	20150110	PEXP		Calculated Patent Term Expiry	
CN1063682 C	20010328	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1063682 C	20010328	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1063682 C	20050309	LSLE	-C19	LAPSE OF PATENT RIGHT DUE TO NON-PAYMENT OF THE ANNUAL FEE	
CN1063682 C	20150110	PEXP		Calculated Patent Term Expiry	
CN1147213 A	19970409	LSPB	+	published / reissued	
CN1147213 A	19970409	LSPB	+C06	PUBLICATION	
DE69522549 D1	20021002	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69522549 D1	20051117	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69522549 T2	20020418	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69522549 T2	20150110	PEXP		Calculated Patent Term Expiry	
EP0740586 A1	19961106	LSPB	+	published / reissued	
EP0740586 A1	19961106	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19960705
EP0740586 A1	19970402	LSRE	RHK1	MAIN CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B65D 83/16
EP0740586 A1	19970416	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 19970225
EP0740586 A1	19991229	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19991112
EP0740586 A1	20010905	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20010905
EP0740586 A1	20011205	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20011205
EP0740586 A1	20011205	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20011205
EP0740586 A1	20020326	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20020326
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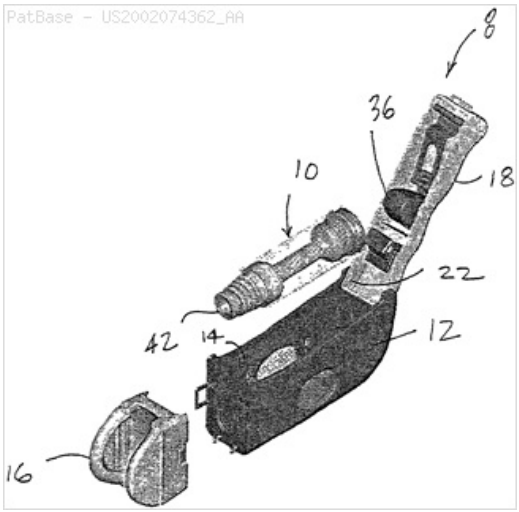
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EP0740586 A1	20050802	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20050802
EP0740586 A1	20060131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20060131
EP0740586 A1	20061208	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20060929
EP0740586 A1	20061227	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20061227 YEAR OF FEE PAYMENT : 13
EP0740586 A1	20080924	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20080110
EP0740586 A1	20081231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20080110
EP0740586 B1	20010905	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0740586 B1	20150110	PEXP		Calculated Patent Term Expiry	
JP9507412 T2	19970729	LSPB	+	published / reissued	
JP9507412 T2	20040316	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20040316
JP9507412 T2	20040812	LSRV	-A313	FINAL DECISION OF REJECTION WITHOUT A DISSENTING RESPONSE FROM THE APPLICANT	TEXT : JAPANESE INTERMEDIATE CODE: A313 EFFECTIVE DATE : 20040726
JP9507412 T2	20040831	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20040831
US5370313 A	19941206	LSGT	+	granted / extensions (spc, cpc, pte)	
US5370313 A	19951122	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BESPAK PLC, ENGLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BEARD, WALTER C.; REEL/FRAME:007715/0824 EFFECTIVE DATE : 19951115
US5370313 A	19990216	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 19981206
US5370313 A	19990817	LSRE	+PRDP	PATENT REINSTATED DUE TO THE ACCEPTANCE OF A LATE MAINTENANCE FEE	EFFECTIVE DATE : 19990507
US5370313 A	20020517	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5370313 A	20061206	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5370313 A	20070103	LSLE	-PEX1	Patent Expired Due to NonPayment of	

				Maintenance Fees Under 37 CFR 1.362	
US5370313 A	20070103	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5370313 A	20070130	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20061206
US5370313 A	20140110	PEXP		Calculated Patent Term Expiry	
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WO9518681 A1	19950110	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 95191571.1 COUNTRY OF REF DOCUMENT : CN
WO9518681 A1	19960705	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1995906741 COUNTRY OF REF DOCUMENT : EP
WO9518681 A1	19960708	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2180735 COUNTRY OF REF DOCUMENT : CA
WO9518681 A1	19961106	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995906741 COUNTRY OF REF DOCUMENT : EP
WO9518681 A1	20010905	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995906741 COUNTRY OF REF DOCUMENT : EP

57) Family number: 28231050 (US2002074362A)

Title: FLUID **DISPENSER** HAVING A RIGID VIAL AND FLEXIBLE INNER BLADDER

Abstract: A **dispenser** for **dispensing** a fluid includes a rigid vial that has a main fluid chamber **containing** a fluid, and a pump assembly that is in fluid communication with the main fluid chamber and is configured to **dispense** a predetermined quantity of fluid from the main fluid chamber. A flexible bladder is provided which is located within the main fluid chamber and is configured to expand to fill the ullage created within the main fluid chamber during **dispensing** of fluid by the pump assembly. The resilient bladder tends to force itself outwardly toward the rigid vial and, in turn, increases the pressure within the main fluid chamber in comparison to the interior of the bladder to thereby prevent the ingress of air or vapors through the bladder or otherwise into the main fluid chamber.



Classifications:
International (IPC 8-9): A61F9/00 A61H33/04 A61J1/05 A61M11/00 A61M35/00 A61M39/24 A61M5/145 A61M5/175 B05B11/00 B05C17/005 B65B3/00 B65D37/00 B65D47/18 B65D5/72 B65D81/24 B65D83/00 B65D83/76 B65D88/54 B67B7/00 B67D5/042 B67D5/06 B67D5/064 B67D5/40 B67D5/42 B67D5/64 B67D7/06 B67D7/58 B67D7/60 B67D7/84 G01F11/00 (Advanced/Invention);
A61M39/00 A61M39/02 A61M5/32 B05B11/00 B65D81/24 B65D83/76 (Advanced/Non-invention);
A61F9/00 A61J1/05 A61M11/00 A61M35/00 A61M39/00 A61M5/145 A61M5/168 B05B11/00 B05C17/005 B65D81/24 B65D83/76 B67D7/58 B67D7/84 G01F11/00 (Core/Invention);
A61M39/02 A61M5/32 (Core/Non-invention)
International (IPC 1-7): A61F9/00 A61J1/22 A61M39/00 A61M39/02 A61M39/22 A61M39/24 A61M5/145 A61M5/175 A63H0/00 B05B11/00 B65D25/40 B65D35/56 B65D81/24 B65D83/76 B67D5/06 B67D5/42 G01F11/00
CPC: B65B3/003 B05B11/3056 B05B11/0054 Y10T29/49826 B05B11/0038 A61F9/0008 B05B11/00412 B05B11/0072 B05B11/0097 B05B11/3004 B05B11/3074 B05B11/3077 B05B11/3092 B05B11/3094 B65D81/245 B65D83/0055
European: A61F9/00B B05B11/00B17 B05B11/00B5A2 B05B11/00B5E B05B11/00B9T B05B11/30C2 B05B11/30H3F B05B11/30H8B B05B11/30H8F B05B11/30P4 B05B11/30R B65D81/24B B65D83/00B K61M5/32C2D L05B11/00B5
US: 141/18 141/18S 141/2 222/1 222/105 222/162 222/162S 222/183 222/1P 222/206 222/212 222/321.2 222/321.6 222/321.8 222/325 222/386 222/386.5 222/388 222/398 222/398S 222/420 222/492 222/631 222/81 29/428 604/290 604/298 604/298S 604/301

Family:

Publication number	Publication date	Application number	Application date
AU2002239480 AA	20020527	AU20020239480	20011023
AU2002239480 BB	20050602	AU20020239480	20011023
AU200239480 A1	20020527	AU20020039480	20011023
AU200239480 A5	20020527	AU20020039480	20011023
AU2003285936 AA	20040513	AU20030285936	20031021
AU2003285936 AH	20040513	AU20030285936	20031021
AU2005205786 AA	20050922	AU20050205786	20050902
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AU2008202096 AA	20080605	AU20080202096	20080512
AU2012200348 AA	20120209	AU20120200348	20120120
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CA2426182 AA	20030417	CA20012426182	20011023
CA2426182 C	20070313	CA20012426182	20011023
CA2578803 AA	20020523	CA20012578803	20011023
CA2578803 C	20110201	CA20012578803	20011023
CN101091678 A	20071226	CN200710109404	20011023
CN101091678 B	20110330	CN200710109404	20011023
CN1328149 C	20070725	CN20018017860	20011023
CN1568283 A	20050119	CN20018017860	20011023
EP1328465 A2	20030723	EP20010987242	20011023
EP1328465 A4	20080416	EP20010987242	20011023
EP1556289 A2	20050727	EP20030779166	20031021
EP1556289 A4	20090121	EP20030779166	20031021
JP2004513849 T2	20040513	JP20020542487T	20011023
JP2006516101 T2	20060622	JP20050501655T	20031021
JP3920772 B2	20070530	JP20020542487T	20011023
JP4486044 B2	20100623	JP20050501655T	20031021
KR100651315 B1	20061128	KR20037005587	20011023
KR100865599 B1	20081027	KR20087015822	20011023
KR100865601 B1	20081027	KR20067008053	20011023
KR20030070012 A	20030827	KR20037005587	20011023
KR20060060747 A	20060605	KR20067008053	20011023
KR20080066887 A	20080716	KR20087015822	20011023
MXPA03003556 A1	20050411	MX2003PA03556	20011023
SG160186 A1	20100429	SG20050024492	20011023
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US2002074362 AA	20020620	US20010001745	20011023
US2004245289 AA	20041209	US20040890465	20040712
US2005029307 AA	20050210	US20030691270	20031021
US2006131338 AA	20060622	US20060351716	20060210
US2008197145 AA	20080821	US20080031703	20080215
US2013175299 AA	20130711	US20120572145	20120810
US2014371689 AA	20141218	US20140313027	20140624

US6761286 BB	20040713	US20010001745	20011023
US7000806 BB	20060221	US20040890465	20040712
US7331944 BB	20080219	US20030691270	20031021
US8240521 BB	20120814	US20060351716	20060210
US8757436 BB	20140624	US20080031703	20080215
US9668914 BB	20170606	US20140313027	20140624
US9725228 BB	20170808	US20120572145	20120810
WO0240122 A2	20020523	WO2001US46089	20011023
WO0240122 A3	20020822	WO2001US46089	20011023
WO04037708 A2	20040506	WO2003US33503	20031021
WO04037708 A3	20050224	WO2003US33503	20031021

Priority:

US20000242595P 20001023	US20000242974P 20001024	AU20020239480 20011023
CA20012426182 20011023	US20010001745 20011023	CA20012578803 20011023
WO2001US46089 20011023	US20020420334P 20021021	US20030443524P 20030128
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US20080031703 20080215	AU20080202096 20080512	WO2001US46089 20080627
AU20120200348 20120120	US20120572145 20120810	US20140313027 20140624

Probable Assignee: DR PY INST LLC

Assignee(s): (std): ASSION NORBERT M ; CHAN JULIAN V ; DR PY INST LLC ; MEDICAL INSTILL TECHNOLOGIES INC ; PY DANIEL ; PY DANIEL C ; PY INST LLC DR ; PY PATENT INC ; TING JOSEPH M ; INSTIVE MEDICAL TECHNOLOGY CO LTD ; MEDICAL INSTILL TECH INC

Assignee(s): MEDICAL INSTILL TECHNOLOGIES I ; INSTIVE MEDICAL TECHNOLOGY CO

Inventor(s): (std): PY DANIEL ; TING JOSEPH M ; ASSION NORBERT M ; CHAN JULIAN V ; DANIEL PY ; PY DANIEL TING JOSEPH M

Inventor(s): TING JOSEPH ; CHAN JULIAN ; ASSION NORBERT ; JOSEPH M TING

Agent(s): WRAYS; RIDOUT AND MAYBEE LLP; DREW AND NAPIER LLC; MCCARTER AND ENGLISH LLP; MCCARTER AND ENGLISH LLP, CITYPLACE I; MCCARTER AND ENGLISH LLP CITYPLACE I

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 SC 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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2002239480 AA	20020527	LSPB	+	published / reissued	
AU2002239480 BB	20050602	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2002239480 BB	20031127	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	PARTYTYPE : OWNER OWNER : MEDICAL INSTILL TECHNOLOGIES, INC. OLDPARTY : FORMER APPLICANT(S): PY PATENT, INC.
AU2002239480 BB	20050929	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2002239480 BB	20170518	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2002239480 BB	20211023	PEXP		Calculated Patent Term Expiry	
AU200239480 A1	20020527	LSPB	+	published / reissued	
AU2003285936 AA	20040513	LSPB	+	published / reissued	
AU2003285936 AA	20050721	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
AU2005205786 AA	20050922	LSPB	+	published / reissued	
AU2005205786 BB	20080214	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2005205786 BB	20080619	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2005205786 BB	20190516	LSLE	-MK14	PATENT CEASED	

				SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2005205786 BB	20250902	PEXP		Calculated Patent Term Expiry	
AU2008202096 AA	20080605	LSPB	+	published / reissued	
AU2008202096 AA	20120216	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2)(E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
AU2012200348 AA	20120209	LSPB	+	published / reissued	
AU2012200348 AA	20141009	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2012200348 AA	20170518	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
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CA2426182 AA	20030417	LSPB	+	published / reissued	
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CA2426182 C	20171204	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20171023
CA2426182 C	20211023	PEXP		Calculated Patent Term Expiry	
CA2578803 AA	20020523	LSPB	+	published / reissued	
CA2578803 AA	20070305	LSES	+EEER	EXAMINATION REQUEST	
CA2578803 C	20110201	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2578803 C	20191204	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20191023
CA2578803 C	20211023	PEXP		Calculated Patent Term Expiry	
CN101091678 A	20071226	LSPB	+	published / reissued	
CN101091678 A	20071226	LSPB	+C06	PUBLICATION	
CN101091678 A	20071226	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
CN101091678 B	20110330	LSGT	+	granted / extensions (spc, cpc, pte)	
CN101091678 B	20110330	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN101091678 B	20110330	LSGT	+GR01	授权 (The grant of patent right)	TEXT : 授权 (AUTHORIZATION)
CN101091678 B	20191018	LSLE	-CF01	未缴年费专利权终止 (Termination of patent right due to unpaid annual fee)	TEXT : 专利权的终止 (TERMINATION OF PATENT RIGHT) EFFECTIVE DATE : 20181023
CN101091678 B	20191018	LSLE	-CF01	TERMINATION OF PATENT RIGHT DUE TO NON-PAYMENT OF ANNUAL FEE	
CN101091678 B	20211023	PEXP		Calculated Patent Term Expiry	
CN1328149 C	20070725	LSGT	+	granted / extensions (spc, cpc, pte)	

CN1328149 C	20070725	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1328149 C	20171208	LSLE	-CF01	TERMINATION OF PATENT RIGHT DUE TO NON-PAYMENT OF ANNUAL FEE	
CN1328149 C	20211023	PEXP		Calculated Patent Term Expiry	
CN1568283 A	20050119	LSPB	+	published / reissued	
CN1568283 A	20050119	LSPB	+C06	PUBLICATION	
CN1568283 A	20050223	LSAS	ASS	SUCCESSION OR ASSIGNMENT OF PATENT RIGHT	PARTYTYPE : OWNER OWNER : YINSDIER MEDICAL TECHNOLOGY CO., LTD. OLDPARTY : FORMER OWNER: PY PATENT INC. EFFECTIVE DATE : 20050107
CN1568283 A	20050223	LSAS	C41	TRANSFER OF PATENT APPLICATION OR PATENT RIGHT OR UTILITY MODEL	
EP1328465 A2	20030723	LSPB	+	published / reissued	
EP1328465 A2	20030723	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20030417
EP1328465 A2	20030827	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : MEDICAL INSTILL TECHNOLOGIES, INC.
EP1328465 A4	20080416	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20080314
EP1328465 A4	20130424	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20130325
EP1328465 A4	20190116	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20181220
EP1328465 A4	20191002	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20190501
EP1556289 A2	20050727	LSPB	+	published / reissued	
EP1556289 A2	20051026	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20050824
EP1556289 A4	20090121	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20081218
EP1556289 A4	20110413	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20110315
EP1556289 A4	20120118	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20110726
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JP2004513849 T2	20060614	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20060613
JP2004513849 T2	20061214	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20061213
JP2004513849 T2	20070111	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2004513849 T2	20070117	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20070116
JP2004513849 T2	20070222	LSFE	+A61	FIRST PAYMENT OF	TEXT : JAPANESE INTERMEDIATE

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JP2006516101 T2	20081126	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20081125
JP2006516101 T2	20090425	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090424
JP2006516101 T2	20090930	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20090929
JP2006516101 T2	20100128	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100127
JP2006516101 T2	20100217	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2006516101 T2	20100224	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20100223
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JP2006516101 T2	20100402	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
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JP3920772 B2	20070220	LSFE	R100	特許料納付書 (Patent fee payment form)	
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KR100651315 B1	20050531	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR100651315 B1	20060830	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
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KR100651315 B1	20121120	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20121121 YEAR OF FEE PAYMENT : 7
KR100651315 B1	20131203	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20131204 YEAR OF FEE PAYMENT : 8
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KR20060060747 A	20061023	LSES	A201	REQUEST FOR EXAMINATION	
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US2006131338 AA	20120725	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
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US2008197145 AA	20140604	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013175299 AA	20130711	LSPB	+	published / reissued	
US2013175299 AA	20140508	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DR. PY INSTITUTE LLC, CONNECTICUT OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MEDICAL INSTILL TECHNOLOGIES, INC.; REEL/FRAME:032847/0213 EFFECTIVE DATE : 20140312
US2013175299 AA	20170407	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2013175299 AA	20170707	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2013175299 AA	20170710	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2013175299 AA	20170719	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
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					ASSIGNORS INTEREST; ASSIGNOR:MEDICAL INSTILL TECHNOLOGIES, INC.; REEL/FRAME:032847/0213 EFFECTIVE DATE : 20140312
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US7331944 BB	20041012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MEDICAL INSTILL TECHNOLOGIES, INC., CONNECTICUT OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:PY, DANIEL; ASSION, NORBERT M.; CHAN, JULIAN V.; AND OTHERS; REEL/FRAME:015238/0542; SIGNING DATES FROM 20040819 TO 20041006
US7331944 BB	20080130	LSGT	PAT1	Patented Case	
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US9725228 BB	20320810	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
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58) Family number: 28168050 (US2002018689A)

Title: ADHESIVE APPLICATORS WITH IMPROVED POLYMERIZATION INITIATORS

Abstract: An article of manufacture for **dispensing** a **liquid** adhesive includes an applicator body, a **liquid** adhesive **contained** within the applicator body, a porous applicator tip attached to the applicator body and in a non-contacting relationship with the **liquid** adhesive, and a polymerization initiator or rate modifier loaded in or on the applicator tip, wherein the polymerization initiator or rate modifier is selected from quaternary ammonium salts and tertiary amines. The **liquid** adhesive can also include a phase transfer catalyst.

Classifications:

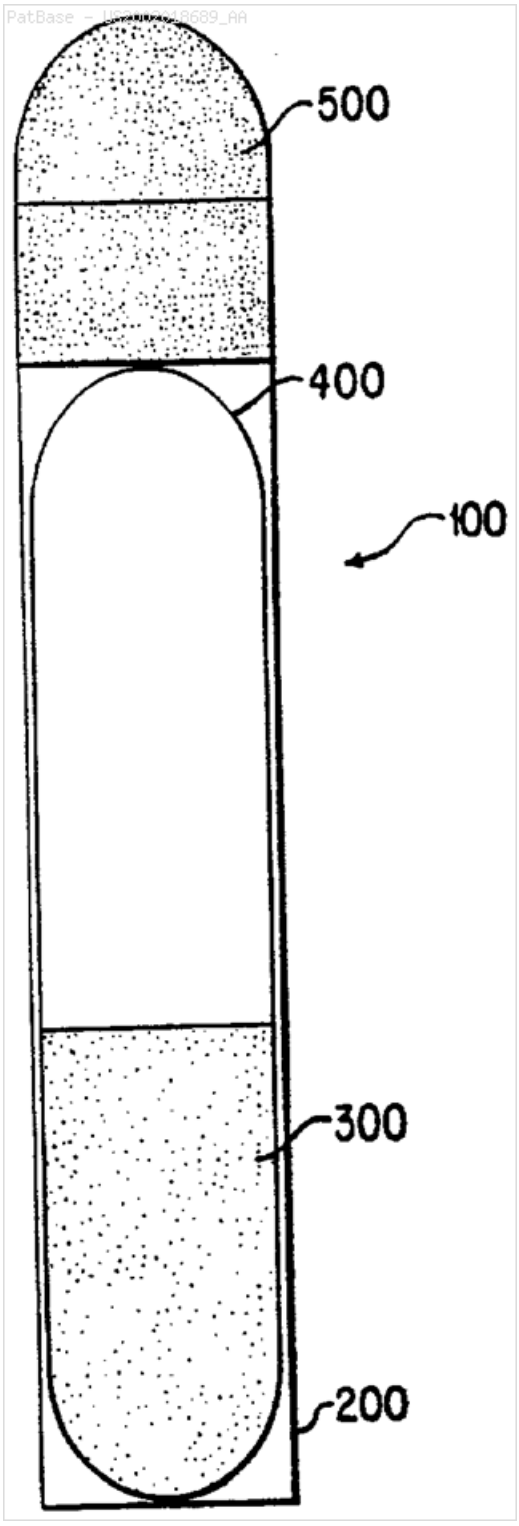
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A61B17/00 C08F2/44 C08F4/00 C08J5/12 C09J7/00 (Advanced/Non-invention);
A61L24/00 B05C17/00 B05D1/00 B05D1/26 C09J4/00 (Core/Invention)

International (IPC 1-7): A61B1/708 A61B17/08 A61F13/00 A61F15/00 A61J3/08 A61K31/785 A61L17/00 A61L24/00 A61L25/00 B05B7/04 B05C17/00 B05C17/005 B05C21/00 B05C9/06 B05D1/00 B05D3/10 B29C45/20 B32B27/06 B43K5/14 B43K8/16 B43K8/22 B43M11/06 B65D81/32 B65D83/00 C08F2/00 C08F2/01 C08F2/44 C08F20/00 C08F20/42 C08F22/00 C08F4/02 C08J5/12 C09J4/00 C09J4/04 C09J7/00

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European: A61B17/00L A61B5/1455 A61B5/145G A61L24/00H4 A61L24/06 B05C17/00B B05D1/26 B05D1/34 C09J4/00 G01J3/18B K61B17/00S10

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Family:

Publication number	Publication date	Application number	Application date
AT213254 E	20020215	AT19960921390T	19960605
AT226835 E	20021115	AT19980943408T	19980827
AT374006 E	20071015	AT19970907945T	19970228
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Priority:

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US20040021334 20041222

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Assignee(s): HEDGPETH DANIEL L ; COTTER WILLIAM ; HEARD WILLIAM L ; TRI POINT MEDICAL LP ; CLOSURE MEDICAL CORP RALEIGH ; CLOSURE MEDICAL TREATMENT CONDOMINIUM LEI SHON ; BADEJO IBRAHEEM T ; CLARK JEFFREY G

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THOMPSON

Agent(s): PHILLIPS ORMONDE FITZPATRICK; SMART AND BIGGAR; JAMES ANTHONY CHRISTOPHER WP; HUTCHISON AND MASON PLLC; OLIFF AND BERRIDGE PLC

Designated states: AT AU BE BR CA CH CN CY DE DK ES FI FR GB GR IE IT JP LI LU MC MX NL PT SE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT213254 E	20020215	LSGT	+	granted / extensions (spc, cpc, pte)	
AT213254 E	20040315	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
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AT226835 E	20021115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT226835 E	20030415	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT226835 E	20180827	PEXP		Calculated Patent Term Expiry	
AT374006 E	20071015	LSGT	+	granted / extensions (spc, cpc, pte)	
AT374006 E	20080115	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	REF DOCUMENT NUMBER : 0886507 COUNTRY OF REF DOCUMENT : EP
AT374006 E	20170228	PEXP		Calculated Patent Term Expiry	
AU199662626 A1	19961230	LSPB	+	published / reissued	
AU199719814 A1	19970916	LSPB	+	published / reissued	
AU199891215 A1	19990316	LSPB	+	published / reissued	
AU701219 B2	19990121	LSGT	+	granted / extensions (spc, cpc, pte)	
AU701219 B2	20020110	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU701219 B2	20160605	PEXP		Calculated Patent Term Expiry	
AU724710 B2	20000928	LSGT	+	granted / extensions (spc, cpc, pte)	
AU724710 B2	20010208	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU724710 B2	20170228	PEXP		Calculated Patent Term Expiry	
AU742219 B2	20011220	LSGT	+	granted / extensions (spc, cpc, pte)	
AU742219 B2	20020418	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU742219 B2	20040401	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU742219 B2	20180827	PEXP		Calculated Patent Term Expiry	
BRPI9608540 A	19990706	LSPB	+	published / reissued	
BRPI9608540 A	20030415	LSGT	+FF	DECISION:	

				INTENTION TO GRANT	
BRPI9608540 A	20030708	LSGT	+FG9A	PATENT OR CERTIFICATE OF ADDITION GRANTED	
BRPI9608540 A	20160607	LSLE	-B21A	EXPIRY ACC. ART. 78, ITEM I OF IPL- EXPIRY OF THE TERM OF PROTECTION	TEXT : PATENTE EXTINTA EM 05/06/2016
BRPI9707794 A	19990727	LSPB	+	published / reissued	
BRPI9707794 A	20070828	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 8A,9A E 10A ANUIDADE(S)
BRPI9707794 A	20111213	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : REFERENTE AO DESPACHO 8.6 PUBLICADO NA RPI 1912 DE 28/08/2007.
BRPI9812034 A	20000926	LSPB	+	published / reissued	
BRPI9812034 A	20070807	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 6O, 7O, 8O E 9O ANUIDADES.
BRPI9812034 A	20111206	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : REFERENTE AO DESPACHO 8.6 PUBLICADO NA RPI 1909 DE 07/08/2007.
CA2221260 AA	19971114	LSPB	+	published / reissued	
CA2221260 AA	20000605	LSLE	-FZDE	DEAD	
CA2247906 AA	19980828	LSPB	+	published / reissued	
CA2247906 AA	20020129	LSES	+EEER	EXAMINATION REQUEST	
CA2247906 AA	20170502	LSLE	-MKEX	EXPIRY	EFFECTIVE DATE : 20170228
CA2247906 C	20061121	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2247906 C	20170228	PEXP		Calculated Patent Term Expiry	
CA2301728 AA	20000228	LSPB	+	published / reissued	
CA2301728 AA	20040827	LSLE	-FZDE	DEAD	
CN1186503 A	19980701	LSPB	+	published / reissued	
CN1186503 A	19980701	LSPB	+C06	PUBLICATION	
CN1186503 A	20000906	LSDW	-C01	DEEMED WITHDRAWAL OF PATENT APPLICATION (PATENT LAW 1993)	
CN1213285 A	19990407	LSPB	+	published / reissued	
CN1213285 A	19990407	LSPB	+C06	PUBLICATION	
CN1213285 A	20031029	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
CN1272797 A	20001108	LSPB	+	published / reissued	
CN1272797 A	20001108	LSPB	+C06	PUBLICATION	
CN1272797 A	20010718	LSDW	-C01	DEEMED WITHDRAWAL OF PATENT APPLICATION	

				(PATENT LAW 1993)	
DE69619235 D1	20030313	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69619235 D1	20160605	LSLE	-R071	EXPIRY OF RIGHT	
DE69619235 T2	20021031	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69619235 T2	20160605	PEXP		Calculated Patent Term Expiry	
DE69738164 D1	20080911	LSOP	-8363	OPPOSITION AGAINST THE PATENT	
DE69738164 D1	20170228	LSLE	-R071	EXPIRY OF RIGHT	
DE69738164 T2	20080626	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69738164 T2	20170228	PEXP		Calculated Patent Term Expiry	
DE69738164 T3	20130801	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69738164 T3	20170228	PEXP		Calculated Patent Term Expiry	
DE69809064 D1	20031127	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69809064 D1	20031127	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69809064 D1	20040609	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69809064 D1	20040609	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69809064 T2	20030626	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69809064 T2	20031127	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69809064 T2	20040609	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69809064 T2	20180827	PEXP		Calculated Patent Term Expiry	
DK0832137 T3	20020527	LSGT	+	granted / extensions (spc, cpc, pte)	
DK0832137 T3	20160605	PEXP		Calculated Patent Term Expiry	
DK0886507 T3	20071105	LSGT	+	granted / extensions (spc, cpc, pte)	
DK0886507 T3	20170228	PEXP		Calculated Patent Term Expiry	
EP0832137 A1	19980401	LSPB	+	published / reissued	
EP0832137 A1	19980401	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19971125
EP0832137 A1	20000823	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20000710
EP0832137 A1	20001129	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20001013
EP0832137 A1	20020215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0832137 A1	20020607	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20020607 YEAR OF FEE PAYMENT : 7

EP0832137 A1	20020613	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20020613 YEAR OF FEE PAYMENT : 7
EP0832137 A1	20020617	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20020617 YEAR OF FEE PAYMENT : 7
EP0832137 A1	20020618	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20020618 YEAR OF FEE PAYMENT : 7
EP0832137 A1	20020627	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20020627 YEAR OF FEE PAYMENT : 7
EP0832137 A1	20020628	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20020628 YEAR OF FEE PAYMENT : 7
EP0832137 A1	20020906	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20020401792 COUNTRY OF REF DOCUMENT : GR
EP0832137 A1	20021001	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2172664 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP0832137 A1	20030205	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20021114
EP0832137 A1	20030605	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030605
EP0832137 A1	20030605	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030605
EP0832137 A1	20030605	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030605
EP0832137 A1	20030630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030630
EP0832137 A1	20030630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030630
EP0832137 A1	20040101	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20040101
EP0832137 A1	20040202	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP

EP0832137 A1	20040301	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20040101
EP0832137 A1	20150608	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 20
EP0832137 A1	20150731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20150611 YEAR OF FEE PAYMENT : 20
EP0832137 A1	20150731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20150603 YEAR OF FEE PAYMENT : 20
EP0832137 A1	20150731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20150602 YEAR OF FEE PAYMENT : 20
EP0832137 A1	20150731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20150512 YEAR OF FEE PAYMENT : 20
EP0832137 A1	20150731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20150603 YEAR OF FEE PAYMENT : 20
EP0832137 A1	20150731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20150612 YEAR OF FEE PAYMENT : 20
EP0832137 A1	20150831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20150518 YEAR OF FEE PAYMENT : 20
EP0832137 A1	20150831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20150612 YEAR OF FEE PAYMENT : 20
EP0832137 A1	20150831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20150609 YEAR OF FEE PAYMENT : 20
EP0832137 A1	20150831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20150608 YEAR OF FEE PAYMENT : 20
EP0832137 A1	20151231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20150625 YEAR OF FEE PAYMENT : 20
EP0832137 A1	20160605	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69619235 COUNTRY OF REF DOCUMENT : DE
EP0832137 A1	20160614	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : PT REF LEGAL EVENT CODE : MM4A TEXT : MAXIMUM VALIDITY LIMIT REACHED EFFECTIVE DATE : 20160605
EP0832137 A1	20160615	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL

EP0832137 A1	20160629	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20160604
EP0832137 A1	20160727	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MK9A
EP0832137 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF EXPIRATION OF PROTECTION LAPSED DATE : 20160604
EP0832137 A1	20160802	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : EUG
EP0832137 A1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF EXPIRATION OF PROTECTION LAPSED DATE : 20160614
EP0832137 A1	20160926	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20160926
EP0832137 A1	20161003	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : MA REF DOCUMENT NUMBER : 20020401792 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20160606
EP0832137 A1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF EXPIRATION OF PROTECTION LAPSED DATE : 20160605
EP0832137 A1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF EXPIRATION OF PROTECTION LAPSED DATE : 20160606
EP0832137 B1	20020213	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0832137 B1	20160604	PEXP		Calculated Patent Term Expiry	
EP0832137 B1	20160605	PEXP		Calculated Patent Term Expiry	
EP0886507 A1	19981230	LSPB	+	published / reissued	
EP0886507 A1	19981230	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19980901
EP0886507 A1	20011128	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20011011
EP0886507 A1	20021113	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20020924
EP0886507 A1	20070926	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP0886507 A1	20071015	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0886507 A1	20071114	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP0886507 A1	20080116	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20070403574 COUNTRY OF REF DOCUMENT : GR
EP0886507 A1	20080401	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER :

					2294794 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP0886507 A1	20080730	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : HENKEL AG & CO. KGAA EFFECTIVE DATE : 20080625
EP0886507 A1	20081001	LSOP	-NLR1	NL: OPPOSITION HAS BEEN FILED WITH THE EPO	PARTYTYPE : OPPONENT REF COUNTRY CODE : EP OPPONENT : HENKEL AG & CO. KGAA
EP0886507 A1	20090401	LSOP	-R26	OPPOSITION FILED (CORRECTED)	PARTYTYPE : OPPONENT OPPONENT : HENKEL AG & CO. KGAA EFFECTIVE DATE : 20080625
EP0886507 A1	20090602	LSOP	-NLR1	NL: OPPOSITION HAS BEEN FILED WITH THE EPO	PARTYTYPE : OPPONENT REF COUNTRY CODE : EP OPPONENT : HENKEL AG & CO. KGAA
EP0886507 A1	20100519	LSAS	RAP2	RIGHTS OF A PATENT TRANSFERRED	PARTYTYPE : OWNER OWNER : ETHICON, INC.
EP0886507 A1	20130306	LSRE	27A	PATENT MAINTAINED IN AMENDED FORM	EFFECTIVE DATE : 20130306
EP0886507 A1	20130425	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R102 REF DOCUMENT NUMBER : 69738164 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130306
EP0886507 A1	20130506	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : DC2A REF DOCUMENT NUMBER : 2294794 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T5 DESIGNATED STATE(S) : EFFECTIVE DATE : 20130506
EP0886507 A1	20130514	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : RPEO
EP0886507 A1	20130522	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : PT OWNER : ETHICON, INC., US REF LEGAL EVENT CODE : PC4A EFFECTIVE DATE : 20130507
EP0886507 A1	20130618	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20130400787 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20130517
EP0886507 A1	20130619	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP0886507 A1	20160108	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20160211 YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20160209 YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160113

				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160222 YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20160210 YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20160211 YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160223 YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20160112 YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20160125 YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160210 YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20160211 YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20160114 YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160108 YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20160209 YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160224 YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20160113 YEAR OF FEE PAYMENT : 20
EP0886507 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20160226 YEAR OF FEE PAYMENT : 20
EP0886507 A1	20170228	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69738164 COUNTRY OF REF DOCUMENT : DE

EP0886507 A1	20170306	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EUP EFFECTIVE DATE : 20170228
EP0886507 A1	20170315	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0886507 A1	20170322	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MK9A
EP0886507 A1	20170322	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20170227
EP0886507 A1	20170415	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK07 REF DOCUMENT NUMBER : 374006 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170228
EP0886507 A1	20170502	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : EUG
EP0886507 A1	20170519	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : MA REF DOCUMENT NUMBER : 20130400787 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20170301
EP0886507 A1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF EXPIRATION OF PROTECTION LAPSED DATE : 20170227
EP0886507 A1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF EXPIRATION OF PROTECTION LAPSED DATE : 20170308
EP0886507 A1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF EXPIRATION OF PROTECTION LAPSED DATE : 20170228
EP0886507 A1	20170626	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20170626
EP0886507 A1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF EXPIRATION OF PROTECTION LAPSED DATE : 20170301
EP0886507 B1	20070926	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0886507 B1	20170227	PEXP		Calculated Patent Term Expiry	
EP0886507 B1	20170228	PEXP		Calculated Patent Term Expiry	
EP0886507 B2	20130306	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0886507 B2	20170227	PEXP		Calculated Patent Term Expiry	
EP0886507 B2	20170228	PEXP		Calculated Patent Term Expiry	
EP1007110 A1	20000614	LSPB	+	published / reissued	
EP1007110 A1	20000614	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20000229

EP1007110 A1	20001115	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20000929
EP1007110 B1	20021030	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1007110 B1	20021030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20021030
EP1007110 B1	20021030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20021030
EP1007110 B1	20021030	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1007110 B1	20021031	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1007110 B1	20021127	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1007110 B1	20030130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20030130
EP1007110 B1	20030227	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20030400306 COUNTRY OF REF DOCUMENT : GR
EP1007110 B1	20030516	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2187058 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1007110 B1	20030827	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030827
EP1007110 B1	20030827	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030827
EP1007110 B1	20030827	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030827
EP1007110 B1	20030827	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20030827
EP1007110 B1	20030828	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT :

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030828
EP1007110 B1	20030828	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030828
EP1007110 B1	20030831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030831
EP1007110 B1	20030831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030831
EP1007110 B1	20030831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030831
EP1007110 B1	20030831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030831
EP1007110 B1	20031022	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20030731
EP1007110 B1	20040229	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : *CLOSURE MEDICAL CORP. EFFECTIVE DATE : 20030831
EP1007110 B1	20040229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20040229
EP1007110 B1	20040301	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20040301
EP1007110 B1	20040302	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20040302
EP1007110 B1	20040303	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20040303
EP1007110 B1	20040330	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF COUNTRY CODE : EP
EP1007110 B1	20040415	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1007110 B1	20040421	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP
EP1007110 B1	20040430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20040430

				OFFICE TO EPO]	
EP1007110 B1	20040503	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20040301
EP1007110 B1	20040531	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : PT REF LEGAL EVENT CODE : MM4A TEXT : LAPSE DUE TO NON-PAYMENT OF FEES EFFECTIVE DATE : 20040229
EP1007110 B1	20040602	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1007110 B1	20040604	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP1007110 B1	20041116	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20030828
EP1007110 B1	20050827	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20050827
EP1007110 B1	20180827	PEXP		Calculated Patent Term Expiry	
ES2172664 T3	20021001	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2172664 T3	20021001	LSGT	+FG2A	DEFINITIVE PROTECTION	REF DOCUMENT NUMBER : 832137 COUNTRY OF REF DOCUMENT : ES
ES2172664 T3	20160605	PEXP		Calculated Patent Term Expiry	
ES2187058 T3	20030516	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2187058 T3	20180827	PEXP		Calculated Patent Term Expiry	
ES2294794 T3	20080401	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2294794 T3	20170228	PEXP		Calculated Patent Term Expiry	
ES2294794 T5	20130506	LSGT	+	granted / extensions (spc, cpc, pte)	
IN187812 A	20020629	LSPB	+	published / reissued	
JP11511776 T2	19991012	LSPB	+	published / reissued	
JP11511776 T2	20040331	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20040330
JP11511776 T2	20040401	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20040331
JP11511776 T2	20040527	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20040519
JP11511776 T2	20040528	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2000503574 T2	20000328	LSPB	+	published / reissued	
JP2000503574 T2	20051025	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20051024
JP2000503574 T2	20051119	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20051024
JP2001513401 T2	20010904	LSPB	+	published /	

				reissued	
JP2001513401 T2	20040721	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20040720
JP2001513401 T2	20050518	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20050517
JP2007061658 A2	20070315	LSPB	+	published / reissued	
JP2007061658 A2	20061215	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20061213
JP2007061658 A2	20100623	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20100622
JP2007061658 A2	20101117	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20101116
JP2007061658 A2	20111005	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20111004
JP2007061658 A2	20120203	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20120202
JP2007061658 A2	20120329	LSAS	A711	NOTIFICATION OF CHANGE IN APPLICANT	TEXT : JAPANESE INTERMEDIATE CODE: A712 EFFECTIVE DATE : 20120328
JP2007061658 A2	20120413	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20120328
JP2007061658 A2	20120420	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20120419
JP2007061658 A2	20120702	LSAL	-A912	REMOVAL OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A912 EFFECTIVE DATE : 20120629
JP2007061658 A2	20130207	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130206
JP2012106018 A2	20120607	LSPB	+	published / reissued	
JP3558647 B2	20040825	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3558647 B2	20040513	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP3558647 B2	20040525	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP3558647 B2	20070507	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3558647 B2	20070515	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP3558647 B2	20080501	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3558647 B2	20080507	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 5
JP3558647 B2	20090430	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3558647 B2	20090507	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 6
JP3558647 B2	20100430	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3558647 B2	20100511	LSFE	+FPAY	RENEWAL FEE	YEAR OF FEE PAYMENT : 7

				PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	
JP3558647 B2	20110428	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
JP3558647 B2	20110510	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 8
JP3558647 B2	20120510	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3558647 B2	20120515	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 9
JP3558647 B2	20130502	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 9
JP3558647 B2	20130514	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP3558647 B2	20140501	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3558647 B2	20140507	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP3558647 B2	20150430	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3558647 B2	20150512	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP3558647 B2	20160428	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3558647 B2	20160510	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP3558647 B2	20160605	LSLE	-EXPY	CANCELLATION BECAUSE OF COMPLETION OF TERM	
JP3558647 B2	20160605	PEXP		Calculated Patent Term Expiry	
JP5646520 B2	20141224	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5646520 B2	20130717	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130716
JP5646520 B2	20140611	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20140610
JP5646520 B2	20140910	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20140909
JP5646520 B2	20140926	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP5646520 B2	20141008	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20141007
JP5646520 B2	20141009	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5646520 B2	20141111	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5646520 B2	20141113	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20141105
JP5646520 B2	20141114	LSGT	+R150	CERTIFICATE OF PATENT OR	TEXT : JAPANESE INTERMEDIATE CODE: R150

				REGISTRATION OF UTILITY MODEL	REF DOCUMENT NUMBER : 5646520 COUNTRY OF REF DOCUMENT : JP
JP5646520 B2	20170228	LSLE	-EXPY	CANCELLATION BECAUSE OF COMPLETION OF TERM	
JP5646520 B2	20320202	PEXP		Calculated Patent Term Expiry	
PT1007110 T	20030331	LSGT	+	granted / extensions (spc, cpc, pte)	
PT1007110 T	20180827	PEXP		Calculated Patent Term Expiry	
PT832137 T	20020731	LSGT	+	granted / extensions (spc, cpc, pte)	
PT832137 T	20160605	PEXP		Calculated Patent Term Expiry	
PT886507 T	20071121	LSGT	+	granted / extensions (spc, cpc, pte)	
PT886507 T	20170228	PEXP		Calculated Patent Term Expiry	
US2002018689 AA	20020214	LSPB	+	published / reissued	
US2002018689 AA	20010803	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CLOSURE MEDICAL CORPORATION, NORTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BADEJO, IBRAHEEM T.; CLARK, JEFFREY G.; COTTER, WILLIAM; AND OTHERS; REEL/FRAME:012038/0858; SIGNING DATES FROM 20010702 TO 20010709
US2002018689 AA	20050808	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2002018689 AA	20100303	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ETHICON, INC.,NEW JERSEY OLDPARTY : MERGER; ASSIGNOR:CLOSURE MEDICAL CORPORATION; REEL/FRAME:024024/0182 EFFECTIVE DATE : 20091221
US2002018689 AA	20100303	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ETHICON, INC., NEW JERSEY OLDPARTY : MERGER; ASSIGNOR:CLOSURE MEDICAL CORPORATION; REEL/FRAME:024024/0182 EFFECTIVE DATE : 20091221
US2003063944 AA	20030403	LSPB	+	published / reissued	
US2003202956 AA	20031030	LSPB	+	published / reissued	
US2003202956 AA	20070731	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2005147457 AA	20050707	LSPB	+	published / reissued	
US2005147457 AA	20060425	LSWD	-EAB1	Expressly Abandoned -- During Examination	
US5928611 A	19990727	LSGT	+	granted / extensions (spc, cpc, pte)	
US5928611 A	19950607	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TRI-POINT MEDICAL L.P., NORTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LEUNG, JEFFREY C.; REEL/FRAME:007551/0091 EFFECTIVE DATE : 19950607

US5928611 A	19960327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TRI-POINT MEDICAL CORPORATION, NORTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:TRI-POINT MEDICAL L.P.; REEL/FRAME:007864/0564 EFFECTIVE DATE : 19960319
US5928611 A	19970418	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CLOSURE MEDICAL CORPORATION, NORTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:TRI-POINT MEDICAL CORPORATION; REEL/FRAME:008478/0489 EFFECTIVE DATE : 19970326
US5928611 A	19990716	LSGT	PAT1	Patented Case	
US5928611 A	19990716	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5928611 A	20021001	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5928611 A	20061222	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5928611 A	20100303	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ETHICON, INC.,NEW JERSEY OLDPARTY : MERGER; ASSIGNOR:CLOSURE MEDICAL CORPORATION; REEL/FRAME:024024/0182 EFFECTIVE DATE : 20091221
US5928611 A	20100303	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ETHICON, INC., NEW JERSEY OLDPARTY : MERGER; ASSIGNOR:CLOSURE MEDICAL CORPORATION; REEL/FRAME:024024/0182 EFFECTIVE DATE : 20091221
US5928611 A	20110103	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5928611 A	20160727	PEXP		Calculated Patent Term Expiry	
US5981621 A	19991109	LSGT	+	granted / extensions (spc, cpc, pte)	
US5981621 A	19960229	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TRI-POINT MEDICAL CORPORATION, NORTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:CLARK, JEFFREY G.; LEUNG, JEFFREY C.; REEL/FRAME:007917/0060 EFFECTIVE DATE : 19960228
US5981621 A	19960521	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TRI-POINT MEDICAL CORPORATION, NORTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:CLARK, JEFFREY G.; LEUNG, JEFFREY C.; REEL/FRAME:007951/0095 EFFECTIVE DATE : 19960319
US5981621 A	19970418	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CLOSURE MEDICAL CORPORATION, NORTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:TRI-POINT MEDICAL CORPORATION; REEL/FRAME:008478/0489 EFFECTIVE DATE : 19970326
US5981621 A	19991029	LSGT	PAT1	Patented Case	
US5981621 A	19991029	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5981621 A	20021112	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

US5981621 A	20070427	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5981621 A	20100303	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ETHICON, INC.,NEW JERSEY OLDPARTY : MERGER; ASSIGNOR:CLOSURE MEDICAL CORPORATION; REEL/FRAME:024024/0182 EFFECTIVE DATE : 20091221
US5981621 A	20100303	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ETHICON, INC., NEW JERSEY OLDPARTY : MERGER; ASSIGNOR:CLOSURE MEDICAL CORPORATION; REEL/FRAME:024024/0182 EFFECTIVE DATE : 20091221
US5981621 A	20110407	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5981621 A	20160229	PEXP		Calculated Patent Term Expiry	
US6099807 A	20000808	LSGT	+	granted / extensions (spc, cpc, pte)	
US6099807 A	20000720	LSGT	PAT1	Patented Case	
US6099807 A	20000720	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6099807 A	20031106	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6099807 A	20080129	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6099807 A	20110921	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6099807 A	20181229	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US6217603 BA	20010417	LSGT	+	granted / extensions (spc, cpc, pte)	
US6217603 BA	19970829	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CLOSURE MEDICAL CORPORATION, NORTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:CLARK, JEFFREY G.; LEUNG, JEFFREY C.; REEL/FRAME:008701/0956 EFFECTIVE DATE : 19970828
US6217603 BA	20010329	LSGT	PAT1	Patented Case	
US6217603 BA	20010329	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6217603 BA	20040910	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6217603 BA	20080924	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6217603 BA	20100303	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ETHICON, INC.,NEW JERSEY OLDPARTY : MERGER; ASSIGNOR:CLOSURE MEDICAL CORPORATION; REEL/FRAME:024024/0182 EFFECTIVE DATE : 20091221
US6217603 BA	20100303	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ETHICON, INC., NEW JERSEY OLDPARTY : MERGER; ASSIGNOR:CLOSURE MEDICAL CORPORATION; REEL/FRAME:024024/0182 EFFECTIVE DATE : 20091221
US6217603 BA	20120919	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6217603 BA	20170829	PEXP		Calculated Patent Term Expiry	
US6322852 BA	20011127	LSGT	+	granted /	

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US6322852 BA	20011109	LSGT	PAT1	Patented Case	
US6322852 BA	20011109	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6322852 BA	20050519	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6322852 BA	20090429	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6322852 BA	20130308	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6322852 BA	20200217	PEXP		Calculated Patent Term Expiry	
US6376019 BA	20020423	LSGT	+	granted / extensions (spc, cpc, pte)	
US6376019 BA	20020404	LSGT	PAT1	Patented Case	
US6376019 BA	20020404	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6376019 BA	20050927	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6376019 BA	20090923	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6376019 BA	20130925	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6376019 BA	20210914	PEXP		Calculated Patent Term Expiry	
US6565840 BA	20030520	LSGT	+	granted / extensions (spc, cpc, pte)	
US6565840 BA	20030501	LSGT	PAT1	Patented Case	
US6565840 BA	20030501	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6565840 BA	20061024	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6565840 BA	20101020	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6565840 BA	20141022	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6565840 BA	20170812	PEXP		Calculated Patent Term Expiry	
US6676322 BA	20040113	LSGT	+	granted / extensions (spc, cpc, pte)	
US6676322 BA	20031223	LSGT	PAT1	Patented Case	
US6676322 BA	20070626	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6676322 BA	20110615	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6676322 BA	20160113	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6676322 BA	20160208	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6676322 BA	20160208	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6676322 BA	20160301	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20160113
US6676322 BA	20190930	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US7128241 BB	20061031	LSGT	+	granted / extensions (spc, cpc, pte)	
US7128241 BB	20061011	LSGT	PAT1	Patented Case	
US7128241 BB	20100421	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

US7128241 BB	20140402	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7128241 BB	20180611	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.)
US7128241 BB	20181203	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US7128241 BB	20181203	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7128241 BB	20181203	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7128241 BB	20181225	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20181031
US7128241 BB	20230925	PEXP		Calculated Patent Term Expiry (PTA 377 days and a terminal disclaimer has been filed)	
WO9640797 A1	19961219	LSPB	+	published / reissued	
WO9640797 A1	19960605	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 96194452.8 COUNTRY OF REF DOCUMENT : CN
WO9640797 A1	19971114	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2221260 COUNTRY OF REF DOCUMENT : CA
WO9640797 A1	19971114	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2221260 COUNTRY OF REF DOCUMENT : CA KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO9640797 A1	19971125	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1996921390 COUNTRY OF REF DOCUMENT : EP
WO9640797 A1	19971204	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 1997 501866 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO9640797 A1	19971205	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/1997/009662 COUNTRY OF REF DOCUMENT : MX
WO9640797 A1	19980401	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1996921390 COUNTRY OF REF DOCUMENT : EP
WO9640797 A1	20020213	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1996921390 COUNTRY OF REF DOCUMENT : EP
WO9731598 A1	19970904	LSPB	+	published / reissued	
WO9731598 A1	19970228	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 97192705.7 COUNTRY OF REF DOCUMENT : CN
WO9731598 A1	19980828	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2247906 COUNTRY OF REF DOCUMENT : CA

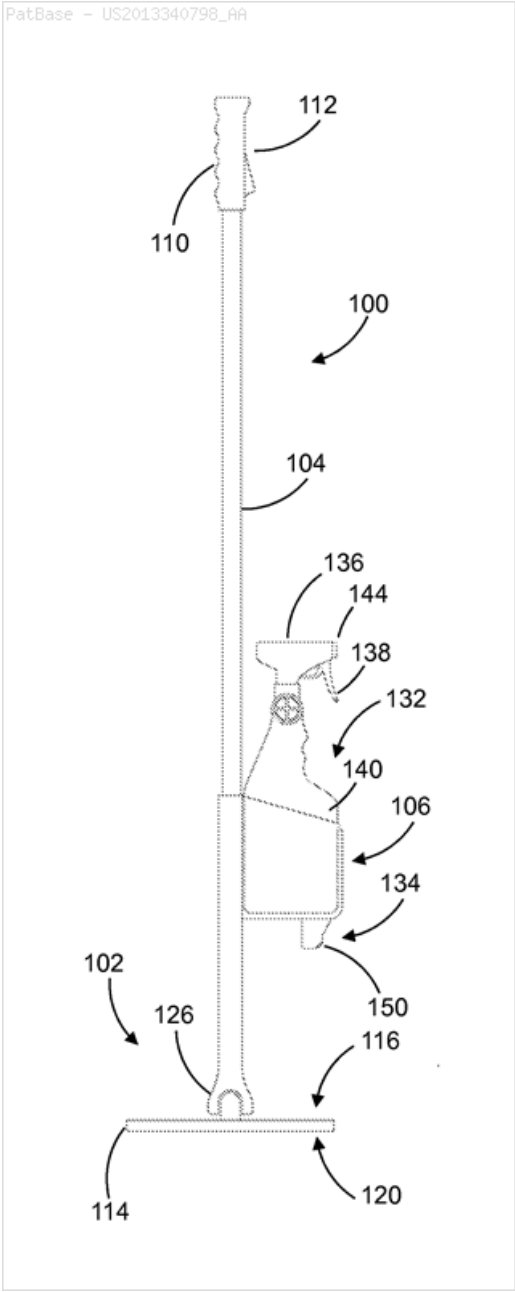
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WO9731598 A1	19980828	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/1998/007029 COUNTRY OF REF DOCUMENT : MX
WO9731598 A1	19980901	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1997907945 COUNTRY OF REF DOCUMENT : EP
WO9731598 A1	19981230	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1997907945 COUNTRY OF REF DOCUMENT : EP
WO9731598 A1	20070926	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1997907945 COUNTRY OF REF DOCUMENT : EP
WO9910020 A1	19990304	LSPB	+	published / reissued	
WO9910020 A1	19980827	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 98809781.8 COUNTRY OF REF DOCUMENT : CN
WO9910020 A1	20000228	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2301728 COUNTRY OF REF DOCUMENT : CA
WO9910020 A1	20000228	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2301728 COUNTRY OF REF DOCUMENT : CA KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO9910020 A1	20000228	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 91215/98 COUNTRY OF REF DOCUMENT : AU
WO9910020 A1	20000229	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2000 507408 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO9910020 A1	20000229	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1998943408 COUNTRY OF REF DOCUMENT : EP
WO9910020 A1	20000229	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2000/002116 COUNTRY OF REF DOCUMENT : MX
WO9910020 A1	20000614	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998943408 COUNTRY OF REF DOCUMENT : EP
WO9910020 A1	20020404	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 91215/98 COUNTRY OF REF DOCUMENT : AU
WO9910020 A1	20021030	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998943408 COUNTRY OF REF DOCUMENT : EP

59) Family number: 55406050 (US2013340798A)

Title: INTEGRATED CLEANING IMPLEMENTS AND DISPENSATION DEVICES

Abstract: A cleaning system includes an elongate pole, a mounting structure, a cradle, and a spray bottle. The elongate pole has a proximal end for manipulation by a user and a distal end opposite the proximal end. The mounting structure is attached to the distal end of the pole for connecting a mopping implement to the distal end of the pole. The cradle is attached to the pole between the proximal end and the distal end. The spray bottle includes a spray head, an operable trigger, and a **container** housing defining an internal reservoir space. The **container** housing is removably received by the cradle. A flat mop can be connected to the mounting structure.

Classifications:
International (IPC 8-9): A47L13/22 B05B11/00 B05B15/06 B08B3/04 B65D1/06 B65D1/40 B65D81/22 B65D90/02 B67D7/02 B67D7/58 (Advanced/Invention);
B05B15/00 (Advanced/Non-invention)
CPC: B05B11/0037 B05B11/0056 B05B11/3057 B65D1/06 A47L13/22 B05B15/62 B05B15/30 B05B15/65 B05B1/34 B05B11/0097
US: 1/1 134/198 141/18 206/205 220/666 222/153.13 222/382 222/383.1



Family:

Publication number	Publication date	Application number	Application date
US2013340798 AA	20131226	US20130925223	20130624
US2013340886 AA	20131226	US20130925287	20130624
US2013341212 AA	20131226	US20130925317	20130624
US2013341357 AA	20131226	US20130925260	20130624
US9038819 BB	20150526	US20130925317	20130624
US9216431 BB	20151222	US20130925287	20130624
US9266133 BB	20160223	US20130925260	20130624

Priority:
US20120663051P 20120622 US20130925223 20130624 US20130925287 20130624 US20130925317 20130624 US20130925260 20130624

Probable Assignee: L AND F INNOVENTIONS
Assignee(s): (std): L AND F INNOVENTIONS LLC
Assignee(s): L AND F INNOVENTIONS
Inventor(s): (std): PERELLI THOMAS ; FORREST PAUL BRADLEY ; FYKE TYLER W ; MCNELIS BRYAN
Agent(s): NKK PATENT LAW PLLC; NK PATENT LAW PLLC

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2013340798 AA	20131226	LSPB	+	published / reissued	
US2013340798 AA	20130812	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L& F INNOVENTIONS, FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PERELLI, THOMAS; REEL/FRAME:030985/0141 EFFECTIVE DATE : 20130731
US2013340798 AA	20151125	LSES	NFA1	Non Final Action Mailed	
US2013340798 AA	20160623	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2013340886 AA	20131226	LSPB	+	published / reissued	
US2013340886 AA	20151202	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013341212 AA	20131226	LSPB	+	published / reissued	
US2013341212 AA	20150506	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013341357 AA	20131226	LSPB	+	published / reissued	
US2013341357 AA	20160203	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9038819 BB	20150526	LSGT	+	granted / extensions (spc, cpc, pte)	
US9038819 BB	20130812	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L& F INNOVENTIONS, FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PERELLI, THOMAS; REEL/FRAME:030985/0252 EFFECTIVE DATE : 20130731
US9038819 BB	20150506	LSGT	PAT1	Patented Case	
US9038819 BB	20190114	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US9038819 BB	20190211	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : SURCHARGE FOR LATE PAYMENT, SMALL ENTITY (ORIGINAL EVENT CODE: M2554); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US9038819 BB	20190211	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9038819 BB	20330624	PEXP		Calculated Patent Term Expiry	
US9216431 BB	20151222	LSGT	+	granted / extensions (spc, cpc, pte)	
US9216431 BB	20130812	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L& F INNOVENTIONS, FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PERELLI, THOMAS; REEL/FRAME:030985/0242 EFFECTIVE DATE : 20130731
US9216431 BB	20151120	LSFE	+PPV1	Publications -	

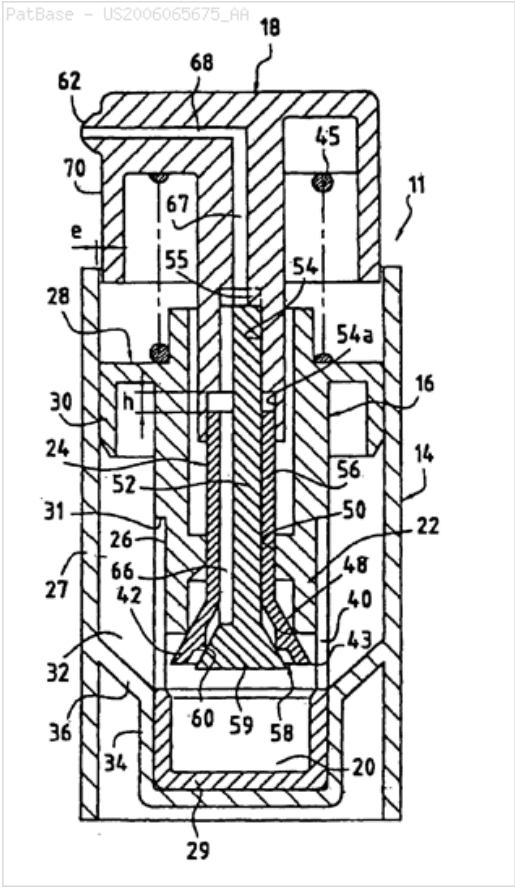
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US9216431 BB	20151202	LSGT	PAT1	Patented Case	
US9216431 BB	20190611	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9216431 BB	20340226	PEXP		Calculated Patent Term Expiry (PTA 247 days)	
US9266133 BB	20160223	LSGT	+	granted / extensions (spc, cpc, pte)	
US9266133 BB	20130812	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L& F INNOVENTIONS, FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FYKE, TYLER W.; FORREST, PAUL BRADLEY; MCNELIS, BRYAN; AND OTHERS; SIGNING DATES FROM 20130731 TO 20130802; REEL/FRAME:030985/0155
US9266133 BB	20151020	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US9266133 BB	20160203	LSGT	PAT1	Patented Case	
US9266133 BB	20190809	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9266133 BB	20330922	PEXP		Calculated Patent Term Expiry (PTA 90 days)	

60) Family number: 31006050 (US2006065675A)

Title: PRODUCT **DISPENSER** COMPRISING A TAPPET-ACTIVATED PUMP

Abstract: The **dispenser** comprises a reservoir and a pump that is activated by a tappet, comprising a pump body that includes a tubular part with a smaller gauge than that of the reservoir, covering the piston, and an annular spacer by means of which it is tightly mounted against the inner wall of the reservoir such as to define an annular chamber for the product, which communicates with a dosage chamber located in the bottom of the reservoir.

Classifications:
International (IPC 8-9): B05B B05B11/00 B65D B65D47/34 B65D83/00 B65D83/76 B65D88/54 G01F11/06 G01F11/30 G01F11/36 G01F11/42 (Advanced/Invention); B05B11/00 B65D47/34 B65D83/00 B65D83/76 B65D88/00 G01F11/00 G01F11/02 (Core/Invention)
International (IPC 1-7): B05B11/00 B65D47/34 B65D83/00 B65D83/76
CPC: B05B11/3026 B05B11/307 B05B11/3074
European: B05B11/00T B05B11/00T4 B05B11/30C9 B05B11/30C9D B05B11/30H7D B05B11/30H8B
US: 222/321.5 222/321.9 222/321.900P



Family:

Publication number	Publication date	Application number	Application date
AT375937 E	20071115	AT20040722848T	20040324
BRPI0409025 A	20060328	BR2004PI09025	20040324
CA2519525 AA	20050919	CA20042519525	20040324
CN1767987 A	20060503	CN200480008424	20040324
DE602004009551 D1	20071129	DE200460009551T	20040324
DE602004009551 T2	20080731	DE200460009551T	20040324
EP1606192 A1	20051221	EP20040722848	20040324
EP1606192 B1	20071017	EP20040722848	20040324
ES2294484 T3	20080401	ES20040722848T	20040324
FR2852934 A1	20041001	FR20030003755	20030327
FR2852934 B1	20051223	FR20030003755	20030327
HK1088292 A1	20061103	HK20060110406	20060919
HK1088292 A3	20061103	HK20060110406	20060919
JP2006521247 T2	20060921	JP20060504842T	20040324
MXPA05010153 A1	20051116	MX2005PA10153	20040324
US2006065675 AA	20060330	US20050236387	20050927
US7243821 BB	20070717	US20050236387	20050927
WO04085286 A1	20041007	WO2004EP03116	20040324
WO04085286 C1	20060119	WO2004EP03116	20040324

Priority:
FR20030003755 20030327 WO2004EP03116 20040324

Probable Assignee: ALBEA LE TREPORT SAS

Assignee(s): (std): BOUGAMONT JEAN LOUIS ; DUMONT PIERRE ; PETITJEAN MAURICE ; REXAM DISPENSING SYS ; REXAM DISPENSING SYSTEMS ; REXAM DISPENSING SYSTEMS S A S ; REXAM DISPENSING SYSTEMS SAS ; REXAM SOFAB

Assignee(s): ALBEA LE TREPORT SAS

Inventor(s): (std): PIERRE BOUGAMONT JEAN LOUIS PE ; MAURICE PETITJEAN ; JEAN LOUIS BOUGAMONT ; PIERRE DUMONT ; BOUGAMONT JEAN LOUIS ; PETITJEAN MAURICE ; DUMONT PIERRE ; PETIT JEAN MAURICE

Inventor(s): BOUGAMONT JEAN LOUIS PETITJEAN MAURICE DUMONT PIER ; BOUGAMONT JEAN LOUIS PETITJEAN MAURICE DUMONT ; BOUGAMONT JEAN LOUIS PETITJEAN MAURICE DUMONT PIERRE ; BOUGAMONT JEAN LOUIS J

Agent(s): FETHERSTONHAUGH AND CO; GE BO; ST ONGE STEWARD JOHNSTON AND REENS LLC

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT375937 E	20071115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT375937 E	20080415	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT375937 E	20240324	PEXP		Calculated Patent Term Expiry	
BRPI0409025 A	20060328	LSPB	+	published / reissued	
BRPI0409025 A	20140204	LSGT	B09A	DECISION: INTENTION TO GRANT	
BRPI0409025 A	20140422	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 10A ANUIDADE.
BRPI0409025 A	20140812	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : REFERENTE AO DESPACHO 8.6 PUBLICADO NA RPI 2259 DE 22/04/2014.
BRPI0409025 A	20141007	LSRV	-B11D	DISMISSAL ACC. ART. 38, PAR 2 OF IPL - FAILURE TO PAY FEE AFTER GRANT IN TIME	
CA2519525 AA	20050919	LSPB	+	published / reissued	
CA2519525 AA	20090324	LSLE	-FZDE	DEAD	
CN1767987 A	20060503	LSPB	+	published / reissued	
CN1767987 A	20060503	LSPB	+C06	PUBLICATION	
CN1767987 A	20091202	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
DE602004009551 D1	20100125	LSRV	-R064	EPO'S REVOCATION DECISION NOW FINAL	
DE602004009551 D1	20100125	LSRV	-R103	PATENT REVOKED BY EPO	
DE602004009551 T2	20080731	LSGT	+	granted / extensions (spc, cpc, pte)	
DE602004009551 T2	20081009	LSOP	-8363	OPPOSITION AGAINST THE PATENT	
DE602004009551 T2	20100715	LSRV	-8331	COMPLETE REVOCATION	
DE602004009551 T2	20240324	PEXP		Calculated Patent Term Expiry	
EP1606192 A1	20051221	LSPB	+	published / reissued	
EP1606192 A1	20051221	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20050909
EP1606192 B1	20071017	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1606192 B1	20071017	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D

					TEXT : NOT ENGLISH
EP1606192 B1	20071115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1606192 B1	20071128	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : LANGUAGE OF EP DOCUMENT: FRENCH
EP1606192 B1	20080401	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	REF COUNTRY CODE : EP
EP1606192 B1	20080401	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2294484 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1606192 B1	20080430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20071017
EP1606192 B1	20080430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080117
EP1606192 B1	20080514	LSWD	-GBV	GB: EP PATENT (UK) TREATED AS ALWAYS HAVING BEEN VOID IN ACCORDANCE WITH GB SECTION 77(7)/1977	REF COUNTRY CODE : EP
EP1606192 B1	20080530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080117
EP1606192 B1	20080530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20071017
EP1606192 B1	20080530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080317
EP1606192 B1	20080530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20071017
EP1606192 B1	20080611	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FD4D

EP1606192 B1	20080630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20071017
EP1606192 B1	20080731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20071017
EP1606192 B1	20080731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20071017
EP1606192 B1	20080827	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : VALOIS S.A.S EFFECTIVE DATE : 20080716
EP1606192 B1	20080829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20071017
EP1606192 B1	20080829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20071017
EP1606192 B1	20080930	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : REXAM DISPENSING SYSTEMS EFFECTIVE DATE : 20080331
EP1606192 B1	20081031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20080331
EP1606192 B1	20081031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20071017
EP1606192 B1	20081031	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1606192 B1	20081128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20071017
EP1606192 B1	20090130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES

				FROM NATIONAL OFFICE TO EPO]	LAPSED DATE : 20080331
EP1606192 B1	20090130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20080331
EP1606192 B1	20090130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20071017
EP1606192 B1	20090130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080118
EP1606192 B1	20090227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20080331
EP1606192 B1	20090227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20071017
EP1606192 B1	20090430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20090324 YEAR OF FEE PAYMENT : 6
EP1606192 B1	20090731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20071017
EP1606192 B1	20090831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20090320 YEAR OF FEE PAYMENT : 6
EP1606192 B1	20091030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20090312 YEAR OF FEE PAYMENT : 6
EP1606192 B1	20100602	LSRV	-27W	PATENT REVOKED	EFFECTIVE DATE : 20100125
EP1606192 B1	20100730	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20080324
EP1606192 B1	20100730	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080418
EP1606192 B1	20100831	LSLE	-PG25	LAPSED IN A CONTRACTING	COUNTRY OF REF DOCUMENT : TR

				STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20071017
EP1606192 B1	20110228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20080331
EP1606192 B1	20240324	PEXP		Calculated Patent Term Expiry	
ES2294484 T3	20080401	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2294484 T3	20240324	PEXP		Calculated Patent Term Expiry	
FR2852934 A1	20041001	LSPB	+	published / reissued	
FR2852934 B1	20051223	LSGT	+	granted / extensions (spc, cpc, pte)	
FR2852934 B1	20091225	LSLE	-ST	NOTIFICATION OF LAPSE	EFFECTIVE DATE : 20091130
FR2852934 B1	20230327	PEXP		Calculated Patent Term Expiry	
HK1088292 A1	20061103	LSPB	+	published / reissued	
HK1088292 A3	20061103	LSPB	+	published / reissued	
JP2006521247 T2	20060921	LSPB	+	published / reissued	
JP2006521247 T2	20070605	LSWD	-A300	WITHDRAWAL OF APPLICATION BECAUSE OF NO REQUEST FOR EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A300 EFFECTIVE DATE : 20070605
MXPA05010153 A1	20051116	LSPB	+	published / reissued	
MXPA05010153 A1	20130831	LSWD	-FA	ABANDONMENT OR WITHDRAWAL	
US2006065675 AA	20060330	LSPB	+	published / reissued	
US7243821 BB	20070717	LSGT	+	granted / extensions (spc, cpc, pte)	
US7243821 BB	20051020	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : REXAM DISPENSING SYSTEMS S.A.S., FRANCE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BOUGAMONT, JEAN-LOUIS; PETITJEAN, MAURICE; DUMONT, PIERRE; REEL/FRAME:016667/0139; SIGNING DATES FROM 20051003 TO 20051012
US7243821 BB	20110112	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7243821 BB	20140605	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ALBEA LE TREPORT S.A.S, FRANCE OLDPARTY : CHANGE OF NAME; ASSIGNOR:REXAM DISPENSING SYSTEMS S.A.S.; REEL/FRAME:033088/0538 EFFECTIVE DATE : 20130502
US7243821 BB	20150717	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US7243821 BB	20150817	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7243821 BB	20150817	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362

US7243821 BB	20150908	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20150717
US7243821 BB	20251014	PEXP		Calculated Patent Term Expiry (PTA 17 days)	
WO04085286 A1	20041007	LSPB	+	published / reissued	
WO04085286 A1	20050909	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2004722848 COUNTRY OF REF DOCUMENT : EP
WO04085286 A1	20050919	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2519525 COUNTRY OF REF DOCUMENT : CA
WO04085286 A1	20050922	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006504842 COUNTRY OF REF DOCUMENT : JP
WO04085286 A1	20050922	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2005/010153 COUNTRY OF REF DOCUMENT : MX
WO04085286 A1	20050927	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 20048084247 COUNTRY OF REF DOCUMENT : CN
WO04085286 A1	20050927	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 11236387 COUNTRY OF REF DOCUMENT : US
WO04085286 A1	20051221	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2004722848 COUNTRY OF REF DOCUMENT : EP
WO04085286 C1	20060119	LSRE	CR1	CORRECTION OF ENTRY IN SECTION I	TEXT : IN PCT GAZETTE 41/2004 UNDER (25, 26) REPLACE "ENGLISH" BY "FRENCH"
WO04085286 C1	20060328	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0409025 COUNTRY OF REF DOCUMENT : BR
WO04085286 C1	20060330	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 11236387 COUNTRY OF REF DOCUMENT : US
WO04085286 C1	20071017	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2004722848 COUNTRY OF REF DOCUMENT : EP

61) Family number: 28451050 (US2001014700A)

Title: AEROSOL PREPARATION FOR TWO-COMPONENT PAINT SPRAY CANS

Abstract: An aerosol preparation for two-component paint spray cans, in which the paint material consists of acrylic resins **containing** OH-groups, and the hardener consists of aliphatic polyisocyanatea. The paint material and hardener are filled in different **containers** within a spray can and united only immediately before they are processed, and jointly sprayed from the spray can via a propellant consisting of a propane/butane mixture. The weight ratio of diluted paint material to propellant amounts to about 75:25 to 70:30. The paint material consists of OH-group-**containing** high-solid acrylic resins with a higher solids content and with a mean molecular weight of <5000, and having no styrene and an OH-number of <150.

Classifications:
International (IPC 8-9): B05B7/26 B05B9/04 B65D83/14 C08G18/62 C09D133/00 C09D175/04 C09D5/02 C09D7/14 C09D7/80 C09K3/30 (Advanced/Invention);
B05B7/24 B05B9/04 B65D83/14 C08G18/00 C09D133/00 C09D175/04 C09D5/02 C09D7/14 C09K3/30 (Core/Invention)
International (IPC 1-7): B01F3/04 B01F3/06 B05B7/26 B05B9/04 B65D83/14 C08G18/62 C08J3/00 C08K5/01 C08K5/02 C09D133/00 C09D133/08 C09D157/12 C09D175/04 C09D175/12 C09D175/16 C09D5/02 C09D7/14 C09K3/30
CPC: B65D83/752 C08G18/6216 C09D175/04 C09K3/30
European: B65D83/14Z3 B65D83/752 C08G18/62G C09D175/04 C09K3/30
US: 516/8 516/8P 524/768 524/768S 525/45 525/45S

Family:

Publication number	Publication date	Application number	Application date
AT397050 E	20080615	AT20000124884T	20001115
AU2001297966 AA	20021111	AU20010297966	20010430
BRPI0117015 A	20040420	BR2001PI17015	20010430
CA2335687 AA	20020813	CA20012335687	20010213
CA2335687 C	20080812	CA20012335687	20010213
DE10005332 A1	20010816	DE20001005332	20000208
DE50015181 D1	20080710	DE20005015181	20001115
EP1125997 A1	20010822	EP20000124884	20001115
EP1125997 B1	20080528	EP20000124884	20001115
JP2004530749 T2	20041007	JP20020585555T	20010430
US2001014700 AA	20010816	US20010779300	20010208
WO02088266 A1	20021107	WO2001EP04883	20010430

Priority:
DE20001005332 20000208 CA20012335687 20010213 WO2001EP04883 20010430

Probable Assignee: PETER KWASNY GMBH
Assignee(s): (std): PETER KWASNY GMBH
Assignee(s): KWASNY PETER
Inventor(s): (std): KWASNY PETER
Inventor(s): PETER KWASNY
Agent(s): FETHERSTONHAUGH AND CO; KEIL AND SCHAAFHAUSEN PATENTANWAELTE
Designated states: AE AG AM AT AU AZ BA BB BE BF BG BJ BR BY BZ 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 LU MA MC MD MG ML MN MR MW MX MZ NE NL NO NZ PL PT RU SD SE SG SK SL SN SZ TD TG TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT397050 E	20080615	LSGT	+	granted / extensions (spc, cpc, pte)	
AT397050 E	20100215	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT397050 E	20201115	PEXP		Calculated Patent Term Expiry	
AU2001297966 AA	20021111	LSPB	+	published / reissued	
BRPI0117015 A	20040420	LSPB	+	published / reissued	
BRPI0117015 A	20081216	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE AO NAO RECOLHIMENTO DA(S) 5A, 6A E 7A ANUIDADE(S).
BRPI0117015 A	20090818	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : EM VIRTUDE DO ARQUIVAMENTO PUBLICADO NA RPI 1980 DE 16/12/2008 E CONSIDERANDO A AUSENCIA DE MANIFESTACAO DENTRO DOS PRAZOS LEGAIS.
BRPI0117015 A	20091117	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : REFERENTE AO DESPACHO PUBLICADO NA RPI 1980 DE 16/12/2008.
CA2335687 AA	20020813	LSPB	+	published / reissued	

CA2335687 AA	20031127	LSES	+EEER	EXAMINATION REQUEST	
CA2335687 C	20080812	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2335687 C	20110214	LSLE	-MKLA	LAPSED	
CA2335687 C	20210213	PEXP		Calculated Patent Term Expiry	
DE10005332 A1	20010816	LSPB	+	published / reissued	
DE10005332 A1	20010816	LSES	+OP8	REQUEST FOR EXAMINATION AS TO PARAGRAPH 44 PATENT LAW	
DE10005332 A1	20080918	LSWD	-8130	WITHDRAWAL	
DE50015181 D1	20090227	LSOP	R026	OPPOSITION FILED AGAINST PATENT	
DE50015181 D1	20090520	LSOP	-8363	OPPOSITION AGAINST THE PATENT	
EP1125997 A1	20010822	LSPB	+	published / reissued	
EP1125997 A1	20011107	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20010912
EP1125997 A1	20020522	LSFE	+AKX	DESIGNATION FEES PAID	TEXT : AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
EP1125997 A1	20050413	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20050225
EP1125997 A1	20060809	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20050225
EP1125997 B1	20080528	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1125997 B1	20080528	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D TEXT : NOT ENGLISH
EP1125997 B1	20080625	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1125997 B1	20080806	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : LANGUAGE OF EP DOCUMENT: GERMAN
EP1125997 B1	20081031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080908
EP1125997 B1	20081031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080528
EP1125997 B1	20081128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080528
EP1125997 B1	20081201	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	REF COUNTRY CODE : EP
EP1125997 B1	20090107	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FD4D
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EP1125997 B1	20090130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20081028
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EP1125997 B1	20090630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20081130
EP1125997 B1	20090630	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
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EP1125997 B1	20120829	LSRE	+27C	OPPOSITION PROCEEDINGS TERMINATED	EFFECTIVE DATE : 20120421
EP1125997 B1	20201115	PEXP		Calculated Patent Term Expiry	
JP2004530749 T2	20041007	LSPB	+	published / reissued	
US2001014700 AA	20010816	LSPB	+	published / reissued	
US2001014700 AA	20010208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PETER KWASNY GMBH, GERMANY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:KWASNY, PETER; REEL/FRAME:011583/0872 EFFECTIVE DATE : 20010205
US2001014700 AA	20051014	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
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WO02088266 A1	20031028	LSNP	+WWE	WIPO INFORMATION:	REF DOCUMENT NUMBER :

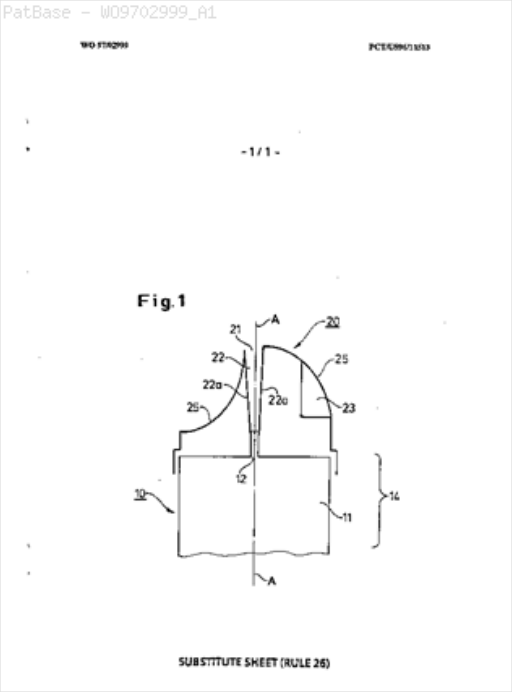
	ENTRY INTO NATIONAL PHASE	2002585555 COUNTRY OF REF DOCUMENT : JP

62) Family number: 20186051 (US5925608A)

Title: Packaged foaming composition

Abstract: PCT No. PCT/US96/11512 Sec. 371 Date Jan. 13, 1998 Sec. 102(e) Date Jan. 13, 1998 PCT Filed Jul. 10, 1996 PCT Pub. No. WO97/03180 PCT Pub. Date Jan. 30, 1997A detergent product comprising: (i) a foaming composition which includes: a surfactant, a detergent builder and less than 25 percent, by weight, of water; (ii) a propellant gas; and a (iii) a **container**. The viscosity of the foaming composition, measured at 20 DEG C. and 1 atmosphere, using a Brookfield viscometer, No. 2 Spindle at 60 rpm, is less than 700 mPaxs.

Classifications:
International (IPC 8-9): B05B9/04 B65D83/14 B65D83/16 B65D83/38 C09K3/30 C11D1/14 C11D1/29 C11D17/00 C11D17/04 C11D3/20 C11D3/386 C11D3/44 (Advanced/Invention); C11D1/02 (Advanced/Non-invention); B05B9/04 B65D83/14 B65D83/16 B65D83/38 C09K3/30 C11D17/00 C11D17/04 C11D3/20 C11D3/38 C11D3/43 (Core/Invention); C11D1/02 (Core/Non-invention)
International (IPC 1-7): B05B9/04 B65D83/14 B65D83/30 B65D83/38 C09K3/30 C11D1/14 C11D1/29 C11D17/00 C11D17/00 C11D17/04 C11D3/20 C11D3/386 C11D3/44 D06L1/02
CPC: C11D3/0094 B65D83/205 B65D83/752 C09K3/30 C11D17/0043 C11D1/02 C11D3/2068
European: B65D83/14Z3 B65D83/20C B65D83/752 C09K3/30 C11D17/00E C11D3/00B19 C11D3/20C M11D1/02
US: 222/402.1 510/276 510/279 510/283 510/299 510/320 510/338 510/342 510/406 8/137



Family:

Publication number	Publication date	Application number	Application date
AR002816 AA	19980429	AR19960103548	19960712
AR002817 AA	19980429	AR19960103549	19960712
AT252146 E	20031115	AT19950870084T	19950713
BRPI9609789 A	19990316	BR1996PI09789	19960710
BRPI9609790 A	19990504	BR1996PI09790	19960710
CA2226667 AA	19980112	CA19962226667	19960710
DE69531936 D1	20031120	DE19956031936	19950713
DE69531936 T2	20040812	DE19956031936T	19950713
DE69627935 D1	20030612	DE19966027935	19960306
DE69627935 T2	20040519	DE19966027935T	19960306
EP0753556 A1	19970115	EP19950870084	19950713
EP0753556 B1	20031015	EP19950870084	19950713
EP0753561 A1	19970115	EP19960870028	19960306
EP0753561 B1	20030507	EP19960870028	19960306
ES2198473 T3	20040201	ES19960870028T	19960306
JP11508862 T2	19990803	JP19970505971T	19960710
JP11508955 T2	19990803	JP19970505970T	19960710
JP3725162 B2	20051207	JP19970505971T	19960710
MX9800456 A1	19980430	MX19980000456	19960710
MX9800458 A1	19980430	MX19980000458	19960710
US5925608 A	19990720	US19980983207	19980113
US6021926 A	20000208	US19980983208	19980113
WO9702999 A1	19970130	WO1996US11513	19960710
WO9703180 A1	19970130	WO1996US11512	19960710
ZA9605642 A	19970124	ZA19960005642	19960703

Priority:

EP19950870084 19950713 EP19960870028 19960306 WO1996US11512 19960710
WO1996US11513 19960710 US19980983207 19980113 US19980983208 19980113

Probable Assignee: PROCTER AND GAMBLE CO

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Inventor(s): (std): ROGERS NEIL JOHN ; VAN GEERT PETER MAURITS MARIA ; VOS EDDY NMN ; LAWERS HILDE ANTOINETTE ELZA ; GEERT VAN PETER MAURITS M ; EDDY VOS ; MICHAEL FELIX SPRUYT ; SPRUYT MICHAEL FELEX ; GEERT PETER MAURITS M VAN ; VOS EDDY ; SPRUYT MICHAEL FELIX ; VAN GEERT PETER MAURITS M ; ROGERS JOHN NEIL ; LAUWERS HILDE ANTOINETTE ELZA

Inventor(s): HILDE ANTOINETTE ELZA LAUWERS ; PETER MAURITS M VAN GEERT ; JOHN NEIL ROGERS ; MICHAEL FELEX SPRUYT

Agent(s): KIRBY EADES GALE BAKER

Designated states: AT BE BR CA CH CN CZ DE DK ES FR GB GR HU IE IL IT JP LI LU MX NL NO PT SE TR US

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AR002816 AA	19980429	LSPB	+	published / reissued	
AR002817 AA	19980429	LSPB	+	published / reissued	
AT252146 E	20031115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT252146 E	20040415	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT252146 E	20150713	PEXP		Calculated Patent Term Expiry	
BRPI9609789 A	19990316	LSPB	+	published / reissued	
BRPI9609789 A	20050426	LSRV	-B11B	DISMISSAL ACC. ART. 36, PAR 1 OF IPL - NO REPLY WITHIN 90 DAYS TO FULLFIL THE NECESSARY REQUIREMENTS	
BRPI9609790 A	19990504	LSPB	+	published / reissued	
BRPI9609790 A	20020416	LSES	-EG	TECHNICAL EXAMINATION (OPINION): PUBLICATION OF TECHNICAL EXAMINATION (OPINION)	
BRPI9609790 A	20021029	LSRV	-FC	DECISION: REFUSAL	
CA2226667 AA	19980112	LSPB	+	published / reissued	
CA2226667 AA	19980112	LSES	+EEER	EXAMINATION REQUEST	
CA2226667 AA	20010710	LSLE	-FZDE	DEAD	
DE69531936 D1	20041111	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69531936 D1	20060511	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69531936 T2	20040812	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69531936 T2	20150713	PEXP		Calculated Patent Term Expiry	
DE69627935 D1	20040624	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69627935 D1	20160306	LSLE	-R071	EXPIRY OF RIGHT	
DE69627935 T2	20040519	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69627935 T2	20160306	PEXP		Calculated Patent Term Expiry	
EP0753556 A1	19970115	LSPB	+	published / reissued	
EP0753556 A1	19970730	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19970602
EP0753556 B1	20031015	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0753556 B1	20031015	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE

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EP0753556 B1	20031015	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP0753556 B1	20031112	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
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EP0753556 B1	20040430	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL

EP0753556 B1	20040615	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20040615 YEAR OF FEE PAYMENT : 10
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EP0753556 B1	20040713	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20040713
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EP0753556 B1	20150713	PEXP		Calculated Patent Term Expiry	
EP0753561 A1	19970115	LSPB	+	published / reissued	
EP0753561 A1	19970917	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19970630
EP0753561 A1	20020116	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20011128

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EP0753561 B1	20030507	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP0753561 B1	20030611	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
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EP0753561 B1	20040428	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20040210
EP0753561 B1	20050126	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP0753561 B1	20120430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20120328 YEAR OF FEE PAYMENT : 17
EP0753561 B1	20120629	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20120323 YEAR OF FEE PAYMENT : 17
EP0753561 B1	20130628	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20120326 YEAR OF FEE PAYMENT : 17
EP0753561 B1	20131227	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20131129
EP0753561 B1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130402
EP0753561 B1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130306
EP0753561 B1	20140606	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20140606
EP0753561 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130307
EP0753561 B1	20150529	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20150224 YEAR OF FEE PAYMENT : 20
EP0753561 B1	20150731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20150331 YEAR OF FEE PAYMENT : 20
EP0753561 B1	20160306	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69627935 COUNTRY OF REF DOCUMENT : DE
EP0753561 B1	20160330	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20160305

EP0753561 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF EXPIRATION OF PROTECTION LAPSED DATE : 20160305
EP0753561 B1	20160305	PEXP		Calculated Patent Term Expiry	
EP0753561 B1	20160306	PEXP		Calculated Patent Term Expiry	
ES2198473 T3	20040201	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2198473 T3	20160306	PEXP		Calculated Patent Term Expiry	
JP11508862 T2	19990803	LSPB	+	published / reissued	
JP11508862 T2	20041221	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20041221
JP11508862 T2	20050714	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20050621
JP11508862 T2	20050811	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP11508862 T2	20050823	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20050823
JP11508862 T2	20050929	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20050921
JP11508862 T2	20050930	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP11508955 T2	19990803	LSPB	+	published / reissued	
JP11508955 T2	20040812	LSWD	-A761	WRITTEN WITHDRAWAL OF APPLICATION	TEXT : JAPANESE INTERMEDIATE CODE: A761 EFFECTIVE DATE : 20040722
JP3725162 B2	20051207	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3725162 B2	20050825	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP3725162 B2	20050927	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP3725162 B2	20080925	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP3725162 B2	20080930	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 4
JP3725162 B2	20090924	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3725162 B2	20090929	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 5
JP3725162 B2	20100916	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3725162 B2	20100921	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 6
JP3725162 B2	20110922	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL	YEAR OF FEE PAYMENT : 6

				DATE OF DATABASE)	
JP3725162 B2	20110927	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
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JP3725162 B2	20120925	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 8
JP3725162 B2	20130905	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3725162 B2	20130910	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP3725162 B2	20140904	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3725162 B2	20140909	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP3725162 B2	20150903	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3725162 B2	20150908	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
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JP3725162 B2	20160710	PEXP		Calculated Patent Term Expiry	
MX9800456 A1	19980430	LSPB	+	published / reissued	
MX9800458 A1	19980430	LSPB	+	published / reissued	
MX9800458 A1	20011012	LSGT	+FG	GRANT OR REGISTRATION	
MX9800458 A1	20160930	LSLE	-MM	ANNULMENT OR LAPSE DUE TO NON-PAYMENT OF FEES	
US5925608 A	19990720	LSGT	+	granted / extensions (spc, cpc, pte)	
US5925608 A	19980914	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PROCTER & GAMBLE COMPANY, THE, OHIO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SPRUYT, MICHAEL F.; VOS, EDDY; REEL/FRAME:009457/0525 EFFECTIVE DATE : 19960814
US5925608 A	20021230	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5925608 A	20070720	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5925608 A	20070820	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5925608 A	20070820	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5925608 A	20070911	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20070720
US5925608 A	20180113	PEXP		Calculated Patent Term Expiry	
US6021926 A	20000208	LSGT	+	granted / extensions (spc, cpc, pte)	
US6021926 A	19980507	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

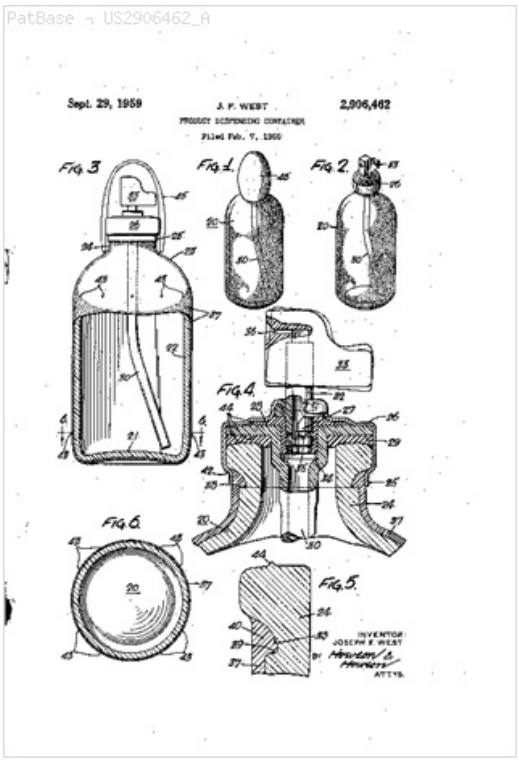
					OWNER : PROCTER & GAMBLE COMPANY, THE, OHIO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LAUWERS, HILDE A.E.; ROGERS, JOHN N.; VAN GEERT, PETER M. M.; REEL/FRAME:009229/0821; SIGNING DATES FROM 19960310 TO 19960318
US6021926 A	20000131	LSGT	PAT1	Patented Case	
US6021926 A	20000131	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6021926 A	20030627	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6021926 A	20070621	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6021926 A	20110721	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6021926 A	20180113	PEXP		Calculated Patent Term Expiry	
WO9702999 A1	19970130	LSPB	+	published / reissued	
WO9702999 A1	19980112	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2226667 COUNTRY OF REF DOCUMENT : CA
WO9702999 A1	19980112	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2226667 COUNTRY OF REF DOCUMENT : CA KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO9702999 A1	19980113	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 1997 505971 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO9702999 A1	19980113	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 08983208 COUNTRY OF REF DOCUMENT : US
WO9702999 A1	19980113	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/1998/000456 COUNTRY OF REF DOCUMENT : MX
WO9703180 A1	19970130	LSPB	+	published / reissued	
WO9703180 A1	19980113	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 1997 505970 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO9703180 A1	19980113	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 08983207 COUNTRY OF REF DOCUMENT : US
WO9703180 A1	19980113	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/1998/000458 COUNTRY OF REF DOCUMENT : MX
ZA9605642 A	19970124	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA9605642 A	20160702	PEXP		Calculated Patent Term Expiry	

63) Family number: 19521052 (US2906462A)

Title: PRODUCT **DISPENSING** **CONTAINER**

Abstract: A glass aerosol **container** 22 is sheathed in a coating 37 of plastic material having elastic qualities sufficient to prevent glass fragments from escaping should the **container** shatter as a result of excessive internal pressure, the sheath having one or more perforations 43 to allow venting. The coating, which is in non-bonded relation with the **container** body, may be a vinyl chloride-acetate resin, a butadiene-acrylonitrile copolymer compound, cellulose acetate butyrate resinous compound or a melamine resin. Preferably the formation of the sheath is accomplished by first forming a plastisol includng the desired plasticizer such as di-iso-octyl phthalate or tricresyl phosphate and other desired ingredients with finely milled vinyl chloride resin and causing this **liquid** plastisol composition to adhere to the **container** in the desired thickness, after which the coating is cured.

Classifications:
International (IPC 8-9): B65D83/14 F16K3/26 (Advanced/Invention); B65D83/14 F16K3/00 (Core/Invention)
International (IPC 1-7): A61J1/06 B05B1/00 B05B15/00 B05B7/02 B65D23/08 B65D83/14 B67D3/00
CPC: B65D83/38 F16K3/26
European: B65D83/38 F16K3/26
US: 215/12.2 222/183 222/215 222/394 239/288.5 239/337



Family:

Publication number	Publication date	Application number	Application date
BE544761 A	00000000		00000000
DE1108383 B	19610608	DE1956W018362	19560203
FR1146770 A	19571114		19560207
GB789347 A	19580122	GB19560002177	19560123
US2906462 A	19590929	US19550486565	19550207

Priority:
US19550486565 19550207

Probable Assignee: WHEATON GLASS CO
Assignee(s): (std): JOSEF F WEST ; JOSEPH FRANCIS WEST ; WHEATON GLASS CO
Inventor(s): (std): WEST JOSEF F ; WEST JOSEPH F ; WEST JOSEPH FRANCIS

Legal status (INPADOC)

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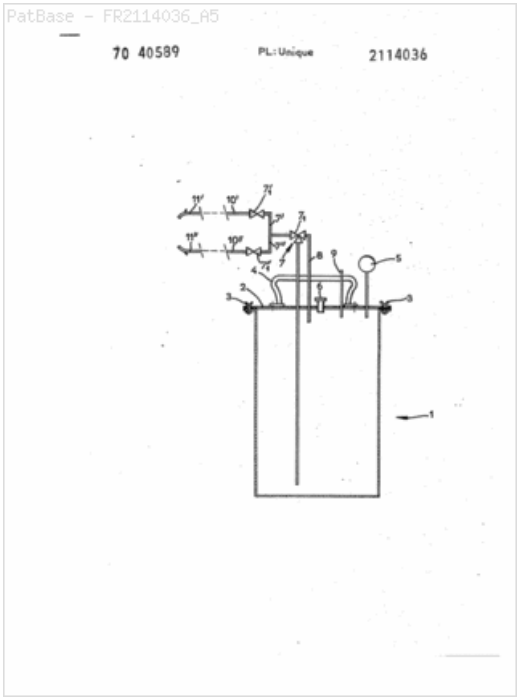
Patent	Date recorded	Event group	Code	Event	Details
BE544761 A	00000000	LSPB	+	published / reissued	
BE544761 A	19200101	PEXP		Calculated Patent Term Expiry	
DE1108383 B	19610608	LSPB	+	published / reissued	
FR1146770 A	19571114	LSGT	+	granted / extensions (spc, cpc, pte)	
FR1146770 A	19760207	PEXP		Calculated Patent Term Expiry	
GB789347 A	19580122	LSGT	+	granted / extensions (spc, cpc, pte)	
GB789347 A	19760123	PEXP		Calculated Patent Term Expiry	
US2906462 A	19590929	LSGT	+	granted / extensions (spc, cpc, pte)	

64) Family number: 690052 (FR2114036A)

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Abstract: Source: FR2114036A [FR] [Source: Claim 1] 1.- Procede permettant la realisation d'encollages, caracterise en ce que, dans une enceinte contenant la matiere d'encollage, on emmagasine un **flui** de sous pression tel air comprime, en quantite suffisante pour permettre, sur le lieu d'utilisation, l'expulsion de la plus grande partie de la matiere d' encollage, cette expulsion etant obtenue par ouverture de moyens appropries tels robinets et la matiere d'encollage etant distribuee par l'intermediaire de moyens, tels buses, eventuellement interchangeables. **Machine translation:** [Source: Claim 1] 1.- Method for performing encollages, wherein, in a chamber **containing** the material, it stores a **flui** sizing of such compressed air under pressure, in sufficient amount to allow, at the place of use, the expulsion of most of the material of sizing, this expulsion is obtained by opening of suitable means such valves and the sizing material being **dispensed** via means, such nozzles, optionally interchangeable.

Classifications:
International (IPC 8-9): B27G11/02 (Advanced/Invention); B27G11/00 (Core/Invention)
International (IPC 1-7): B05B9/00 B05C11/11 B65D81/00
CPC: B27G11/02
European: B27G11/02



Family:

Publication number	Publication date	Application number	Application date
FR2114036 A5	19720630	FR19700040589	19701113

Priority:
FR19700040589 19701113

Probable Assignee: MULDER JAN
Assignee(s): (std)**:** LE DIBERDER YAN ; MULDER JAN

Legal status (INPADOC)

View legal status timeline

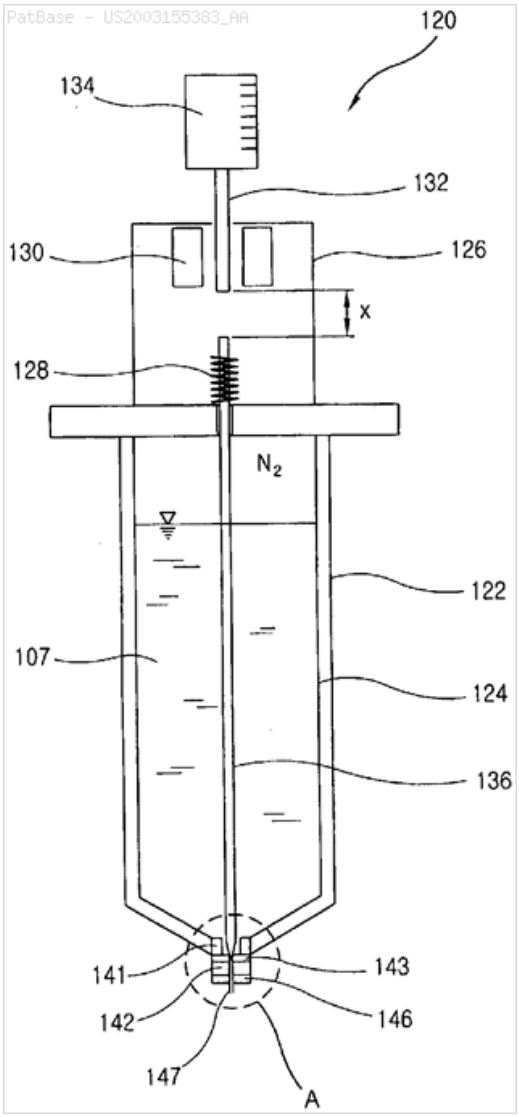
Patent	Date recorded	Event group	Code	Event	Details
FR2114036 A5	19720630	LSGT	+	granted / extensions (spc, cpc, pte)	
FR2114036 A5	19780120	LSLE	-ST	NOTIFICATION OF LAPSE	
FR2114036 A5	19901113	PEXP		Calculated Patent Term Expiry	

65) Family number: 28994053 (US2003155383A)

Title: **LIQUID** CRYSTAL **DISPENSING** APPARATUS HAVING INTEGRATED NEEDLE SHEET

Abstract: A **liquid** crystal **dispensing** apparatus includes a needle sheet formed as a unitary piece for **dispensing** **liquid** crystal material **contained** within a **liquid** crystal **container** through a nozzle by selectively contacting a needle. The needle sheet includes a needle contacting portion for contacting the needle and a coupling portion for coupling the **liquid** crystal **container** to the nozzle. Therefore **liquid** crystal material is prevented from remaining within the needle sheet and the needle sheet can be easily cleaned.

Classifications:
International (IPC 8-9): B05B1/02 B05B1/30 B65D83/00 G02F1/13 G02F1/1341 (Advanced/Invention); G02F1/13 (Advanced/Non-invention)
International (IPC 1-7): B05B1/00 B65D83/00 B67D3/00 B67D5/42 G02F1/13 G02F1/1341 G09F9/35
CPC: B05B1/02 B05B1/3046
European: B05B1/02 B05B1/30D1A
US: 222/386 222/400.5 222/504 366/273 427/256



Family:

Publication number	Publication date	Application number	Application date
CN100501536 C	20090617	CN20031005406	20030220
CN1439922 A	20030903	CN20031005406	20030220
JP2003248231 A2	20030905	JP20030042226	20030220
JP4047742 B2	20080213	JP20030042226	20030220
KR100532083 B1	20051130	KR20020009124	20020220
KR20030069481 A	20030827	KR20020009124	20020220
US2003155383 AA	20030821	US20020329444	20021227
US2005127109 AA	20050616	US20050048856	20050203
US6863194 BB	20050308	US20020329444	20021227
US8052013 BB	20111108	US20050048856	20050203

Priority:
KR20020009124 20020220 US20020329444 20021227 US20050048856 20050203

Probable Assignee: LG DISPLAY CO LTD

Assignee(s): (std): LG DISPLAY CO LTD ; LG PHILIPS LCD CO LTD ; SON HAE JOON

Assignee(s): LGPHILIPS LCD CO ; LGPHILIPS LCD CO LTD ; LG PHILLIPS LCD CO LTD ; LG PHILIPS LCD CO ; KWEON HYUG JIN ; LG DISPLAY CO

Inventor(s): (std): KWEON HYUG JIN ; SON HAE JOON ; CHIM GWON HYO ; HAI SON JUN ; KWON HYEOK JIN ; SON HAE JUN

Inventor(s): GWON HYO CHIM ; SON HAI JUN

Agent(s): MOTOMIYA TERUHISA; FUJINO IKUO; TAKANASHI NORIMICHI; UBUKATA KAZUO; KATO NOBUAKI; TAKAHASHI SEIICHIRO; OCHI TAKAO; USUI SHINICHI; OKABE MASAO; YOSHIZAWA HIROSHI; ASAHI NOBUMITSU; MCKENNA LONG AND ALDRIDGE LLP SONG K JUNG; MCKENNA LONG AND ALDRIDGE LLP

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN100501536 C	20090617	LSGT	+	granted / extensions (spc, cpc, pte)	
CN100501536 C	20090617	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN100501536 C	20230220	PEXP		Calculated Patent Term Expiry	
CN1439922 A	20030903	LSPB	+	published / reissued	
CN1439922 A	20030903	LSPB	+C06	PUBLICATION	
JP2003248231 A2	20030905	LSPB	+	published / reissued	
JP2003248231 A2	20040618	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20040617
JP2003248231 A2	20060713	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20060712
JP2003248231 A2	20070113	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20070112
JP2003248231 A2	20070607	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20070606
JP2003248231 A2	20070913	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20070912
JP2003248231 A2	20071011	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20071010
JP2003248231 A2	20071025	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2003248231 A2	20071101	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20071031
JP2003248231 A2	20071129	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20071122
JP2003248231 A2	20071130	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
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JP4047742 B2	20071108	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP4047742 B2	20071127	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4047742 B2	20080610	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
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JP4047742 B2	20080625	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3

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JP4047742 B2	20101019	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 4
JP4047742 B2	20101019	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4047742 B2	20111013	LSFE	R20	特許料納付書 (Patent fee payment form)	
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JP4047742 B2	20171003	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4047742 B2	20180927	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4047742 B2	20181002	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4047742 B2	20191003	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20190927
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KR100532083 B1	20120928	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20120928 YEAR OF FEE PAYMENT : 8
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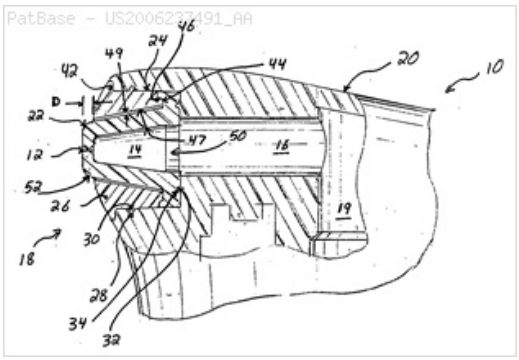
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KR20030069481 A	20041214	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20030069481 A	20050414	LSRE	AMND	AMENDMENT	
KR20030069481 A	20050725	LSRV	-E601	DECISION TO REFUSE APPLICATION	
KR20030069481 A	20050923	LSRE	AMND	AMENDMENT	
KR20030069481 A	20051014	LSGT	+B701	DECISION TO GRANT	
KR20030069481 A	20051123	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
US2003155383 AA	20030821	LSPB	+	published / reissued	
US2003155383 AA	20090406	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US2005127109 AA	20050616	LSPB	+	published / reissued	
US2005127109 AA	20081017	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LG DISPLAY CO., LTD., KOREA, REPUBLIC OF OLDPARTY : CHANGE OF NAME; ASSIGNOR:LG.PHILIPS LCD CO., LTD.; REEL/FRAME:021754/0045 EFFECTIVE DATE : 20080304
US2005127109 AA	20081017	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LG DISPLAY CO., LTD.,KOREA, REPUBLIC OF OLDPARTY : CHANGE OF NAME; ASSIGNOR:LG.PHILIPS LCD CO., LTD.; REEL/FRAME:021754/0045 EFFECTIVE DATE : 20080304
US2005127109 AA	20111019	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6863194 BB	20050308	LSGT	+	granted / extensions (spc, cpc, pte)	
US6863194 BB	20021227	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LG.PHILIPS LCD CO., LTD, KOREA, REPUBLIC OF OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KWEON, HYUG-JIN; SON, HAE-JOON; REEL/FRAME:013615/0543 EFFECTIVE DATE : 20021226
US6863194 BB	20081027	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LG DISPLAY CO., LTD., KOREA, REPUBLIC OF OLDPARTY : CHANGE OF NAME; ASSIGNOR:LG.PHILIPS LCD CO., LTD.; REEL/FRAME:021763/0212 EFFECTIVE DATE : 20080304
US6863194 BB	20090308	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6863194 BB	20090406	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362

US6863194 BB	20090428	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20090308
US6863194 BB	20230821	PEXP		Calculated Patent Term Expiry (PTA 237 days)	
US8052013 BB	20111108	LSGT	+	granted / extensions (spc, cpc, pte)	
US8052013 BB	20050203	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LG. PHILIPS LCD CO., LTD., KOREA, REPUBLIC OF OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KWEON, HYUG JIN; SON, HAE JOON; REEL/FRAME:016247/0779 EFFECTIVE DATE : 20021226
US8052013 BB	20111019	LSGT	PAT1	Patented Case	
US8052013 BB	20150430	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8052013 BB	20190321	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8052013 BB	20260627	PEXP		Calculated Patent Term Expiry (PTA 509 days)	

66) Family number: 33547054 (US2006237491A)

Title: **DISPENSER** HAVING AIR TIGHT SPOUT

Abstract: A spout valve assembly, for a pump **dispenser** including a discharge head, is located within an opening in the discharge head for permitting outletting of **liquid** product and includes a spout valve retained within the discharge head opening by a retainer. The spout valve includes a slit at a first end thereof and an orifice at a second opposite end thereof. The slit includes slit lips directly engageable with and disengageable from each other to respectively define slit closed and opened configurations. The spout valve is made of a material for permitting opening of the slit under pressure from the **liquid** product for thereby allowing the **liquid** product to be discharged out through the slit when in the slit opened configuration, and for otherwise permitting closing of the slit to prevent the **liquid** product from being discharged through the slit when in the slit closed configuration.



Classifications:
International (IPC 8-9): B05B1/04 B05B1/22 B05B1/32 B05B11/00 B65B35/38 B65D B65D25/40 B65D35/38 B65D47/20 B65D47/34 B65D83/28 B65D83/34 B65D83/40 B65D83/44 B65D83/76 B67D1/14 F16K15/16 (Advanced/Invention);
B65D25/40 B65D35/38 B65D47/34 B65D83/76 (Advanced/Non-invention);
B05B1/00 B05B1/02 B05B1/30 B05B11/00 B65D23/00 B65D25/38 B65D35/24 B65D47/04 B65D47/34 B65D83/28 B65D83/34 B65D83/40 B65D83/44 B65D83/76 B67D1/00 F16K15/14 (Core/Invention);
B65D (Subclass/Invention)
International (IPC 1-7): B05B11/00 B65D47/34 B67D47/34
CPC: B05B11/007 B05B11/0072 B05B11/3001
European: B05B1/04F B05B1/32A B05B11/00B9R B05B11/00B9T L05B11/30C
US: 222/321.7 222/380 222/490 222/494

Family:

Publication number	Publication date	Application number	Application date
AR056322 AA	20071003	AR2006P101612	20060424
AT538872 E	20120115	AT20060113024T	20060425
AU2006201648 AA	20061109	AU20060201648	20060420
AU2006201648 BB	20110217	AU20060201648	20060420
BRPI0601277 A	20061219	BR2006PI01277	20060418
CA2543571 AA	20061025	CA20062543571	20060413
CA2543571 C	20110322	CA20062543571	20060413
CN100500524 C	20090617	CN200610075868	20060424
CN1854026 A	20061101	CN200610075868	20060424
DE602006026648 D1	20120308	DE200660026648T	20060425
EP1716928 A2	20061102	EP20060113024	20060425
EP1716928 A3	20070822	EP20060113024	20060425
EP1716928 B1	20111228	EP20060113024	20060425
HK1092438 A1	20100312	HK20060113005	20061127
HK1092438 A1	20070209	HK20060113005	20061127
HK1092438 A3	20070209	HK20060113005	20061127
HK1092438 B	20100312	HK20060113005	20061127
JP2006306501 A2	20061109	JP20060115358	20060419
KR101236315 B1	20130222	KR20077014750	20060425
KR20080024104 A	20080317	KR20077014750	20060425
MXPA06004612 A1	20070424	MX2006PA04612	20060425
TW200710004 A	20070316	TW20060113471	20060414
US2006237491 AA	20061026	US20050113132	20050425
US7886941 BB	20110215	US20050113132	20050425
WO06116312 A2	20061102	WO2006US15472	20060425
WO06116312 A3	20071206	WO2006US15472	20060425

Priority:

US20050113132 20050425 CA20062543571 20060413 EP20060113024 20060425 WO2006US15472 20060425

Probable Assignee: SILGAN DISPENSING SYSTEMS CORP

Assignee(s): (std): MEADWESTVACO CALMAR INC ; PIETROWSKI DARIA ; RADI ROBERT ; SAINT GOBAIN CALMAR INC ; SAINT GOBAIN CALMER INC ; COSTA LLUIS

Assignee(s): SAINT GOBAIN CALMAR INC CITY OF IND ; WESTROCK DISPENSING SYSTEMS INC ; SILGAN DISPENSING SYSTEMS CORP

Inventor(s): (std): ROBERT PIETROWSKI DARIA COSTA ; DARIA PIETROWSKI ; ROBERT RADI ; LLUIS COSTA ; PIEFROWSKI DARIO ; RADI ROBERT ; COSTA LLUIS ; PIETROWSKI DARIA

Inventor(s): PIETROWSKI DARIA COSTA LLUIS RADI ROBERT ; COSTA LLUIS HACIENDA HEIGHTS ; PIETROWSKI DARIA HUNTINGTON BEACH ; RADI ROBERT BEVERLY HILLS

Agent(s): FISHER ADAMS KELLY CALLINANS; CALLINANS; SPRUSON AND FERGUSON; MACPHERSON LESLIE AND TYERMAN LLP; SOMMER PETER DIPL WIRTSCH ING; SOMMER PETER; SANYOU INTELLECTUAL PROPERTY LTD; JEAC IP AGENT CO; DYKEMA GOSSETT PLLC; MWV INTELLECTUAL PROPERTY GROUP

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

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AR056322 AA	20071003	LSPB	+	published / reissued	
AR056322 AA	20130925	LSWD	-FB	SUSPENSION OF GRANTING PROCEDURE	
AT538872 E	20120115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT538872 E	20260425	PEXP		Calculated Patent Term Expiry	
AU2006201648 AA	20061109	LSPB	+	published / reissued	
AU2006201648 AA	20110616	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2006201648 AA	20141113	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2006201648 BB	20110217	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2006201648 BB	20260420	PEXP		Calculated Patent Term Expiry	
BRPI0601277 A	20061219	LSPB	+	published / reissued	
BRPI0601277 A	20100720	LSRV	-B11A	DISMISSAL ACC. ART.33 OF IPL - EXAMINATION NOT REQUESTED WITHIN 36 MONTHS OF FILING	
BRPI0601277 A	20101005	LSRV	-B11Y	DEFINITIVE DISMISSAL ACC. ARTICLE 33 OF IPL - EXTENSION OF TIME LIMIT FOR REQUEST OF EXAMINATION EXPIRED	
CA2543571 AA	20061025	LSPB	+	published / reissued	
CA2543571 AA	20070522	LSES	+EEER	EXAMINATION REQUEST	
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CA2543571 C	20150525	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20150413
CA2543571 C	20260413	PEXP		Calculated Patent Term Expiry	
CN100500524 C	20090617	LSGT	+	granted / extensions (spc, cpc, pte)	
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CN100500524 C	20260424	PEXP		Calculated Patent Term Expiry	
CN1854026 A	20061101	LSPB	+	published / reissued	
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DE602006026648 D1	20120113	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : SAINT-GOBAIN CALMAR INC., CITY OF INDUSTRY, CALIF., US OLDPARTY : SAINT-GOBAIN CALMAR INC., CITY OF INDUSTRY, CALIF., US
EP1716928 A2	20061102	LSPB	+	published / reissued	
EP1716928 A2	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170427 YEAR OF FEE PAYMENT : 12
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EP1716928 B1	20111230	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
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EP1716928 B1	20120308	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602006026648 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20120308
EP1716928 B1	20120411	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20111228
EP1716928 B1	20120430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20111228

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EP1716928 B1	20121130	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL

EP1716928 B1	20121205	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20121001
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EP1716928 B1	20130124	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602006026648 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20121001
EP1716928 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20120430
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EP1716928 B1	20130628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20111228
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EP1716928 B1	20260425	PEXP		Calculated Patent Term Expiry	
HK1092438 A1	20070209	LSPB	+	published / reissued	
HK1092438 A1	20100312	LSPB	+	published / reissued	
HK1092438 A1	20141121	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	EFFECTIVE DATE : 20140424
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HK1092438 A3	20070209	LSPB	+	published / reissued	
HK1092438 B	20100312	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1092438 B	20261127	PEXP		Calculated Patent Term Expiry	
JP2006306501 A2	20061109	LSPB	+	published / reissued	
KR101236315 B1	20130222	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101236315 B1	20160203	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20160204 YEAR OF FEE PAYMENT : 4
KR101236315 B1	20170214	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20170215 YEAR OF FEE PAYMENT : 5
KR101236315 B1	20180205	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20180206 YEAR OF FEE PAYMENT : 6

KR101236315 B1	20190207	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20190208 YEAR OF FEE PAYMENT : 7
KR101236315 B1	20200211	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20200212 YEAR OF FEE PAYMENT : 8
KR101236315 B1	20260425	PEXP		Calculated Patent Term Expiry	
KR20080024104 A	20080317	LSPB	+	published / reissued	
KR20080024104 A	20110406	LSES	A201	REQUEST FOR EXAMINATION	
KR20080024104 A	20121231	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20080024104 A	20130218	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
MXPA06004612 A1	20070424	LSPB	+	published / reissued	
MXPA06004612 A1	20091009	LSGT	+FG	GRANT OR REGISTRATION	
MXPA06004612 A1	20130311	LSAS	HC	CHANGE OF COMPANY NAME OR JURIDICAL STATUS	
TW200710004 A	20070316	LSPB	+	published / reissued	
US2006237491 AA	20061026	LSPB	+	published / reissued	
US2006237491 AA	20080404	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SAINT-GOBAIN CALMAR, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:COSTA, LLUIS; PIETROWSKI, DARIA; SAINT-GOBAIN CALMAR, INC.; REEL/FRAME:020757/0716; SIGNING DATES FROM 20050408 TO 20060705
US2006237491 AA	20080404	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MEADWESTVACO CALMAR, INC., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:COSTA, LLUIS; PIETROWSKI, DARIA; SAINT-GOBAIN CALMAR, INC.; REEL/FRAME:020757/0716; SIGNING DATES FROM 20050408 TO 20060705
US2006237491 AA	20080404	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SAINT-GOBAIN CALMAR, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:COSTA, LLUIS; PIETROWSKI, DARIA; SAINT-GOBAIN CALMAR, INC.; SIGNING DATES FROM 20050408 TO 20060705; REEL/FRAME:020757/0716
US2006237491 AA	20080404	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MEADWESTVACO CALMAR, INC., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:COSTA, LLUIS; PIETROWSKI, DARIA; SAINT-GOBAIN CALMAR, INC.; SIGNING DATES FROM 20050408 TO 20060705; REEL/FRAME:020757/0716
US2006237491 AA	20110126	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7886941 BB	20110215	LSGT	+	granted / extensions (spc, cpc, pte)	
US7886941 BB	20050425	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SAINT-GOBAIN CALMAR, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:COSTA, LLUIS; REEL/FRAME:016510/0612 EFFECTIVE DATE : 20050408
US7886941 BB	20110126	LSGT	PAT1	Patented Case	

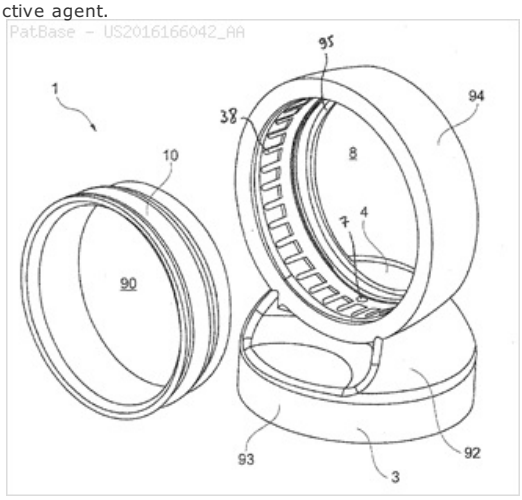
US7886941 BB	20140815	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7886941 BB	20170109	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WESTROCK DISPENSING SYSTEMS, INC., GEORGIA OLDPARTY : CHANGE OF NAME; ASSIGNOR:MEADWESTVACO CALMAR, INC.; REEL/FRAME:041305/0842 EFFECTIVE DATE : 20150818
US7886941 BB	20180821	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7886941 BB	20190409	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SILGAN DISPENSING SYSTEMS CORPORATION, MISSOURI OLDPARTY : CHANGE OF NAME; ASSIGNOR:WESTROCK DISPENSING SYSTEMS, INC.; REEL/FRAME:050160/0237 EFFECTIVE DATE : 20170505
US7886941 BB	20270514	PEXP		Calculated Patent Term Expiry (PTA 749 days)	
WO06116312 A2	20061102	LSPB	+	published / reissued	
WO06116312 A2	20070628	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020077014750 COUNTRY OF REF DOCUMENT : KR
WO06116312 A2	20071026	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO06116312 A2	20071125	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : RU
WO06116312 A3	20080528	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 06751255 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :

67) Family number: 58241054 (US2016166042A)

Title: AEROSOL **CONTAINING** AN EMULSION DEODORANT, EQUIPPED WITH A HOLLOW **DISPENSING** HEAD

Abstract: The subject of the invention is a device for **dispensing** a cosmetic composition, comprising a **dispensing** head (1) intended to be fitted on a **container** **containing** said cosmetic composition to be **dispensed**, (i) the **dispensing** head comprising: a body (3) that is open at its two opposite axial ends, an engaging part (10) that is open at its two opposite axial ends and at least partially defines at least one **dispensing** orifice (12), the individual cross section of the **dispensing** orifice being between 0.03 mm2 and 0.5 mm2, and (ii) the cosmetic composition comprising, in a cosmetically acceptable medium, at least one emulsion chosen from a water-in-oil emulsion and an oil-in-water emulsion, at least one cosmetic active agent, in particular at least one deodorant active agent and/or antiperspirant active agent.

Classifications:
International (IPC 8-9): A45D34/00 A45D34/04 A45D44/00 A61K8/00 A61K8/06 A61K8/26 A61K8/28 A61L9/01 A61Q15/00 B05B1/02 B05B1/06 B05B1/14 B05B1/32 B65D83/14 B65D83/20 B65D83/28 B65D83/30 (Advanced/Invention); B05B7/04 (Advanced/Non-invention)
CPC: A45D44/00 B05B1/02 A45D34/04 A45D2200/057 A61K8/062 A61K8/064 B05B7/0425 B65D83/205 B65D83/30 A45D34/00 A61K8/06 B65D83/28 B65D83/752 A61K2800/87 A61Q15/00 B05B1/06
US: 132/200 222/394



Family:

Publication number	Publication date	Application number	Application date
CN105517715 A	20160420	CN201480037884	20140704
CN105517715 B	20190628	CN201480037884	20140704
EP3016748 A1	20160511	EP20140749910	20140704
FR3007952 A1	20150109	FR20130056572	20130704
FR3007952 B1	20150724	FR20130056572	20130704
JP2016531810 T2	20161013	JP20160522846T	20140704
JP6640078 B2	20200205	JP20160522846T	20140704
KR20160030532 A	20160318	KR20167002734	20140704
US2016166042 AA	20160616	US20140902587	20140704
US10413036 BB	20190917	US20140902587	20140704
WO15001272 A1	20150108	WO2014FR51723	20140704

Priority:
FR20130056572 20130704 WO2014FR51723 20140704

Probable Assignee: LOREAL SA
Assignee(s): (std): L OREAL S A ; L OREAL SA ; OREAL ; OREAL L
Assignee(s): LOREAL SA ; L OREAL
Inventor(s): (std): ALBISETTI NICOLAS
Inventor(s): NICOLAS ALBISETTI
Agent(s): BOURDEAU FRANCOISE; LOREAL; MARBURY LAW GROUP PLLC
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN 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 IR 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 PA PE PG PH PL PT QA RO RS RU RW SA 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 ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN105517715 A	20160420	LSPB	+	published / reissued	
CN105517715 A	20160420	LSPB	+C06	PUBLICATION	
CN105517715 A	20160420	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
CN105517715 B	20190628	LSGT	+	granted / extensions (spc, cpc, pte)	
CN105517715 B	20190628	LSGT	+GR01	PATENT GRANT	
CN105517715 B	20340704	PEXP		Calculated Patent Term Expiry	
EP3016748 A1	20160511	LSPB	+	published / reissued	
EP3016748 A1	20160511	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20160204

EP3016748 A1	20181010	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20180910
EP3016748 A1	20200219	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20200120
FR3007952 A1	20150109	LSPB	+	published / reissued	
FR3007952 B1	20150724	LSGT	+	granted / extensions (spc, cpc, pte)	
FR3007952 B1	20160613	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
FR3007952 B1	20170613	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 5
FR3007952 B1	20180612	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 6
FR3007952 B1	20190619	LSFE	PLFP	Fee Payement (FEE PAYMENT)	PAYMENT DATE : 20190619 YEAR OF FEE PAYMENT : 7
FR3007952 B1	20330704	PEXP		Calculated Patent Term Expiry	
JP2016531810 T2	20161013	LSPB	+	published / reissued	
JP2016531810 T2	20170627	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20170627
JP2016531810 T2	20180806	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20180806
JP2016531810 T2	20181101	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20181101
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JP2016531810 T2	20190311	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20190311
JP2016531810 T2	20190401	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20190401
JP2016531810 T2	20190628	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20190628
JP2016531810 T2	20191114	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2016531810 T2	20191125	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20191125
JP2016531810 T2	20200106	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20191225
JP2016531810 T2	20200107	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6640078 COUNTRY OF REF DOCUMENT : JP
JP6640078 B2	20200205	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6640078 B2	20191128	LSGT	+A01	特許査定書 (Decision of patent grant)	EFFECTIVE DATE : 20191125
JP6640078 B2	20191227	LSFE	R100	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20191225
JP6640078 B2	20340704	PEXP		Calculated Patent Term Expiry	
KR20160030532 A	20160318	LSPB	+	published / reissued	
US10413036 BB	20190917	LSGT	+	granted / extensions (spc, cpc, pte)	
US10413036 BB	20160115	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L'OREAL, FRANCE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ALBISETTI,

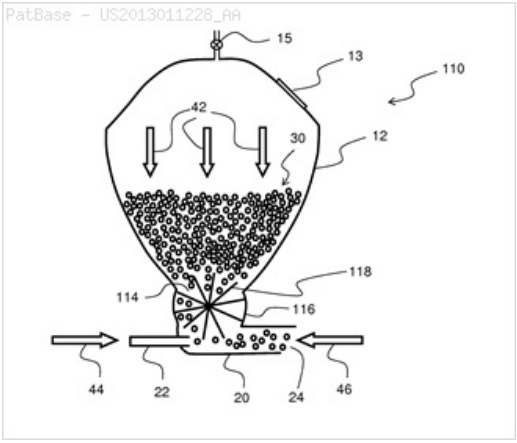
					NICOLAS; REEL/FRAME:037496/0719 EFFECTIVE DATE : 20151221
US10413036 BB	20190828	LSGT	PAT1	Patented Case	
US10413036 BB	20350116	PEXP		Calculated Patent Term Expiry (PTA 196 days)	
US2016166042 AA	20160616	LSPB	+	published / reissued	
US2016166042 AA	20171027	LSES	NFA1	Non Final Action Mailed	
US2016166042 AA	20190107	LSES	NFA1	Non Final Action Mailed	
US2016166042 AA	20190510	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016166042 AA	20190805	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2016166042 AA	20190828	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
WO15001272 A1	20150108	LSPB	+	published / reissued	
WO15001272 A1	20151120	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2014749910 COUNTRY OF REF DOCUMENT : EP
WO15001272 A1	20151228	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2016522846 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO15001272 A1	20160103	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 14902587 COUNTRY OF REF DOCUMENT : US
WO15001272 A1	20160104	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO15001272 A1	20160129	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20167002734 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

68) Family number: 49613054 (US2013011228A)

Title: METHOD AND APPARATUS FOR DRY-CONVEYING MATERIAL FOR DRY GUNNING APPLICATION

Abstract: A method and apparatus for conveying dry material for a gunning application make use of a rotary air lock in communication with a material source and an inductor. The material is supplied through the rotary air lock to the inductor under a pressure greater than the outlet pressure of the inductor.

Classifications:
International (IPC 8-9): B05B7/14 B05B9/047 B05D1/12 B28B1/32 B41C B65B1/04 B65D83/76 B65G53/46 B65G65/48 (Advanced/Invention); B05B7/24 (Advanced/Non-invention); B65B1/04 (Core/Invention)
International (IPC 1-7): B65B1/04
CPC: B05B7/1404
European: B05B7/14A
US: 414/325 414/808



Family:

Publication number	Publication date	Application number	Application date
AR081316 AA	20120808	AR2011P100842	20110316
AU2011227313 AA	20110922	AU20110227313	20110316
AU2011227313 AA	20120823	AU20110227313	20110316
BR112012022351 A2	20160705	BR20121122351	20110316
CA2788814 AA	20110922	CA20112788814	20110316
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CN102905978 A	20130130	CN201180015031	20110316
EA201201103 A1	20130228	EA20120001103	20110316
EP2547588 A1	20130123	EP20110756914	20110316
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JP2013529162 T2	20130718	JP20130500171T	20110316
KR20130016262 A	20130214	KR20127026460	20110316
MA34155 B1	20130403	MA20120035302	20121009
MX2012010735 A1	20121005	MX20120010735	20110316
NZ601642 A	20140430	NZ20110601642	20110316
TH128204 A	20131015	TH20121004507	20110316
TW201200249 A	20120101	TW20110108682	20110315
US2013011228 AA	20130110	US20110635715	20110316
WO11116068 A1	20110922	WO2011US28633	20110316

Priority:
US20100315206P 20100318 US20110635715 20110316 WO2011US28633 20110316

Probable Assignee: VESUVIUS CRUCIBLE CO
Assignee(s): (std): STENDERA JAMES W ; VESUVIUS CRUCIBLE CO
Assignee(s): VESUVIUS CRUCIBLE COMPANY
Inventor(s): (std): STENDERA JAMES W ; STENERA JAMES W
Inventor(s): JAMES W STENDERA
Agent(s): FISHER ADAMS KELLY; FISHER ADAMS KELLY PTY LTD; FISHER ADAMS KELLY CALLINANS; SPRUSON AND FERGUSON; ROBIC; SARGENT AND KRAHN; Debled Thierry; AOKI ATSUSHI; SHIMADA TETSURO; CLINTON THOMAS
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 MW 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 ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AR081316 AA	20120808	LSPB	+	published / reissued	
AU2011227313 AA	20110922	LSPB	+	published / reissued	
AU2011227313 AA	20120823	LSPB	+	published / reissued	
AU2011227313 AA	20151015	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO	

				CONTINUATION FEE PAID FOR THE APPLICATION	
AU2011227313 AA	20151015	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
BR112012022351 A2	20160927	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 5A ANUIDADE.
BR112012022351 A2	20170117	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : EM VIRTUDE DO ARQUIVAMENTO PUBLICADO NA RPI 2386 DE 27-09-2016 E CONSIDERANDO AUSENCIA DE MANIFESTACAO DENTRO DOS PRAZOS LEGAIS, INFORMO QUE CABE SER MANTIDO O ARQUIVAMENTO DO PEDIDO DE PATENTE, CONFORME O DISPOSTO NO ARTIGO 12, DA RESOLUCAO 113/2013.
CA2788814 AA	20110922	LSPB	+	published / reissued	
CA2788814 AA	20140326	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20140312
CA2788814 AA	20160427	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20160316
CL2012002558 A1	20130401	LSPB	+	published / reissued	
CN102905978 A	20130130	LSPB	+	published / reissued	
CN102905978 A	20130130	LSPB	+C06	PUBLICATION	
CN102905978 A	20150916	LSDW	-C20	PATENT RIGHT OR UTILITY MODEL DEEMED TO BE ABANDONED OR IS ABANDONED	
EA201201103 A1	20130228	LSPB	+	published / reissued	
EP2547588 A1	20130123	LSPB	+	published / reissued	
EP2547588 A1	20130123	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120911
EP2547588 A1	20160309	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20151001
IN07090DN2012 A	20151204	LSPB	+	published / reissued	
JP2013529162 T2	20130718	LSPB	+	published / reissued	
JP2013529162 T2	20140117	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20140116
JP2013529162 T2	20150128	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20150127
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KR20130016262 A	20130214	LSPB	+	published / reissued	
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MA34155 B1	20130403	LSGT	+	granted / extensions (spc, cpc, pte)	
MA34155 B1	20321009	PEXP		Calculated Patent Term	

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MX2012010735 A1	20121005	LSPB	+	published / reissued	
MX2012010735 A1	20181219	LSWD	-FA	ABANDONMENT OR WITHDRAWAL	
NZ601642 A	20140430	LSPB	+	published / reissued	
NZ601642 A	20140829	LSGT	+PSEA	PATENT SEALED	
NZ601642 A	20150925	LSLE	-LAPS	PATENT LAPSED	
TH128204 A	20131015	LSPB	+	published / reissued	
TW201200249 A	20120101	LSPB	+	published / reissued	
US2013011228 AA	20130110	LSPB	+	published / reissued	
US2013011228 AA	20150628	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
WO11116068 A1	20110922	LSPB	+	published / reissued	
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WO11116068 A1	20120803	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011227313 COUNTRY OF REF DOCUMENT : AU
WO11116068 A1	20120814	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 7090/DELNP/2012 COUNTRY OF REF DOCUMENT : IN
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WO11116068 A1	20120828	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12012501708 COUNTRY OF REF DOCUMENT : PH
WO11116068 A1	20120906	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201201103 COUNTRY OF REF DOCUMENT : EA
WO11116068 A1	20120911	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011756914 COUNTRY OF REF DOCUMENT : EP
WO11116068 A1	20120914	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2013500171 COUNTRY OF REF DOCUMENT : JP
WO11116068 A1	20120917	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2012/010735 COUNTRY OF REF DOCUMENT : MX
WO11116068 A1	20120918	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
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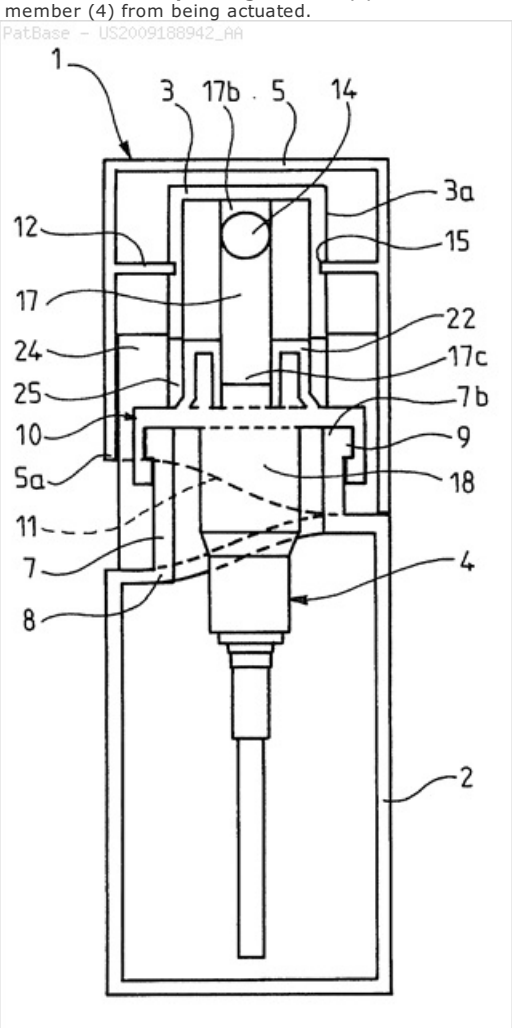
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WO11116068 A1	20120928	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : A201210220 COUNTRY OF REF DOCUMENT : UA
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WO11116068 A1	20160705	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112012022351 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20120904

69) Family number: 33086055 (US2009188942A)

Title: FLUID OR PASTY PRODUCT **DISPENSING** DEVICE

Abstract: The invention concerns a device for **dispensing** a fluid or pasty product comprising a **dispensing** member (4) fixed to a **container** (2) with a sealing ring (10), said **container** (2) including a neck (7), said **dispensing** member (4) having mounted thereon a push-button (3) capable of being depressed to operate said **dispensing** member (4), said push-button including a **dispensing** orifice (14) enabling a product to be expelled when said **dispensing** member (4) is operated, and a cap (5), integral with said push-button (3), upon translation about a median axis of the **dispensing** device towards said **container** (2), an edge of said neck (7) including a ramp (8), and edge of the cap (5) including a ramp (11), said ramps (8, 11) being mutually mobile in rotation between a **dispensing** position wherein the **dispensing** member (4) can be actuated and a locking position wherein they prevent the **dispensing** member (4) from being actuated.

Classifications:
International (IPC 8-9): A45D34/04 A45D40/26 A61J1/05 B05B11/00 B65D43/18 B65D83/16 B65D83/22 B67D5/00 B67D5/06 B67D5/40 B67D7/06 B67D7/58 B67D99/00 (Advanced/Invention);
A45D34/04 A45D40/26 A61J1/05 B05B11/00 B65D43/14 B65D83/00 B65D83/16 B67D7/06 B67D7/58 B67D99/00 (Core/Invention)
CPC: B65D83/22 B65D83/205 B05B11/0032 B05B11/3059 B65D83/56
European: B05B11/00B3F B05B11/00P9J B05B11/30H4 B65D83/20C B65D83/22B
US: 222/153.13 222/153.130P 222/153.14 222/384 222/402.11



Family:

Publication number	Publication date	Application number	Application date
AT390370 E	20080415	AT20050826571T	20051214
BRPI0519112 A2	20081223	BR2005PI19112	20051214
CA2590677 AA	20060622	CA20052590677	20051214
CN101094796 A	20071226	CN200580043116	20051214
CN101094796 B	20101222	CN200580043116	20051214
DE602005005719 D1	20080508	DE200560005719T	20051214
DE602005005719 T2	20090409	DE200560005719T	20051214
EP1828021 A1	20070905	EP20050826571	20051214
EP1828021 B1	20080326	EP20050826571	20051214
ES2304737 T3	20081016	ES20050826571T	20051214
FR2879173 A1	20060616	FR20040013329	20041215
FR2879173 B1	20091211	FR20040013329	20041215
JP2008523864 T2	20080710	JP20070546114T	20051214
JP4974008 B2	20120711	JP20070546114T	20051214
MX2007007166 A1	20071212	MX20070007166	20051214
US2009188942 AA	20090730	US20050721514	20051214
US7882984 BB	20110208	US20050721514	20051214
WO06064128 A1	20060622	WO2005FR03134	20051214

Priority:
FR20040013329 20041215 WO2005FR03134 20051214

Probable Assignee: NOUVEL OEUVRE

Assignee(s): (std): FONTAINE LAURENT ; FRANCOIS CEDRIC ; NOUVEL OEUVRE ; NOUVEL OEUVRE SARL

Assignee(s): NOUVEL OEUVRE SOC A RESPONSABILITE LIMITEE ; NOUVEL OEUVRE SOCIETE A RESPONSABILITE LIMITEE

Inventor(s): (std): FRANCOIS CEDRIC ; FONTAINE LAURENT ; CEDRIC FRANCOIS ; LAURENT FONTAINE

Agent(s): GOUDREAU GAGE DUBUC; LOYER; IPSILON; MEADWESTVACO ATTN IP LEGAL DEPARTMENT CORP; MWV INTELLECTUAL PROPERTY GROUP

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT390370 E	20080415	LSGT	+	granted / extensions (spc, cpc, pte)	
AT390370 E	20080915	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT390370 E	20251214	PEXP		Calculated Patent Term Expiry	
BRPI0519112 A2	20151201	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 10A ANUIDADE.
BRPI0519112 A2	20160329	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : EM VIRTUDE DO ARQUIVAMENTO PUBLICADO NA RPI 2343 DE 01-12-2015 E CONSIDERANDO AUSENCIA DE MANIFESTACAO DENTRO DOS PRAZOS LEGAIS, INFORMO QUE CABE SER MANTIDO O ARQUIVAMENTO DO PEDIDO DE PATENTE, CONFORME O DISPOSTO NO ARTIGO 12, DA RESOLUCAO 113/2013.
CA2590677 AA	20060622	LSPB	+	published / reissued	
CA2590677 AA	20111214	LSLE	-FZDE	DEAD	
CN101094796 A	20071226	LSPB	+	published / reissued	
CN101094796 A	20071226	LSPB	+C06	PUBLICATION	
CN101094796 B	20101222	LSGT	+	granted / extensions (spc, cpc, pte)	
CN101094796 B	20101222	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN101094796 B	20160203	LSWD	-EXPY	TERMINATION OF PATENT RIGHT OR UTILITY MODEL	
CN101094796 B	20251214	PEXP		Calculated Patent Term Expiry	
DE602005005719 T2	20090409	LSGT	+	granted / extensions (spc, cpc, pte)	
DE602005005719 T2	20090514	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE602005005719 T2	20251214	PEXP		Calculated Patent Term Expiry	
EP1828021 A1	20070905	LSPB	+	published / reissued	
EP1828021 A1	20070905	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20070612
EP1828021 A1	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20151217 YEAR OF FEE PAYMENT : 11

				OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	
EP1828021 B1	20080326	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1828021 B1	20080326	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D TEXT : NOT ENGLISH
EP1828021 B1	20080430	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1828021 B1	20080430	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : LANGUAGE OF EP DOCUMENT: FRENCH
EP1828021 B1	20080730	LSAS	RAP2	RIGHTS OF A PATENT TRANSFERRED	PARTYTYPE : OWNER OWNER : NOUVEL OEUVRE
EP1828021 B1	20080731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080326
EP1828021 B1	20080829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080326
EP1828021 B1	20080901	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	REF COUNTRY CODE : EP
EP1828021 B1	20080930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080326
EP1828021 B1	20080930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080326
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EP1828021 B1	20081016	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2304737 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :

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EP1828021 B1	20081031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080326
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EP1828021 B1	20100730	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1828021 B1	20100831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080326
EP1828021 B1	20100930	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : AEN TEXT : LE BREVET A ETE REACTIVE SELON LA DEMANDE DE POURSUITE DE LA PROCEDURE DU 27.09.2010.
EP1828021 B1	20101029	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080627
EP1828021 B1	20140131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20131219 YEAR OF FEE PAYMENT : 9
EP1828021 B1	20140131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20131227 YEAR OF FEE PAYMENT : 9
EP1828021 B1	20140131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20131230 YEAR OF FEE PAYMENT : 9
EP1828021 B1	20140228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20131226 YEAR OF FEE PAYMENT : 9
EP1828021 B1	20140228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20131228 YEAR OF FEE PAYMENT : 9
EP1828021 B1	20150701	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 602005005719 COUNTRY OF REF DOCUMENT : DE
EP1828021 B1	20150731	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1828021 B1	20150826	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20141214
EP1828021 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141214

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EP1828021 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141231
EP1828021 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141231
EP1828021 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150701
EP1828021 B1	20151217	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
EP1828021 B1	20151231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141214
EP1828021 B1	20160126	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20160126
EP1828021 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141215
EP1828021 B1	20161227	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12
EP1828021 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161227 YEAR OF FEE PAYMENT : 12
EP1828021 B1	20171227	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 13
EP1828021 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171227 YEAR OF FEE PAYMENT : 13

EP1828021 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181226 YEAR OF FEE PAYMENT : 14
EP1828021 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20191226 YEAR OF FEE PAYMENT : 15
EP1828021 B1	20251214	PEXP		Calculated Patent Term Expiry	
ES2304737 T3	20081016	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2304737 T3	20251214	PEXP		Calculated Patent Term Expiry	
FR2879173 A1	20060616	LSPB	+	published / reissued	
FR2879173 B1	20091211	LSGT	+	granted / extensions (spc, cpc, pte)	
FR2879173 B1	20151217	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
FR2879173 B1	20161227	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 13
FR2879173 B1	20171227	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 14
FR2879173 B1	20181226	LSFE	PLFP	Fee Payement (FEE PAYMENT)	PAYMENT DATE : 20181226 YEAR OF FEE PAYMENT : 15
FR2879173 B1	20191226	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 16
FR2879173 B1	20241215	PEXP		Calculated Patent Term Expiry	
JP2008523864 T2	20080710	LSPB	+	published / reissued	
JP2008523864 T2	20081216	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20081215
JP2008523864 T2	20110915	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110914
JP2008523864 T2	20111202	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20111201
JP2008523864 T2	20120312	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2008523864 T2	20120315	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20120314
JP2008523864 T2	20120322	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP2008523864 T2	20120419	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120329
JP2008523864 T2	20120420	LSGT	+R150	CERTIFICATE OF PATENT OR	TEXT : JAPANESE INTERMEDIATE CODE: R150

				REGISTRATION OF UTILITY MODEL	
JP2008523864 T2	20120423	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4974008 B2	20120711	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4974008 B2	20120417	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4974008 B2	20150420	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP4974008 B2	20251214	PEXP		Calculated Patent Term Expiry	
MX2007007166 A1	20071212	LSPB	+	published / reissued	
MX2007007166 A1	20090827	LSGT	+FG	GRANT OR REGISTRATION	
US2009188942 AA	20090730	LSPB	+	published / reissued	
US2009188942 AA	20110119	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7882984 BB	20110208	LSGT	+	granted / extensions (spc, cpc, pte)	
US7882984 BB	20110119	LSGT	PAT1	Patented Case	
US7882984 BB	20140808	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7882984 BB	20180808	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7882984 BB	20271231	PEXP		Calculated Patent Term Expiry (PTA 747 days)	
WO06064128 A1	20060622	LSPB	+	published / reissued	
WO06064128 A1	20070611	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2005826571 COUNTRY OF REF DOCUMENT : EP
WO06064128 A1	20070614	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2590677 COUNTRY OF REF DOCUMENT : CA
WO06064128 A1	20070614	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2007/007166 COUNTRY OF REF DOCUMENT : MX
WO06064128 A1	20070615	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200580043116.2 COUNTRY OF REF DOCUMENT : CN
WO06064128 A1	20070615	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007546114 COUNTRY OF REF DOCUMENT : JP
WO06064128 A1	20070616	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO06064128 A1	20070905	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 11721514 COUNTRY OF REF DOCUMENT : US
WO06064128 A1	20070905	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2005826571 COUNTRY OF REF DOCUMENT : EP

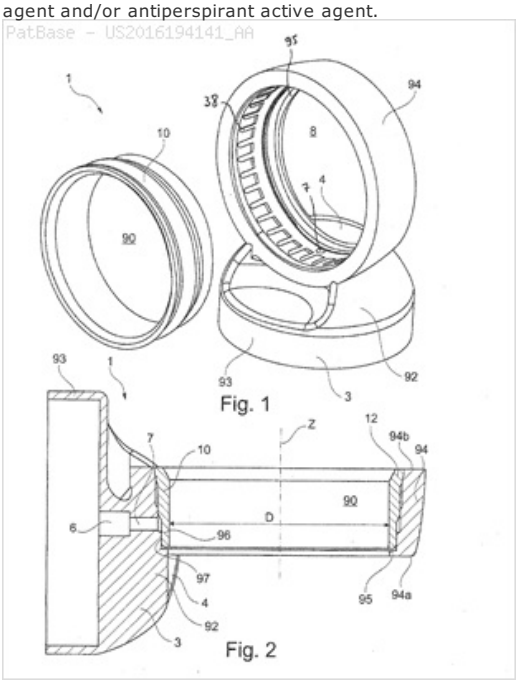
WO06064128 A1	20080326	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2005826571 COUNTRY OF REF DOCUMENT : EP
WO06064128 A1	20081223	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0519112 COUNTRY OF REF DOCUMENT : BR

70) Family number: 58241055 (US2016194141A)

Title: ANHYDROUS DEODORANT AEROSOL EQUIPPED WITH A HOLLOW **DISPENSING** HEAD

Abstract: The subject of the invention is a device for **dispensing** a cosmetic composition, comprising a **dispensing** head (1) intended to be fitted on a **container** **containing** said cosmetic composition to be **dispensed**, (i) the **dispensing** head comprising: a body (3) that is open at its two opposite axial ends, an engaging part (10) that is open at its two opposite axial ends and at least partially defines at least one **dispensing** orifice (12), the cross section of the **dispensing** orifice being between 0.05 mm2 and 0.5 mm2, (ii) the anhydrous cosmetic composition comprising, in a cosmetically acceptable medium, at least one oily phase comprising one or more oils chosen from silicone oils, hydrocarbon-based oils and fluoro oils, at least one cosmetic active agent, in particular at least one deodorant active agent and/or antiperspirant active agent.

Classifications:
International (IPC 8-9): A45D34/00 A45D44/00 A61K8/00 A61K8/02 A61K8/04 A61K8/31 A61K8/69 A61K8/891 A61K8/92 A61L9/01 A61Q15/00 B05B1/02 B05B1/06 B05B1/14 B05B1/32 B65D83/14 B65D83/20 B65D83/28 B65D83/30 (Advanced/Invention)
CPC: A45D44/00 B05B1/02 A61K8/046 A61K8/31 A61K8/69 A61K8/891 A61K8/92 A61K2800/30 A61K2800/31 A61K2800/87 A61Q15/00 B05B1/06 B05B7/0425 B65D83/205 B65D83/28 B65D83/30 B65D83/752
US: 222/1 222/394



Family:

Publication number	Publication date	Application number	Application date
CN105358255 A	20160224	CN201480037888	20140704
EA032629 B1	20190628	EA20160090158	20140704
EA201690158 A1	20160531	EA20160090158	20140704
EP3016747 A1	20160511	EP20140749909	20140704
FR3007951 A1	20150109	FR20130056570	20130704
FR3007951 B1	20150724	FR20130056570	20130704
JP2016531809 T2	20161013	JP20160522845T	20140704
JP6505680 B2	20190424	JP20160522845T	20140704
KR20160030531 A	20160318	KR20167002733	20140704
US2016194141 AA	20160707	US20140902585	20140704
WO15001271 A1	20150108	WO2014FR51722	20140704

Priority:
FR20130056570 20130704 WO2014FR51722 20140704

Probable Assignee: LOREAL SA
Assignee(s): (std): L OREAL SA ; OREAL ; OREAL L
Assignee(s): LOREAL SA ; L OREAL ; L OREAL S A
Inventor(s): (std): ALBISETTI NICOLAS
Inventor(s): NICOLAS ALBISETTI
Agent(s): BOURDEAU FRANCOISE; LOREAL
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN 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 IR 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 PA PE PG PH PL PT QA RO RS RU RW SA 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 ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CN105358255 A	20160224	LSPB	+	published / reissued	
CN105358255 A	20160224	LSPB	+C06	PUBLICATION	
EA032629 B1	20190628	LSGT	+	granted / extensions (spc, cpc, pte)	
EA032629 B1	20340704	PEXP		Calculated Patent Term Expiry	

EA201690158 A1	20160531	LSPB	+	published / reissued	
EP3016747 A1	20160511	LSPB	+	published / reissued	
EP3016747 A1	20160511	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20160204
EP3016747 A1	20181010	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20180910
EP3016747 A1	20200122	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20200107
FR3007951 A1	20150109	LSPB	+	published / reissued	
FR3007951 B1	20150724	LSGT	+	granted / extensions (spc, cpc, pte)	
FR3007951 B1	20160613	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
FR3007951 B1	20170613	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 5
FR3007951 B1	20180612	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 6
FR3007951 B1	20190619	LSFE	PLFP	Fee Payement (FEE PAYMENT)	PAYMENT DATE : 20190619 YEAR OF FEE PAYMENT : 7
FR3007951 B1	20330704	PEXP		Calculated Patent Term Expiry	
JP2016531809 T2	20161013	LSPB	+	published / reissued	
JP2016531809 T2	20170627	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20170627
JP2016531809 T2	20180806	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20180806
JP2016531809 T2	20190107	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20190107
JP2016531809 T2	20190213	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2016531809 T2	20190225	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20190225
JP2016531809 T2	20190404	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20190327
JP2016531809 T2	20190405	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6505680 COUNTRY OF REF DOCUMENT : JP
JP6505680 B2	20190424	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6505680 B2	20190228	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6505680 B2	20190402	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6505680 B2	20190405	LSGT	+R150	特許証 (Patent certificate)	
JP6505680 B2	20340704	PEXP		Calculated Patent Term Expiry	
KR20160030531 A	20160318	LSPB	+	published / reissued	
US2016194141 AA	20160707	LSPB	+	published / reissued	
US2016194141 AA	20160115	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L'OREAL, FRANCE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ALBISETTI, NICOLAS; REEL/FRAME:037496/0698 EFFECTIVE DATE : 20151221
US2016194141 AA	20170206	LSES	NFA1	Non Final Action Mailed	
US2016194141 AA	20180530	LSES	NFA1	Non Final Action Mailed	

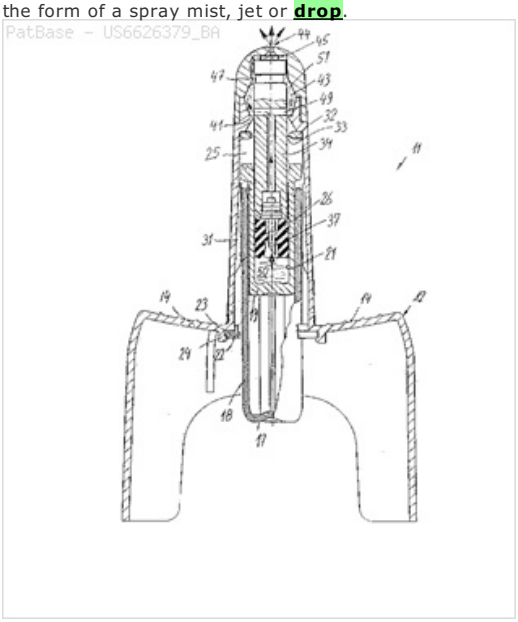
US2016194141 AA	20190321	LSES	ADV1	Advisory Action Mailed	
US2016194141 AA	20191129	LSES	NFA1	Non Final Action Mailed	
WO15001271 A1	20150108	LSPB	+	published / reissued	
WO15001271 A1	20140704	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201480037888.4 COUNTRY OF REF DOCUMENT : CN
WO15001271 A1	20151119	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2014749909 COUNTRY OF REF DOCUMENT : EP
WO15001271 A1	20151228	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2016522845 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO15001271 A1	20160103	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 14902585 COUNTRY OF REF DOCUMENT : US
WO15001271 A1	20160104	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO15001271 A1	20160129	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20167002733 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO15001271 A1	20160203	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201690158 COUNTRY OF REF DOCUMENT : EA

71) Family number: 29111056 (US6626379B)

Title: Application method for at least two different media and **dispenser** therefor

Abstract: In order to enable application of a dry i.e. powdery or granulated active substance, said substance is kept apart from a **liquid** supply in a **dispenser**. The powder is discharged with the help of said **liquid** during application. The **liquid** serves as a carrier for the active substance and is mixed with the **liquid** to varying degrees prior to discharge. The **dispenser** (11) has a **liquid** chamber (21) in an ampoule (19) which is provided with a closure stopper (26) which can be pierced. The **liquid** flow which is released upon actuation penetrates into a medium storage chamber (43), is mixed with the medium (51) therein and exits via an opened discharge outlet (44) in the form of a spray mist, jet or **drop**.

Classifications:
International (IPC 8-9): A61M11/00 A61M15/00 A61M15/08 B05B11/00 B05B11/02 B05B7/24 B05B7/26 (Advanced/Invention); A61M11/00 B05B7/24 (Advanced/Non-invention)
International (IPC 1-7): A61M1/00 A61M11/00 A62C11/00 B05B11/00 B05B11/02 B05B7/13 B05D1/12 B65D83/00
CPC: B05B7/2405 B05B11/0078 B05B11/02
European: B05B11/00B11 B05B11/02 L05B7/24A3
US: 239/303 239/304 239/309 239/329 239/337



Family:

Publication number	Publication date	Application number	Application date
AU199910316 A1	19990531	AU19990010316	19981022
AU199920475 A1	19990531	AU19990020475	19981022
CA2307160 AA	20000425	CA19982307160	19981022
CA2307160 C	20090505	CA19982307160	19981022
DE19749514 A1	19990512	DE19971049514	19971108
DE19837127 A1	19990512	DE19981037127	19980817
DE59804744 D1	20020814	DE19985004744	19981022
DE59807579 D1	20030424	DE19985007579	19981022
DE59811482 D1	20040701	DE19985011482	19981022
DK1027165 T3	20030721	DK19980952735T	19981022
DK1297898 T3	20041004	DK19980027186T	19981022
EP1027165 A2	20000816	EP19980952735	19981022
EP1027165 B1	20030319	EP19980952735	19981022
EP1027166 A1	20000816	EP19980965137	19981022
EP1027166 B1	20020710	EP19980965137	19981022
EP1297898 A2	20030402	EP20020027186	19981022
EP1297898 A3	20030409	EP20020027186	19981022
EP1297898 B1	20040526	EP20020027186	19981022
ES2194360 T3	20031116	ES19980952735T	19981022
ES2222430 T3	20050201	ES20020027186T	19981022
JP2001522717 T2	20011120	JP20000520242T	19981022
JP2006081917 A2	20060330	JP20050302445	20051018
JP4411374 B2	20100210	JP20000520242T	19981022
JP4789089 B2	20111005	JP20050302445	20051018
US6626379 BA	20030930	US20000554031	20000508
WO9924170 A1	19990520	WO1998EP06711	19981022
WO9924171 A2	19990520	WO1998EP06712	19981022
WO9924171 A3	19990715	WO1998EP06712	19981022

Priority:

DE19971049513 19971108 DE19971049514 19971108 DE19981037127 19980817
JP20000520242 19981022 DE19985011482 19981022 DE19985004744 19981022
DE19985007579 19981022 EP19980952735 19981022 WO1998EP06711 19981022
WO1998EP06712 19981022

Probable Assignee: APTAR RADOLFZELL GMBH

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Agent(s): BARRIGAR INTELLECTUAL PROPERTY LAW

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 LI 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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU199910316 A1	19990531	LSPB	+	published / reissued	
AU199910316 A1	20000720	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
AU199920475 A1	19990531	LSPB	+	published / reissued	
AU199920475 A1	20000720	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
CA2307160 AA	20000425	LSPB	+	published / reissued	
CA2307160 AA	20030709	LSES	+EEER	EXAMINATION REQUEST	
CA2307160 C	20090505	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2307160 C	20141203	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20141022
CA2307160 C	20181022	PEXP		Calculated Patent Term Expiry	
DE19749514 A1	19990512	LSPB	+	published / reissued	
DE19749514 A1	19990512	LSES	OR8	REQUEST FOR SEARCH AS TO PARAGRAPH 43 LIT. 1 SENTENCE 1 PATENT LAW	
DE19749514 A1	19990617	LSES	+8105	SEARCH REPORT AVAILABLE	
DE19749514 A1	20040506	LSWD	-8130	WITHDRAWAL	
DE19837127 A1	19990512	LSPB	+	published / reissued	
DE19837127 A1	19990512	LSES	+OM8	SEARCH REPORT AVAILABLE AS TO PARAGRAPH 43 LIT. 1 SENTENCE 1 PATENT LAW	
DE19837127 A1	20051110	LSLE	-8141	DISPOSAL/NO REQUEST FOR EXAMINATION	
DE59804744 D1	20030807	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE59807579 D1	20040415	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE59807579 D1	20121025	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : APTAR RADOLFZELL GMBH, 78315 RADOLFZELL, DE OLDPARTY : ING. ERICH PFEIFFER GMBH, 78315 RADOLFZELL, DE
DE59811482 D1	20050623	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
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DK1027165 T3	20030721	LSGT	+	granted / extensions (spc, cpc, pte)	
DK1027165 T3	20181022	PEXP		Calculated Patent Term Expiry	
DK1297898 T3	20041004	LSGT	+	granted / extensions (spc, cpc, pte)	

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EP1027165 A2	20000816	LSPB	+	published / reissued	
EP1027165 A2	20000816	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20000315
EP1027165 B1	20030319	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1027165 B1	20030319	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D TEXT : NOT ENGLISH
EP1027165 B1	20030327	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1027165 B1	20031116	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2194360 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
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EP1027165 B1	20081128	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20081023 YEAR OF FEE PAYMENT : 11
EP1027165 B1	20090130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20081024 YEAR OF FEE PAYMENT : 11
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EP1027165 B1	20090331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20081027 YEAR OF FEE PAYMENT : 11
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EP1027165 B1	20100129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20091026 YEAR OF FEE PAYMENT : 12
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EP1027165 B1	20100531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20091029 YEAR OF FEE PAYMENT : 12
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EP1027165 B1	20100831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF

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EP1027165 B1	20110331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20101023 YEAR OF FEE PAYMENT : 13
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EP1027165 B1	20121220	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : APTAR RADOLFZELL GMBH, DE REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 59807579 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: ING. ERICH PFEIFFER GMBH, 78315 RADOLFZELL, DE EFFECTIVE DATE : 20121025
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EP1027165 B1	20140625	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20131022
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EP1027165 B1	20161025	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 19
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EP1027166 A1	20000816	LSPB	+	published / reissued	
EP1027166 A1	20000816	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20000322
EP1027166 A1	20011114	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20011001
EP1027166 B1	20020710	LSGT	+	granted / extensions (spc, cpc, pte)	
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					TEXT : NOT ENGLISH
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EP1027166 B1	20020731	LSAS	RAP2	RIGHTS OF A PATENT TRANSFERRED	PARTYTYPE : OWNER OWNER : ING. ERICH PFEIFFER GMBH
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EP1027166 B1	20100531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20091029 YEAR OF FEE PAYMENT : 12
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EP1027166 B1	20130830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121022
EP1027166 B1	20140625	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20131022
EP1027166 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20131022
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EP1027166 B1	20160503	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 59804744 COUNTRY OF REF DOCUMENT : DE
EP1027166 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160503
EP1027166 B1	20161025	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 19
EP1027166 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161025 YEAR OF FEE PAYMENT : 19
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EP1027166 B1	20181022	PEXP		Calculated Patent Term Expiry	
EP1297898 A2	20030402	LSPB	+	published / reissued	
EP1297898 A3	20030806	LSES	+17P	REQUEST FOR	EFFECTIVE DATE : 20030604

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EP1297898 A3	20030917	LSRE	RTI1	TITLE (CORRECTION)	TEXT : DISPENSER WITH PERFORATING NEEDLE FOR MATERIALS TO BE MIXED DURING DISPENSING
EP1297898 A3	20040102	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : BE COUNTRY OF REF DOCUMENT : CH COUNTRY OF REF DOCUMENT : DE COUNTRY OF REF DOCUMENT : DK COUNTRY OF REF DOCUMENT : ES COUNTRY OF REF DOCUMENT : FI COUNTRY OF REF DOCUMENT : FR COUNTRY OF REF DOCUMENT : GB COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : SE
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EP1297898 B1	20050201	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2222430 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1297898 B1	20050518	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20050301
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EP1297898 B1	20100129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20091023 YEAR OF FEE PAYMENT : 12
EP1297898 B1	20100129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20091026 YEAR OF FEE PAYMENT : 12
EP1297898 B1	20100129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20091026 YEAR OF FEE PAYMENT : 12
EP1297898 B1	20100129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20091023 YEAR OF FEE PAYMENT : 12

EP1297898 B1	20100226	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20091027 YEAR OF FEE PAYMENT : 12
EP1297898 B1	20100531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20091029 YEAR OF FEE PAYMENT : 12
EP1297898 B1	20110331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20101029 YEAR OF FEE PAYMENT : 13
EP1297898 B1	20110430	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : ERICH *PFEIFFER G.M.B.H. EFFECTIVE DATE : 20101031
EP1297898 B1	20110518	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : V1 EFFECTIVE DATE : 20110501
EP1297898 B1	20110530	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP
EP1297898 B1	20110831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20101031
EP1297898 B1	20110831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110501
EP1297898 B1	20110831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20101022
EP1297898 B1	20110930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20101023
EP1297898 B1	20111031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20101031
EP1297898 B1	20111118	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20111118
EP1297898 B1	20120131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20101023
EP1297898 B1	20120131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20111025 YEAR OF FEE PAYMENT : 14
EP1297898 B1	20121220	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : APTAR RADOLFZELL GMBH, DE REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 59811482 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: ING. ERICH PFEFFER GMBH, 78315 RADOLFZELL, DE EFFECTIVE DATE : 20121025

EP1297898 B1	20130531	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1297898 B1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121031
EP1297898 B1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121031
EP1297898 B1	20130830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121022
EP1297898 B1	20151026	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 18
EP1297898 B1	20161025	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 19
EP1297898 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161025 YEAR OF FEE PAYMENT : 19
EP1297898 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20161025 YEAR OF FEE PAYMENT : 19
EP1297898 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161019 YEAR OF FEE PAYMENT : 19
EP1297898 B1	20171023	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 20
EP1297898 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171023 YEAR OF FEE PAYMENT : 20
EP1297898 B1	20180501	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 59811482 COUNTRY OF REF DOCUMENT : DE
EP1297898 B1	20180627	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20171022
EP1297898 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180501
EP1297898 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20171022
EP1297898 B1	20181022	PEXP		Calculated Patent Term Expiry	
ES2194360 T3	20031116	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2194360 T3	20181022	PEXP		Calculated Patent	

				Term Expiry	
ES2222430 T3	20050201	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2222430 T3	20181022	PEXP		Calculated Patent Term Expiry	
JP2001522717 T2	20011120	LSPB	+	published / reissued	
JP2001522717 T2	20051019	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20051018
JP2001522717 T2	20051019	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20051018
JP2001522717 T2	20081028	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20081028
JP2001522717 T2	20090403	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090402
JP2001522717 T2	20090901	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2001522717 T2	20090908	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20090908
JP2001522717 T2	20090917	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20090910
JP2001522717 T2	20090925	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP2001522717 T2	20091118	LSRV	-R155	NOTIFICATION BEFORE DISPOSITION OF DECLINING OF APPLICATION	TEXT : JAPANESE INTERMEDIATE CODE: R155
JP2001522717 T2	20091127	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2001522717 T2	20091127	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2006081917 A2	20060330	LSPB	+	published / reissued	
JP2006081917 A2	20081028	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20081028
JP2006081917 A2	20090217	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090216
JP2006081917 A2	20090908	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20090908
JP2006081917 A2	20091125	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20091124
JP2006081917 A2	20100202	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20100201
JP2006081917 A2	20100323	LSAL	-A912	REMOVAL OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A912 EFFECTIVE DATE : 20100319
JP2006081917 A2	20110610	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110609
JP2006081917 A2	20110721	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION	TEXT : JAPANESE INTERMEDIATE CODE: A01

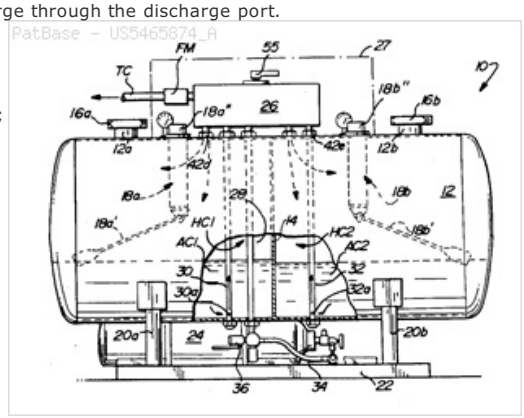
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JP2006081917 A2	20110728	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20110711
JP2006081917 A2	20110729	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2006081917 A2	20110729	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP4411374 B2	20100210	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4411374 B2	20121127	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 4
JP4411374 B2	20131127	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP4411374 B2	20181022	PEXP		Calculated Patent Term Expiry	
JP4789089 B2	20111005	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4789089 B2	20110726	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4789089 B2	20140729	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP4789089 B2	20251018	PEXP		Calculated Patent Term Expiry	
US6626379 BA	20030930	LSGT	+	granted / extensions (spc, cpc, pte)	
US6626379 BA	20000508	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ING. ERICH PFEIFFER GMBH, GERMANY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RITSCHE, STEFAN; FUCHS, KARL-HEINZ; REEL/FRAME:010846/0568 EFFECTIVE DATE : 20000327
US6626379 BA	20070327	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6626379 BA	20110323	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6626379 BA	20121214	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : APTAR RADOLFZELL GMBH, GERMANY OLDPARTY : CHANGE OF NAME; ASSIGNOR:ING. ERICH PFEIFFER GMBH; REEL/FRAME:029467/0773 EFFECTIVE DATE : 20120716
US6626379 BA	20150930	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6626379 BA	20151026	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6626379 BA	20151026	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6626379 BA	20151117	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20150930
US6626379 BA	20200508	PEXP		Calculated Patent Term Expiry	
WO9924170 A1	19990520	LSPB	+	published / reissued	
WO9924170 A1	20000322	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1998965137 COUNTRY OF REF DOCUMENT : EP
WO9924170 A1	20000508	LSNE	NENP	NON-ENTRY INTO	REF COUNTRY CODE : KR

				THE NATIONAL PHASE IN:	
WO9924170 A1	20000608	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO9924170 A1	20000816	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998965137 COUNTRY OF REF DOCUMENT : EP
WO9924170 A1	20010508	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : CA
WO9924170 A1	20020710	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998965137 COUNTRY OF REF DOCUMENT : EP
WO9924171 A2	19990520	LSPB	+	published / reissued	
WO9924171 A3	20000315	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1998952735 COUNTRY OF REF DOCUMENT : EP
WO9924171 A3	20000425	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2307160 COUNTRY OF REF DOCUMENT : CA
WO9924171 A3	20000425	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2307160 COUNTRY OF REF DOCUMENT : CA KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO9924171 A3	20000508	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : KR
WO9924171 A3	20000508	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 09554031 COUNTRY OF REF DOCUMENT : US
WO9924171 A3	20000816	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998952735 COUNTRY OF REF DOCUMENT : EP
WO9924171 A3	20010111	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO9924171 A3	20030319	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998952735 COUNTRY OF REF DOCUMENT : EP

72) Family number: 8524057 (US5465874A)

Title: Portable multi-compartment chemical storage and mixing tank

Abstract: A portable holding and mixing tank system for at least two dissimilar **liquids** includes a tank having an interior space and a dividing wall which establishes at least two fluid-isolated holding compartments within the tank interior space for respectively holding a respective one of the dissimilar **liquids**. A manifold assembly defines respective channels for the dissimilar **liquids** and for pressurizing fluid supplied from a source thereof. The **liquid** and pressurizing fluid channels are fluid-connected to each of the holding compartments. A pressurizing supply conduit fluid-connects the source of pressurizing fluid to pressurizing fluid channel, while **liquid** supply risers respectively fluid connect the dissimilar **liquids** **contained** in each of the holding compartments to the **liquid** channel defined by the manifold assembly. A **liquid** discharge port fluid-connects the **liquid** channel defined by the manifold assembly. As a result, the dissimilar **liquids** within each of the holding compartments are forcibly introduced by the pressurizing fluid into the **liquid** channel defined by the manifold assembly and are mixed with one another within the **liquid** channel prior to discharge through the discharge port.



Classifications:
International (IPC 8-9): A01M7/00 B01F13/00 B01F15/00 B01F5/00 B01F5/12 B60P3/24 B65D83/68 B67D5/08 (Advanced/Invention); A01M7/00 B01F5/00 (Advanced/Non-invention); A01M7/00 B01F13/00 B01F15/00 B01F5/00 B60P3/22 (Core/Invention); B67D5/08 (Core/Non-invention)
International (IPC 1-7): A01M7/00 B01F15/00 B01F5/00 B01F5/12 B05B7/00 B60P3/24 B65D B65D83/14 B65D83/68 B67D B67D5/08 F17C
CPC: A01M7/0085 A01M7/0092 B01F13/0016 B01F13/0035 B01F15/00928
European: A01M7/00F1 A01M7/00G1 B01F13/00K B01F13/00K4 B01F15/00T
US: 222/136 222/145.5 222/164.1 222/184 222/399 222/400.7 222/464.6 222/51 222/529 222/608

Family:

Publication number	Publication date	Application number	Application date
AT162930 E	19980215	AT19940900692T	19941110
AU199481416 A1	19950606	AU19940081416	19941110
AU677464 B2	19970424	AU19940081416	19941110
AU8141694 A1	19950606	AU19940081416D	19941110
BRPI9408076 A	19970812	BR1994PI08076	19941110
CA2135989 AA	19950518	CA19942135989	19941116
CA2135989 C	19981124	CA19942135989	19941116
CN1046180 C	19991110	CN19941094162	19941110
CN1135159 A	19961106	CN19941094162	19941110
CZ140996 A3	19970115	CZ19960001409	19941110
CZ9601409 A3	19970115	CZ19960001409	19941110
DE69408477 D1	19980312	DE19946008477	19941110
DE69408477 T2	19980520	DE19946008477T	19941110
DK0729296 T3	19980330	DK19940900692T	19941110
EP0729296 A1	19960904	EP19950900692	19941110
EP0729296 B1	19980204	EP19950900692	19941110
ES2112631 T3	19980401	ES19950900692T	19941110
GR3026189 T3	19980529	GR19980400367T	19980220
HU218682 B	20001128	HU19960001317	19941110
HU74540 A2	19970128	HU19960001317	19941110
JP9504953 T2	19970520	JP19950514198T	19941110
KR100344594 B1	20021123	KR19960702586	19941110
KR19960705479 A	19961108	KR19960702586	19960516
KR19967005479 A	19961108	KR19967002586	19941110
KR960705479 A	19961108	KR19960702586	19960516
NZ276082 A	19970526	NZ19940276082	19941110
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PL314493 A1	19960916	PL19940314493	19941110
RU2104178 C1	19980210	RU19960113105	19941110
RU96113105 A	19980920	RU19960113105	19960617
TW303347 B	19970421	TW19940111017	19941126
US5465874 A	19951114	US19930153052	19931117
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WO9513696 A1	19950526	WO1994EP03705	19941110
ZA9409082 A	19960516	ZA19940009082	19941116

Priority:

US19930153052 19931117 WO1994EP03705 19941110 CA19942135989 19941116
US19950426530 19950420

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Inventor(s): DZHON VEBSTER[US] ; NEJL STAPENSEA[US] ; MEHT'JU N.ROACH[US] ; JOHN WEBSTER ; N STAPENSEA ; M N ROACH ; WEBSTER JON CARY NC 27511 US ; ROACH MATTHEW N APEX NC 27502 US ; STAPENSEA NEIL RALEIGH NC 27615 US ; MATTHEW N ROACH ; NEIL STAPENSEA ; JON WEBSTER

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; ROBIC

Designated states: AT AU BE BR BY CA CH CN CZ DE DK ES FI FR GB GR HU IE IT JP KR KZ LI LU MC NL NO NZ PL PT RU SE UA UZ

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AT162930 E	19980215	LSGT	+	granted / extensions (spc, cpc, pte)	
AT162930 E	19980815	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	
AT162930 E	20040815	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT162930 E	20141110	PEXP		Calculated Patent Term Expiry	
AU199481416 A1	19950606	LSPB	+	published / reissued	
AU677464 B2	19970424	LSGT	+	granted / extensions (spc, cpc, pte)	
AU677464 B2	20040610	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU677464 B2	20141110	PEXP		Calculated Patent Term Expiry	
AU8141694 A1	19950606	LSPB	+	published / reissued	
BRPI9408076 A	19970812	LSPB	+	published / reissued	
BRPI9408076 A	19990309	LSGT	+FF	DECISION: INTENTION TO GRANT	
BRPI9408076 A	19990727	LSGT	+FG9A	PATENT OR CERTIFICATE OF ADDITION GRANTED	
BRPI9408076 A	20100615	LSFE	B24C	PATENT ANNUAL FEE: REQUEST FOR FOR RESTORATION	TEXT : REFERENTE 10A., 11A., 12A., 13A., 14A., E 15A. ANUIDADES.
BRPI9408076 A	20130827	LSLE	-B21F	LAPSE ACC. ART. 78, ITEM IV - ON NON-PAYMENT OF THE ANNUAL FEES IN TIME	TEXT : REFERENTE AO DESPACHO PUBLICADO NA RPI 2058 DE 15/06/2010 E AO NAO RECOLHIMENTO DA 16A, 17A, 18A E 19A ANUIDADES.
CA2135989 AA	19950518	LSPB	+	published / reissued	
CA2135989 AA	19950313	LSES	+EEER	EXAMINATION REQUEST	
CA2135989 C	19981124	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2135989 C	20021118	LSLE	-MKLA	LAPSED	
CA2135989 C	20141116	PEXP		Calculated Patent Term Expiry	
CN1046180 C	19991110	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1046180 C	19991110	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1046180 C	20050105	LSLE	-C19	LAPSE OF PATENT RIGHT DUE TO NON-PAYMENT OF THE ANNUAL FEE	
CN1046180 C	20141110	PEXP		Calculated Patent Term Expiry	
CN1135159 A	19961106	LSPB	+	published / reissued	
CN1135159 A	19961106	LSPB	+C06	PUBLICATION	
CZ140996 A3	19970115	LSPB	+	published / reissued	
CZ9601409 A3	19970115	LSPB	+	published / reissued	
DE69408477 D1	19990311	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69408477 D1	20040923	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	

DE69408477 T2	19980520	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69408477 T2	20141110	PEXP		Calculated Patent Term Expiry	
DK0729296 T3	19980330	LSGT	+	granted / extensions (spc, cpc, pte)	
DK0729296 T3	20141110	PEXP		Calculated Patent Term Expiry	
EP0729296 A1	19960904	LSPB	+	published / reissued	
EP0729296 A1	19960904	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19960411
EP0729296 A1	19961016	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19960830
EP0729296 B1	19980204	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0729296 B1	19980213	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0729296 B1	19980401	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2112631 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP0729296 B1	19980701	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : 78811
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EP0729296 B1	20021017	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20021017 YEAR OF FEE PAYMENT : 9
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EP0729296 B1	20021024	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20021024 YEAR OF FEE PAYMENT : 9
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EP0729296 B1	20021101	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20021101 YEAR OF FEE PAYMENT : 9
EP0729296 B1	20021106	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20021106 YEAR OF FEE PAYMENT : 9
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EP0729296 B1	20040531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20040531
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EP0729296 B1	20040630	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20031110
EP0729296 B1	20040712	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP
EP0729296 B1	20040715	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
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EP0729296 B1	20040802	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20040601
EP0729296 B1	20040825	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP0729296 B1	20040831	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : PT REF LEGAL EVENT CODE : MM4A TEXT : LAPSE DUE TO NON-PAYMENT OF FEES EFFECTIVE DATE : 20040531
EP0729296 B1	20040910	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP0729296 B1	20050216	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20031111
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GR3026189 T3	20180220	PEXP		Calculated Patent Term Expiry	
HU218682 B	20001128	LSGT	+	granted / extensions (spc, cpc, pte)	
HU218682 B	20040830	LSLE	-HMM4	CANCELLATION OF FINAL PROT. DUE TO NON-PAYMENT OF FEE	
HU218682 B	20040928	LSLE	-HMM4	CANCELLATION OF FINAL PROT. DUE TO NON-PAYMENT OF FEE	

HU218682 B	20141110	PEXP		Calculated Patent Term Expiry	
HU74540 A2	19970128	LSPB	+	published / reissued	
JP9504953 T2	19970520	LSPB	+	published / reissued	
JP9504953 T2	20040506	LSRV	-A313	FINAL DECISION OF REJECTION WITHOUT A DISSENTING RESPONSE FROM THE APPLICANT	TEXT : JAPANESE INTERMEDIATE CODE: A313 EFFECTIVE DATE : 20040426
JP9504953 T2	20040601	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20040601
KR100344594 B1	20021123	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100344594 B1	20171123	PEXP		Calculated Patent Term Expiry	
KR19960705479 A	19961108	LSPB	+	published / reissued	
KR19967005479 A	19961108	LSPB	+	published / reissued	
KR960705479 A	19961108	LSPB	+	published / reissued	
KR960705479 A	19990918	LSES	A201	REQUEST FOR EXAMINATION	
KR960705479 A	20011031	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR960705479 A	20020528	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
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KR960705479 A	20050706	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
NZ276082 A	19970526	LSPB	+	published / reissued	
NZ276082 A	20011130	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
PL175048 B1	19981030	LSGT	+	granted / extensions (spc, cpc, pte)	
PL314493 A1	19960916	LSPB	+	published / reissued	
RU2104178 C1	19980210	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2104178 C1	20070920	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	EFFECTIVE DATE : 20031111
RU2104178 C1	20141110	PEXP		Calculated Patent Term Expiry	
RU96113105 A	19980920	LSPB	+	published / reissued	
TW303347 B	19970421	LSGT	+	granted / extensions (spc, cpc, pte)	
TW303347 B	20141126	PEXP		Calculated Patent Term Expiry	
US5465874 A	19951114	LSGT	+	granted / extensions (spc, cpc, pte)	
US5465874 A	19940118	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BASF CORPORATION, NEW JERSEY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ROACH, MATTHEW N.; STAPENSEA, NEIL; WEBSTER, JON; REEL/FRAME:006883/0037 EFFECTIVE DATE : 19940104
US5465874 A	19951102	LSGT	PAT1	Patented Case	
US5465874 A	19990513	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5465874 A	20031114	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5465874 A	20040113	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20031114
US5465874 A	20180126	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5465874 A	20180126	LSLE	-STCH	INFORMATION ON	TEXT : PATENT EXPIRED DUE

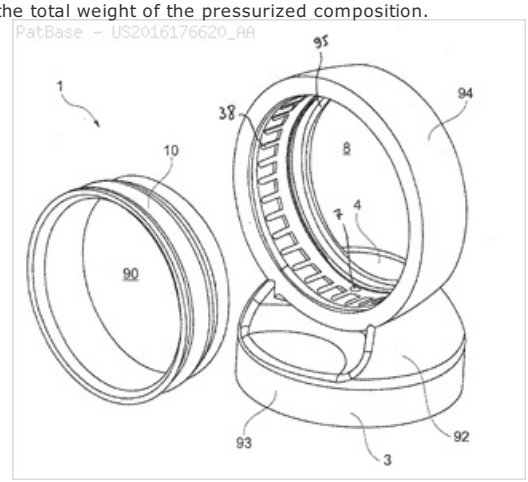
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US5465874 A	20131117	PEXP		Calculated Patent Term Expiry	
US5628431 A	19970513	LSGT	+	granted / extensions (spc, cpc, pte)	
US5628431 A	19950519	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BASF CORPORATION, NEW JERSEY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ROACH, MATTHEW N.; STAPENSEA, NEIL; WEBSTER, JON; REEL/FRAME:007549/0312 EFFECTIVE DATE : 19950505
US5628431 A	19970502	LSGT	PAT1	Patented Case	
US5628431 A	19970502	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5628431 A	20001026	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5628431 A	20041013	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5628431 A	20081017	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5628431 A	20150420	PEXP		Calculated Patent Term Expiry	
WO9513696 A1	19950526	LSPB	+	published / reissued	
WO9513696 A1	19941110	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 94194162.0 COUNTRY OF REF DOCUMENT : CN
WO9513696 A1	19960411	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1995900692 COUNTRY OF REF DOCUMENT : EP
WO9513696 A1	19960430	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 276082 COUNTRY OF REF DOCUMENT : NZ
WO9513696 A1	19960515	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PV1996-1409 COUNTRY OF REF DOCUMENT : CZ
WO9513696 A1	19960904	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995900692 COUNTRY OF REF DOCUMENT : EP
WO9513696 A1	19970115	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : PV1996-1409 COUNTRY OF REF DOCUMENT : CZ
WO9513696 A1	19970717	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : CA
WO9513696 A1	19980109	LSRV	-WWR	WIPO INFORMATION: REFUSED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : PV1996-1409 COUNTRY OF REF DOCUMENT : CZ
WO9513696 A1	19980204	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995900692 COUNTRY OF REF DOCUMENT : EP
ZA9409082 A	19960516	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA9409082 A	20141115	PEXP		Calculated Patent Term Expiry	

73) Family number: 58241057 (US2016176620A)

Title: ALCOHOL DEODORANT AEROSOL EQUIPPED WITH A HOLLOW **DISPENSING** HEAD

Abstract: The subject of the invention is a device for **dispensing** a cosmetic composition, said device comprising a **dispensing** head (1) intended to be fitted on a **container** **containing** said cosmetic composition to be **dispensed**, (i) the **dispensing** head comprising: a body (3) that is open at its two opposite axial ends, an engaging part (10) that is open at its two opposite axial ends and at least partially defines a **dispensing** orifice (12), and (ii) the cosmetic composition comprising, in a cosmetically acceptable medium, at least one cosmetic active agent, in particular at least one deodorant active agent and/or antiperspirant active agent, at least one C1 to C5 alcohol, at least one propellant, the concentration of propellant being between 60 percent and 90 percent by weight with respect to the total weight of the pressurized composition.

Classifications:
International (IPC 8-9): A45D34/00 A61K8/00 A61K8/04 A61K8/31 A61K8/34 A61L9/01 A61Q15/00 B05B1/00 B05B1/06 B65D83/14 B65D83/20 B65D83/30 (Advanced/Invention)
CPC: A61L9/01 B05B1/06 B05B7/0425 B65D83/205 B65D83/30 A45D34/00 A61K8/046 A61K8/31 A61K8/34 A61K2800/30 A61Q15/00 B65D83/752
US: 222/1 222/394



Family:

Publication number	Publication date	Application number	Application date
CN105339092 A	20160217	CN201480037889	20140704
EP3016749 A1	20160511	EP20140749911	20140704
EP3016749 B1	20200101	EP20140749911	20140704
FR3007953 A1	20150109	FR20130056574	20130704
FR3007953 B1	20150724	FR20130056574	20130704
KR20160027139 A	20160309	KR20167002735	20140704
US2016176620 AA	20160623	US20140902588	20140704
WO15001273 A1	20150108	WO2014FR51724	20140704

Priority:
FR20130056574 20130704 WO2014FR51724 20140704

Probable Assignee: LOREAL SA
Assignee(s): (std): L OREAL SA ; OREAL ; OREAL L
Assignee(s): LOREAL SA ; L OREAL ; L OREAL S A
Inventor(s): (std): ALBISETTI NICOLAS
Inventor(s): NICOLAS ALBISETTI
Agent(s): BOURDEAU FRANCOISE; L OREAL; LOREAL
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN 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 IR 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 PA PE PG PH PL PT QA RO RS RU RW SA 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 ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CN105339092 A	20160217	LSPB	+	published / reissued	
CN105339092 A	20160217	LSPB	+C06	PUBLICATION	
EP3016749 A1	20160511	LSPB	+	published / reissued	
EP3016749 A1	20160511	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20160204
EP3016749 A1	20190424	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20190325
EP3016749 A1	20191113	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20191015
EP3016749 B1	20200101	LSGT	+	granted / extensions (spc, cpc, pte)	
EP3016749 B1	20200101	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D TEXT : NOT ENGLISH

EP3016749 B1	20200115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP3016749 B1	20200115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1219106 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20200115
EP3016749 B1	20200122	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : LANGUAGE OF EP DOCUMENT: FRENCH
EP3016749 B1	20200123	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602014059305 COUNTRY OF REF DOCUMENT : DE
EP3016749 B1	20340704	PEXP		Calculated Patent Term Expiry	
FR3007953 A1	20150109	LSPB	+	published / reissued	
FR3007953 B1	20150724	LSGT	+	granted / extensions (spc, cpc, pte)	
FR3007953 B1	20160613	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
FR3007953 B1	20170613	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 5
FR3007953 B1	20180612	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 6
FR3007953 B1	20190619	LSFE	PLFP	Fee Payement (FEE PAYMENT)	PAYMENT DATE : 20190619 YEAR OF FEE PAYMENT : 7
FR3007953 B1	20330704	PEXP		Calculated Patent Term Expiry	
KR20160027139 A	20160309	LSPB	+	published / reissued	
US2016176620 AA	20160623	LSPB	+	published / reissued	
US2016176620 AA	20160115	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L'OREAL, FRANCE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ALBISETTI, NICOLAS; REEL/FRAME:037496/0703 EFFECTIVE DATE : 20151221
US2016176620 AA	20170512	LSES	NFA1	Non Final Action Mailed	
US2016176620 AA	20180509	LSES	ADV1	Advisory Action Mailed	
US2016176620 AA	20180622	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2016176620 AA	20180627	LSES	NFA1	Non Final Action Mailed	
US2016176620 AA	20190322	LSES	ADV1	Advisory Action Mailed	
US2016176620 AA	20190916	LSES	NFA1	Non Final Action Mailed	
US2016176620 AA	20200113	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
WO15001273 A1	20150108	LSPB	+	published / reissued	
WO15001273 A1	20140704	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201480037889.9 COUNTRY OF REF DOCUMENT : CN
WO15001273 A1	20151120	LSNP	+WWE	WIPO INFORMATION:	REF DOCUMENT NUMBER : 2014749911

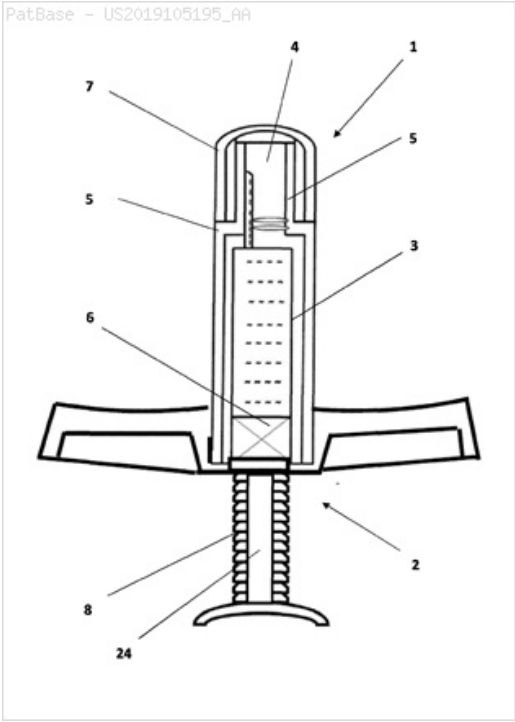
				ENTRY INTO NATIONAL PHASE	COUNTRY OF REF DOCUMENT : EP
WO15001273 A1	20160103	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 14902588 COUNTRY OF REF DOCUMENT : US
WO15001273 A1	20160104	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO15001273 A1	20160129	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20167002735 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

74) Family number: 67079058 (US2019105195A)

Title: CARTRIDGE **DROP** **DISPENSER**

Abstract: A cartridge droplet dosage device with a cartridge (**1**) and an actuation element (**2**), whereby the cartridge (**1**) includes a reservoir body (**3**), a cladding (**5**) and a plug (**6**), characterized in that a fluid groove (**9**) projects from the reservoir body (**3**) into an inner tube valve area (**11**), whereby the fluid groove (**9**) is releasable either by the yielding of a sealing rib (**12**) and/or by the yielding of a part of the cladding (**5**).

Classifications:
International (IPC 8-9): A61F9/00 A61J1/14 A61M11/00 A61M5/24 A61M5/28 B05B11/02 B65D47/18 (Advanced/Invention)
CPC: A61M11/007 A61M2210/0612 A61M5/2425 A61M5/282 B01L3/0272 A61F9/0008 A61M11/008 B05B11/025
US: 1/1



Family:

Publication number	Publication date	Application number	Application date
CN109414552 A	20190301	CN201780029396	20170323
DE102016114405 A1	20170928	DE201610114405	20160804
EP3432951 A1	20190130	EP20170729017	20170323
IN201827039866 A	20190705	IN201827039866	20181022
US2019105195 AA	20190411	US20170087779	20170323
WO17162805 A1	20170928	WO2017EP56954	20170323

Priority:
DE201610105508 20160323 DE201610114405 20160804 WO2017EP56954 20170323

Probable Assignee: F AND K LNNOVATIONEN GMBH AND CO KG

Assignee(s): (std): F AND K INNOVATIONEN GMBH AND CO KG ; F AND K LNNOVATIONEN GMBH AND CO KG ; F K INNOVATIONEN GMBH AND CO KG

Assignee(s): F AND K INNOVATIONEN GMBH AND COKG

Inventor(s): (std): FUCHS KARL HEINZ

Agent(s): PATENTANWAELTE U RECHTSANWALT WEISS ARAT AND PARTNER MBB; WEISS ARAT AND PARTNER MBB ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ 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 IR IS IT JP KE KG KH KM KN KP KR KW 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 PA PE PG PH PL PT QA RO RS RU RW SA 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 ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN109414552 A	20190301	LSPB	+	published / reissued	
CN109414552 A	20190301	LSPB	PB01	PUBLICATION	
DE102016114405 A1	20170928	LSPB	+	published / reissued	
EP3432951 A1	20190130	LSPB	+	published / reissued	
EP3432951 A1	20190130	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20181022
EP3432951 A1	20191211	LSES	+17Q	FIRST EXAMINATION	EFFECTIVE DATE : 20191108

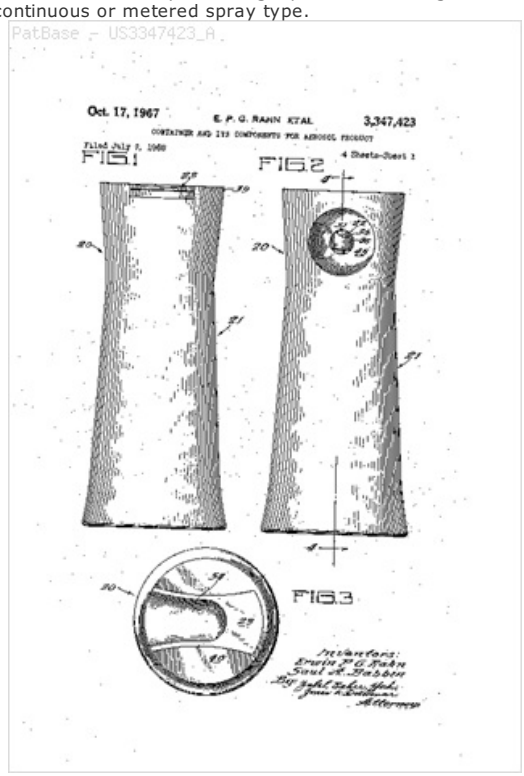
				REPORT DESPATCHED	
IN201827039866 A	20190705	LSPB	+	published / reissued	
US2019105195 AA	20190411	LSPB	+	published / reissued	
US2019105195 AA	20181030	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : F+K INNOVATIONEN GMBH & CO.KG, GERMANY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:FUCHS, KARL-HEINZ; REEL/FRAME:047353/0795 EFFECTIVE DATE : 20180920
US2019105195 AA	20190530	LSES	NFA1	Non Final Action Mailed	
US2019105195 AA	20191112	LSES	NFA1	Non Final Action Mailed	
WO17162805 A1	20170928	LSPB	+	published / reissued	
WO17162805 A1	20181023	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2017729017 COUNTRY OF REF DOCUMENT : EP
WO17162805 A1	20181026	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2017729017 COUNTRY OF REF DOCUMENT : EP EFFECTIVE DATE : 20181023

75) Family number: 23014059 (US3347423A)

Title: **CONTAINER** AND ITS COMPONENTS FOR AEROSOL PRODUCT

Abstract: 1,194,367. Pressurized **dispensing** **containers**. WALLACE and TIERNAN Inc. July 7, 1967 [July 7, 1966], No.31504/67. Heading F1R. A protective outer casing for a pressurized **dispensing** **container** comprises a tubular sheath 21, an apertured top wall 40, a pair of depending opposed walls 47, 48 at the aperture, an apertured transverse wall 49 connecting the depending walls, and a hollow boss 52 depending from the transverse wall adapted to receive the top of a pressurized **dispensing** **container** 25. The closure 26 of the **container** abuts the shoulder between the transverse wall 49 and the boss 52 which has an inwardly projecting shoulder 53 engaging beneath the closure. The sheath 21 has an opening 46 above the transverse wall 49 in alignment with the **dispensing** orifice of a button 22 in a valve actuator member 23. The button 22 is slightly tapered and has a lateral passage (30), Fig. 9 (not shown), from the central bore 29 which opens to a circular recess (31) into which is pressed a metal disc (34) having a central aperture. The button has an axial external rib (37) which engages in a locating groove (58) in the actuator member 23. The button may be integral with the actuator member 23. The member 23 has depending side walls 60, 61 which guide it for movement between the walls 47, 48 and opposite ends are provided with grooves 63, 64 which cooperate with projections 43, 44 on the sheath 21 to retain the top surface of the member in alignment with the top surface of the wall 40 prior to operation of the **contained** valve stem 24. When the member 23 is depressed, Fig. 9, the top surface of the member above the grooves 63, 64 is retained below the projections and the button bore 29 engages over the valve stem. The upper surface of the curved sheath portion 45 **containing** the opening 46 provides a pivot about which the member 23 may pivot to operate the valve stem 24. In further embodiments, Figs. 11 and 12 (not shown), a flange (82 or 86) having an arcuate or planar inner surface projects inwardly from the sheath above a curved or tubular wall portion (80 or 84) defining the **dispensing** opening (81 or 85) to provide a fulcrum for the actuator member. The **container** 25 is supported within the sheath 21 by a disc 27 shaped to transmit impact forces to the sheath rather than the **container**. The **container** 25 may be a glass bottle coated with an elastomeric material, e.g. P.V.C. The actuator member 23 may be connected to the top wall 40 of the sheath 21 by frangible or stretchable webs. A strip of material may be adhered to the upper surfaces of the top wall and actuator member to be removed, broken or cut prior to depression of the actuator member. The sheath 21 may be a single plastics moulding or made from a plurality of parts. The **container** valve may be of the continuous or metered spray type.

Classifications:
International (IPC 8-9): B65D83/14 B65D83/16 (Advanced/Invention)
International (IPC 1-7): B05B11/00 B05B15/00 B65D83/14
CPC: B65D83/206 B65D83/24 B65D83/386
European: B65D83/20C2 B65D83/24 B65D83/38E2
US: 222/153.06 222/183 222/23 222/402.13



Family:

Publication number	Publication date	Application number	Application date
AU2390567 A1	19690109	AU19670023905	19670629
AU2390567 B1	19690109	AU19670023905	19670629
FR1539753 A	19680920	FR19670113545	19670707
GB1194367 A	19700610	GB19670031504	19670707
SE323336 B	19700427	SE19670010105	19670630
US3347423 A	19671017	US19660563502	19660707

Priority:
US19660563502 19660707

Probable Assignee: WALLACE AND TIERNAN INC
Assignee(s): (std): WALLACE AND TIERNAN INC
Inventor(s): (std): RAHN E ; BABBIN S ; RAHN ERWIN P G ; BABBIN SAUL A
Inventor(s): ERWIN PAUL GUENTHER RAHN AND PAUL ARTHUR BABBIN

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2390567 A1	19690109	LSPB	+	published / reissued	
AU2390567 B1	19690109	LSGT	+	granted / extensions (spc, cpc, pte)	

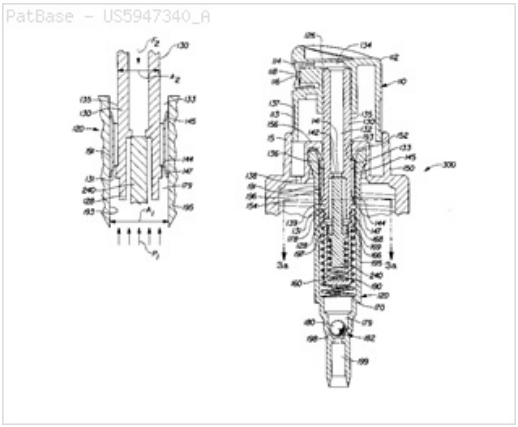
AU2390567 B1	19870629	PEXP		Calculated Patent Term Expiry
FR1539753 A	19680920	LSGT	+	granted / extensions (spc, cpc, pte)
FR1539753 A	19870707	PEXP		Calculated Patent Term Expiry
GB1194367 A	19700610	LSGT	+	granted / extensions (spc, cpc, pte)
GB1194367 A	19701021	LSGT	+PS	PATENT SEALED
GB1194367 A	19720202	LSLE	-PLNP	PATENT LAPSED THROUGH NONPAYMENT OF RENEWAL FEES
GB1194367 A	19870707	PEXP		Calculated Patent Term Expiry
SE323336 B	19700427	LSPB	+	published / reissued
US3347423 A	19671017	LSGT	+	granted / extensions (spc, cpc, pte)

76) Family number: 11922059 (US5947340A)

Title: MANUALLY-ACTUATED HIGH PRESSURE SPRAY PUMP

Abstract: A high pressure manually-actuated spray pump for **dispensing** a fluid. The spray pump comprises a nozzle through which the fluid is **dispensed** and a pumping engine. The pumping engine comprises a reservoir, a closure, and a plunger. The reservoir has an open top and a closed bottom and an interior surface. The plunger has an outer surface and a longitudinal passageway extending therethrough. The plunger further having an outlet valve mounted therein and an upper end and a lower end. The lower end being slidably disposed within the open top of the reservoir forming an interior chamber within the reservoir. The interior chamber has an annular chamber and a main chamber. The annular chamber being in fluid communication with the main chamber. The annular chamber is formed by the outer surface of the plunger being spaced away from the interior surface of the reservoir such that there is no frictional contact between the outer surface and the interior surface. The closure being attached to the open top of the reservoir allowing the plunger to slidably extend through the closure such that the interior chamber is sealingly closed. The nozzle is mounted on the upper end of the plunger such that the longitudinal passageway is in fluid communication with the nozzle. The interior chamber is separated from the longitudinal passageway by the outlet valve.

Classifications:
International (IPC 8-9): B05B11/00 B65D47/20 B65D47/34 (Advanced/Invention);
B05B11/00 B65D47/04 B65D47/34 (Core/Invention)
International (IPC 1-7): B05B11/00 B65D47/20 B65D47/34 B67D5/42 G01F11/06
CPC: B05B11/0044 B05B11/3018 B05B11/3016 B05B11/3063
European: B05B11/00P3P B05B11/00P3P2 B05B11/00P9N3 B05B11/00R3 B05B11/00R3C B05B11/30C7 B05B11/30C7B B05B11/30H5C L05B11/00B2
US: 222/321.1 222/321.2 222/321.7 222/321.9



Family:

Publication number	Publication date	Application number	Application date
EP0865322 A1	19980923	EP19960940889	19961127
JP11500661 T2	19990119	JP19970521331T	19961127
JP3241387 B2	20011225	JP19970521331T	19961127
US5947340 A	19990907	US19980036047	19980306
US6050457 A	20000418	US19950568211	19951206
WO9720637 A1	19970612	WO1996US18956	19961127

Priority:

US19950568211 19951206 WO1996US18956 19961127 US19980036047 19980306

Probable Assignee: PROCTER AND GAMBLE CO

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

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

Inventor(s): (std): ARNOLD CHRISTOPHER BERNARD ; LUND MARK THOMAS ; HERSHEY DONALD EMERSON ; ARNOLD CHRISTOPHER B ; LUND MARK T ; HERSHEY DONALD E

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
EP0865322 A1	19980923	LSPB	+	published / reissued	
EP0865322 A1	19980923	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19980622
EP0865322 A1	20020213	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20020102
EP0865322 A1	20021127	LSRV	-18R	APPLICATION REFUSED	EFFECTIVE DATE : 20020630
JP11500661 T2	19990119	LSPB	+	published / reissued	
JP3241387 B2	20011225	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3241387 B2	20041019	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP3241387 B2	20161127	PEXP		Calculated Patent Term Expiry	

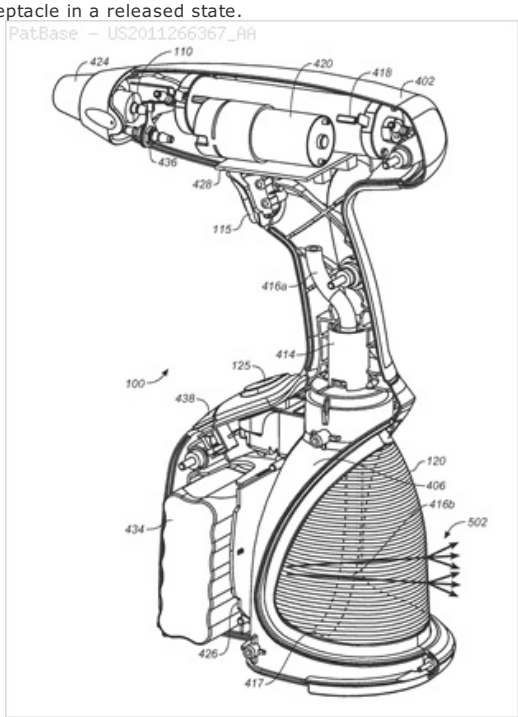
US5947340 A	19990907	LSGT	+	granted / extensions (spc, cpc, pte)	
US5947340 A	20030908	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5947340 A	20031008	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5947340 A	20031008	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5947340 A	20031104	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20030907
US5947340 A	20180306	PEXP		Calculated Patent Term Expiry	
US6050457 A	20000418	LSGT	+	granted / extensions (spc, cpc, pte)	
US6050457 A	19960311	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PROCTER & GAMBLE COMPANY, THE, OHIO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ARNOLD, CHRISTOPHER B.; LUND, MARK T.; HERSHEY, DONALD E.; REEL/FRAME:007839/0447 EFFECTIVE DATE : 19960223
US6050457 A	20000407	LSGT	PAT1	Patented Case	
US6050457 A	20000407	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6050457 A	20030926	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6050457 A	20070914	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6050457 A	20110923	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6050457 A	20151206	PEXP		Calculated Patent Term Expiry	
WO9720637 A1	19970612	LSPB	+	published / reissued	
WO9720637 A1	19980605	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 1997 521331 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO9720637 A1	19980605	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/1998/004541 COUNTRY OF REF DOCUMENT : MX
WO9720637 A1	19980622	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1996940889 COUNTRY OF REF DOCUMENT : EP
WO9720637 A1	19980923	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1996940889 COUNTRY OF REF DOCUMENT : EP
WO9720637 A1	20020630	LSRV	-WWR	WIPO INFORMATION: REFUSED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1996940889 COUNTRY OF REF DOCUMENT : EP
WO9720637 A1	20021004	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1996940889 COUNTRY OF REF DOCUMENT : EP

77) Family number: 49884060 (US2011266367A)

Title: SPRAY APPARATUS WITH RELEASABLE BOTTLE

Abstract: A sprayer and a releasable bottle are provided. The sprayer includes a main housing having a pump and a nozzle coupled in a material flow path. The housing further includes a bottle receptacle and a bottle adapter, which is fluidically coupled to the material flow path and has a lower, sealing surface and a lower fitting. An adapter spring applies a downward displacement force to the bottle adapter. The bottle is insertable into the bottle receptacle through an opening in the receptacle and has a top, which engages the lower sealing surface when inserted fully into the receptacle. The bottle includes a tube adapter that mates with the lower fitting and is coupled to a tube carried within the bottle. A latch retains the bottle in the receptacle in a latched state and releases the bottle from the receptacle in a released state.

Classifications:
International (IPC 8-9): A62C11/00 B05B11/00 B05B15/00 B05B15/06 B05B7/02 B05B9/01 B05B9/03 B05B9/04 B65D1/02 B65D41/34 B65D88/54 (Advanced/Invention); B65B11/00 (Core/Invention)
CPC: B05B9/0861 B05B11/0008 B05B11/0044 B05B15/00 C02F1/4618
European: B05B11/00B1 B05B9/08C1A L05B11/00B2 L05B15/00
US: 222/183 222/321.7 222/325 222/333 239/302 239/302P 239/332 239/332S 239/333 239/375 239/375S



Family:

Publication number	Publication date	Application number	Application date
AT12130 U1	20111115	AT20100000302U	20100511
AU2010201825 AA	20111117	AU20100201825	20100507
BRPI1002356 A2	20120313	BR2010PI02356	20100617
CA2703374 AA	20111029	CA20102703374	20100507
KR20110120801 A	20111104	KR20100044299	20100512
MX2010005220 A1	20111031	MX20100005220	20100511
RU2010118315 A	20111120	RU20100118315	20100506
US2011266367 AA	20111103	US20100770399	20100429
US8418936 BB	20130416	US20100770399	20100429

Priority:
US20100770399 20100429 CA20102703374 20100507

Probable Assignee: GLOBAL OPPORTUNITES INVESTMENT GROUP LLC

Assignee(s): (std): GLOBAL OPPORTUNITIES INVEST GROUP LLC ; GLOBAL OPPORTUNITIES INVESTMENT GROUP LLC ; KALMAN JEFFREY ; SCHAEFFER TODD R ; STANCA NICK ; SAUNDERS CRAIG

Assignee(s): GLOBAL OPPORTUNITES INVESTMENT GROUP LLC

Inventor(s): (std): KALMAN JEFFREY ; STANCA NICK ; SCHAEFFER TODD R ; SAUNDERS CRAIG ; CRAIG SAUNDERS ; NICK STANCA ; JEFFREY KALMAN

Inventor(s): TODD R SCHAEFFER

Agent(s): FREEHILLS PATENT AND TRADE MARK ATTORNEYS; FREEHILLS PATENT ATTORNEYS; HERBERT SMITH FREEHILLS; FPA PATENT ATTORNEYS PTY LTD; MARKS AND CLERK; DAVID D; WESTMAN CHAMPLIN AND KELLY P A; WESTMAN CHAMPLIN AND KELLY PA

Legal status (INPADOC)

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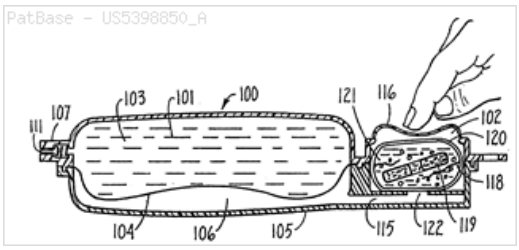
Patent	Date recorded	Event group	Code	Event	Details
AT12130 U1	20111115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT12130 U1	20150115	LSLE	-MM01	LAPSE BECAUSE OF NOT PAYING ANNUAL FEES	EFFECTIVE DATE : 20140531
AT12130 U1	20150115	LSLE	-MM01	LAPSE BECAUSE OF NOT PAYING ANNUAL FEES	EFFECTIVE DATE : 20140531
AT12130 U1	20200511	PEXP		Calculated Patent	

				Term Expiry	
AU2010201825 AA	20111117	LSPB	+	published / reissued	
AU2010201825 AA	20141204	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
BRPI1002356 A2	20120313	LSPB	B03A	PUBLICATION OF AN APPLICATION: PUBLICATION OF A PATENT APPLICATION OR OF A CERTIFICATE OF ADDITION OF INVENTION	
BRPI1002356 A2	20130730	LSRV	-B11A	DISMISSAL ACC. ART.33 OF IPL - EXAMINATION NOT REQUESTED WITHIN 36 MONTHS OF FILING	
BRPI1002356 A2	20131126	LSRV	-B11Y	DEFINITIVE DISMISSAL ACC. ARTICLE 33 OF IPL - EXTENSION OF TIME LIMIT FOR REQUEST OF EXAMINATION EXPIRED	
CA2703374 AA	20111029	LSPB	+	published / reissued	
CA2703374 AA	20150702	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20150507
KR20110120801 A	20111104	LSPB	+	published / reissued	
KR20110120801 A	20150613	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
MX2010005220 A1	20111031	LSPB	+	published / reissued	
MX2010005220 A1	20170331	LSWD	-FA	ABANDONMENT OR WITHDRAWAL	
RU2010118315 A	20111120	LSPB	+	published / reissued	
RU2010118315 A	20130710	LSWD	-FA93	ACKNOWLEDGEMENT OF APPLICATION WITHDRAWN (NO REQUEST FOR EXAMINATION)	EFFECTIVE DATE : 20130507
US2011266367 AA	20111103	LSPB	+	published / reissued	
US2011266367 AA	20130327	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8418936 BB	20130416	LSGT	+	granted / extensions (spc, cpc, pte)	
US8418936 BB	20100504	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GLOBAL OPPORTUNITES INVESTMENT GROUP, LLC, MINNESO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SAUNDERS, CRAIG; KALMAN, JEFFREY; STANCA, NICK; AND OTHERS; SIGNING DATES FROM 20100430 TO 20100504; REEL/FRAME:024333/0406
US8418936 BB	20130327	LSGT	PAT1	Patented Case	
US8418936 BB	20161014	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8418936 BB	20310120	PEXP		Calculated Patent Term Expiry (PTA 266 days)	

78) Family number: 42244061 (US5398850A)

Title: GAS DELIVERY APPARATUS FOR INFUSION

Abstract: An apparatus for **dispensing** a fluid, comprising a **container** for holding the fluid to be **dispensed** and a housing for holding a solid chemical and a **liquid** chemical which react to generate carbon dioxide gas upon contact, such that the gas is used to drive the fluid out of the **container**.



Classifications:
International (IPC 8-9): A61J1/00 A61J1/14 A61J1/20 A61M5/00 A61M5/14 A61M5/142 A61M5/145 A61M5/148 A61M5/155 B01J7/00 B01J7/02 B05B11/00 B65D83/14 C01B31/20 C01B32/50 C01D7/00 F16K17/02 (Advanced/Invention);
A61M5/00 A61M5/14 A61M5/142 B01J7/00 B05B11/00 B65D83/14 F16K17/02 (Advanced/Non-invention);
A61M5/142 A61M5/145 B01J7/00 B65D83/14 C01B31/00 C01D7/00 F16K17/02 (Core/Invention);
B05B11/00 (Core/Non-invention)
International (IPC 1-7): A61M37/00 A61M5/00 A61M5/14 A61M5/142 A61M5/145 A61M5/155 B01J7/00 B01J7/02 B65D83/14 C01B31/20 C01D7/00 F16K17/02
CPC: A61M5/155 Y10S128/12 B05B11/00414 A61M5/14593 A61M5/1409 A61M5/1483 A61M2005/1404 A61M2005/14204 B01J7/02 B65D83/625
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US: 128/DIG.12 222/1 222/189.06 222/386.5 222/394 222/396 222/399 604/132 604/141 604/145 604/82

Family:

Publication number	Publication date	Application number	Application date
AT178810 E	19990415	AT19950911857T	19950221
AT187144 E	19991215	AT19940925217T	19940808
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CA2168336 AA	19960129	CA19942168336	19940808
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DE69421927 C5	20070830	DE19946021927	19940808
DE69421927 D1	20000105	DE19946021927	19940808
DE69421927 T2	20000518	DE19946021927T	19940808
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DK0711243 T3	20000529	DK19940925217T	19940808
DK0748252 T3	19991101	DK19950911857T	19950221
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EP0711243 A4	19970108	EP19940925217	19940808
EP0711243 B1	19991201	EP19940925217	19940808
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JP10503161 T2	19980324	JP19950522933T	19950221
JP2000514316 T2	20001031	JP19960510329T	19950915
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KR19970706028 A	19971103	KR19970701709	19970315
KR19977006028 A	19971103	KR19977001709	19950915
KR970706028 A	19971103	KR19970701709	19970315
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US5398850 A	19950321	US19940205875	19940303
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US5553741 A	19960910	US19940372818	19941223
US5558255 A	19960924	US19950464331	19950605
US5571261 A	19961105	US19940286707	19940805
US5578005 A	19961126	US19940307504	19940916
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Priority:

US19930105284 19930806 US19930105327 19930806 US19940205875 19940303
US19940265207 19940805 US19940286207 19940805 US19940286707 19940805
WO1994US08967 19940808 US19940307504 19940916 US19940372818 19941223

WO1995US02199 19950221 US19950464331 19950605 US19950461871 19950605
WO1995US11650 19950915

Probable Assignee: WINFIELD MEDICAL

Assignee(s): (std): MAXXIM MED INC ; PRO MED MEDIZINISCHE PRODUKTIO ; WINFIELD MEDICAL ; RIVER MEDICAL INC ; WINFIELD MEDICAL SAN DIEGO

Assignee(s): WINFIELD MEDICAL SAN DIEGO CALIF ; PRO MED MEDIZINISHE ; WINFIELD MEDICAL A CALIFORNIA CORP ; WINFIELD MEDICAL SAN DIEGO CALIF US ; SANCOFF GREGORY E ; PRO MED MEDIZINISCHE PRODUKTIONS U HANDELS AG ; PRO MED MEDIZINISCHE PRODUKTIONS UND HANDELS AG ; MAXXIM MEDICAL INC ; JPMORGAN CHASE BANK AS ADMINISTRATIVE AGENT ; JPMORGAN CHASE BANK AS AGENT ; JPMORGAN CHASE BANK AGENT AS ; MAXXIM MEDICAL INC A CORP OF DELAWARE ; PRO MED MEDIZINISCHE PRODUKTION U HANDELSGESELLSCHAFT AG ; ALISANAE GROUP LTD ; DOYLE MARK C ; FIELD FREDERIC P ; JPMORGAN CHASE BANK ADMINISTRATIVE AGENT AS

Inventor(s): (std): FIELD FREDERIC P ; DOYLE MARK C ; SANCOFF GREGORY E ; SANCOFF GREGORY ; FIELD F P ; DOYLE M C ; SANCOFF G E ; FIELD FREDERIC ; DOYLE MARK

Inventor(s): F P FIELD ; M C DOYLE ; G E SANCOFF ; GREGORY E SANCOFF ; FREDERIC P FIELD ; MARK C DOYLE

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; SIM AND MCBURNEY

Designated states: AM AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CZ DE DK EE ES FI FR GA GB GE GN GR HU IE IS IT JP KE KG KP KR KZ LI LK LR 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 SN SZ TD TG TJ TM TT UA UG UZ VN

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT178810 E	19990415	LSGT	+	granted / extensions (spc, cpc, pte)	
AT178810 E	20000915	LSAS	EEIH	CHANGE IN THE PERSON OF PATENT OWNER	
AT178810 E	20001015	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	
AT178810 E	20050715	LSAS	EEIH	CHANGE IN THE PERSON OF PATENT OWNER	
AT178810 E	20101115	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT178810 E	20150221	PEXP		Calculated Patent Term Expiry	
AT187144 E	19991215	LSGT	+	granted / extensions (spc, cpc, pte)	
AT187144 E	20000715	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	
AT187144 E	20050715	LSAS	EEIH	CHANGE IN THE PERSON OF PATENT OWNER	
AT187144 E	20100515	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT187144 E	20140808	PEXP		Calculated Patent Term Expiry	
AU199475224 A1	19950228	LSPB	+	published / reissued	
AU199519267 A1	19950918	LSPB	+	published / reissued	
AU199536318 A1	19960329	LSPB	+	published / reissued	
AU684821 B2	19980108	LSGT	+	granted / extensions (spc, cpc, pte)	
AU684821 B2	20010726	LSAS	PC	ASSIGNMENT REGISTERED	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC. OLDPARTY : FORMER OWNER WAS: WINFIELD MEDICAL
AU684821 B2	20040219	LSAS	PC	ASSIGNMENT REGISTERED	PARTYTYPE : OWNER OWNER : PRO-MED, MEDIZINISCHE PRODUKTION-UND HANDELSGESELL OLDPARTY : FORMER OWNER WAS: MAXXIM MEDICAL, INC.
AU684821 B2	20140808	PEXP		Calculated Patent Term Expiry	
AU689865 B2	19980409	LSGT	+	granted / extensions (spc, cpc, pte)	
AU689865 B2	20000921	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT	

				PAID) OR EXPIRED	
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AU700372 B2	19990107	LSGT	+	granted / extensions (spc, cpc, pte)	
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CA2184168 AA	19960826	LSPB	+	published / reissued	
CA2184168 AA	20000222	LSLE	-FZDE	DEAD	
CA2200057 AA	19970314	LSPB	+	published / reissued	
CA2200057 AA	19990915	LSLE	-FZDE	DEAD	
CN1132498 A	19961002	LSPB	+	published / reissued	
CN1132498 A	19961002	LSPB	+C06	PUBLICATION	
CN1132498 A	19980225	LSRE	C53	CORRECTION OF PATENT FOR INVENTION OR PATENT APPLICATION	
CN1132498 A	19980225	LSRE	COR	CHANGE OF BIBLIOGRAPHIC DATA	TEXT : CORRECT: APPLICANT; FROM: RIVER MEDICAL INC TO: WINFIELD MEDICAL
CN1132498 A	19991006	LSDW	-C01	DEEMED WITHDRAWAL OF PATENT APPLICATION (PATENT LAW 1993)	
DE69421927 C5	20070830	LSRE	8394	PATENT CHANGED DURING THE NULLIFICATION PROCEDURE (CHANGED PATENT SPECIFICATION REPRINTED)	
DE69421927 D1	20000621	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., CLEARWATER, FLA., US
DE69421927 D1	20001221	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69421927 D1	20050811	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	PARTYTYPE : OWNER OWNER : PRO-MED, MEDIZINISCHE PRODUKTION- UND HANDELSGESEL
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DE69421927 D1	20060720	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	PARTYTYPE : OWNER OWNER : PRO-MED, MEDIZINISCHE PRODUKTIONS- UND HANDELS-AG,
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DE69421927 D1	20140203	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : ALISANAE GROUP LTD., WANCHAI, HK OLDPARTY : PRO-MED, MEDIZINISCHE PRODUKTIONS- UND HANDELS-AG, LINZ, AT
DE69421927 D1	20140808	LSLE	-R071	EXPIRY OF RIGHT	

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DK0711243 T3	20140808	PEXP		Calculated Patent Term Expiry	
DK0748252 T3	19991101	LSGT	+	granted / extensions (spc, cpc, pte)	
DK0748252 T3	20150221	PEXP		Calculated Patent Term Expiry	
EP0711243 A1	19960515	LSPB	+	published / reissued	
EP0711243 A1	19960515	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19960207
EP0711243 A1	19970108	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 19961119
EP0711243 A1	19970903	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19970718
EP0711243 A1	19971217	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : WINFIELD MEDICAL
EP0711243 A1	19991215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
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EP0711243 A1	20000126	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
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EP0711243 A1	20110729	LSRE	+PGRI	PATENT REINSTATED IN CONTRACTING STATE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT REINSTATED DATE : 20110616
EP0711243 A1	20120430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20120316 YEAR OF FEE PAYMENT : 18
EP0711243 A1	20120531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110808
EP0711243 A1	20120629	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20120227 YEAR OF FEE PAYMENT : 18
EP0711243 A1	20120928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100808
EP0711243 A1	20130424	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20120808
EP0711243 A1	20130517	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20130430
EP0711243 A1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20120808

EP0711243 A1	20130830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20120831
EP0711243 A1	20131031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20130926 YEAR OF FEE PAYMENT : 20
EP0711243 A1	20140313	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : ALISANAE GROUP LTD., HK REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 69421927 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: PRO-MED, MEDIZINISCHE PRODUKTIONS- UND HANDELS-AG, LINZ, AT EFFECTIVE DATE : 20140203
EP0711243 A1	20140808	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69421927 COUNTRY OF REF DOCUMENT : DE
EP0711243 A1	20140809	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69421927 COUNTRY OF REF DOCUMENT : DE
EP0711243 A1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF EXPIRATION OF PROTECTION LAPSED DATE : 20140809
EP0711243 B1	19991201	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0711243 B1	20140808	PEXP		Calculated Patent Term Expiry	
EP0748252 A1	19961218	LSPB	+	published / reissued	
EP0748252 A1	19961218	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19960919
EP0748252 A1	19970312	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19970128
EP0748252 A1	19971217	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : WINFIELD MEDICAL
EP0748252 B1	19990414	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0748252 B1	19990415	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0748252 B1	19990505	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP0748252 B1	19990831	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : CH OWNER : WINFIELD MEDICAL TRANSFER- MAXXIM MEDICAL, INC. REF LEGAL EVENT CODE : PUE
EP0748252 B1	19990915	LSAS	RAP2	RIGHTS OF A PATENT TRANSFERRED	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC.
EP0748252 B1	19991001	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2134450 COUNTRY OF REF

					DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP0748252 B1	19991029	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : PT REF LEGAL EVENT CODE : PC4A TEXT : MAXXIM MEDICAL US EFFECTIVE DATE : 19990714
EP0748252 B1	20000218	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : TP
EP0748252 B1	20000405	LSGT	+26N	NO OPPOSITION FILED	
EP0748252 B1	20050331	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : CH OWNER : PRO-MED, MEDIZINISCHE PRODUKTION-UND HANDELSGESEL REF LEGAL EVENT CODE : PUE OLDPARTY : MAXXIM MEDICAL, INC.#10300 49TH STREET NORTH#CLEARWATER/FL 33762 (US) -TRANSFER TO- PRO-MED, MEDIZINISCHE PRODUKTION-UND HANDELSGESELLSCHAFT AG#WIENER STRASSE 131#4020 LINZ (AT)
EP0748252 B1	20050601	LSAS	NLS	NL: ASSIGNMENTS OF EP-PATENTS	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : PRO-MED, MEDIZINISCHE PRODUKTION-UND HANDELSGESELL
EP0748252 B1	20050930	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : TP
EP0748252 B1	20080430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20080326 YEAR OF FEE PAYMENT : 14
EP0748252 B1	20080430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20080229 YEAR OF FEE PAYMENT : 14
EP0748252 B1	20080530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20080313 YEAR OF FEE PAYMENT : 14
EP0748252 B1	20080530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20080313 YEAR OF FEE PAYMENT : 14
EP0748252 B1	20080530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20080313 YEAR OF FEE PAYMENT : 14
EP0748252 B1	20080530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20080229 YEAR OF FEE PAYMENT : 14
EP0748252 B1	20080829	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20080326 YEAR OF FEE PAYMENT : 14
EP0748252 B1	20080930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20080408 YEAR OF FEE PAYMENT : 14
EP0748252 B1	20090227	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20080229 YEAR OF FEE PAYMENT : 14
EP0748252 B1	20090828	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : PT REF LEGAL EVENT CODE : MM4A

					TEXT : LAPSE DUE TO NON-PAYMENT OF FEES EFFECTIVE DATE : 20090821
EP0748252 B1	20090831	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : *PRO-MED MEDIZINISCHE PRODUKTION-UND HANDELSGESELL EFFECTIVE DATE : 20090228
EP0748252 B1	20090930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090228
EP0748252 B1	20090930	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0748252 B1	20091019	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP
EP0748252 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090228
EP0748252 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090228
EP0748252 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090821
EP0748252 B1	20091030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20090925 YEAR OF FEE PAYMENT : 15
EP0748252 B1	20091102	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20090901
EP0748252 B1	20091125	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP0748252 B1	20091130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090901
EP0748252 B1	20091130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20090831 YEAR OF FEE PAYMENT : 15
EP0748252 B1	20091130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20090828 YEAR OF FEE PAYMENT : 15
EP0748252 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090223
EP0748252 B1	20100226	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090228
EP0748252 B1	20100226	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE :

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090902
EP0748252 B1	20100730	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090831
EP0748252 B1	20101005	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF COUNTRY CODE : EP
EP0748252 B1	20101130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100221
EP0748252 B1	20101130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20100909 YEAR OF FEE PAYMENT : 16
EP0748252 B1	20101231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20100817 YEAR OF FEE PAYMENT : 16
EP0748252 B1	20110331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090221
EP0748252 B1	20110429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090221
EP0748252 B1	20110707	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20110707
EP0748252 B1	20110729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110627
EP0748252 B1	20110729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20100824 YEAR OF FEE PAYMENT : 16
EP0748252 B1	20110729	LSRE	+PGRI	PATENT REINSTATED IN CONTRACTING STATE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT REINSTATED DATE : 20110616
EP0748252 B1	20110930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100222
EP0748252 B1	20111026	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20110221
EP0748252 B1	20111118	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20111102
EP0748252 B1	20111230	LSRE	+PGRI	PATENT REINSTATED IN CONTRACTING STATE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT REINSTATED DATE : 20110616
EP0748252 B1	20120131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110228

EP0748252 B1	20120229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110221
EP0748252 B1	20120928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100222
EP0748252 B1	20140313	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : ALISANAE GROUP LTD., HK REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 69509080 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: PRO-MED, MEDIZINISCHE PRODUKTIONS- UND HANDELS-AG, LINZ, AT EFFECTIVE DATE : 20140203
EP0748252 B1	20141031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20140829 YEAR OF FEE PAYMENT : 20
EP0748252 B1	20150221	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69509080 COUNTRY OF REF DOCUMENT : DE
EP0748252 B1	20150222	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69509080 COUNTRY OF REF DOCUMENT : DE
EP0748252 B1	20150221	PEXP		Calculated Patent Term Expiry	
EP0781147 A1	19970702	LSPB	+	published / reissued	
EP0781147 A1	19970702	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19970407
EP0781147 A1	19980107	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : WINFIELD MEDICAL
EP0781147 A4	19981125	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 19981007
EP0781147 A4	19991013	LSDW	-R18D	APPLICATION DEEMED TO BE WITHDRAWN (CORRECTED)	EFFECTIVE DATE : 19981226
ES2134450 T3	19991001	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2134450 T3	19991001	LSGT	+FG2A	DEFINITIVE PROTECTION	REF DOCUMENT NUMBER : 748252 COUNTRY OF REF DOCUMENT : ES
ES2134450 T3	20150221	PEXP		Calculated Patent Term Expiry	
ES2142954 T3	20000501	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2142954 T3	20000501	LSGT	+FG2A	DEFINITIVE PROTECTION	REF DOCUMENT NUMBER : 711243 COUNTRY OF REF DOCUMENT : ES
ES2142954 T3	20140808	PEXP		Calculated Patent Term Expiry	
GR3032115 T3	20000427	LSGT	+	granted / extensions (spc, cpc, pte)	
GR3032115 T3	20190712	PEXP		Calculated Patent Term Expiry	

GR3032760 T3	20000630	LSGT	+	granted / extensions (spc, cpc, pte)	
GR3032760 T3	20090304	LSLE	-ML	LAPSE DUE TO NON-PAYMENT OF FEES	
GR3032760 T3	20200225	PEXP		Calculated Patent Term Expiry	
JP10503161 T2	19980324	LSPB	+	published / reissued	
JP2000514316 T2	20001031	LSPB	+	published / reissued	
JP9502888 T2	19970325	LSPB	+	published / reissued	
KR19960703785 A	19960831	LSPB	+	published / reissued	
KR19967003785 A	19960831	LSPB	+	published / reissued	
KR19970706028 A	19971103	LSPB	+	published / reissued	
KR19977006028 A	19971103	LSPB	+	published / reissued	
KR970706028 A	19971103	LSPB	+	published / reissued	
KR970706028 A	20001025	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
PT711243 T	20000531	LSGT	+	granted / extensions (spc, cpc, pte)	
PT711243 T	20150531	PEXP		Calculated Patent Term Expiry	
US5398850 A	19950321	LSGT	+	granted / extensions (spc, cpc, pte)	
US5398850 A	19940502	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : RIVER MEDICAL, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SANCOFF, GREGORY E.; DOYLE, MARK C.; FIELD, FREDERIC P.; REEL/FRAME:006968/0135 EFFECTIVE DATE : 19940414
US5398850 A	19950309	LSGT	PAT1	Patented Case	
US5398850 A	19950309	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5398850 A	19970902	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WINFIELD MEDICAL, A CALIFORNIA CORPORATION, CALIFO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:RIVER MEDICAL, INC., A DELAWARE CORPORATION; REEL/FRAME:008693/0531 EFFECTIVE DATE : 19970626
US5398850 A	19980921	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5398850 A	19991229	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., A CORP. OF DELAWARE, FLORIDA OLDPARTY : MERGER; ASSIGNOR:WINFIELD MEDICAL, A CORP. OF CALIFORNIA; REEL/FRAME:010676/0688 EFFECTIVE DATE : 19980626
US5398850 A	20000315	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:WINFIELD MEDICAL; REEL/FRAME:010685/0809 EFFECTIVE DATE : 20000127
US5398850 A	20020327	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5398850 A	20030103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, AS ADMINISTRATIVE AGENT, TEXA OLDPARTY : SECURITY AGREEMENT; ASSIGNORS:MAXXIM MEDICAL, INC.; MAXXIM MEDICAL GROUP, INC.;

					REEL/FRAME:013323/0963 EFFECTIVE DATE : 20021230
US5398850 A	20030213	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, AS AGENT, TEXAS OLDPARTY : SECURITY INTEREST; ASSIGNOR:MAXXIM MEDICAL, INC.; REEL/FRAME:013616/0062 EFFECTIVE DATE : 20030212
US5398850 A	20030919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., FLORIDA OLDPARTY : RELEASE OF SECURITY INTEREST; ASSIGNOR:JPMORGAN CHASE BANK; REEL/FRAME:014499/0607 EFFECTIVE DATE : 20030918
US5398850 A	20040402	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PRO-MED, MEDIZINISHE, AUSTRIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MAXXIM MEDICAL, INC.; REEL/FRAME:014484/0798 EFFECTIVE DATE : 20030821
US5398850 A	20060515	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5398850 A	20140303	PEXP		Calculated Patent Term Expiry	
US5398851 A	19950321	LSGT	+	granted / extensions (spc, cpc, pte)	
US5398851 A	19931012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : RIVER MEDICAL, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SANCOFF, GREGORY E.; DOYLE, MARK C.; FIELD, FREDERIC P.; REEL/FRAME:006721/0166 EFFECTIVE DATE : 19930930
US5398851 A	19950309	LSGT	PAT1	Patented Case	
US5398851 A	19950309	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5398851 A	19970902	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WINFIELD MEDICAL, A CALIFORNIA CORPORATION, CALIFO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:RIVER MEDICAL, INC., A DELAWARE CORPORATION; REEL/FRAME:008693/0531 EFFECTIVE DATE : 19970626
US5398851 A	19980921	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5398851 A	19991229	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., A CORP. OF DELAWARE, FLORIDA OLDPARTY : MERGER; ASSIGNOR:WINFIELD MEDICAL, A CORP. OF CALIFORNIA; REEL/FRAME:010676/0688 EFFECTIVE DATE : 19980626
US5398851 A	20000315	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:WINFIELD MEDICAL; REEL/FRAME:010685/0809 EFFECTIVE DATE : 20000127
US5398851 A	20020327	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5398851 A	20030103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, AS ADMINISTRATIVE

					AGENT, TEXA OLDPARTY : SECURITY AGREEMENT; ASSIGNORS:MAXXIM MEDICAL, INC.; MAXXIM MEDICAL GROUP, INC.; REEL/FRAME:013323/0963 EFFECTIVE DATE : 20021230
US5398851 A	20030213	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, AS AGENT, TEXAS OLDPARTY : SECURITY INTEREST; ASSIGNOR:MAXXIM MEDICAL, INC.; REEL/FRAME:013616/0062 EFFECTIVE DATE : 20030212
US5398851 A	20030919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., FLORIDA OLDPARTY : RELEASE OF SECURITY INTEREST; ASSIGNOR:JPMORGAN CHASE BANK; REEL/FRAME:014499/0607 EFFECTIVE DATE : 20030918
US5398851 A	20040402	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PRO-MED, MEDIZINISHE, AUSTRIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MAXXIM MEDICAL, INC.; REEL/FRAME:014484/0798 EFFECTIVE DATE : 20030821
US5398851 A	20060512	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5398851 A	20131008	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ALISANAE GROUP LIMITED, HONG KONG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:PRO-MED MEDIZINISCHE PRODUKTIONS- UND HANDELS-AG; SCHUSTER, CHRISTOPHER, MAG.; REEL/FRAME:031367/0398 EFFECTIVE DATE : 20130926
US5398851 A	20130806	PEXP		Calculated Patent Term Expiry	
US5553741 A	19960910	LSGT	+	granted / extensions (spc, cpc, pte)	
US5553741 A	19960805	LSGT	PAT1	Patented Case	
US5553741 A	19960805	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5553741 A	19970722	LSRE	CC	CERTIFICATE OF CORRECTION	
US5553741 A	19970902	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WINFIELD MEDICAL, A CALIFORNIA CORPORATION, CALIFO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:RIVER MEDICAL, INC., A DELAWARE CORPORATION; REEL/FRAME:008693/0531 EFFECTIVE DATE : 19970626
US5553741 A	19991229	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., A CORP. OF DELAWARE, FLORIDA OLDPARTY : MERGER; ASSIGNOR:WINFIELD MEDICAL, A CORP. OF CALIFORNIA; REEL/FRAME:010676/0688 EFFECTIVE DATE : 19980626
US5553741 A	20000309	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5553741 A	20000315	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:WINFIELD

					MEDICAL; REEL/FRAME:010685/0809 EFFECTIVE DATE : 20000127
US5553741 A	20030103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, AS ADMINISTRATIVE AGENT, TEXA OLDPARTY : SECURITY AGREEMENT; ASSIGNORS:MAXXIM MEDICAL, INC.; MAXXIM MEDICAL GROUP, INC.; REEL/FRAME:013323/0963 EFFECTIVE DATE : 20021230
US5553741 A	20030213	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, AS AGENT, TEXAS OLDPARTY : SECURITY INTEREST; ASSIGNOR:MAXXIM MEDICAL, INC.; REEL/FRAME:013616/0062 EFFECTIVE DATE : 20030212
US5553741 A	20030919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., FLORIDA OLDPARTY : RELEASE OF SECURITY INTEREST; ASSIGNOR:JPMORGAN CHASE BANK; REEL/FRAME:014499/0607 EFFECTIVE DATE : 20030918
US5553741 A	20040226	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5553741 A	20040402	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PRO-MED, MEDIZINISHE, AUSTRIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MAXXIM MEDICAL, INC.; REEL/FRAME:014484/0798 EFFECTIVE DATE : 20030821
US5553741 A	20070921	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5553741 A	20131008	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ALISANAE GROUP LIMITED, HONG KONG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:PRO-MED MEDIZINISCHE PRODUKTIONS- UND HANDELS-AG; SCHUSTER, CHRISTOPHER, MAG.; REEL/FRAME:031367/0398 EFFECTIVE DATE : 20130926
US5553741 A	20141223	PEXP		Calculated Patent Term Expiry	
US5558255 A	19960924	LSGT	+	granted / extensions (spc, cpc, pte)	
US5558255 A	19960913	LSGT	PAT1	Patented Case	
US5558255 A	19960913	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5558255 A	19970902	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WINFIELD MEDICAL, A CALIFORNIA CORPORATION, CALIFO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:RIVER MEDICAL, INC., A DELAWARE CORPORATION; REEL/FRAME:008693/0531 EFFECTIVE DATE : 19970626
US5558255 A	19991229	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., A CORP. OF DELAWARE, FLORIDA OLDPARTY : MERGER; ASSIGNOR:WINFIELD MEDICAL, A CORP. OF CALIFORNIA; REEL/FRAME:010676/0688 EFFECTIVE DATE : 19980626
US5558255 A	20000315	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

					OWNER : MAXXIM MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:WINFIELD MEDICAL; REEL/FRAME:010685/0809 EFFECTIVE DATE : 20000127
US5558255 A	20000320	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5558255 A	20030103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, AS ADMINISTRATIVE AGENT, TEXA OLDPARTY : SECURITY AGREEMENT; ASSIGNORS:MAXXIM MEDICAL, INC.; MAXXIM MEDICAL GROUP, INC.; REEL/FRAME:013323/0963 EFFECTIVE DATE : 20021230
US5558255 A	20030213	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, AS AGENT, TEXAS OLDPARTY : SECURITY INTEREST; ASSIGNOR:MAXXIM MEDICAL, INC.; REEL/FRAME:013616/0062 EFFECTIVE DATE : 20030212
US5558255 A	20030919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., FLORIDA OLDPARTY : RELEASE OF SECURITY INTEREST; ASSIGNOR:JPMORGAN CHASE BANK; REEL/FRAME:014499/0607 EFFECTIVE DATE : 20030918
US5558255 A	20040323	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5558255 A	20040402	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PRO-MED, MEDIZINISHE, AUSTRIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MAXXIM MEDICAL, INC.; REEL/FRAME:014484/0798 EFFECTIVE DATE : 20030821
US5558255 A	20071009	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5558255 A	20131008	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ALISANAE GROUP LIMITED, HONG KONG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:PRO-MED MEDIZINISCHE PRODUKTIONS- UND HANDELS-AG; SCHUSTER, CHRISTOPHER, MAG.; REEL/FRAME:031367/0398 EFFECTIVE DATE : 20130926
US5558255 A	20150605	PEXP		Calculated Patent Term Expiry	
US5571261 A	19961105	LSGT	+	granted / extensions (spc, cpc, pte)	
US5571261 A	19941011	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : RIVER MEDICAL, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SANCOFF, GREGORY E.; DOYLE, MARK C.; FIELD, FREDERIC P.; REEL/FRAME:007162/0331; SIGNING DATES FROM 19941003 TO 19941004
US5571261 A	19961025	LSGT	PAT1	Patented Case	
US5571261 A	19961025	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5571261 A	19970902	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WINFIELD MEDICAL, A CALIFORNIA CORPORATION, CALIFO OLDPARTY : ASSIGNMENT OF

					ASSIGNORS INTEREST; ASSIGNOR:RIVER MEDICAL, INC., A DELAWARE CORPORATION; REEL/FRAME:008693/0531 EFFECTIVE DATE : 19970626
US5571261 A	19991229	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., A CORP. OF DELAWARE, FLORIDA OLDPARTY : MERGER; ASSIGNOR:WINFIELD MEDICAL, A CORP. OF CALIFORNIA; REEL/FRAME:010676/0688 EFFECTIVE DATE : 19980626
US5571261 A	20000315	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:WINFIELD MEDICAL; REEL/FRAME:010685/0809 EFFECTIVE DATE : 20000127
US5571261 A	20000420	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5571261 A	20030103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, AS ADMINISTRATIVE AGENT, TEXA OLDPARTY : SECURITY AGREEMENT; ASSIGNORS:MAXXIM MEDICAL, INC.; MAXXIM MEDICAL GROUP, INC.; REEL/FRAME:013323/0963 EFFECTIVE DATE : 20021230
US5571261 A	20030213	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, AS AGENT, TEXAS OLDPARTY : SECURITY INTEREST; ASSIGNOR:MAXXIM MEDICAL, INC.; REEL/FRAME:013616/0062 EFFECTIVE DATE : 20030212
US5571261 A	20030919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., FLORIDA OLDPARTY : RELEASE OF SECURITY INTEREST; ASSIGNOR:JPMORGAN CHASE BANK; REEL/FRAME:014499/0607 EFFECTIVE DATE : 20030918
US5571261 A	20040402	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PRO-MED, MEDIZINISHE, AUSTRIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MAXXIM MEDICAL, INC.; REEL/FRAME:014484/0798 EFFECTIVE DATE : 20030821
US5571261 A	20040409	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5571261 A	20080122	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5571261 A	20131008	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ALISANAE GROUP LIMITED, HONG KONG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:PRO-MED MEDIZINISCHE PRODUKTIONS- UND HANDELS-AG; SCHUSTER, CHRISTOPHER, MAG.; REEL/FRAME:031367/0398 EFFECTIVE DATE : 20130926
US5571261 A	20140805	PEXP		Calculated Patent Term Expiry	
US5578005 A	19961126	LSGT	+	granted / extensions (spc, cpc, pte)	
US5578005 A	19950103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : RIVER MEDICAL,

					INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SANCOFF, GREGORY E.; DOYLE, MARK C.; FIELD, FREDERIC P.; REEL/FRAME:007273/0604 EFFECTIVE DATE : 19941216
US5578005 A	19961021	LSGT	PAT1	Patented Case	
US5578005 A	19961021	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5578005 A	19970902	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WINFIELD MEDICAL, A CALIFORNIA CORPORATION, CALIFO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:RIVER MEDICAL, INC., A DELAWARE CORPORATION; REEL/FRAME:008693/0531 EFFECTIVE DATE : 19970626
US5578005 A	19991229	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., A CORP. OF DELAWARE, FLORIDA OLDPARTY : MERGER; ASSIGNOR:WINFIELD MEDICAL, A CORP. OF CALIFORNIA; REEL/FRAME:010676/0688 EFFECTIVE DATE : 19980626
US5578005 A	20000315	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:WINFIELD MEDICAL; REEL/FRAME:010685/0809 EFFECTIVE DATE : 20000127
US5578005 A	20000525	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5578005 A	20030103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, AS ADMINISTRATIVE AGENT, TEXA OLDPARTY : SECURITY AGREEMENT; ASSIGNORS:MAXXIM MEDICAL, INC.; MAXXIM MEDICAL GROUP, INC.; REEL/FRAME:013323/0963 EFFECTIVE DATE : 20021230
US5578005 A	20030213	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, AS AGENT, TEXAS OLDPARTY : SECURITY INTEREST; ASSIGNOR:MAXXIM MEDICAL, INC.; REEL/FRAME:013616/0062 EFFECTIVE DATE : 20030212
US5578005 A	20030919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., FLORIDA OLDPARTY : RELEASE OF SECURITY INTEREST; ASSIGNOR:JPMORGAN CHASE BANK; REEL/FRAME:014499/0607 EFFECTIVE DATE : 20030918
US5578005 A	20040402	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PRO-MED, MEDIZINISHE, AUSTRIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MAXXIM MEDICAL, INC.; REEL/FRAME:014484/0798 EFFECTIVE DATE : 20030821
US5578005 A	20040524	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5578005 A	20080122	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5578005 A	20131008	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ALISANAE GROUP

					LIMITED, HONG KONG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:PRO-MED MEDIZINISCHE PRODUKTIONS- UND HANDELS-AG; SCHUSTER, CHRISTOPHER, MAG.; REEL/FRAME:031367/0398 EFFECTIVE DATE : 20130926
US5578005 A	20140916	PEXP		Calculated Patent Term Expiry	
US5588556 A	19961231	LSGT	+	granted / extensions (spc, cpc, pte)	
US5588556 A	19961219	LSGT	PAT1	Patented Case	
US5588556 A	19961219	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5588556 A	19970506	LSRE	CC	CERTIFICATE OF CORRECTION	
US5588556 A	19970902	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WINFIELD MEDICAL, A CALIFORNIA CORPORATION, CALIFO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:RIVER MEDICAL, INC., A DELAWARE CORPORATION; REEL/FRAME:008693/0531 EFFECTIVE DATE : 19970626
US5588556 A	19991229	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., A CORP. OF DELAWARE, FLORIDA OLDPARTY : MERGER; ASSIGNOR:WINFIELD MEDICAL, A CORP. OF CALIFORNIA; REEL/FRAME:010676/0688 EFFECTIVE DATE : 19980626
US5588556 A	20000315	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:WINFIELD MEDICAL; REEL/FRAME:010685/0809 EFFECTIVE DATE : 20000127
US5588556 A	20000606	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5588556 A	20030103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, AS ADMINISTRATIVE AGENT, TEXA OLDPARTY : SECURITY AGREEMENT; ASSIGNORS:MAXXIM MEDICAL, INC.; MAXXIM MEDICAL GROUP, INC.; REEL/FRAME:013323/0963 EFFECTIVE DATE : 20021230
US5588556 A	20030213	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, AS AGENT, TEXAS OLDPARTY : SECURITY INTEREST; ASSIGNOR:MAXXIM MEDICAL, INC.; REEL/FRAME:013616/0062 EFFECTIVE DATE : 20030212
US5588556 A	20030919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXXIM MEDICAL, INC., FLORIDA OLDPARTY : RELEASE OF SECURITY INTEREST; ASSIGNOR:JPMORGAN CHASE BANK; REEL/FRAME:014499/0607 EFFECTIVE DATE : 20030918
US5588556 A	20040402	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PRO-MED, MEDIZINISHE, AUSTRIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MAXXIM MEDICAL, INC.; REEL/FRAME:014484/0798

					EFFECTIVE DATE : 20030821
US5588556 A	20040618	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5588556 A	20081222	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5588556 A	20131008	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ALISANAE GROUP LIMITED, HONG KONG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:PRO-MED MEDIZINISCHE PRODUKTIONS- UND HANDELS-AG; SCHUSTER, CHRISTOPHER, MAG.; REEL/FRAME:031367/0398 EFFECTIVE DATE : 20130926
US5588556 A	20150605	PEXP		Calculated Patent Term Expiry	
WO9504691 A1	19950216	LSPB	+	published / reissued	
WO9504691 A1	19940808	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 94193621.X COUNTRY OF REF DOCUMENT : CN
WO9504691 A1	19960129	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2168336 COUNTRY OF REF DOCUMENT : CA
WO9504691 A1	19960207	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1994925217 COUNTRY OF REF DOCUMENT : EP
WO9504691 A1	19960515	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1994925217 COUNTRY OF REF DOCUMENT : EP
WO9504691 A1	19960523	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO9504691 A1	19991201	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1994925217 COUNTRY OF REF DOCUMENT : EP
WO9523641 A1	19950908	LSPB	+	published / reissued	
WO9523641 A1	19960826	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2184168 COUNTRY OF REF DOCUMENT : CA
WO9523641 A1	19960919	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1995911857 COUNTRY OF REF DOCUMENT : EP
WO9523641 A1	19961218	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995911857 COUNTRY OF REF DOCUMENT : EP
WO9523641 A1	19970102	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO9523641 A1	19990414	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995911857 COUNTRY OF REF DOCUMENT : EP
WO9608280 A1	19960321	LSPB	+	published / reissued	
WO9608280 A1	19970312	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF COUNTRY CODE : WO
WO9608280 A1	19970314	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2200057 COUNTRY OF REF DOCUMENT : CA
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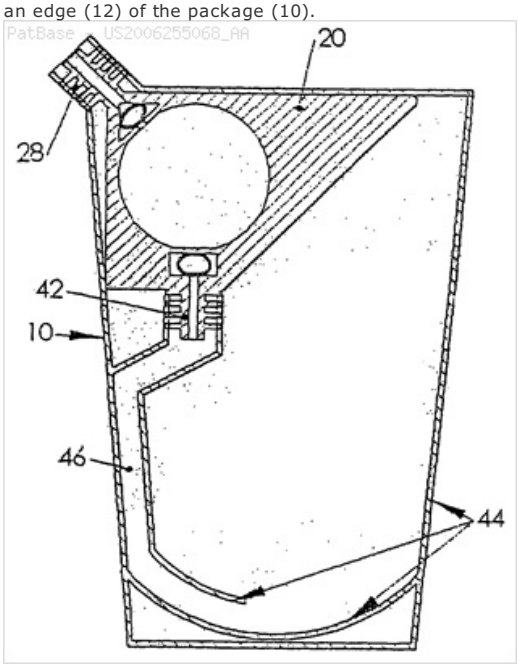
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WO9608280 A1	19970315	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1019970701709 COUNTRY OF REF DOCUMENT : KR
WO9608280 A1	19970407	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1995933800 COUNTRY OF REF DOCUMENT : EP
WO9608280 A1	19970604	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF COUNTRY CODE : WO
WO9608280 A1	19970702	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995933800 COUNTRY OF REF DOCUMENT : EP
WO9608280 A1	19970724	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO9608280 A1	19971103	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019970701709 COUNTRY OF REF DOCUMENT : KR
WO9608280 A1	19981226	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995933800 COUNTRY OF REF DOCUMENT : EP
WO9608280 A1	20001025	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019970701709 COUNTRY OF REF DOCUMENT : KR

79) Family number: 31000061 (US2006255068A)

Title: FLEXIBLE FILM PACKAGE WITH INTEGRAL DOSING PUMP

Abstract: The present invention provides a **liquid** **dispensing** package (10) comprising a flexible film package formed with at least two spaced apart major surfaces joined to each other along their peripheral edges (12) and delimiting therebetween a **liquid** **containing** chamber, said package further comprising an integral dosing pump and at least one button (16) to operate the pump. The at least one button (16) is located adjacent to an edge (12) of the package (10).

Classifications:
International (IPC 8-9): B05B11/00 B65D37/00 (Advanced/Invention); B05B11/00 B65D37/00 (Core/Invention)
International (IPC 1-7): B05B11/00 B65D
CPC: B05B11/00412 B05B11/3032 B05B11/3035 B65D75/5883 B65D83/0055 B05B11/0037 B05B11/0041
European: B05B11/00B5 B05B11/00B5A B05B11/00B5A2 B05B11/30E6 B65D75/58G3C B65D83/00B L05B11/30E8
US: 222/207 222/211



Family:

Publication number	Publication date	Application number	Application date
EP1606061 A1	20051221	EP20040711680	20040217
IL155033 A0	20031031	IL20030155033	20030323
US2006255068 AA	20061116	US20040549999	20040217
WO04082849 A1	20040930	WO2004IL00145	20040217

Priority:

IL20030155033 20030323 WO2004IL00145 20040217

Probable Assignee: PROFILE DISPENSING INNOVATION LLC

Assignee(s): (std): GENOSAR AMIR ; PROFILE DISPENSING INNOVATION ; SILEX PROJECTS LTD

Assignee(s): PROFILE DISPENSING INNOVATION LLC

Inventor(s): (std): GENOSAR AMIR

Agent(s): ANDRUS SCEALES STARKE AND SAWALL 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 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

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
EP1606061 A1	20051221	LSPB	+	published / reissued	
EP1606061 A1	20051221	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20050923
EP1606061 A1	20061011	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20060601
EP1606061 A1	20100526	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20091127
US2006255068 AA	20061116	LSPB	+	published / reissued	
US2006255068 AA	20061009	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PROFILE-DISPENSING INNOVATION, LLC, COLORADO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:GENOSAR, AMIR;

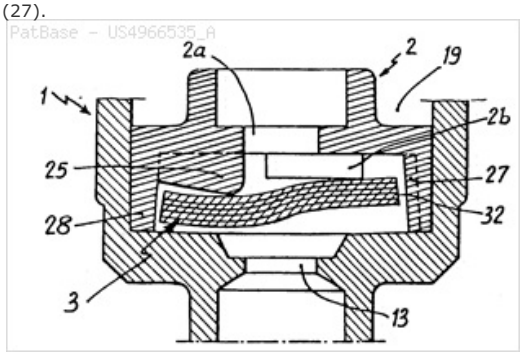
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US2006255068 AA	20090921	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
WO04082849 A1	20040930	LSPB	+	published / reissued	
WO04082849 A1	20050920	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2004711680 COUNTRY OF REF DOCUMENT : EP
WO04082849 A1	20051221	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2004711680 COUNTRY OF REF DOCUMENT : EP
WO04082849 A1	20060525	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 10549999 COUNTRY OF REF DOCUMENT : US
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WO04082849 A1	20061116	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 10549999 COUNTRY OF REF DOCUMENT : US

80) Family number: 4309061 (US4966535A)

Title: NON-RETURN VALVE FOR ADMITTING A **LIQUID** TO BE SPRAYED INTO A PUMP CHAMBER, AND UTILIZATION THEREOF

Abstract: Some precompression pumps currently used for spraying a **liquid** include a non-return valve formed by a gasket (3) held captive between the base of the pump body (1) and a sleeve (2). This non-return valve determines the extent to which the pump chamber (19) is isolated from or put into communication with a supply of **liquid**, as a function of whether the gasket (3) bears against the base of the pump body (1) or against the sleeve (2), closing a central hole through the pump body or being held off a central hole through the sleeve. In order to make valve operation more reproducible the present valve has the following features: the base of the pump body (1) is in the form of a cup (18) of small slope; the side wall (28) of the sleeve (2) flares from the end (26) of the sleeve (2) and has a local swelling (27), with the side wall (28) being of reduced thickness on either side of the swelling (27); and the end (26) of the sleeve (2) includes a tongue (25) and two ribs (2b), the tongue (25) and the ribs (2b) extend from the side wall (28) of the sleeve (2) all they way to its central hole (2a), the tongue (25) is diametrically opposite the swelling (27) and it is thickest adjacent to the central hole (3a), the ribs (2b) are disposed symmetrically about the diameter passing through the swelling (27) and the tongue (25) such that each of them forms an acute angle with the diameter on either side of the swelling (27).

Classifications:
International (IPC 8-9): B05B11/00 F04B9/14 F16K15/16 (Advanced/Invention);
B05B11/00 F04B9/00 F16K15/14 (Core/Invention)
International (IPC 1-7): B05B11/00 B65D47/24 F04B9/14 F16K15/02 F16K15/16
CPC: B05B11/3025 B05B11/3069 Y10T137/7892 Y10T137/7914
European: B05B11/00P3T2 B05B11/00P9R B05B11/00P9R2 B05B11/00T2 B05B11/30C9B B05B11/30H7B
US: 137/533.19 137/856 417/553



Family:

Publication number	Publication date	Application number	Application date
AT90888 E	19930715	AT19900400037T	19900105
DE69002006 D1	19930729	DE19906002006	19900105
DE69002006 T2	19940113	DE19906002006T	19900105
EP0377536 A1	19900711	EP19900400037	19900105
EP0377536 B1	19930623	EP19900400037	19900105
FR2642499 A1	19900803	FR19890000127	19890106
FR2642499 B1	19910614	FR19890000127	19890106
JP2229564 A2	19900912	JP19900000346	19900105
JP2876326 B2	19990331	JP19900000346	19900105
US4966535 A	19901030	US19900461498	19900105

Priority:
FR19890000127 19890106 EP19900400037 19900105

Probable Assignee: VALOIS

Assignee(s): (std): BAROWA ; VALOIS ; VALOIS SA ; VALOIS LE NEUBOURG ETS

Assignee(s): VALOIS LE NEUBOURG FR ETS ; VALOIS S A LE NEUBOURG FR ; VALOIS S A ; BAROWA SA ; ETABLISSEMENTS VALOIS LE NEUBOURG FR ; LA SOC ; LA SOC ANONYME VALOIS BPG

Inventor(s): (std): LINA JEAN PIERRE ; DI GIOVANNI PATRICK ; JIYAN PIEERU RIINA ; PATORITSUKU DEIJIYOBANNI ; LINA M ; GIOVANNI M DI

Inventor(s): M DI GIOVANNI ; M LINA ; LINA JEAN PIERRE F 27110 LE NEUBOURG FR ; DI GIOVANNI PATRICK F 76500 ELBEUF FR ; JAN PIEERU RIINA ; PATORITSUKU DEIJOBANNI

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT90888 E	19930715	LSGT	+	granted / extensions (spc, cpc, pte)	
AT90888 E	19931215	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT90888 E	20100105	PEXP		Calculated Patent Term Expiry	
DE69002006 D1	19940721	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69002006 D1	20061116	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69002006 T2	19940113	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0377536 A1	19900711	LSPB	+	published / reissued	
EP0377536 A1	19910130	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19901130

EP0377536 A1	19921223	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19921109
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EP0377536 B1	20090930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20070105
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FR2642499 B1	19910614	LSGT	+	granted / extensions (spc, cpc, pte)	
FR2642499 B1	19941125	LSLE	-ST	NOTIFICATION OF LAPSE	
FR2642499 B1	20090106	PEXP		Calculated Patent Term Expiry	
JP2229564 A2	19900912	LSPB	+	published / reissued	
JP2876326 B2	19990331	LSGT	+	granted / extensions (spc, cpc, pte)	
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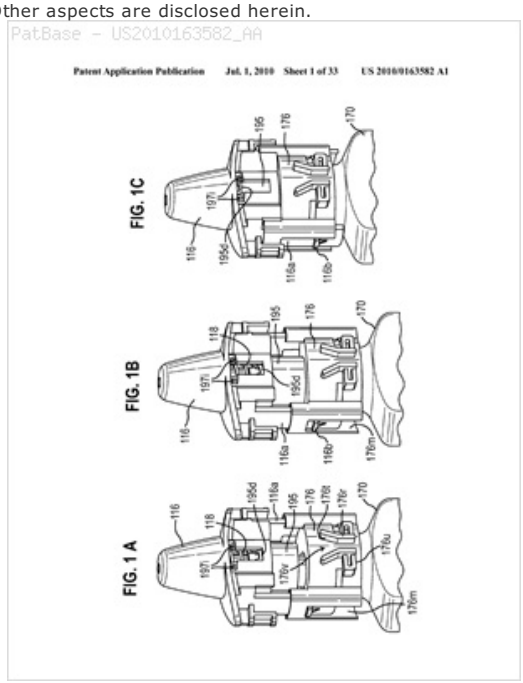
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US4966535 A	19900829	LSGT	PAT1	Patented Case	
US4966535 A	19900829	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US4966535 A	19940413	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4966535 A	19980402	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4966535 A	20020404	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US4966535 A	20100105	PEXP		Calculated Patent Term Expiry	

81) Family number: 34973062 (US2010163582A)

Title: FLUID **DISPENSER**

Abstract: One aspect of the invention provides a component for a fluid **dispenser** which defines a dosing chamber for a piston member to stroke in and has an end adapted for engaging a fluid outlet of the fluid **dispenser** or a seal which overlies the fluid outlet to selectively close and open the fluid outlet or seal. Other aspects are disclosed herein.

Classifications:
International (IPC 8-9): A61M11/00 A61M11/02 A61M15/08 A61M31/00 B05B B05B11/00 B65D47/34 B65D83/76 B65D88/54 (Advanced/Invention);
A61M11/00 B05B1/34 (Advanced/Non-invention);
A61M11/00 B05B11/00 B65D47/34 B65D83/76 B65D88/00 (Core/Invention);
B05B (Subclass/Invention)
International (IPC 1-7): B05B11/00
CPC: B05B11/00 B05B1/3436 B05B11/007 B05B11/3004 B05B11/3011 B05B11/3014 B05B11/3021 B05B11/3056 B05B11/307
European: B05B11/00B9R B05B11/30C2 B05B11/30C5B B05B11/30C5E2 B05B11/30H3F B05B11/30H7D L05B1/34A3B4B L05B11/30C8
US: 1/1 222/321.2 222/321.6 222/321.600P 222/385



Family:

Publication number	Publication date	Application number	Application date
AR066788 AA	20090909	AR2008P102292	20080530
AR081258 AB	20120718	AR2011P101829	20110527
AU2008257489 AA	20081204	AU20080257489	20080530
AU2008257489 BB	20131212	AU20080257489	20080530
AU2008257489 CA	20140703	AU20080257489	20080530
AU2013263698 AA	20131212	AU20130263698	20131125
BRPI0812353 A2	20150203	BR2008PI12353	20080530
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CN102762309 A	20121031	CN200880100990	20080530
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EP2162231 B1	20180110	EP20080760246	20080530
GB200710315 A0	20070711	GB20070010315	20070530
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HK1141480 A1	20101112	HK20100107622	20100810
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IL202344 A1	20161031	IL20080202344	20080530
IN04193KN2009 A	20100319	IN2009KN04193	20091203
JP2010527859 T2	20100819	JP20100509827T	20080530
JP2014050720 A2	20140320	JP20130207750	20131002
JP2015147054 A2	20150820	JP20150052056	20150316
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KR101548498 B1	20150901	KR20097027580	20080530
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MX2009013035 A1	20100615	MX20090013035	20080530
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RU2009145212 A	20110710	RU20090145212	20080530
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SG182139 A1	20120730	SG20120039418	20080530
SG2014009625 A1	20140529	SG20140009625	20080530
TW200916198 A	20090416	TW20080120364	20080530
TW201515714 A	20150501	TW20140135740	20080530
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US2010163582 AA	20100701	US20080601361	20080530
US2014203049 AA	20140724	US20140223052	20140324
US8678243 BB	20140325	US20080601361	20080530
US9821333 BB	20171121	US20140223052	20140324
WO08145714 A2	20081204	WO2008EP56655	20080530

Priority:

GB20070010315	20070530	GB20070023420	20071129	AU20080257489	20080530
CN200880100990	20080530	JP20100509827	20080530	JP20130207750	20080530
JP20100509827T	20080530	WO2008EP56655	20080530	RU20090145212	20091208
US20100601361	20100310	AU20130263698	20131125	US20140223052	20140324
JP20150052056	20150316				

Probable Assignee: GLAXOSMITHKLINE PLC

Assignee(s): (std): COLLINS JAMES TERENCE ; GLAKSO GRUP LTD ; GLAXO GROUP LIMIDED ; GLAXO GROUP LTD ; GRATZFELD THOMAS FRANZ PAUL ; HERTRAMPF WERNER ; HARMS HEIKO ; GLAXOSMITHKLINE PLC ; NIEBECKER GERDHARD ; WAITZ KARL HEINZ ; RAND PAUL KENNETH ; PEARSON ALLEN JOHN ; MEADWESTVACO CALMAR GMBH ; LINTERN RICHARD DAVID ; WELP KARL GISBERT ; MEADWESTTVACO CALMAR GMBH ; MIDVESTVAKO KAL MAR GMBKH ; MEADWESTVACO CLAMAR GMBH

Assignee(s): GLAXO GROUP LIMITED ; MEADWESTVACO CALMAR GMBH ; GLAXO GROUP LIMITED ; GLAKSO GRUP LIMITED

Inventor(s): (std): GERDHARD NIEBECKER ; RICHARD DAVID LINTERN ; WERNER HERTRAMPF ; ALLEN JOHN PEARSON ; HEIKO HARMS ; WELP KARL GISBERT ; COLLINS JAMES TERENCE ; LINTERN RICHARD DAVID ; HARMS HEIKO ; HERTRAMPF WERNER ; GRATZFELD THOMAS FRANZ PAUL ; PEARSON ALLEN JOHN ; RAND PAUL KENNETH ; WAITZ KARL HEINZ ; NIEBECKER GERDHARD ; HEINZ WAITZ KARL ; JOHN PEARSON ALLEN ; KENNETH RAND PAUL ; PAUL GRATZFELD THOMAS FRANZ ; GISBERT WELP KARL ; TERENCE COLLINS JAMES ; DAVID LINTERN RICHARD ; GRATZFELD THOMAS ; HERTRAMPF MICHAEL ; WELP KARL G ; LINTERN RICHARD DEHVID ; GRATTSFEL D TOMAS FRANTS PAUL ; REHND POL KENNET ; KHERTRAMPF VERNER ; VAJTS KARL KHAJNTS ; NIEBEKKER GERKHARD ; VEL P KARL GISBERT ; PIRSON ALLEN DZHON ; KOLLINS DZHEJMS TERENS ; KHARMS KHEJKO ; WELP GISBERT KARL ; COLLINS JAMESTERENCE ; NIEBECKER GERHARD ; HARNS HEIKO ; KARL HEINZ WALTZ

Inventor(s): VEL'P KARL GISBERT ; GRATTSFEL'D TOMAS FRANTS PAUL' ; HEIKO HARNS ; LINTERN RICHARD DAVID AND ; JAMESTERENCE COLLINS ; GISBERT KARL WELP ; KARL GISBERT WELP ; THOMAS FRANZ PAUL GRATZFELD ; KARL HEINZ WAITZ ; JAMES TERENCE COLLINS ; PAUL KENNETH RAND ; HERTRAMPE WERNER

Agent(s): PHILLIPS ORMONDE FITZPATRICK; ALICIA LLOREDA RICAURTE; RICE JASON NEALE; MARKS AND CLERK; REINHOLD COHN AND PARTNERS; SEKIYA MITSUO; HIRAKI YUSUKE; DONALDSON AND BURKINSHAW; DONALDSON AND BURKINSHAW LLP; GLAXOSMITHKLINE CORPORATE INTELLECTUAL PROPERTY MAI B482; DWIGHT S; EDWARD R; JAMES P; RICE JASON NEALE 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 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

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AR066788 AA	20090909	LSPB	+	published / reissued	
AR066788 AA	20150414	LSGT	+FG	GRANT, REGISTRATION	
AR081258 AB	20120718	LSPB	+	published / reissued	
AR081258 AB	20160715	LSGT	+FG	GRANT, REGISTRATION	
AR081258 AB	20310527	PEXP		Calculated Patent Term Expiry	
AU2008257489 AA	20081204	LSPB	+	published / reissued	
AU2008257489 BB	20131212	LSGT	+	granted / extensions (spc, cpc, pte)	
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AU2008257489 BB	20280530	PEXP		Calculated Patent Term Expiry	
AU2008257489 CA	20140703	LSRE	DA3	AMENDMENTS MADE SECTION 104	TEXT : THE NATURE OF THE AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 11 MAR 2014
AU2008257489 CA	20140710	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2008257489 CA	20200102	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2013263698 AA	20131212	LSPB	+	published / reissued	
AU2013263698 AA	20161215	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2)(E) - PATENT	

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BRPI0812353 A2	20190430	LSRV	B11E	DISMISSAL ACC. ART. 34 OF IPL - REQUIREMENTS FOR EXAMINATION INCOMPLETE	
CA2688540 AA	20081204	LSPB	+	published / reissued	
CA2688540 AA	20140602	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20140521
CA2688540 AA	20170202	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20161222
CN102762309 A	20121031	LSPB	+	published / reissued	
CN102762309 A	20121031	LSPB	+C06	PUBLICATION	
CN102762309 B	20150805	LSGT	+	granted / extensions (spc, cpc, pte)	
CN102762309 B	20150805	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN102762309 B	20280530	PEXP		Calculated Patent Term Expiry	
CN104623772 A	20150520	LSPB	+	published / reissued	
CN104623772 A	20150520	LSPB	+C06	PUBLICATION	
CN104623772 A	20180206	LSDW	-WD01	INVENTION PATENT APPLICATION DEEMED WITHDRAWN AFTER PUBLICATION	
CO6251297 A2	20110221	LSPB	+	published / reissued	
CO6251297 A2	20130219	LSGT	+FG	APPLICATION GRANTED	
EP2162231 A2	20100317	LSPB	+	published / reissued	
EP2162231 A2	20100317	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20091215
EP2162231 A2	20100331	LSES	R17D	DEFERRED SEARCH REPORT PUBLISHED (CORRECTED)	EFFECTIVE DATE : 20081204
EP2162231 A2	20130501	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : MEADWESTVACO CALMAR GMBH
EP2162231 A2	20130501	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : GLAXO GROUP LIMITED
EP2162231 A2	20150617	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20150519
EP2162231 A2	20170719	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20170623
EP2162231 A2	20171025	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20170928
EP2162231 B1	20180110	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2162231 B1	20180110	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2162231 B1	20180115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2162231 B1	20180115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 961815 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20180115
EP2162231 B1	20180207	LSGT	REG	REFERENCE TO A	REF COUNTRY CODE : IE

				NATIONAL CODE	REF LEGAL EVENT CODE : FG4D
EP2162231 B1	20180222	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602008053680 COUNTRY OF REF DOCUMENT : DE
EP2162231 B1	20180416	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
EP2162231 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180328 YEAR OF FEE PAYMENT : 11
EP2162231 B1	20180615	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 961815 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20180110
EP2162231 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180410
EP2162231 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED

					TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180507 YEAR OF FEE PAYMENT : 11
EP2162231 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180410
EP2162231 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180411
EP2162231 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180510
EP2162231 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180416 YEAR OF FEE PAYMENT : 11
EP2162231 B1	20181011	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602008053680 COUNTRY OF REF DOCUMENT : DE
EP2162231 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE

				OFFICE TO EPO]	FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20181214	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2162231 B1	20181219	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20181011
EP2162231 B1	20181228	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : WD REF DOCUMENT NUMBER : 1141480 COUNTRY OF REF DOCUMENT : HK
EP2162231 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110
EP2162231 B1	20190220	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2162231 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180531
EP2162231 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180110

EP2162231 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180531
EP2162231 B1	20190329	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180530
EP2162231 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180530
EP2162231 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180531
EP2162231 B1	20191203	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 602008053680 COUNTRY OF REF DOCUMENT : DE
EP2162231 B1	20200129	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20190530
EP2162231 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180530
EP2162231 B1	20280530	PEXP		Calculated Patent Term Expiry	
GB200710315 A0	20081126	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB200723420 A0	20090527	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
HK1141480 A1	20101112	LSPB	+	published / reissued	
IL202344 A1	20161031	LSPB	+	published / reissued	
IL202344 A1	20170228	LSGT	+FF	PATENT GRANTED	
IL202344 A1	20170430	LSFE	+KB	PATENT RENEWED	
IL202344 A1	20180430	LSFE	+KB	PATENT RENEWED	
IN04193KN2009 A	20100319	LSPB	+	published / reissued	
JP2010527859 T2	20100819	LSPB	+	published / reissued	
JP2010527859 T2	20110528	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20110527
JP2010527859 T2	20130403	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130402
JP2010527859 T2	20131003	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20131002
JP2010527859 T2	20140806	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20140805

JP2010527859 T2	20141206	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20141205
JP2010527859 T2	20150123	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20150122
JP2010527859 T2	20150323	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2010527859 T2	20150401	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20150331
JP2010527859 T2	20150507	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20150430
JP2010527859 T2	20150515	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5744515 COUNTRY OF REF DOCUMENT : JP
JP2014050720 A2	20140320	LSPB	+	published / reissued	
JP2014050720 A2	20131102	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20131101
JP2014050720 A2	20140917	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20140916
JP2014050720 A2	20150520	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20150519
JP2015147054 A2	20150820	LSPB	+	published / reissued	
JP2015147054 A2	20160210	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20160209
JP2015147054 A2	20160809	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20160809
JP2015147054 A2	20170207	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20170207
JP2015147054 A2	20171003	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20171003
JP5744515 B2	20150708	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5744515 B2	20150402	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5744515 B2	20150501	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5744515 B2	20150515	LSGT	+R150	特許証 (Patent certificate)	
JP5744515 B2	20180426	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5744515 B2	20180508	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5744515 B2	20190515	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP5744515 B2	20280530	PEXP		Calculated Patent Term Expiry	
KR101548498 B1	20150901	LSGT	+	granted / extensions (spc, cpc, pte)	

KR101548498 B1	20180628	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20180628 YEAR OF FEE PAYMENT : 4
KR101548498 B1	20280530	PEXP		Calculated Patent Term Expiry	
KR101618351 B1	20160504	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101618351 B1	20150128	LSES	A201	REQUEST FOR EXAMINATION	
KR101618351 B1	20190429	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR101618351 B1	20280530	PEXP		Calculated Patent Term Expiry	
KR20100038328 A	20100414	LSPB	+	published / reissued	
KR20100038328 A	20130530	LSES	A201	REQUEST FOR EXAMINATION	
KR20100038328 A	20140627	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20100038328 A	20150528	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20100038328 A	20150825	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR20150013912 A	20150205	LSPB	+	published / reissued	
KR20150013912 A	20150323	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20150013912 A	20160129	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20150013912 A	20160428	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
MX2009013035 A1	20100615	LSPB	+	published / reissued	
MX2009013035 A1	20131204	LSGT	+FG	GRANT OR REGISTRATION	
NZ581439 A	20130328	LSPB	+	published / reissued	
NZ581439 A	20130328	LSRE	ERR	ERROR OR CORRECTION	TEXT : THE TITLE HAS BEEN CORRECTED TO TITLE: FLUID DISPENSER; FILING DATE: 26 NOV 2009; STATUS: REJECTED; TITLE: FLUID DISPENSER; FILING DATE: 14 NOV 2012; STATUS: PROPOSED; TITLE: FLUID DISPENSER; FILING DATE: 11 MAY 2011; STATUS: REJECTED; TITLE: FLUID DISPENSER; FILING DATE: 25 JUL 2011; STATUS: REJECTED; EFFECTIVE DATE : 20130304
NZ581439 A	20130726	LSGT	+PSEA	PATENT SEALED	
NZ581439 A	20130927	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 3 YEARS UNTIL 30 MAY 2015 BY HENRY HUGHES EFFECTIVE DATE : 20130913
NZ581439 A	20150424	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 30 MAY 2016 BY THOMSON REUTERS EFFECTIVE DATE : 20150418
NZ581439 A	20160429	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 30 MAY 2017 BY THOMSON REUTERS EFFECTIVE DATE : 20160415
NZ581439 A	20170428	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 30 MAY 2018 BY THOMSON REUTERS EFFECTIVE DATE : 20170421
NZ581439 A	20180427	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 30 MAY 2019 BY THOMSON REUTERS EFFECTIVE DATE : 20180418

NZ581439 A	20191220	LSLE	-LAPS	PATENT LAPSED	
RU2009145212 A	20110710	LSPB	+	published / reissued	
RU2012133332 A	20140210	LSPB	+	published / reissued	
RU2012133332 A	20170410	LSWD	-FA92	ACKNOWLEDGEMENT OF APPLICATION WITHDRAWN (LACK OF SUPPLEMENTARY MATERIALS SUBMITTED)	EFFECTIVE DATE : 20170406
RU2466797 C2	20121120	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2466797 C2	20280530	PEXP		Calculated Patent Term Expiry	
SG182139 A1	20120730	LSPB	+	published / reissued	
SG2014009625 A1	20140529	LSPB	+	published / reissued	
TW200916198 A	20090416	LSPB	+	published / reissued	
TW201515714 A	20150501	LSPB	+	published / reissued	
TWI474870 B	20150301	LSGT	+	granted / extensions (spc, cpc, pte)	
TWI474870 B	20191201	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TWI474870 B	20280530	PEXP		Calculated Patent Term Expiry	
US2010163582 AA	20100701	LSPB	+	published / reissued	
US2010163582 AA	20140207	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GLAXO GROUP LIMITED, UNITED KINGDOM OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE CONVEYING PARTY DATA: COLLINS, GRATZFELD, HARMS, HERTRAMPF, LINTERN, NIEBECKER, PEARSON, RAND, WAITZ,WELP, ETC. PREVIOUSLY RECORDED ON REEL 024054 FRAME 0891. ASSIGNOR(S) HEREBY CONFIRMS THE CONVEYING PARTY DATA SHOULD READ: COLLINS, LINTERN, PEARSON, RAND, ORIGIN PRODUCT DESIGN LIMITED; ASSIGNORS:COLLINS, JAMES TERENCE; LINTERN, RICHARD DAVID; PEARSON, ALLEN JOHN; AND OTHERS; SIGNING DATES FROM 20080807 TO 20080908; REEL/FRAME:032168/0247
US2010163582 AA	20140207	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MEADWESTVACO CALMAR GMBH, GERMANY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GRATZFELD, THOMAS FRANZ PAUL; HARMS, HEIKO; HERTRAMPF, WERNER; AND OTHERS; SIGNING DATES FROM 20080609 TO 20080612; REEL/FRAME:032168/0632
US2010163582 AA	20140305	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014203049 AA	20140724	LSPB	+	published / reissued	
US2014203049 AA	20170221	LSES	NFA1	Non Final Action Mailed	
US2014203049 AA	20170717	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2014203049 AA	20171019	LSFE	+PPR1	Publications -- Issue Fee Payment Received	

US2014203049 AA	20171020	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2014203049 AA	20171101	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
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US8678243 BB	20100310	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GLAXO GROUP LIMITED,UNITED KINGDOM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:COLLINS, JAMES TERENCE; GRATZFELD, THOMAS FRANZ PAUL; HARMS, HEIKO; AND OTHERS; SIGNING DATES FROM 20080609 TO 20080908; REEL/FRAME:024054/0891
US8678243 BB	20100310	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GLAXO GROUP LIMITED, UNITED KINGDOM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:COLLINS, JAMES TERENCE; GRATZFELD, THOMAS FRANZ PAUL; HARMS, HEIKO; AND OTHERS; SIGNING DATES FROM 20080609 TO 20080908; REEL/FRAME:024054/0891
US8678243 BB	20140305	LSGT	PAT1	Patented Case	
US8678243 BB	20150407	LSRE	CC	CERTIFICATE OF CORRECTION	
US8678243 BB	20170829	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8678243 BB	20300306	PEXP		Calculated Patent Term Expiry (PTA 645 days)	
US9821333 BB	20171121	LSGT	+	granted / extensions (spc, cpc, pte)	
US9821333 BB	20171101	LSGT	PAT1	Patented Case	
US9821333 BB	20341218	PEXP		Calculated Patent Term Expiry (PTA 269 days)	
WO08145714 A2	20081204	LSPB	+	published / reissued	
WO08145714 A2	20080530	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200880100990.9 COUNTRY OF REF DOCUMENT : CN
WO08145714 A2	20091125	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 581439 COUNTRY OF REF DOCUMENT : NZ
WO08145714 A2	20091127	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010509827 COUNTRY OF REF DOCUMENT : JP
WO08145714 A2	20091127	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2688540 COUNTRY OF REF DOCUMENT : CA
WO08145714 A2	20091130	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2008257489 COUNTRY OF REF DOCUMENT : AU
WO08145714 A2	20091130	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2009/013035 COUNTRY OF REF DOCUMENT : MX
WO08145714 A2	20091201	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO08145714 A2	20091203	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 4193/KOLNP/2009 COUNTRY OF REF DOCUMENT : IN

WO08145714 A2	20091215	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2008760246 COUNTRY OF REF DOCUMENT : EP
WO08145714 A2	20091224	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2008257489 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20080530 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
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WO08145714 A2	20091230	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009145212 COUNTRY OF REF DOCUMENT : RU
WO08145714 A2	20100116	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PI 20095057 COUNTRY OF REF DOCUMENT : MY
WO08145714 A2	20100310	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12601361 COUNTRY OF REF DOCUMENT : US
WO08145714 A2	20150203	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0812353 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20091130

82) Family number: 45172062 (US2010143265A)

Title: SYSTEM AND METHOD FOR THE DELIVERY OF A SANITIZING FOAM

Abstract: A spray solution generates a foam to sanitize surfaces. The spray dip solution is a mixture of the solution with carbon dioxide and nitrous oxide in a closed vessel. After ejecting the **liquid** dip solution mixture from a nozzle a foam is generated from the solution as the solution hits a surface. The spray can be applied to a number of different surfaces. In an embodiment of the invention, the spray can be applied to cow teats without risk of cross-contamination of the nozzle or other equipment. The generated foam remains intact on the teat for a prolonged period of time, increases the area of the teat in contact with the foam during the treatment period and disperses skin-conditioning fats present in the dip treatment, thereby increasing the coverage of the skin conditioner on and within the epidermis of the teat and surrounding areas.

Classifications:
International (IPC 8-9): A01N25/00 A01N25/06 A01N25/16 A01N59/12 A01P1/00 A61K33/18 A61K47/36 A61K47/48 A61K9/12 A61K9/66 A61P31/00 A62C2/00 A62C5/02 B05B1/24 B65B1/04 B65B3/04 B65D83/00 B67B7/00 B67D7/80 C09K21/02 (Advanced/Invention);
A01N25/00 A01N25/06 A01N25/16 A01N59/12 A01P1/00 A61K33/18 A61K47/36 A61K47/48 A61K9/12 A61K9/52 A61P31/00 A62C2/00 A62C5/00 B05B1/00 B65B1/04 B65B3/04 B65D83/00 B67B7/00 B67D7/80 C09K21/00 (Core/Invention)
CPC: A01N25/16 A61K9/0017 A61K9/0041 A61K9/08 A61K9/122 A61K9/124 A61K9/7015 A61K33/18
European: A01N25/16 A61K33/18 A61K9/00M12 A61K9/00M3B A61K9/12B A61K9/12D A61K9/70D K61K9/08
US: 141/18 141/3 169/44 222/1 222/146.3 222/394 239/135 239/8 252/605 424/43 424/43P 424/667 424/667S 514/771 514/771S



Family:

Publication number	Publication date	Application number	Application date
US2010143265 AA	20100610	US20090633587	20091208
US2010147889 AA	20100617	US20090633617	20091208
US2010150845 AA	20100617	US20090633566	20091208
US2010151053 AA	20100617	US20090633636	20091208
WO10068688 A2	20100617	WO2009US67368	20091209
WO10068688 A3	20100812	WO2009US67368	20091209

Priority:

US20080121110P 20081209 US20090145534P 20090117 US20090633587 20091208
US20090633617 20091208 US20090633636 20091208 US20090633566 20091208

Probable Assignee: GREEN SOURCE AUTOMATION LLC

Assignee(s): (std): GREEN SOURCE AUTOMATED LLC ; GREEN SOURCE AUTOMATION LLC ; HEWES LEROY ; UNRUH SCOTT F

Inventor(s): (std): UNRUH SCOTT F ; HEWES LEROY

Agent(s): FLIESLER MEYER LLP; MEYER SHELDON R 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 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 PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2010143265 AA	20100610	LSPB	+	published / reissued	
US2010143265 AA	20100226	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GREEN SOURCE AUTOMATION, LLC,CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HEWES, LEROY; UNRUH, SCOTT F.; SIGNING DATES FROM 20100219 TO 20100223; REEL/FRAME:024003/0631
US2010143265 AA	20120614	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2010147889 AA	20100617	LSPB	+	published / reissued	
US2010147889 AA	20100226	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GREEN SOURCE AUTOMATION, LLC,CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HEWES, LEROY; UNRUH, SCOTT F.; SIGNING DATES FROM 20100219 TO 20100223; REEL/FRAME:024003/0634
US2010147889 AA	20120702	LSWD	-ABD3	Abandoned -	

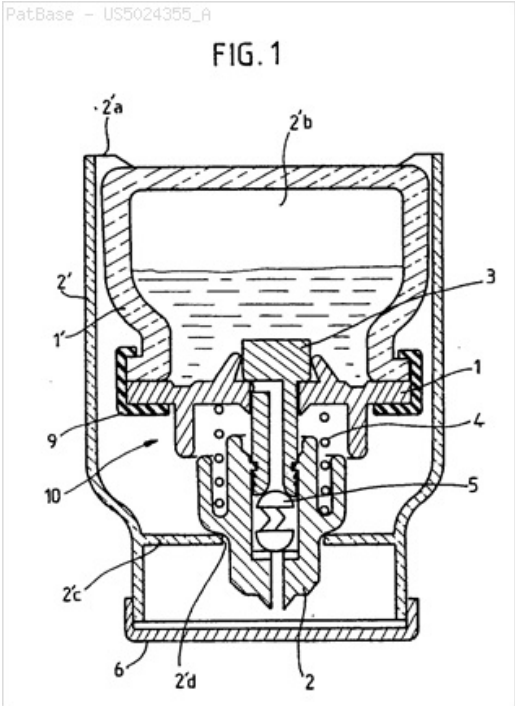
				- Failure to Respond to an Office Action	
US2010150845 AA	20100617	LSPB	+	published / reissued	
US2010150845 AA	20100226	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GREEN SOURCE AUTOMATION, LLC,CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HEWES, LEROY; UNRUH, SCOTT F.; SIGNING DATES FROM 20100219 TO 20100223; REEL/FRAME:024003/0514
US2010150845 AA	20120622	LSWD	-ABD3	Abandoned - - Failure to Respond to an Office Action	
US2010151053 AA	20100617	LSPB	+	published / reissued	
US2010151053 AA	20100304	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GREEN SOURCE AUTOMATION, LLC,CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HEWES, LEROY; UNRUH, SCOTT F.; REEL/FRAME:024032/0245 EFFECTIVE DATE : 20100224
US2010151053 AA	20150126	LSWD	-ABD3	Abandoned - - Failure to Respond to an Office Action	
WO10068688 A2	20100617	LSPB	+	published / reissued	
WO10068688 A3	20110609	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO10068688 A3	20120104	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 09832486 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :

83) Family number: 3686062 (US5024355A)

Title: DEVICE FOR **DISPENSING** A **LIQUID** OR A CREAM IN SMALL-VOLUME **DROPS**, AND AN ASSOCIATED **DISPENSING** ASSEMBLY

Abstract: The present **dispenser** device is designed in particular for eye treatment and comprises a pump body including a pump chamber, a piston slidable within the chamber and extended beyond the chamber by a rod pierced by a channel capable of communicating with the chamber, and an endpiece fixed to the rod and having a **dispensing** orifice in line with the channel of the rod. In addition to the above conventional items, the **dispenser** has a chamber admission valve which is constituted by co-operation between the enclosure defining the pump chamber and the piston which engages therein or projects therefrom as the case may be. The co-operation is preferably via a sealing lip. This disposition makes it possible to **dispense** a **drop** whose volume as determined by the capacity of the chamber is very small. In addition, the piston is returned to its rest position with the admission valve closed by resilient means disposed between the pump body and the endpiece. This guarantees that only **drop** is **dispensed** at a time. Finally, an outlet valve is placed between the end of the channel in the rod and the **dispensing** orifice of the endpiece in order to ensure that a **dispensed** **drop** is slightly precompressed. The **dispenser** device is advantageously integrated in a **dispenser** assembly comprising a supply of substance to be **dispensed** together with a housing facilitating actuation of the assembly by a user. Some designs of assembly are particularly attractive, from the economic point of view, with respect to the process of being filled with the substance to be **dispensed**.

Classifications:
International (IPC 8-9): A61F9/00 A61J1/05 B01L3/00 B05B11/00 B65D47/18 B65D83/00 F16K21/16 (Advanced/Invention); A61F9/00 A61J1/05 B05B11/00 B65D47/06 B65D83/00 F16K21/00 (Core/Invention)
International (IPC 1-7): A61F9/00 A61J1/00 A61J1/05 B01L3/00 B65D47/18 B65D83/00 B67D5/64 F16K21/16
CPC: B05B11/3001 B05B11/3004 B05B11/307 B05B11/00416 B05B11/00446 B05B11/0059 B05B11/0064 A61F9/0008 B05B11/3054 B05B11/309 B05B11/3094 B65D47/18 B05B11/0037 B05B11/0038
European: A61F9/00B B05B11/00B2F B05B11/00B9L B05B11/00P9H2C B05B11/00P9R2 B05B11/00Q B05B11/30H3B3 B05B11/30H7B B05B11/30P B05B11/30R B65D47/18
US: 222/162 222/340 222/422 417/552



Family:

Publication number	Publication date	Application number	Application date
AT80850 E	19921015	AT19890403473T	19891213
CA2005928 AA	19900620	CA19892005928	19891219
DE68902989 D1	19921029	DE19896002989	19891213
DE68902989 T2	19930415	DE19896002989T	19891213
EP0378935 A1	19900725	EP19890403473	19891213
EP0378935 B1	19920923	EP19890403473	19891213
FR2640589 A1	19900622	FR19880016867	19881220
FR2640589 B1	19910405	FR19880016867	19881220
FR2645509 A1	19901012	FR19890004538	19890406
FR2645509 B1	19910705	FR19890004538	19890406
JP2246976 A2	19901002	JP19890328577	19891220
JP2936485 B2	19990823	JP19890328577	19891220
US5024355 A	19910618	US19890454652	19891220

Priority:

FR19880016867 19881220 FR19890004538 19890406 EP19890403473 19891213
EP19890403473 19891213 EP19890403473 19891213 CA19892005928 19891219

Probable Assignee: TECHNIQUE DE PULVERISATION STEP SOC

Assignee(s): (std): STEP SOC TECH PULVERISATION ; TECHNIC DE PIRUBERIZASHION SUT ; TECH DO PIRUBERIZASHION SUTETS ; JOUILLAT CLAUDE

Assignee(s): SOCIETE TECHNIQUE DE PULVERISATION S T E P ; SOCIETE TECHNIQUE DE PULVERISATION STEP ; BRUNET MICHEL ; STEP STE TECH PULVERISATION ; STEP STE TECHNIQUE PULVERISATION ; STEP SOCIETE TECHNIQUE DE PULVERISATION PARIS FR ; TECHNIC DE PIRUBERIZASHION SUTETSUPU SOC ; STEP SOC TECHNIQUE DE PULVERISATION PARIS FR ; TEKUNIIKU DO PIRUBERIZASHION SUTETSUPU SOC ; TECHNIQUE DE PULVERISATION STEP SOC

Inventor(s): (std): JOUILLAT CLAUDE ; BRUNET MICHEL ; KUROODO JIYUIYA ; MISHIERU BURIYUUNE

Inventor(s): BRUNET MICHEL F 27840 SAINTE COLOMBE LA COMMANDERIE FR ; BRUNET MICHEL F 27840 SAINTE COLOMBE LA... ; MISHERU BURYUUNE ; KUROODO JUIYA ; CLAUDE JOUILLAT ; BRUNET MICHEL F 27840 SAINTE COLOMBE LA COMMANDERI ; JOUILLAT CLAUDE F 28270 MONTIGNY SUR AVRE FR

Agent(s): SWABEY OGILVY RENAULT

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT80850 E	19921015	LSGT	+	granted / extensions (spc, cpc, pte)	
AT80850 E	19930315	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT80850 E	20091213	PEXP		Calculated Patent Term Expiry	
CA2005928 AA	19900620	LSPB	+	published / reissued	
CA2005928 AA	19930620	LSLE	-FZDE	DEAD	
DE68902989 D1	19931021	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE68902989 D1	20041021	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE68902989 T2	19930415	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0378935 A1	19900725	LSPB	+	published / reissued	
EP0378935 A1	19910227	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19901221
EP0378935 A1	19920122	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19911211
EP0378935 B1	19920923	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP0378935 B1	19921231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE LAPSED DATE : 19921231
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EP0378935 B1	19970814	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : CD
EP0378935 B1	20021213	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20021213 YEAR OF FEE PAYMENT : 14
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EP0378935 B1	20040804	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20031213
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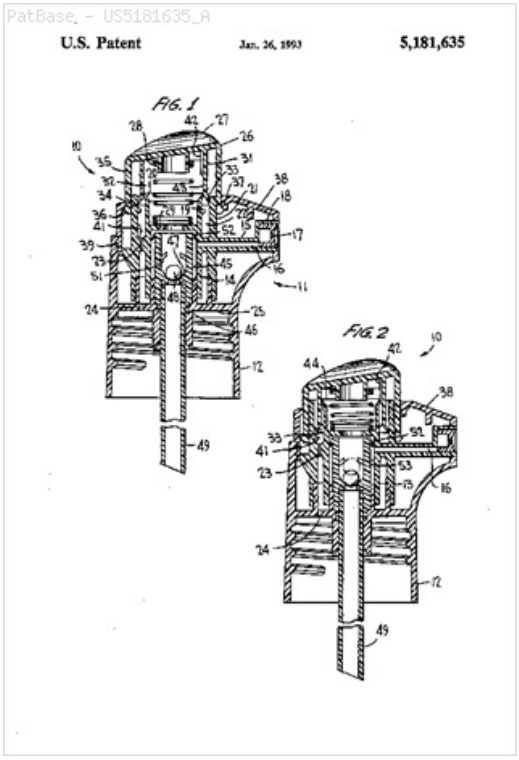
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FR2645509 B1	19940225	LSLE	-ST	NOTIFICATION OF LAPSE	
FR2645509 B1	20090406	PEXP		Calculated Patent Term Expiry	
JP2246976 A2	19901002	LSPB	+	published / reissued	
JP2936485 B2	19990823	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2936485 B2	20040611	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
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US5024355 A	19910618	LSGT	+	granted / extensions (spc, cpc, pte)	
US5024355 A	19910412	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SOCIETE TECHNIQUE DE PULVERISATION-STEP-, 10 RUE S OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNORS:JOUILLAT, CLAUDE; BRUNET, MICHEL; REEL/FRAME:005662/0713 EFFECTIVE DATE : 19900312
US5024355 A	19910417	LSGT	PAT1	Patented Case	
US5024355 A	19910417	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5024355 A	19941207	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5024355 A	19981214	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5024355 A	20021211	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5024355 A	20091220	PEXP		Calculated Patent Term Expiry	

84) Family number: 14995062 (US5181635A)

Title: **LIQUID** PUMP **DISPENSER** HAVING A STATIONARY SPOUT

Abstract: The disclosure relates to a **liquid** pump **dispenser** having a stationary spout (15), a fixed piston (19) and a reciprocating cylinder (31) therewith defining a variable volume pump chamber (32). The **dispenser** has **container** venting (22, 23, 24) and pump priming (42) features, and includes an inlet-discharge valve housing (45). The **dispenser** has a reduced number of parts for simplicity and economy.

Classifications:
International (IPC 8-9): B05B11/00 B05B11/02 B65D47/34 F04B9/14 (Advanced/Invention); B05B11/00 (Core/Invention)
International (IPC 1-7): B05B11/00 B05B11/02 B65D47/34 B65D5/40 F04B9/14 H01F21/04
CPC: B05B11/0044 B05B11/3063 B05B11/007 B05B11/3004 B05B11/3015 B05B11/3067
European: B05B11/00B2 B05B11/00B9R B05B11/00P3B B05B11/00P3N B05B11/00P9N3 B05B11/00P9R B05B11/00P9R2 B05B11/30C2 B05B11/30C6 B05B11/30H5C B05B11/30H7B
US: 222/341 222/383 222/383.1 222/484 239/333



Family:

Publication number	Publication date	Application number	Application date
AU199217312 A1	19921203	AU19920017312	19920529
AU647925 B2	19940331	AU19920017312	19920529
CA2070080 AA	19921201	CA19922070080	19920529
CA2070080 C	19990413	CA19922070080	19920529
DE69203536 D1	19950824	DE19926003536	19920529
DE69203536 T2	19960111	DE19926003536T	19920529
EP0516472 A1	19921202	EP19920304952	19920529
EP0516472 B1	19950719	EP19920304952	19920529
ES2074826 T3	19950916	ES19920304952T	19920529
HK186495 A	19951215	HK19950001864	19951207
JP2622795 B2	19970618	JP19920165350	19920601
JP5192613 A2	19930803	JP19920165350	19920601
MX9202588 A1	19930101	MX19920002588	19920529
US5181635 A	19930126	US19910708377	19910531

Priority:
US19910708377 19910531 CA19922070080 19920529

Probable Assignee: CALMAR INC

Assignee(s): (std): CALMAR INC

Assignee(s): CALMAR INC A DE CORP ; UNITED STATES TRUST CO ; MELLON BANK NA ; CALMAR INC LOS ANGELES CALIF US ; MELLON BANK NA COLLATERAL AGENT AS ; UNITED STATES TRUST CO OF NEW YORK ; GROGAN R PAT ; BALDERRAMA MARK A ; BANQUE INDOSUEZ AS COLLATERAL AGENT ; BANQUE INDOSUEZ COLLATERAL AGENT AS

Inventor(s): (std): GROGAN R P ; BALDERRAMA MARK ANTHONY ; GROGAN RICHARD PATRICK ; GROGAN R PAT ; GROGAN RICHARD P ; BALDERRAMA MARK A ; RICHIYAADO PATORITSUKU GUROGAN ; MAAKU ANSONII BARUDERAAMA

Inventor(s): BALDERRAMA MARK ANTHONY COLTON CALIFORNIA US ; GROGAN RICHARD PATRICK DOWNEY CALIFORNIA US ; RICHARD PATRICK GROGAN ; MARK ANTHONY BALDERRAMA

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; FINCHAM ERIC

Designated states: BE DE ES FR GB IT NL SE

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU199217312 A1	19921203	LSPB	+	published / reissued	

AU647925 B2	19940331	LSGT	+	granted / extensions (spc, cpc, pte)	
AU647925 B2	20000120	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU647925 B2	20120529	PEXP		Calculated Patent Term Expiry	
CA2070080 AA	19921201	LSPB	+	published / reissued	
CA2070080 AA	19940628	LSES	+EEER	EXAMINATION REQUEST	
CA2070080 C	19990413	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2070080 C	20000529	LSLE	-MKLA	LAPSED	
CA2070080 C	20120529	PEXP		Calculated Patent Term Expiry	
DE69203536 D1	19960814	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69203536 D1	20000706	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69203536 T2	19960111	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69203536 T2	20120529	PEXP		Calculated Patent Term Expiry	
EP0516472 A1	19921202	LSPB	+	published / reissued	
EP0516472 A1	19930707	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19930510
EP0516472 A1	19941102	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19940915
EP0516472 B1	19950719	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0516472 B1	19950916	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2074826 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP0516472 B1	19960710	LSGT	+26N	NO OPPOSITION FILED	
EP0516472 B1	19980511	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 19980511 YEAR OF FEE PAYMENT : 7
EP0516472 B1	19980515	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 19980515 YEAR OF FEE PAYMENT : 7
EP0516472 B1	19980520	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 19980520 YEAR OF FEE PAYMENT : 7
EP0516472 B1	19980526	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 19980526 YEAR OF FEE PAYMENT : 7
EP0516472 B1	19980531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 19980531 YEAR OF FEE PAYMENT : 7
EP0516472 B1	19980608	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 19980608

				OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 7
EP0516472 B1	19980714	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 19980714 YEAR OF FEE PAYMENT : 7
EP0516472 B1	19990529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 19990529
EP0516472 B1	19990530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 19990530
EP0516472 B1	19990531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 19990531
EP0516472 B1	19990531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF EXPIRATION OF PROTECTION LAPSED DATE : 19990531
EP0516472 B1	19991130	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : CALMAR INC. EFFECTIVE DATE : 19990531
EP0516472 B1	19991201	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 19991201
EP0516472 B1	20000119	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 19990529
EP0516472 B1	20000131	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF COUNTRY CODE : EP TEXT : 92304952.2
EP0516472 B1	20000131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20000131
EP0516472 B1	20000201	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 19991201
EP0516472 B1	20000301	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20000301
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EP0516472 B1	20010616	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20010601
EP0516472 B1	20050529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20050529
EP0516472 B1	20120529	PEXP		Calculated Patent Term Expiry	

ES2074826 T3	19950916	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2074826 T3	19950916	LSGT	+FG2A	DEFINITIVE PROTECTION	REF DOCUMENT NUMBER : 516472 COUNTRY OF REF DOCUMENT : ES
ES2074826 T3	20120529	PEXP		Calculated Patent Term Expiry	
HK186495 A	19951215	LSGT	+	granted / extensions (spc, cpc, pte)	
HK186495 A	20041215	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	
HK186495 A	20151207	PEXP		Calculated Patent Term Expiry	
JP2622795 B2	19970618	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2622795 B2	20120601	PEXP		Calculated Patent Term Expiry	
JP5192613 A2	19930803	LSPB	+	published / reissued	
MX9202588 A1	19930101	LSPB	+	published / reissued	
MX9202588 A1	19940719	LSGT	+FG	GRANT OR REGISTRATION	
MX9202588 A1	20140331	LSLE	-MM	ANNULMENT OR LAPSE DUE TO NON-PAYMENT OF FEES	
US5181635 A	19930126	LSGT	+	granted / extensions (spc, cpc, pte)	
US5181635 A	19910531	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CALMAR INC, NEW JERSEY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNORS:BALDERRAMA, MARK A.; GROGAN, R. PAT; REEL/FRAME:005727/0368 EFFECTIVE DATE : 19910523
US5181635 A	19920110	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : UNITED STATES TRUST COMPANY OF NEW YORK, NEW YORK OLDPARTY : SECURITY INTEREST; ASSIGNOR:CALMAR INC.; REEL/FRAME:006608/0452 EFFECTIVE DATE : 19911223
US5181635 A	19930113	LSGT	PAT1	Patented Case	
US5181635 A	19950919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CALMAR INC., A DE CORP., CALIFORNIA OLDPARTY : TERMINATION AND RELEASE OF INTELLECTUAL PROPERTY PLEDGE AGREEMENT; ASSIGNOR:UNITED STATES TRUST COMPANY OF NEW YORK, AS COLLATERAL AGENT; REEL/FRAME:007648/0338 EFFECTIVE DATE : 19950918
US5181635 A	19950919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MELLON BANK, N.A., AS COLLATERAL AGENT, PENNSYLVAN OLDPARTY : PATENT COLLATERAL SECURITY AGREEMENT; ASSIGNOR:CALMAR INC., A DELAWARE CORPORATION; REEL/FRAME:007662/0551 EFFECTIVE DATE : 19950918
US5181635 A	19960715	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5181635 A	19961025	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANQUE INDOSUEZ, AS COLLATERAL AGENT, NEW YORK OLDPARTY : SECURITY INTEREST; ASSIGNOR:MELLON BANK, N.A., AS COLLATERAL AGENT; REEL/FRAME:008186/0912 EFFECTIVE DATE : 19961025

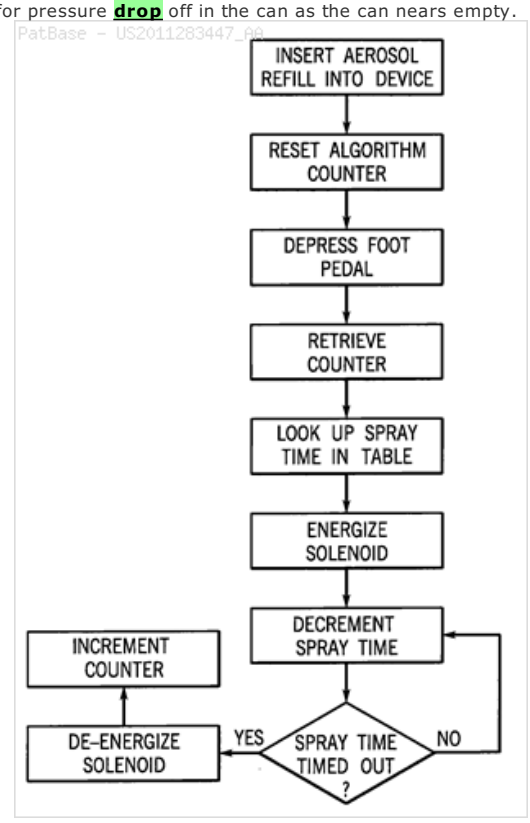
US5181635 A	19980812	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CALMAR, INC., CALIFORNIA OLDPARTY : TERMINATION OF PATENT SECURITY INTERESTS; ASSIGNOR:BANQUE INDOSUEZ, AS COLLATERAL AGENT; REEL/FRAME:009375/0018 EFFECTIVE DATE : 19980722
US5181635 A	20010128	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5181635 A	20010403	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20010126
US5181635 A	20180127	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5181635 A	20180127	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5181635 A	20110531	PEXP		Calculated Patent Term Expiry	

85) Family number: 49958062 (US2011283447A)

Title: AEROSOL **DISPENSER** CONTROL SYSTEM

Abstract: Disclosed are automated aerosol **dispensers** for delivering chemicals (e.g. cleaners, fragrances, insect control agents) from the **dispenser** to selected locations (e.g. the air; a toilet bowl; a shower enclosure). There is an actuator (e.g. a push button or a foot pedal) for initiating **dispensing**, and a holder for an aerosol **container**. The aerosol **container** stores the chemical before use. There is a switch associated with the holder that recognizes when the aerosol **container** has been mounted to the holder, and when thereafter that aerosol **container** has been dismounted from the holder. A controller controls **dispensing** of the chemical from the aerosol **container** in response to actuation. The controller has a timer that determines the amount of time that chemical is to be delivered from the aerosol **container** upon the **dispenser** being actuated by the actuator. A database is provided for assisting the controller in varying the time that the timer permits **dispensing** in response to activation. The system thus can correct for pressure **drop** off in the can as the can nears empty.

Classifications:
International (IPC 8-9): B65D83/14 B65D83/16 B65D83/26 B65D83/44 E03D9/02 (Advanced/Invention); B05B12/04 (Advanced/Non-invention)
International (IPC 1-7): B65D83/14
CPC: B65D83/267 B05B12/04 B65D83/44
European: B65D83/26D B65D83/44 L05B12/04
US: 222/649 4/223 4/223P



Family:

Publication number	Publication date	Application number	Application date
AR081406 AA	20120829	AR2011P101740	20110520
US2011283447 AA	20111124	US20100784651	20100521
US8826470 BB	20140909	US20100784651	20100521
WO11146127 A1	20111124	WO2011US00895	20110519

Priority:
US20100784651 20100521

Probable Assignee: CREDO PRODUCT DEVELOPMENT
Assignee(s): (std): CRULL JEFFREY L ; HELF THOMAS A ; JOHNSON AND SON INC S C ; CRAPSER JAMES R
Assignee(s): CREDO PRODUCT DEVELOPMENT ; S C JOHNSON AND SON INC ; SC JOHNSON AND SON INC
Inventor(s): (std): HELF THOMAS A ; CRAPSER JAMES R ; CRULL JEFFREY L
Agent(s): BAUSCH PETER J
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 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 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 ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AR081406 AA	20120829	LSPB	+	published / reissued	
AR081406 AA	20150105	LSWD	-FA	ABANDONMENT OR WITHDRAWAL	
US2011283447 AA	20111124	LSPB	+	published / reissued	
US2011283447 AA	20140515	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CREDO PRODUCT

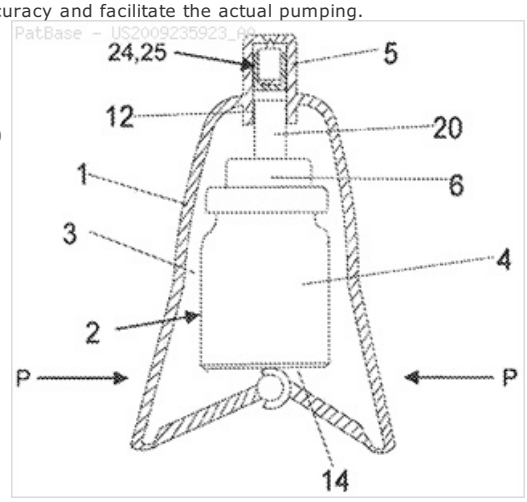
					DEVELOPMENT, WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CRULL, JEFFREY L.; REEL/FRAME:032900/0977 EFFECTIVE DATE : 20100527
US2011283447 AA	20140515	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : S.C. JOHNSON & SON, INC., WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HELF, THOMAS A.; CRAPSER, JAMES R.; REEL/FRAME:032900/0921 EFFECTIVE DATE : 20100526
US2011283447 AA	20140515	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : S.C. JOHNSON & SON, INC., WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CREDO PRODUCT DEVELOPMENT; REEL/FRAME:032901/0014 EFFECTIVE DATE : 20100527
US2011283447 AA	20140820	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8826470 BB	20140909	LSGT	+	granted / extensions (spc, cpc, pte)	
US8826470 BB	20140820	LSGT	PAT1	Patented Case	
US8826470 BB	20180223	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8826470 BB	20321004	PEXP		Calculated Patent Term Expiry (PTA 867 days)	
WO11146127 A1	20111124	LSPB	+	published / reissued	
WO11146127 A1	20121121	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO11146127 A1	20130717	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 11723767 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

86) Family number: 40801062 (US2009235923A)

Title: SPRAY DEVICE AND NOZZLE CLOSURE

Abstract: A spray device including a casing and a spray bottle. A closing element is arranged in a nozzle. The closing element substantially fills the nozzle in order to minimize residual amounts of a drug in the nozzle. The overall purpose is to protect the spray device from contamination and evaporation. A method for manufacturing with as few parts as possible a spray device that by usually manual action causes the spray bottle to effect a pumping movement which triggers a spray dose through the nozzle. The device is intended to increase dose accuracy and facilitate the actual pumping.

Classifications:
International (IPC 8-9): A61M11/00 A61M15/08 B05B1/30 B05B11/00 B05B11/04 B21D53/00 B65D47/34 B65D83/14 B65D83/40 (Advanced/Invention);
A61M11/00 B05B1/30 B05B11/00 (Advanced/Non-invention);
A61M11/00 A61M15/08 B05B1/30 B05B11/00 B05B11/04 B21D53/00 B65D47/34 B65D83/14 B65D83/40 (Core/Invention);
B05B1/30 (Core/Non-invention)
International (IPC 1-7): B05B11/00
CPC: Y10T29/49401 A61M15/009 B05B11/3056 A61M11/007 B05B11/00 B05B11/0038
European: A61M11/00 A61M15/00P B05B11/00 B05B11/00P9H6 B05B11/30H3F L05B11/00B5
US: 128/200.14 128/200.140P 222/494 222/632 239/533.13 239/533.130S 29/890.1 29/890.100S



Family:

Publication number	Publication date	Application number	Application date
CN101426586 A	20090506	CN200780014644	20070427
EP2012935 A1	20090114	EP20070748446	20070427
EP2012935 A4	20100331	EP20070748446	20070427
IN06286CN2008 A	20090327	IN2008CN06286	20081118
JP2009535210 T2	20091001	JP20090509492T	20070427
KR20080112255 A	20081224	KR20087023742	20070427
RU2008147416 A	20100610	RU20080147416	20070427
SE0600957 L	00000000		00000000
SE200600957 L	20071103	SE20060000957	20060502
SE529863 C2	20071218	SE20060000957	20060502
US2009235923 AA	20090924	US20070299427	20070427
WO07126382 A1	20071108	WO2007SE50285	20070427

Priority:
SE20060000957 20060502 WO2007SE50285 20070427

Probable Assignee: MEDUX AB

Assignee(s): (std): MEDUX AB ; NILSON BILLY

Inventor(s): (std): BILLY NILSON ; NILSON BILLY

Agent(s): VALEA AB; VENABLE LLP

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 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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN101426586 A	20090506	LSPB	+	published / reissued	
CN101426586 A	20090506	LSPB	+C06	PUBLICATION	
CN101426586 A	20120314	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
EP2012935 A1	20090114	LSPB	+	published / reissued	
EP2012935 A1	20090114	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081009
EP2012935 A4	20100331	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20100302
EP2012935 A4	20100623	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20100526
EP2012935 A4	20120502	LSDW	-18D	APPLICATION DEEMED	EFFECTIVE DATE : 20111101

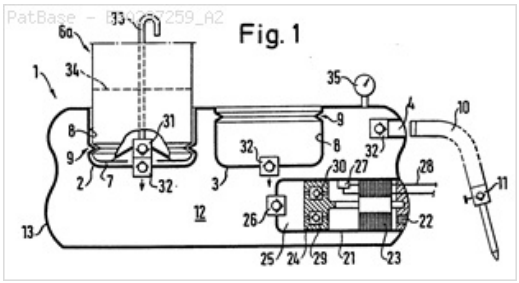
				TO BE WITHDRAWN	
IN06286CN2008 A	20090327	LSPB	+	published / reissued	
JP2009535210 T2	20091001	LSPB	+	published / reissued	
KR20080112255 A	20081224	LSPB	+	published / reissued	
KR20080112255 A	20120528	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
RU2008147416 A	20100610	LSPB	+	published / reissued	
RU2008147416 A	20100820	LSWD	-FA93	ACKNOWLEDGEMENT OF APPLICATION WITHDRAWN (NO REQUEST FOR EXAMINATION)	EFFECTIVE DATE : 20100708
SE529863 C2	20071218	LSGT	+	granted / extensions (spc, cpc, pte)	
SE529863 C2	20120110	LSLE	-NUG	PATENT HAS LAPSED	
SE529863 C2	20260502	PEXP		Calculated Patent Term Expiry	
US2009235923 AA	20090924	LSPB	+	published / reissued	
US2009235923 AA	20081103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MEDUX AB, SWEDEN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NILSON, BILLY; REEL/FRAME:021778/0673 EFFECTIVE DATE : 20080923
US2009235923 AA	20120502	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
WO07126382 A1	20071108	LSPB	+	published / reissued	
WO07126382 A1	20080929	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020087023742 COUNTRY OF REF DOCUMENT : KR
WO07126382 A1	20081009	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007748446 COUNTRY OF REF DOCUMENT : EP
WO07126382 A1	20081023	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200780014644.4 COUNTRY OF REF DOCUMENT : CN
WO07126382 A1	20081031	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009509492 COUNTRY OF REF DOCUMENT : JP
WO07126382 A1	20081103	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12299427 COUNTRY OF REF DOCUMENT : US
WO07126382 A1	20081104	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO07126382 A1	20081118	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 6286/CHENP/2008 COUNTRY OF REF DOCUMENT : IN
WO07126382 A1	20081202	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2008147416 COUNTRY OF REF DOCUMENT : RU

87) Family number: 17598062 (EP0297259A2)

Title: DEVICE FOR DISTRIBUTING FLUID, FOAMY OR PASTY MATERIALS

Abstract: The device for distributing fluid, foamy or pasty materials from a portable **container** through a discharge valve by means of compressed gas or compressed air comprises a combination of a compressed air loading station with at least one portable **container**, in which device the loading station and the **container** have in each case a coupling-on apparatus, provided with non-return valves, by means of which apparatus the **container** and the loading station can be connected to one another in terms of air pressure with automatic opening of their non-return valves and can be separated from one another with automatic closure of their non-return valves in such a way that the loading station and the **container** are closed in an airtight manner by their respective non-return valves.

Classifications:
International (IPC 8-9): B05B9/04 B05C17/00 B65B31/04 B65D83/14 B65D83/16 B65D83/28 B65D83/42 B65D83/58 B67D7/02 F17C5/06 (Advanced/Invention);
B05B9/04 B05C17/00 B65B31/04 B65D83/14 B65D83/16 B65D83/28 B65D83/42 B65D83/58 B67D7/00 F17C5/00 (Core/Invention)
International (IPC 1-7): B05B9/04 B05C17/00 B65B31/04 B65D83/14 F16K15/00 F16L37/28 F17C5/06
CPC: B65D83/14
European: B65D83/14



Family:

Publication number	Publication date	Application number	Application date
AT111416 E	19940915	AT19880107744T	19880513
DE3716377 A1	19881124	DE19873716377	19870515
DE3806991 A1	19890914	DE19883806991	19880303
DE3851476 D1	19941020	DE19883851476	19880513
DE8707042 U1	19881110	DE19870007042U	19870515
EP0297259 A2	19890104	EP19880107744	19880513
EP0297259 A3	19900530	EP19880107744	19880513
EP0297259 B1	19940914	EP19880107744	19880513
JP1038158 A2	19890208	JP19880119077	19880516
JP64038158 A2	19890208	JP19880119077	19880516

Priority:
DE19870007042U 19870515 DE19873716377 19870515 DE19883806991 19880303 DE19883851476 19880513

Probable Assignee: KERN RALF M DIPL ING 8137 BERG DE
Assignee(s): (std): KERN RALF M ; KERN RALF M DIPL ING ; RARUFU EMU KAAN
Assignee(s): KERN RALF M DIPL ING 8137 BERG DE ; KERN RALF M DIPL ING 82335 BERG DE
Inventor(s): (std): KERN RALF M DIPL ING ; RARUFU EMU KAAN ; KERN RALF M
Inventor(s): KERN RALF M DIPL ING 82335 BERG DE ; VERZICHT DES ERFINDERS AUF NENNUNG
Designated states: AT CH DE FR GB IT LI SE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT111416 E	19940915	LSGT	+	granted / extensions (spc, cpc, pte)	
AT111416 E	19980215	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT111416 E	20080513	PEXP		Calculated Patent Term Expiry	
DE3716377 A1	19881124	LSPB	+	published / reissued	
DE3716377 A1	19881124	LSES	+OM8	SEARCH REPORT AVAILABLE AS TO PARAGRAPH 43 LIT. 1 SENTENCE 1 PATENT LAW	
DE3716377 A1	19940818	LSES	+8110	REQUEST FOR EXAMINATION PARAGRAPH 44	
DE3716377 A1	19980507	LSLE	-8139	DISPOSAL/NON-PAYMENT OF THE ANNUAL FEE	
DE3806991 A1	19890914	LSPB	+	published / reissued	
DE3806991 A1	19890914	LSES	+OM8	SEARCH REPORT AVAILABLE AS TO PARAGRAPH 43 LIT. 1 SENTENCE 1 PATENT LAW	
DE3806991 A1	19950518	LSES	+8110	REQUEST FOR EXAMINATION PARAGRAPH 44	

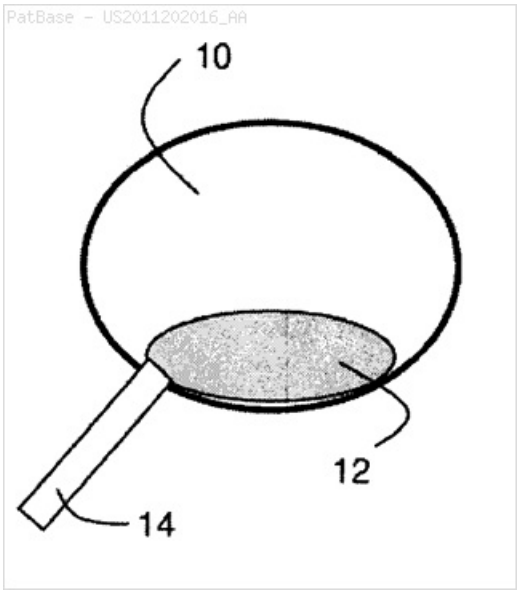
DE3806991 A1	19980122	LSRV	-8131	REJECTION	
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DE3851476 D1	19951012	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE3851476 D1	19980507	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE8707042 U1	19881110	LSGT	+	granted / extensions (spc, cpc, pte)	
DE8707042 U1	19970515	PEXP		Calculated Patent Term Expiry	
EP0297259 A2	19890104	LSPB	+	published / reissued	
EP0297259 A2	19890104	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19880714
EP0297259 A3	19920122	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19911211
EP0297259 B1	19940914	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP0297259 B1	19941214	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE LAPSED DATE : 19941214
EP0297259 B1	19950906	LSGT	+26N	NO OPPOSITION FILED	
EP0297259 B1	19960430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 19960430 YEAR OF FEE PAYMENT : 9
EP0297259 B1	19960503	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 19960503 YEAR OF FEE PAYMENT : 9
EP0297259 B1	19960509	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 19960509 YEAR OF FEE PAYMENT : 9
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EP0297259 B1	19960528	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 19960528 YEAR OF FEE PAYMENT : 9
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EP0297259 B1	19970531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 19970531
EP0297259 B1	19970531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : LI

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EP0297259 B1	19980107	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 19970513
EP0297259 B1	19980115	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0297259 B1	19980130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 19980130
EP0297259 B1	19980203	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 19980203
EP0297259 B1	19980327	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP0297259 B1	20080513	PEXP		Calculated Patent Term Expiry	
JP1038158 A2	19890208	LSPB	+	published / reissued	
JP64038158 A2	19890208	LSPB	+	published / reissued	

88) Family number: 49411063 (US2011202016A)

Title: SYSTEMS AND METHODS RELATING TO POLYMER FOAMS

Abstract: Systems and methods related to polymer foams are generally described. Some embodiments relate to compositions and methods for the preparation of polymer foams, and methods for using the polymer foams. The polymer foams can be applied to a body cavity and placed in contact with, for example, tissue, injured tissue, internal organs, etc. In some embodiments, the polymer foams can be formed within a body cavity (i.e., in situ foam formation). In addition, the foamed polymers may be capable of exerting a pressure on an internal surface of a body cavity and preventing or limiting movement of a bodily fluid (e.g., blood, etc.).



Classifications:
International (IPC 8-9): A61B A61B17/00 A61B17/03 A61B17/08 A61B17/12 A61B17/88 A61B5/00 A61B5/02 A61B5/022 A61C5/06 A61C9/00 A61F2/02 A61F2/06 A61F2/07 A61F2/82 A61F2/84 A61J1/20 A61K9/00 A61L15/22 A61L15/42 A61L24/00 A61L24/04 A61L24/06 A61L27/00 A61L27/18 A61L27/56 A61L27/58 A61L31/00 A61L31/06 A61L31/12 A61L31/14 A61L31/18 A61M29/02 A61M35/00 A61M37/00 A61M5/00 A61M5/14 A61M5/145 A61M5/168 A61P7/04 B01F13/00 B01F13/10 B01F15/00 B01F15/02 B01F3/04 B01F5/06 B01F7/00 B01F7/22 B05B7/00 B05B7/24 B05C17/005 B29C44/04 B32B3/00 B65D81/32 C08G18/00 C08G18/10 C08G18/18 C08G18/48 C08L63/00 C08L67/04 C08L75/02 D04H13/00 (Advanced/Invention);
A61B17/88 A61F2/06 A61J1/20 A61M13/00 A61M25/00 A61M5/19 B05C17/005 B65D81/32 C08G101/00 C08G18/08 (Advanced/Non-invention);
A61B (Subclass/Invention)
CPC: A61L27/48 A61L27/54 A61L31/129 A61L31/16 Y10T428/24479 A61B17/12113 A61B17/12118 A61B17/1214 A61B2017/1205 A61F2/07 A61F2002/065 A61F2002/077 A61F2210/0085 A61L24/0089 A61L31/128 Y10T428/249924 C08G18/7621 C08G18/7664 C08G2101/0083 C08L75/04 C08L83/04 C08L67/04 A61L24/043 A61M31/002 A61L31/148 A61J1/2093 A61L2300/60 A61M37/00 A61B17/12031 A61B17/12163 A61L2400/18 A61L27/18 A61L27/56 A61L27/58 C08L63/00 A61L24/0036 A61L24/046 A61L2400/04 A61M2210/1021 A61M2210/12 A61M2205/3341 A61M2205/3344 A61L24/06 A61L31/06 A61L31/14 A61L31/141 A61L31/146 A61L31/18 A61L2400/06 A61L2430/36 A61M25/007 A61B17/00491 A61B2017/00398 A61B2017/00495 A61B2017/00544 A61B2017/00548 A61B2017/8838 A61C9/0026 A61M5/19 A61M13/003 A61M2205/103 B01F3/04453 B01F5/0602 B01F5/0604 B01F7/00558 B01F7/00583 B01F13/0023 B01F15/00253 B01F15/00525 B01F15/0279 B05B7/2421 B05B7/2472 B05C17/00553 B65D81/325 A61M5/1409 A61M5/1452 A61M5/16804 B05B7/0037 A61B17/12 A61B17/12181 A61B17/12186 A61B17/1219 A61B2017/00637 A61B2017/00641 A61B2017/00654 A61B2017/00898 A61B2017/12004
European: A61L27/18 A61L27/56 A61L27/58 A61L31/06 A61L31/14K K61J1/20D K61M31/00D
US: 1/1 424/44 425/4.00RP 425/4R 428/156 428/156P 428/220 428/220S 428/292.1 428/292.100S 604/152 604/24 604/290 604/290P 604/369 604/369S 604/500 604/82 606/191 606/200 606/213 623/1.11 623/1.13 623/1.21

Family:

Publication number	Publication date	Application number	Application date
AU2011293732 AA	20120301	AU20110293732	20110812
AU2011293732 BB	20150528	AU20110293732	20110812
AU2014239241 AA	20151008	AU20140239241	20140314
AU2014305771 AA	20160218	AU20140305771	20140808
CA2809296 AA	20130222	CA20112809296	20110812
CA2906027 AA	20150911	CA20142906027	20140314
CA2919856 AA	20160128	CA20142919856	20140808
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IL244011 A0	20160421	IL20140244011	20140808
JP2013536297 T2	20130919	JP20130525962T	20110812
JP2016041825 A2	20160331	JP20150235733	20151202
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US2015223819 AA	20150813	US20150597993	20150115
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US2018140740 AA	20180524	US20160355397	20161118
US2018250446 AA	20180906	US20180923003	20180316
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US2019240380 AA	20190808	US20190376087	20190405
US9044580 BB	20150602	US20130815910	20130315
US9173817 BB	20151103	US20110209020	20110812
US9522215 BB	20161220	US20140455117	20140808
US9579449 BB	20170228	US20140211469	20140314
US9700656 BB	20170711	US20140492393	20140922
US9820749 BB	20171121	US20150597993	20150115
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US10293076 BB	20190521	US20160355397	20161118
US10307515 BB	20190604	US20150928857	20151030
US10420862 BB	20190924	US20120532013	20120625
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WO14152742 A2	20140925	WO2014US27683	20140314
WO14152742 A3	20141204	WO2014US27683	20140314
WO15021375 A1	20150212	WO2014US50332	20140808

Priority:

US20090236314P 20090824	US20100368095P 20100727	US20100862362 20100824
US20110185550 20110719	JP20130525962T 20110812	US20110209020 20110812
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US20170642968 20170706	US20170729993 20171011	US20180923003 20180316
US20190376087 20190405		

Probable Assignee: ARSENAL MEDICAL INC

Assignee(s): (std): MILLER LISETTE ; BUSOLD RAY ; CARBECK JEFFREY ; SHARMA UPMA ; ZUGATES GREG ; PHAM QUYNH ; PALASIS MARIA ; RAGO ADAM ; ZAMIRI PARISA ; MORTENSEN JENNIFER ; ZUGATES GREGORY T ; PHAM QUYNH P ; YOU CHANGCHENG ; ZUGATES GREGORY ; MILLER LISETTE MANRIQUE ; YOU CHANGCHEN ; BUSOLD RANY ; CONCAGH DANIEL ; FREYMAN TOBY ; GITLIN IRINA ; MARINI JOHN ; LOMAKIN JOSEPH ; CARBECK JEFFREY D ; CAULKINS ROBERT J ; HELMICK MARC ; ARESENAL AAA LLC ; ARSENAL MEDICAL ; ARSENAL MEDICAL INC

Assignee(s): ARSENAL VASCULAR INC ; ARSENAL AAA LLC ; MEDTRONIC INC

Inventor(s): (std): SHARMA UPMA ; CONCAGH DANNY ; KENDALE AMAR ; ZUGATES GREGORY ; GITLIN IRINA ; CARBECK JEFFREY D ; CONCAGH DANIEL ; ZUGATES GREG ; FREYMAN TOBY ; PHAM QUYNH ; PALASIS MARIA ; RAGO ADAM ; ZAMIRI PARISA ; BUSOLD RANY ; PHAM QUYNH P ; ZUGATES GREGORY T ; CAULKINS ROBERT J ; YOU CHANGCHENG ; MORTENSEN JENNIFER ; MARINI JOHN ; LOMAKIN JOSEPH ; MILLER LISETTE MANRIQUE ; HELMICK MARC ; RANY BUSOLD ; ADAM RAGO ; UPMA SHARMA ; PARISA ZAMIRI ; TOBY FREYMAN ; GREG ZUGATES ; CARBECK JEFFREY ; BUSOLD RAY ; YOU CHANGCHEN

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; BERESKIN AND PARR LLP SENCRL SRL; KIRBY EADES GALE BAKER; SOMERVELL THOMAS RICHARD; VOSSIUS AND PARTNER PATENTANWAELTE RECHTSANWAELTE MBB; VOSSIUS AND PARTNER PATENTANWAELTE RECHTSANWAELTE MBB; KORAKH AND CO; KACVINSKY DAISAK BLUNI PLLC; BLUNI SCOTT T; BLUNI SCOTT T ET AL; KAUSHAL DHRUV ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN 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 IR 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 PA PE PG PH PL PT QA RO RS RU RW SA 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 ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2011293732 AA	20120301	LSPB	+	published / reissued	
AU2011293732 BB	20150528	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2011293732 BB	20150924	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2011293732 BB	20310812	PEXP		Calculated Patent Term Expiry	
AU2014239241 AA	20151008	LSPB	+	published / reissued	
AU2014239241 AA	20170119	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC. OLDPARTY : FORMER APPLICANT(S): BUSOLD, RANY; RAGO, ADAM; SHARMA, UPMA; FREYMAN, TOBY; ZUGATES, GREGORY; MILLER, LISETTE; ARSENAL MEDICAL, INC.

AU2014239241 AA	20171123	LSLE	-MK1	APPLICATION LAPSED SECTION 142(2)(A) - NO REQUEST FOR EXAMINATION IN RELEVANT PERIOD	
AU2014305771 AA	20160218	LSPB	+	published / reissued	
AU2014305771 AA	20170119	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC. OLDPARTY : FORMER APPLICANT(S): ZUGATES, GREGORY; RAGO, ADAM; HELMICK, MARC; SHARMA, UPMA; MARINI, JOHN; ARSENAL MEDICAL, INC.
AU2014305771 AA	20180215	LSLE	-MK1	APPLICATION LAPSED SECTION 142(2)(A) - NO REQUEST FOR EXAMINATION IN RELEVANT PERIOD	
CA2809296 AA	20130222	LSPB	+	published / reissued	
CA2809296 AA	20160721	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20160714
CA2809296 AA	20180925	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20180814
CA2906027 AA	20150911	LSPB	+	published / reissued	
CA2906027 AA	20190425	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20190314
CA2919856 AA	20160128	LSPB	+	published / reissued	
CA2919856 AA	20180919	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20180808
EP2615981 A1	20130724	LSPB	+	published / reissued	
EP2615981 A1	20130724	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130221
EP2615981 A1	20150826	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20150728
EP2615981 A1	20170726	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20170621
EP2967514 A2	20160120	LSPB	+	published / reissued	
EP2967514 A2	20160120	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20151015
EP2967514 A2	20170111	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20161209
EP2967514 A2	20170726	LSWD	-18W	APPLICATION WITHDRAWN	EFFECTIVE DATE : 20170619
EP3030142 A1	20160615	LSPB	+	published / reissued	
EP3030142 A1	20160615	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20160219
EP3030142 A4	20170809	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20170711
EP3030142 A4	20180801	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20180208
EP3308720 A2	20180418	LSPB	+	published / reissued	
EP3308720 A3	20190306	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20190124
EP3308720 A3	20200311	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20200212
IL224876 A1	20170629	LSPB	+	published /	

				reissued	
IL224876 A1	20171031	LSGT	+FF	PATENT GRANTED	
JP2013536297 T2	20130919	LSPB	+	published / reissued	
JP2013536297 T2	20140726	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20140725
JP2013536297 T2	20150703	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20150702
JP2013536297 T2	20151202	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20151202
JP2013536297 T2	20160308	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20160307
JP2013536297 T2	20160706	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20160706
JP2013536297 T2	20160714	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20160713
JP2013536297 T2	20160801	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013536297 T2	20160804	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20160804
JP2013536297 T2	20160901	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20160824
JP2013536297 T2	20160902	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5996537 COUNTRY OF REF DOCUMENT : JP
JP2016041825 A2	20160331	LSPB	+	published / reissued	
JP2016041825 A2	20160725	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20160725
JP2016041825 A2	20170314	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20170314
JP2016512729 T2	20160509	LSPB	+	published / reissued	
JP2016531668 T2	20161013	LSPB	+	published / reissued	
JP5996537 B2	20160928	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5996537 B2	20160812	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5996537 B2	20160830	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5996537 B2	20160902	LSGT	+R150	特許証 (Patent certificate)	
JP5996537 B2	20190829	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5996537 B2	20190903	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5996537 B2	20310812	PEXP		Calculated Patent Term Expiry	
KR20140016233 A	20140207	LSPB	+	published / reissued	

KR20140016233 A	20160519	LSES	A201	REQUEST FOR EXAMINATION	
KR20140016233 A	20170403	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
US10293076 BB	20190521	LSGT	+	granted / extensions (spc, cpc, pte)	
US10293076 BB	20161221	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RAGO, ADAM; MARINI, JOHN; ZUGATES, GREGORY T; AND OTHERS; SIGNING DATES FROM 20161202 TO 20161219; REEL/FRAME:041127/0548
US10293076 BB	20190501	LSGT	PAT1	Patented Case	
US10293076 BB	20370627	PEXP		Calculated Patent Term Expiry (PTA 221 days)	
US10307515 BB	20190604	LSGT	+	granted / extensions (spc, cpc, pte)	
US10307515 BB	20190709	LSRE	CC	CERTIFICATE OF CORRECTION	
US10307515 BB	20351207	PEXP		Calculated Patent Term Expiry (PTA 38 days)	
US10420862 BB	20190924	LSGT	+	granted / extensions (spc, cpc, pte)	
US10420862 BB	20120718	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SHARMA, UPMA; ZUGATES, GREGORY; BUSOLD, RANY; AND OTHERS; SIGNING DATES FROM 20120627 TO 20120628; REEL/FRAME:028573/0372
US10420862 BB	20340910	PEXP		Calculated Patent Term Expiry (PTA 807 days)	
US2011202016 AA	20110818	LSPB	+	published / reissued	
US2011202016 AA	20111213	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZUGATES, GREGORY; SHARMA, UPMA; GITLIN, IRINA; AND OTHERS; SIGNING DATES FROM 20111130 TO 20111209; REEL/FRAME:027371/0971
US2011202016 AA	20120215	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : CONTRIBUTION AGREEMENT; ASSIGNOR:ARSENAL VASCULAR, INC.; REEL/FRAME:027706/0141 EFFECTIVE DATE : 20110825
US2011202016 AA	20120215	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL VASCULAR, INC., MASSACHUSETTS OLDPARTY : CHANGE OF NAME; ASSIGNOR:ARSENAL MEDICAL, INC.; REEL/FRAME:027705/0790 EFFECTIVE DATE : 20110705
US2011202016 AA	20161228	LSES	NFA1	Non Final Action Mailed	
US2011202016 AA	20170724	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2012040137 AA	20120216	LSPB	+	published / reissued	
US2012040137 AA	20111027	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

					OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:PALASIS, MARIA; SHARMA, UPMA; ZUGATES, GREG; AND OTHERS; REEL/FRAME:027130/0572 EFFECTIVE DATE : 20110718
US2012040137 AA	20120215	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL VASCULAR, INC., MASSACHUSETTS OLDPARTY : CHANGE OF NAME; ASSIGNOR:ARSENAL MEDICAL, INC.; REEL/FRAME:027705/0790 EFFECTIVE DATE : 20110705
US2012040137 AA	20120215	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : CONTRIBUTION AGREEMENT; ASSIGNOR:ARSENAL VASCULAR, INC.; REEL/FRAME:027706/0141 EFFECTIVE DATE : 20110825
US2012040137 AA	20141006	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2012107439 AA	20120503	LSPB	+	published / reissued	
US2012107439 AA	20151014	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012265287 AA	20121018	LSPB	+	published / reissued	
US2012265287 AA	20150617	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MEDTRONIC, INC., MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ARSENAL AAA, LLC; REEL/FRAME:035855/0083 EFFECTIVE DATE : 20150617
US2012265287 AA	20151115	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MEDTRONIC, INC., MINNESOTA OLDPARTY : SECURITY INTEREST; ASSIGNOR:ARSENAL AAA, LLC; REEL/FRAME:037041/0947 EFFECTIVE DATE : 20150617
US2012265287 AA	20160122	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MEDTRONIC, INC., MINNESOTA OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE ASSIGNOR NAME PREVIOUSLY RECORDED AT REEL: 035855 FRAME: 0083. ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT; ASSIGNOR:ARSENAL AAA; REEL/FRAME:037629/0132 EFFECTIVE DATE : 20150617
US2012265287 AA	20160122	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MEDTRONIC, INC., MINNESOTA OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE CONVEYING AND THE NATURE OF CONVEYANCE PREVIOUSLY RECORDED AT REEL: 035855 FRAME: 0083. ASSIGNOR(S) HEREBY CONFIRMS THE SECURITY AGREEMENT; ASSIGNOR:ARSENAL AAA; REEL/FRAME:037629/0132 EFFECTIVE DATE : 20150617
US2012265287 AA	20170823	LSAL	NAF1	Notice of Appeal Filed	
US2012265287 AA	20170913	LSAL	ABE1	Appeal Brief (or Supplemental Brief) Entered and Forwarded to Examiner	
US2012265287 AA	20171212	LSAL	EAA1	Examiner's Answer to Appeal Brief Mailed	

US2012265287 AA	20180122	LSAL	APL3	Appeal Ready for Review	
US2012265287 AA	20180123	LSAL	APL5	On Appeal -- Awaiting Decision by the Board of Appeals	
US2012265287 AA	20190129	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL AAA, LLC., MASSACHUSETTS OLDPARTY : NUNC PRO TUNC ASSIGNMENT; ASSIGNOR:ARSENAL MEDICAL, INC.; REEL/FRAME:048165/0932 EFFECTIVE DATE : 20150617
US2012265287 AA	20190221	LSAL	BDR1	Board of Appeals Decision Rendered	
US2012265287 AA	20190221	LSAL	STCV	INFORMATION ON STATUS: APPEAL PROCEDURE	TEXT : BOARD OF APPEALS DECISION RENDERED
US2012265287 AA	20190604	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2012265287 AA	20190718	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2012265287 AA	20190813	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2012265287 AA	20190904	LSGT	PAT1	Patented Case	
US2012265287 AA	20190904	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013317418 AA	20131128	LSPB	+	published / reissued	
US2013317418 AA	20150513	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014228745 AA	20140814	LSPB	+	published / reissued	
US2014228745 AA	20160608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SHARMA, UPMA; BUSOLD, RANY; RAGO, ADAM; AND OTHERS; SIGNING DATES FROM 20140415 TO 20140418; REEL/FRAME:038839/0278
US2014228745 AA	20170208	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015012031 AA	20150108	LSPB	+	published / reissued	
US2015012031 AA	20161130	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015223819 AA	20150813	LSPB	+	published / reissued	
US2015223819 AA	20160114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RAGO, ADAM; MARINI, JOHN; ZUGATES, GREGORY T.; AND OTHERS; SIGNING DATES FROM 20151123 TO 20151203; REEL/FRAME:037493/0946
US2015223819 AA	20170808	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2015223819 AA	20170928	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : PETITION RELATED TO MAINTENANCE FEES GRANTED (ORIGINAL EVENT CODE: PTGR)
US2015223819 AA	20171005	LSFE	+PPV1	Publications --	

				Issue Fee Payment Verified	
US2015223819 AA	20171007	LSFE	+AWA3	Awaiting TC Resp, Issue Fee Payment Verified	
US2015223819 AA	20171011	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2015223819 AA	20171101	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015224235 AA	20150813	LSPB	+	published / reissued	
US2015224235 AA	20160406	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SHARMA, UPMA; GITLIN, IRINA; ZUGATES, GREGORY T.; AND OTHERS; SIGNING DATES FROM 20151110 TO 20160315; REEL/FRAME:038202/0510
US2015224235 AA	20170221	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2015224235 AA	20170525	LSFE	+AWA3	Awaiting TC Resp, Issue Fee Payment Verified	
US2015224235 AA	20170528	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2015224235 AA	20170621	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016051264 AA	20160225	LSPB	+	published / reissued	
US2016051264 AA	20170427	LSAL	NAF1	Notice of Appeal Filed	
US2016051264 AA	20170427	LSAL	NAF1	Notice of Appeal Filed	
US2016051264 AA	20170706	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016051264 AA	20170710	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FREYMAN, TOBY; LOMAKIN, JOSEPH; MARINI, JOHN; AND OTHERS; SIGNING DATES FROM 20130709 TO 20130716; REEL/FRAME:042951/0487
US2016051264 AA	20170803	LSFE	-AWA4	Awaiting TC Resp., Issue Fee Not Paid	
US2016051264 AA	20170808	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016051264 AA	20170909	LSFE	-AWA4	Awaiting TC Resp., Issue Fee Not Paid	
US2016051264 AA	20170913	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016051264 AA	20171010	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016051264 AA	20171221	LSFE	+PPR1	Publications -- Issue Fee Payment Received	

US2016051264 AA	20171222	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2016051264 AA	20180117	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016279302 AA	20160929	LSPB	+	published / reissued	
US2016279302 AA	20170411	LSES	NFA1	Non Final Action Mailed	
US2016279302 AA	20170824	LSES	NFA1	Non Final Action Mailed	
US2016279302 AA	20171030	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SHARMA, UPMA; GITLIN, IRINA; ZUGATES, GREGORY T.; AND OTHERS; SIGNING DATES FROM 20170918 TO 20171018; REEL/FRAME:043980/0523
US2016279302 AA	20180607	LSES	NFA1	Non Final Action Mailed	
US2016279302 AA	20190109	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016279302 AA	20190408	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2016279302 AA	20190515	LSGT	PAT1	Patented Case	
US2016279302 AA	20190515	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2017325796 AA	20171116	LSPB	+	published / reissued	
US2017325796 AA	20170720	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SHARMA, UPMA; BUSOLD, RANY; RAGO, ADAM; AND OTHERS; SIGNING DATES FROM 20140415 TO 20140418; REEL/FRAME:043052/0500
US2017325796 AA	20190416	LSES	NFA1	Non Final Action Mailed	
US2017325796 AA	20200210	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017325796 AA	20200227	LSFE	-AWA4	Awaiting TC Resp., Issue Fee Not Paid	
US2018028189 AA	20180201	LSPB	+	published / reissued	
US2018028189 AA	20180111	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RAGO, ADAM; MARINI, JOHN; ZUGATES, GREGORY T.; AND OTHERS; SIGNING DATES FROM 20151123 TO 20151203; REEL/FRAME:045043/0130
US2018028189 AA	20190904	LSES	NFA1	Non Final Action Mailed	
US2018028189 AA	20200116	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018064855 AA	20180308	LSPB	+	published / reissued	
US2018064855 AA	20170707	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF

					ASSIGNORS INTEREST; ASSIGNORS:SHARMA, UPMA; GITLIN, IRINA; ZUGATES, GREGORY T; AND OTHERS; SIGNING DATES FROM 20151110 TO 20160315; REEL/FRAME:042932/0481
US2018064855 AA	20190611	LSES	NFA1	Non Final Action Mailed	
US2018064855 AA	20191016	LSES	NFA1	Non Final Action Mailed	
US2018140740 AA	20180524	LSPB	+	published / reissued	
US2018140740 AA	20180605	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : PETITION RELATED TO MAINTENANCE FEES GRANTED (ORIGINAL EVENT CODE: PTGR); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US2018140740 AA	20190107	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018140740 AA	20190409	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018250446 AA	20180906	LSPB	+	published / reissued	
US2018250446 AA	20180316	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SHARMA, UPMA; GITLIN, IRINA; ZUGATES, GREGORY T.; AND OTHERS; SIGNING DATES FROM 20170918 TO 20171018; REEL/FRAME:045250/0891
US2018250446 AA	20200106	LSES	NFA1	Non Final Action Mailed	
US2018256774 A9	20190501	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2019240380 AA	20190808	LSPB	+	published / reissued	
US2019240380 AA	20190718	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SHARMA, UPMA; GITLIN, IRINA; ZUGATES, GREGORY T.; AND OTHERS; SIGNING DATES FROM 20170918 TO 20171018; REEL/FRAME:049788/0482
US9044580 BB	20150602	LSGT	+	granted / extensions (spc, cpc, pte)	
US9044580 BB	20130805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FREYMAN, TOBY; LOMAKIN, JOSEPH; MARINI, JOHN; AND OTHERS; SIGNING DATES FROM 20130709 TO 20130716; REEL/FRAME:030939/0965
US9044580 BB	20150513	LSGT	PAT1	Patented Case	
US9044580 BB	20181203	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9044580 BB	20330913	PEXP		Calculated Patent Term Expiry (PTA 182 days)	
US9173817 BB	20151103	LSGT	+	granted / extensions (spc, cpc, pte)	
US9173817 BB	20120118	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST;

					ASSIGNORS:SHARMA, UPMA; GITLIN, IRINA; ZUGATES, GREGORY T.; AND OTHERS; SIGNING DATES FROM 20111116 TO 20111205; REEL/FRAME:027552/0967
US9173817 BB	20120215	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : CONTRIBUTION AGREEMENT; ASSIGNOR:ARSENAL VASCULAR, INC.; REEL/FRAME:027706/0141 EFFECTIVE DATE : 20110825
US9173817 BB	20120215	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL VASCULAR, INC., MASSACHUSETTS OLDPARTY : CHANGE OF NAME; ASSIGNOR:ARSENAL MEDICAL, INC.; REEL/FRAME:027705/0790 EFFECTIVE DATE : 20110705
US9173817 BB	20151014	LSGT	PAT1	Patented Case	
US9173817 BB	20190503	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9173817 BB	20320827	PEXP		Calculated Patent Term Expiry (PTA 381 days)	
US9522215 BB	20161220	LSGT	+	granted / extensions (spc, cpc, pte)	
US9522215 BB	20141028	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARSENAL MEDICAL, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RAGO, ADAM; MARINI, JOHN; ZUGATES, GREGORY T.; AND OTHERS; SIGNING DATES FROM 20140930 TO 20141002; REEL/FRAME:034046/0252
US9522215 BB	20161130	LSGT	PAT1	Patented Case	
US9522215 BB	20180710	LSRE	CC	CERTIFICATE OF CORRECTION	
US9522215 BB	20350105	PEXP		Calculated Patent Term Expiry (PTA 150 days)	
US9579449 BB	20170228	LSGT	+	granted / extensions (spc, cpc, pte)	
US9579449 BB	20170208	LSGT	PAT1	Patented Case	
US9579449 BB	20350107	PEXP		Calculated Patent Term Expiry (PTA 299 days)	
US9700656 BB	20170711	LSGT	+	granted / extensions (spc, cpc, pte)	
US9700656 BB	20170621	LSGT	PAT1	Patented Case	
US9700656 BB	20341215	PEXP		Calculated Patent Term Expiry (PTA 84 days)	
US9820749 BB	20171121	LSGT	+	granted / extensions (spc, cpc, pte)	
US9820749 BB	20171101	LSGT	PAT1	Patented Case	
US9820749 BB	20180710	LSRE	CC	CERTIFICATE OF CORRECTION	
US9820749 BB	20350123	PEXP		Calculated Patent Term Expiry (PTA 8 days and a terminal disclaimer has been filed)	
US9883865 BB	20180206	LSGT	+	granted / extensions (spc, cpc, pte)	
US9883865 BB	20180117	LSGT	PAT1	Patented Case	
US9883865 BB	20350602	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
WO12015623 A1	20120202	LSPB	+	published /	

				reissued	
WO12015623 A1	20130128	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12015623 A1	20130821	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 11812948 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO12027138 A1	20120301	LSPB	+	published / reissued	
WO12027138 A1	20130221	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013525962 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12027138 A1	20130221	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011820381 COUNTRY OF REF DOCUMENT : EP
WO12027138 A1	20130222	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2809296 COUNTRY OF REF DOCUMENT : CA
WO12027138 A1	20130225	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12027138 A1	20130321	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011293732 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20110812 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12027138 A1	20130322	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20137007276 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO14004160 A1	20140103	LSPB	+	published / reissued	
WO14004160 A1	20141229	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO14004160 A1	20150722	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 13737719 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO14152742 A2	20140925	LSPB	+	published / reissued	
WO14152742 A3	20150908	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 241333 COUNTRY OF REF DOCUMENT : IL
WO14152742 A3	20150911	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2906027 COUNTRY OF REF DOCUMENT : CA
WO14152742 A3	20150914	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2016502516 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO14152742 A3	20150917	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2014721100 COUNTRY OF REF DOCUMENT : EP
WO14152742 A3	20151008	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2014239241 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20140314

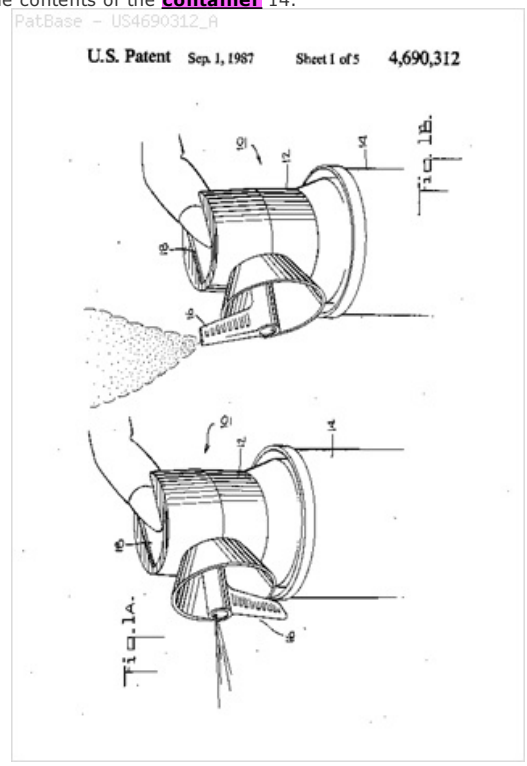
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WO15021375 A1	20150212	LSPB	+	published / reissued	
WO15021375 A1	20160128	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2919856 COUNTRY OF REF DOCUMENT : CA
WO15021375 A1	20160205	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2016533465 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO15021375 A1	20160208	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 244011 COUNTRY OF REF DOCUMENT : IL
WO15021375 A1	20160209	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO15021375 A1	20160218	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2014305771 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20140808 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO15021375 A1	20160219	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2014835065 COUNTRY OF REF DOCUMENT : EP

89) Family number: 2853063 (US4690312A)

Title: DUAL FUNCTION CAP

Abstract: An overcap assembly for a **container** having a pressure valve or the like, for **dispensing** a product selectively as a spray or a fog. The assembly has an overcap and a nozzle device which can be attached to the overcap outlet and is rotatable or otherwise movable between two positions relative to the overcap. In one position, a first outlet of the nozzle device communicates with the pressure valve of the **container**, while a second outlet of the nozzle device does so in the second relative position. One outlet is suitable for producing a spray, while the other is for producing a fog. Preferably, locking members are provided to lock the overcap actuator in a position to hold the **container** valve open when the nozzle device is in one (but not the other) of the two positions, to ensure complete use of the product in the **container**. It should also be noted that because of the construction of flange 96 and lip 46, the mere moving of the nozzle device 16 to the fog position does not actuate the **container** until button 20 is depressed. This prevents accidental actuation which is a problem with other total release systems. Also in the event of accidental actuation, rotation of nozzle device 16 to the spray position will disengage the locking mechanism and stop the **dispensing** of the contents of the **container** 14.

Classifications:
International (IPC 8-9): B05B1/16 B65D83/14 B65D83/16 (Advanced/Invention); B05B1/14 B65D83/14 B65D83/16 (Core/Invention)
International (IPC 1-7): B05B1/16 B65D47/20 B65D83/00 B65D83/14 B67D3/04
CPC: B05B15/652 B65D83/44 B05B1/1645 B05B1/1654 B65D83/205 B65D83/303 B65D83/7532
European: B05B1/16B3B B05B1/16B3B2 B65D83/14Z4B B65D83/20C B65D83/30B B65D83/44 B65D83/7532
US: 222/402.17 222/481 222/531 239/394



Family:

Publication number	Publication date	Application number	Application date
AU198772981 A1	19871119	AU19870072981	19870515
AU585158 B2	19890608	AU19870072981	19870515
BRPI8702474 A	19880223	BR1987PI02474	19870514
EP0245822 A2	19871119	EP19870106815	19870511
EP0245822 A3	19881012	EP19870106815	19870511
KR19870011038 A	19871219	KR19870004797	19870515
KR910008933 B1	19911026	KR19870004797	19870515
PH22524 A	19881017	PH19870035216	19870504
US4690312 A	19870901	US19860863659	19860515

Priority:
US19860863659 19860515

Probable Assignee: JOHNSON AND SON INC S C
Assignee(s): (std): JOHNSON AND SON INC S C
Assignee(s): JOHNSON S C ; JOHNSON S C AND SON INC ; JOHNSON SC ; S C JOHNSON AND SON INC ; SC JOHNSON AND SON INC
Inventor(s): (std): CRAPSER JAMES R ; DEMAREST SCOTT W ; CRABSER JAMES R ; DEMEREST SCOTT W
Inventor(s): SCOTT W DEMAREST ; JAMES R CRAPSER
Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD
Designated states: AT BE CH DE ES FR GB GR IT LI LU NL SE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU198772981 A1	19871119	LSPB	+	published / reissued	
AU585158 B2	19890608	LSGT	+	granted / extensions (spc, cpc, pte)	

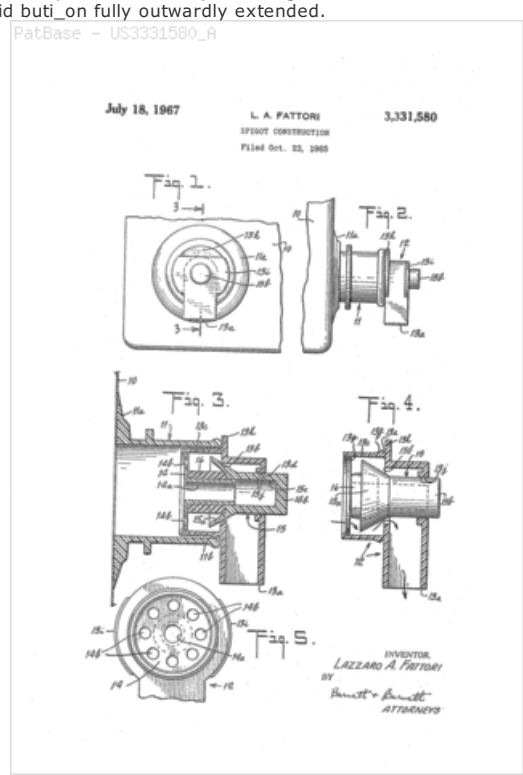
AU585158 B2	20070515	PEXP		Calculated Patent Term Expiry	
BRPI8702474 A	19880223	LSPB	+	published / reissued	
EP0245822 A2	19871119	LSPB	+	published / reissued	
EP0245822 A2	19880511	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19880316
EP0245822 A3	19891213	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19891030
EP0245822 A3	19910911	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 19910316
KR19870011038 A	19871219	LSPB	+	published / reissued	
KR910008933 B1	19911026	LSGT	+	granted / extensions (spc, cpc, pte)	
KR910008933 B1	19880602	LSES	A201	REQUEST FOR EXAMINATION	
KR910008933 B1	19910930	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR910008933 B1	19910930	LSPB	G160	DECISION TO PUBLISH PATENT APPLICATION	
KR910008933 B1	19920409	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR910008933 B1	19950915	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 19950915 YEAR OF FEE PAYMENT : 5
KR910008933 B1	19961027	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR910008933 B1	20020515	PEXP		Calculated Patent Term Expiry	
PH22524 A	19881017	LSGT	+	granted / extensions (spc, cpc, pte)	
PH22524 A	20051017	PEXP		Calculated Patent Term Expiry	
US4690312 A	19870901	LSGT	+	granted / extensions (spc, cpc, pte)	
US4690312 A	19860813	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : S. C. JOHNSON & SON, INC., RACINE, WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNORS:CRAPSER, JAMES R.; DEMAREST, SCOTT W.; REEL/FRAME:004590/0341 EFFECTIVE DATE : 19860513
US4690312 A	19870702	LSGT	PAT1	Patented Case	
US4690312 A	19870702	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US4690312 A	19881004	LSRE	CC	CERTIFICATE OF CORRECTION	
US4690312 A	19910118	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4690312 A	19950403	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4690312 A	19990226	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US4690312 A	20060515	PEXP		Calculated Patent Term Expiry	

90) Family number: 22967063 (US3331580A)

Title: SPIGOT CONSTRUCTION

Abstract: (Claim 1) 1. A _pi.-ot constr-ucti6n comprising a casin.a having an open downspout lower end and ali,_ned openin.-s formed in a front and rear wall, a valve member extending through said _openings havin- an axial bore closed at a front end to form a button projectina from sa id front wall openin_, said valve member being flared at the opposite end as a valve for seating in said rear wall openin_- a tubular flange extending from said rear wall enclosing said valve, a perforated spindle-plate mounted in said tubulair flan-e having an axiilly disposed spindle extendin.- as a support into said valve member axial bore, and a resilient compressible mamber carried on said spindle releasably retaining said valve member in closed position with said valve against said rear wall openin.- and said buti_on fully outwardly extended.

Classifications:
International (IPC 8-9): B65D47/24 F16K21/00 (Advanced/Invention); B65D47/04 F16K21/00 (Core/Invention)
International (IPC 1-7): B05B1/00
CPC: B65D47/248 F16K21/00
European: B65D47/24E F16K21/00
US: 251/144 251/322



Family:

Publication number	Publication date	Application number	Application date
US3331580 A	19670718	US19650503957	19651023

Priority:
US19650503957 19651023

Probable Assignee: FATTORI LAZZARO A
Assignee(s): (std)**:** FATTORI LAZZARO A
Inventor(s): (std)**:** FATTORI LAZZARO A

Legal status (INPADOC)

View legal status timeline

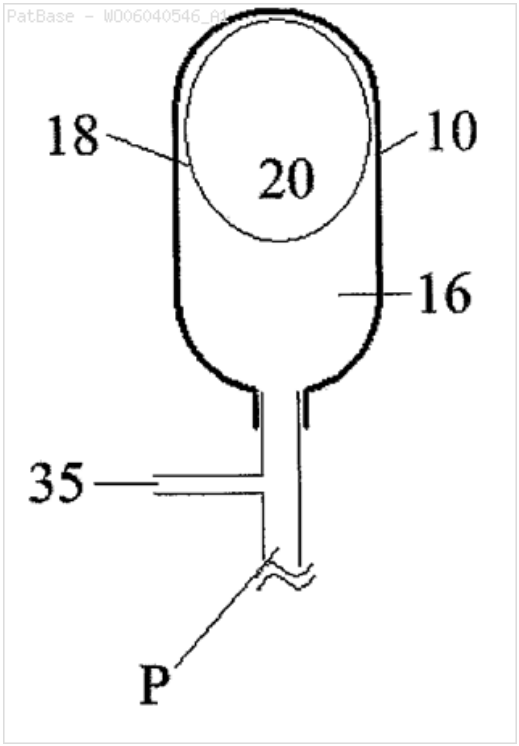
Patent	Date recorded	Event group	Code	Event	Details
US3331580 A	19670718	LSGT	+	granted / extensions (spc, cpc, pte)	

91) Family number: 31387064 (WO06040546A1)

Title: PRESSURE VESSEL FOR **LIQUID** AND A TOILET RECEPTACLE

Abstract: The pressure vessel (1) for **liquid** comprises a body (10) **containing** a substantially non-elastic membrane (22) which divides the body into a **liquid** chamber (16) for receiving **liquid** under pressure from a source and a gas chamber (20) for **containing** gas. The membrane (22) is movable by the **liquid** under pressure entering the **liquid** chamber (16) so as to compress the gas. An outlet (24) is provided from the **liquid** chamber (16) through which the **liquid** therein can be driven by pressure in the gas chamber (20) acting against the membrane (22). The pressure vessel (1) is particularly useful for flushing a toilet receptacle (35) or (47). The toilet receptacle (47) is provided with a device (48) which can be extended into the toilet receptacle (47) to deliver water for flushing the toilet receptacle or for enabling the toilet receptacle to be used as a bidet.

Classifications:
International (IPC 8-9): B05B15/10 B65D83/00 E03D3/10 E03D9/08 F15B1/10 F15B1/16 (Advanced/Invention);
B05B15/00 B65D83/00 E03D3/00 E03D9/08 F15B1/00 (Core/Invention)
CPC: E03D3/10 E03D9/08 F15B1/165 F15B2201/205 F15B2201/3151 F15B2201/3152 F15B2201/413 F15B2201/4155 B65D83/00 F15B1/10 B05B15/70
European: B05B15/10 B65D83/00 E03D3/10 E03D9/08 F15B1/10 F15B1/16B R15B201/205 R15B201/315B R15B201/315D R15B201/410D R15B201/415B



Family:

Publication number	Publication date	Application number	Application date
GB200422625 A0	20041110	GB20040022625	20041012
GB200708948 A0	20070620	GB20070008948	20051012
GB2437417 A1	20071024	GB20070008948	20051012
WO06040546 A1	20060420	WO2005GB03914	20051012

Priority:
GB20040022625 20041012 WO2005GB03914 20051012

Probable Assignee: UDDIN SHAFIQ
Assignee(s): (std): UDDIN SHAFIQ
Assignee(s): SHAFIQ UDDIN
Inventor(s): (std): UDDIN SHAFIQ
Inventor(s): SHAFIQ UDDIN
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 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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
GB200422625 A0	20070411	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB2437417 A1	20071024	LSPB	+	published / reissued	
GB2437417 A1	20101103	LSWD	-WAP	APPLICATION WITHDRAWN, TAKEN TO BE WITHDRAWN OR REFUSED ** AFTER PUBLICATION UNDER SECTION 16(1)	
WO06040546 A1	20060420	LSPB	+	published / reissued	
WO06040546 A1	20070413	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE

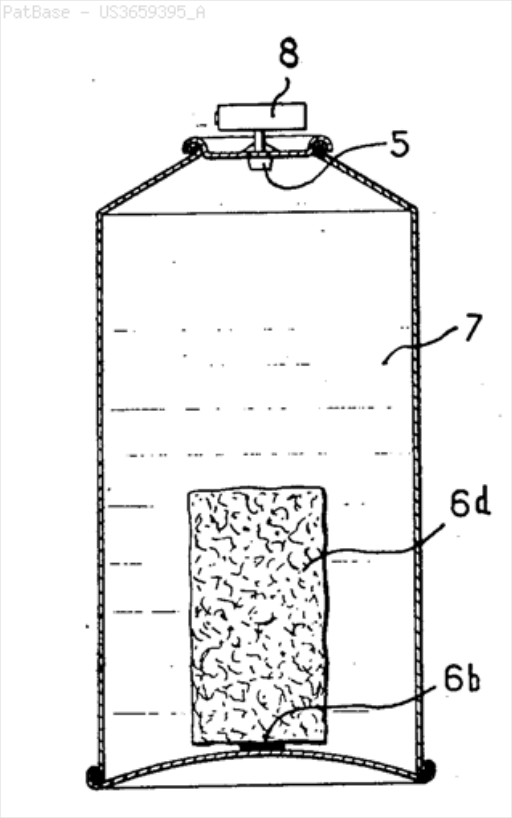
WO06040546 A1	20070509	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	TEXT : PCT FILING DATE = 20051012 REF DOCUMENT NUMBER : 0708948 COUNTRY OF REF DOCUMENT : GB KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO06040546 A1	20070509	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 0708948.5 COUNTRY OF REF DOCUMENT : GB
WO06040546 A1	20071219	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 05791258 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

92) Family number: 1738065 (US3659395A)

Title: METHOD FOR FILLING A **CONTAINER** WITH A FLUID UNDER PRESSURE

Abstract: Method and apparatus for storing and **dispensing** a fluid under pressure which utilizes a **container** holding a mass of closed-cell foam material. The fluid to be **dispensed** is introduced under pressure, thereby compressing the foam material, which expands to expel the fluid when a **dispensing** valve is opened. The foam material may be impregnated with a propellant gas before the fluid to be **dispensed** is introduced, and in that case the pressure applied when the **liquid** to be **dispensed** is introduced may liquefy the propellant gas trapped in the cells of the foam material.

Classifications:
International (IPC 8-9): B05B9/04 B05B9/047 B65B31/10 B65D83/14 B65D83/16 B65D83/28 B65D83/42 B65D83/58 (Advanced/Invention);
B05B9/04 B65B31/00 B65D83/14 B65D83/16 B65D83/28 B65D83/42 B65D83/58 (Core/Invention)
International (IPC 1-7): A61K B05B1/00 B05B11/00 B05B9/04 B65B B65B31/04 B65B31/10 B65D B65D83/00 B65D83/14
CPC: B65D83/14 B65D83/752
European: B65D83/14 B65D83/14Z3 B65D83/752
US: 141/3 141/9 222/386.5 53/360 53/470



Family:

Publication number	Publication date	Application number	Application date
AU197013112 A1	19710930	AU19700013112	19700326
BE746814 A	19700904		00000000
BE746814 A1	19700904	BE19700746814	19700304
CA933896 A1	19730918	CA19700077810	19700319
CH517032 A	19711231	CH19700004065	19700318
DE2009922 A1	19701210	DE19702009922	19700303
DE2009922 C3	19730215	DE19702009922	19700303
DE2065054 A1	19720615	DE19702065054	19700303
DE2065054 B2	19730719	DE19702065054	19700303
DE2065054 C3	19740307	DE19702065054	19700303
FR2040617 A5	19710122	FR19690010573	19690404
FR2082033 A5	19711210	FR19690045717	19691231
GB1284963 A	19720809	GB19700010726	19700305
JP48024443 B4	19730721	JP19700025651	19700328
NL7003021 A	19701006	NL19700003021	19700303
US3659395 A	19720502	US19700020214	19700317

Priority:

FR19690010573 19690404 FR19690045717 19691231 DE19702065054 19700303

Probable Assignee: LOREAL SA

Assignee(s): (std): OREAL ; LOREAL SA

Assignee(s): L OREAL PARIS ; LOUIS MERRIEN ; MANLIO MAURELLI ; ROBERT SATHICQ ; BRUNO MORANE ; CHARLES PAOLETTI ; L OREAL ; L OREAL 14 RUE ROYALE PARIS FRANCE

Inventor(s): (std): MORANE B ; PAOLETTI C ; MERRIEN L ; SATHICS R ; MAURELLI M ; MAURELLI MANLIO ; MORANE BRUNO ; PAOLETTI CHARLES ; MERRIEN LOUIS ; SATHICQ ROBERT ; HORANE BRUNO ; BRUNO MORANE ; MANLIO MAURELLI ; LOUIS MERRIEN ; ROBERT SATHICQ ; CHARLES PAOLETTI ; SATHICQ R

Inventor(s): BRUNO HORANE ; B MORANE ; R SATHICS ; C PAOLETTI ; M MAURELLI ; L MERRIEN ; MERRIEN LOUIS FONFENAY SOUS BOIS ; PAOLETTI CHARLES AULNAY SOUS BOIS ; SATHICQ ROBERT VILLEPINTE ; MORANE BRUNO PARIS

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details

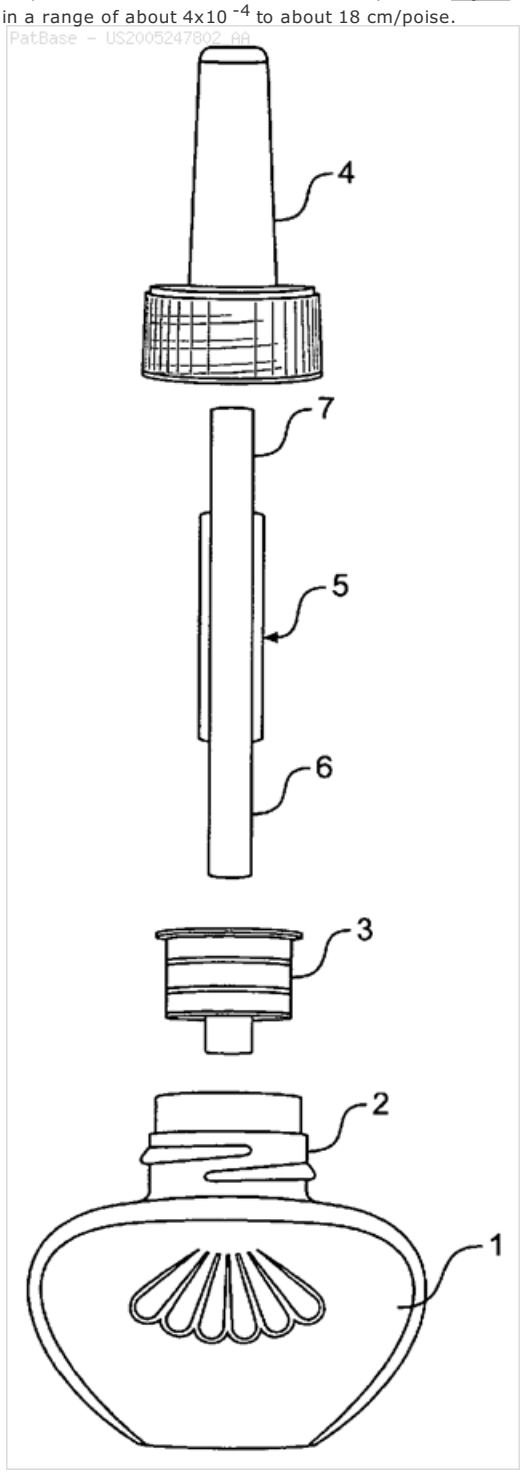
AU197013112 A1	19710930	LSPB	+	published / reissued
BE746814 A	19700904	LSPB	+	published / reissued
BE746814 A1	19700904	LSPB	+	published / reissued
CH517032 A	19711231	LSGT	+	granted / extensions (spc, cpc, pte)
CH517032 A	19800115	LSLE	-PL	PATENT CEASED
CH517032 A	19900318	PEXP		Calculated Patent Term Expiry
DE2009922 A1	19701210	LSPB	+	published / reissued
DE2009922 A1	19730215	LSGT	+C3	GRANT AFTER TWO PUBLICATION STEPS (3RD PUBLICATION)
DE2009922 A1	19830505	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE
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DE2065054 A1	19720615	LSPB	+	published / reissued
DE2065054 B2	19730719	LSPB	+	published / reissued
DE2065054 C3	19740307	LSGT	+	granted / extensions (spc, cpc, pte)
DE2065054 C3	19740307	LSGT	+C3	GRANT AFTER TWO PUBLICATION STEPS (3RD PUBLICATION)
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FR2040617 A5	19710122	LSGT	+	granted / extensions (spc, cpc, pte)
FR2040617 A5	19830225	LSLE	-ST	NOTIFICATION OF LAPSE
FR2040617 A5	19890404	PEXP		Calculated Patent Term Expiry
FR2082033 A5	19711210	LSGT	+	granted / extensions (spc, cpc, pte)
FR2082033 A5	19831021	LSLE	-ST	NOTIFICATION OF LAPSE
FR2082033 A5	19891231	PEXP		Calculated Patent Term Expiry
GB1284963 A	19720809	LSGT	+	granted / extensions (spc, cpc, pte)
GB1284963 A	19721220	LSGT	+PS	PATENT SEALED
GB1284963 A	19791121	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE
GB1284963 A	19900305	PEXP		Calculated Patent Term Expiry
JP48024443 B4	19730721	LSPB	+	published / reissued
NL7003021 A	19701006	LSPB	+	published / reissued
US3659395 A	19720502	LSGT	+	granted / extensions (spc, cpc, pte)

93) Family number: 32393066 (US2005247802A)

Title: METHODS FOR REDUCING SEEPAGE FROM WICK-BASED CONTROLLED RELEASE DEVICES, AND WICK-BASED DEVICES HAVING REDUCED SEEPAGE

Abstract: Methods and devices include having a **container** (**1**) for holding a **liquid** with a viscosity micro, and a porous wick (**5**) with an average pore size of at least about 4 microns to about 50 microns and a porosity e between about 0.20 to about 0.75, and having a length L and a total exposed surface area A exposed to the ambient air. The viscosity of the **liquid** and the dimensions of the wick are such that a quantity A/ micro L is in a range of about $4x10^{-4}$ to about 18 cm/poise.

Classifications:
International (IPC 8-9): A01G27/00 A01M1/20 A24F25/00 A61L9/03 A61L9/04 A61L9/12 A62C5/00 B05B17/00 B05B9/00 B65D47/40 B65D47/42 (Advanced/Invention);
A01M1/00 (Core/Invention)
International (IPC 1-7): A01M1/20 A61L9/03 A61L9/04 A61L9/12
CPC: A01M1/2044 A01M1/2077 A61L9/037 A61L9/122 A61L9/127
European: A01M1/20C2L A01M1/20C4G A61L9/03W A61L9/12F A61L9/12W
US: 239/145 239/326 239/398 239/44 239/44P 239/47



Family:

Publication number	Publication date	Application number	Application date
AT530201 E	20111115	AT20050166748T	20050503
AU2005243697 AA	20051124	AU20050243697	20050503
CA2566319 AA	20061101	CA20052566319	20050503
CA2566319 C	20100216	CA20052566319	20050503
CA2686663 AA	20051124	CA20052686663	20050503
DE602005015585 D1	20090903	DE200560015585T	20050503
DE602005030887 D1	20120105	DE200560030887T	20050503
EP1761286 A2	20070314	EP20050745271	20050503
EP1761286 B1	20090722	EP20050745271	20050503
EP2030637 A1	20090304	EP20080166748	20050503
EP2030637 B1	20111026	EP20080166748	20050503

MXPA06012859 A1	20070131	MX2006PA12859	20050503
TW200611715 A	20060416	TW20050114719	20050506
US2005247802 AA	20051110	US20050120475	20050503
US8292196 BB	20121023	US20050120475	20050503
WO05110500 A2	20051124	WO2005US15191	20050503
WO05110500 A3	20060316	WO2005US15191	20050503

Priority:

US20040568694P 20040507 CA20052566319 20050503 EP20050745271 20050503
US20050120475 20050503 WO2005US15191 20050503 EP20080166748 20050503

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Assignee(s): (std): ADAIR JOEL E ; JOHNSON AND SON INC S C ; S C JOHNSON AND SON INC ; VARANASI PRABODH P ; VARANASI PADMA P ; VARANASI PADMA PRABODH

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Inventor(s): (std): VARANASI PRABODH P ; ADAIR JOEL E ; VARANASI PADMA PRABODH ; VARANASI PRABODH ; ADAIR JOEL ; VARANASI PRABODH PADMA ; VARANASI PADMA P

Inventor(s): JOEL E ADAIR ; PRABODH P VARANASI ; VARANASI PADMA ; VARANASI PRABODH PADMA RACINE ; ADAIR JOEL E RACINE

Agent(s): SPRUSON AND FERGUSON; BERESKIN AND PARR LLP SENCRL SRL; RUSCHKE MADGWICK SEIDE AND KOLLEGEN PATENTANWAELTE PATENT ATTORNEY UK PARTG MBB; RUSCHKE HANS EDVARD; SC JOHNSON AND SON INC

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 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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT530201 E	20111115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT530201 E	20120415	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT530201 E	20250503	PEXP		Calculated Patent Term Expiry	
AU2005243697 AA	20051124	LSPB	+	published / reissued	
AU2005243697 AA	20111201	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
CA2566319 AA	20061101	LSPB	+	published / reissued	
CA2566319 AA	20061101	LSES	+EEER	EXAMINATION REQUEST	
CA2566319 C	20100216	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2566319 C	20120503	LSLE	-MKLA	LAPSED	
CA2566319 C	20250503	PEXP		Calculated Patent Term Expiry	
CA2686663 AA	20051124	LSPB	+	published / reissued	
CA2686663 AA	20091124	LSES	+EEER	EXAMINATION REQUEST	
CA2686663 AA	20120503	LSLE	-FZDE	DEAD	
DE602005015585 D1	20100812	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE602005030887 D1	20120726	LSOP	R026	OPPOSITION FILED AGAINST PATENT	
EP1761286 A2	20070314	LSPB	+	published / reissued	
EP1761286 A2	20070314	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20061023
EP1761286 A2	20070711	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20070608

EP1761286 A2	20090225	LSRE	RTI1	TITLE (CORRECTION)	TEXT : METHODS AND DEVICE FOR REDUCING SEEPAGE OF AIR FRESHENER BY IMPREGNATING WICK
EP1761286 B1	20090722	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1761286 B1	20090722	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1761286 B1	20090731	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1761286 B1	20090819	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1761286 B1	20100104	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	REF COUNTRY CODE : EP
EP1761286 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090722
EP1761286 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20091102
EP1761286 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090722
EP1761286 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20091122
EP1761286 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090722
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EP1761286 B1	20100226	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090722
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				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090722
EP1761286 B1	20100226	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090722
EP1761286 B1	20100331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20091122
EP1761286 B1	20100331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20091022
EP1761286 B1	20100430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090722
EP1761286 B1	20100430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090722
EP1761286 B1	20100430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090722
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EP1761286 B1	20100730	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20100601 YEAR OF FEE PAYMENT : 6
EP1761286 B1	20100831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20100527 YEAR OF FEE PAYMENT : 6
EP1761286 B1	20101029	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20091023
EP1761286 B1	20101231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100531
EP1761286 B1	20101231	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1761286 B1	20110228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100531
EP1761286 B1	20110228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100531
EP1761286 B1	20110331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090722
EP1761286 B1	20110429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100503
EP1761286 B1	20110831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20110525 YEAR OF FEE PAYMENT : 7
EP1761286 B1	20120217	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20120131
EP1761286 B1	20120322	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 602005015585 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20111201
EP1761286 B1	20120430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110531

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EP1761286 B1	20120831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090722
EP1761286 B1	20120928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100503
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EP1761286 B1	20130130	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20120503
EP1761286 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20120503
EP1761286 B1	20130628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20111201
EP1761286 B1	20250503	PEXP		Calculated Patent Term Expiry	
EP2030637 A1	20090304	LSPB	+	published / reissued	
EP2030637 A1	20090304	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081016
EP2030637 A1	20091104	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20091002
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EP2030637 B1	20111026	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2030637 B1	20111031	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2030637 B1	20111123	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2030637 B1	20120105	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602005030887 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20120105
EP2030637 B1	20120215	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20111026
EP2030637 B1	20120326	LSRV	-LTIE	LT: INVALIDATION OF EUROPEAN PATENT OR PATENT EXTENSION	REF COUNTRY CODE : EP EFFECTIVE DATE : 20111026
EP2030637 B1	20120415	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 530201 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20111026
EP2030637 B1	20120430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20111026
EP2030637 B1	20120430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120226
EP2030637 B1	20120430	LSLE	-PG25	LAPSED IN A CONTRACTING	COUNTRY OF REF DOCUMENT : BE

				STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20111026
EP2030637 B1	20120531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120127
EP2030637 B1	20120531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20111026
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EP2030637 B1	20120531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20111026
EP2030637 B1	20120531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20111026
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EP2030637 B1	20120731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20111026
EP2030637 B1	20120731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120126
EP2030637 B1	20120731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20111026
EP2030637 B1	20120829	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : THE PROCTER & GAMBLE COMPANY EFFECTIVE DATE : 20120726
EP2030637 B1	20120831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20111026
EP2030637 B1	20120831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20111026
EP2030637 B1	20121018	LSOP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R026 REF DOCUMENT NUMBER : 602005030887 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20120726
EP2030637 B1	20121231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20120531
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EP2030637 B1	20130130	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20120503
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EP2030637 B1	20130227	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2030637 B1	20130301	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20130131
EP2030637 B1	20130314	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 602005030887 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20121201
EP2030637 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20120531
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EP2030637 B1	20140430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20111026
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EP2030637 B1	20140723	LSRV	-27W	PATENT REVOKED	EFFECTIVE DATE : 20140308

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MXPA06012859 A1	20110816	LSGT	+FG	GRANT OR REGISTRATION	
TW200611715 A	20060416	LSPB	+	published / reissued	
US2005247802 AA	20051110	LSPB	+	published / reissued	
US2005247802 AA	20120821	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : S.C. JOHNSON & SON, INC., WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:VARANASI, PADMA PRABODH; ADAIR, JOEL E.; SIGNING DATES FROM 20050504 TO 20050506; REEL/FRAME:028821/0508
US2005247802 AA	20121003	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8292196 BB	20121023	LSGT	+	granted / extensions (spc, cpc, pte)	
US8292196 BB	20121003	LSGT	PAT1	Patented Case	
US8292196 BB	20160324	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8292196 BB	20280311	PEXP		Calculated Patent Term Expiry (PTA 1043 days)	
WO05110500 A2	20051124	LSPB	+	published / reissued	
WO05110500 A3	20061023	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2005745271 COUNTRY OF REF DOCUMENT : EP
WO05110500 A3	20061101	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2566319 COUNTRY OF REF DOCUMENT : CA
WO05110500 A3	20061107	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2006/012859 COUNTRY OF REF DOCUMENT : MX
WO05110500 A3	20061108	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO05110500 A3	20061108	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	TEXT : DE
WO05110500 A3	20061113	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2005243697 COUNTRY OF REF DOCUMENT : AU
WO05110500 A3	20061207	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2005243697 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20050503 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

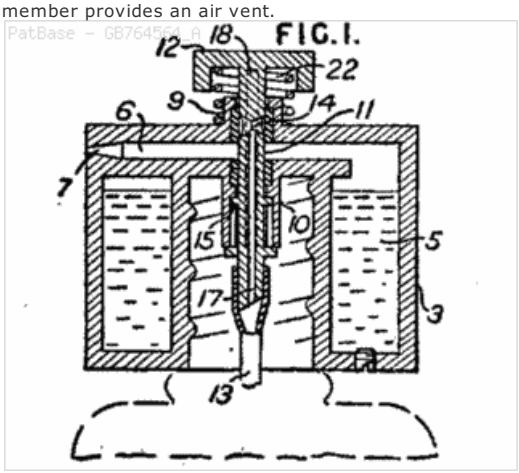
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WO05110500 A3	20070314	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2005745271 COUNTRY OF REF DOCUMENT : EP

94) Family number: 19638067 (GB764564A)

Title: Improved atomizing and **dispensing** apparatus

Abstract: 764,564. Spray-producers. COTY, Inc. Feb. 10, 1955 [March 29, 1954], No. 4044/55. Class 69 (3). A cap 3 screwed to the neck of a bottle **containing** spray **liquid** includes an annular chamber 5 for propellant gas and a plug 10 for insertion into the bottle neck. A valve member 11 slides within the plug and within the neck 9 of the cap, and a passage 17 in the member communicates at one end with a tube 13 dipping into the **liquid** in the bottle and at the other end with a transverse opening 14. A passage 6 leads from the chamber 5 to a spray outlet 7 and is normally blocked by the valve member which is urged upwardly by a spring 22, in which position the opening 14 is disposed in the neck of the cap. When the knob 12 of the valve member is depressed the opening 14 is aligned with the passage 6 and the resultant flow of gas draws **liquid** up through the tube 13 and passage 17 and sprays it. The valve member is guided by pins 15 which slide in grooves in the plug 10 and a groove 18 in the outer wall of the valve member provides an air vent.

Classifications:
International (IPC 8-9): B65D83/14 (Advanced/Invention)
International (IPC 1-7): A61M11/06 B05B7/30
CPC: B65D83/685
European: B65D83/68B1



Family:

Publication number	Publication date	Application number	Application date
GB764564 A	19561228	GB19550004044	19550210

Probable Assignee: COTY INC
Assignee(s): (std): COTY INC

Legal status (INPADOC)

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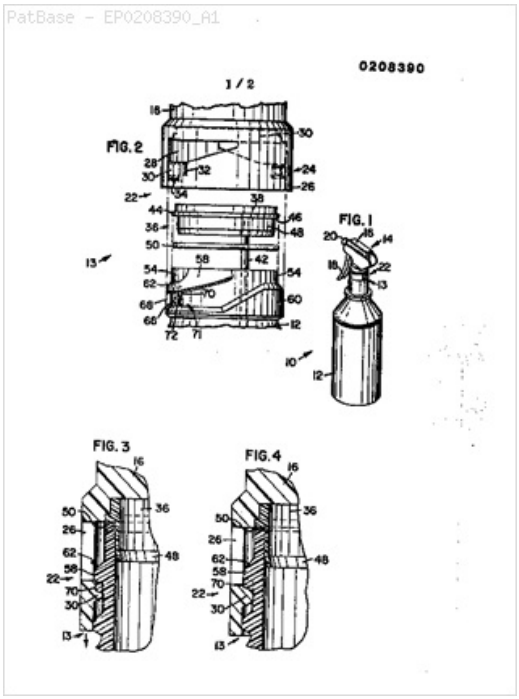
Patent	Date recorded	Event group	Code	Event	Details
GB764564 A	19561228	LSGT	+	granted / extensions (spc, cpc, pte)	
GB764564 A	19750210	PEXP		Calculated Patent Term Expiry	

95) Family number: 2214067 (EP0208390A1)

Title: SPRAY CAP AND BOTTLE ENGAGEMENT.

Abstract: he invention includes a spray bottle (10) which including a bottle (12,12') and sprayer (14). The sprayer (14) includes a cap portion (22) which can be axially snapped onto the neck (13,13') of the bottle (12,12') during initial assembly. When it is desired to refill the bottle (12), the cap portion (22) can be twisted off of the bottle neck (13) by depressing the cap portion (22) to further compress a seal liner (501. This allows cap dogs (30) attached to the cap (22) to escape corresponding dog recesses (66) formed by the neck (13). The cap (22) can then be easily twisted off of the bottle neck (13). Once the bottle (12) has been refilled, the sprayer (14) can be reinstalled by simply twisting the cap portion (22) onto the neck (13), compressing the seal (50) to allow the dogs (30) to reenter the dog recesses (66). When it is desired to refill bottle (12'), the cap portion (22) is twisted off by overcoming the resistance posed by a pair of neck elements (80) which normally hold the cap dogs (30) in place.

Classifications:
International (IPC 8-9): B05B1/00 B05B11/00 B29C65/76 B65D1/02 B65D47/34 B65D83/14 B65D83/40 (Advanced/Invention);
B05B1/00 B05B11/00 B29C65/00 B65D1/02 B65D47/34 B65D83/14 B65D83/40 (Core/Invention)
International (IPC 1-7): A61K7/43 B05B1/00 B29C65/76 B65D1/02 B65D41/16 B65D47/34 B65D83/14 B67B3/22
CPC: B05B11/001 B05B11/3045 B05B11/3057 B29C66/71
European: B05B11/00B1D B05B11/00P9B2 B05B11/30H1B L05B11/00P1 L05B11/30H3F2 L29C66/71



Family:

Publication number	Publication date	Application number	Application date
AU198654858 A1	19861023	AU19860054858	19860317
EP0208390 A1	19870114	EP19860301997	19860319
JP62001526 A2	19870107	JP19860084020	19860411
KR19860007925 A	19861110	KR19860003095	19860422

Priority:

US19850725205 19850419 US19850725705 19850419 US19850725705 19850422 US19850760690 19850730

Probable Assignee: ECOLAB INC
Assignee(s): (std): ECONOMICS LAB
Assignee(s): ECONOMICS LAB INC ; ECONOMICS LABORATORY INC ; ECOLAB INC
Inventor(s): (std): DENNIS STEPHEN R ; DWYER PATRICK J ; RARII CHIYAARUSU SURETSUJI ; PATORITSUKU JIEI DOWAIAA ; SUTEIIBUN AARU DENISU ; SLEDGE LARRY CHARLES
Inventor(s): PATRICK J DWYER ; STEPHEN R DENNIS
Agent(s): GRIFFITH HACK
Designated states: AT BE DE FR GB IT SE

Legal status (INPADOC)

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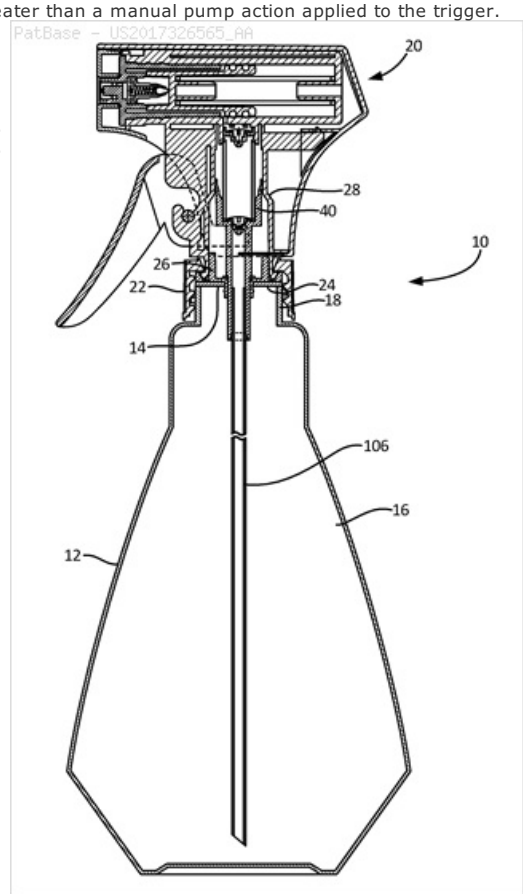
Patent	Date recorded	Event group	Code	Event	Details
AU198654858 A1	19861023	LSPB	+	published / reissued	
EP0208390 A1	19870114	LSPB	+	published / reissued	
EP0208390 A1	19870408	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : ECOLAB, INC.
EP0208390 A1	19880316	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 19871015
JP62001526 A2	19870107	LSPB	+	published / reissued	
KR19860007925 A	19861110	LSPB	+	published / reissued	

96) Family number: 67491069 (US2017326565A)

Title: EXTENDED EMISSION TIME **LIQUID** SPRAYER

Abstract: A **liquid** sprayer apparatus includes a multi-chamber spray mechanism, with at least one chamber being adapted to accumulate pressurized fluid for dispensation over an extended time period. The **liquid** sprayer apparatus is capable of emitting a **liquid** spray over a period of time that is substantially greater than a manual pump action applied to the trigger.

Classifications:
International (IPC 8-9): B05B11/00 B05B15/00 B05B9/08 B65D B65D47/34 F04B19/22 F04B23/02 F04B49/22 F04B53/10 F04B53/14 F04B53/16 F04B9/14 (Advanced/Invention)
CPC: B05B11/3014 B05B11/3094 B05B11/0089 B05B11/0064 B05B11/3004 B05B11/3023 B05B11/3026 B05B9/0883 B05B11/0067 B05B11/0075 B05B11/3001 B05B11/3016 B05B11/304 B05B11/3047 B05B11/3057 B05B11/3069 B05B11/3095 B05B15/30 B05B11/3011 B05B11/3025 B05B11/3045 F04B19/22 F04B23/028 F04B49/22 F04B53/10 F04B53/14 F04B53/16
US: 1/1 222/380



Family:

Publication number	Publication date	Application number	Application date
CN107352152 A	20171117	CN201710323441	20170510
EP3243571 A1	20171115	EP20170170481	20170510
HK1238619 A1	20180504	HK20170112748	20171201
JP2017202875 A2	20171116	JP20170093073	20170509
JP6454374 B2	20190116	JP20170093073	20170509
US2017326565 AA	20171116	US20160150617	20160510
US2017326566 AA	20171116	US20160216847	20160722
US2017328361 AA	20171116	US20170422670	20170202
US9943867 BB	20180417	US20160150617	20160510
US9981278 BB	20180529	US20160216847	20160722

Priority:

US20160150617 20160510 US20160216847 20160722 US20170422670 20170202
JP20170093073 20170509

Probable Assignee: ZHEJIANG JM IND CO LTD
Assignee(s): (std): ZHEJIANG JM IND CO LTD
Assignee(s): ZHEJIANG JM INDUSTRY CO LTD ; ZHEJIANG JM IND CO
Inventor(s): (std): TU XUFENG ; XUFENG TU
Agent(s): BRIDLE ANDREW BARRY; ASAMURA PATENT OFFICE PC; HAUGEN LAW FIRM PLLP
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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN107352152 A	20171117	LSPB	+	published / reissued	
CN107352152 A	20171117	LSPB	PB01	PUBLICATION	
CN107352152 A	20190607	LSDW	-WD01	INVENTION PATENT APPLICATION DEEMED WITHDRAWN AFTER PUBLICATION	

EP3243571 A1	20171115	LSPB	+	published / reissued	
EP3243571 A1	20180530	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20180417
EP3243571 A1	20191218	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20191118
HK1238619 A1	20180504	LSPB	+	published / reissued	
JP2017202875 A2	20171116	LSPB	+	published / reissued	
JP2017202875 A2	20180417	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20180417
JP2017202875 A2	20180912	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20180912
JP2017202875 A2	20181003	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20180913
JP2017202875 A2	20181122	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2017202875 A2	20181128	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20181128
JP2017202875 A2	20181220	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20181214
JP2017202875 A2	20181221	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6454374 COUNTRY OF REF DOCUMENT : JP
JP6454374 B2	20190116	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6454374 B2	20181206	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6454374 B2	20181218	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6454374 B2	20181221	LSGT	+R150	特許証 (Patent certificate)	
JP6454374 B2	20370509	PEXP		Calculated Patent Term Expiry	
US2017326565 AA	20171116	LSPB	+	published / reissued	
US2017326565 AA	20180312	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2017326565 AA	20180328	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2017326566 AA	20171116	LSPB	+	published / reissued	
US2017326566 AA	20180417	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017326566 AA	20180424	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2017326566 AA	20180425	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2017326566 AA	20180509	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
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US2017328361 AA	20170202	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ZHEJIANG JM INDUSTRY CO., LTD., CHINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:TU, XUFENG; REEL/FRAME:041156/0270 EFFECTIVE DATE : 20170124
US2017328361 AA	20180829	LSES	NFA1	Non Final Action Mailed	
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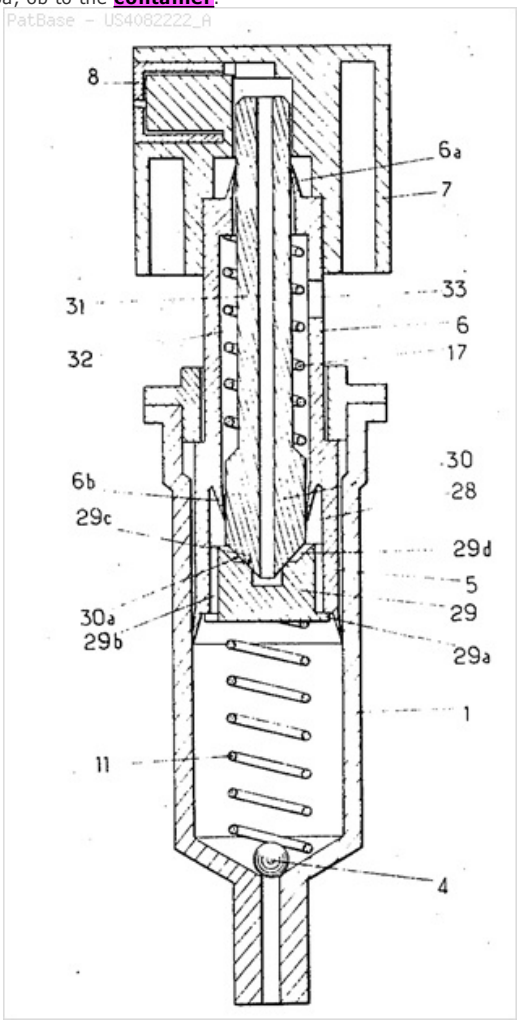
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US9943867 BB	20360516	PEXP		Calculated Patent Term Expiry (PTA 6 days)	
US9981278 BB	20180529	LSGT	+	granted / extensions (spc, cpc, pte)	
US9981278 BB	20160722	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ZHEJIANG JM INDUSTRY CO., LTD., CHINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:TU, XUFENG; REEL/FRAME:039219/0592 EFFECTIVE DATE : 20160722
US9981278 BB	20180509	LSGT	PAT1	Patented Case	
US9981278 BB	20361005	PEXP		Calculated Patent Term Expiry (PTA 75 days)	

97) Family number: 1201069 (US4082222A)

Title: ATOMIZED **LIQUID** **DISPENSING** PUMP

Abstract: 1492240 Reciprocating pumps SOC TECHNIQUE DE PULVERISATION 10 Aug 1976 [14 Aug 1975] 33226/76 Addition to 1323986 Heading F1A A **container**-mounted atomizer pump, e.g. for perfume, comprises a cylinder 1 communicating with a dip tube via inlet check valve 4 and having a piston 5 moved against a spring 11 by a fingeractuated spray button 7, a valve seat 29 being held in piston 5 by spring 11 and being engaged by an apertured valve member defined by a piston 30, the aperture communicating via hollow stem 31 with spray nozzle 8. In operation, downward movement of piston 5 pressurizes **liquid** in cylinder 1, the pressure acting, via passage 29b in seat 29, on the underside 30a of valve member 30. At a predetermined pressure, valve member 30 rises against spring 17 and opens communication between cylinder 1 and nozzle 8. Part 33 returns leakage past seals 6a, 6b to the **container**.

Classifications:
International (IPC 8-9): A61M11/08 B05B11/00 B05B11/02 B65B15/00 B65B27/10 B65D83/14 D03D41/00 D05B23/00 (Advanced/Invention);
A61M11/06 B05B11/00 B65B15/00 B65B27/00 D03D41/00 D05B23/00 (Core/Invention)
International (IPC 1-7): A45D34/00 A45D34/02 A45D34/04 A61M11/02 A61M11/08 B05B1/00 B05B1/02 B05B1/22 B05B11/00 B05B11/02 B05B7/04 B05B9/04 B05B9/043 B05B9/047 B65B11/00 B65B13/00 B65B13/02 B65B15/00 B65B27/10 B65D83/00 B65D83/14 B67D D03D23/00 D05B23/00 F04B1/02 F04B19/00 F04B19/04 F04B21/04 F04B9/02 F04B9/14 F16K1/00
CPC: B05B11/3016 B05B11/3061 B05B11/0064 B05B11/3001 B05B11/3097 B65B27/10 B65B15/00 D03D41/002 D05B23/003 D05D2303/12
European: B05B11/00B9L B05B11/00P3P B05B11/00P9N B05B11/00R3 B05B11/00R5 B05B11/30C B05B11/30C7 B05B11/30H5 B05B11/30T B65B15/00 B65B27/10 D03D41/00B D05B23/00C N05D303/12
US: 222/321.3 222/321.9 222/373 222/385 239/32.1 239/321 239/331 417/549



Family:

Publication number	Publication date	Application number	Application date
AT316731 B	19740725	AT19720003028	19720407
AT333200 B	19761110	AT19730006503	19730724
AT350710 B	19790611	AT19760005763	19760804
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NL179554 C	19861001	NL19760009071	19760813
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SE378508 C	19751218	SE19720004535	19720407
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SE7609093 L	19770215	SE19760009093	19760813
US3746260 A	19730717	US19720242518	19720410
US4082222 A	19780404	US19760708012	19760723

Priority:

FR19710013220 19710408 GB19720015817 19720406 AU19720040986 19720410
AT19730006503 19730724 FR19750025833 19750814

Probable Assignee: STEP SOC TECH PULVERISATION

Assignee(s): (std): OSTERREICHISCHES INST VERPAC ; PULVERISATION STEP STE TECH ; BORIS MICHEL ; OESTERR INST VERPACKUNGSWESEN ; OESTERREICHISCHES INST F VE ; TECH DE PULVERISATION S T E P ; S T E P SOC TECH DE PULVER ; TECH DE PULVERISATION SOC S T ; S T E P SOCIETE TECH DE PULVER ; STEP SOC TECH PULVERISATION ; STEP

Assignee(s): TECHNIQUE DE PULVERISATION FR SOC ; SOCIETE TECHNIQUE DE PULVERISATION ; S T E P ; SOCIETE TECHNIQUE DE PULVERISATION S T E P ; S T E P SOCIETE TECHNIQUE DE PULVERISATION ; SOC TECHNIQUE DE PULVERISATION STEP ; SOCIETE TECHNIQUE DE PULVERISATION STEP ; STEP SOCIETE TECHNIQUE DE PULVERISATION ; SOC TECH DE PULVERISATION ; STEP SOC TECHNIQUE DE PULVERISATION ; STEP STE TECHNIQUE DE PULVERISATION ; SOCIETE TECHNIQUE DE PULVERISATION STEP TE PARIJS ; SOCIETE TECHNIQUE DE PULVERISATION STEP TE PARIJS FRANKRIJK ; TECHNIQUE DE PULVERISATION S T E P SOC ; TECHNIQUE DE PULVERISATION SOC ; TEKUNIITA DO BIYURUBERIZASHION SOC ; TECHNIQUE DE PULVERISATION STEP SOC ; SOC TECHNIQUE DE PULVERISATION ; SOC TECHNIQUE DE PULVERISATION FR ; STEP SOCIETE TECHNIQUE DE PULVERISATION PARIS ; STEP SOCIETE TECHNIQUE DE PULVERISATION PARIS FR ; OESTERREICHISCHES INST F VERPACKUNGSWESEN ; OESTERREICHISCHES INST F VERPACKUNGSWESEN TE WENEN ; OESTERREICHISCHES INST F VERPACKUNGSWESEN WIEN ; PULVERISATION STEP STE TECHNIQUE ; OSTERREICHISCHES INSTITUT VERPAC OE ; OSTERREICHISCHES INSTITUT VERPAC ; OSTERREICHISCHES INSTITUT FUR VERPACKUNGSWESEN ; OESTERREICHISCHES INSTITUT FUER VERPACKUNGSWESEN ; OESTERREICHISCHES INSTITUT FUER VERPACKUNGSWESEN WIEN ; OESTERREICHISCHES INSTITUT FUER VERPACKUNGSWESEN TE WENEN ; OSTERREICHISCHES INST FUR VERPACKUNGSWESEN ; OSTERREICHISCHES INST VERPAC OE

Inventor(s): (std): BORIS M ; KERNSTOCK F ; SOMMEREDER H ; MISHIERU PORISU ; BORIS MICHEL ; SOMMEREDER HERBERT ING MAG ; KERNSTOCK FRIEDRICH ING MAG ; SOMMEREDER HERBERT ING ; KERNSTOCK FRIEDRICH ING

Inventor(s): BORIS MICHEL PARIS FR ; BORIS MICHEL PARIS ; BORIS M FR ; M BORIS ; MICHEL BORIS ; H SOMMEREDER ; F KERNSTOCK

Agent(s): GH; GRIFFITH HACK

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT316731 B	19740725	LSGT	+	granted / extensions (spc, cpc, pte)	
AT316731 B	19920615	LSLE	-ELA	EXPIRED DUE TO LAPSE OF TIME	
AT316731 B	19920407	PEXP		Calculated Patent Term Expiry	
AT333200 B	19761110	LSGT	+	granted / extensions (spc, cpc, pte)	
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AT333200 B	19861115	LSLE	-ELJ	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT333200 B	19930724	PEXP		Calculated Patent Term Expiry	

AT350710 B	19790611	LSGT	+	granted / extensions (spc, cpc, pte)	
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AT650373 A	19760215	LSPB	+	published / reissued	
AU197240986 A1	19731018	LSPB	+	published / reissued	
AU197616846 A1	19780716	LSPB	+	published / reissued	
AU468370 B2	19731018	LSGT	+	granted / extensions (spc, cpc, pte)	
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BE844398 A4	19761116	LSPB	+	published / reissued	
BE844398 R	19761116	LSPB	+	published / reissued	
CA949512 A	19740618	LSGT	+	granted / extensions (spc, cpc, pte)	
CH552413 A	19740815	LSGT	+	granted / extensions (spc, cpc, pte)	
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CH580008 A	19760930	LSGT	+	granted / extensions (spc, cpc, pte)	
CH580008 A	19810331	LSAS	PUE	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ING. MAG. HERBERT SOMMEREDER
CH580008 A	19870331	LSLE	-PL	PATENT CEASED	
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FR2133259 A5	19721124	LSGT	+	granted / extensions (spc, cpc, pte)	
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FR2238637 B1	19860523	LSLE	-ST	NOTIFICATION OF LAPSE	
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JP51033281 B4	19760918	LSPB	+	published / reissued	
JP52023713 A2	19770222	LSPB	+	published / reissued	
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NL179554 B	19860501	LSPB	+	published / reissued	
NL179554 B	19960813	PEXP		Calculated Patent Term Expiry	
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NL179554 C	19920518	LSLE	-V3	ADDITIONAL PATENTS LAPSED AT THE SAME TIME AS THE MAIN PATENT	
NL179554 C	19960813	PEXP		Calculated Patent Term Expiry	
NL7204750 A	19721010	LSPB	+	published / reissued	
NL7204750 A	19790425	LSES	+BA	A REQUEST FOR SEARCH OR AN INTERNATIONAL-TYPE SEARCH HAS BEEN FILED	
NL7204750 A	19811201	LSES	BB	A SEARCH REPORT HAS BEEN DRAWN UP	
NL7204750 A	19820401	LSES	+BC	A REQUEST FOR EXAMINATION HAS BEEN FILED	
NL7409636 A	19750128	LSPB	+	published / reissued	
NL7409636 A	19810325	LSLE	-BV	THE PATENT APPLICATION HAS LAPSED	
NL7609071 A	19770216	LSPB	+	published / reissued	

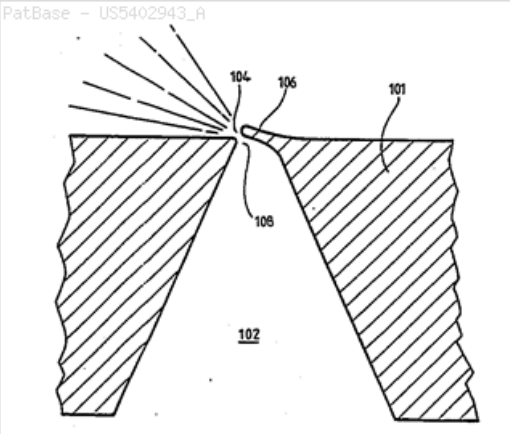
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98) Family number: 14837069 (US5402943A)

Title: METHOD OF ATOMIZING INCLUDING INDUCING A SECONDARY FLOW

Abstract: PCT No. PCT/GB91/02145 Sec. 371 Date Jun. 4, 1993 Sec. 102(e) Date Jun. 4, 1993 PCT Filed Dec. 4, 1991 PCT Pub. No. WO92/10301 PCT Pub. Date Jun. 25, 1992.A method for discharging a fluid, notably an aqueous medicament solution, as a spray of droplets by causing a fluid to flow through a nozzle aperture so that a secondary flow is induced in at least part of the flow of fluid through the nozzle aperture by a flap or orifice lip located within the bore of the nozzle passage, and/or adjacent an end of the nozzle passage, and/or adjacent the nozzle aperture. Preferably a secondary flow at the nozzle orifice is induced such that at least 10 percent of the fluid flows at an exit angle of 90 DEG to the overall line of travel of the remainder of the fluid.

Classifications:
International (IPC 8-9): B05B1/00 B05B1/26 B05B1/28 B05B11/00 (Advanced/Invention);
B05B1/28 (Advanced/Non-invention);
B05B1/00 B05B1/26 B05B1/28 B05B11/00 (Core/Invention);
A61M (Subclass/Invention)
International (IPC 1-7): A61K9/12 A61M13/00 A61M15/00 B05B1/00 B05B1/02 B05B1/26 B05B1/28 B05B1/34 B05B11/00 B05B17/04 B65D83/30
CPC: B05B1/267 B05B1/00 B05B11/0005
European: B05B1/00 B05B1/26A2 B05B11/00B
US: 239/11 239/518 239/521 239/596



Family:

Publication number	Publication date	Application number	Application date
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PT99680 B	19990226	PT19910099680	19911204
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WO9210301 A1	19920625	WO1991GB02145	19911204
ZA9109506 A	19920826	ZA19910009506	19911203

Priority:
GB19900026299 19901204 GB19910009293 19910430 WO1991GB02145 19911204

Probable Assignee: BOEHRINGER INGELHEIM INT GMBH

Assignee(s): (std): DUNNE MILLER WESTON LTD ; BOEHRINGER INGELHEIM INT ; DMW TECH LTD

Assignee(s): DMW LTD ; DUNNE MILLER WESTON LIMITED ; BOEHRINGER INGELHEIM GMBH ; BOEHRINGER INGELHEIM INT GMBH ; BOEHRINGER INGELHEIM INTERNATIONAL GMBH ; BOERINGER INGELHEIM INT GMBH ; DMW TECHNOLOGY LTD SUFFOLK GB ; D M W TECHNOLOGY LTD ; DMW TECHNOLOGY LTD ; DMW TECHNOLOGY LIMITED ; D M W TECHNOLOGY LIMITED ; DUNNE STEPHEN T ; KING ANTHONY W

Inventor(s): (std): KING ANTHONY WAYNE ; DUNNE STEPHEN T ; KING ANTHONY W ; STEPHEN TERENCE DUNNE ; DUNNE STEPHEN TERENCE

Inventor(s): KING ANTHONY WAYNE IPSWICH IP10 0PN GB ; DUNNE STEPHEN TERENCE IPSWICH SUFFOLK IP9 1EX GB ; ANTHONY WAYNE KING

Agent(s): CALLINANS; FISHER ADAMS KELLY CALLINANS; SPRUSON AND FERGUSON; FETHERSTONHAUGH AND CO; EITAN PEARL LATZER AND COHEN ZEDEK; GE EHRLICH 1995 LTD

Designated states: AT AU BB BE BF BG BJ BR CA CF CG CH CI CM CS DE DK ES FI FR GA GB GN GR HU IT JP KP KR LI LK LU MC MG ML MN MR MW NL NO PL RO SD SE SN SU TD TG US

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT131749 E	19960115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT131749 E	19960615	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	
AT131749 E	19980415	LSAS	EEIH	CHANGE IN THE PERSON OF PATENT OWNER	
AT131749 E	20100915	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT131749 E	20111204	PEXP		Calculated Patent Term Expiry	
AU199190243 A1	19920708	LSPB	+	published / reissued	
AU660002 B2	19950608	LSGT	+	granted / extensions (spc, cpc, pte)	
AU660002 B2	20111204	PEXP		Calculated Patent Term Expiry	
CA2097701 AA	19930603	LSPB	+	published / reissued	
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DE69115717 D1	19980625	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	PARTYTYPE : OWNER OWNER : BOEHRINGER INGELHEIM INTERNATIONAL GMBH, 55218 ING
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DE69115717 T2	19960502	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69115717 T2	20111204	PEXP		Calculated Patent Term Expiry	
DK0560835 T3	19960129	LSGT	+	granted / extensions (spc, cpc, pte)	
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DK0560835 T3	20111204	PEXP		Calculated Patent Term Expiry	
DK0560835 T3	20111204	PEXP		Calculated Patent Term Expiry	
EP0560835 A1	19930922	LSPB	+	published / reissued	
EP0560835 A1	19930922	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19930601
EP0560835 A1	19931208	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : DMW (TECHNOLOGY) LIMITED
EP0560835 A1	19941221	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19941109
EP0560835 A1	19960216	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2081088 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP0560835 A1	19961211	LSGT	+26N	NO OPPOSITION FILED	
EP0560835 A1	19970415	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : CH OWNER : DMW (TECHNOLOGY) LIMITED TRANSFER- BOEHRINGER INGE REF LEGAL EVENT CODE : PUE

EP0560835 A1	19970701	LSAS	NLS	NL: ASSIGNMENTS OF EP-PATENTS	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : BOEHRINGER INGELHEIM INTERNATIONAL GMBH
EP0560835 A1	19971024	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : TP
EP0560835 A1	19971201	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : PC2A
EP0560835 A1	20090130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20081215 YEAR OF FEE PAYMENT : 18
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EP0560835 A1	20100730	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100701
EP0560835 A1	20100730	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0560835 A1	20100809	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP
EP0560835 A1	20100825	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20091204
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GR3019042 T3	20160221	PEXP		Calculated Patent Term Expiry	
IE70745 B	19961230	LSGT	+	granted / extensions (spc, cpc, pte)	
IE70745 B	20100929	LSLE	-MM4A	PATENT LAPSED	
IE70745 B	20111203	PEXP		Calculated Patent Term Expiry	
IE914202 A1	19920617	LSPB	+	published / reissued	
IL100224 A1	19941021	LSPB	+	published / reissued	
IL100224 A1	19970814	LSAS	HP	CHANGE IN PROPRIETORSHIP	
IL100224 A1	19980405	LSFE	+KB	PATENT RENEWED	
IL100224 A1	20020210	LSFE	+KB	PATENT RENEWED	
IL100224 A1	20060221	LSFE	+KB	PATENT RENEWED	
IL100224 A1	20101130	LSLE	-MM9K	PATENT NOT IN FORCE DUE TO NON-PAYMENT OF RENEWAL FEES	
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JP3319752 B2	20060613	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP3319752 B2	20070605	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP3319752 B2	20080617	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
JP3319752 B2	20090616	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 8

JP3319752 B2	20100621	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP3319752 B2	20111204	PEXP		Calculated Patent Term Expiry	
JP6504942 T2	19940609	LSPB	+	published / reissued	
MX9102374 A1	19920901	LSPB	+	published / reissued	
MX9102374 A1	19991216	LSGT	+FG	GRANT OR REGISTRATION	
MX9102374 A1	20140131	LSLE	-MM	ANNULMENT OR LAPSE DUE TO NON-PAYMENT OF FEES	
NZ240836 A	19941125	LSPB	+	published / reissued	
NZ240836 A	20011221	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ240836 A	20041224	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ240836 A	20111222	LSLE	-EXPY	PATENT EXPIRED	
PL168480 B1	19960229	LSGT	+	granted / extensions (spc, cpc, pte)	
PL168480 B1	20110228	LSLE	-LAPS	DECISIONS ON THE LAPSE OF THE PROTECTION RIGHTS	EFFECTIVE DATE : 20091204
PT99680 A	19931130	LSPB	+	published / reissued	
PT99680 B	19990226	LSGT	+	granted / extensions (spc, cpc, pte)	
PT99680 B	19990226	LSGT	+FG3A	PATENT GRANTED, DATE OF GRANTING	EFFECTIVE DATE : 19981110
PT99680 B	20110517	LSLE	-MM4A	ANNULMENT/LAPSE DUE TO NON-PAYMENT OF FEES, SEARCHED AND EXAMINED PATENT	TEXT : LAPSE DUE TO NON-PAYMENT OF FEES EFFECTIVE DATE : 20110510
PT99680 B	20140226	PEXP		Calculated Patent Term Expiry	
US5402943 A	19950404	LSGT	+	granted / extensions (spc, cpc, pte)	
US5402943 A	19930915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DMW (TECHNOLOGY) LIMITED, UNITED KINGDOM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DUNNE, STEPHEN TERENCE; KING, ANTHONY WAYNE; REEL/FRAME:006682/0787 EFFECTIVE DATE : 19930528
US5402943 A	19950323	LSGT	PAT1	Patented Case	
US5402943 A	19970326	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOEHRINGER INGELHEIM INTERNATIONAL GMBH, GERMANY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:DMW (TECHNOLOGY) LIMITED; REEL/FRAME:008423/0801 EFFECTIVE DATE : 19970212
US5402943 A	19980824	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5402943 A	20020923	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5402943 A	20060922	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5402943 A	20130604	PEXP		Calculated Patent Term Expiry	
WO9210301 A1	19920625	LSPB	+	published / reissued	
WO9210301 A1	19930601	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1992900133 COUNTRY OF REF DOCUMENT : EP
WO9210301 A1	19930603	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2097701 COUNTRY OF REF DOCUMENT : CA
WO9210301 A1	19930604	LSNP	+WWE	WIPO INFORMATION:	REF DOCUMENT NUMBER :

				ENTRY INTO NATIONAL PHASE	08066118 COUNTRY OF REF DOCUMENT : US
WO9210301 A1	19930922	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1992900133 COUNTRY OF REF DOCUMENT : EP
WO9210301 A1	19931014	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO9210301 A1	19951220	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1992900133 COUNTRY OF REF DOCUMENT : EP
ZA9109506 A	19920826	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA9109506 A	20111202	PEXP		Calculated Patent Term Expiry	

99) Family number: 52545070 (US2012312839A)

Title: FLUID **DISPENSER**, SYSTEM AND FILLING PROCESS

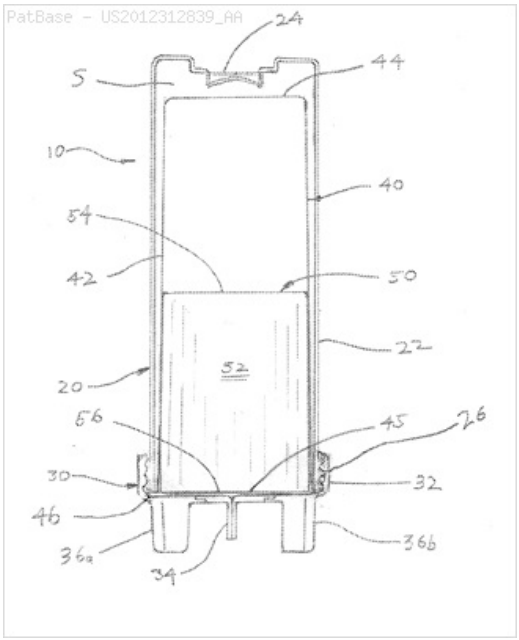
Abstract: Systems, methods, and processes are disclosed for the manufacture, filling and **dispensing** of flowable contents. The **dispenser** system includes a **dispenser** bottle, a **dispensing** cap, a pre-filled **container**, an optional inversion tube wherein the pre-filled **container** **contains** flowable contents therein for **dispensing** when a **dispenser** bottle is squeezed, pumped or sprayed. A user grasps the bottle, squeezes it to increase internal pressure, and forces out through the **dispensing** cap the flowable contents. Upon release, the system allows air to enter and replace the forced-out flowable contents and neutralize the pressure in the space between the **container** and the bottle. An inline process of manufacturing and filling the **containers** is provided.

Classifications:

International (IPC 8-9): B05B11/00 B05B11/04 B65B3/02 B65B3/04 B65B47/02 B65B47/04 B65B7/16 B65B7/28 B65D1/22 B65D1/32 B65D25/40 B65D35/10 B65D35/12 B65D35/28 B65D35/38 B65D35/44 B65D35/56 B65D37/00 B65D41/20 B65D41/32 B65D47/10 B65D47/20 B65D47/34 B65D51/22 B65D51/24 B65D77/20 B65D8/04 B65D83/00 B65D88/54 B67B7/00 B67D1/00 B67D7/06 B67D7/60 (Advanced/Invention); B65B47/04 (Advanced/Non-invention)

CPC: B65D25/42 B65D51/222 B65D77/06 B65D77/2028 B65D2251/0028 B65D2251/0093 B65D2577/205 B65D2577/2091 B65D21/086 B65B9/042 B65D1/32 B65D41/32 B67B7/24 B05B11/0054 B65B3/022 B65B3/045 B65B7/164 B65B2220/16 B65D47/2031 B65D51/249 B05B11/047 B65B47/02 B65B7/2842 B65B3/04 B65B47/04 B65D77/2064 B65D83/0055

US: 220/254.1 220/260 220/270 220/666 222/1 222/105 222/184 222/209 222/212 222/321.1 222/386.5 222/490 222/541.9 222/81 222/82 222/95 53/452 53/453 53/471



Family:

Publication number	Publication date	Application number	Application date
CA2879849 AA	20150122	CA20122879849	20120707
US2012312839 AA	20121213	US20120476210	20120521
US2014151396 AA	20140605	US20120233100	20120707
US2014166699 AA	20140619	US20120236146	20120707
US2015165460 AA	20150618	US20150628588	20150223
US8960502 BB	20150224	US20120476210	20120521
US9522404 BB	20161220	US20120236146	20120707
US9522405 BB	20161220	US20150628588	20150223
WO12170187 A2	20121213	WO2012US38773	20120521
WO12170187 A3	20130328	WO2012US38773	20120521
WO13012579 A2	20130124	WO2012US45871	20120707
WO13012579 A3	20130502	WO2012US45871	20120707
WO13019362 A2	20130207	WO2012US45872	20120707
WO13019362 A3	20130502	WO2012US45872	20120707

Priority:

US20110520573P 20110608 US20110572609P 20110718 US20110574392P 20110801
US20120476210 20120521 US20120233100 20120707 US20120236146 20120707
WO2012US45871 20120707 WO2012US45872 20120707 US20150628588 20150223

Probable Assignee: DEMATTEIS ROBERT

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Inventor(s): (std): STEHLI JR CHARLES J ; DEMATTEIS ROBERT B ; PANSIER DONALD J ; PANSIER DONALD ; DEMATTEIS ROBERT ; STEHLI JR CHARLES ; STEHLI CHARLES JR

Agent(s): SMART AND BIGGAR; ADVANTAGE IP LAW FIRM; TRAN BAO

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 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 PE PG PH PL PT QA RO RS RU RW 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 ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2879849 AA	20150122	LSPB	+	published / reissued	
CA2879849 AA	20170714	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20170705
CA2879849 AA	20190715	LSLE	-FZDE	DEAD	EFFECTIVE DATE :

					20190603
US2012312839 AA	20121213	LSPB	+	published / reissued	
US2012312839 AA	20150204	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014151396 AA	20140605	LSPB	+	published / reissued	
US2014151396 AA	20170707	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2014166699 AA	20140619	LSPB	+	published / reissued	
US2014166699 AA	20161130	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015165460 AA	20150618	LSPB	+	published / reissued	
US2015165460 AA	20161130	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8960502 BB	20150224	LSGT	+	granted / extensions (spc, cpc, pte)	
US8960502 BB	20150204	LSGT	PAT1	Patented Case	
US8960502 BB	20180822	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8960502 BB	20320521	PEXP		Calculated Patent Term Expiry	
US9522404 BB	20161220	LSGT	+	granted / extensions (spc, cpc, pte)	
US9522404 BB	20161130	LSGT	PAT1	Patented Case	
US9522404 BB	20320707	PEXP		Calculated Patent Term Expiry	
US9522405 BB	20161220	LSGT	+	granted / extensions (spc, cpc, pte)	
US9522405 BB	20150911	LSES	NFA1	Non Final Action Mailed	
US9522405 BB	20161130	LSGT	PAT1	Patented Case	
US9522405 BB	20350223	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
WO12170187 A2	20121213	LSPB	+	published / reissued	
WO12170187 A3	20131209	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12170187 A3	20140702	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 12796555 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO13012579 A2	20130124	LSPB	+	published / reissued	
WO13012579 A3	20140115	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 14233100 COUNTRY OF REF DOCUMENT : US
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WO13012579 A3	20140813	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 12814845 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO13019362 A2	20130207	LSPB	+	published / reissued	
WO13019362 A3	20140130	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 14236146 COUNTRY OF REF DOCUMENT : US
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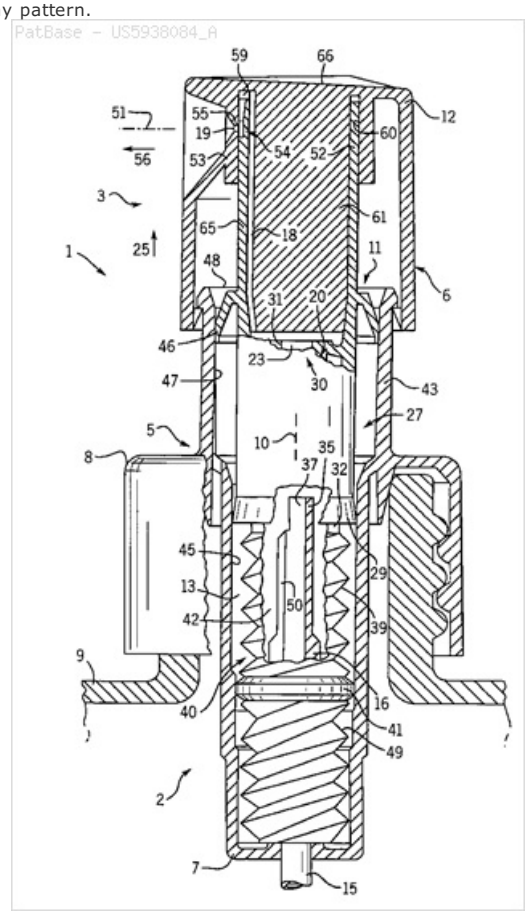
WO13019362 A3	20140827	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 12819768 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO13019362 A3	20150122	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2879849 COUNTRY OF REF DOCUMENT : CA

100) Family number: 30342070 (US5938084A)

Title: **Dispenser** for media

Abstract: A **dispenser** (1) has a medium outlet (19) oriented transversely to the actuating direction, and guiding surfaces (54) defined by a nozzle body (52) that is configured integrally with the plunger (27). The guiding surfaces (54) are provided between adjoining circumferential surface areas of the piston stem (65) and the discharge head (12), so that no separate, external nozzle cap is required to provide the desired atomizing spray pattern.

Classifications:
International (IPC 8-9): B05B1/34 B05B11/00 B05B9/04 B05C17/005 B65D47/34 B65D83/76 (Advanced/Invention); B05B9/04 B05C17/005 B65D47/34 B65D83/76 B67D7/36 (Advanced/Non-invention); B05B1/34 B05B11/00 B05B9/04 B05C17/005 B65D47/34 B65D83/76 (Core/Invention)
International (IPC 1-7): B05B1/34 B05B11/00 B05B11/02 B05B7/00 B05B9/04 B05C17/005 B05C17/01 B65D83/76 B67D5/34
CPC: B05B1/3431 B05B1/3436 B05B11/0005 B05B11/3018 B05B11/3077
European: B05B1/34A3B4 B05B1/34A3B4B B05B11/00B B05B11/00P3P2 B05B11/00R3C B05B11/30C7B B05B11/30H8F
US: 222/321.2 222/321.9 239/333



Family:

Publication number	Publication date	Application number	Application date
AT205117 E	20010915	AT19970101783T	19970205
AU199714797 A1	19970828	AU19970014797	19970219
AU715741 B2	20000210	AU19970014797	19970219
BRPI9701059 A	19981215	BR1997PI01059	19970224
DE19606701 A1	19970828	DE19961006701	19960222
DE59704494 D1	20011011	DE19975004494	19970205
EP0791399 A1	19970827	EP19970101783	19970205
EP0791399 B1	20010905	EP19970101783	19970205
ES2163672 T3	20020201	ES19970101783T	19970205
JP10005642 A2	19980113	JP19970052590	19970221
KR100466063 B1	20050414	KR19970005409	19970222
KR19970061776 A	19970912	KR19970005409	19970222
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US5938084 A	19990817	US19970803046	19970219

Priority:

DE19961006701 19960222 DE19975004494 19970205

Probable Assignee: CAIDEIL MP TEORANTA

Assignee(s): (std): CAIDEIL M P TEORANTA ; CAIDEIL M P TEORANTA TOURMAKEA ; TEORANTA CAIDEIL M P

Assignee(s): TEORANTA CAIDEIL MP ; CAIDEIL M P TEORANTA TOURMAKEADY ; CAIDEIL M P TEORANTA TOURMAKEADY COUNTY MAYO IE ; CAIDEIL MP TEORANTA ; CAIDEIL MP TEORANTA KILLATEEAUN TOURMAKEADYMAYO ; CAIDEIL MP TEORANTA TOURMAKEADY COUNTY MAYO IE

Inventor(s): (std): HANS MERK ; KARLHEINZ HEINZ FUCHS ; FUCHS KARLHEINZ HEINZ ; MERK HANS ; FUCHS KARL HEINZ

Inventor(s): KARL HEINZ FUCHS ; MERK HANS 78343 GAIENHOFEN DE ; FUCHS KARL HEINZ 78315 RADOLFZELL DE

Agent(s): GRIFFITH HACK

Designated states: AT CH DE ES FR GB IE IT LI SE

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details

AT205117 E	20010915	LSGT	+	granted / extensions (spc, cpc, pte)	
AT205117 E	20041115	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT205117 E	20170205	PEXP		Calculated Patent Term Expiry	
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BRPI9701059 A	20110726	LSFE	B24C	PATENT ANNUAL FEE: REQUEST FOR FOR RESTORATION	TEXT : REFERENTE A 13A E 14A ANUIDADES
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					TEORANTA#KILLATEEAUN#TOURMAKEADY, COUNTY MAYO (IE) -TRANSFER TO- CAIDEIL M.P. TEORANTA#KILLATEEAUN#TOURMAKEADY, COUNTY MAYO (IE)
EP0791399 A1	20110531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20110222 YEAR OF FEE PAYMENT : 15
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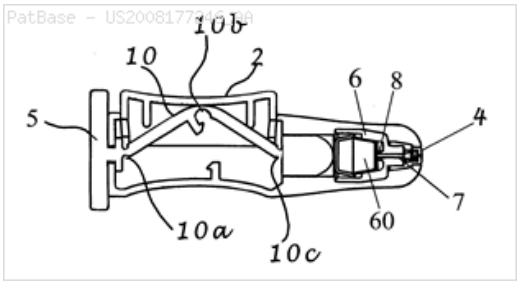
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JP10005642 A2	20061212	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20061212
KR100466063 B1	20050414	LSGT	+	granted / extensions (spc, cpc, pte)	
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KR100466063 B1	20170222	PEXP		Calculated Patent Term Expiry	
KR19970061776 A	19970912	LSPB	+	published / reissued	
KR970061776 A	19970912	LSPB	+	published / reissued	

KR970061776 A	20020222	LSES	A201	REQUEST FOR EXAMINATION	
KR970061776 A	20040629	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR970061776 A	20050103	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR970061776 A	20050104	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
US5938084 A	19990817	LSGT	+	granted / extensions (spc, cpc, pte)	
US5938084 A	19970606	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CAIDEIL M.P. TEORANTA, IRELAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FUCHS, KARL-HEINZ; MERK, HANS; REEL/FRAME:008555/0065 EFFECTIVE DATE : 19970210
US5938084 A	19990809	LSGT	PAT1	Patented Case	
US5938084 A	19990809	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5938084 A	20030205	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5938084 A	20070206	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5938084 A	20110210	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5938084 A	20170219	PEXP		Calculated Patent Term Expiry	

101) Family number: 42004071 (US2008177246A)

Title: INTRANASAL CARTRIDGE DEVICES

Abstract: Intranasal delivery devices include dosage forms **containing** medical compositions for use in the intranasal devices, and methods of delivering medical compositions to the nasal mucosa of users. The devices **dispense** a predetermined quantity of fluid into the nasal passage of a user, in which the predetermined quantity of fluid is **contained** in, or produced in a dosage form or blister that is crushed by a plunger with sufficient force to drive the dosage form against a piercing mechanism, piercing the dosage form and forcing the **liquid** contents from the dosage form and through a delivery channel into a spray to be directed into the nasal passage of a user. The plunger is connected to a trigger device by a linkage that confers a mechanical advantage to the trigger mechanism.



Classifications:

International (IPC 8-9): A61F9/00 A61J3/00 A61M1/00 A61M11/00 A61M11/02 A61M11/06 A61M15/00 A61M15/08 A61M31/00 A61M35/00 A61M37/00 A61M5/24 A61M5/28 A61M5/30 A61M5/42 B05B11/00 B05B11/02 B65D25/08 B65D47/10 B65D75/36 B65D75/60 B65D77/38 B65D81/32 B65D83/00 B65D83/06 B67D5/56 B67D7/74 (Advanced/Invention);
A61F9/00 A61J1/06 A61J1/20 A61M15/00 A61M15/06 A61M5/24 B05B11/00 B05B11/04 B05B11/06 (Advanced/Non-invention);
A61J3/00 A61M11/00 A61M15/00 A61M5/28 A61M5/42 B65D25/04 B65D75/28 B65D75/52 B65D77/22 B65D81/32 B65D83/06 B67D7/74 (Core/Invention)

International (IPC 1-7): B67D5/56

CPC: A61M15/0045 B65D83/0055 A61M15/0025 A61M15/0048 A61M15/0055 A61M15/0056 A61M15/0058 A61M15/006 A61M2205/502 A61M2205/582 A61M2205/6054 A61M2205/8206 A61M2210/0612 A61M15/0073 A61M15/0078 A61M15/008 A61M15/0081 A61M15/0083 A61M5/2425 A61M11/002 A61M11/007 A61M11/06 A61M15/0003 A61M15/004 A61M15/06 A61M15/08 A61M2202/0468 A61M2205/073 A61M2205/273 A61M2205/276 A61M2205/583 A61M2205/584 A61M2205/6081 A61M2206/16 B05B11/0035 B05B11/0081 B05B11/0083 B05B11/02 B05B11/048 B05B11/062 B05B11/3056 B05B11/3057 A61M5/30 B67D7/741 A61F9/0008 A61J1/067 A61J1/2024 A61J1/2027 A61M15/0028 A61M15/003 A61M15/0031 A61M15/0036 A61M15/0051 A61M15/0061 A61M35/003 A61M2202/064

European: A61M11/06 A61M15/00C A61M15/00C2 A61M15/08 A61M35/00B B05B11/00B11C B05B11/02 B65D83/00B K61F9/00B K61J1/06D K61J1/20A4A K61J1/20A4B K61M11/00M2 K61M11/06 K61M15/00A20C K61M15/00A4 K61M15/00C1B K61M15/00C1P1A K61M15/00C1P3 K61M15/00C2B2 K61M15/00C2B6 K61M15/00C2D2 K61M15/00C2D4 K61M15/00C2D6 K61M15/00C2D8 K61M15/00C3 K61M15/00D4E K61M15/06 K61M202/04N K61M202/06B K61M205/07A1 K61M205/27A K61M205/50A K61M205/58C K61M205/58D K61M205/58D2 K61M205/60M K61M205/60P4 K61M205/82B K61M206/16 K61M210/06B K61M5/24E1 L05B11/00B11C2 L05B11/00B4 L05B11/02 L05B11/04F L05B11/06B L05B11/30H3F L05B11/30H3F2

US: 1/1 128/200.14 128/203.14 128/203.15 128/203.150P 128/203.21 128/203.210S 206/219 206/531 206/531S 206/539 206/539S 222/145.5 222/541.2 222/541.200P 604/116 604/116S 604/118 604/131 604/131S 604/200 604/200S 604/201 604/202 604/203 604/204 604/205 604/206 604/218 604/24 604/24P 604/296 604/296S 604/298 604/310 604/310S 604/311 604/311S 604/518 604/520 604/520P 604/58 604/68 604/87 604/87S 604/93.01 604/93.010S

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Publication number	Publication date	Application number	Application date
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CA2675030 AA	20090709	CA20082675030	20080109
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CA2886385 AA	20080717	CA20082886385	20080109
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CA2887187 C	20171024	CA20082887187	20080515
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US9446197 BB	20160920	US20130770861	20130219
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WO08086413 A2	20080717	WO2008US50619	20080109
WO08086413 A3	20080918	WO2008US50619	20080109
WO08144439 A1	20081127	WO2008US63782	20080515

Priority:

US20070853328P	20070109	US20070938379P	20070516	US20070944700P	20070618
US20070978619P	20071009	US20070982643P	20071025	CA20082675030	20080109
US20080971471	20080109	WO2008US50619	20080109	CA20082688689	20080515
JP20100508588	20080515	CN200880021827	20080515	US20080121644	20080515
JP20100508588T	20080515	WO2008US63782	20080515	US20090231587P	20090805
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Assignee(s): MYSTIC PHARMACEUTIALS INC ; MYSTIC PHARMACEUATICALS INC

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Inventor(s): ALLEN BRANDENBURG

Agent(s): MBM INTELLECTUAL PROPERTY LAW LLP; JONES NICHOLAS ANDREW; VINSON AND ELKINS LLP; CORDER TIMOTHY S

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
BRPI0806474 A2	20180522	LSES	B07A	TECHNICAL EXAMINATION (OPINION): PUBLICATION OF TECHNICAL EXAMINATION (OPINION)	
BRPI0806474 A2	20181016	LSRV	B09B	DECISION: REFUSAL	
BRPI0806474 A2	20190102	LSRV	B09B	DECISION: REFUSAL	TEXT : MANTIDO O INDEFERIMENTO UMA VEZ QUE NAO FOI APRESENTADO RECURSO DENTRO DO PRAZO LEGAL
CA2675030 AA	20090709	LSPB	+	published / reissued	
CA2675030 AA	20121218	LSES	+EEER	EXAMINATION REQUEST	
CA2675030 AA	20121231	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20121218
CA2675030 C	20150609	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2675030 C	20280109	PEXP		Calculated Patent Term Expiry	
CA2688689 AA	20091116	LSPB	+	published / reissued	
CA2688689 AA	20130301	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20130221
CA2688689 C	20150630	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2688689 C	20280515	PEXP		Calculated Patent Term Expiry	
CA2886385 AA	20080717	LSPB	+	published / reissued	
CA2886385 AA	20150422	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20150325
CA2886385 AA	20170123	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20161212
CA2887187 AA	20081127	LSPB	+	published / reissued	
CA2887187 AA	20150421	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20150408
CA2887187 AA	20171005	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20150408
CA2887187 C	20171024	LSGT	+	granted /	

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CA2887187 C	20280515	PEXP		Calculated Patent Term Expiry	
CN101715428 A	20100526	LSPB	+	published / reissued	
CN101715428 A	20100526	LSPB	+C06	PUBLICATION	
CN101715428 B	20160824	LSGT	+	granted / extensions (spc, cpc, pte)	
CN101715428 B	20160824	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN101715428 B	20280515	PEXP		Calculated Patent Term Expiry	
CN105776119 A	20160720	LSPB	+	published / reissued	
CN105776119 A	20160720	LSPB	+C06	PUBLICATION	
CN105776119 A	20160720	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
CN105776119 B	20190423	LSGT	+	granted / extensions (spc, cpc, pte)	
CN105776119 B	20190423	LSGT	+GR01	PATENT GRANT	
CN105776119 B	20280515	PEXP		Calculated Patent Term Expiry	
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EP2109475 A2	20091021	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20090807
EP2109475 A4	20150708	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20150610
EP2109475 A4	20161221	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20161116
EP2109475 A4	20190703	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20190606
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EP2109475 B1	20191129	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2109475 B1	20191215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1206007 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20191215
EP2109475 B1	20191219	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602008061716 COUNTRY OF REF DOCUMENT : DE
EP2109475 B1	20191225	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
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EP2164799 A1	20100324	LSPB	+	published / reissued	
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EP2164799 A4	20150218	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20150115
EP2164799 A4	20170308	LSES	+17Q	FIRST	EFFECTIVE DATE : 20170203

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EP2164799 B1	20181228	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2164799 B1	20190110	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602008058474 COUNTRY OF REF DOCUMENT : DE
EP2164799 B1	20190115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1080556 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190115
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EP2164799 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190326
EP2164799 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190326
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EP2164799 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181226
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EP2164799 B1	20280515	PEXP		Calculated Patent Term Expiry	
IN04053CN2009 A	20160708	LSPB	+	published /	

				reissued	
IN07386CN2009 A	20100409	LSPB	+	published / reissued	
IN292908 B	20180216	LSGT	+	granted / extensions (spc, cpc, pte)	
IN292908 B	20290709	PEXP		Calculated Patent Term Expiry	
IN319505 B	20190906	LSGT	+	granted / extensions (spc, cpc, pte)	
IN319505 B	20291216	PEXP		Calculated Patent Term Expiry	
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JP2010515541 T2	20111202	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20111201
JP2010515541 T2	20120521	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20120518
JP2010515541 T2	20121023	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20121022
JP2010529869 T2	20100902	LSPB	+	published / reissued	
JP2010529869 T2	20110503	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20110502
JP2010529869 T2	20120420	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20120419
JP2010529869 T2	20120925	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20120924
JP2010529869 T2	20130125	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130124
JP2010529869 T2	20130725	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2010529869 T2	20130730	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20130729
JP2010529869 T2	20130829	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20130826
JP2010529869 T2	20130830	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2010529869 T2	20131004	LSGT	+R154	CERTIFICATE OF PATENT OR UTILITY MODEL (REISSUE)	TEXT : JAPANESE INTERMEDIATE CODE: R154
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JP2014014696 A2	20150105	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523

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JP2014014696 A2	20150512	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20150511
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JP5352583 B2	20130801	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5352583 B2	20130827	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5352583 B2	20131004	LSGT	R154	特許証 (再発行) (Patent certificate (reissue))	
JP5352583 B2	20160728	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5352583 B2	20160802	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
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JP5352583 B2	20170808	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
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JP5352583 B2	20190813	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
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JP5898655 B2	20160225	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5898655 B2	20160308	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5898655 B2	20160311	LSGT	+R150	特許証 (Patent certificate)	
JP5898655 B2	20190228	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5898655 B2	20190305	LSFE	+R250	RECEIPT OF	TEXT : JAPANESE INTERMEDIATE

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JP5898655 B2	20200225	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20200221
JP5898655 B2	20200226	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5898655 B2	20330826	PEXP		Calculated Patent Term Expiry	
US2008177246 AA	20080724	LSPB	+	published / reissued	
US2008177246 AA	20130130	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008283439 AA	20081120	LSPB	+	published / reissued	
US2008283439 AA	20090306	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MYSTIC PHARMACEUTIALS, INC., TEXAS OLDPARTY : CORRECTIVE ASSIGNMENT TO DELETE CONVEYING PARTY NAME ERRONEOUSLY RECORDED AT REEL 021125, FRAME 0599; ASSIGNORS:SULLIVAN, TIMOTHY R.; NELSON, JEFFREY; REEL/FRAME:022361/0804 EFFECTIVE DATE : 20090120
US2008283439 AA	20090306	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MYSTIC PHARMACEUTIALS, INC.,TEXAS OLDPARTY : CORRECTIVE ASSIGNMENT TO DELETE CONVEYING PARTY NAME ERRONEOUSLY RECORDED AT REEL 021125, FRAME 0599; ASSIGNORS:SULLIVAN, TIMOTHY R.; NELSON, JEFFREY; REEL/FRAME:022361/0804 EFFECTIVE DATE : 20090120
US2008283439 AA	20100210	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010193380 AA	20100805	LSPB	+	published / reissued	
US2010193380 AA	20111012	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010331765 AA	20101230	LSPB	+	published / reissued	
US2010331765 AA	20131023	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2011277763 AA	20111117	LSPB	+	published / reissued	
US2011277763 AA	20170222	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012074176 AA	20120329	LSPB	+	published / reissued	
US2012074176 AA	20140312	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013158474 AA	20130620	LSPB	+	published / reissued	
US2013158474 AA	20150729	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MYSTIC PHARMACEUTICALS, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SULLIVAN, TIMOTHY R; NELSON, JEFFREY; REEL/FRAME:036210/0954 EFFECTIVE DATE : 20080204
US2013158474 AA	20160831	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7669597 BB	20100302	LSGT	+	granted / extensions (spc, cpc, pte)	
US7669597 BB	20080616	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MYSTIC

					PHARMACEUATICALS, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SULLIVAN, TIMOTHY R.; NELSON, JEFFREY; BRANDENBURG, ALLEN; REEL/FRAME:021125/0599 EFFECTIVE DATE : 20080604
US7669597 BB	20080616	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MYSTIC PHARMACEUATICALS, INC.,TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SULLIVAN, TIMOTHY R.; NELSON, JEFFREY; BRANDENBURG, ALLEN; REEL/FRAME:021125/0599 EFFECTIVE DATE : 20080604
US7669597 BB	20100210	LSGT	PAT1	Patented Case	
US7669597 BB	20130807	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7669597 BB	20170817	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7669597 BB	20280515	PEXP		Calculated Patent Term Expiry	
US8047204 BB	20111101	LSGT	+	granted / extensions (spc, cpc, pte)	
US8047204 BB	20100414	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MYSTIC PHARMACEUTICALS, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SULLIVAN, TIMOTHY R.; NELSON, JEFFREY; REEL/FRAME:024235/0172 EFFECTIVE DATE : 20100323
US8047204 BB	20100414	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MYSTIC PHARMACEUTICALS, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SULLIVAN, TIMOTHY R.; NELSON, JEFFREY; REEL/FRAME:024235/0434 EFFECTIVE DATE : 20100323
US8047204 BB	20100517	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MYSTIC PHARMACEUTICALS, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SULLIVAN, TIMOTHY R.; NELSON, JEFFREY; REEL/FRAME:024413/0872 EFFECTIVE DATE : 20100323
US8047204 BB	20111012	LSGT	PAT1	Patented Case	
US8047204 BB	20150415	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8047204 BB	20190501	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8047204 BB	20300214	PEXP		Calculated Patent Term Expiry (PTA 18 days)	
US8377009 BB	20130219	LSGT	+	granted / extensions (spc, cpc, pte)	
US8377009 BB	20080328	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MYSTIC PHARMACEUTICALS, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SULLIVAN, TIMOTHY R.; NELSON, JEFFREY; BRANDENBURG, ALLEN; REEL/FRAME:020731/0069 EFFECTIVE DATE : 20080204
US8377009 BB	20130130	LSGT	PAT1	Patented Case	
US8377009 BB	20160804	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8377009 BB	20280109	PEXP		Calculated Patent Term Expiry	
US8579856 BB	20131112	LSGT	+	granted / extensions (spc,	

				cpc, pte)	
US8579856 BB	20100909	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MYSTIC PHARMACEUTICALS, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SULLIVAN, TIMOTHY R; NELSON, JEFFREY; REEL/FRAME:024963/0228 EFFECTIVE DATE : 20100826
US8579856 BB	20100914	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MYSTIC PHARMACEUTICALS, INC., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SULLIVAN, TIMOTHY R.; NELSON, JEFFREY; REEL/FRAME:024981/0957 EFFECTIVE DATE : 20100826
US8579856 BB	20131023	LSGT	PAT1	Patented Case	
US8579856 BB	20170427	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8579856 BB	20310821	PEXP		Calculated Patent Term Expiry (PTA 381 days)	
US8683995 BB	20140401	LSGT	+	granted / extensions (spc, cpc, pte)	
US8683995 BB	20140312	LSGT	PAT1	Patented Case	
US8683995 BB	20170914	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8683995 BB	20321004	PEXP		Calculated Patent Term Expiry (PTA 385 days)	
US9446197 BB	20160920	LSGT	+	granted / extensions (spc, cpc, pte)	
US9446197 BB	20150812	LSES	NFA1	Non Final Action Mailed	
US9446197 BB	20160831	LSGT	PAT1	Patented Case	
US9446197 BB	20340806	PEXP		Calculated Patent Term Expiry (PTA 533 days)	
US9592354 BB	20170314	LSGT	+	granted / extensions (spc, cpc, pte)	
US9592354 BB	20141107	LSAL	APL5	On Appeal -- Awaiting Decision by the Board of Appeals	
US9592354 BB	20170222	LSGT	PAT1	Patented Case	
US9592354 BB	20330906	PEXP		Calculated Patent Term Expiry (PTA 773 days and a terminal disclaimer has been filed)	
WO08086413 A2	20080717	LSPB	+	published / reissued	
WO08086413 A3	20090708	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2009545659 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO08086413 A3	20090709	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2675030 COUNTRY OF REF DOCUMENT : CA
WO08086413 A3	20090709	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 4053/CHENP/2009 COUNTRY OF REF DOCUMENT : IN
WO08086413 A3	20090710	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO08086413 A3	20090807	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2008727477 COUNTRY OF REF DOCUMENT : EP
WO08086413 A3	20110927	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0806474 COUNTRY OF REF DOCUMENT : BR

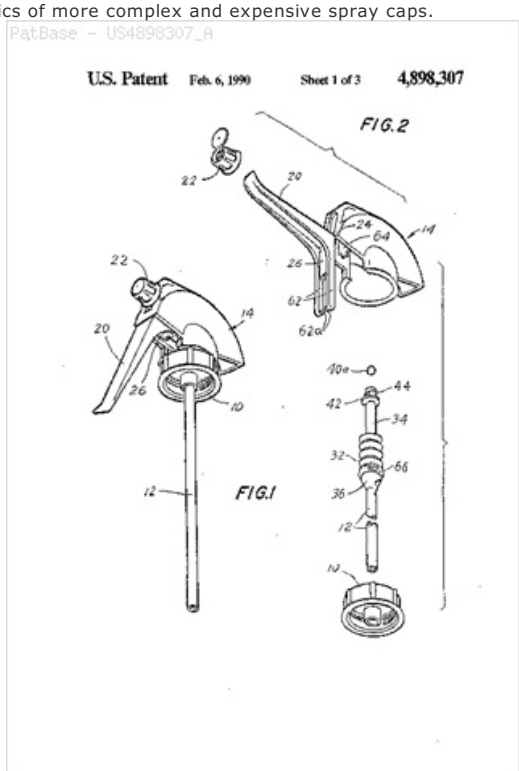
					KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20090709
WO08144439 A1	20081127	LSPB	+	published / reissued	
WO08144439 A1	20080515	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200880021827.3 COUNTRY OF REF DOCUMENT : CN
WO08144439 A1	20091113	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010508588 COUNTRY OF REF DOCUMENT : JP
WO08144439 A1	20091116	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2688689 COUNTRY OF REF DOCUMENT : CA
WO08144439 A1	20091117	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO08144439 A1	20091215	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2008755600 COUNTRY OF REF DOCUMENT : EP
WO08144439 A1	20091216	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 7386/CHENP/2009 COUNTRY OF REF DOCUMENT : IN

102) Family number: 12401071 (US4898307A)

Title: SPRAY CAPS

Abstract: The disclosed spray caps have a trigger-operated bellows (32) acting as a pump chamber, and a nozzle (22) that carries the valve body (50) of a discharge check valve (50,34) in a construction that involves a remarkably small number of parts, nevertheless having all of the important operating characteristics of more complex and expensive spray caps.

Classifications:
International (IPC 8-9): B05B11/00 (Advanced/Invention); B05B11/00 (Core/Invention)
International (IPC 1-7): B05B11/00 B65D37/00 B67D5/40
CPC: B05B15/30 B05B11/0064 B05B11/0032 B05B11/303 B05B11/3035 B05B11/3095 B05B11/0044
European: B05B11/00B2 B05B11/00B9L B05B11/00P5L2 B05B11/00P5Q B05B11/30E5B B05B11/30E8 B05B11/30H8B B05B11/30H8F B05B11/30S B05B15/00E L05B11/00B3F L05B15/00Y20
US: 222/207 222/210 222/211 222/213 222/324 222/340 222/380 222/383 239/333 239/493 239/496



Family:

Publication number	Publication date	Application number	Application date
EP0437008 A1	19910717	EP19900300214	19900109
US4898307 A	19900206	US19880236592	19880825
US5114052 A	19920519	US19910780824	19911023

Priority:

US19880236592 19880825 US19890441067 19891122 EP19900300214 19900109 US19910780824 19911023

Probable Assignee: GOODY PROD INC

Assignee(s): (std): GOODY PROD INC ; GOODY PRODUCTS INC

Assignee(s): GOODY PRODUCTS INC 969 NEWARK TURNPIKE KEARNY NJ 0 ; GOODY PRODUCTS INC 969 NEWARK TURNPIKE KEARNY NJ 07032 A CORP OF NJ ; FIRST NATIONAL BANK OF BOSTON

Inventor(s): (std): TIRAMANI PAOLO M B ; VAN DIJK THOMAS CHARLES ; VAN DYK THOMAS C

Inventor(s): TIRAMANI PAOLO MB

Designated states: DE ES FR GB IT

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
EP0437008 A1	19910717	LSPB	+	published / reissued	
EP0437008 A1	19920311	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19920116
EP0437008 A1	19950201	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 19940802
US4898307 A	19900206	LSGT	+	granted / extensions (spc, cpc, pte)	
US4898307 A	19880825	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GOODY PRODUCTS, INC., 969 NEWARK TURNPIKE, KEARNY, OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:TIRAMANI, PAOLO M. B.; REEL/FRAME:004938/0772 EFFECTIVE DATE : 19880823

US4898307 A	19891130	LSGT	PAT1	Patented Case	
US4898307 A	19910208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FIRST NATIONAL BANK OF BOSTON, THE OLDPARTY : SECURITY INTEREST; ASSIGNORS:GOODY PRODUCTS, INC., A CORP. OF DE; OPTI-RAY, INC., A CORP. OF NY; DURAY, INC., A CORP. OF NY; AND OTHERS; REEL/FRAME:005593/0726 EFFECTIVE DATE : 19910206
US4898307 A	19930809	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4898307 A	19980208	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4898307 A	19980421	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 19980211
US4898307 A	20180129	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4898307 A	20180129	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US4898307 A	20080825	PEXP		Calculated Patent Term Expiry	
US5114052 A	19920519	LSGT	+	granted / extensions (spc, cpc, pte)	
US5114052 A	19920506	LSGT	PAT1	Patented Case	
US5114052 A	19950925	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5114052 A	20000521	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5114052 A	20000801	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20000519
US5114052 A	20180127	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5114052 A	20180127	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5114052 A	20111023	PEXP		Calculated Patent Term Expiry	

103) Family number: 33537071 (IL126325A1)

Title: APPARATUS AND METHODS FOR DISPERSING DRY POWDER MEDICAMENTS

Abstract: 1. An improved apparatus for aerosolizing a powdered medicament, the apparatus being of the type having a housing and a source of pressurized gas for aerosolizing the powder, wherein the improvement comprises: a pressurization cylinder; a piston slidable within the cylinder; a release valve in communication with the cylinder, and a handle assembly having a handle operably attached to the piston and a means for closing the valve, wherein translation of the handle closes the valve and axially translates the piston within the cylinder to produce the pressurized gas; wherein the powdered medicament is held within a closed receptacle, and further comprising means for opening the receptacle to permit the powder to be extracted using the compressed gas.

Classifications:
International (IPC 8-9): A61M15/00 A61M16/00 B05B7/14 B05D7/14 B65D83/06 (Advanced/Invention);
A61M (Subclass/Invention)
International (IPC 1-7): A61M A61M15/00
CPC: A61M15/0036 A61M15/0041 A61M15/0045 A61M15/0051 A61M15/0055 A61M2202/064 A61M2205/0233 A61M2205/073

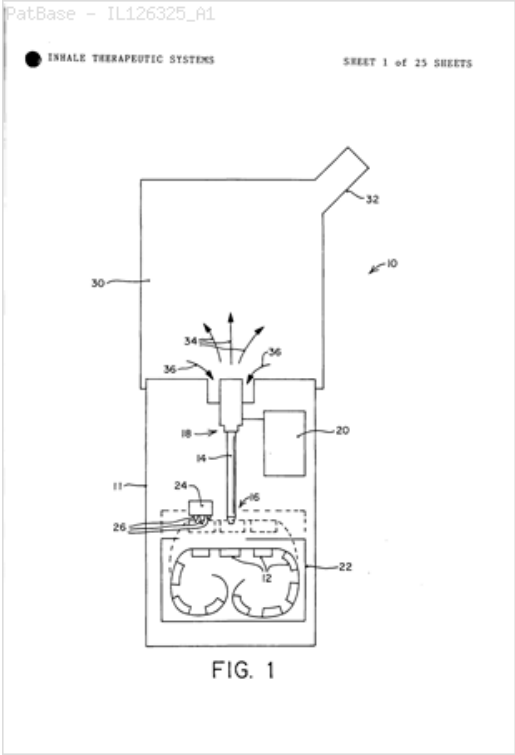


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
IL126325 A0	19990509	IL19980126325	19980924
IL126325 A1	20010430	IL19950126325	19950920

Priority:

US19940309691 19940921 US19950487184 19950607 IL19950115369 19950920 IL19980115369 19980924

Probable Assignee: INHALE THERAPEUTIC SYST

Assignee(s): (std): INHALE THERAPEUTIC SYST

Assignee(s): INHALE THERAPEUTIC SYSTEMS ; NEKTAR THERAPEUTICS

Agent(s): WOLFF BREGMAN AND GOLLER

Legal status (INPADOC)

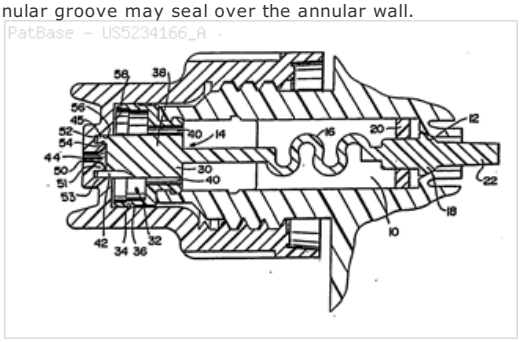
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Patent	Date recorded	Event group	Code	Event	Details
IL126325 A1	20010430	LSPB	+	published / reissued	
IL126325 A1	20011031	LSGT	+FF	PATENT GRANTED	
IL126325 A1	20020210	LSFE	+KB	PATENT RENEWED	
IL126325 A1	20101130	LSLE	-MM9K	PATENT NOT IN FORCE DUE TO NON-PAYMENT OF RENEWAL FEES	

104) Family number: 24045073 (US5234166A)

Title: SPINNER ASSEMBLY FOR A SPRAYER

Abstract: A cap, spinner, and discharge nozzle assembly for use with a **liquid** **dispensing** apparatus such as a trigger sprayer. The spinner assembly can be externally fitted to the discharge nozzle, and includes an annular chamber surrounding a central post having a swirl chamber in its top. The central post includes longitudinal grooves, communicating with tangential grooves in an annular wall defining the swirl chamber. Apertures are provided in the base of the annular chamber such that pressurized **liquid** flows through the apertures and into the annular chamber, with a resulting reduction of velocity, and then along the longitudinal grooves and through the tangential grooves into the swirl chamber. A cap is provided which variably engages the discharge nozzle and which has at least a central projection on the inner side of its front face, and preferably an annular groove formed by an outer projection surrounding the central projection. The central projection may reversibly seal against the floor and/or annular wall of the swirl chamber, and the annular groove may seal over the annular wall.



Classifications:
International (IPC 8-9): B05B1/12 B05B1/34 B05B11/00 B05B11/02 (Advanced/Invention);
B05B1/34 B05B11/00 (Core/Invention);
B05B1/34 (Core/Non-invention)
International (IPC 1-7): B05B1/00 B05B1/12 B05B1/34 B05B11/00 B05B11/02 B05B9/01 B05B9/043 B05B9/43 B65D37/00 B65D47/34 B67D5/00 B67D5/40 B67D5/42 F16K15/14
CPC: B05B11/0005 B05B11/0032 B05B11/0037 B05B11/0038 B05B11/0044 B05B11/0062 B05B11/007 B05B11/3011 B05B11/303 B05B11/3033 B05B11/3035 B05B11/3057 B05B11/3069 B05B11/3074 B05B11/3077 B05B15/30 B05B11/3052 Y10T137/789 B05B1/3452 B05B11/0029 B05B1/3431 B05B1/3436 B05B11/0064
European: B05B1/34A3B4 B05B11/00B B05B11/00B2 B05B11/00B5 B05B11/00B9L B05B11/00B9R B05B11/00P1 B05B11/00P9R B05B11/30C5B B05B11/30E5B B05B11/30E7 B05B11/30E8 B05B11/30H3 B05B11/30H3F2 B05B11/30H7B B05B11/30H8B B05B11/30H8F L05B1/34A1 L05B1/34A3B4B L05B11/00B3F L05B11/00B9 L05B11/00P1 L05B11/30H3F2 L05B11/30H7B
US: 137/854 22/234. 222/207 222/324 222/340 222/341 222/383 222/383.1 23/933.3 239/333 239/481 239/485 239/493 239/571

Family:

Publication number	Publication date	Application number	Application date
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AU199349091 A1	19940505	AU19930049091	19931019
AU199526406 A1	19951218	AU19950026406	19950515
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AU671303 B2	19960822	AU19930049091	19931019
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CA2108647 AA	19940422	CA19932108647	19931018
CA2188762 AA	19961024	CA19952188762	19950515
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DE69327735 D1	20000302	DE19936027735	19931020
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EP0734783 A2	19961002	EP19960201764	19931020
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EP0734783 B1	20000126	EP19960201764	19931020
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JP6502345 T2	19940317	JP19910518597T	19911016
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US5507437 A	19960416	US19950371819	19950112
US5509608 A	19960423	US19950372061	19950112
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US5593093 A	19970114	US19950372097	19950112
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US5884845 A	19990323	US19970829605	19970331
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WO9532147 A2	19951130	WO1995US06279	19950515
WO9532147 A3	19970306	WO1995US06279	19950515

Priority:

US19900603281 19901025
CA19932108647 19931018
US19950371815 19950112
US19950371830 19950112
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US19950459036 19950602
US19970829605 19970331
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US19920964158 19921021
US19940242326 19940513
US19950372061 19950112
US19950371961 19950112
US19950456511 19950601
US19960614901 19960313

Probable Assignee: CONTINENTAL SPRAYERS INT INC

Assignee(s): (std): CONTICO ; CONTICO INT INC ; CONTICO INTERNATIOAL INC ; CONTINENTAL SPRAYERS INTERNATI ; CONTINENTAL SPRAYERS INT INC

Assignee(s): WACHOVIA CAPITAL FINANCE CENTRAL CORP ; NELSON PHILIP L ; FOSTER DONALD D ; WACHOVIA CAPITAL FINANCE (CENTRAL) CORP ; AFA PRODUCTS INC ; AFA PRODUCTS INC DELAWARE CORP ; CIT GROUP BUSINESS CREDIT INC ; CIT GROUP BUSINESS CREDIT INC COLLATERAL AGENT AS ; NATIONSCREDIT COMMERICAL CORP ; CONTINENTAL SPRAYERS INT ; OAK HILL SECURITIES FUND LP ; FIRST UNION NATIONAL BANK ; CONTINENTALAFA DISPENSING CO ; KONTEIKO INTERNATL INC ; HARBINGER CAPITAL PARTNERS MASTER FUND I LTD ; WACHOVIA CAPITAL FINANCE CORP ; CONTINENTAL SPRAYERS INT INC A DELAWARE CORP ; CONTINENTAL SPRAYERS INC ; CONTINENTAL SPAYERS INC ; CONTICO INT ; CONTINENTAL ACQUISITION CORP ; CONTICO INT INC ST LOUIS MO US ; CONTICO INTERNATIONAOL INC ; CONTINENTAL SPAYERS INC A CORP OF MO ; CONTINENTAL AFA DISPENSING CO

Inventor(s): (std): FOSTER DONALD D ; NELSON PHILIP L ; DONALD D FOSTER ; PHILIP L NELSON ; DONARUDO DEI FUOSUTAA ; FUIRITSUPU ERU NERUSON ; NELSON PHILIP ; FOSTER DONALD

Inventor(s): FOSTER DONALD D ST CHARLES MISSOURI 63303 US ; NELSON PHILIP L ELLISVILLE MISSOURI 63011 US ; FOSTER DONALD D ST CHARLES MO 63303 US ; NELSON PHILIP L ST CHARLES MO 63301 US

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; OSLER HOSKIN AND HARCOURT LLP

Designated states: AT AU BE CA CH DE DK ES FR GB GR IE IT JP LU MC NL PT SE

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU199189480 A1	19920526	LSPB	+	published / reissued	
AU199349091 A1	19940505	LSPB	+	published / reissued	
AU199526406 A1	19951218	LSPB	+	published / reissued	
AU648226 B2	19940414	LSGT	+	granted / extensions (spc, cpc, pte)	
AU648226 B2	20010517	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU648226 B2	20111016	PEXP		Calculated Patent Term Expiry	
AU671303 B2	19960822	LSGT	+	granted / extensions (spc, cpc, pte)	
AU671303 B2	20010517	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU671303 B2	20131019	PEXP		Calculated Patent Term Expiry	
CA2094712 AA	19930422	LSPB	+	published / reissued	
CA2094712 AA	19930914	LSES	+EEER	EXAMINATION REQUEST	
CA2094712 C	19981222	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2094712 C	20111016	LSLE	-MKEX	EXPIRY	
CA2094712 C	20111016	PEXP		Calculated Patent Term Expiry	
CA2108647 AA	19940422	LSPB	+	published / reissued	
CA2108647 AA	20001018	LSLE	-FZDE	DEAD	

CA2188762 AA	19961024	LSPB	+	published / reissued	
CA2188762 AA	20010515	LSLE	-FZDE	DEAD	
DE69128722 D1	19990218	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69128722 D1	20011108	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69128722 T2	19980806	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69128722 T2	20111016	PEXP		Calculated Patent Term Expiry	
DE69318256 D1	19990429	LSOP	-8363	OPPOSITION AGAINST THE PATENT	
DE69318256 D1	20011108	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69318256 T2	19981126	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69318256 T2	20131020	PEXP		Calculated Patent Term Expiry	
DE69327735 D1	20010215	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69327735 D1	20011108	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69327735 T2	20000608	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69327735 T2	20131020	PEXP		Calculated Patent Term Expiry	
EP0554373 A1	19930811	LSPB	+	published / reissued	
EP0554373 A1	19930811	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19930423
EP0554373 A4	19940202	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 19931214
EP0554373 A4	19951011	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19950829
EP0554373 B1	19980114	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0554373 B1	19990107	LSGT	+26N	NO OPPOSITION FILED	
EP0554373 B1	19991020	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 19991020 YEAR OF FEE PAYMENT : 9
EP0554373 B1	19991022	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 19991022 YEAR OF FEE PAYMENT : 9
EP0554373 B1	19991026	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 19991026 YEAR OF FEE PAYMENT : 9
EP0554373 B1	20001016	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20001016
EP0554373 B1	20010606	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20001016

EP0554373 B1	20010629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20010629
EP0554373 B1	20010703	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20010703
EP0554373 B1	20010803	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP0554373 B1	20051016	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20051016
EP0554373 B1	20111016	PEXP		Calculated Patent Term Expiry	
EP0598237 A2	19940525	LSPB	+	published / reissued	
EP0598237 A3	19950315	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19950113
EP0598237 A3	19960327	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19960209
EP0598237 B1	19980429	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0598237 B1	19990324	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : CALMAR INC. EFFECTIVE DATE : 19990129
EP0598237 B1	19991020	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 19991020 YEAR OF FEE PAYMENT : 7
EP0598237 B1	19991022	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 19991022 YEAR OF FEE PAYMENT : 7
EP0598237 B1	19991026	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 19991026 YEAR OF FEE PAYMENT : 7
EP0598237 B1	20001020	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20001020
EP0598237 B1	20010613	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20001020
EP0598237 B1	20010803	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP0598237 B1	20011107	LSRV	-27W	PATENT REVOKED	EFFECTIVE DATE : 20010609
EP0598237 B1	20131020	PEXP		Calculated Patent Term Expiry	
EP0734783 A2	19961002	LSPB	+	published / reissued	
EP0734783 A3	19970528	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19970326
EP0734783 A3	19990728	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19990611

EP0734783 A3	19991117	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC.
EP0734783 B1	20000126	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0734783 B1	20000126	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20000126
EP0734783 B1	20000126	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20000126
EP0734783 B1	20001020	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20001020
EP0734783 B1	20010110	LSGT	+26N	NO OPPOSITION FILED	
EP0734783 B1	20010613	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20001020
EP0734783 B1	20010703	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20010703
EP0734783 B1	20131020	PEXP		Calculated Patent Term Expiry	
EP0742050 A2	19961113	LSPB	+	published / reissued	
EP0742050 A3	19971015	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19970818
EP0742050 A3	19991222	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19991105
EP0742050 A3	20010124	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20000516
EP0764471 A2	19970326	LSPB	+	published / reissued	
EP0764471 A3	19971015	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19970818
EP0764471 A3	19991229	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19991115
EP0764471 A3	20000920	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20000328
EP0777533 A2	19970611	LSPB	+	published / reissued	
EP0777533 A2	19970611	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19961209
EP0777533 A2	19980318	LSRE	RHK1	MAIN CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B67D 5/00
EP0777533 A4	19980506	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 19980316
EP0777533 A4	20000105	LSES	+17Q	FIRST EXAMINATION	EFFECTIVE DATE : 19991123

				REPORT DESPATCHED	
EP0777533 A4	20000927	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20000404
EP0820815 A2	19980128	LSPB	+	published / reissued	
EP0820815 A3	19980916	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19980722
EP0820815 A3	19991222	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19991105
EP0820815 A3	20000809	LSWD	-18W	APPLICATION WITHDRAWN	DATE APPLICATION WITHDRAWN : 20000522
EP0820816 A2	19980128	LSPB	+	published / reissued	
EP0820816 A3	19990707	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 19981009
JP2696147 B2	19980114	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2696147 B2	20111016	PEXP		Calculated Patent Term Expiry	
JP6238204 A2	19940830	LSPB	+	published / reissued	
JP6238204 A2	20001226	LSWD	-A300	WITHDRAWAL OF APPLICATION BECAUSE OF NO REQUEST FOR EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A300 EFFECTIVE DATE : 20001226
JP6502345 T2	19940317	LSPB	+	published / reissued	
US5234166 A	19930810	LSGT	+	granted / extensions (spc, cpc, pte)	
US5234166 A	19901226	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPAYERS, INC., 27 GUENTHER BLVD., ST. OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNORS:FOSTER, DONALD D.; NELSON, PHILIP L.; REEL/FRAME:005554/0543 EFFECTIVE DATE : 19901129
US5234166 A	19910724	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTICO INTERNATIONAL, INC., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNORS:FOSTER, DONALD D.; NELSON, PHILIP L.; REEL/FRAME:005782/0148 EFFECTIVE DATE : 19910605
US5234166 A	19930728	LSGT	PAT1	Patented Case	
US5234166 A	19930728	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5234166 A	19960930	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5234166 A	19980205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONSCREDIT COMMERICAL CORPORATION, CONNECTICUT OLDPARTY : SECURITY INTEREST; ASSIGNORS:APC HOLDINGS, INC., A DELAWARE CORPORATION; AFA HOLDINGS CO., A DELAWARE CORPORATION; AFA PRODUCTS, INC., A DELAWARE CORPORATION; AND OTHERS; REEL/FRAME:008967/0777 EFFECTIVE DATE : 19980204
US5234166 A	19980309	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORPORATION, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009064/0750 EFFECTIVE DATE : 19980204

US5234166 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : CHANGE OF NAME; ASSIGNOR:CONTINENTAL ACQUISITION CORP.; REEL/FRAME:009507/0851 EFFECTIVE DATE : 19980202
US5234166 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009748/0106 EFFECTIVE DATE : 19980204
US5234166 A	19981117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY; ASSIGNOR:NATIONSCREDIT COMMERCIAL CORPORATION; REEL/FRAME:009580/0870 EFFECTIVE DATE : 19980929
US5234166 A	19991018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:010288/0051 EFFECTIVE DATE : 19990716
US5234166 A	20000918	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FIRST UNION NATIONAL BANK, NORTH CAROLINA OLDPARTY : NOTICE OF GRANT OF SECURITY INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:011064/0220 EFFECTIVE DATE : 19980929
US5234166 A	20001208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP BUSINESS CREDIT INC., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPARYERS INTERNATIONAL, INC.; REEL/FRAME:011369/0771 EFFECTIVE DATE : 20001016
US5234166 A	20020312	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., NEW YORK OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS; ASSIGNOR:FIRST UNION NATIONAL BANK; REEL/FRAME:012631/0135 EFFECTIVE DATE : 20001016
US5234166 A	20020322	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CIT GROUP/BUSINESS CREDIT INC., THE, NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL INC.; REEL/FRAME:012683/0142 EFFECTIVE DATE : 20020315
US5234166 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OAK HILL SECURITIES FUND, L.P., NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5234166 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY :

					TERMINATION,RELEASE AND REASSIGNMENT OF SECURITY INTEREST IN PATENTS; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:014186/0747 EFFECTIVE DATE : 20031112
US5234166 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OAK HILL SECURITIES FUND, L.P.,NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5234166 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5234166 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION, NORTH CA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5234166 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., A DELAWA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5234166 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY,MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5234166 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION,NORTH CAR OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5234166 A	20051102	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016712/0968 EFFECTIVE DATE : 20050715
US5234166 A	20051103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016722/0330 EFFECTIVE DATE : 20050715
US5234166 A	20051222	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST;

					ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016926/0798 EFFECTIVE DATE : 20051115
US5234166 A	20070530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AS RECORDED ON 11/2/2005 AT REEL 016712, FRAME 0968 AND ON 11/3/2005 REEL 016722, FRAME 0330; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:019355/0425 EFFECTIVE DATE : 20070517
US5234166 A	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL), IL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5234166 A	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL),ILL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5234166 A	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD., NE OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5234166 A	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.,NEW OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5234166 A	20170126	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL); REEL/FRAME:041511/0463 EFFECTIVE DATE : 20081016
US5234166 A	20170127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.; REEL/FRAME:041518/0304 EFFECTIVE DATE : 20081015
US5234166 A	20101025	PEXP		Calculated Patent Term Expiry	
US5385302 A	19950131	LSGT	+	granted / extensions (spc, cpc, pte)	
US5385302 A	19921109	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTICO INTERNATIONAL, INC., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNORS:FOSTER, DONALD D.; NELSON, PHILIP L.; REEL/FRAME:006299/0245 EFFECTIVE DATE : 19921027

US5385302 A	19950120	LSGT	PAT1	Patented Case	
US5385302 A	19980205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONSCREDIT COMMERICAL CORPORATION, CONNECTICUT OLDPARTY : SECURITY INTEREST; ASSIGNORS:APC HOLDINGS, INC., A DELAWARE CORPORATION; AFA HOLDINGS CO., A DELAWARE CORPORATION; AFA PRODUCTS, INC., A DELAWARE CORPORATION; AND OTHERS; REEL/FRAME:008967/0777 EFFECTIVE DATE : 19980204
US5385302 A	19980217	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5385302 A	19980309	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORPORATION, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009064/0750 EFFECTIVE DATE : 19980204
US5385302 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : CHANGE OF NAME; ASSIGNOR:CONTINENTAL ACQUISITION CORP.; REEL/FRAME:009507/0851 EFFECTIVE DATE : 19980202
US5385302 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009748/0106 EFFECTIVE DATE : 19980204
US5385302 A	19981117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY; ASSIGNOR:NATIONSCREDIT COMMERCIAL CORPORATION; REEL/FRAME:009580/0870 EFFECTIVE DATE : 19980929
US5385302 A	19991018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:010288/0051 EFFECTIVE DATE : 19990716
US5385302 A	20000918	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FIRST UNION NATIONAL BANK, NORTH CAROLINA OLDPARTY : NOTICE OF GRANT OF SECURITY INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:011064/0220 EFFECTIVE DATE : 19980929
US5385302 A	20001208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP BUSINESS CREDIT INC., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPARYERS INTERNATIONAL, INC.; REEL/FRAME:011369/0771 EFFECTIVE DATE : 20001016
US5385302 A	20020312	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., NEW YORK OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS; ASSIGNOR:FIRST UNION NATIONAL BANK; REEL/FRAME:012631/0135 EFFECTIVE DATE : 20001016

US5385302 A	20020322	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CIT GROUP/BUSINESS CREDIT INC., THE, NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL INC.; REEL/FRAME:012683/0142 EFFECTIVE DATE : 20020315
US5385302 A	20030131	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5385302 A	20030401	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20030131
US5385302 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : TERMINATION,RELEASE AND REASSIGNMENT OF SECURITY INTEREST IN PATENTS; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:014186/0747 EFFECTIVE DATE : 20031112
US5385302 A	20180126	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5385302 A	20180126	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5385302 A	20121021	PEXP		Calculated Patent Term Expiry	
US5425482 A	19950620	LSGT	+	granted / extensions (spc, cpc, pte)	
US5425482 A	19940513	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTICO INTERNATIONAL, INC., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FOSTER, DONALD D.; NELSON, PHILIP L.; REEL/FRAME:007003/0242 EFFECTIVE DATE : 19940426
US5425482 A	19980205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONSCREDIT COMMERICAL CORPORATION, CONNECTICUT OLDPARTY : SECURITY INTEREST; ASSIGNORS:APC HOLDINGS, INC., A DELAWARE CORPORATION; AFA HOLDINGS CO., A DELAWARE CORPORATION; AFA PRODUCTS, INC., A DELAWARE CORPORATION; AND OTHERS; REEL/FRAME:008967/0777 EFFECTIVE DATE : 19980204
US5425482 A	19980309	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORPORATION, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009064/0750 EFFECTIVE DATE : 19980204
US5425482 A	19980715	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5425482 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : CHANGE OF NAME; ASSIGNOR:CONTINENTAL ACQUISITION CORP.; REEL/FRAME:009507/0851 EFFECTIVE DATE : 19980202
US5425482 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.;

					REEL/FRAME:009748/0106 EFFECTIVE DATE : 19980204
US5425482 A	19981117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY; ASSIGNOR:NATIONSCREDIT COMMERCIAL CORPORATION; REEL/FRAME:009580/0870 EFFECTIVE DATE : 19980929
US5425482 A	19991018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:010288/0051 EFFECTIVE DATE : 19990716
US5425482 A	20000918	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FIRST UNION NATIONAL BANK, NORTH CAROLINA OLDPARTY : NOTICE OF GRANT OF SECURITY INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:011064/0220 EFFECTIVE DATE : 19980929
US5425482 A	20001208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP BUSINESS CREDIT INC., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPARYERS INTERNATIONAL, INC.; REEL/FRAME:011369/0771 EFFECTIVE DATE : 20001016
US5425482 A	20020312	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., NEW YORK OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS; ASSIGNOR:FIRST UNION NATIONAL BANK; REEL/FRAME:012631/0135 EFFECTIVE DATE : 20001016
US5425482 A	20020322	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CIT GROUP/BUSINESS CREDIT INC., THE, NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL INC.; REEL/FRAME:012683/0142 EFFECTIVE DATE : 20020315
US5425482 A	20030620	LSRE	+REIN	REINSTATEMENT AFTER MAINTENANCE FEE PAYMENT CONFIRMED	
US5425482 A	20030819	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20030620
US5425482 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OAK HILL SECURITIES FUND, L.P., NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5425482 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : TERMINATION,RELEASE AND REASSIGNMENT OF SECURITY INTEREST IN PATENTS; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:014186/0747 EFFECTIVE DATE : 20031112
US5425482 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

					OWNER : OAK HILL SECURITIES FUND, L.P.,NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5425482 A	20031208	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5425482 A	20031215	LSRE	+PRDP	PATENT REINSTATED DUE TO THE ACCEPTANCE OF A LATE MAINTENANCE FEE	EFFECTIVE DATE : 20031218
US5425482 A	20031218	LSGT	PAT1	Patented Case	
US5425482 A	20031218	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5425482 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5425482 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION, NORTH CA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5425482 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., A DELAWA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5425482 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY,MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5425482 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION,NORTH CAR OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5425482 A	20051102	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016712/0968 EFFECTIVE DATE : 20050715
US5425482 A	20051103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016722/0330 EFFECTIVE DATE : 20050715

US5425482 A	20051222	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016926/0798 EFFECTIVE DATE : 20051115
US5425482 A	20061225	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5425482 A	20070530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AS RECORDED ON 11/2/2005 AT REEL 016712, FRAME 0968 AND ON 11/3/2005 REEL 016722, FRAME 0330; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:019355/0425 EFFECTIVE DATE : 20070517
US5425482 A	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL), IL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5425482 A	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL),ILL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5425482 A	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD., NE OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5425482 A	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.,NEW OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5425482 A	20170126	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL); REEL/FRAME:041511/0463 EFFECTIVE DATE : 20081016
US5425482 A	20170127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.; REEL/FRAME:041518/0304 EFFECTIVE DATE : 20081015
US5425482 A	20140513	PEXP		Calculated Patent Term Expiry	
US5507437 A	19960416	LSGT	+	granted / extensions (spc, cpc, pte)	
US5507437 A	19960405	LSGT	PAT1	Patented Case	

US5507437 A	19960405	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5507437 A	19980205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONSCREDIT COMMERICAL CORPORATION, CONNECTICUT OLDPARTY : SECURITY INTEREST; ASSIGNORS:APC HOLDINGS, INC., A DELAWARE CORPORATION; AFA HOLDINGS CO., A DELAWARE CORPORATION; AFA PRODUCTS, INC., A DELAWARE CORPORATION; AND OTHERS; REEL/FRAME:008967/0777 EFFECTIVE DATE : 19980204
US5507437 A	19980309	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORPORATION, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009064/0750 EFFECTIVE DATE : 19980204
US5507437 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : CHANGE OF NAME; ASSIGNOR:CONTINENTAL ACQUISITION CORP.; REEL/FRAME:009507/0851 EFFECTIVE DATE : 19980202
US5507437 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009748/0106 EFFECTIVE DATE : 19980204
US5507437 A	19981117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY; ASSIGNOR:NATIONSCREDIT COMMERCIAL CORPORATION; REEL/FRAME:009580/0870 EFFECTIVE DATE : 19980929
US5507437 A	19990517	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5507437 A	19991018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:010288/0051 EFFECTIVE DATE : 19990716
US5507437 A	20000918	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FIRST UNION NATIONAL BANK, NORTH CAROLINA OLDPARTY : NOTICE OF GRANT OF SECURITY INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:011064/0220 EFFECTIVE DATE : 19980929
US5507437 A	20001208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP BUSINESS CREDIT INC., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPARYERS INTERNATIONAL, INC.; REEL/FRAME:011369/0771 EFFECTIVE DATE : 20001016
US5507437 A	20020312	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., NEW YORK OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS; ASSIGNOR:FIRST UNION NATIONAL BANK; REEL/FRAME:012631/0135

					EFFECTIVE DATE : 20001016
US5507437 A	20020322	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CIT GROUP/BUSINESS CREDIT INC., THE, NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL INC.; REEL/FRAME:012683/0142 EFFECTIVE DATE : 20020315
US5507437 A	20031008	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5507437 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OAK HILL SECURITIES FUND, L.P., NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5507437 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : TERMINATION,RELEASE AND REASSIGNMENT OF SECURITY INTEREST IN PATENTS; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:014186/0747 EFFECTIVE DATE : 20031112
US5507437 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OAK HILL SECURITIES FUND, L.P.,NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5507437 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5507437 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION, NORTH CA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5507437 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., A DELAWA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5507437 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY,MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5507437 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION,NORTH CAR OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE

					OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5507437 A	20051102	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016712/0968 EFFECTIVE DATE : 20050715
US5507437 A	20051103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016722/0330 EFFECTIVE DATE : 20050715
US5507437 A	20051117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTICO INTERNATIONAL, INC., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FOSTER, DONALD D.; NELSON, PHILIP L.; REEL/FRAME:016793/0245 EFFECTIVE DATE : 19921027
US5507437 A	20051222	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016926/0798 EFFECTIVE DATE : 20051115
US5507437 A	20070530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AS RECORDED ON 11/2/2005 AT REEL 016712, FRAME 0968 AND ON 11/3/2005 REEL 016722, FRAME 0330; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:019355/0425 EFFECTIVE DATE : 20070517
US5507437 A	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL), IL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5507437 A	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL),ILL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5507437 A	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD., NE OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5507437 A	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.,NEW OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY

					AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5507437 A	20070926	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5507437 A	20170126	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL); REEL/FRAME:041511/0463 EFFECTIVE DATE : 20081016
US5507437 A	20170127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.; REEL/FRAME:041518/0304 EFFECTIVE DATE : 20081015
US5507437 A	20150112	PEXP		Calculated Patent Term Expiry	
US5509608 A	19960423	LSGT	+	granted / extensions (spc, cpc, pte)	
US5509608 A	19960220	LSGT	PAT1	Patented Case	
US5509608 A	19960220	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5509608 A	19980205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONSCREDIT COMMERICAL CORPORATION, CONNECTICUT OLDPARTY : SECURITY INTEREST; ASSIGNORS:APC HOLDINGS, INC., A DELAWARE CORPORATION; AFA HOLDINGS CO., A DELAWARE CORPORATION; AFA PRODUCTS, INC., A DELAWARE CORPORATION; AND OTHERS; REEL/FRAME:008967/0777 EFFECTIVE DATE : 19980204
US5509608 A	19980309	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORPORATION, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009064/0750 EFFECTIVE DATE : 19980204
US5509608 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : CHANGE OF NAME; ASSIGNOR:CONTINENTAL ACQUISITION CORP.; REEL/FRAME:009507/0851 EFFECTIVE DATE : 19980202
US5509608 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009748/0106 EFFECTIVE DATE : 19980204
US5509608 A	19981117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY; ASSIGNOR:NATIONSCREDIT COMMERCIAL CORPORATION; REEL/FRAME:009580/0870 EFFECTIVE DATE : 19980929
US5509608 A	19990511	LSRX	+RR	REQUEST FOR REEXAMINATION FILED	EFFECTIVE DATE : 19990309
US5509608 A	19990524	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

US5509608 A	19991018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:010288/0051 EFFECTIVE DATE : 19990716
US5509608 A	20000918	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FIRST UNION NATIONAL BANK, NORTH CAROLINA OLDPARTY : NOTICE OF GRANT OF SECURITY INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:011064/0220 EFFECTIVE DATE : 19980929
US5509608 A	20150112	PEXP		Calculated Patent Term Expiry	
US5509608 B1	20001208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP BUSINESS CREDIT INC., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPARYERS INTERNATIONAL, INC.; REEL/FRAME:011369/0771 EFFECTIVE DATE : 20001016
US5509608 B1	20020312	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., NEW YORK OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS; ASSIGNOR:FIRST UNION NATIONAL BANK; REEL/FRAME:012631/0135 EFFECTIVE DATE : 20001016
US5509608 B1	20020322	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CIT GROUP/BUSINESS CREDIT INC., THE, NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL INC.; REEL/FRAME:012683/0142 EFFECTIVE DATE : 20020315
US5509608 B1	20031008	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5509608 B1	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OAK HILL SECURITIES FUND, L.P., NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5509608 B1	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : TERMINATION,RELEASE AND REASSIGNMENT OF SECURITY INTEREST IN PATENTS; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:014186/0747 EFFECTIVE DATE : 20031112
US5509608 B1	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OAK HILL SECURITIES FUND, L.P.,NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5509608 B1	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : TERMINATION OF

					SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5509608 B1	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION, NORTH CA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5509608 B1	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., A DELAWA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5509608 B1	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY,MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5509608 B1	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION,NORTH CAR OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5509608 B1	20051102	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016712/0968 EFFECTIVE DATE : 20050715
US5509608 B1	20051103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016722/0330 EFFECTIVE DATE : 20050715
US5509608 B1	20051117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTICO INTERNATIONAL, INC., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FOSTER, DONALD D.; NELSON, PHILIP L.; REEL/FRAME:016793/0245 EFFECTIVE DATE : 19921027
US5509608 B1	20051222	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016926/0798 EFFECTIVE DATE : 20051115
US5509608 B1	20070530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AS RECORDED ON 11/2/2005 AT REEL 016712, FRAME 0968 AND ON 11/3/2005 REEL 016722, FRAME 0330; ASSIGNOR:THE CIT

					GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:019355/0425 EFFECTIVE DATE : 20070517
US5509608 B1	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL), IL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5509608 B1	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL),ILL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5509608 B1	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD., NE OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5509608 B1	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.,NEW OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5509608 B1	20070926	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5509608 B1	20170126	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL); REEL/FRAME:041511/0463 EFFECTIVE DATE : 20081016
US5509608 B1	20170127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.; REEL/FRAME:041518/0304 EFFECTIVE DATE : 20081015
US5513800 A	19960507	LSGT	+	granted / extensions (spc, cpc, pte)	
US5513800 A	19960304	LSGT	PAT1	Patented Case	
US5513800 A	19960304	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5513800 A	19980205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONSCREDIT COMMERICAL CORPORATION, CONNECTICUT OLDPARTY : SECURITY INTEREST; ASSIGNORS:APC HOLDINGS, INC., A DELAWARE CORPORATION; AFA HOLDINGS CO., A DELAWARE CORPORATION; AFA PRODUCTS, INC., A DELAWARE CORPORATION; AND OTHERS; REEL/FRAME:008967/0777 EFFECTIVE DATE : 19980204
US5513800 A	19980309	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORPORATION, MISSOURI

					OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009064/0750 EFFECTIVE DATE : 19980204
US5513800 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : CHANGE OF NAME; ASSIGNOR:CONTINENTAL ACQUISITION CORP.; REEL/FRAME:009507/0851 EFFECTIVE DATE : 19980202
US5513800 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009748/0106 EFFECTIVE DATE : 19980204
US5513800 A	19981117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY; ASSIGNOR:NATIONSCREDIT COMMERCIAL CORPORATION; REEL/FRAME:009580/0870 EFFECTIVE DATE : 19980929
US5513800 A	19990513	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5513800 A	19991018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:010288/0051 EFFECTIVE DATE : 19990716
US5513800 A	20000918	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FIRST UNION NATIONAL BANK, NORTH CAROLINA OLDPARTY : NOTICE OF GRANT OF SECURITY INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:011064/0220 EFFECTIVE DATE : 19980929
US5513800 A	20001208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP BUSINESS CREDIT INC., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPARYERS INTERNATIONAL, INC.; REEL/FRAME:011369/0771 EFFECTIVE DATE : 20001016
US5513800 A	20020312	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., NEW YORK OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS; ASSIGNOR:FIRST UNION NATIONAL BANK; REEL/FRAME:012631/0135 EFFECTIVE DATE : 20001016
US5513800 A	20020322	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CIT GROUP/BUSINESS CREDIT INC., THE, NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL INC.; REEL/FRAME:012683/0142 EFFECTIVE DATE : 20020315
US5513800 A	20031009	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5513800 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OAK HILL SECURITIES FUND, L.P., NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA

					PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5513800 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : TERMINATION,RELEASE AND REASSIGNMENT OF SECURITY INTEREST IN PATENTS; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:014186/0747 EFFECTIVE DATE : 20031112
US5513800 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OAK HILL SECURITIES FUND, L.P.,NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5513800 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5513800 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION, NORTH CA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5513800 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., A DELAWA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5513800 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY,MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5513800 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION,NORTH CAR OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5513800 A	20051102	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016712/0968 EFFECTIVE DATE : 20050715
US5513800 A	20051103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT;

					ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016722/0330 EFFECTIVE DATE : 20050715
US5513800 A	20051117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTICO INTERNATIONAL, INC., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FOSTER, DONALD D.; NELSON, PHILIP L.; REEL/FRAME:016793/0245 EFFECTIVE DATE : 19921027
US5513800 A	20051222	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016926/0798 EFFECTIVE DATE : 20051115
US5513800 A	20070530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AS RECORDED ON 11/2/2005 AT REEL 016712, FRAME 0968 AND ON 11/3/2005 REEL 016722, FRAME 0330; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:019355/0425 EFFECTIVE DATE : 20070517
US5513800 A	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL), IL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5513800 A	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL),ILL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5513800 A	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD., NE OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5513800 A	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.,NEW OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5513800 A	20070926	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5513800 A	20170126	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL); REEL/FRAME:041511/0463 EFFECTIVE DATE : 20081016
US5513800 A	20170127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA

					OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.; REEL/FRAME:041518/0304 EFFECTIVE DATE : 20081015
US5513800 A	20150112	PEXP		Calculated Patent Term Expiry	
US5551636 A	19960903	LSGT	+	granted / extensions (spc, cpc, pte)	
US5551636 A	19960823	LSGT	PAT1	Patented Case	
US5551636 A	19960823	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5551636 A	19980205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONSCREDIT COMMERICAL CORPORATION, CONNECTICUT OLDPARTY : SECURITY INTEREST; ASSIGNORS:APC HOLDINGS, INC., A DELAWARE CORPORATION; AFA HOLDINGS CO., A DELAWARE CORPORATION; AFA PRODUCTS, INC., A DELAWARE CORPORATION; AND OTHERS; REEL/FRAME:008967/0777 EFFECTIVE DATE : 19980204
US5551636 A	19980309	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORPORATION, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009064/0750 EFFECTIVE DATE : 19980204
US5551636 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : CHANGE OF NAME; ASSIGNOR:CONTINENTAL ACQUISITION CORP.; REEL/FRAME:009507/0851 EFFECTIVE DATE : 19980202
US5551636 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009748/0106 EFFECTIVE DATE : 19980204
US5551636 A	19981117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY; ASSIGNOR:NATIONSCREDIT COMMERCIAL CORPORATION; REEL/FRAME:009580/0870 EFFECTIVE DATE : 19980929
US5551636 A	19991018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:010288/0051 EFFECTIVE DATE : 19990716
US5551636 A	19991018	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5551636 A	20000918	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FIRST UNION NATIONAL BANK, NORTH CAROLINA OLDPARTY : NOTICE OF GRANT OF SECURITY INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:011064/0220 EFFECTIVE DATE : 19980929
US5551636 A	20001208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP BUSINESS CREDIT INC., NEW YORK

					OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPARYERS INTERNATIONAL, INC.; REEL/FRAME:011369/0771 EFFECTIVE DATE : 20001016
US5551636 A	20020312	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., NEW YORK OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS; ASSIGNOR:FIRST UNION NATIONAL BANK; REEL/FRAME:012631/0135 EFFECTIVE DATE : 20001016
US5551636 A	20020322	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CIT GROUP/BUSINESS CREDIT INC., THE, NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL INC.; REEL/FRAME:012683/0142 EFFECTIVE DATE : 20020315
US5551636 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OAK HILL SECURITIES FUND, L.P., NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5551636 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : TERMINATION,RELEASE AND REASSIGNMENT OF SECURITY INTEREST IN PATENTS; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:014186/0747 EFFECTIVE DATE : 20031112
US5551636 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OAK HILL SECURITIES FUND, L.P.,NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5551636 A	20040226	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5551636 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5551636 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION, NORTH CA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5551636 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., A DELAWA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5551636 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

					OWNER : CONTINENTALAFA DISPENSING COMPANY,MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5551636 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION,NORTH CAR OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5551636 A	20051102	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016712/0968 EFFECTIVE DATE : 20050715
US5551636 A	20051103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016722/0330 EFFECTIVE DATE : 20050715
US5551636 A	20051117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTICO INTERNATIONAL, INC., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FOSTER, DONALD D.; NELSON, PHILIP L.; REEL/FRAME:016793/0245 EFFECTIVE DATE : 19921027
US5551636 A	20051222	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016926/0798 EFFECTIVE DATE : 20051115
US5551636 A	20070530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AS RECORDED ON 11/2/2005 AT REEL 016712, FRAME 0968 AND ON 11/3/2005 REEL 016722, FRAME 0330; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:019355/0425 EFFECTIVE DATE : 20070517
US5551636 A	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL), IL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5551636 A	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL),ILL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5551636 A	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.,

					NE OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5551636 A	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.,NEW OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5551636 A	20080303	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5551636 A	20170126	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL); REEL/FRAME:041511/0463 EFFECTIVE DATE : 20081016
US5551636 A	20170127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.; REEL/FRAME:041518/0304 EFFECTIVE DATE : 20081015
US5551636 A	20150112	PEXP		Calculated Patent Term Expiry	
US5553752 A	19960910	LSGT	+	granted / extensions (spc, cpc, pte)	
US5553752 A	19960830	LSGT	PAT1	Patented Case	
US5553752 A	19960830	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5553752 A	19970408	LSRX	+RR	REQUEST FOR REEXAMINATION FILED	EFFECTIVE DATE : 19970221
US5553752 A	19980205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONSCREDIT COMMERICAL CORPORATION, CONNECTICUT OLDPARTY : SECURITY INTEREST; ASSIGNORS:APC HOLDINGS, INC., A DELAWARE CORPORATION; AFA HOLDINGS CO., A DELAWARE CORPORATION; AFA PRODUCTS, INC., A DELAWARE CORPORATION; AND OTHERS; REEL/FRAME:008967/0777 EFFECTIVE DATE : 19980204
US5553752 A	19980309	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORPORATION, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009064/0750 EFFECTIVE DATE : 19980204
US5553752 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : CHANGE OF NAME; ASSIGNOR:CONTINENTAL ACQUISITION CORP.; REEL/FRAME:009507/0851 EFFECTIVE DATE : 19980202
US5553752 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.;

					REEL/FRAME:009748/0106 EFFECTIVE DATE : 19980204
US5553752 A	19981117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY; ASSIGNOR:NATIONSCREDIT COMMERCIAL CORPORATION; REEL/FRAME:009580/0870 EFFECTIVE DATE : 19980929
US5553752 A	19991018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:010288/0051 EFFECTIVE DATE : 19990716
US5553752 A	19991018	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5553752 A	20000918	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FIRST UNION NATIONAL BANK, NORTH CAROLINA OLDPARTY : NOTICE OF GRANT OF SECURITY INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:011064/0220 EFFECTIVE DATE : 19980929
US5553752 A	20001208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP BUSINESS CREDIT INC., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPARYERS INTERNATIONAL, INC.; REEL/FRAME:011369/0771 EFFECTIVE DATE : 20001016
US5553752 A	20150602	PEXP		Calculated Patent Term Expiry	
US5553752 C1	20010508	LSRX	+B1	REEXAMINATION CERTIFICATE FIRST REEXAMINATION	TEXT : THE PATENTABILITY OF CLAIMS 1-11 AND 14-17 IS CONFIRMED. CLAIMS 12 AND 13 ARE CANCELLED. NEW CLAIM 18 IS ADDED AND DETERMINED TO BE PATENTABLE.
US5553752 C1	20010508	LSRX	C1	REEXAMINATION CERTIFICATE (1ST LEVEL)	
US5553752 C1	20020312	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., NEW YORK OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS; ASSIGNOR:FIRST UNION NATIONAL BANK; REEL/FRAME:012631/0135 EFFECTIVE DATE : 20001016
US5553752 C1	20020322	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CIT GROUP/BUSINESS CREDIT INC., THE, NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL INC.; REEL/FRAME:012683/0142 EFFECTIVE DATE : 20020315
US5553752 C1	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OAK HILL SECURITIES FUND, L.P., NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5553752 C1	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : TERMINATION,RELEASE AND REASSIGNMENT OF SECURITY

					INTEREST IN PATENTS; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:014186/0747 EFFECTIVE DATE : 20031112
US5553752 C1	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OAK HILL SECURITIES FUND, L.P.,NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5553752 C1	20040226	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5553752 C1	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5553752 C1	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION, NORTH CA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5553752 C1	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., A DELAWA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5553752 C1	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY,MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5553752 C1	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION,NORTH CAR OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5553752 C1	20051102	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016712/0968 EFFECTIVE DATE : 20050715
US5553752 C1	20051103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016722/0330 EFFECTIVE DATE : 20050715
US5553752 C1	20051117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTICO INTERNATIONAL, INC., MISSOURI OLDPARTY : ASSIGNMENT OF

					ASSIGNORS INTEREST; ASSIGNORS:FOSTER, DONALD D.; NELSON, PHILIP L.; REEL/FRAME:016793/0290 EFFECTIVE DATE : 19940426
US5553752 C1	20051222	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016926/0798 EFFECTIVE DATE : 20051115
US5553752 C1	20070530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AS RECORDED ON 11/2/2005 AT REEL 016712, FRAME 0968 AND ON 11/3/2005 REEL 016722, FRAME 0330; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:019355/0425 EFFECTIVE DATE : 20070517
US5553752 C1	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL), IL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5553752 C1	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL),ILL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5553752 C1	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD., NE OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5553752 C1	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.,NEW OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5553752 C1	20080310	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5553752 C1	20170126	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL); REEL/FRAME:041511/0463 EFFECTIVE DATE : 20081016
US5553752 C1	20170127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.; REEL/FRAME:041518/0304 EFFECTIVE DATE : 20081015
US5566885 A	19961022	LSGT	+	granted / extensions (spc,	

				cpc, pte)	
US5566885 A	19961010	LSGT	PAT1	Patented Case	
US5566885 A	19961010	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5566885 A	19980205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONSCREDIT COMMERICAL CORPORATION, CONNECTICUT OLDPARTY : SECURITY INTEREST; ASSIGNORS:APC HOLDINGS, INC., A DELAWARE CORPORATION; AFA HOLDINGS CO., A DELAWARE CORPORATION; AFA PRODUCTS, INC., A DELAWARE CORPORATION; AND OTHERS; REEL/FRAME:008967/0777 EFFECTIVE DATE : 19980204
US5566885 A	19980309	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORPORATION, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009064/0750 EFFECTIVE DATE : 19980204
US5566885 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : CHANGE OF NAME; ASSIGNOR:CONTINENTAL ACQUISITION CORP.; REEL/FRAME:009507/0851 EFFECTIVE DATE : 19980202
US5566885 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009748/0106 EFFECTIVE DATE : 19980204
US5566885 A	19981117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY; ASSIGNOR:NATIONSCREDIT COMMERCIAL CORPORATION; REEL/FRAME:009580/0870 EFFECTIVE DATE : 19980929
US5566885 A	19991018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:010288/0051 EFFECTIVE DATE : 19990716
US5566885 A	19991029	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5566885 A	20000918	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FIRST UNION NATIONAL BANK, NORTH CAROLINA OLDPARTY : NOTICE OF GRANT OF SECURITY INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:011064/0220 EFFECTIVE DATE : 19980929
US5566885 A	20001208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP BUSINESS CREDIT INC., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPARYERS INTERNATIONAL, INC.; REEL/FRAME:011369/0771 EFFECTIVE DATE : 20001016
US5566885 A	20020312	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., NEW YORK OLDPARTY : RELEASE OF

					SECURITY INTEREST IN PATENTS; ASSIGNOR:FIRST UNION NATIONAL BANK; REEL/FRAME:012631/0135 EFFECTIVE DATE : 20001016
US5566885 A	20020322	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CIT GROUP/BUSINESS CREDIT INC., THE, NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL INC.; REEL/FRAME:012683/0142 EFFECTIVE DATE : 20020315
US5566885 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OAK HILL SECURITIES FUND, L.P., NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5566885 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : TERMINATION,RELEASE AND REASSIGNMENT OF SECURITY INTEREST IN PATENTS; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:014186/0747 EFFECTIVE DATE : 20031112
US5566885 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OAK HILL SECURITIES FUND, L.P.,NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5566885 A	20040226	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5566885 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5566885 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION, NORTH CA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5566885 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., A DELAWA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5566885 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY,MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5566885 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC.,

					DELAWARE CORPORATION,NORTH CAR OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5566885 A	20051102	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016712/0968 EFFECTIVE DATE : 20050715
US5566885 A	20051103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016722/0330 EFFECTIVE DATE : 20050715
US5566885 A	20051117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTICO INTERNATIONAL, INC., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FOSTER, DONALD D.; NELSON, PHILIP L.; REEL/FRAME:016793/0245 EFFECTIVE DATE : 19921027
US5566885 A	20051222	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016926/0798 EFFECTIVE DATE : 20051115
US5566885 A	20070530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AS RECORDED ON 11/2/2005 AT REEL 016712, FRAME 0968 AND ON 11/3/2005 REEL 016722, FRAME 0330; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:019355/0425 EFFECTIVE DATE : 20070517
US5566885 A	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL), IL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5566885 A	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL),ILL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5566885 A	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD., NE OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5566885 A	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL

					PARTNERS MASTER FUND I, LTD.,NEW OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5566885 A	20080422	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5566885 A	20170126	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL); REEL/FRAME:041511/0463 EFFECTIVE DATE : 20081016
US5566885 A	20170127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.; REEL/FRAME:041518/0304 EFFECTIVE DATE : 20081015
US5566885 A	20150112	PEXP		Calculated Patent Term Expiry	
US5575407 A	19961119	LSGT	+	granted / extensions (spc, cpc, pte)	
US5575407 A	19961108	LSGT	PAT1	Patented Case	
US5575407 A	19980205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONSCREDIT COMMERICAL CORPORATION, CONNECTICUT OLDPARTY : SECURITY INTEREST; ASSIGNORS:APC HOLDINGS, INC., A DELAWARE CORPORATION; AFA HOLDINGS CO., A DELAWARE CORPORATION; AFA PRODUCTS, INC., A DELAWARE CORPORATION; AND OTHERS; REEL/FRAME:008967/0777 EFFECTIVE DATE : 19980204
US5575407 A	19980309	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORPORATION, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009064/0750 EFFECTIVE DATE : 19980204
US5575407 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : CHANGE OF NAME; ASSIGNOR:CONTINENTAL ACQUISITION CORP.; REEL/FRAME:009507/0851 EFFECTIVE DATE : 19980202
US5575407 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009748/0106 EFFECTIVE DATE : 19980204
US5575407 A	19981117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY; ASSIGNOR:NATIONSCREDIT COMMERCIAL CORPORATION; REEL/FRAME:009580/0870 EFFECTIVE DATE : 19980929
US5575407 A	19991018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST;

					ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:010288/0051 EFFECTIVE DATE : 19990716
US5575407 A	20000918	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FIRST UNION NATIONAL BANK, NORTH CAROLINA OLDPARTY : NOTICE OF GRANT OF SECURITY INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:011064/0220 EFFECTIVE DATE : 19980929
US5575407 A	20001119	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5575407 A	20001208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP BUSINESS CREDIT INC., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPARYERS INTERNATIONAL, INC.; REEL/FRAME:011369/0771 EFFECTIVE DATE : 20001016
US5575407 A	20010123	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20001119
US5575407 A	20070525	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC, MISSOURI OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AS RECORDED ON 12/08/2000 AT REEL 011369, FRAME 0771; ASSIGNOR:THE CIT GROUP/ BUSINESS CREDIT, INC.; REEL/FRAME:019341/0360 EFFECTIVE DATE : 20070515
US5575407 A	20180124	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5575407 A	20180124	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5575407 A	20160313	PEXP		Calculated Patent Term Expiry	
US5593093 A	19970114	LSGT	+	granted / extensions (spc, cpc, pte)	
US5593093 A	19961209	LSGT	PAT1	Patented Case	
US5593093 A	19980205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONSCREDIT COMMERICAL CORPORATION, CONNECTICUT OLDPARTY : SECURITY INTEREST; ASSIGNORS:APC HOLDINGS, INC., A DELAWARE CORPORATION; AFA HOLDINGS CO., A DELAWARE CORPORATION; AFA PRODUCTS, INC., A DELAWARE CORPORATION; AND OTHERS; REEL/FRAME:008967/0777 EFFECTIVE DATE : 19980204
US5593093 A	19980309	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORPORATION, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009064/0750 EFFECTIVE DATE : 19980204
US5593093 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : CHANGE OF NAME; ASSIGNOR:CONTINENTAL ACQUISITION CORP.; REEL/FRAME:009507/0851 EFFECTIVE DATE : 19980202
US5593093 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL

					ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009748/0106 EFFECTIVE DATE : 19980204
US5593093 A	19981117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY; ASSIGNOR:NATIONSCREDIT COMMERCIAL CORPORATION; REEL/FRAME:009580/0870 EFFECTIVE DATE : 19980929
US5593093 A	19991018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:010288/0051 EFFECTIVE DATE : 19990716
US5593093 A	20000918	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FIRST UNION NATIONAL BANK, NORTH CAROLINA OLDPARTY : NOTICE OF GRANT OF SECURITY INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:011064/0220 EFFECTIVE DATE : 19980929
US5593093 A	20001208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP BUSINESS CREDIT INC., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPARYERS INTERNATIONAL, INC.; REEL/FRAME:011369/0771 EFFECTIVE DATE : 20001016
US5593093 A	20010114	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5593093 A	20010320	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20010114
US5593093 A	20070525	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC, MISSOURI OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AS RECORDED ON 12/08/2000 AT REEL 011369, FRAME 0771; ASSIGNOR:THE CIT GROUP/ BUSINESS CREDIT, INC.; REEL/FRAME:019341/0360 EFFECTIVE DATE : 20070515
US5593093 A	20180125	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5593093 A	20180125	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5593093 A	20150112	PEXP		Calculated Patent Term Expiry	
US5615835 A	19970401	LSGT	+	granted / extensions (spc, cpc, pte)	
US5615835 A	19970321	LSGT	PAT1	Patented Case	
US5615835 A	19970321	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5615835 A	19980205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONSCREDIT COMMERICAL CORPORATION, CONNECTICUT OLDPARTY : SECURITY INTEREST; ASSIGNORS:APC HOLDINGS, INC., A DELAWARE CORPORATION; AFA HOLDINGS CO., A DELAWARE CORPORATION; AFA PRODUCTS, INC., A DELAWARE

					CORPORATION; AND OTHERS; REEL/FRAME:008967/0777 EFFECTIVE DATE : 19980204
US5615835 A	19980309	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORPORATION, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009064/0750 EFFECTIVE DATE : 19980204
US5615835 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : CHANGE OF NAME; ASSIGNOR:CONTINENTAL ACQUISITION CORP.; REEL/FRAME:009507/0851 EFFECTIVE DATE : 19980202
US5615835 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009748/0106 EFFECTIVE DATE : 19980204
US5615835 A	19981117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY; ASSIGNOR:NATIONSCREDIT COMMERCIAL CORPORATION; REEL/FRAME:009580/0870 EFFECTIVE DATE : 19980929
US5615835 A	19991018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:010288/0051 EFFECTIVE DATE : 19990716
US5615835 A	20000918	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FIRST UNION NATIONAL BANK, NORTH CAROLINA OLDPARTY : NOTICE OF GRANT OF SECURITY INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:011064/0220 EFFECTIVE DATE : 19980929
US5615835 A	20001208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP BUSINESS CREDIT INC., NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPARYERS INTERNATIONAL, INC.; REEL/FRAME:011369/0771 EFFECTIVE DATE : 20001016
US5615835 A	20010314	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5615835 A	20020312	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., NEW YORK OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS; ASSIGNOR:FIRST UNION NATIONAL BANK; REEL/FRAME:012631/0135 EFFECTIVE DATE : 20001016
US5615835 A	20020322	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CIT GROUP/BUSINESS CREDIT INC., THE, NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL INC.; REEL/FRAME:012683/0142 EFFECTIVE DATE : 20020315
US5615835 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

					OWNER : OAK HILL SECURITIES FUND, L.P., NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5615835 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : TERMINATION,RELEASE AND REASSIGNMENT OF SECURITY INTEREST IN PATENTS; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:014186/0747 EFFECTIVE DATE : 20031112
US5615835 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OAK HILL SECURITIES FUND, L.P.,NEW YORK OLDPARTY : ASSIGNMENT FOR SECURITY; ASSIGNORS:CONTINENTALAFA DISPENSING COMPANY; AFA PRODUCTS INC.; CONTINENTAL SPRAYERS INTERNATIONAL INC.; AND OTHERS; REEL/FRAME:014146/0907 EFFECTIVE DATE : 20031112
US5615835 A	20040827	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5615835 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5615835 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION, NORTH CA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5615835 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., A DELAWA OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5615835 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY,MISSOURI OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5615835 A	20050805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AFA PRODUCTS, INC., DELAWARE CORPORATION,NORTH CAR OLDPARTY : TERMINATION OF SECURITY INTEREST AND RELEASE OF CO; ASSIGNOR:OAK HILL SECURITIES FUND, L.P.; REEL/FRAME:019331/0617 EFFECTIVE DATE : 20050715
US5615835 A	20051102	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016712/0968

					EFFECTIVE DATE : 20050715
US5615835 A	20051103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016722/0330 EFFECTIVE DATE : 20050715
US5615835 A	20051117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTICO INTERNATIONAL, INC., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NELSON, PHILIP L.; REEL/FRAME:016793/0265 EFFECTIVE DATE : 19921027
US5615835 A	20051222	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016926/0798 EFFECTIVE DATE : 20051115
US5615835 A	20070530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AS RECORDED ON 11/2/2005 AT REEL 016712, FRAME 0968 AND ON 11/3/2005 REEL 016722, FRAME 0330; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:019355/0425 EFFECTIVE DATE : 20070517
US5615835 A	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL), IL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5615835 A	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL),ILL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
US5615835 A	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD., NE OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5615835 A	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.,NEW OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
US5615835 A	20081117	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5615835 A	20170126	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:WACHOVIA CAPITAL FINANCE CORPORATION

					(CENTRAL); REEL/FRAME:041511/0463 EFFECTIVE DATE : 20081016
US5615835 A	20170127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.; REEL/FRAME:041518/0304 EFFECTIVE DATE : 20081015
US5615835 A	20150601	PEXP		Calculated Patent Term Expiry	
US5884845 A	19990323	LSGT	+	granted / extensions (spc, cpc, pte)	
US5884845 A	19980205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONSCREDIT COMMERICAL CORPORATION, CONNECTICUT OLDPARTY : SECURITY INTEREST; ASSIGNORS:APC HOLDINGS, INC., A DELAWARE CORPORATION; AFA HOLDINGS CO., A DELAWARE CORPORATION; AFA PRODUCTS, INC., A DELAWARE CORPORATION; AND OTHERS; REEL/FRAME:008967/0777 EFFECTIVE DATE : 19980204
US5884845 A	19980309	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORPORATION, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009064/0750 EFFECTIVE DATE : 19980204
US5884845 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : CHANGE OF NAME; ASSIGNOR:CONTINENTAL ACQUISITION CORP.; REEL/FRAME:009507/0851 EFFECTIVE DATE : 19980202
US5884845 A	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009748/0106 EFFECTIVE DATE : 19980204
US5884845 A	19981117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY; ASSIGNOR:NATIONSCREDIT COMMERCIAL CORPORATION; REEL/FRAME:009580/0870 EFFECTIVE DATE : 19980929
US5884845 A	19990216	LSGT	PAT1	Patented Case	
US5884845 A	19991018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:010288/0051 EFFECTIVE DATE : 19990716
US5884845 A	20000918	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FIRST UNION NATIONAL BANK, NORTH CAROLINA OLDPARTY : NOTICE OF GRANT OF SECURITY INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:011064/0220 EFFECTIVE DATE : 19980929
US5884845 A	20001208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP BUSINESS CREDIT INC., NEW

					YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPARYERS INTERNATIONAL, INC.; REEL/FRAME:011369/0771 EFFECTIVE DATE : 20001016
US5884845 A	20020312	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., NEW YORK OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS; ASSIGNOR:FIRST UNION NATIONAL BANK; REEL/FRAME:012631/0135 EFFECTIVE DATE : 20001016
US5884845 A	20020322	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CIT GROUP/BUSINESS CREDIT INC., THE, NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL INC.; REEL/FRAME:012683/0142 EFFECTIVE DATE : 20020315
US5884845 A	20030324	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5884845 A	20030520	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20030323
US5884845 A	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : TERMINATION,RELEASE AND REASSIGNMENT OF SECURITY INTEREST IN PATENTS; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:014186/0747 EFFECTIVE DATE : 20031112
US5884845 A	20180124	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5884845 A	20180124	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5884845 A	20170331	PEXP		Calculated Patent Term Expiry	
USRE35744 E	19980205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONSCREDIT COMMERICAL CORPORATION, CONNECTICUT OLDPARTY : SECURITY INTEREST; ASSIGNORS:APC HOLDINGS, INC., A DELAWARE CORPORATION; AFA HOLDINGS CO., A DELAWARE CORPORATION; AFA PRODUCTS, INC., A DELAWARE CORPORATION; AND OTHERS; REEL/FRAME:008967/0777 EFFECTIVE DATE : 19980204
USRE35744 E	19980209	LSGT	PAT1	Patented Case	
USRE35744 E	19980309	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORPORATION, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009064/0750 EFFECTIVE DATE : 19980204
USRE35744 E	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : CHANGE OF NAME; ASSIGNOR:CONTINENTAL ACQUISITION CORP.; REEL/FRAME:009507/0851 EFFECTIVE DATE : 19980202
USRE35744 E	19980924	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF

					ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:009748/0106 EFFECTIVE DATE : 19980204
USRE35744 E	19981117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY; ASSIGNOR:NATIONSCREDIT COMMERCIAL CORPORATION; REEL/FRAME:009580/0870 EFFECTIVE DATE : 19980929
USRE35744 E	19991018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL ACQUISITION CORP., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTICO INTERNATIONAL, INC.; REEL/FRAME:010288/0051 EFFECTIVE DATE : 19990716
USRE35744 E	20000918	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FIRST UNION NATIONAL BANK, NORTH CAROLINA OLDPARTY : NOTICE OF GRANT OF SECURITY INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:011064/0220 EFFECTIVE DATE : 19980929
USRE35744 E	20020312	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., NEW YORK OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS; ASSIGNOR:FIRST UNION NATIONAL BANK; REEL/FRAME:012631/0135 EFFECTIVE DATE : 20001016
USRE35744 E	20020322	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CIT GROUP/BUSINESS CREDIT INC., THE, NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL INC.; REEL/FRAME:012683/0142 EFFECTIVE DATE : 20020315
USRE35744 E	20030514	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
USRE35744 E	20030519	LSRE	+PRDP	PATENT REINSTATED DUE TO THE ACCEPTANCE OF A LATE MAINTENANCE FEE	EFFECTIVE DATE : 19980317
USRE35744 E	20031121	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : TERMINATION,RELEASE AND REASSIGNMENT OF SECURITY INTEREST IN PATENTS; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:014186/0747 EFFECTIVE DATE : 20031112
USRE35744 E	20051102	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016712/0968 EFFECTIVE DATE : 20050715
USRE35744 E	20051103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE CIT GROUP/BUSINESS CREDIT, INC. AS COLLATERAL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016722/0330 EFFECTIVE DATE : 20050715

USRE35744 E	20051116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS, INC., MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FOSTER, MR. DONALD D.; NELSON, MR. PHILIP L.; REEL/FRAME:016784/0306 EFFECTIVE DATE : 19901129
USRE35744 E	20051222	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, MISSOURI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CONTINENTAL SPRAYERS INTERNATIONAL, INC.; REEL/FRAME:016926/0798 EFFECTIVE DATE : 20051115
USRE35744 E	20060404	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
USRE35744 E	20070530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTAL SPRAYERS INTERNATIONAL, INC., MISSOURI OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AS RECORDED ON 11/2/2005 AT REEL 016712, FRAME 0968 AND ON 11/3/2005 REEL 016722, FRAME 0330; ASSIGNOR:THE CIT GROUP/BUSINESS CREDIT, INC.; REEL/FRAME:019355/0425 EFFECTIVE DATE : 20070517
USRE35744 E	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL), IL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
USRE35744 E	20070608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL),ILL OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019399/0087 EFFECTIVE DATE : 20070515
USRE35744 E	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD., NE OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
USRE35744 E	20070615	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.,NEW OLDPARTY : PATENT COLLATERAL ASSIGNMENT AND SECURITY AGREEMENT; ASSIGNOR:CONTINENTALAFA DISPENSING COMPANY; REEL/FRAME:019432/0235 EFFECTIVE DATE : 20070515
USRE35744 E	20170126	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:WACHOVIA CAPITAL FINANCE CORPORATION (CENTRAL); REEL/FRAME:041511/0463 EFFECTIVE DATE : 20081016
USRE35744 E	20170127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CONTINENTALAFA DISPENSING COMPANY, VIRGINIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:HARBINGER CAPITAL PARTNERS MASTER FUND I, LTD.; REEL/FRAME:041518/0304

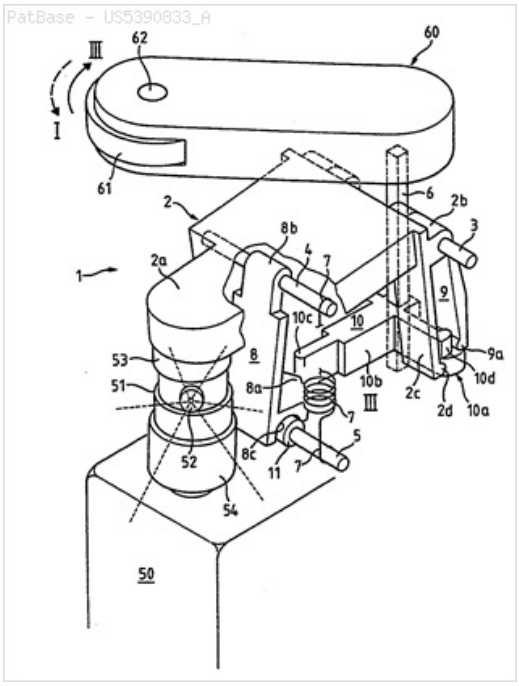
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WO9207660 A1	19920514	LSPB	+	published / reissued	
WO9207660 A1	19930422	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2094712 COUNTRY OF REF DOCUMENT : CA
WO9207660 A1	19930423	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1991920361 COUNTRY OF REF DOCUMENT : EP
WO9207660 A1	19930811	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1991920361 COUNTRY OF REF DOCUMENT : EP
WO9207660 A1	19980114	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1991920361 COUNTRY OF REF DOCUMENT : EP
WO9532147 A2	19951130	LSPB	+	published / reissued	
WO9532147 A2	19961024	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2188762 COUNTRY OF REF DOCUMENT : CA
WO9532147 A2	19961209	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1995921290 COUNTRY OF REF DOCUMENT : EP
WO9532147 A3	19970611	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995921290 COUNTRY OF REF DOCUMENT : EP
WO9532147 A3	20000404	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995921290 COUNTRY OF REF DOCUMENT : EP

105) Family number: 8770073 (US5390833A)

Title: Room spray **dispenser**

Abstract: A room spray **dispenser** includes an adjustable triggering lever having a roller to engage a moving object, such as a door, to activate the spray. Rotation of the lever in a first direction causes a trigger/rocker element to be placed in a cocked position in which actuating springs are tensioned, which subsequent rotation of the lever causes the trigger to return to a rest position, the spring energy being directed to actuate a spray valve. A following rotation of the lever in the first direction reloads the mechanism for the next spray.

Classifications:
International (IPC 8-9): A61L9/14 B05B11/00 B05B9/04 B05D1/02 (Advanced/Invention);
A61L9/14 B05B11/00 B05B9/04 (Advanced/Non-invention)
International (IPC 1-7): A61L9/14 B05B11/00 B05B15/00 B05B17/04 B05B9/04 B65D83/16 B65D83/26 B65D83/76 B67D5/00 E06B7/28
CPC: B05B11/3056 B05B11/3091 B65D83/267
European: B05B11/30H3F B05B11/30P2 B65D83/26D
US: 222/180 222/505 239/274



Family:

Publication number	Publication date	Application number	Application date
AT162962 E	19980215	AT19930917516T	19930819
AU199346969 A1	19940315	AU19930046969	19930819
AU676187 B2	19970306	AU19930046969	19930819
BRPI9305614 A	19980623	BR1993PI05614	19930819
CA2121780 AA	19940420	CA19932121780	19930819
CH686661 A	19960531	CH19920002609	19920821
CZ87594 A3	19951115	CZ19940000875	19930819
CZ9400875 A3	19951115	CZ19940000875	19930819
DE59308115 D1	19980312	DE19935008115	19930819
EE9400267 A	19960215	EE19940000267	19941117
EP0617642 A1	19941005	EP19930917516	19930819
EP0617642 B1	19980204	EP19930917516	19930819
FI108618 B	20020228	FI19940001814	19940419
FI941814 A	19940617	FI19940001814	19940419
FI941814 A0	19940419	FI19940001814	19940419
HK1006346 A1	19990219	HK19980105514	19980617
HU216694 B	19990830	HU19940000923	19930819
HU69556 A2	19950928	HU19940000923	19930819
HU9400923 A0	19940628	HU19940000923	19930819
IL106740 A0	19931208	IL19930106740	19930819
IL106740 A1	19961016	IL19930106740	19930819
JP7500290 T2	19950112	JP19940505730T	19930819
KR19940702767 A	19940917	KR19940701326	19940421
KR19947002767 A	19940917	KR19947001326	19930819
MD940207 A	19960131	MD19940000207	19940714
NO941438 A	19940620	NO19940001438	19940420
NO941438 A0	19940420	NO19940001438	19940420
NO941438 L	19940620	NO19940001438	19940420
NZ254732 A	19970224	NZ19930254732	19930819
PL171705 B1	19970630	PL19930303343	19930819
RU2109580 C1	19980427	RU19940021146	19930819
RU94021146 A	19960520	RU19940021146	19930819
RU94021146 A1	19960520	RU19940021146	19940420
US5390833 A	19950221	US19930109130	19930819
WO9404280 A1	19940303	WO1993CH00210	19930819

Priority:

CH19920002609 19920821 WO1993CH00210 19930819

Probable Assignee: CWS INT AG

Assignee(s): (std): C W S INT AG ; C W S INTERNAT AG ; CWS AG ; CWS INT AG ; CWS INTERNAT AG ; TSVS INTERNEHSHNL AG

Assignee(s):	CWS INTERNATIONAL AG ; CWS INTERNATIONAL AG BAAR CH ; CWS INT ; BAUMANN MANFRED
Inventor(s): (std):	BAUMANN MANFRED ; MANFRED BAUMANN
Inventor(s):	BAUMANN MANFRED CH 9444 DEPOLDSAU CH ; MANFRED BAUMANN[CH]
Agent(s):	WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; RIDOUT AND MAYBEE LLP; WOLFF BREGMAN AND GOLLER; BABAC ALEXANDRU
Designated states:	AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CZ DE DK ES FI FR GA GB GN GR HU IE IT JP KP KR KZ LI LK LU MC MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SK SN TD TG UA VN

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AT162962 E	19980215	LSGT	+	granted / extensions (spc, cpc, pte)	
AT162962 E	20110515	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT162962 E	20130819	PEXP		Calculated Patent Term Expiry	
AU199346969 A1	19940315	LSPB	+	published / reissued	
AU676187 B2	19970306	LSGT	+	granted / extensions (spc, cpc, pte)	
AU676187 B2	20130819	PEXP		Calculated Patent Term Expiry	
BRPI9305614 A	19980623	LSPB	+	published / reissued	
BRPI9305614 A	19990928	LSRV	-FA8	DISMISSAL: DISMISSAL - ARTICLE 36, PAR. 1 OF INDUSTRIAL PROPERTY LAW	
CA2121780 AA	19940420	LSPB	+	published / reissued	
CA2121780 AA	20010820	LSLE	-FZDE	DEAD	
CH686661 A	19960531	LSGT	+	granted / extensions (spc, cpc, pte)	
CH686661 A	20000414	LSLE	-PL	PATENT CEASED	
CH686661 A	20120821	PEXP		Calculated Patent Term Expiry	
CZ87594 A3	19951115	LSPB	+	published / reissued	
CZ9400875 A3	19951115	LSPB	+	published / reissued	
DE59308115 D1	19990311	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
EE9400267 A	19960215	LSPB	+	published / reissued	
EP0617642 A1	19941005	LSPB	+	published / reissued	
EP0617642 A1	19941005	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19940411
EP0617642 A1	19951206	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19951023
EP0617642 B1	19980204	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0617642 B1	19980204	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : THE PATENT HAS BEEN ANNULLED BY A DECISION OF A NATIONAL AUTHORITY LAPSED DATE : 19980204
EP0617642 B1	19980204	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 19980204
EP0617642 B1	19980204	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 19980204

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EP0617642 B1	19980504	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 19980504
EP0617642 B1	19980504	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 19980504
EP0617642 B1	19980701	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	REF COUNTRY CODE : EP
EP0617642 B1	19980701	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : 78751
EP0617642 B1	19980819	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 19980819
EP0617642 B1	19980831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 19980831
EP0617642 B1	19980924	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 19980924
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EP0617642 B1	19990228	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : CWS INTERNATIONAL A.G. EFFECTIVE DATE : 19980831
EP0617642 B1	19990228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 19990228
EP0617642 B1	20000816	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20000816 YEAR OF FEE PAYMENT : 8
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EP0617642 B1	20040820	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20040820 YEAR OF FEE PAYMENT : 12
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EP0617642 B1	20110729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110301
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FI941814 A	19940617	LSPB	+	published / reissued	
HK1006346 A1	19990219	LSPB	+	published / reissued	
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HU216694 B	19990830	LSGT	+	granted / extensions (spc, cpc, pte)	
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HU69556 A2	19950928	LSPB	+	published / reissued	
HU69556 A2	19960628	LSLE	DFD9	TEMPORARY PROT. CANCELLED DUE TO NON-PAYMENT OF FEE	
HU69556 A2	19960729	LSRE	DNF4	RESTORATION OF LAPSED FINAL PROT.	
IL106740 A1	19961016	LSPB	+	published / reissued	
IL106740 A1	19970318	LSGT	+FF	PATENT GRANTED	
IL106740 A1	19971120	LSFE	+KB	PATENT RENEWED	
IL106740 A1	20001206	LSWD	-RH	PATENT VOID	
JP7500290 T2	19950112	LSPB	+	published / reissued	
KR19940702767 A	19940917	LSPB	+	published / reissued	
KR19947002767 A	19940917	LSPB	+	published / reissued	
MD940207 A	19960131	LSPB	+	published / reissued	
NO941438 A	19940620	LSPB	+	published / reissued	
NZ254732 A	19970224	LSPB	+	published / reissued	
PL171705 B1	19970630	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2109580 C1	19980427	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2109580 C1	20130819	PEXP		Calculated Patent Term Expiry	
RU94021146 A	19960520	LSPB	+	published / reissued	
US5390833 A	19950221	LSGT	+	granted / extensions (spc, cpc, pte)	
US5390833 A	19931001	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CWS INTERNATIONAL AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BAUMANN, MANFRED; REEL/FRAME:006712/0875 EFFECTIVE DATE : 19930916
US5390833 A	19980713	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5390833 A	20030221	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5390833 A	20030326	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5390833 A	20030326	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5390833 A	20030422	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20030221
US5390833 A	20130819	PEXP		Calculated Patent Term Expiry	
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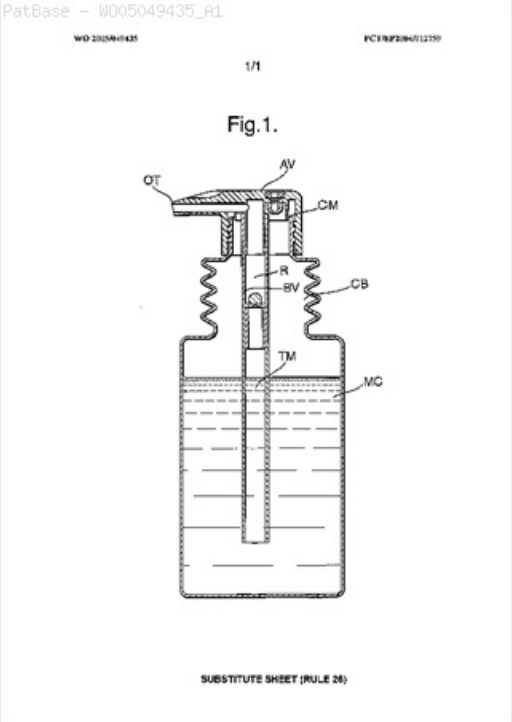
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WO9404280 A1	19940411	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 254732 COUNTRY OF REF DOCUMENT : NZ
WO9404280 A1	19940413	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PV1994-875 COUNTRY OF REF DOCUMENT : CZ
WO9404280 A1	19940419	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 941814 COUNTRY OF REF DOCUMENT : FI
WO9404280 A1	19940420	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2121780 COUNTRY OF REF DOCUMENT : CA
WO9404280 A1	19941005	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1993917516 COUNTRY OF REF DOCUMENT : EP
WO9404280 A1	19951115	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : PV1994-875 COUNTRY OF REF DOCUMENT : CZ
WO9404280 A1	19980204	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1993917516 COUNTRY OF REF DOCUMENT : EP
WO9404280 A1	19980210	LSRV	-WWR	WIPO INFORMATION: REFUSED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : PV1994-875 COUNTRY OF REF DOCUMENT : CZ
WO9404280 A1	20020228	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 941814 COUNTRY OF REF DOCUMENT : FI

106) Family number: 30671073 (WO05049435A1)

Title: IMPROVED **CONTAINER**

Abstract: A **dispensing** system for **liquids** or semi-viscous **liquids** comprising: a **container** body for **containing** the **liquid** having a cap member (CM) at the top, the cap member having a discharge outlet (OT) co-operating with a substantially tubular vertically disposed **liquid** carrier (TM) inside the **container**; at least one vertically and selectively disposed bellow means (CB) between the top of the main **container** body and the cap member, the cap member being adapted to be pressed downwards to compress the bellow means to thereby create a positive pressure on the **liquid** content in the **container** and force the same through the tubular **liquid** carrier for discharge through the discharge outlet; a non-return valve member (BV) selectively disposed on the tubular **liquid** carrier adapted to arrest the drain out of the **liquid** entering a reservoir region between the tubular carrier portion ahead of the valve and the discharge outlet; the cap member at the top having a one way air inlet means (AV) to favour entry of air into the **container** to maintain desired air pressure inside upon release of the cap from its pressed down position and release of the bellow means.

Classifications:
International (IPC 8-9): A47K5/122 B05B11/00 B05B11/04 B65D1/32 (Advanced/Invention);
A47K5/00 B05B11/00 B05B11/04 B65D1/00 (Core/Invention)
International (IPC 1-7): A47K5/122 B05B11/00 B65D1/32
CPC: B05B11/00 B05B11/048
European: B05B11/00 B05B11/04F



Family:

Publication number	Publication date	Application number	Application date
GB200408709 A0	20040526	GB20040008709	20040420
WO05049435 A1	20050602	WO2004EP12759	20041110

Priority:

IN2003MU01194 20031118

Probable Assignee: UNILEVER NV

Assignee(s): (std): BHAGWAT ABHAY ARUN ; CHAKRABORTI SOUMYA ; LEVER HINDUSTAN LTD ; UNILEVER NV ; UNILEVER PLC

Assignee(s): HINDUSTAN LEVER LIMITED ; HINDUSTAN LEVER LTD

Inventor(s): (std): CHAKRABORTI SOUMYA ; BHAGWAT ABHAY ARUN

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 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

Legal status (INPADOC)

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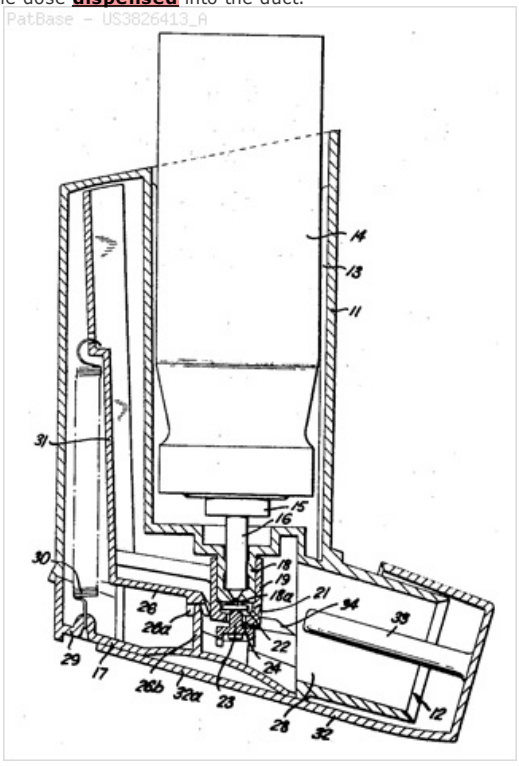
Patent	Date recorded	Event group	Code	Event	Details
GB200408709 A0	20051116	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
WO05049435 A1	20050602	LSPB	+	published / reissued	
WO05049435 A1	20060519	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO05049435 A1	20060519	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	TEXT : DE
WO05049435 A1	20061213	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF COUNTRY CODE : WO

107) Family number: 18746074 (US3826413A)

Title: DEVICE FOR **DISPENSING** FLUIDS

Abstract: A device for **dispensing** fluid from an aerosol **container** of the kind which meters discrete doses, operable to **dispense** the dose when suction is applied. The preferred form of the device has a recess to hold the aerosol with the outlet of the aerosol sealingly secured in a cavity, and a resilient element to seal the outlet from the cavity, which opens into an air duct. The resilient element is held against the cavity outlet by a spring-loaded pivoted arm, and a vane on the arm is located in the air duct, so that suction applied at the outlet of the duct will cause the vane to pivot the arm and release the element. In use, the aerosol is operated to meter a dose, which is held partly in the aerosol outlet and partly in the cavity until suction applied at the outlet of the duct causes the cavity to be opened and the dose **dispensed** into the duct.

Classifications:
International (IPC 8-9): A61M15/00 (Advanced/Invention); A61M15/00 (Core/Invention); A61J (Subclass/Invention)
International (IPC 1-7): A61J7/00 A61M11/00 A61M11/02 A61M11/04 A61M15/00 A61M15/06 B05B11/00 B05B17/00 B65D83/14 B67D F16K1/30 F16K17/06
CPC: A61M15/00 A61M15/009 A61M15/0091 A61M15/0093 A61M15/0096
European: A61M15/00 A61M15/00T K61M15/00P
US: 128/200.23 222/40.2.13 222/402.13



Family:

Publication number	Publication date	Application number	Application date
AR193533 A1	19730430	AR19720243101	19720717
AT335047 B	19770225	AT19720006042	19720713
AT604272 A	19760615	AT19720006042	19720713
AU197244696 A1	19740124	AU19720044696	19720718
BE786421 A	19721116	BE19720786421	19720718
BR7204762 A0	19730710	BR19720004762	19720718
CA961458 A1	19750121	CA19720146803	19720711
CH555681 A	19741115	CH19720010669	19720717
CS164928 B2	19751128	CS19720005034	19720717
DE2235247 A1	19730201	DE19722235247	19720718
DK136018 B	19770801	DK19720003501	19720713
DK136018 C	19780102	DK19720003501	19720713
EG10691 A	19760430	EG19720000283	19720627
ES404952 A1	19750616	ES19720404952	19720717
FR2146261 A1	19730302	FR19720025230	19720712
FR2146261 B1	19770902	FR19720025230	19720712
GB1392192 A	19750430	GB19710033793	19710719
HU168483 P	19760528	HU1972BE01138	19720719
IE36534 B	19761124	IE19720000950	19720705
IE36534 L	19730119	IE19720000950	19720705
IL39916 A0	19720928	IL19720039916	19720716
IL39916 A1	19741129	IL19720039916	19720716
IT965914 A	19740211	IT19720051587	19720717
NL7209897 A	19730123	NL19720009897	19720718
NO134730 A	00000000		00000000
NO134730 B	19760830	NO19720002561	19720718
NO134730 C	19761208	NO19720002561	19720718
NO134730 L	00000000		00000000
PH9864 A	19760511	PH19720013725	19720717
PL85732 P	19760430	PL19720156755	19720717
SE383101 B	19760301	SE19720009409	19720718
SE383101 C	19760610	SE19720009409	19720718
US3826413 A	19740730	US19720272816	19720718
ZA7204383 A	19740227	ZA19720004383	19720626

Priority:

GB19710033793 19710719 GB19710033793 19710719 GB19720033793 19720711

Probable Assignee: BESPAK IND LTD

Assignee(s): (std): BESPAK INDUSTRIES LTD FIELDINGS ROAD CHESHUNT WALT ; BESPAK INDUSTRIES LTD ; WARREN W ; BESPARK IND LTD ; WARREN W E ; BESPAK AK IND LTD ; BESPAK IND LTD

Assignee(s): BESPAK IND LTD FIELDINGS ROAD CHESHUNT WALTHAM GROSS HERTFORDSHIRE GR BR ; BESPAK IND LTD GB ; BESPAK INDUSTRIES LIMITED ; BESPAK INDUSTRIES LTD WALTHAM CROSS HERTFORDSHIRE ; BESPAK INDUSTRIES LTD FIELDINGS ROAD CHESHUNT WALTHAM GROSS HERTFORDSHIRE GR BR ; BESPAK INDUSTRIES LTD WALTHAM CROSS HERTFORDSHIRE GROSSBRITANNIEN ; WARREN WILLIAM E

Inventor(s): (std): WE WARREN ; WILLIAM EDWARD WARREN ; WARREN W ; WARREN WILLIAM EDWARD ; WARREN W E ; WARREN WILLIAM E

Inventor(s): WARREN WILLIAM EDWARD CUFFLEY HERTFORDSHIRE GROSSBRITANNIEN ; WARREN WILLIAM EDWARD CUFFLEY HERTFORDSHIRE ; W E WARREN ; WARREN W GB ; WARREN WILLIAM EDWARD CUFFLEY HERTFORDSHIRE GROSS

Agent(s): AE MULFORD

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AR193533 A1	19730430	LSGT	+	granted / extensions (spc, cpc, pte)	
AR193533 A1	19920717	PEXP		Calculated Patent Term Expiry	
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AT604272 A	19760615	LSPB	+	published / reissued	
AU197244696 A1	19740124	LSPB	+	published / reissued	
BE786421 A	19721116	LSPB	+	published / reissued	
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DK136018 B	19770801	LSPB	+	published / reissued	
DK136018 C	19780102	LSGT	+	granted / extensions (spc, cpc, pte)	
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EG10691 A	19760430	LSGT	+	granted / extensions (spc, cpc, pte)	
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ES404952 A1	19750616	LSGT	+	granted / extensions (spc, cpc, pte)	
ES404952 A1	19950616	PEXP		Calculated Patent Term Expiry	
FR2146261 A1	19730302	LSPB	+	published / reissued	
FR2146261 B1	19770902	LSGT	+	granted / extensions (spc, cpc, pte)	
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GB1392192 A	19790221	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	
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IT965914 A	19920717	PEXP		Calculated Patent Term Expiry	
NL7209897 A	19730123	LSPB	+	published / reissued	
NL7209897 A	19790827	LSLE	-BV	THE PATENT APPLICATION HAS LAPSED	
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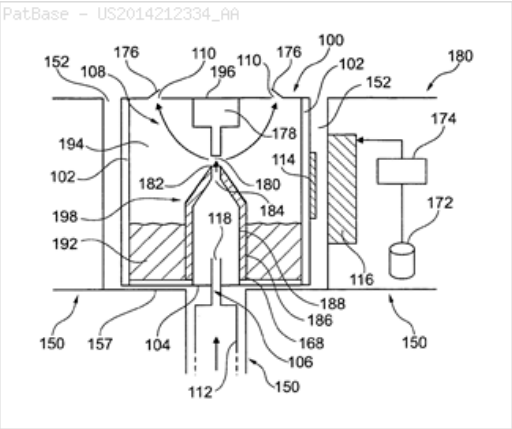
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PH9864 A	19930511	PEXP		Calculated Patent Term Expiry
PL85732 P	19760430	LSGT	+	granted / extensions (spc, cpc, pte)
SE383101 B	19760301	LSPB	+	published / reissued
SE383101 C	19760610	LSGT	+	granted / extensions (spc, cpc, pte)
SE383101 C	19920718	PEXP		Calculated Patent Term Expiry
US3826413 A	19740730	LSGT	+	granted / extensions (spc, cpc, pte)
US3826413 A	19920718	PEXP		Calculated Patent Term Expiry
ZA7204383 A	19740227	LSGT	+	granted / extensions (spc, cpc, pte)
ZA7204383 A	19880625	PEXP		Calculated Patent Term Expiry

108) Family number: 53181075 (US2014212334A)

Title: FLUID CARTRIDGE AND **DISPENSION** DEVICE

Abstract: A fluid cartridge (100) for **dispensing** a fluid, the fluid cartridge (100) comprising a casing (102) for accommodating the fluid, a pressure feed interface (104) configured for being coupled to a pressure feed unit (106) for feeding the fluid in the casing (102) with pressurized medium, a fluid **dispensing** unit (108) configured for generating particles, particularly fluid particles, upon feeding the fluid in the casing (102) with pressurized medium, and a fluidic path (110) in the casing (102) being opened or openable for enabling the particles, particularly fluid particles, to leave the casing (102) through the fluidic path (110).

Classifications:
International (IPC 8-9): A61L2/00 A61M A61M11/00 A61M11/02 A61M11/06 A61M15/00 A61M16/06 A61M16/10 A61M16/14 B01D11/02 B01D11/04 B05B B05B1/26 B05B1/36 B05B11/00 B05B15/06 B05B15/12 B05B7/00 B05B7/16 B05B7/24 B65D25/00 B65D83/14 B65D83/30 B65D83/66 B65D83/72 B65G29/00 B67D5/60 (Advanced/Invention);
B05B1/36 B05B11/00 B05B15/12 (Advanced/Non-invention);
A61M B05B (Subclass/Invention)
CPC: A61M11/002 A61M11/06 A61M15/0043 A61M16/108 A61M2202/0208 A61M2205/6054 A61M2205/6063 A61M2205/6072 B05B1/265 B05B1/36 B05B7/0012 B05B7/1626 B05B7/2405 B05B11/0054 B65D83/303 B65D83/72 B65D83/753 A61M16/14 A61M16/06 A61M16/109 A61M2207/00 A61M2205/0216 A61M2205/122 A61M2205/123 A61M2205/60 B65D83/66 A61M15/008 A61M15/0083 B05B15/65 B05B16/00
US: 1/1 128/200.21 239/338 239/8 422/28



Family:

Publication number	Publication date	Application number	Application date
CA2845066 AA	20140212	CA20122845066	20120824
CN103826680 A	20140528	CN201280042101	20120824
CN103826680 B	20161026	CN201280042101	20120824
DE602012019995 D1	20160811	DE201260019995T	20120824
DK2750744 T3	20160919	DK20120750769T	20120824
EP2750744 A2	20140709	EP20120750769	20120824
EP2750744 B1	20160629	EP20120750769	20120824
EP3120887 A1	20170125	EP20160176502	20120824
ES2593622 T3	20161212	ES20120750769T	20120824
GC6414 A	20171108	GC2012P022124	20120901
HK1198521 A1	20150515	HK20140112031	20141128
HK1198521 B	20170811	HK20140112031	20141128
HU029640 T2	20170228	HU20120750769T	20120824
IN01351DN2014 A	20160527	IN2014DN01351	20140221
JP2014527445 T2	20141016	JP20140527605T	20120824
JP6141847 B2	20170607	JP20140527605T	20120824
PL2750744 T3	20170331	PL20120750769T	20120824
PT2750744 T	20161004	PT20120750769T	20120824
US2014212334 AA	20140731	US20120241809	20120824
US2016250439 AA	20160901	US20160059177	20160302
US9296551 BB	20160329	US20120241809	20120824
WO13030117 A2	20130307	WO2012EP66520	20120824
WO13030117 A3	20130425	WO2012EP66520	20120824

Priority:

EP20110179621 20110831 EP20120750769 20120824 WO2012EP66520 20120824
US20140241809 20140227 US20160059177 20160302

Probable Assignee: MEDIC ACTIV VERTRIEBS GMBH

Assignee(s): (std): BEHNE RAINER ; BRUNNER PETER ; KLEIN THOMAS ; LINDENA BERND HEIKO ; MEDIC ACTIV VERTRIEBS GMBH ; ZIMMER ANDREAS ; TRINKER MARTIN

Inventor(s): (std): ZIMMER ANDREAS ; BRUNNER PETER ; BEHNE RAINER ; TRINKER MARTIN ; LINDENA BERND HEIKO ; KLEIN THOMAS ; MARTIN TRINKER ; RAINER BEHNE ; ANDREAS ZIMMER ; PETER BRUNNER ; THOMAS KLEIN ; BERND HEIKO LINDENA

Agent(s): GOWLING LAFLEUR HENDERSON LLP; DILG HAEUSLER SCHINDELMANN PATENTANWALTSGESELLSCHAFT MBH; DILG HAEUSLER SCHINDELMANN PATENTANWALTSGESELLSCHAFT MBH; ISERN JORGE; ABU GAZALEH INTELLECTUAL PROPERTY LLC; EAGLE IP LTD; YANO JUICHIRO; LEWIS ROCA ROTHGERBER CHRISTIE LLP; DILG ANDREAS

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN 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 MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW 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 ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CA2845066 AA	20140212	LSPB	+	published / reissued	

CA2845066 AA	20170821	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20170814
CN103826680 A	20140528	LSPB	+	published / reissued	
CN103826680 A	20140528	LSPB	+C06	PUBLICATION	
CN103826680 A	20161026	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN103826680 B	20161026	LSGT	+	granted / extensions (spc, cpc, pte)	
CN103826680 B	20320824	PEXP		Calculated Patent Term Expiry	
DK2750744 T3	20160919	LSGT	+	granted / extensions (spc, cpc, pte)	
DK2750744 T3	20320824	PEXP		Calculated Patent Term Expiry	
EP2750744 A2	20140709	LSPB	+	published / reissued	
EP2750744 A2	20140709	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20140210
EP2750744 A2	20141231	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20141201
EP2750744 A2	20160210	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160114
EP2750744 A2	20160930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160829 YEAR OF FEE PAYMENT : 5
EP2750744 A2	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160901 YEAR OF FEE PAYMENT : 5
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EP2750744 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160629
EP2750744 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20160831 YEAR OF FEE PAYMENT : 5
EP2750744 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20160830 YEAR OF FEE PAYMENT : 5
EP2750744 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20160902 YEAR OF FEE PAYMENT : 5
EP2750744 B1	20161114	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NO REF LEGAL EVENT CODE : T2 EFFECTIVE DATE : 20160629
EP2750744 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160629
EP2750744 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160629
EP2750744 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160629
EP2750744 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160930

EP2750744 B1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20160921 YEAR OF FEE PAYMENT : 5
EP2750744 B1	20161212	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2593622 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20161212
EP2750744 B1	20161230	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20160831 YEAR OF FEE PAYMENT : 5
EP2750744 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161029
EP2750744 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160629
EP2750744 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160629
EP2750744 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160629
EP2750744 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160629
EP2750744 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20161118 YEAR OF FEE PAYMENT : 5
EP2750744 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160629
EP2750744 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20160826 YEAR OF FEE PAYMENT : 5
EP2750744 B1	20170228	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HU REF LEGAL EVENT CODE : AG4A REF DOCUMENT NUMBER : E029640 COUNTRY OF REF DOCUMENT : HU
EP2750744 B1	20170330	LSRE	REG	REFERENCE TO A	REF COUNTRY CODE : DE

				NATIONAL CODE	REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602012019995 COUNTRY OF REF DOCUMENT : DE
EP2750744 B1	20170331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160629
EP2750744 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20160915 YEAR OF FEE PAYMENT : 5
EP2750744 B1	20170607	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170330
EP2750744 B1	20170829	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2750744 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160629
EP2750744 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160929
EP2750744 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160824
EP2750744 B1	20170929	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20170826 YEAR OF FEE PAYMENT : 6
EP2750744 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170808 YEAR OF FEE PAYMENT : 6
EP2750744 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170807 YEAR OF FEE PAYMENT : 6
EP2750744 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170807 YEAR OF FEE PAYMENT : 6
EP2750744 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20170817 YEAR OF FEE PAYMENT : 6
EP2750744 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170829 YEAR OF FEE PAYMENT : 6
EP2750744 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20170920 YEAR OF FEE PAYMENT : 6

EP2750744 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20170907 YEAR OF FEE PAYMENT : 6
EP2750744 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20170816 YEAR OF FEE PAYMENT : 6
EP2750744 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20170807 YEAR OF FEE PAYMENT : 6
EP2750744 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20170810 YEAR OF FEE PAYMENT : 6
EP2750744 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20170807 YEAR OF FEE PAYMENT : 6
EP2750744 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20170822 YEAR OF FEE PAYMENT : 6
EP2750744 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20170808 YEAR OF FEE PAYMENT : 6
EP2750744 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20170808 YEAR OF FEE PAYMENT : 6
EP2750744 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20170809 YEAR OF FEE PAYMENT : 6
EP2750744 B1	20180228	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HU REF LEGAL EVENT CODE : HC9C
EP2750744 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20180102 YEAR OF FEE PAYMENT : 6
EP2750744 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160629
EP2750744 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160629
EP2750744 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160831
EP2750744 B1	20180829	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7

EP2750744 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160629
EP2750744 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180808 YEAR OF FEE PAYMENT : 7
EP2750744 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180809 YEAR OF FEE PAYMENT : 7
EP2750744 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20180826 YEAR OF FEE PAYMENT : 7
EP2750744 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20180919 YEAR OF FEE PAYMENT : 7
EP2750744 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180829 YEAR OF FEE PAYMENT : 7
EP2750744 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20180808 YEAR OF FEE PAYMENT : 7
EP2750744 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20180821 YEAR OF FEE PAYMENT : 7
EP2750744 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20180827 YEAR OF FEE PAYMENT : 7
EP2750744 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20180822 YEAR OF FEE PAYMENT : 7
EP2750744 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20180809 YEAR OF FEE PAYMENT : 7
EP2750744 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180808 YEAR OF FEE PAYMENT : 7
EP2750744 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20180809 YEAR OF FEE PAYMENT : 7
EP2750744 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20180903 YEAR OF FEE PAYMENT : 7
EP2750744 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20180808 YEAR OF FEE PAYMENT : 7

EP2750744 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20180809 YEAR OF FEE PAYMENT : 7
EP2750744 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20180828 YEAR OF FEE PAYMENT : 7
EP2750744 B1	20181231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20180809 YEAR OF FEE PAYMENT : 7
EP2750744 B1	20190930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20190826 YEAR OF FEE PAYMENT : 8
EP2750744 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20190729 YEAR OF FEE PAYMENT : 8
EP2750744 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190729 YEAR OF FEE PAYMENT : 8
EP2750744 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190826 YEAR OF FEE PAYMENT : 8
EP2750744 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20190816 YEAR OF FEE PAYMENT : 8
EP2750744 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190905 YEAR OF FEE PAYMENT : 8
EP2750744 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190802 YEAR OF FEE PAYMENT : 8
EP2750744 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20190729 YEAR OF FEE PAYMENT : 8
EP2750744 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20190806 YEAR OF FEE PAYMENT : 8
EP2750744 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20190808 YEAR OF FEE PAYMENT : 8
EP2750744 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20190809 YEAR OF FEE PAYMENT : 8
EP2750744 B1	20191129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20190730 YEAR OF FEE PAYMENT : 8
EP2750744 B1	20191129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20190729 YEAR OF FEE PAYMENT : 8

				FROM NATIONAL OFFICE TO EPO]	
EP2750744 B1	20191129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20190731 YEAR OF FEE PAYMENT : 8
EP2750744 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20190731 YEAR OF FEE PAYMENT : 8
EP2750744 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190806 YEAR OF FEE PAYMENT : 8
EP2750744 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20190829 YEAR OF FEE PAYMENT : 8
EP2750744 B1	20320824	PEXP		Calculated Patent Term Expiry	
EP3120887 A1	20170125	LSPB	+	published / reissued	
EP3120887 A1	20170816	LSWD	-18W	APPLICATION WITHDRAWN	EFFECTIVE DATE : 20170703
ES2593622 T3	20161212	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2593622 T3	20320824	PEXP		Calculated Patent Term Expiry	
GC6414 A	20171108	LSGT	+	granted / extensions (spc, cpc, pte)	
GC6414 A	20320901	PEXP		Calculated Patent Term Expiry	
HK1198521 A1	20150515	LSPB	+	published / reissued	
HK1198521 A1	20341128	PEXP		Calculated Patent Term Expiry	
HK1198521 B	20170811	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1198521 B	20341128	PEXP		Calculated Patent Term Expiry	
HU029640 T2	20170228	LSPB	+	published / reissued	
IN01351DN2014 A	20160527	LSPB	+	published / reissued	
JP2014527445 T2	20141016	LSPB	+	published / reissued	
JP2014527445 T2	20150819	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20150819
JP2014527445 T2	20150819	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20150819
JP2014527445 T2	20160510	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20160510
JP2014527445 T2	20161004	LSRE	A524	WRITTEN SUBMISSION OF COPY OF AMENDMENT UNDER SECTION 19 (PCT)	TEXT : JAPANESE INTERMEDIATE CODE: A524 EFFECTIVE DATE : 20161004
JP2014527445 T2	20170324	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2014527445 T2	20170404	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20170404

				(UTILITY MODEL)	
JP2014527445 T2	20170511	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20170508
JP2014527445 T2	20170512	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6141847 COUNTRY OF REF DOCUMENT : JP
JP6141847 B2	20170607	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6141847 B2	20170406	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6141847 B2	20170509	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6141847 B2	20170512	LSGT	+R150	特許証 (Patent certificate)	
JP6141847 B2	20320824	PEXP		Calculated Patent Term Expiry	
PL2750744 T3	20170331	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2750744 T	20161004	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2750744 T	20320824	PEXP		Calculated Patent Term Expiry	
US2014212334 AA	20140731	LSPB	+	published / reissued	
US2014212334 AA	20160309	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016250439 AA	20160901	LSPB	+	published / reissued	
US2016250439 AA	20160322	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MEDIC ACTIV VERTRIEBS GMBH, GERMANY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KLEIN, THOMAS; ZIMMER, ANDREAS; TRINKER, MARTIN; AND OTHERS; SIGNING DATES FROM 20140206 TO 20140217; REEL/FRAME:038073/0475
US2016250439 AA	20170125	LSES	NFA1	Non Final Action Mailed	
US2016250439 AA	20180108	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US9296551 BB	20160329	LSGT	+	granted / extensions (spc, cpc, pte)	
US9296551 BB	20140325	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MEDIC ACTIV VERTRIEBS GMBH, GERMANY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KLEIN, THOMAS; ZIMMER, ANDREAS; TRINKER, MARTIN; AND OTHERS; SIGNING DATES FROM 20140206 TO 20140217; REEL/FRAME:032517/0916
US9296551 BB	20151118	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US9296551 BB	20160309	LSGT	PAT1	Patented Case	
US9296551 BB	20190920	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9296551 BB	20321117	PEXP		Calculated Patent Term Expiry (PTA 85 days)	
WO13030117 A2	20130307	LSPB	+	published / reissued	

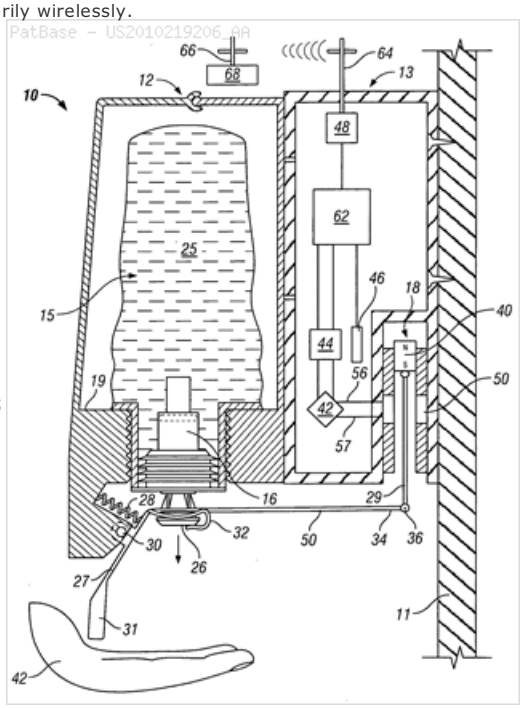
WO13030117 A3	20140210	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012750769 COUNTRY OF REF DOCUMENT : EP
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WO13030117 A3	20140226	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2014527605 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
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WO13030117 A3	20140228	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE

109) Family number: 46663076 (US2010219206A)

Title: MANUAL **DISPENSER** WITH ELECTRICAL GENERATOR

Abstract: A **dispensing** apparatus including a product **dispenser** in which product is **dispensed** by manual movement of an activation mechanism as, for example, by moving a lever with a person's hand, arm or foot. The **dispensing** apparatus includes an electrical generator for generating electrical energy as a result of the manual movement of the activation mechanism, preferably by electromagnetic induction or electrochemistry. The electrical energy from the generator is utilized in the **dispensing** apparatus to power a data communication unit for receiving information about the product **dispenser** and transmitting the information to a receiver, preferably but not necessarily wirelessly.

Classifications:
International (IPC 8-9): A47K5/12 A47K5/14 A47K5/16 A61L2/00 A61L2/16 A61L2/18 A61L2/20 A61L2/235 B01F3/04 B01J19/08 B05B11/00 B05B7/24 B65D23/00 B65D83/00 B67D1/10 B67D3/00 B67D5/06 B67D7/06 B67D7/08 B67D7/22 B67D7/60 B67D7/76 B67D7/78 B67D99/00 C01B13/10 C01B13/11 G01F11/00 G01F11/02 G01F23/00 G01F23/284 G01F23/292 (Advanced/Invention); C01B13/10 C02F1/78 (Advanced/Non-invention); A47K5/00 B01F3/04 B05B7/24 B67D7/58 B67D99/00 (Core/Invention)
CPC: B01F3/04446 A61L2202/15 B01F5/12 B01F2003/04886 C02F1/78 C02F2303/18 A47K5/14 A47K5/1204 B05B11/3001 C01B13/11 A61L2/202 A47K5/1211 C01B13/10 A47K5/1217 A61L2/0088 A61L2/183 A61L2/235 A61L2202/11 A47K5/1207 A47K5/1214 B05B11/308 B05B11/3087 G01F11/021 G01F11/025 A47K5/1205 G01F23/2921 G01F23/2927 G01F23/2928 B67D7/221
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Family:

Publication number	Publication date	Application number	Application date
AU2012202564 AA	20121122	AU20120202564	20120502
AU2012202564 BB	20150507	AU20120202564	20120502
CA2690890 AA	20110720	CA20102690890	20100120
CA2690890 C	20190305	CA20102690890	20100120
CA2694569 AA	20100827	CA20102694569	20100223
CA2694569 C	20170725	CA20102694569	20100223
CA2739362 AA	20121106	CA20112739362	20110506
CA2967107 AA	20100827	CA20102967107	20100223
CN102795383 A	20121128	CN201210137844	20120504
DE602010032726 D1	20160609	DE201060032726T	20100226
EP2223642 A2	20100901	EP20100154772	20100226
EP2223642 A3	20180110	EP20100154772	20100226
EP2223642 B1	20190925	EP20100154772	20100226
EP2322068 A2	20110518	EP20110000051	20100226
EP2322068 A3	20140611	EP20110000051	20100226
EP2322068 B1	20160420	EP20110000051	20100226
EP2520910 A1	20121107	EP20120166725	20120504
EP2520910 B1	20191225	EP20120166725	20120504
EP3533368 A1	20190904	EP20190167350	20100226
US2010219206 AA	20100902	US20090379786	20090227
US2010288788 AA	20101118	US20100659127	20100225
US2011108410 AA	20110512	US20110929315	20110114
US2012228333 AA	20120913	US20120475463	20120518
US2012234867 AA	20120920	US20120485389	20120531
US2012279987 AA	20121108	US20120464516	20120504
US2013119083 AA	20130516	US20120470025	20120511
US2014138401 AA	20140522	US20140166588	20140128
US2014144934 AA	20140529	US20140167358	20140129
US2014217123 AA	20140807	US20140250080	20140410
US2015359391 AA	20151217	US20150835412	20150825
US8201707 BB	20120619	US20100659127	20100225
US8215523 BB	20120710	US20090379786	20090227
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US8684236 BB	20140401	US20120475463	20120518
US8733596 BB	20140527	US20120470025	20120511
US9027788 BB	20150512	US20140167358	20140129
US9149161 BB	20151006	US20140166588	20140128
US9936841 BB	20180410	US20150835412	20150825

Priority:

US20090379786 20090227 US20090379876 20090303 CA20102690890 20100120
CA20102694569 20100120 CA20102694569 20100223 US20100659127 20100225
EP20100154772 20100226 EP20110000051 20100226 US20110929315 20110114
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US20140167358 20140129 US20140250080 20140410 US20150835412 20150825
CA20172694569 20170705

Probable Assignee: GOTOHTICOM INC

Assignee(s): (std): HOUSE EDWARD DANIEL ; JONES ANDREW ; OP HYGIENE IP GMBH ; OPHARDT HEINER ; GOTOHTI COM INC ; STAN DUSAN ; TEZCAN CUNEYT

Assignee(s): GOTOHTICOM INC ; GOTOHTICOM INC BEAMSVILLE ; OPHARDT HYGIENE AG

Inventor(s): (std): OPHARDT HEINER ; JONES ANDREW ; HOUSE EDWARD ; HOUSE EDWARD DANIEL ; STAN DUSAN ; TEZCAN CUNEYT ; DUSAN STAN ; DANIEL HOUSE EDWARD ; HEINER OPHARDT ; CUNEYT TEZCAN

Agent(s): WRAYS; RICHES MCKENZIE AND HERBERT LLP; GRUENECKER PATENT U RECHTSANWAELTE PARTG MBB; GRUENECKER KINKELDEY STOCKMAIR AND SCHWANHAEUSSER ANWALTSSOZIETAET; GRUENECKER PATENT U RECHTSANWAELTE PARTG MBB; GRUENECKER KINKELDEY STOCKMAIR AND SCHWANHAEUSSER; THORPE NORTH AND WESTERN 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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU2012202564 AA	20121122	LSPB	+	published / reissued	
AU2012202564 BB	20150507	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2012202564 BB	20150903	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2012202564 BB	20320502	PEXP		Calculated Patent Term Expiry	
CA2690890 AA	20110720	LSPB	+	published / reissued	
CA2690890 AA	20141106	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20141028
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CA2694569 AA	20100827	LSPB	+	published / reissued	
CA2694569 AA	20141028	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20141017
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CA2694569 C	20300223	PEXP		Calculated Patent Term Expiry	
CA2739362 AA	20121106	LSPB	+	published / reissued	
CA2739362 AA	20170621	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20170510
CA2967107 AA	20100827	LSPB	+	published / reissued	
CA2967107 AA	20170706	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20170512
CN102795383 A	20121128	LSPB	+	published / reissued	
CN102795383 A	20121128	LSPB	+C06	PUBLICATION	
CN102795383 A	20160831	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
EP2223642 A2	20100901	LSPB	+	published / reissued	
EP2223642 A3	20180815	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20180709

EP2223642 A3	20181219	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20181123
EP2223642 A3	20190424	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : OP-HYGIENE IP GMBH
EP2223642 A3	20190501	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20190405
EP2223642 B1	20190925	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP2223642 B1	20300226	PEXP		Calculated Patent Term Expiry	
EP2322068 A2	20110518	LSPB	+	published / reissued	
EP2322068 A3	20150121	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20141209
EP2322068 A3	20150401	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20150227
EP2322068 A3	20150902	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150805
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EP2322068 B1	20160420	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP2322068 B1	20160429	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
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EP2322068 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE

				FROM NATIONAL OFFICE TO EPO]	DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2322068 B1	20170329	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170123
EP2322068 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170221 YEAR OF FEE PAYMENT : 8
EP2322068 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170224 YEAR OF FEE PAYMENT : 8
EP2322068 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2322068 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170221 YEAR OF FEE PAYMENT : 8
EP2322068 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20170220 YEAR OF FEE PAYMENT : 8
EP2322068 B1	20170929	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2322068 B1	20170929	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2322068 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170228
EP2322068 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170228
EP2322068 B1	20171129	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2322068 B1	20171229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170226
EP2322068 B1	20180222	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 9
EP2322068 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170226
EP2322068 B1	20180330	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20180226 YEAR OF FEE PAYMENT : 9

				TO EPO]	
EP2322068 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180226 YEAR OF FEE PAYMENT : 9
EP2322068 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180226 YEAR OF FEE PAYMENT : 9
EP2322068 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180222 YEAR OF FEE PAYMENT : 9
EP2322068 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170226
EP2322068 B1	20190329	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20190224 YEAR OF FEE PAYMENT : 10
EP2322068 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190225 YEAR OF FEE PAYMENT : 10
EP2322068 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190225 YEAR OF FEE PAYMENT : 10
EP2322068 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190224 YEAR OF FEE PAYMENT : 10
EP2322068 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20100226
EP2322068 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2322068 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160420
EP2322068 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2322068 B1	20300226	PEXP		Calculated Patent Term Expiry	
EP2520910 A1	20121107	LSPB	+	published / reissued	
EP2520910 A1	20130710	LSES	+17P	REQUEST FOR EXAMINATION	EFFECTIVE DATE : 20130507

				FILED	
EP2520910 A1	20181107	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20181004
EP2520910 A1	20190814	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20190719
EP2520910 B1	20191225	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2520910 B1	20191225	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : OP-HYGIENE IP GMBH
EP2520910 B1	20191225	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2520910 B1	20191230	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2520910 B1	20200115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1217635 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20200115
EP2520910 B1	20200116	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602012066668 COUNTRY OF REF DOCUMENT : DE
EP2520910 B1	20200122	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2520910 B1	20320504	PEXP		Calculated Patent Term Expiry	
EP3533368 A1	20190904	LSPB	+	published / reissued	
US2010219206 AA	20100902	LSPB	+	published / reissued	
US2010219206 AA	20120620	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010288788 AA	20101118	LSPB	+	published / reissued	
US2010288788 AA	20120308	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GOTOHTI.COM INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OPHARDT, HEINER; REEL/FRAME:027829/0638 EFFECTIVE DATE : 20100630
US2010288788 AA	20120530	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2011108410 AA	20110512	LSPB	+	published / reissued	
US2011108410 AA	20140226	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012228333 AA	20120913	LSPB	+	published / reissued	
US2012228333 AA	20130520	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GOTOHTI.COM INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OPHARDT, HEINER; REEL/FRAME:030448/0035 EFFECTIVE DATE : 20100630
US2012228333 AA	20140312	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012234867 AA	20120920	LSPB	+	published / reissued	

US2012234867 AA	20120531	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GOTOHTI.COM INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OPHARDT, HEINER; REEL/FRAME:028298/0893 EFFECTIVE DATE : 20120404
US2012234867 AA	20130714	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2012279987 AA	20121108	LSPB	+	published / reissued	
US2012279987 AA	20120508	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GOTOHTI.COM INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OPHARDT, HEINER; HOUSE, EDWARD DANIEL; TEZCAN, CUNEYT; AND OTHERS; REEL/FRAME:028173/0163 EFFECTIVE DATE : 20120412
US2012279987 AA	20140306	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2013119083 AA	20130516	LSPB	+	published / reissued	
US2013119083 AA	20131122	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GOTOHTI.COM INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OPHARDT, HEINER; JONES, ANDREW; SIGNING DATES FROM 20120622 TO 20120629; REEL/FRAME:031661/0333
US2013119083 AA	20140507	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014138401 AA	20140522	LSPB	+	published / reissued	
US2014138401 AA	20150327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OPHARDT HYGIENE AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:GOTOHTI.COM INC.; REEL/FRAME:035278/0585 EFFECTIVE DATE : 20140205
US2014138401 AA	20150327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OP-HYGIENE IP GMBH, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OPHARDT HYGIENE AG; REEL/FRAME:035278/0623 EFFECTIVE DATE : 20140330
US2014138401 AA	20150916	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014144934 AA	20140529	LSPB	+	published / reissued	
US2014144934 AA	20150422	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014217123 AA	20140807	LSPB	+	published / reissued	
US2014217123 AA	20140701	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GOTOHTI.COM INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OPHARDT, HEINER; JONES, ANDREW; SIGNING DATES FROM 20140604 TO 20140605; REEL/FRAME:033264/0512
US2014217123 AA	20140701	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OPHARDT HYGIENE AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:GOTOHTI.COM INC.; REEL/FRAME:033224/0855 EFFECTIVE DATE : 20140205

US2014217123 AA	20140701	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OP-HYGIENE IP GMBH, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OPHARDT HYGIENE AG; REEL/FRAME:033224/0893 EFFECTIVE DATE : 20140330
US2014217123 AA	20150308	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2015359391 AA	20151217	LSPB	+	published / reissued	
US2015359391 AA	20161005	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GOTOHTI.COM INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OPHARDT, HEINER; JONES, ANDREW; SIGNING DATES FROM 20120622 TO 20120629; REEL/FRAME:039943/0648
US2015359391 AA	20161005	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OPHARDT HYGIENE AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:GOTOHTI.COM INC.; REEL/FRAME:039943/0703 EFFECTIVE DATE : 20140205
US2015359391 AA	20161005	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OP-HYGIENE IP GMBH, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OPHARDT HYGIENE AG; REEL/FRAME:040231/0343 EFFECTIVE DATE : 20140330
US2015359391 AA	20170420	LSES	NFA1	Non Final Action Mailed	
US2015359391 AA	20171121	LSES	+ALW2	Allowed -- Notice of Allowance Not Yet Mailed	
US2015359391 AA	20171122	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2015359391 AA	20180227	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2015359391 AA	20180321	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8201707 BB	20120619	LSGT	+	granted / extensions (spc, cpc, pte)	
US8201707 BB	20100720	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GOTOHTI.COM INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OPHARDT, HEINER; REEL/FRAME:024738/0504 EFFECTIVE DATE : 20100630
US8201707 BB	20120530	LSGT	PAT1	Patented Case	
US8201707 BB	20150327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OP-HYGIENE IP GMBH, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OPHARDT HYGIENE AG; REEL/FRAME:035278/0623 EFFECTIVE DATE : 20140330
US8201707 BB	20150327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OPHARDT HYGIENE AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:GOTOHTI.COM INC.; REEL/FRAME:035278/0585 EFFECTIVE DATE : 20140205
US8201707 BB	20150929	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

US8201707 BB	20191126	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8201707 BB	20300326	PEXP		Calculated Patent Term Expiry (PTA 29 days)	
US8215523 BB	20120710	LSGT	+	granted / extensions (spc, cpc, pte)	
US8215523 BB	20090508	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GOTOHTI.COM INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OPHARDT, HEINER; REEL/FRAME:022676/0713 EFFECTIVE DATE : 20090430
US8215523 BB	20120620	LSGT	PAT1	Patented Case	
US8215523 BB	20150327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OP-HYGIENE IP GMBH, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OPHARDT HYGIENE AG; REEL/FRAME:035278/0623 EFFECTIVE DATE : 20140330
US8215523 BB	20150327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OPHARDT HYGIENE AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:GOTOHTI.COM INC.; REEL/FRAME:035278/0585 EFFECTIVE DATE : 20140205
US8215523 BB	20151211	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8215523 BB	20191219	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8215523 BB	20300609	PEXP		Calculated Patent Term Expiry (PTA 467 days)	
US8672187 BB	20140318	LSGT	+	granted / extensions (spc, cpc, pte)	
US8672187 BB	20110114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GOTOHTI.COM INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OPHARDT, HEINER; REEL/FRAME:025674/0846 EFFECTIVE DATE : 20101214
US8672187 BB	20140226	LSGT	PAT1	Patented Case	
US8672187 BB	20150327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OP-HYGIENE IP GMBH, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OPHARDT HYGIENE AG; REEL/FRAME:035278/0623 EFFECTIVE DATE : 20140330
US8672187 BB	20150327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OPHARDT HYGIENE AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:GOTOHTI.COM INC.; REEL/FRAME:035278/0585 EFFECTIVE DATE : 20140205
US8672187 BB	20170803	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8672187 BB	20320330	PEXP		Calculated Patent Term Expiry (PTA 441 days)	
US8684236 BB	20140401	LSGT	+	granted / extensions (spc, cpc, pte)	
US8684236 BB	20140312	LSGT	PAT1	Patented Case	
US8684236 BB	20170925	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8684236 BB	20320914	PEXP		Calculated Patent Term Expiry (PTA 119 days)	

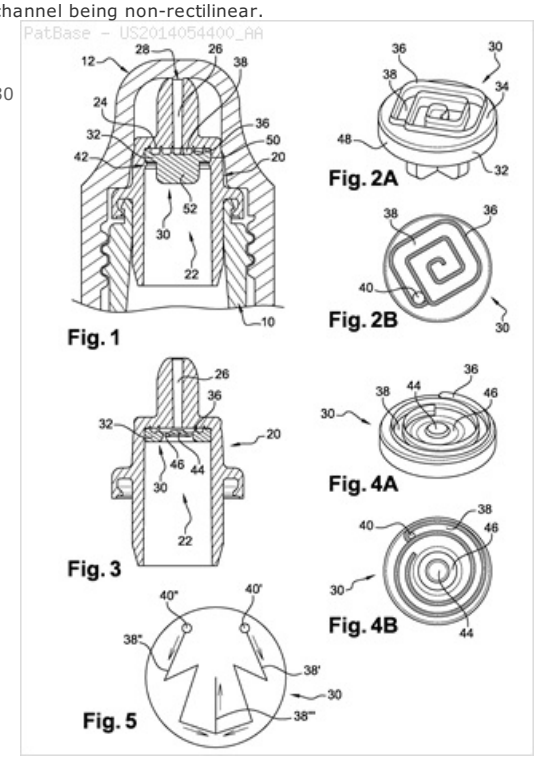
US8733596 BB	20140527	LSGT	+	granted / extensions (spc, cpc, pte)	
US8733596 BB	20140507	LSGT	PAT1	Patented Case	
US8733596 BB	20150327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OP-HYGIENE IP GMBH, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OPHARDT HYGIENE AG; REEL/FRAME:035278/0623 EFFECTIVE DATE : 20140330
US8733596 BB	20150327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OPHARDT HYGIENE AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:GOTOHTI.COM INC.; REEL/FRAME:035278/0585 EFFECTIVE DATE : 20140205
US8733596 BB	20171030	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8733596 BB	20320511	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9027788 BB	20150512	LSGT	+	granted / extensions (spc, cpc, pte)	
US9027788 BB	20140129	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GOTOHTI.COM INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OPHARDT, HEINER; HOUSE, EDWARD; TEZCAN, CUNEYT; AND OTHERS; REEL/FRAME:032080/0134 EFFECTIVE DATE : 20120412
US9027788 BB	20150422	LSGT	PAT1	Patented Case	
US9027788 BB	20181025	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9027788 BB	20340129	PEXP		Calculated Patent Term Expiry	
US9149161 BB	20151006	LSGT	+	granted / extensions (spc, cpc, pte)	
US9149161 BB	20140128	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GOTOHTI.COM INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OPHARDT, HEINER; JONES, ANDREW; SIGNING DATES FROM 20120622 TO 20120629; REEL/FRAME:032067/0369
US9149161 BB	20150916	LSGT	PAT1	Patented Case	
US9149161 BB	20190322	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9149161 BB	20340128	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9936841 BB	20180410	LSGT	+	granted / extensions (spc, cpc, pte)	
US9936841 BB	20180321	LSGT	PAT1	Patented Case	
US9936841 BB	20360228	PEXP		Calculated Patent Term Expiry (PTA 187 days and a terminal disclaimer has been filed)	

110) Family number: 52204077 (US2014054400A)

Title: DEVICE FOR **DISPENSING** **LIQUID** PRODUCT PROVIDED WITH A FLOW REDUCTION MEMBER

Abstract: A **liquid** **dispenser** device that includes: a **dispenser** endpiece including a cavity having an end wall from which there extends a longitudinal **liquid** outlet channel; and a flow reducer member that is fitted in the cavity of the endpiece, the flow reducer member including a transverse surface that co-operates with the end wall of the endpiece to define a **liquid** deflector channel that extends in a transverse plane, the deflector channel being non-rectilinear.

Classifications:
International (IPC 8-9): A61F11/00 A61F9/00 B05B1/30 B65D1/08 B65D47/06 B65D47/18 (Advanced/Invention)
CPC: A61F9/0008 B65D47/18 F04C2270/0421 B05B1/3415 B05B1/30
European: A61F9/00B B65D1/08 B65D47/18
US: 239/590



Family:

Publication number	Publication date	Application number	Application date
EP2699478 A1	20140226	EP20120724675	20120418
FR2974350 A1	20121026	FR20110053488	20110421
FR2974350 B1	20140606	FR20110053488	20110421
JP2014516331 T2	20140710	JP20140505701T	20120418
US2014054400 AA	20140227	US20120113150	20120418
WO12143664 A1	20121026	WO2012FR50848	20120418

Priority:
FR20110053488 20110421 WO2012FR50848 20120418

Probable Assignee: REXAM HEALTHCARE LA VERPILLIERE SAS

Assignee(s): (std): CAMBA JOSE ; DUGAND PASCAL ; REXAM HEALTHCARE LA VERPILLIERE ; PAGNY PHILIPPE ; REXAM HEALTHCARE LA VERPILLIER

Assignee(s): REXAM HEALTHCARE LA VERPILLIERE SAS ; NEMERA LA VERPILLIERE SAS F K A REXAM HEALTHCARE LA VERPILLIERE SAS ; NEMERA LA VERPILLIERE ; CREDIT SUISSE CAYMAN ISLANDS BRANCH AGENT AG AS

Inventor(s): (std): CAMBA JOSE ; PAGNY PHILIPPE ; DUGAND PASCAL

Inventor(s): PASCAL DUGAND ; PHILIPPE PAGNY ; JOSE CAMBA

Agent(s): THIOLLIER CLEMENCE OLIVIA LAURE MARIE; CABINET LHERMET LA BIGNE AND REMY; LLR

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 MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW 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 ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
EP2699478 A1	20140226	LSPB	+	published / reissued	
EP2699478 A1	20140226	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20131016
EP2699478 A1	20141015	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20140915
EP2699478 A1	20150909	LSAS	RAP1	RIGHTS OF AN	PARTYTYPE : OWNER

				APPLICATION TRANSFERRED	OWNER : NEMERA LA VERPILLIERE
EP2699478 A1	20160224	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20150326
FR2974350 A1	20121026	LSPB	+	published / reissued	
FR2974350 B1	20140606	LSGT	+	granted / extensions (spc, cpc, pte)	
FR2974350 B1	20160427	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 6
FR2974350 B1	20170425	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 7
FR2974350 B1	20180424	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
FR2974350 B1	20190426	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 9
FR2974350 B1	20190809	LSAS	CD	Changement de nom, de dénomination (CHANGE OF NAME OR COMPANY NAME)	REGISTERED NUMBER : 0229500 BOPI DATE : 2019-38
FR2974350 B1	20190809	LSAS	CD	Changement de nom, de dénomination (CHANGE OF NAME OR COMPANY NAME)	
FR2974350 B1	20190920	LSAS	CD	CHANGE OF NAME OR COMPANY NAME	PARTYTYPE : OWNER OWNER : NEMERA LA VERPILLIERE, FR EFFECTIVE DATE : 20190809
FR2974350 B1	20310421	PEXP		Calculated Patent Term Expiry	
JP2014516331 T2	20140710	LSPB	+	published / reissued	
US2014054400 AA	20140227	LSPB	+	published / reissued	
US2014054400 AA	20131028	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : REXAM HEALTHCARE LA VERPILLIERE S.A.S., FRANCE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:CAMBA, JOSE; PAGNY, PHILIPPE; DUGAND, PASCAL; REEL/FRAME:031489/0603 EFFECTIVE DATE : 20131010
US2014054400 AA	20140807	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH, AS AGENT, OLDPARTY : SECOND LIEN PATENT SECURITY AGREEMENT; ASSIGNOR:NEMERA LA VERPILLIERE SAS (FORMERLY KNOWN AS REXAM HEALTHCARE LA VERPILLIERE SAS); REEL/FRAME:033500/0069 EFFECTIVE DATE : 20140731
US2014054400 AA	20140807	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH, AS AGENT, OLDPARTY : FIRST LIEN PATENT SECURITY AGREEMENT; ASSIGNOR:NEMERA LA VERPILLIERE SAS (FORMERLY KNOWN AS REXAM HEALTHCARE LA VERPILLIERE SAS); REEL/FRAME:033500/0061 EFFECTIVE DATE : 20140731
US2014054400 AA	20150825	LSES	NFA1	Non Final Action Mailed	
US2014054400 AA	20150901	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NEMERA LA VERPILLIERE SAS (F/K/A REXAM HEALTHCARE OLDPARTY : RELEASE OF SECURITY INTEREST IN INTELLECTUAL PROPERTY COLLATERAL AT REEL/FRAME NO. 33500/0061; ASSIGNOR:CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH; REEL/FRAME:036517/0386 EFFECTIVE DATE : 20150901
US2014054400 AA	20150901	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

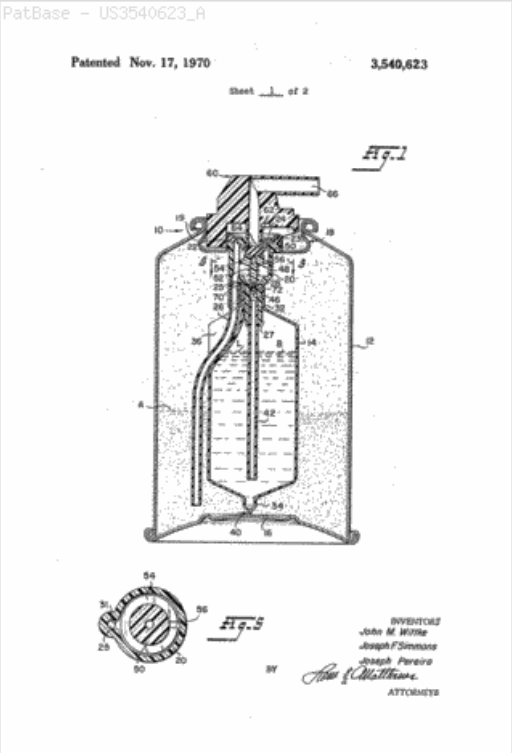
					OWNER : NEMERA LA VERPILLIERE SAS (F/K/A REXAM HEALTHCARE OLDPARTY : RELEASE OF SECURITY INTEREST IN INTELLECTUAL PROPERTY COLLATERAL AT REEL/FRAME NO. 33500/0069; ASSIGNOR:CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH; REEL/FRAME:036517/0415 EFFECTIVE DATE : 20150901
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US2014054400 AA	20190702	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NEMERA LA VERPILLIERE, FRANCE OLDPARTY : CHANGE OF NAME; ASSIGNOR:REXAM HEALTHCARE LA VERPILLIERE S.A.S.; REEL/FRAME:049648/0865 EFFECTIVE DATE : 20140526
WO12143664 A1	20121026	LSPB	+	published / reissued	
WO12143664 A1	20131016	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012724675 COUNTRY OF REF DOCUMENT : EP
WO12143664 A1	20131021	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2014505701 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12143664 A1	20131021	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12143664 A1	20131021	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 14113150 COUNTRY OF REF DOCUMENT : US

111) Family number: 929077 (US3540623A)

Title: MULTI-PRODUCT **DISPENSER** WITH CO-**DISPENSING** VALVING MEANS

Abstract: (Claim 1) 1. A codispensing valve assembly for a multiproduct pressure **dispenser** co . mprising: a valve body having a pair of inlet ports and an outlet port spaced therefrom; a resilient primary valve mounted within said body and disposed in yieldable normally sealed relation to said outlet port; a secoridary valving member movably mounted within said bod_ having first and second sealing surfaces; one said inlet port having spaced first and second valve seating surfaces thereon; said respective first and second sealing and first and second seatingsurfacesbeing.cooperativelyassociatedforselective respective abutting engagement ob.structing further valving member movement

Classifications:
International (IPC 8-9): B65D83/14 (Advanced/Invention)
International (IPC 1-7): B05B7/26 B65D35/22 B65D35/28 B65D83/14
CPC: B65D83/682
European: B65D83/68B
US: 222/136 222/94 222/95



Family:

Publication number	Publication date	Application number	Application date
US3540623 A	19701117	US19680708313	19680226

Priority:
US19680708313 19680226

Probable Assignee: AEROSOL DEVICES AND SYSTEMS INC
Assignee(s): (std): AEROSOL DEVICES AND SYSTEMS INC
Inventor(s): (std): PEREIRA JOSEPH ; SIMMONS JOSEPH F ; WITTKE JOHN M
Inventor(s): JOHN M WITTKE ; JOSEPH PEREIRA ; JOSEPH F SIMMONS

Legal status (INPADOC)

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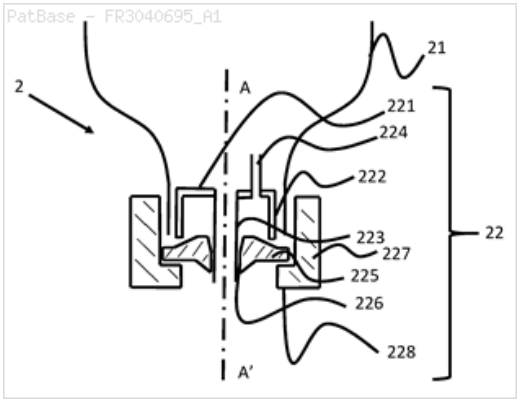
Patent	Date recorded	Event group	Code	Event	Details
US3540623 A	19701117	LSGT	+	granted / extensions (spc, cpc, pte)	

112) Family number: 65138077 (FR3040695B)

Title: RECIPIENT DE DISTRIBUTION DE FLUIDE

Abstract: Source: FR3040695A [FR] La presente invention concerne un recipient (2) comprenant un flacon (21) pour le stockage d'un fluide et un embout (22) monte sur le flacon, l'embout incluant une cheminee (223) de distribution de fluide, remarquable en ce que l'embout comprend en outre des moyens de couplage pour l'introduction d'air dans le flacon via un chemin de passage d'air distinct de la cheminee. **Machine translation:** The present invention concerns a **container** (2) including a bottle (21) for storing a fluid and a tip (22) rises on the bottle, the CAP includes a fireplace (223) distribution of fluid, remarkable in that the tip also includes a means of coupling for the introduction of air into the bottle via a path to passage of separate air from the fireplace.

Classifications:
International (IPC 8-9): A45D34/02 B05B17/06 B65D47/00 B65D83/00 B65D85/00 (Advanced/Invention)
CPC: A61L9/12 A01M1/2044 A61L2209/132 A61L2209/133



Family:

Publication number	Publication date	Application number	Application date
FR3040695 A1	20170310	FR20150058208	20150904
FR3040695 B1	20180720	FR20150058208	20150904

Priority:
FR20150058208 20150904

Probable Assignee: INNOBIZ
Assignee(s): (std): INNOBIZ
Inventor(s): (std): GERARD PIERRE ; THURET PIERRE EMMANUEL
Inventor(s): PIERRE EMMANUEL THURET ; PIERRE GERARD
Agent(s): LTL SAS

Legal status (INPADOC)

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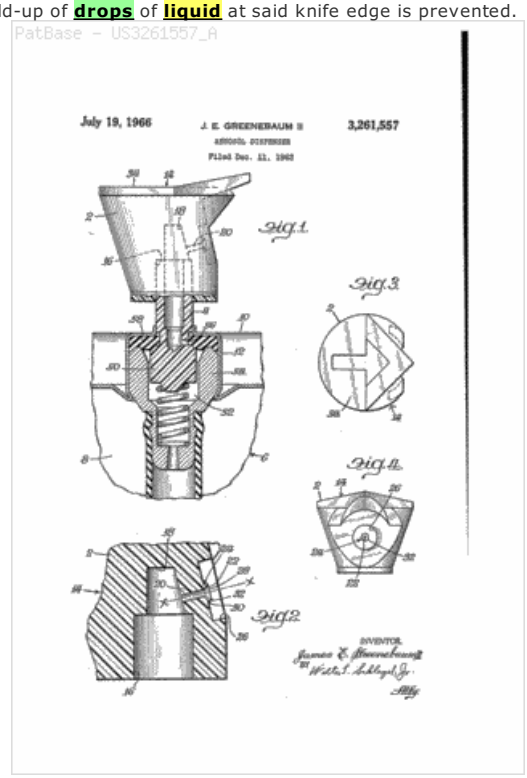
Patent	Date recorded	Event group	Code	Event	Details
FR3040695 A1	20170310	LSPB	+	published / reissued	
FR3040695 A1	20160927	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 2
FR3040695 A1	20170310	LSES	PLSC	SEARCH REPORT READY	EFFECTIVE DATE : 20170310
FR3040695 A1	20170803	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 3
FR3040695 B1	20180720	LSGT	+	granted / extensions (spc, cpc, pte)	
FR3040695 B1	20180823	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
FR3040695 B1	20350904	PEXP		Calculated Patent Term Expiry	

113) Family number: 21865078 (US3261557A)

Title: AEROSOL **DISPENSER**

Abstract: (Claim 1) 1. In a button for an aerosol **dispenser** **containing** a product to be **dispensed** and a propellant gas under super- atmospheric pressure to force said product from said **dispenser** upon actuation of said button, the combination of a passage in the button adapted for connection to said **dispenser**, and a discharge port through said button and connected to said passage, said port having a uniform diameter with -an annular knife-edge surface defining its radially outer perimeter at the end thereof remote from said passage whereby build-up of **drops** of **liquid** at said knife edge is prevented.

Classifications:
International (IPC 8-9): B05B15/02 B65D83/16 (Advanced/Invention); B05B15/02 B65D83/16 (Core/Invention)
International (IPC 1-7): B05B1/02 B65D83/14
CPC: B65D83/20 B05B15/50
European: B05B15/02 B65D83/16B1
US: 222/394 222/402.24 239/579 239/601



Family:

Publication number	Publication date	Application number	Application date
US3261557 A	19660719	US19630329749	19631211

Priority:
US19630329749 19631211

Probable Assignee:	SEAQUIST VALVE CO
Assignee(s): (std):	SEAQUIST VALVE CO
Assignee(s):	SEAQUIST VALVE COMPANY
Inventor(s): (std):	GREENBAUM II JAMES E
Inventor(s):	II JAMES E GREENBAUM

Legal status (INPADOC)

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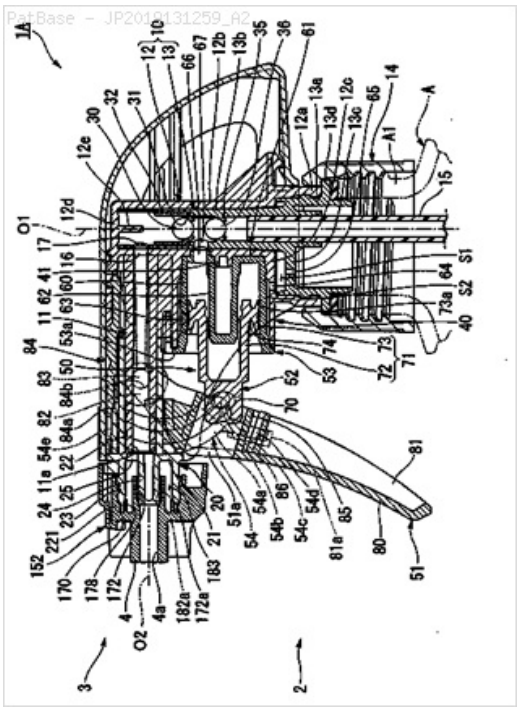
Patent	Date recorded	Event group	Code	Event	Details
US3261557 A	19660719	LSGT	+	granted / extensions (spc, cpc, pte)	
US3261557 A	19831211	PEXP		Calculated Patent Term Expiry	

114) Family number: 75506078 (JP2019131259A)

Title: TRIGGER TYPE **LIQUID** **DISPENSER**

Abstract: PROBLEM TO BE SOLVED: To provide a trigger type **liquid** **dispenser** which inhibits occurrence of a **liquid** **drop**. SOLUTION: A trigger type **liquid** **dispenser** 1A comprises a **dispenser** main body 2, and a nozzle portion 3 where a discharge hole 4a is formed. The **dispenser** main body has a vertically supplying cylindrical portion 10 which extends vertically, and sucks content fluid in a **container** body, an injection cylindrical portion 11 which leads the content fluid in the vertically supplying cylindrical portion to the discharge hole, a trigger part 51 which is arranged to swing freely backward in a forward pushing state, a piston 52 which moves back and forth as synchronizing with swinging of the trigger part, and a cylinder 53 where the inside is compressed and decompressed along with moving of the piston, and the inside communicates in the vertically supplying cylindrical portion. In the inside of the vertically supplying cylindrical portion, a movement body 30 which moves vertically is provided in a portion that locates between an upper side communication hole 17 and a lower side communication hole 67. SELECTED DRAWING: Figure 1

Classifications:
International (IPC 8-9): B05B11/00 B65D47/34 B65D47/40 F04B9/14 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
JP2019131259 A2	20190808	JP20180015885	20180131

Priority:
JP20180015885 20180131

Probable Assignee: YOSHINO KOGYOSHO CO LTD
Assignee(s): (std): YOSHINO KOGYOSHO CO LTD
Inventor(s): (std): ISHIZUKA TETSUYA

Legal status (INPADOC)

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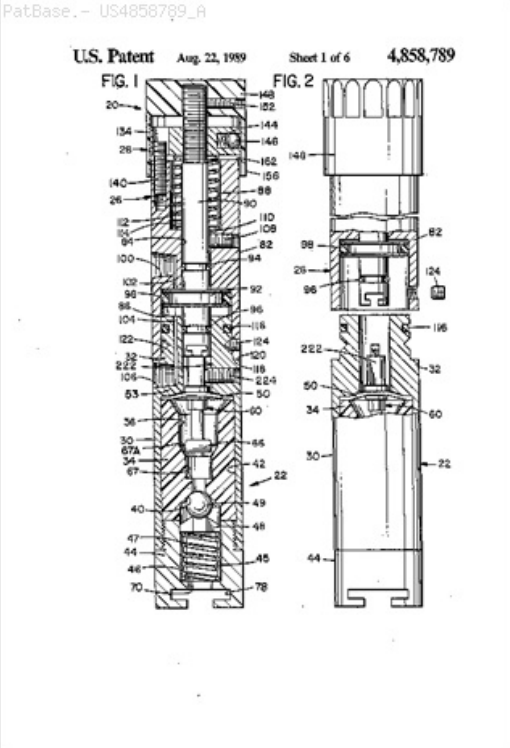
Patent	Date recorded	Event group	Code	Event	Details
JP2019131259 A2	20190808	LSPB	+	published / reissued	

115) Family number: 29465079 (US4858789A)

Title: SEALLESS MODULAR POSITIVE DISPLACEMENT **DISPENSER**

Abstract: Modular positive displacement apparatus (20) for **dispensing** precise quantities of a fluid product including a **dispensing** unit (22) and an actuator unit (26). A housing (30) of the **dispensing** unit (22) defines a reservoir (36) which **contains** the product under pressure. Within the housing is a ball-type closure mechanism (47, 49). A deformable (50) diaphragm isolates the reservoir from the mechanism (26) which actuates the **dispensing** unit (22) to prevent undesirable escape of the product. The diaphragm (50) may be of a number of shapes, depending upon the length of the stroke desired. The **dispensing** unit (22) is readily removable from the actuator unit (26) and can be readily replaced with another **dispensing** unit. Different nozzle (76) sizes can also be accommodated. The length of the stroke is adjustable in discrete increments.

Classifications:
International (IPC 8-9): B05B1/30 B05B9/01 B05C11/10 B05C17/00 B05C17/005 B05C5/02 B65B3/32 B65D35/40 B65D83/00 B67D3/00 B67D5/18 B67D7/18 F16K21/16 G01F11/06 (Advanced/Invention); B05C11/10 B65D83/00 (Advanced/Non-invention); B05B1/30 B05B9/00 B05C11/10 B05C17/00 B05C17/005 B05C5/02 B65D35/24 B65D83/00 B67D3/00 B67D7/08 F16K21/00 (Core/Invention)
International (IPC 1-7): B05B1/30 B05B9/00 B05B9/01 B05C11/00 B05C11/10 B05C17/00 B05C17/005 B05C17/01 B05C17/015 B05C5/00 B05C5/02 B65B3/32 B65B51/02 B65D35/40 B65D83/00 B67D3/00 B67D5/06 B67D5/18 F16D1/00 F16K21/16 G01F11/06 G01F11/30
CPC: Y10T403/66 Y10T403/7005 B05B15/65 B05B1/306 B05C11/1034 B05B1/304 B05B9/01 B05C5/02 B05C5/0225 B05C17/002
European: B05B1/30D1 B05B1/30D1A B05B1/30D1A4 B05B9/01 B05C11/10A9 B05C11/10F B05C17/00B B05C5/02 B05C5/02C L05B15/06B
US: 222/309 222/372 222/510 222/518 222/52 222/559 222/567 403/341 403/348



Family:

Publication number	Publication date	Application number	Application date
AT86148 E	19930315	AT19890302904T	19890323
AT88920 E	19930515	AT19890302903T	19890323
AU198932389 A1	19890727	AU19890032389	19890403
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AU620272 B2	19920213	AU19910071144	19910218
AU622065 B2	19920326	AU19910070821	19910206
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CA1291729 A1	19911105	CA19880568469	19880602
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MX169282 B	19930628	MX19890015524	19890404
MX170341 B	19930817	MX19890015519	19890404
US4858789 A	19890822	US19880176875	19880404
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Priority:

US19870057614	19870603	US19870057614	19870706	US19880176877	19880404
US19880176875	19880404	CA19880568469	19880602	US19880274666	19881121
EP19890302903	19890323	EP19890302904	19890323	CA19890595103	19890329
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AU19890032389	19890403	AU19890032395	19890403	KR19890004407	19890404
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KR19970021703U	19970808	KR19970021704U	19970808		

Probable Assignee: LOCTITE CORP

Assignee(s): (std): LOCTITE CORP

Assignee(s): ROKUTAITO CORP ; LOCTITE CORP NEWINGTON CONN US ; BANK OF AMERICA NA ; BREAULT JOHN P ; DICKAU EWALD F ; INFRAMETRICS INC ; LOCTITE 705 NORTH MOUNTAIN ROAD NEWINGTON CT 06111 A CORP OF CT CORP

Inventor(s): (std): BREAULT JOHN P ; DICKAU EWALD F ; IIUORUDO EFU DEITSUKAU ; JIYON PII BUROORUTO ; EWARUDO EFU DEITSUKAU ; EWALD F DICKAU ; JOHN P BREAULT ; DICKAU EWALD

Inventor(s): JON PII BUROORUTO

Agent(s): GRIFFITH HACK; SIM AND MCBURNEY; BORDEN LADNER GERVAIS LLP

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT86148 E	19930315	LSGT	+	granted / extensions (spc, cpc, pte)	
AT86148 E	19930915	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT86148 E	20090323	PEXP		Calculated Patent Term Expiry	
AT88920 E	19930515	LSGT	+	granted / extensions (spc, cpc, pte)	
AT88920 E	19931115	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT88920 E	20090323	PEXP		Calculated Patent Term Expiry	
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AU198932395 A1	19891005	LSPB	+	published / reissued	
AU199170821 A1	19910426	LSPB	+	published / reissued	
AU199171144 A1	19910516	LSPB	+	published / reissued	
AU199171145 A1	19910516	LSPB	+	published / reissued	
AU610712 B2	19910523	LSGT	+	granted / extensions (spc, cpc, pte)	
AU610712 B2	20011101	LSLE	-MK14	PATENT CEASED SECTION 143(A)	

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AU610712 B2	20090403	PEXP		Calculated Patent Term Expiry	
AU610713 B2	19910523	LSGT	+	granted / extensions (spc, cpc, pte)	
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AU620272 B2	20011101	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU620272 B2	20110218	PEXP		Calculated Patent Term Expiry	
AU622065 B2	19920326	LSGT	+	granted / extensions (spc, cpc, pte)	
AU622065 B2	20011101	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
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BRPI8901577 A	19891121	LSPB	+	published / reissued	
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BRPI8901578 A	19891121	LSPB	+	published / reissued	
BRPI8901578 A	20091215	LSLE	-B21A	EXPIRY ACC. ART. 78, ITEM I OF IPL- EXPIRY OF THE TERM OF PROTECTION	TEXT : PATENTE EXTINTA EM 04/04/2004
CA1291729 A1	19911105	LSGT	+	granted / extensions (spc, cpc, pte)	
CA1291729 A1	19991105	LSLE	-MKLA	LAPSED	
CA1291729 A1	20081105	PEXP		Calculated Patent Term Expiry	
CA1337904 A1	19960109	LSGT	+	granted / extensions (spc, cpc, pte)	
CA1337904 A1	20100111	LSLE	-MKLA	LAPSED	
CA1337904 A1	20130109	PEXP		Calculated Patent Term Expiry	
CA1338267 A1	19960423	LSGT	+	granted / extensions (spc, cpc, pte)	
CA1338267 A1	20050425	LSLE	-MKLA	LAPSED	
CA1338267 A1	20130423	PEXP		Calculated Patent Term Expiry	
CA1339120 A1	19970729	LSGT	+	granted / extensions (spc, cpc, pte)	
CA1339120 A1	20050729	LSLE	-MKLA	LAPSED	
CA1339120 A1	20150926	PEXP		Calculated Patent Term Expiry	
CA1339120 A2	19970729	LSGT	+	granted /	

				extensions (spc, cpc, pte)	
CA1340054 A1	19980922	LSGT	+	granted / extensions (spc, cpc, pte)	
CA1340054 A1	20110922	LSLE	-MKLA	LAPSED	
CA1340054 A1	20150926	PEXP		Calculated Patent Term Expiry	
CA1340054 A2	19980922	LSGT	+	granted / extensions (spc, cpc, pte)	
DE3882810 D1	19940901	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE3882810 D1	20000907	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE3882810 T2	19940120	LSGT	+	granted / extensions (spc, cpc, pte)	
DE68905058 D1	19940331	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE68905058 D1	20030116	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE68905058 T2	19930617	LSGT	+	granted / extensions (spc, cpc, pte)	
DE68906302 D1	19940601	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE68906302 D1	20060105	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE68906302 T2	19930812	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0294197 A2	19881207	LSPB	+	published / reissued	
EP0294197 A3	19900627	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19900418
EP0294197 A3	19920219	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19920107
EP0294197 B1	19930804	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0294197 B1	19940727	LSGT	+26N	NO OPPOSITION FILED	
EP0294197 B1	19980520	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 19980520 YEAR OF FEE PAYMENT : 11
EP0294197 B1	19980526	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 19980526 YEAR OF FEE PAYMENT : 11
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EP0294197 B1	19990602	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 19990602
EP0294197 B1	19990630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : THE PATENT HAS BEEN ANNULLED BY A DECISION OF A NATIONAL AUTHORITY LAPSED DATE : 19990630

EP0294197 B1	20000119	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 19990602
EP0294197 B1	20000503	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20000503
EP0294197 B1	20000713	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP0294197 B1	20050602	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20050602
EP0294197 B1	20080602	PEXP		Calculated Patent Term Expiry	
EP0336611 A2	19891011	LSPB	+	published / reissued	
EP0336611 A3	19910227	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19901227
EP0336611 A3	19920304	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19920121
EP0336611 B1	19930303	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0336611 B1	19930303	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT LAPSED DATE : 19930303
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EP0336611 B1	19930331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE

				VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 19930331
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EP0336611 B1	19940223	LSGT	+26N	NO OPPOSITION FILED	
EP0336611 B1	19940331	LSFE	ITTA	IT: LAST PAID ANNUAL FEE	REF COUNTRY CODE : EP
EP0336611 B1	19950131	LSGT	+EAL	SE: EUROPEAN PATENT IN FORCE IN SWEDEN	REF COUNTRY CODE : EP TEXT : 89302904.1
EP0336611 B1	20010302	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20010302 YEAR OF FEE PAYMENT : 13
EP0336611 B1	20010306	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20010306 YEAR OF FEE PAYMENT : 13
EP0336611 B1	20010306	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20010306 YEAR OF FEE PAYMENT : 13
EP0336611 B1	20010307	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20010307 YEAR OF FEE PAYMENT : 13
EP0336611 B1	20020323	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20020323
EP0336611 B1	20020324	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20020324
EP0336611 B1	20021001	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20021001
EP0336611 B1	20021022	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF COUNTRY CODE : EP TEXT : 89302904.1
EP0336611 B1	20021113	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20020323
EP0336611 B1	20021129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20021129
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EP0336611 B1	20090323	PEXP		Calculated Patent Term Expiry	
EP0340903 A2	19891108	LSPB	+	published / reissued	
EP0340903 A2	19910227	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19901227
EP0340903 A2	19920115	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19911129
EP0340903 A2	19930505	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT LAPSED DATE : 19930505
EP0340903 A2	19930505	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE LAPSED DATE : 19930505
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EP0340903 A2	19930505	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 19930505
EP0340903 A2	19930505	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI LAPSED DATE : 19930505
EP0340903 A2	19930505	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL LAPSED DATE : 19930505
EP0340903 A2	19930813	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0340903 A2	19931018	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	REF COUNTRY CODE : EP
EP0340903 A2	19940331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 19940331
EP0340903 A2	19940427	LSGT	+26N	NO OPPOSITION FILED	
EP0340903 A2	19950131	LSGT	+EAL	SE: EUROPEAN PATENT IN FORCE IN SWEDEN	REF COUNTRY CODE : EP TEXT : 89302903.3
EP0340903 A2	20040319	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20040319 YEAR OF FEE PAYMENT : 16

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EP0340903 A2	20050324	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20050324
EP0340903 A2	20051001	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20051001
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EP0340903 A2	20080731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20080311 YEAR OF FEE PAYMENT : 20
EP0340903 A2	20081126	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20080323
EP0340903 A2	20090630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20080323
EP0340903 A2	20090930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20070323
EP0340903 B1	19930505	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0340903 B1	20090323	PEXP		Calculated Patent Term Expiry	
JP1079477 A2	19890324	LSPB	+	published / reissued	
JP2032983 A2	19900202	LSPB	+	published / reissued	
JP2242769 A2	19900927	LSPB	+	published / reissued	
JP2691992 B2	19971217	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2691992 B2	20080603	PEXP		Calculated Patent Term Expiry	
JP2704545 B2	19980126	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2704545 B2	20090404	PEXP		Calculated Patent Term Expiry	
JP2748015 B2	19980506	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2748015 B2	20090404	PEXP		Calculated Patent Term Expiry	

JP64079477 A2	19890324	LSPB	+	published / reissued	
KR0129583 Y1	19990218	LSGT	+	granted / extensions (spc, cpc, pte)	
KR0129583 Y1	19970808	LSES	A201	REQUEST FOR EXAMINATION	
KR0129583 Y1	19980120	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR0129583 Y1	19980529	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR0129583 Y1	20030808	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20030811 YEAR OF FEE PAYMENT : 6
KR0129583 Y1	20040821	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR0129583 Y1	20070808	PEXP		Calculated Patent Term Expiry	
KR0129584 Y1	19981201	LSGT	+	granted / extensions (spc, cpc, pte)	
KR0129584 Y1	19970808	LSES	A201	REQUEST FOR EXAMINATION	
KR0129584 Y1	19980120	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR0129584 Y1	19980529	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR0129584 Y1	20030808	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20030811 YEAR OF FEE PAYMENT : 6
KR0129584 Y1	20040821	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR0129584 Y1	20070808	PEXP		Calculated Patent Term Expiry	
KR19890015951 A	19891127	LSPB	+	published / reissued	
KR19890015951 A	19940404	LSES	A201	REQUEST FOR EXAMINATION	
KR19890015951 A	19970410	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR19890015951 A	19970624	LSRV	-E601	DECISION TO REFUSE APPLICATION	
KR19890015951 A	19970808	LSDW	-WICV	WITHDRAWAL OF APPLICATION FORMING A BASIS OF A CONVERTED APPLICATION	
KR19890015952 A	19891127	LSPB	+	published / reissued	
KR19890015952 A	19940404	LSES	A201	REQUEST FOR EXAMINATION	
KR19890015952 A	19970410	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR19890015952 A	19970624	LSRV	-E601	DECISION TO REFUSE APPLICATION	
KR19890015952 A	19970808	LSDW	-WICV	WITHDRAWAL OF APPLICATION FORMING A BASIS OF A CONVERTED APPLICATION	
KR200129583 Y1	19990218	LSGT	+	granted / extensions (spc, cpc, pte)	
KR200129583 Y1	20070808	PEXP		Calculated Patent Term Expiry	
KR200129584 Y1	19981201	LSGT	+	granted / extensions (spc, cpc, pte)	

KR200129584 Y1	20070808	PEXP		Calculated Patent Term Expiry	
MX169282 B	19930628	LSGT	+	granted / extensions (spc, cpc, pte)	
MX169282 B	20070628	PEXP		Calculated Patent Term Expiry	
MX170341 B	19930817	LSGT	+	granted / extensions (spc, cpc, pte)	
MX170341 B	20070817	PEXP		Calculated Patent Term Expiry	
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US4858789 A	19880404	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LOCTITE CORPORATION, 705 NORTH MOUNTAIN ROAD, NEWI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNORS:BREAULT, JOHN P.; DICKAU, EWALD F.; REEL/FRAME:004860/0091 EFFECTIVE DATE : 19880331
US4858789 A	19880404	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LOCTITE CORPORATION, CONNECTICUT OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BREAULT, JOHN P.; DICKAU, EWALD F.; REEL/FRAME:004860/0091 EFFECTIVE DATE : 19880331
US4858789 A	19890706	LSGT	PAT1	Patented Case	
US4858789 A	19890706	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
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US4858789 A	19960930	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4858789 A	19990409	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : INFRAMETRICS, INC., MASSACHUSETTS OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTERESTS IN CERTAIN PATENTS; ASSIGNOR:BANKBOSTON, N.A. F/K/A THE FIRST NATIONAL BANK OF BOSTON; REEL/FRAME:009875/0492 EFFECTIVE DATE : 19990330
US4858789 A	20010221	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US4858789 A	20010524	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A., WASHINGTON OLDPARTY : NUNC PRO TUNC ASSIGNMENT; ASSIGNOR:FLIR SYSTEMS, INC.; REEL/FRAME:011837/0965 EFFECTIVE DATE : 19991216
US4858789 A	20080404	PEXP		Calculated Patent Term Expiry	
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US4930669 A	19880404	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LOCTITE CORPORATION, CONNECTICUT OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DICKAU, EWALD F.; BREAULT, JOHN P.;

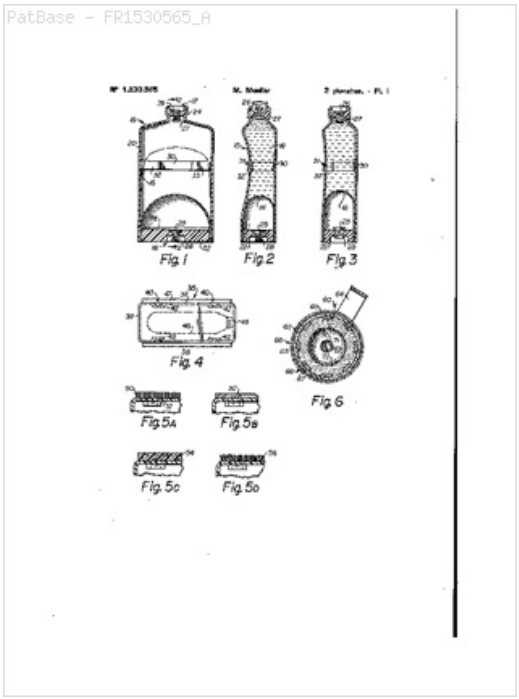
					REEL/FRAME:004860/0152 EFFECTIVE DATE : 19880331
US4930669 A	19900410	LSGT	PAT1	Patented Case	
US4930669 A	19900410	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US4930669 A	19931203	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4930669 A	19970930	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4930669 A	20011204	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US4930669 A	20080404	PEXP		Calculated Patent Term Expiry	
US4953756 A	19900904	LSGT	+	granted / extensions (spc, cpc, pte)	
US4953756 A	19890926	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LOCTITE CORPORATION, 705 NORTH MOUNTAIN ROAD, NEWI OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNORS:BREAULT, JOHN P.; DICKAU, EWALD F.; REEL/FRAME:005144/0363 EFFECTIVE DATE : 19890926
US4953756 A	19900710	LSGT	PAT1	Patented Case	
US4953756 A	19900710	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US4953756 A	19940301	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4953756 A	19980303	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4953756 A	20020301	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US4953756 A	20090926	PEXP		Calculated Patent Term Expiry	
US4955514 A	19900911	LSGT	+	granted / extensions (spc, cpc, pte)	
US4955514 A	19940301	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4955514 A	19980310	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4955514 A	20020911	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4955514 A	20021009	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4955514 A	20021009	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US4955514 A	20021105	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20020911
US4955514 A	20090919	PEXP		Calculated Patent Term Expiry	
US5255827 A	19931026	LSGT	+	granted / extensions (spc, cpc, pte)	
US5255827 A	19931015	LSGT	PAT1	Patented Case	
US5255827 A	19931015	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5255827 A	19970425	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5255827 A	20010425	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5255827 A	20050426	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5255827 A	20110717	PEXP		Calculated Patent Term Expiry	

116) Family number: 21753079 (FR1530565A)

Title: DISPOSITIF DISTRIBUTEUR PERFECTIONNE MUNI D'UN RECIPIENT EXTERIEUR A LA FOIS FLEXIBLE ET ELASTIQUE
DISTRIBUTOR DEVICE IMPROVED WITH A **CONTAINER** OUTER BOTH FLEXIBLE AND RESILIENT (Machine translation)

Abstract: Source: FR1530565A [FR] [Source: Claim 1] RESUME La presente invention a pour objet le produit industriel nouveau que constitue un dispositif dis tributeur perfectionne presentant les caracteris tiques suivantes,.prises isolement ou en combi naison 1 Il comporte a. Un recipient au moins partiellement flexible et resilient,permettant de renfermer et de distri buer une matiere pouvant fluer; b. Un dispositif d'or!ifices present dans le reci pient et permettant une mise en communication directe avec la matiere fluable presente dans le recipient et permettant le passage de ladite matiere fluable depuis. l'interieur du recipient jusqu'a l'exterieur, tout en empechant les fluides ambiants de penetrer dans ledit recipient; c. Une vessie expansible situee a l'interieur du recipient, fixee et placee initialement a l'interieur du recipient a une position eloignee du dispositif a orifices et etanche par rapport a l'interieur du recipient; d. Une ouverture raccordant le recipient et la vessie etanche; _ e. Enfin, un dispositif permettant le passage du fluide seulement depuis l'exterieur du recipient par l'intermediaire de l'ouverture et jusque dans la vessie, grace a quoi, lorsque le recipient est inflechi vers l'interieur, la matiere fluable se trouve distribuee hors dudit dispositif a orifices et, lorsque le recipient reprend son profil initial, le fluide provenant.de l'exterieur du recipient penetre dans la vessie en la dilatant afin de depla cer la matiere distribuee en un point eloigne du dispositif a orifices, ce quia pour effet de mainte nir la matiere comprise dans le recipient au voisi nage dudit dispositif a orifices. 2 Le- recipient comporte une partie d'embase et une.paroi and 'etendant depuis ladite partie; la vessie est fixee a la partie d'embase du recipient et initialement placee sur cette embase autour de la peripherie interieure de la paroi du recipient de maniere a se dilater et a se deplacer le long de la surface interieure de la paroi en direction du dispositif a orifices, ce qui a pour effet -de deplacer la matiere fluable presente dans le recipient depuis son embase en direction du dispositif a orifices. 3 Une soupape d'arret fait partie du dispositif a orifices: 4 La vessie est extensible. 5 La vessie est elastique. 6 La vessie n'est pas etirable et est repliee ou roulee lorsqu'elle n'est pas dilatee. 7 Un dispositif limite l'amplitude de deflexion du recipient souple en un point predetermine. 8 Une surface exterieure d'applicateur du type texturee est disposee.sur au moins une partie du recipient et cela au voisinage du dispositif a ori fices. 9 La surface texturee susvisee est douce et poreuse. 10 La surface itexturee susvisee est dure et abrasive. 11 -Des dispositifs a orifices supplementaires permettent le passage de.matiere seulement depuis l'interieur du -recipient jusqw'a l'exterieur dudit recipient,. tout en communiquant avec une zone qui est situee a l'interieur du recipient mais a l'exterieur de la vessie. - 1.2 Le dispositif a orifices communique avec un reservoir qui est situe a l'exterieur du recipient. 13 Le reservoir susvise est constitue par une partie de la surface.du recipient qui est concave par rapport a l'exterieur du recipient. 14 Une meche communique avec le reservoir. 15 Le dispositif comporte a. Une structure delimitant une premiere et une seconde chambres flexibles, la premiere desdites chambres renfermant la vessie; le dispositif a orifices et un dispositif permettant le passage de fluide jusque dans la vessie; b. Un ajutage; _ c. Un passage raccordant l'ajutage au dispositif a orifices et a da premiere desdites chambres; d. Un passage raccordant l'ajutage a la seconde chambre, grace a quoi le fluide present dans la seconde chambre se trouve melange dans l'ajutage avec la matiere provenant de la premiere chambre lorsque l'on comprime les: deux chambres du reci pient, la vessie du premier recipient se trouvant dilatee afin de deplacer la matiere distribuee de la premiere chambre lorsque le recipient reprend son profil initial. 16 La vessie susvisee est fixee a une partie du recipient et s'etend au centre du recipient, en etant eloignee de toutes les autres parties de la surface interieure du recipient. **Machine translation:** [Source: Claim 1] SUMMARY The present invention relates to the new industrial product is a device say tributor perfected presenting the following characteristics,.prises isolation or in combi nation 1 He has a. A **container** at least partially flexible and resilient, for **containing** and distri bute a flowable material; b. A golden device! Ifices present in the reci tainer and permitting direct communication establishment with the flowable material present in the **container** and allowing the passage of said flowable material from. inside the **container** until the outside, while preventing environmental fluids to penetrate in said **container**; c. An expandable bladder situated in the interior of the **container** attached and placed initially on the inside of the **container** has a position away from the device holes and sealed with respect to the inside of the **container**; d. An opening connecting the **container** and sealed bladder; _ E. Finally, a device for the passage of fluid only from the outside of the **container** through the intermediary of the opening and into the bladder, thanks to which, when the **container** is deflected inwards, the flowable material is DISTRIBUTED from said device holes and when the vessel returns to its initial profile, provenant.de fluid penetrates the outside of the **container** into the bladder by relaxing the Depla cer to the material **dispensed** in a distant point of the device has holes, that quia effect of many a ne understood the material in the **container** to swim voisi said device has holes. Le- **container** 2 comprises a base portion and une.paroi and extending from said portion; the bladder is fixed at the base portion of the **container** and initially placed on this base around the inner periphery of the wall of the **container** of a way to expand and to move along the inner surface of the wall towards the device has openings, which has the effect -to move the flowable material present in the **container** from its base towards the device has holes. 3 A stop valve is part of the device ports: 4 The bladder is expandable. 5 The bladder is elastic. 6 The bladder is not etirable and is folded or rolled when not dilated. 7 A device limits the amplitude of deflection of the flexible **container** at a predetermined point. 8 An outer surface of the textured applicator type is disposee.sur at least part of the **container** and this near the device ori profits. 9 The above textured surface is soft and porous. 10 The above itexturee surface is hard and abrasive. 11 -Of devices has additional holes allow the passage de.matiere only from inside the -recipient jusqw'a outside of said **container**,. while communicating with an area that is situated on the inside of the **container** but outside of the bladder. - The device has 1.2 ports communicates with a reservoir which is located on the outside of the **container**. 13 is the aforementioned tank is a part of the surface.du **container** which is concave on the outside of the **container**. A wick 14 communicates with the tank. 15 The device comprises a. A structure delimiting a first and a second flexible rooms, the first of said chambers **containing** the bladder; the device has holes and a device for the passage of fluid into the bladder; b. A nozzle; _ C. A passage connecting the nozzle to the device ports and da first of said chambers; d. A passage connecting the nozzle to the second chamber, thanks to which the fluid present in the second chamber is mixed in the nozzle with material from the first chamber when the compresses: two bedrooms of reci tainer, the the first vessel being dilated bladder to move the material **dispensed** from the first chamber when the vessel returns to its initial profile. 16 The above bladder is fixed at a portion of the **container** and extends to the center of the **container** by being remote from all other parts of the interior surface of the **container**.

Classifications:
International (IPC 8-9): B05B11/00 B05B11/04 (Advanced/Invention);
B05B11/00 B05B11/04 (Core/Invention)
International (IPC 1-7): B65D1/04
CPC: B05B11/048 B05B11/0041
European: B05B11/00B5A B05B11/04F



Family:

Publication number	Publication date	Application number	Application date
FR1530565 A	19680628	FR19670106584	19670516

Priority:

FR19670106584 19670516

Inventor(s): (std)**:** MUELLER JOHN JOSEPH

Legal status (INPADOC)

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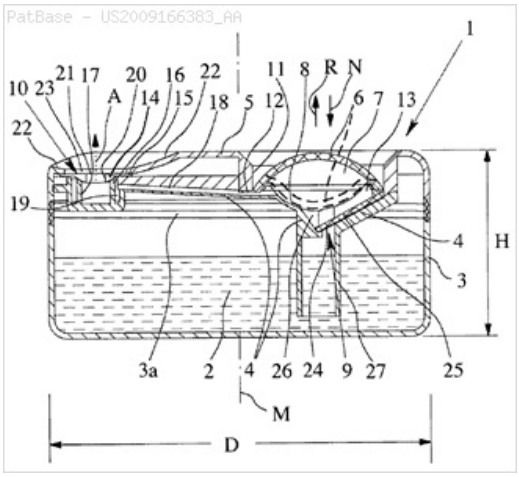
Patent	Date recorded	Event group	Code	Event	Details
FR1530565 A	19680628	LSGT	+	granted / extensions (spc, cpc, pte)	
FR1530565 A	19870516	PEXP		Calculated Patent Term Expiry	

117) Family number: 40833080 (US2009166383A)

Title: **DISPENSING** DEVICE

Abstract: The invention relates to a **dispensing** device for **dispensing** a preferably cosmetic **liquid**, comprising an elastic or flexible pump section. The aim of the invention is to provide a **dispensing** device having a compact and simple structure, that is easy to use and operate such that said **dispensing** direction is at least substantially counter to the direction of actuation and/or it extends at least substantially vertically in the upward direction. Alternatively or additionally, a widening receiving area for the **dispensed** **liquid** adjoins the outlet such that said **liquid** can be removed or extracted manually. Said receiving area is preferably shell-shaped and open towards the top.

Classifications:
International (IPC 8-9): A45D34/00 B05B11/00 B05B11/04 B05B11/06 B05B9/04 B29C49/22 B65D23/02 B65D37/00 B65D47/20 B65D47/34 B65D77/06 B65D83/16 B65D83/48 (Advanced/Invention); A45D34/00 B05B11/00 B05B11/04 B05B9/04 B29C49/22 B65D23/00 B65D37/00 B65D47/04 B65D47/34 B65D77/06 B65D83/16 B65D83/44 (Core/Invention)
CPC: B05B11/3074 B05B11/0059 B05B11/007 B05B11/3077 B05B11/00416 A45D34/04 A45D2200/055 A45D2200/056 B05B11/3043 A45D19/02 A45D34/00 B05B11/0038 B05B11/00412 B05B11/3032 B05B11/3033 B05B11/3052 B29C48/08 B29C48/18 B65D83/0055
European: A45D19/02 A45D34/00 A45D34/04 B05B11/00B5 B05B11/00B5A2 B05B11/00B6 B05B11/00B9R B05B11/00P9B B05B11/30E6 B05B11/30E7 B05B11/30H1 B05B11/30H8B B05B11/30H8F B65D83/00B K45D200/05H2 K45D200/05H4 L05B11/00B5 L05B11/00B5A2 L05B11/00B5A4 L05B11/30H3 L29C47/06
US: 222/105 222/207 222/209 222/211 222/211S 222/212 222/386 222/386.5 222/632 222/633 222/95



Family:

Publication number	Publication date	Application number	Application date
DE102006023663 A1	20071122	DE200610023663	20060518
DE102006031412 A1	20071122	DE200610031412	20060705
DE102007060359 A1	20081224	DE200710060359	20071212
EP2018227 A2	20090128	EP20070725025	20070509
EP2018227 B1	20161221	EP20070725025	20070509
EP2018228 A2	20090128	EP20070725295	20070516
EP2018228 B1	20160817	EP20070725295	20070516
EP2152433 A2	20100217	EP20080758542	20080515
ES2603415 T3	20170227	ES20070725295T	20070516
ES2619611 T3	20170626	ES20070725025T	20070509
US2009166383 AA	20090702	US20070300924	20070516
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US8240518 BB	20120814	US20070300924	20070516
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WO07131790 A3	20080221	WO2007EP04380	20070516
WO08138618 A2	20081120	WO2008EP03903	20080515

Priority:

DE200610023114 20060516
DE200610023663 20060518
DE200610031412 20060705
WO2007EP04103 20070509
WO2007EP04102 20070509
EP20070725025 20070509
WO2007EP04380 20070516
EP20070725295 20070516
DE200710039321 20070820
DE200710044815 20070920
DE200710060359 20071212
WO2008EP03903 20080515
EP20080758542 20080515

Probable Assignee: APTAR DORTMUND GMBH

Assignee(s): (std): APTAR DORTMUND GMBH ; CANFIELD REIKER ; SCHMITZ DETLEF ; SEAQUIST PERFECT DISPENSING

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Inventor(s): (std): CANFIELD REIKER ; SCHMITZ DETLEF

Agent(s): GESTHUYSEN VON ROHR AND EGGERT; VON ROHR PATENTANWAELTE PARTNERSCHAFT MBB; GESTHUYSEN MICHAEL ET AL; DE ELZABURU ALBERTO; JASON H VICK SHERIDAN ROSS PC; SHERIDAN ROSS PC; JASON H

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE102006023663 A1	20071122	LSPB	+	published / reissued	
DE102006023663 A1	20071122	LSES	+OP8	REQUEST FOR EXAMINATION AS TO PARAGRAPH 44 PATENT LAW	

DE102006023663 A1	20130801	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : APTAR DORTMUND GMBH, DE OLDPARTY : FORMER OWNER: SEAQUIST PERFECT DISPENSING GMBH, 44319 DORTMUND, DE EFFECTIVE DATE : 20130611
DE102006023663 A1	20170621	LSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE102006023663 A1	20200304	LSGT	+R018	GRANT DECISION BY EXAMINATION SECTION/EXAMINING DIVISION	
DE102006031412 A1	20071122	LSPB	+	published / reissued	
DE102006031412 A1	20071122	LSES	+OP8	REQUEST FOR EXAMINATION AS TO PARAGRAPH 44 PATENT LAW	
DE102006031412 A1	20130801	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : APTAR DORTMUND GMBH, DE OLDPARTY : FORMER OWNER: SEAQUIST PERFECT DISPENSING GMBH, 44319 DORTMUND, DE EFFECTIVE DATE : 20130611
DE102006031412 A1	20170313	LSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE102007060359 A1	20081224	LSPB	+	published / reissued	
DE102007060359 A1	20081224	LSES	+OM8	SEARCH REPORT AVAILABLE AS TO PARAGRAPH 43 LIT. 1 SENTENCE 1 PATENT LAW	
DE102007060359 A1	20130801	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : APTAR DORTMUND GMBH, DE OLDPARTY : FORMER OWNER: SEAQUIST PERFECT DISPENSING GMBH, 44319 DORTMUND, DE EFFECTIVE DATE : 20130611
DE102007060359 A1	20141213	LSDW	-R005	APPLICATION DEEMED WITHDRAWN DUE TO FAILURE TO REQUEST EXAMINATION	
DE102007060359 A1	20150305	LSDW	-R005	APPLICATION DEEMED WITHDRAWN DUE TO FAILURE TO REQUEST EXAMINATION	EFFECTIVE DATE : 20141213
EP2018227 A2	20090128	LSPB	+	published / reissued	
EP2018227 A2	20090128	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081007
EP2018227 A2	20120912	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20120813
EP2018227 A2	20120912	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : APTAR DORTMUND GMBH
EP2018227 A2	20160914	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160817
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EP2018227 B1	20161230	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2018227 B1	20170111	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : LANGUAGE OF EP DOCUMENT: GERMAN
EP2018227 B1	20170115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER :

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EP2018227 B1	20170126	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 502007015341 COUNTRY OF REF DOCUMENT : DE
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EP2018227 B1	20170425	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
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EP2018227 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161221
EP2018227 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161221
EP2018227 B1	20170523	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
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EP2018227 B1	20170626	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2619611 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20170626
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EP2018227 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170421
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EP2018227 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170519 YEAR OF FEE PAYMENT : 11
EP2018227 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170523 YEAR OF FEE PAYMENT : 11
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EP2018227 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161221
EP2018227 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170421
EP2018227 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP2018227 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION

				NATIONAL OFFICE TO EPO]	OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170321
EP2018227 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170526 YEAR OF FEE PAYMENT : 11
EP2018227 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20170628 YEAR OF FEE PAYMENT : 11
EP2018227 B1	20170922	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 502007015341 COUNTRY OF REF DOCUMENT : DE
EP2018227 B1	20171129	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170922
EP2018227 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161221
EP2018227 B1	20171229	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2018227 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161221
EP2018227 B1	20180221	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2018227 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161221
EP2018227 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP2018227 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP2018227 B1	20180330	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170509
EP2018227 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170509
EP2018227 B1	20180522	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12

EP2018227 B1	20180715	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MM01 REF DOCUMENT NUMBER : 855010 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170509
EP2018227 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180522 YEAR OF FEE PAYMENT : 12
EP2018227 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20180626 YEAR OF FEE PAYMENT : 12
EP2018227 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170509
EP2018227 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP2018227 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180522 YEAR OF FEE PAYMENT : 12
EP2018227 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180530 YEAR OF FEE PAYMENT : 12
EP2018227 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161221
EP2018227 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180518 YEAR OF FEE PAYMENT : 12
EP2018227 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20070509
EP2018227 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190621 YEAR OF FEE PAYMENT : 13
EP2018227 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190527 YEAR OF FEE PAYMENT : 13
EP2018227 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190520 YEAR OF FEE PAYMENT : 13
EP2018227 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190523 YEAR OF FEE PAYMENT : 13
EP2018227 B1	20191031	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161221
EP2018227 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190521 YEAR OF FEE PAYMENT : 13
EP2018227 B1	20270509	PEXP		Calculated Patent Term Expiry	
EP2018228 A2	20090128	LSPB	+	published / reissued	
EP2018228 A2	20090128	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081105
EP2018228 A2	20120905	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20120807
EP2018228 A2	20120912	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : APTAR DORTMUND GMBH
EP2018228 A2	20160511	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160413
EP2018228 B1	20160817	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2018228 B1	20160817	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D TEXT : NOT ENGLISH
EP2018228 B1	20160831	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2018228 B1	20160907	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : LANGUAGE OF EP DOCUMENT: GERMAN
EP2018228 B1	20160915	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 820547 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160915
EP2018228 B1	20160929	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 502007015032 COUNTRY OF REF DOCUMENT : DE
EP2018228 B1	20161227	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2018228 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2018228 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2018228 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR

				EPO]	TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2018228 B1	20170227	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2603415 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20170227
EP2018228 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2018228 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2018228 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161118
EP2018228 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161219
EP2018228 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2018228 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2018228 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2018228 B1	20170518	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 502007015032 COUNTRY OF REF DOCUMENT : DE
EP2018228 B1	20170523	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11

EP2018228 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2018228 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2018228 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161117
EP2018228 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2018228 B1	20170726	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170518
EP2018228 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170519 YEAR OF FEE PAYMENT : 11
EP2018228 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170524 YEAR OF FEE PAYMENT : 11
EP2018228 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170523 YEAR OF FEE PAYMENT : 11
EP2018228 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP2018228 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP2018228 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20170628 YEAR OF FEE PAYMENT : 11
EP2018228 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170526 YEAR OF FEE PAYMENT : 11
EP2018228 B1	20171229	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2018228 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

					LAPSED DATE : 20160817
EP2018228 B1	20180221	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2018228 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP2018228 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP2018228 B1	20180330	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170516
EP2018228 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170516
EP2018228 B1	20180522	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12
EP2018228 B1	20180715	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MM01 REF DOCUMENT NUMBER : 820547 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170516
EP2018228 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20180626 YEAR OF FEE PAYMENT : 12
EP2018228 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180522 YEAR OF FEE PAYMENT : 12
EP2018228 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP2018228 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170516
EP2018228 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180522 YEAR OF FEE PAYMENT : 12
EP2018228 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180530 YEAR OF FEE PAYMENT : 12
EP2018228 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817

EP2018228 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180518 YEAR OF FEE PAYMENT : 12
EP2018228 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20070516
EP2018228 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190520 YEAR OF FEE PAYMENT : 13
EP2018228 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190621 YEAR OF FEE PAYMENT : 13
EP2018228 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190527 YEAR OF FEE PAYMENT : 13
EP2018228 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190523 YEAR OF FEE PAYMENT : 13
EP2018228 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160817
EP2018228 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190521 YEAR OF FEE PAYMENT : 13
EP2018228 B1	20270516	PEXP		Calculated Patent Term Expiry	
EP2152433 A2	20100217	LSPB	+	published / reissued	
EP2152433 A2	20100224	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20091211
EP2152433 A2	20100310	LSES	R17D	DEFERRED SEARCH REPORT PUBLISHED (CORRECTED)	EFFECTIVE DATE : 20081120
EP2152433 A2	20120912	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : APTAR DORTMUND GMBH
EP2152433 A2	20141015	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20140912
EP2152433 A2	20150624	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20150123
ES2603415 T3	20170227	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2603415 T3	20270516	PEXP		Calculated Patent Term Expiry	
ES2619611 T3	20170626	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2619611 T3	20270509	PEXP		Calculated Patent Term Expiry	
US2009166383 AA	20090702	LSPB	+	published / reissued	
US2009166383 AA	20120725	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2009294480 AA	20091203	LSPB	+	published / reissued	
US2009294480 AA	20120901	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : APTAR DORTMUND GMBH, GERMANY OLDPARTY : CHANGE OF NAME; ASSIGNOR:SEAQUIST PERFECT DISPENSING GMBH;

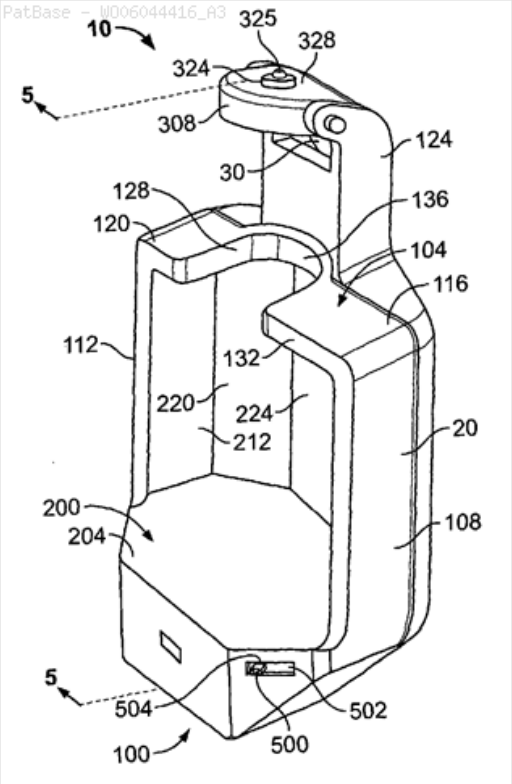
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US8240518 BB	20120814	LSGT	+	granted / extensions (spc, cpc, pte)	
US8240518 BB	20090213	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEAQUIST PERFECT DISPENSING GMBH, GERMANY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CANFIELD, REIKER; REEL/FRAME:022255/0031 EFFECTIVE DATE : 20090206
US8240518 BB	20120725	LSGT	PAT1	Patented Case	
US8240518 BB	20120901	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : APTAR DORTMUND GMBH, GERMANY OLDPARTY : CHANGE OF NAME; ASSIGNOR:SEAQUIST PERFECT DISPENSING GMBH; REEL/FRAME:028890/0332 EFFECTIVE DATE : 20120716
US8240518 BB	20160203	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8240518 BB	20200204	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8240518 BB	20290327	PEXP		Calculated Patent Term Expiry (PTA 681 days)	
WO07131685 A2	20071122	LSPB	+	published / reissued	
WO07131685 A3	20081007	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007725025 COUNTRY OF REF DOCUMENT : EP
WO07131685 A3	20081118	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO07131685 A3	20090224	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12300421 COUNTRY OF REF DOCUMENT : US
WO07131790 A2	20071122	LSPB	+	published / reissued	
WO07131790 A3	20081105	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007725295 COUNTRY OF REF DOCUMENT : EP
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WO08138618 A2	20091117	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO08138618 A2	20091211	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2008758542 COUNTRY OF REF DOCUMENT : EP

118) Family number: 43693081 (ZA200703607A)

Title: COMPACT SPRAY DEVICE

Abstract: An automatic discharge device comprises a housing adapted to receive a **container** therein. An actuator arm is attached to the housing and movable between first and second positions. The actuator arm includes a **dispensing** bore therein. A drive unit is provided for automatically moving the actuator arm into one of the first and second positions in response to a signal from at least one of a timer, a sensor, and a manual switch. The actuator arm is adapted to engage and actuate a nozzle of the **container** in the first position and allow a fluid disposed in an interior of the **container** to be **dispensed** through the nozzle and the **dispensing** bore of the actuator arm.

Classifications:
International (IPC 8-9): B05B9/04 B65D83/14 B65D83/16 B65D83/26 B65D83/38 (Advanced/Invention); B65D83/14 B65D83/16 (Advanced/Non-invention); B05B9/04 B65D83/00 B65D83/14 B65D83/16 (Core/Invention); B65D (Subclass/Invention)
CPC: A01M1/2038 A61L9/14 A61L2209/11 A61L2209/111 A61L2209/134 B05B11/3053 B05B12/02 B05B12/12 B05B12/122 B65D83/262
European: B65D83/26B



Family:

Publication number	Publication date	Application number	Application date
AT383315 E	20080115	AT20050810570T	20051011
AT417003 E	20081215	AT20050011132T	20051011
AT419197 E	20090115	AT20050011131T	20051011
AU2005295822 AA	20060427	AU20050295822	20051011
AU2005295822 BB	20110120	AU20050295822	20051011
BRPI0515993 A	20080819	BR2005PI15993	20051011
BRPI0515993 B1	20180306	BR2005PI15993	20051011
CA2583628 AA	20070412	CA20052583628	20051011
CA2583628 C	20110913	CA20052583628	20051011
CN101065299 A	20071031	CN200580040431	20051011
CN101065299 B	20120523	CN200580040431	20051011
CN102616480 A	20120801	CN201210092750	20051011
CN102616480 B	20141210	CN201210092750	20051011
DE602005004309 D1	20080221	DE200560004309T	20051011
DE602005004309 T2	20080417	DE200560004309T	20051011
DE602005011675 D1	20090122	DE200560011675T	20051011
DE602005012152 D1	20090212	DE200560012152T	20051011
EP1807322 A2	20070718	EP20050810570	20051011
EP1807322 B1	20080109	EP20050810570	20051011
ES2296228 T3	20080416	ES20050810570T	20051011
ES2317607 T3	20090416	ES20070011132T	20051011
ES2319235 T3	20090505	ES20070011131T	20051011
JP2008515738 T2	20080515	JP20070536822T	20051011
JP4762246 B2	20110831	JP20070536822T	20051011
KR20070072873 A	20070706	KR20077008374	20070412
KR20110116183 A	20111025	KR20117019202	20051011
MX2007004368 A1	20070619	MX20070004368	20051011
PT1807322 T	20080225	PT20050810570T	20051011
RU2007117742 A	20081120	RU20070117742	20051011
RU2363634 C2	20090810	RU20070117742	20051011
WO06044416 A2	20060427	WO2005US36576	20051011
WO06044416 A3	20060921	WO2005US36576	20051011
ZA200703607 A	20090128	ZA20070003607	20051011

Priority:

US20040617950P 20041012 WO2005US36576 20051011

Probable Assignee: JOHNSON AND SON INC S C

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Agent(s): SPRUSON AND FERGUSON; BERESKIN AND PARR LLP SENCRL SRL; RUSCHKE HANS EDVARD

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 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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT383315 E	20080115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT383315 E	20080715	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
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AT417003 E	20081215	LSGT	+	granted / extensions (spc, cpc, pte)	
AT417003 E	20090615	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
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AT419197 E	20090115	LSGT	+	granted / extensions (spc, cpc, pte)	
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AT419197 E	20251011	PEXP		Calculated Patent Term Expiry	
AU2005295822 AA	20060427	LSPB	+	published / reissued	
AU2005295822 BB	20110120	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2005295822 BB	20110519	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2005295822 BB	20251011	PEXP		Calculated Patent Term Expiry	
BRPI0515993 A	20080819	LSPB	+	published / reissued	
BRPI0515993 A	20180130	LSGT	B09A	DECISION: INTENTION TO GRANT	
BRPI0515993 A	20180306	LSGT	+B16A	PATENT OR CERTIFICATE OF ADDITION OF INVENTION GRANTED	
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CA2583628 AA	20070412	LSPB	+	published / reissued	
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DE602005012152 D1	20100121	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
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EP1807322 A2	20070718	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20070411
EP1807322 A2	20160129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20151028 YEAR OF FEE PAYMENT : 11
EP1807322 A2	20160129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20151026 YEAR OF FEE PAYMENT : 11
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EP1807322 B1	20080131	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1807322 B1	20080206	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1807322 B1	20080416	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER :

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EP1807322 B1	20080829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080409

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				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	: EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080109
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EP1807322 B1	20151019	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
EP1807322 B1	20160921	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12

EP1807322 B1	20161230	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160922 YEAR OF FEE PAYMENT : 12
EP1807322 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160922 YEAR OF FEE PAYMENT : 12
EP1807322 B1	20170921	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 13
EP1807322 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170921 YEAR OF FEE PAYMENT : 13
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EP1807322 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170921 YEAR OF FEE PAYMENT : 13
EP1807322 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170920 YEAR OF FEE PAYMENT : 13
EP1807322 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20171103 YEAR OF FEE PAYMENT : 13
EP1807322 B1	20180920	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 14
EP1807322 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180919 YEAR OF FEE PAYMENT : 14
EP1807322 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180920 YEAR OF FEE PAYMENT : 14
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EP1807322 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190918 YEAR OF FEE PAYMENT : 15

EP1807322 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20191104 YEAR OF FEE PAYMENT : 15
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ES2296228 T3	20080416	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2296228 T3	20251011	PEXP		Calculated Patent Term Expiry	
ES2317607 T3	20090416	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2317607 T3	20251011	PEXP		Calculated Patent Term Expiry	
ES2319235 T3	20090505	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2319235 T3	20251011	PEXP		Calculated Patent Term Expiry	
JP2008515738 T2	20080515	LSPB	+	published / reissued	
JP2008515738 T2	20100609	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20100608
JP2008515738 T2	20100819	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100818
JP2008515738 T2	20110106	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110105
JP2008515738 T2	20110405	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110404
JP2008515738 T2	20110518	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20110517
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JP2008515738 T2	20110616	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20110607
JP2008515738 T2	20110617	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2008515738 T2	20110617	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP4762246 B2	20110831	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4762246 B2	20110614	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4762246 B2	20140612	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4762246 B2	20140617	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4762246 B2	20150611	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4762246 B2	20150616	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4762246 B2	20160602	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4762246 B2	20160607	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4762246 B2	20170601	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4762246 B2	20170606	LSFE	+R250	RECEIPT OF ANNUAL	TEXT : JAPANESE

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JP4762246 B2	20180531	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4762246 B2	20180605	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4762246 B2	20190530	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4762246 B2	20190604	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4762246 B2	20251011	PEXP		Calculated Patent Term Expiry	
KR20070072873 A	20070706	LSPB	+	published / reissued	
KR20070072873 A	20090107	LSES	A201	REQUEST FOR EXAMINATION	
KR20070072873 A	20110218	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20070072873 A	20120313	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20110116183 A	20111025	LSPB	+	published / reissued	
KR20110116183 A	20110818	LSES	A201	REQUEST FOR EXAMINATION	
KR20110116183 A	20111114	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20110116183 A	20120917	LSRV	-E601	DECISION TO REFUSE APPLICATION	
MX2007004368 A1	20070619	LSPB	+	published / reissued	
MX2007004368 A1	20110113	LSGT	+FG	GRANT OR REGISTRATION	
PT1807322 T	20080225	LSGT	+	granted / extensions (spc, cpc, pte)	
PT1807322 T	20251011	PEXP		Calculated Patent Term Expiry	
RU2007117742 A	20081120	LSPB	+	published / reissued	
RU2363634 C2	20090810	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2363634 C2	20160520	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	EFFECTIVE DATE : 20151012
RU2363634 C2	20251011	PEXP		Calculated Patent Term Expiry	
WO06044416 A2	20060427	LSPB	+	published / reissued	
WO06044416 A3	20070411	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2005810570 COUNTRY OF REF DOCUMENT : EP
WO06044416 A3	20070412	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2583628 COUNTRY OF REF DOCUMENT : CA
WO06044416 A3	20070412	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020077008374 COUNTRY OF REF DOCUMENT : KR
WO06044416 A3	20070412	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007536822 COUNTRY OF REF DOCUMENT : JP
WO06044416 A3	20070412	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2007/004368 COUNTRY OF REF DOCUMENT : MX
WO06044416 A3	20070413	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO06044416 A3	20070423	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO	REF DOCUMENT NUMBER : 2005295822 COUNTRY OF REF DOCUMENT

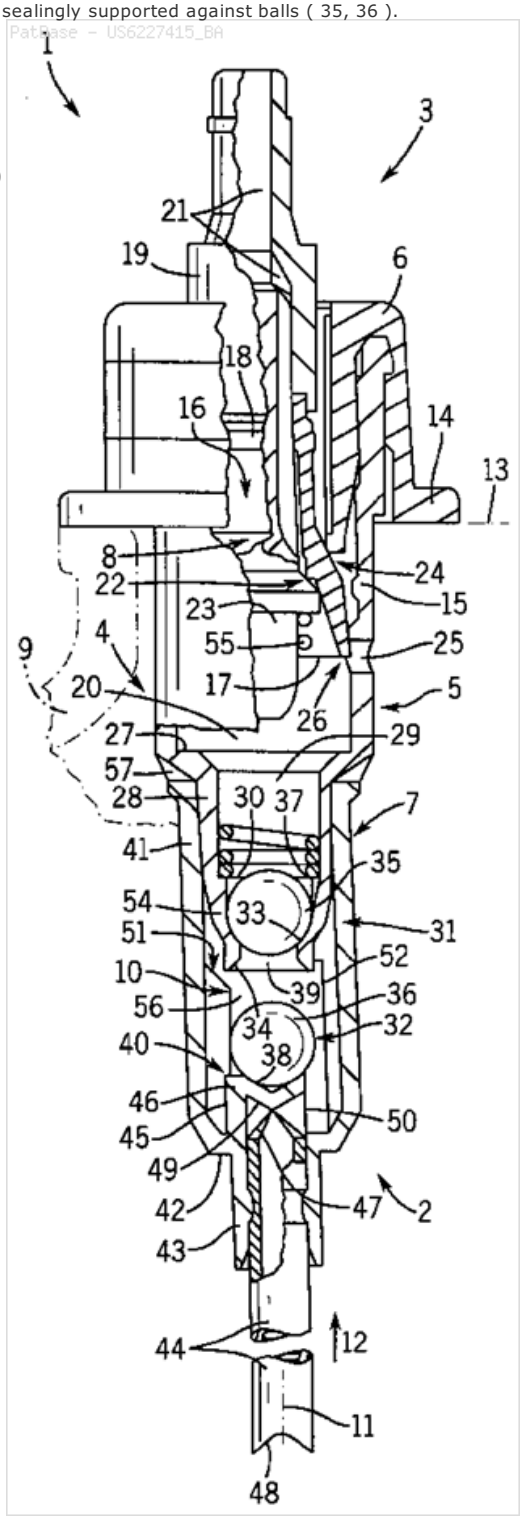
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WO06044416 A3	20070525	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200580040431.X COUNTRY OF REF DOCUMENT : CN
WO06044416 A3	20070718	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2005810570 COUNTRY OF REF DOCUMENT : EP
WO06044416 A3	20080109	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2005810570 COUNTRY OF REF DOCUMENT : EP
WO06044416 A3	20080819	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0515993 COUNTRY OF REF DOCUMENT : BR
ZA200703607 A	20090128	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA200703607 A	20251010	PEXP		Calculated Patent Term Expiry	

119) Family number: 30536081 (US6227415B)

Title: THRUST PISTON PUMP WITH DOUBLE VALVE ASSEMBLY

Abstract: An inlet valve (10) of a **dispenser** (1) or thrust piston pump, for highly reliable and speedy valve function in all vertical or inclined positions of the **dispenser** (1) includes, nearer to the pump chamber (20), a valve ball (35) operating in response to pressure and, further away from the pump chamber (20), a valve ball (36) subject to the force of gravity. Ball (36) pushes ball (35) out of its seat (33) in the event that it is firmly seated in the seat (33) due to a vacuum in the reservoir (9) when the **dispenser** (1) is turned upside down. The seats (33, 34) for the two valve balls (35, 36) are formed by a radially deformable wall (54), which can be tightly and sealingly supported against balls (35, 36).

Classifications:
International (IPC 8-9): B05B11/00 B65B11/00 B65D47/34 B65D83/00 B65D83/76 (Advanced/Invention); B67D99/00 (Advanced/Non-invention); B05B11/00 B65B11/00 B65D47/34 B65D83/00 B65D83/76 (Core/Invention)
International (IPC 1-7): B05B11/00 B05B11/00 B65D47/34 B65D51/00 B65D83/00 B65D83/48 B65D83/56 B65D83/76 B67D5/00 B67D5/40 F04B53/10 F16K15/00 F16K15/04
CPC: B05B11/0059 B05B11/3026 B05B11/3094
European: B05B11/00B6 B05B11/00P3T4 B05B11/00T4 B05B11/30C9D B05B11/30R
US: 222/321.2 222/321.4 222/376



Family:

Publication number	Publication date	Application number	Application date
AT258081 E	20040215	AT19980110793T	19980612
BRPI9802222 A	19991103	BR1998PI02222	19980625
CN1111495 C	20030618	CN19981015606	19980626
CN1205967 A	19990127	CN19981015606	19980626
DE19727356 A1	19990107	DE19971027356	19970627
DE19727356 B4	20060420	DE19971027356	19970627
DE59810617 D1	20040226	DE19985010617	19980612
DK0887112 T3	20040426	DK19980110793T	19980612

EP0887112 A2	19981230	EP19980110793	19980612
EP0887112 A3	19991117	EP19980110793	19980612
EP0887112 B1	20040121	EP19980110793	19980612
ES2214660 T3	20040916	ES19980110793T	19980612
JP11079224 A2	19990323	JP19980192337	19980624
KR19990007393 A	19990125	KR19980024395	19980626
US6227415 BA	20010508	US19980098552	19980617

Priority:

DE19971027356 19970627 DE19985010617 19980612

Probable Assignee: APTAR RADOLFZELL GMBH

Assignee(s): (std): ING ERICH PFEIFFER GMBH ; PFEIFFER ERICH GMBH AND CO KG

Assignee(s): ING ERICH PFEIFFER GMBH 78315 RADOLFZELL DE ; ING ERICH PFEIFFER GMBH AND CO KG ; APTAR RADOLFZELL GMBH

Inventor(s): (std): STEFAN RITSCHE ; ESTHER AMANN ; AMANN ESTHER ; RITSCHE STEFAN ; AMANN E ; RITSCHE S

Inventor(s): AMANN ESTHER 78315 RADOLFZELL DE ; RITSCHE STEFAN 78315 RADOLFZELL DE ; S RITSCHE ; E AMANN

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

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AT258081 E	20040215	LSGT	+	granted / extensions (spc, cpc, pte)	
AT258081 E	20050915	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT258081 E	20180612	PEXP		Calculated Patent Term Expiry	
BRPI9802222 A	19991103	LSPB	+	published / reissued	
BRPI9802222 A	20031104	LSGT	+FF	DECISION: INTENTION TO GRANT	
BRPI9802222 A	20040203	LSGT	+FG9A	PATENT OR CERTIFICATE OF ADDITION GRANTED	
BRPI9802222 A	20140415	LSLE	-B24H	LAPSE BECAUSE OF NON-PAYMENT OF ANNUAL FEES (DEFINITIVELY: ART 78 IV LPI)	
CN1111495 C	20030618	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1111495 C	20030618	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1111495 C	20160810	LSWD	-EXPY	TERMINATION OF PATENT RIGHT OR UTILITY MODEL	
CN1111495 C	20180626	PEXP		Calculated Patent Term Expiry	
CN1205967 A	19990127	LSPB	+	published / reissued	
CN1205967 A	19990127	LSPB	+C06	PUBLICATION	
DE19727356 A1	19990107	LSPB	+	published / reissued	
DE19727356 A1	19990107	LSES	+OM8	SEARCH REPORT AVAILABLE AS TO PARAGRAPH 43 LIT. 1 SENTENCE 1 PATENT LAW	
DE19727356 A1	20040826	LSES	+8110	REQUEST FOR EXAMINATION PARAGRAPH 44	
DE19727356 B4	20060420	LSGT	+	granted / extensions (spc, cpc, pte)	
DE19727356 B4	20061012	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE19727356 B4	20121220	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : APTAR RADOLFZELL GMBH, DE OLDPARTY : FORMER OWNER: ING. ERICH PFEIFFER GMBH, 78315 RADOLFZELL, DE EFFECTIVE DATE : 20121025
DE19727356 B4	20160101	LSDW	-R119	APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF	

				RENEWAL FEE	
DE19727356 B4	20170627	PEXP		Calculated Patent Term Expiry	
DE59810617 D1	20050217	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE59810617 D1	20121025	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : APTAR RADOLFZELL GMBH, 78315 RADOLFZELL, DE OLDPARTY : ING. ERICH PFEIFFER GMBH, 78315 RADOLFZELL, DE
DK0887112 T3	20040426	LSGT	+	granted / extensions (spc, cpc, pte)	
DK0887112 T3	20180612	PEXP		Calculated Patent Term Expiry	
EP0887112 A2	19981230	LSPB	+	published / reissued	
EP0887112 A3	20000517	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20000323
EP0887112 A3	20000726	LSFE	+AKX	DESIGNATION FEES PAID	TEXT : AT BE CH DE DK ES FI FR GB GR IE IT LI NL PT SE
EP0887112 A3	20020619	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20020502
EP0887112 B1	20040121	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0887112 B1	20040121	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20040121
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EP0887112 B1	20040130	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0887112 B1	20040225	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : GERMAN
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EP0887112 B1	20040628	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20040628 YEAR OF FEE PAYMENT : 7
EP0887112 B1	20040916	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2214660 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP0887112 B1	20050112	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20041022
EP0887112 B1	20050613	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20050613

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EP0887112 B1	20060322	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP0887112 B1	20080102	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20040621
EP0887112 B1	20090731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20090622 YEAR OF FEE PAYMENT : 12
EP0887112 B1	20090731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20090624 YEAR OF FEE PAYMENT : 12
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EP0887112 B1	20100730	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20100628 YEAR OF FEE PAYMENT : 13
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EP0887112 B1	20101029	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20100625 YEAR OF FEE PAYMENT : 13
EP0887112 B1	20101130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20100622 YEAR OF FEE PAYMENT : 13
EP0887112 B1	20110112	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : V1 EFFECTIVE DATE : 20110101
EP0887112 B1	20110131	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP
EP0887112 B1	20110531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110101
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EP0887112 B1	20110831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100630
EP0887112 B1	20111231	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : ERICH *PFEIFFER G.M.B.H. EFFECTIVE DATE : 20110630
EP0887112 B1	20120207	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : EUG
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EP0887112 B1	20120717	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20120717
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EP0887112 B1	20130131	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0887112 B1	20130215	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0887112 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110613
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EP0887112 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20120630
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EP0887112 B1	20141128	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20140617 YEAR OF FEE PAYMENT : 17

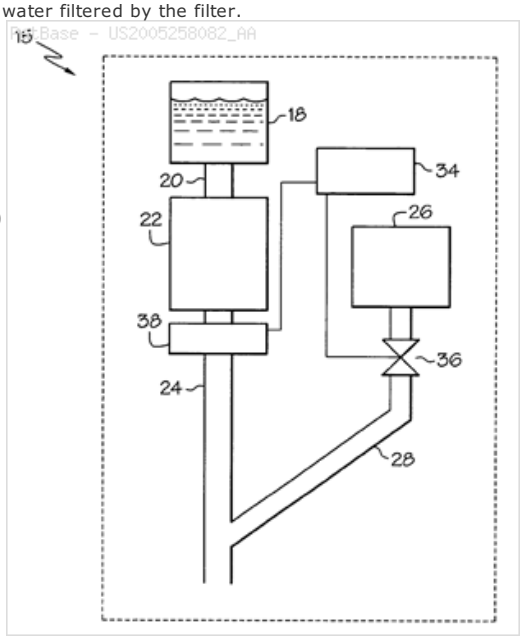
EP0887112 B1	20160224	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20150612
EP0887112 B1	20160401	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20160229
EP0887112 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150612
EP0887112 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150630
EP0887112 B1	20180612	PEXP		Calculated Patent Term Expiry	
ES2214660 T3	20040916	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2214660 T3	20180612	PEXP		Calculated Patent Term Expiry	
JP11079224 A2	19990323	LSPB	+	published / reissued	
JP11079224 A2	20050614	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20050613
JP11079224 A2	20050614	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20050613
JP11079224 A2	20080129	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20080129
JP11079224 A2	20080909	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20080909
KR19990007393 A	19990125	LSPB	+	published / reissued	
KR19990007393 A	20030618	LSES	A201	REQUEST FOR EXAMINATION	
KR19990007393 A	20050725	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR19990007393 A	20051125	LSRV	-E601	DECISION TO REFUSE APPLICATION	
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US6227415 BA	19980617	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ING. ERICH PFEIFFER GMBH, GERMANY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RITSCHE, STEFAN; AMANN, ESTHER; REEL/FRAME:009260/0278 EFFECTIVE DATE : 19980604
US6227415 BA	20020416	LSRE	CC	CERTIFICATE OF CORRECTION	
US6227415 BA	20041025	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6227415 BA	20081027	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6227415 BA	20121214	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : APTAR RADOLFZELL GMBH, GERMANY OLDPARTY : CHANGE OF NAME; ASSIGNOR:ING. ERICH PFEIFFER GMBH; REEL/FRAME:029467/0773 EFFECTIVE DATE : 20120716
US6227415 BA	20130508	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6227415 BA	20130603	LSLE	-PEX1	Patent Expired Due to	

				NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6227415 BA	20130603	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6227415 BA	20130625	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20130508
US6227415 BA	20180617	PEXP		Calculated Patent Term Expiry	

120) Family number: 32436082 (US2005258082A)

Title: ADDITIVE **DISPENSING** SYSTEM AND WATER FILTRATION SYSTEM

Abstract: A water filtration system having a water inlet connectable to an unfiltered water source, a water filter in fluid communication with the water inlet, an outlet in communication with the water filter operable to **dispense** filtered water and an additive **dispensing** system having a reservoir for **containing** an additive and additive outlet. The additive **dispensing** system is operable to selectively **dispense** an amount of additive to water filtered by the filter.



Classifications:
International (IPC 8-9): A47J31/40 A47J31/46 A61B5/00 B01D15/00 B01D35/14 B01D35/143 B01F15/00 B01F5/04 B05B11/00 B65B3/26 B65D47/20 B65D47/34 B65D51/28 B65D88/54 B67D1/00 B67D1/10 B67D3/00 B67D7/02 B67D7/74 B67D99/00 C02F1/00 C02F1/28 C02F1/42 C02F1/44 C02F1/68 C08L101/00 E03C1/046 F04B13/00 F17D3/12 F25D11/00 F25D25/00 H04N5/225 H04N5/265 H04N5/33 (Advanced/Invention);
B05B11/00 H04N5/265 H04N5/33 (Advanced/Non-invention);
B01D15/00 B01D35/14 B65D47/04 B65D47/34 B65D51/24 B67D1/00 B67D3/00 B67D7/74 C02F1/00 C02F1/28 C02F1/42 C02F1/44 C02F1/68 F25D11/00 F25D25/00 (Core/Invention);
B05B B67D C02F (Subclass/Invention)
International (IPC 1-7): B01D35/157 B67D1/00 C02F1/00 C02F1/68
CPC: A47G19/12 C02F1/687 C02F2209/005 C02F2209/445 C02F2307/04 B67D7/02 B05B11/0054 B05B11/0072 B01F5/0496 B01F15/00207 C02F2201/006 B67D1/0021 B67D1/004 B67D1/0078 C02F1/686 F25D2323/121 B67D1/0004 B67D1/0022 B67D1/0045 B67D1/0079 B67D1/10 B67D2210/0001 B67D2210/00036 B67D2210/0012 B67D2210/00128 A61B5/0035 A61B5/0071 A61B5/0075 A61B5/0077 A61B5/7235 A61B2560/0431 A61B2576/00 H04N5/2256 H04N5/265 H04N5/332 C02F1/003 C02F1/68 C02F1/685 C02F2209/001 C02F2209/40
European: A47G19/12 B01F15/00K3 B01F5/04C18 B67D1/00E2 B67D1/00F4B B67D1/00H2B2 B67D1/00H6B B67D1/10 C02F1/00D4 C02F1/68 C02F1/68P2 L67D210/00B2D L67D210/00D14 L67D210/00D16 L67D210/00D2B2 M02F1/68 M02F1/68P M02F1/68P2 M02F1/68P4 M02F201/00D8 M02F209/00B M02F209/00T M02F209/40 M02F209/44F M02F307/04
US: 1/1 210/101 210/110 210/110S 210/136 210/136S 210/198.1 210/198.100P 210/210 210/210S 210/245 210/435 210/435S 210/449 210/449S 210/464 210/464S 210/473 210/473S 210/474 210/482 210/85 210/85P 210/94 210/94S 222/129 222/129.1 222/133 222/162 222/189.07 222/325 222/36 222/470 348/77 62/389

Family:

Publication number	Publication date	Application number	Application date
AU2005247937 AA	20051208	AU20050247937	20050524
AU2005247937 BB	20100218	AU20050247937	20050524
AU2006262918 AA	20070104	AU20060262918	20060119
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Priority:

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US20050159423	20050622	CA20062613167	20060119	CA20062709448	20060119
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US20140520928	20141022	WO2014CN089150	20141022		

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KAREN F; DINSMORE AND SHOHL LLP; ULMER AND BERNE LLP; SCHWEGMAN LUNDBERG AND WOESSNER PA

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 YU ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2005247937 AA	20051208	LSPB	+	published / reissued	
AU2005247937 BB	20100218	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2005247937 BB	20100617	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2005247937 BB	20111222	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2005247937 BB	20250524	PEXP		Calculated Patent Term Expiry	
AU2006262918 AA	20070104	LSPB	+	published / reissued	
AU2006262918 AA	20110811	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
AU2006262919 AA	20070104	LSPB	+	published / reissued	
AU2006262919 AA	20110818	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
AU2007210822 AA	20070809	LSPB	+	published / reissued	
AU2007210822 AA	20120830	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
BRPI0511536 A	20080102	LSPB	+	published / reissued	
BRPI0511536 A	20120515	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 7A ANUIDADE.
BRPI0511536 A	20121009	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : REFERENTE AO DESPACHO 8.6 PUBLICADO NA RPI 2158 DE 15/05/2012.
BRPI0612835 A2	20120605	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 6A ANUIDADE.
BRPI0612835 A2	20130226	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE	TEXT : REFERENTE AO DESPACHO 8.6 PUBLICADO NA RPI 2161 DE 05/06/2012.

				HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	
BRPI0613154 A2	20120605	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 6A ANUIDADE.
BRPI0613154 A2	20130226	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : REFERENTE AO DESPACHO 8.6 PUBLICADO NA RPI 2161 DE 05/06/2012.
BRPI0707386 A2	20120605	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 5A ANUIDADE.
BRPI0707386 A2	20130521	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	TEXT : REFERENTE AO DESPACHO 8.6 PUBLICADO NA RPI 2161 DE 05/06/2012.
CA2567812 AA	20061123	LSPB	+	published / reissued	
CA2567812 AA	20061123	LSES	+EEER	EXAMINATION REQUEST	
CA2567812 C	20130806	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2567812 C	20250524	PEXP		Calculated Patent Term Expiry	
CA2610678 AA	20071130	LSPB	+	published / reissued	
CA2610678 AA	20071130	LSES	+EEER	EXAMINATION REQUEST	
CA2610678 C	20130625	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2610678 C	20260120	PEXP		Calculated Patent Term Expiry	
CA2613167 AA	20071221	LSPB	+	published / reissued	
CA2613167 AA	20071221	LSES	+EEER	EXAMINATION REQUEST	
CA2613167 C	20130402	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2613167 C	20260119	PEXP		Calculated Patent Term Expiry	
CA2637878 AA	20080721	LSPB	+	published / reissued	
CA2637878 AA	20080721	LSES	+EEER	EXAMINATION REQUEST	
CA2637878 C	20121120	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2637878 C	20270202	PEXP		Calculated Patent Term Expiry	
CA2709448 AA	20070104	LSPB	+	published / reissued	
CA2709448 AA	20100723	LSES	+EEER	EXAMINATION REQUEST	
CA2709448 C	20130326	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2709448 C	20260119	PEXP		Calculated Patent Term Expiry	

CN100593994 C	20100317	LSGT	+	granted / extensions (spc, cpc, pte)	
CN100593994 C	20100317	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN100593994 C	20130717	LSLE	-C17	CESSATION OF PATENT RIGHT	
CN100593994 C	20250524	PEXP		Calculated Patent Term Expiry	
CN101193814 A	20080604	LSPB	+	published / reissued	
CN101193814 A	20080604	LSPB	+C06	PUBLICATION	
CN101193814 A	20120516	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
CN101193825 A	20080604	LSPB	+	published / reissued	
CN101193825 A	20080604	LSPB	+C06	PUBLICATION	
CN101193825 A	20120425	LSDW	-C20	PATENT RIGHT OR UTILITY MODEL DEEMED TO BE ABANDONED OR IS ABANDONED	
CN101378997 A	20090304	LSPB	+	published / reissued	
CN101378997 A	20090304	LSPB	+C06	PUBLICATION	
CN101378997 A	20120829	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
CN102173471 A	20110907	LSPB	+	published / reissued	
CN102173471 A	20110907	LSPB	+C06	PUBLICATION	
CN102173471 B	20141029	LSGT	+	granted / extensions (spc, cpc, pte)	
CN102173471 B	20141029	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN102173471 B	20141210	LSAS	ASS	SUCCESSION OR ASSIGNMENT OF PATENT RIGHT	PARTYTYPE : OWNER OWNER : HELEN OF TROY LTD. OLDPARTY : FORMER OWNER: PUR WATER PURIFICATION PRODUCT EFFECTIVE DATE : 20141117
CN102173471 B	20141210	LSAS	C41	TRANSFER OF PATENT APPLICATION OR PATENT RIGHT OR UTILITY MODEL	
CN102173471 B	20260119	PEXP		Calculated Patent Term Expiry	
CN1953938 A	20070425	LSPB	+	published / reissued	
CN1953938 A	20070425	LSPB	+C06	PUBLICATION	
EP1748957 A1	20070207	LSPB	+	published / reissued	
EP1748957 A1	20070207	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20061122
EP1748957 A1	20071128	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20071029
EP1748957 A1	20071226	LSES	+R17C	FIRST EXAMINATION	EFFECTIVE DATE : 20071121

				REPORT DESPATCHED (CORRECTED)	
EP1748957 A1	20110427	LSRE	RTI1	TITLE (CORRECTION)	TEXT : WATER FILTRATION AND ADDITIVE DISPENSING SYSTEM
EP1748957 A1	20120229	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20110830
EP1893524 A2	20080305	LSPB	+	published / reissued	
EP1893524 A2	20080305	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20071205
EP1893524 A2	20130123	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20120801
EP1893536 A1	20080305	LSPB	+	published / reissued	
EP1893536 A1	20080305	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20071129
EP1893536 A1	20090121	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20081229
EP1893536 A1	20130123	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20120801
EP1996519 A2	20081203	LSPB	+	published / reissued	
EP1996519 A2	20081203	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20080818
EP1996519 A2	20121024	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20120921
EP1996519 A2	20130227	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20120903
IN06527DN2006 A	20070831	LSPB	+	published / reissued	
IN06548DN2008 A	20081024	LSPB	+	published / reissued	
IN08647DN2007 A	20080627	LSPB	+	published / reissued	
IN08651DN2007 A	20080627	LSPB	+	published / reissued	
IN266723 B	20150528	LSGT	+	granted / extensions (spc, cpc, pte)	
IN266723 B	20150605	LSGT	+	granted / extensions (spc, cpc, pte)	
IN266723 B	20271108	PEXP		Calculated Patent Term Expiry	
IN266723 B	20271108	PEXP		Calculated Patent Term Expiry	
JP2007537872 T2	20071227	LSPB	+	published / reissued	
JP2007537872 T2	20091013	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20091009
JP2007537872 T2	20100406	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100405
JP2007537872 T2	20110413	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20110412
JP2008546520 T2	20081225	LSPB	+	published / reissued	
JP2008546520 T2	20100923	LSWD	-A761	WRITTEN WITHDRAWAL OF APPLICATION	TEXT : JAPANESE INTERMEDIATE CODE: A761 EFFECTIVE DATE : 20100922

JP2008546520 T2	20101013	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20100922
JP2008546983 T2	20081225	LSPB	+	published / reissued	
JP2008546983 T2	20100421	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20100420
JP2008546983 T2	20101201	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20101130
JP2009525233 T2	20090709	LSPB	+	published / reissued	
JP2009525233 T2	20100923	LSWD	-A761	WRITTEN WITHDRAWAL OF APPLICATION	TEXT : JAPANESE INTERMEDIATE CODE: A761 EFFECTIVE DATE : 20100922
JP2009525233 T2	20101013	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20100922
MX2007016188 A1	20080311	LSPB	+	published / reissued	
MX2008009963 A1	20081106	LSPB	+	published / reissued	
MXPA06013533 A1	20070301	LSPB	+	published / reissued	
MXPA06013533 A1	20100113	LSGT	+FG	GRANT OR REGISTRATION	
RU2006142681 A	20080627	LSPB	+	published / reissued	
RU2007140559 A	20090727	LSPB	+	published / reissued	
RU2007140560 A	20090727	LSPB	+	published / reissued	
RU2008129886 A	20100310	LSPB	+	published / reissued	
RU2356853 C2	20090527	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2356853 C2	20130320	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	EFFECTIVE DATE : 20120525
RU2356853 C2	20250524	PEXP		Calculated Patent Term Expiry	
RU2370432 C2	20091020	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2370432 C2	20121120	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	EFFECTIVE DATE : 20120121
RU2370432 C2	20260120	PEXP		Calculated Patent Term Expiry	
RU2408545 C2	20110110	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2408545 C2	20121127	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	EFFECTIVE DATE : 20120203
RU2408545 C2	20270202	PEXP		Calculated Patent Term Expiry	
RU2421406 C2	20110620	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2421406 C2	20121120	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	EFFECTIVE DATE : 20120120
RU2421406 C2	20260119	PEXP		Calculated Patent Term	

				Expiry	
US10329134 BB	20190625	LSGT	+	granted / extensions (spc, cpc, pte)	
US10329134 BB	20360812	PEXP		Calculated Patent Term Expiry (PTA 660 days)	
US10524665 BB	20200107	LSGT	+	granted / extensions (spc, cpc, pte)	
US10524665 BB	20170821	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : INSTITUTE OF AUTOMATION, CHINESE ACADEMY OF SCIENC OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:TIAN, JIE; CHI, CHONGWEI; YANG, XIN; REEL/FRAME:043342/0582 EFFECTIVE DATE : 20170801
US10524665 BB	20191218	LSGT	PAT1	Patented Case	
US10524665 BB	20350604	PEXP		Calculated Patent Term Expiry (PTA 225 days)	
US2005258082 AA	20051124	LSPB	+	published / reissued	
US2005258082 AA	20050111	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PROCTER & GAMBLE COMPANY, THE, OHIO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LUND, MARK THOMAS; WILLIQUELLE, MATTHEW KEITH FLORIAN; EMMONS, DAVID JAMES; AND OTHERS; REEL/FRAME:015582/0520; SIGNING DATES FROM 20040709 TO 20041222
US2005258082 AA	20120518	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2006006107 AA	20060112	LSPB	+	published / reissued	
US2006006107 AA	20130925	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2006021919 AA	20060202	LSPB	+	published / reissued	
US2006021919 AA	20141016	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PUR WATER PURIFICATION PRODUCTS, INC., TEXAS OLDPARTY : ARTICLES OF CONVERSION (FROM OHIO CORPORATION TO NEVADA CORPORATION); ASSIGNOR:PUR WATER PURIFICATION PRODUCTS, INC.; REEL/FRAME:034012/0124 EFFECTIVE DATE : 20120501
US2006021919 AA	20141016	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HELEN OF TROY LIMITED, BARBADOS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PUR WATER PURIFICATION PRODUCTS, INC.; REEL/FRAME:034014/0087 EFFECTIVE DATE : 20140404
US2006021919 AA	20141105	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2006191824 AA	20060831	LSPB	+	published / reissued	
US2006191824 AA	20100210	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010133297 AA	20100603	LSPB	+	published / reissued	
US2010133297 AA	20130320	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014061238 AA	20140306	LSPB	+	published /	

				reissued	
US2014061238 AA	20141016	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PUR WATER PURIFICATION PRODUCTS, INC., TEXAS OLDPARTY : ARTICLES OF CONVERSION (FROM OHIO CORPORATION TO NEVADA CORPORATION); ASSIGNOR:PUR WATER PURIFICATION PRODUCTS, INC.; REEL/FRAME:034012/0124 EFFECTIVE DATE : 20120501
US2014061238 AA	20141016	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HELEN OF TROY LIMITED, BARBADOS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PUR WATER PURIFICATION PRODUCTS, INC.; REEL/FRAME:034014/0087 EFFECTIVE DATE : 20140404
US2014061238 AA	20170602	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2014061238 AA	20170906	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2014061238 AA	20170907	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2014061238 AA	20170920	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015069088 AA	20150312	LSPB	+	published / reissued	
US2015069088 AA	20170327	LSES	NFA1	Non Final Action Mailed	
US2015069088 AA	20170727	LSES	NFA1	Non Final Action Mailed	
US2015069088 AA	20180729	LSES	ADV2	Advisory Action Counted, Not Yet Mailed	
US2015069088 AA	20180731	LSES	ADV1	Advisory Action Mailed	
US2015069088 AA	20181105	LSES	NFA1	Non Final Action Mailed	
US2015069088 AA	20190306	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2015069088 AA	20190514	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2015069088 AA	20190605	LSGT	PAT1	Patented Case	
US2015069088 AA	20190605	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018042481 AA	20180215	LSPB	+	published / reissued	
US2018042481 AA	20190326	LSES	NFA1	Non Final Action Mailed	
US2018042481 AA	20190725	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018042481 AA	20190923	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018042481 AA	20191029	LSFE	+PPR1	Publications --	

				Issue Fee Payment Received	
US2018042481 AA	20191112	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018042481 AA	20191127	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2018042481 AA	20191218	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7670479 BB	20100302	LSGT	+	granted / extensions (spc, cpc, pte)	
US7670479 BB	20060505	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PUR WATER PURIFICATION PRODUCTS, INC., OHIO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ARETT, RICHARD ALAN; BROYLES, NORMAN SCOTT; COLLIAS, DIMITRIS IOANNIS; AND OTHERS; REEL/FRAME:017580/0691; SIGNING DATES FROM 20060206 TO 20060213
US7670479 BB	20060505	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PUR WATER PURIFICATION PRODUCTS, INC.,OHIO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ARETT, RICHARD ALAN; BROYLES, NORMAN SCOTT; COLLIAS, DIMITRIS IOANNIS; AND OTHERS; SIGNING DATES FROM 20060206 TO 20060213; REEL/FRAME:017580/0691
US7670479 BB	20100210	LSGT	PAT1	Patented Case	
US7670479 BB	20130903	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7670479 BB	20141016	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PUR WATER PURIFICATION PRODUCTS, INC., TEXAS OLDPARTY : ARTICLES OF CONVERSION (FROM OHIO CORPORATION TO NEVADA CORPORATION); ASSIGNOR:PUR WATER PURIFICATION PRODUCTS, INC.; REEL/FRAME:034012/0124 EFFECTIVE DATE : 20120501
US7670479 BB	20141016	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HELEN OF TROY LIMITED, BARBADOS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PUR WATER PURIFICATION PRODUCTS, INC.; REEL/FRAME:034014/0087 EFFECTIVE DATE : 20140404
US7670479 BB	20170905	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7670479 BB	20280917	PEXP		Calculated Patent Term Expiry (PTA 957 days)	
US8413844 BB	20130409	LSGT	+	granted / extensions (spc, cpc, pte)	
US8413844 BB	20130320	LSGT	PAT1	Patented Case	
US8413844 BB	20131217	LSRE	CC	CERTIFICATE OF CORRECTION	
US8413844 BB	20141016	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PUR WATER PURIFICATION PRODUCTS, INC., TEXAS OLDPARTY : ARTICLES OF CONVERSION (FROM OHIO CORPORATION TO NEVADA CORPORATION); ASSIGNOR:PUR WATER PURIFICATION PRODUCTS, INC.; REEL/FRAME:034012/0124 EFFECTIVE DATE : 20120501
US8413844 BB	20141016	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

					OWNER : HELEN OF TROY LIMITED, BARBADOS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PUR WATER PURIFICATION PRODUCTS, INC.; REEL/FRAME:034014/0087 EFFECTIVE DATE : 20140404
US8413844 BB	20161011	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8413844 BB	20310102	PEXP		Calculated Patent Term Expiry (PTA 327 days)	
US8556127 BB	20131015	LSGT	+	granted / extensions (spc, cpc, pte)	
US8556127 BB	20050927	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PUR WATER PURIFICATION PRODUCTS, INC., OHIO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OLSON, JUDD DYLAN; BOROS, JOHN PAUL; EMMONS, DAVID JAMES; REEL/FRAME:016589/0597 EFFECTIVE DATE : 20050823
US8556127 BB	20130925	LSGT	PAT1	Patented Case	
US8556127 BB	20141016	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PUR WATER PURIFICATION PRODUCTS, INC., TEXAS OLDPARTY : ARTICLES OF CONVERSION (FROM OHIO CORPORATION TO NEVADA CORPORATION); ASSIGNOR:PUR WATER PURIFICATION PRODUCTS, INC.; REEL/FRAME:034012/0124 EFFECTIVE DATE : 20120501
US8556127 BB	20141016	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HELEN OF TROY LIMITED, BARBADOS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PUR WATER PURIFICATION PRODUCTS, INC.; REEL/FRAME:034014/0087 EFFECTIVE DATE : 20140404
US8556127 BB	20170417	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8556127 BB	20300927	PEXP		Calculated Patent Term Expiry (PTA 1923 days)	
US8893927 BB	20141125	LSGT	+	granted / extensions (spc, cpc, pte)	
US8893927 BB	20050927	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PUR WATER PURIFICATION PRODUCTS, INC., OHIO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OLSON, JUDD DYLAN; BOROS, JOHN PAUL; EMMONS, DAVID JAMES; AND OTHERS; REEL/FRAME:016587/0837; SIGNING DATES FROM 20050816 TO 20050906
US8893927 BB	20050927	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PUR WATER PURIFICATION PRODUCTS, INC., OHIO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OLSON, JUDD DYLAN; BOROS, JOHN PAUL; EMMONS, DAVID JAMES; AND OTHERS; SIGNING DATES FROM 20050816 TO 20050906; REEL/FRAME:016587/0837
US8893927 BB	20141105	LSGT	PAT1	Patented Case	
US8893927 BB	20180525	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8893927 BB	20291111	PEXP		Calculated Patent Term Expiry (PTA 1603 days)	

US9783405 BB	20171010	LSGT	+	granted / extensions (spc, cpc, pte)	
US9783405 BB	20170920	LSGT	PAT1	Patented Case	
US9783405 BB	20360110	PEXP		Calculated Patent Term Expiry (PTA 837 days)	
WO05115922 A1	20051208	LSPB	+	published / reissued	
WO05115922 A1	20061101	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200609102 COUNTRY OF REF DOCUMENT : ZA
WO05115922 A1	20061101	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006/09102 COUNTRY OF REF DOCUMENT : ZA
WO05115922 A1	20061103	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 6527/DELNP/2006 COUNTRY OF REF DOCUMENT : IN
WO05115922 A1	20061114	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200580015563.7 COUNTRY OF REF DOCUMENT : CN
WO05115922 A1	20061117	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007527568 COUNTRY OF REF DOCUMENT : JP
WO05115922 A1	20061122	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2005753096 COUNTRY OF REF DOCUMENT : EP
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WO07001488 A1	20060119	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200680020139.6 COUNTRY OF REF DOCUMENT : CN
WO07001488 A1	20071108	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 8647/DELNP/2007 COUNTRY OF REF DOCUMENT : IN
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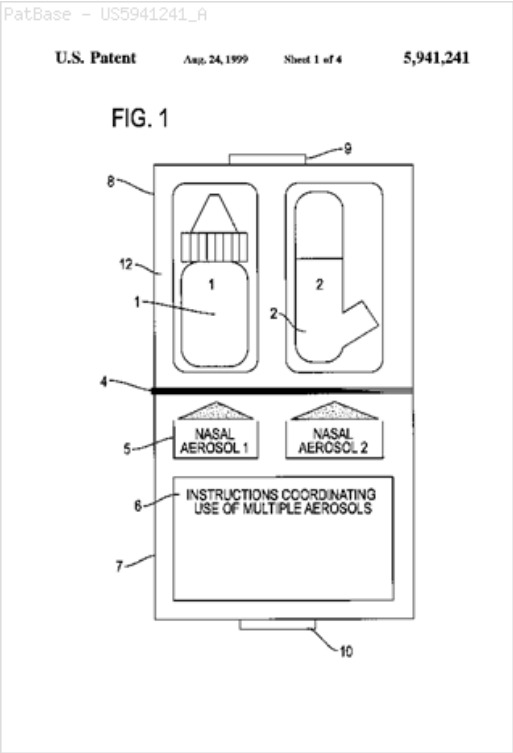
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ZA200709589 A	20081029	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA200709589 A	20271106	PEXP		Calculated Patent Term Expiry	
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ZA200709590 A	20271106	PEXP		Calculated Patent Term Expiry	
ZA200806137 A	20090624	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA200806137 A	20280714	PEXP		Calculated Patent Term Expiry	

121) Family number: 11261082 (US5941241A)

Title: METHOD AND DEVICE FOR ORGANIZING AND COORDINATING THE COMBINED USE OF TOPICAL AEROSOLS FOR THE TREATMENT OF RESPIRATORY DISORDERS

Abstract: A method and device for organizing, storing, instructing, and coordinating the combined use of aerosol medications for the treatment of disorders including respiratory tract disorders for the purpose of reducing medication error and increasing therapeutic compliance.

Classifications:
International (IPC 8-9): A61F17/00 A61J1/00 A61M15/00 (Advanced/Invention); A61M15/00 (Advanced/Non-invention); A61F17/00 A61J1/00 (Core/Invention); A61M15/00 (Core/Non-invention)
International (IPC 1-7): A61F17/00 A61J1/00 A61M11/00 B05B3/02 B65D83/04 G09F3/00
CPC: Y10S206/828 A61J1/00 A61F17/00 A61M15/009 A61M2209/06
European: A61F17/00 A61J1/00 K61M15/00P K61M209/06
US: 128/200.14 128/200.19 128/200.23 128/203.12 206/534 206/538 206/828 40/312



Family:

Publication number	Publication date	Application number	Application date
AU199875683 A1	19981208	AU19980075683	19980512
DE69838719 D1	20071227	DE19986038719	19980512
DE69838719 D1	20071227	DE19986038719T	19980512
DE69838719 T2	20080410	DE19986038719T	19980512
EP0999816 A1	20000517	EP19980923377	19980512
EP0999816 B1	20071114	EP19980923377	19980512
US5941241 A	19990824	US19970855893	19970512
US6571790 BA	20030603	US20010908176	20010719
US6792939 BA	20040921	US20030448510	20030530
WO9851258 A1	19981119	WO1998US09591	19980512

Priority:

US19970855893 19970512 WO1998US09591 19980512 US19990325486 19990603
US20010908176 20010719 US20030448510 20030530

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Assignee(s): (std): ROBERT E WEINSTEIN ; WEINSTEIN ALLAN ; WEINSTEIN ROBERT E ; ALLAN M WEINSTEIN ; WEINSTEIN ALLAN M

Assignee(s): ALLAN M WEINSTEIN MD ; PHARMACEUTICAL DESIGN LLC ; WEINSTEIN MD ALLAN M

Inventor(s): (std): WEINSTEIN ALLAN M ; WEINSTEIN ROBERT E

Inventor(s): ALLAN M WEINSTEIN ; ROBERT E WEINSTEIN

Designated states: AL AM AT AU AZ BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CY CZ DE DK EE ES FI FR GA GB GE GH GM GN GR HU IE IL IS IT JP KE KG KP KR KZ LI 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 SN SZ TD TG TJ TM TR TT UA UG US UZ VN ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU199875683 A1	19981208	LSPB	+	published / reissued	
AU199875683 A1	20000203	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
DE69838719 D1	20081204	LSGT	+8364	NO OPPOSITION	

				DURING TERM OF OPPOSITION	
DE69838719 D1	20081204	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69838719 T2	20080410	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69838719 T2	20081204	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69838719 T2	20180512	PEXP		Calculated Patent Term Expiry	
EP0999816 A1	20000517	LSPB	+	published / reissued	
EP0999816 A1	20000517	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20000224
EP0999816 A1	20050119	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20041207
EP0999816 A1	20070516	LSRE	RTI1	TITLE (CORRECTION)	TEXT : DEVICE FOR ORGANIZING AND COORDINATING THE COMBINED USE OF TOPICAL AEROSOLS FOR THE TREATMENT OF RESPIRATORY DISORDERS
EP0999816 B1	20071114	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0999816 B1	20071114	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP0999816 B1	20071130	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
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EP0999816 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150531
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EP0999816 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20151201
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EP0999816 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150601
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US5941241 A	19990813	LSGT	PAT1	Patented Case	
US5941241 A	19990813	LSGT	STCF	INFORMATION ON STATUS: PATENT	TEXT : PATENTED CASE

				GRANT	
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US5941241 A	20060830	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5941241 A	20110218	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
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US5941241 A	20170512	PEXP		Calculated Patent Term Expiry	
US6571790 BA	20030603	LSGT	+	granted / extensions (spc, cpc, pte)	
US6571790 BA	20031204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ALLAN M WEINSTEIN, MD, MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:WEINSTEIN, MD, ROBERT E.; REEL/FRAME:014743/0756 EFFECTIVE DATE : 20031104
US6571790 BA	20061211	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6571790 BA	20101013	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6571790 BA	20150414	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PHARMACEUTICAL DESIGN, LLC, MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:WEINSTEIN, ALLAN M.; WEINSTEIN, ROBERT E.; SIGNING DATES FROM 20150213 TO 20150224; REEL/FRAME:035404/0592
US6571790 BA	20150603	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6571790 BA	20150629	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
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US6571790 BA	20150721	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20150603
US6571790 BA	20210719	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
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US6792939 BA	20120914	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6792939 BA	20160921	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	

US6792939 BA	20161017	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
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US6792939 BA	20161108	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20160921
US6792939 BA	20230530	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
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WO9851258 A1	20000224	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1998923377 COUNTRY OF REF DOCUMENT : EP
WO9851258 A1	20000303	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 1998549384 COUNTRY OF REF DOCUMENT : JP
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122) Family number: 3551082 (US5405084A)

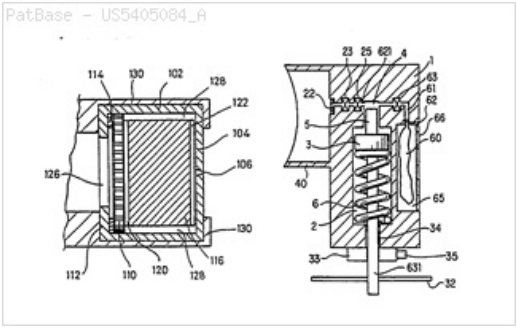
Title: NOZZLE ASSEMBLY FOR PREVENTING BACK-FLOW

Abstract: PCT No. PCT/GB91/02147 Sec. 371 Date Jun. 4, 1993 Sec. 102(e) Date Jun. 4, 1993 PCT Filed Dec. 4, 1991 PCT Pub. No. WO92/10306 PCT Pub. Date Jun. 25, 1992.A nozzle assembly which comprises a nozzle aperture for discharge of a fluid as a spray of droplets, and a conduit in fluid flow communication with the nozzle aperture. The flow of fluid through the conduit is restricted by the minimum effective cross-sectional area of the conduit transverse to the line of flow of fluid through the conduit so that back flow of fluid from the nozzle aperture through the conduit at ambient and operational pressure differentials is substantially prevented. The invention further provides for a method of discharging a fluid as a spray of droplets, and a spray generating device which includes the nozzle assembly of the present invention.

FDA Data:

Application number	Active ingredient	Proprietary name	Applicant	Date of approval
021747	ALBUTEROL SULFATE; IPRATROPIUM BROMIDE	COMBIVENT RESPIMAT	BOEHRINGER INGELHEIM	Oct 7, 2011

Classifications:
International (IPC 8-9): B05B1/00 B05B1/10 B05B11/00 B05B7/00 B05B7/02 B65D47/02 B65D49/02 B65D83/28 (Advanced/Invention); B05B7/00 B05B7/02 (Advanced/Non-invention); B05B1/00 B05B1/02 B05B11/00 B05B7/00 B05B7/02 (Core/Invention)
International (IPC 1-7): B05B1/0 B05B1/00 B05B1/10 B05B11/00 B05B7/00 B05B7/02 B05B9/04 B65D47/02 B65D49/02 B65D83/28
CPC: B05B11/0005 B05B1/00
European: B05B1/00 B05B11/00B
US: 239/11 239/340 239/590.3 239/590.5



Family:

Publication number	Publication date	Application number	Application date
AT134165 E	19960215	AT19910900624T	19911204
AU199189423 A1	19920708	AU19910089423	19911204
AU659618 B2	19950525	AU19910089423	19911204
CA2097700 AA	19930603	CA19912097700	19911204
CA2097700 C	20030819	CA19912097700	19911204
DE69117193 D1	19960328	DE19916017193	19911204
DE69117193 T2	19960627	DE19916017193T	19911204
DK0560858 T3	19960708	DK19910900624T	19911204
DK0560858 T3	19960708	DK19920900624T	19911204
EP0560858 A1	19930922	EP19920900624	19911204
EP0560858 B1	19960214	EP19920900624	19911204
ES2083726 T3	19960416	ES19920900624T	19911204
GB9026298 A0	19910123	GB19900026298	19901204
GB9109072 A0	19910612	GB19910009072	19910426
GR3019537 T3	19960731	GR19960400928T	19960403
JP3288040 B2	20020604	JP19920500493T	19911204
JP6507110 T2	19940811	JP19920500493T	19911204
PL169446 B1	19960731	PL19910299822	19911204
US5405084 A	19950411	US19930070306	19930604
WO9210306 A1	19920625	WO1991GB02147	19911204

Priority:
GB19900026298 19901204 GB19910009072 19910426 WO1991GB02147 19911204

Probable Assignee: BOEHRINGER INGELHEIM INT GMBH

Assignee(s): (std): DUNNE MILLER WESTON LTD ; DMW TECH LTD

Assignee(s): DMW TECHNOLOGY LIMITED ; DMW TECHNOLOGY LTD ; DUNNE MILLER WESTON LIMITED ; DMW TECHNOLOGY LTD SUFFOLK GB ; DUNNE STEPHEN TERENCE ; WESTON TERENCE EDWARD ; BOEHRINGER INGELHEIM INT ; BOEHRINGER INGELHEIM INT GMBH ; BOERINGER INGELHEIM INT GMBH ; DMW LTD

Inventor(s): (std): WESTON TERENCE E ; DUNNE STEPHEN T ; WESTON TERENCE EDWARD ; DUNNE STEPHEN TERENCE

Inventor(s): WESTON TERENCE EDWARD SUFFOLK IP21 5NG GB ; DUNNE STEPHEN TERENCE IPSWICH SUFFOLK IP9 1EX GB ; STEPHEN TERENCE DUNNE ; TERENCE EDWARD WESTON

Agent(s): CALLINANS; FISHER ADAMS KELLY CALLINANS; SPRUSON AND FERGUSON; FETHERSTONHAUGH AND CO

Designated states: AT AU BB BE BF BG BJ BR CA CF CG CH CI CM CS DE DK ES FI FR GA GB GN GR HU IT JP KP KR LI LK LU MC MG ML MN MR MW NL NO PL RO SD SE SN SU TD TG US

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AT134165 E	19960215	LSGT	+	granted / extensions (spc, cpc, pte)	
AT134165 E	19960715	LSPB	+UEP	PUBLICATION OF	

				TRANSLATION OF EUROPEAN PATENT SPECIFICATION	
AT134165 E	19980415	LSAS	EEIH	CHANGE IN THE PERSON OF PATENT OWNER	
AT134165 E	20100915	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT134165 E	20111204	PEXP		Calculated Patent Term Expiry	
AU199189423 A1	19920708	LSPB	+	published / reissued	
AU659618 B2	19950525	LSGT	+	granted / extensions (spc, cpc, pte)	
AU659618 B2	20111204	PEXP		Calculated Patent Term Expiry	
CA2097700 AA	19930603	LSPB	+	published / reissued	
CA2097700 AA	19980914	LSES	+EEER	EXAMINATION REQUEST	
CA2097700 C	20030819	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2097700 C	20101206	LSLE	-MKLA	LAPSED	
CA2097700 C	20111204	PEXP		Calculated Patent Term Expiry	
DE69117193 D1	19970327	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69117193 D1	19980625	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	PARTYTYPE : OWNER OWNER : BOEHRINGER INGELHEIM INTERNATIONAL GMBH, 55218 ING
DE69117193 D1	20101021	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69117193 T2	19960627	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69117193 T2	20111204	PEXP		Calculated Patent Term Expiry	
DK0560858 T3	19960708	LSGT	+	granted / extensions (spc, cpc, pte)	
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DK0560858 T3	20111204	PEXP		Calculated Patent Term Expiry	
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EP0560858 A1	19930922	LSPB	+	published / reissued	
EP0560858 A1	19930922	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19930601
EP0560858 A1	19941221	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19941104
EP0560858 A1	19960416	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2083726 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
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EP0560858 A1	19970415	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : CH OWNER : DMW (TECHNOLOGY) LIMITED TRANSFER- BOEHRINGER INGE REF LEGAL EVENT CODE : PUE
EP0560858 A1	19970701	LSAS	NLS	NL: ASSIGNMENTS OF EP-PATENTS	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : BOEHRINGER INGELHEIM INTERNATIONAL GMBH
EP0560858 A1	19971024	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : TP
EP0560858 A1	19971201	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE :

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EP0560858 A1	20110328	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20110328
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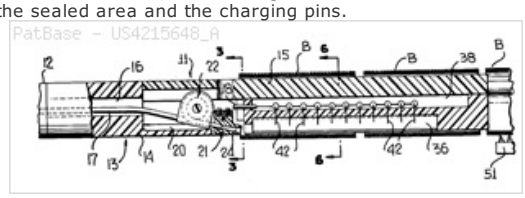
				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	: LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20091204
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EP0560858 B1	19960214	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0560858 B1	20111204	PEXP		Calculated Patent Term Expiry	
ES2083726 T3	19960416	LSGT	+	granted / extensions (spc, cpc, pte)	
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GR3019537 T3	20160403	PEXP		Calculated Patent Term Expiry	
JP3288040 B2	20020604	LSGT	+	granted / extensions (spc, cpc, pte)	
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JP3288040 B2	20060307	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP3288040 B2	20070306	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
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JP3288040 B2	20080304	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
JP3288040 B2	20090305	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
JP3288040 B2	20090310	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 8
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JP3288040 B2	20111204	PEXP		Calculated Patent Term Expiry	
JP6507110 T2	19940811	LSPB	+	published / reissued	
PL169446 B1	19960731	LSGT	+	granted / extensions (spc, cpc, pte)	
PL169446 B1	20110228	LSLE	-LAPS	DECISIONS ON THE LAPSE OF THE PROTECTION RIGHTS	EFFECTIVE DATE : 20091204
US5405084 A	19950411	LSGT	+	granted / extensions	

				(spc, cpc, pte)	
US5405084 A	19930916	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DMW (TECHNOLOGY) LIMITED, UNITED KINGDOM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DUNNE, STEPHEN TERENCE; WESTON, TERENCE EDWARD; REEL/FRAME:006697/0146 EFFECTIVE DATE : 19930528
US5405084 A	19950330	LSGT	PAT1	Patented Case	
US5405084 A	19970326	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOEHRINGER INGELHEIM INTERNATIONAL GMBH, GERMANY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:DMW (TECHNOLOGY) LIMITED; REEL/FRAME:008423/0816 EFFECTIVE DATE : 19970212
US5405084 A	19980824	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5405084 A	20020923	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5405084 A	20061005	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5405084 A	20130604	PEXP		Calculated Patent Term Expiry	
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WO9210306 A1	19930603	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2097700 COUNTRY OF REF DOCUMENT : CA
WO9210306 A1	19930604	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 08070306 COUNTRY OF REF DOCUMENT : US
WO9210306 A1	19930922	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1992900624 COUNTRY OF REF DOCUMENT : EP
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WO9210306 A1	19960214	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1992900624 COUNTRY OF REF DOCUMENT : EP

123) Family number: 1361082 (US4215648A)

Title: Electrostatic air/powder stripe applicator

Abstract: A powder applicator for applying powder to form a side stripe to the interior of can bodies along side seams thereof. The powder applicator includes a device for providing a layering effect on the gas entrained powder so that although the powder is normally carried by the gaseous stream it is directed into an orifice of a nozzle as a dense stream with the carrier gas forming a separate layer. In addition, the applicator forms a seal with the interior of the can body to define a limited sealed area within which the powder may pass. This sealed area **contains** corona charging pins which are arranged in a longitudinal line so that a maximum charging of the powder may be effected. Also, a diffused gas is directed into the sealed area to prevent the powder from clinging to the side walls of the sealed area and the charging pins.



Classifications:
International (IPC 8-9): B05B13/06 B05B5/00 B05B5/03 B05B5/08 B05B5/12 B05B7/14 B05C19/00 B05D1/06 (Advanced/Invention); B05B13/06 B05B5/08 B05B7/14 (Advanced/Non-invention); B05B13/06 B05B5/00 B05B5/025 B05B5/08 B05B7/14 B05C19/00 B05D1/04 (Core/Invention); B05B (Subclass/Invention)
International (IPC 1-7): B05B1/02 B05B13/00 B05B13/06 B05B5/00 B05B5/02 B05B5/08 B05B7/14 B05C19/00 B05C5/02 B05C7/02 B05D1/06 B05D7/14 B23K9/32 B65D25/14
CPC: B05B5/08 Y10S118/10 B05B5/032 B05B5/12 B05B15/652 B05B15/68
European: B05B5/03A B05B5/08 B05B5/12
US: 118/306 118/308 118/317 118/622 118/DIG.10 427/181 427/236 427/286 427/424 427/467 427/476

Family:

Publication number	Publication date	Application number	Application date
AR224630 A1	19811230	AR19790277827	19790823
AU197948526 A1	19800228	AU19790048526	19790629
AU197948527 A1	19800228	AU19790048527	19790629
BE878336 A	19800221	BE19791009494	19790821
BR7905416 A	19800513	BR19790005416	19790822
CA1128744 A1	19820803	CA19790327562	19790514
CA1128746 A1	19820803	CA19790327751	19790516
DE2933641 A1	19800306	DE19792933641	19790820
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ES483561 A1	19800301	ES19790483561	19790822
FI792598 A	19800224	FI19790002598	19790821
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GB2028171 A1	19800305	GB19790028051	19790813
GB2028171 B2	19820721	GB19790028051	19790813
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JP1520160 C3	19890929	JP19790104489	19790816
JP1564087 C3	19900612	JP19790104488	19790816
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US4215648 A	19800805	US19780936544	19780823
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Priority:

US19780936544 19780823 US19780936545 19780823 CA19790327562 19790514
CA19790327751 19790516 US19800138628 19800408

Probable Assignee: CONTINENTAL GROUP

Assignee(s): (std): CONTINENTAL GROUP

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Agent(s): CLEMENT HACK AND CO; SWABEY OGILVY RENAULT

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AR224630 A1	19811230	LSGT	+	granted / extensions (spc, cpc, pte)	
AR224630 A1	19990823	PEXP		Calculated Patent Term Expiry	
AU197948526 A1	19800228	LSPB	+	published / reissued	
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DE2933641 A1	19800306	LSPB	+	published / reissued	
DE2933641 A1	19830908	LSLE	-8139	DISPOSAL/NON-PAYMENT OF THE ANNUAL FEE	
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FI792598 A	19800224	LSPB	+	published / reissued	
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FR2461529 A1	19810206	LSPB	+	published / reissued	
GB2028171 A1	19800305	LSPB	+	published / reissued	
GB2028171 B2	19820721	LSGT	+	granted / extensions (spc, cpc, pte)	
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JP1520160 C3	19890929	LSGT	+	granted / extensions (spc, cpc, pte)	
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SE7906817 A	19950228	LSLE	-NAV	PATENT APPLICATION HAS LAPSED	REF DOCUMENT NUMBER : 7906817-7 FORMAT OF REF DOCUMENT (F/P) : F
SE7906817 A	19950228	LSLE	-NAV	PATENT APPLICATION HAS LAPSED	REF DOCUMENT NUMBER : 7906817-7 FORMAT OF REF DOCUMENT (F/P) : F
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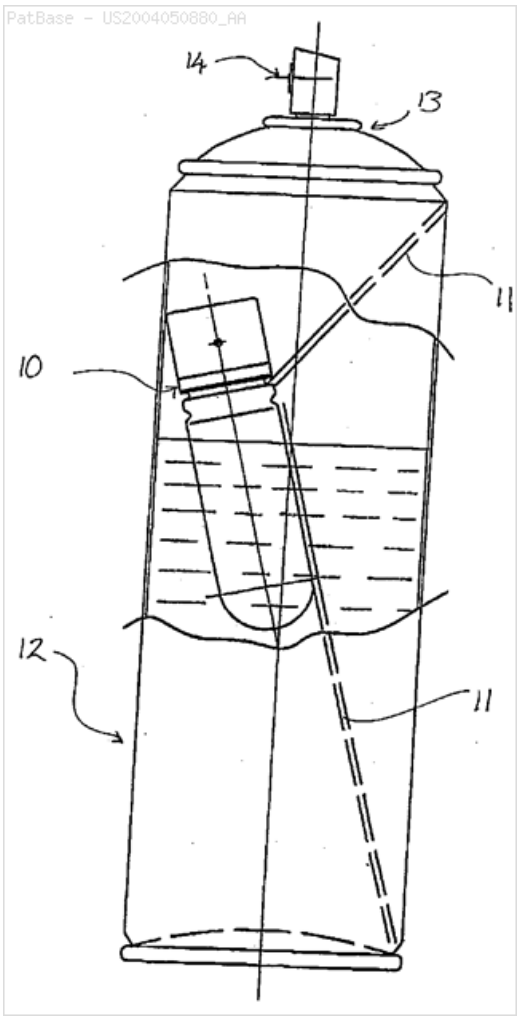
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US4259923 A	20000408	PEXP		Calculated Patent Term Expiry

124) Family number: 23187083 (US2004050880A)

Title: PRESSURE REGULATING DEVICE FOR A PRESSURISED **DISPENSING** VESSEL

Abstract: A pressure regulating device for regulating pressure in a pressurised **dispensing** vessel, the device comprising a cartridge for storing pressurized fluid; the cartridge being sealed by a cap assembly having an expandable chamber and a flow passage for communicating fluid from the cartridge to the interior of the **dispensing** vessel; a closure member in the cap assembly to open and close the flow passage and an actuation means in the cap assembly to actuate the closure member, wherein the actuation means operates in response to expansion of the expandable chamber; and a one-way valve communicating the expandable chamber with the interior of the **dispensing** vessel via an aperture in the cap assembly, the valve having a resilient chamber seal in the expandable chamber extending across the aperture and restrained by chamber wall so to allow fluid to enter through the aperture and past the seal to charge the chamber to a predetermined pressure difference below the pressure in the **dispensing** vessel, and wherein expansion of the chamber occurs when the pressure in the **dispensing** vessel is lower than the pressure in the chamber.

Classifications:
International (IPC 8-9): A61M15/00 A62C13/62 A62C13/66 A62C35/58 B05B9/047 B65D B65D83/14 B65D83/16 B65D83/28 B65D83/42 B65D83/58 B65D83/66 (Advanced/Invention);
A61M15/00 (Advanced/Non-invention);
A62C13/00 A62C35/58 B05B9/04 B65D83/14 B65D83/16 B65D83/28 B65D83/42 B65D83/58 (Core/Invention);
A61M15/00 (Core/Non-invention);
B65D (Subclass/Invention)
International (IPC 1-7): B05B9/047 B65D83/00 B65D83/14 B65D83/16 B65D83/28 B65D83/42 B65D83/58
CPC: A61M15/009 B65D83/663 Y10T137/7835
European: B65D83/66C K61M15/00P
US: 137/509 222/129.1 222/135 222/396 222/399 222/402.1 222/402.100P 239/302 239/31 239/320



Family:

Publication number	Publication date	Application number	Application date
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ZA200405183 A	20050831	ZA20040005183	20040629

Priority:

AU20020000237 20020131 AU2002PS00237 20020131 AU20030201538 20030130
WO2003AU00092 20030130

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Inventor(s): FREHJZER-ISTON GILBERT

Agent(s): GRIFFITH HACK; MOFFAT AND CO; MARKS AND CLERK 20 F CHINACHEM HOLLYWOOD CENTRE 1 13 HOLLYWOOD ROAD; STITES AND HARBISON PLLC; ROSS F

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 SC 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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2003201538 AA	20030902	LSPB	+	published / reissued	
AU2003201538 BB	20080626	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2003201538 BB	20081023	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2003201538 BB	20140828	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2003201538 BB	20230130	PEXP		Calculated Patent Term Expiry	
BRPI0307258 A	20041214	LSPB	+	published / reissued	
BRPI0307258 A	20131029	LSGT	B09A	DECISION: INTENTION TO GRANT	
BRPI0307258 B1	20140204	LSGT	+B16A	PATENT OR CERTIFICATE OF ADDITION OF INVENTION GRANTED	TEXT : PRAZO DE VALIDADE: 10 (DEZ) ANOS CONTADOS A PARTIR DE 04/02/2014, OBSERVADAS AS CONDICOES LEGAIS.
BRPI0307258 B1	20151201	LSLE	-B21F	LAPSE ACC. ART. 78, ITEM IV - ON NON-PAYMENT OF THE ANNUAL FEES IN TIME	TEXT : REFERENTE A 12A ANUIDADE.
BRPI0307258 B1	20160329	LSLE	-B24J	LAPSE BECAUSE OF NON-PAYMENT OF ANNUAL FEES (DEFINITIVELY: ART 78 IV LPI, RESOLUTION 113/2013 ART. 12)	TEXT : EM VIRTUDE DA EXTINCAO PUBLICADA NA RPI 2343 DE 01-12-2015 E CONSIDERANDO AUSENCIA DE MANIFESTACAO DENTRO DOS PRAZOS LEGAIS, INFORMO QUE CABE SER MANTIDA A EXTINCAO DA PATENTE E SEUS CERTIFICADOS, CONFORME O DISPOSTO NO ARTIGO 12, DA RESOLUCAO 113/2013.
BRPI0307258 B1	20240204	PEXP		Calculated Patent Term Expiry	
CA2472145 AA	20040629	LSPB	+	published / reissued	
CA2472145 AA	20040629	LSES	+EEER	EXAMINATION REQUEST	
CA2472145 C	20070925	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2472145 C	20150314	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20150130
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CN100339276 C	20070926	LSGT	+	granted /	

				extensions (spc, cpc, pte)	
CN100339276 C	20070926	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN100339276 C	20150325	LSLE	-C17	CESSATION OF PATENT RIGHT	
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CN1622908 A	20050601	LSPB	+C06	PUBLICATION	
EP1470059 A1	20041027	LSPB	+	published / reissued	
EP1470059 A1	20041027	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20040629
EP1470059 A4	20140430	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20140402
EP1470059 A4	20140822	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : WD REF DOCUMENT NUMBER : 1070039 COUNTRY OF REF DOCUMENT : HK
EP1470059 A4	20150121	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20140801
HK1070039 A1	20050610	LSPB	+	published / reissued	
HK1070039 A3	20050610	LSPB	+	published / reissued	
IN01905DN2004 A	20070511	LSPB	+	published / reissued	
IN240740 B	20100604	LSGT	+	granted / extensions (spc, cpc, pte)	
IN240740 B	20240702	PEXP		Calculated Patent Term Expiry	
JP2005515945 T2	20050602	LSPB	+	published / reissued	
JP2005515945 T2	20050613	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20050610
JP2005515945 T2	20070711	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20070710
JP2005515945 T2	20070913	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20070912
JP2005515945 T2	20071023	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2005515945 T2	20071031	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20071030
JP2005515945 T2	20071206	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20071129
JP2005515945 T2	20071207	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
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JP4050703 B2	20080220	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4050703 B2	20071101	LSGT	+A01	特許査定書 (Decision	

				of patent grant)	
JP4050703 B2	20071204	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4050703 B2	20101202	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
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JP4050703 B2	20130606	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4050703 B2	20130611	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP4050703 B2	20140605	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4050703 B2	20140610	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4050703 B2	20141207	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP4050703 B2	20230130	PEXP		Calculated Patent Term Expiry	
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MXPA04007415 A1	20071005	LSGT	+FG	GRANT OR REGISTRATION	
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NZ533834 A	20050225	LSGT	+PSEA	PATENT SEALED	
NZ533834 A	20070223	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ533834 A	20100226	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ533834 A	20130830	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 3 YEARS UNTIL 30 JAN 2016 BY CPA PAYMENTS EFFECTIVE DATE : 20130730
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US7021559 BB	20060315	LSGT	PAT1	Patented Case	
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US7021559 BB	20140425	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
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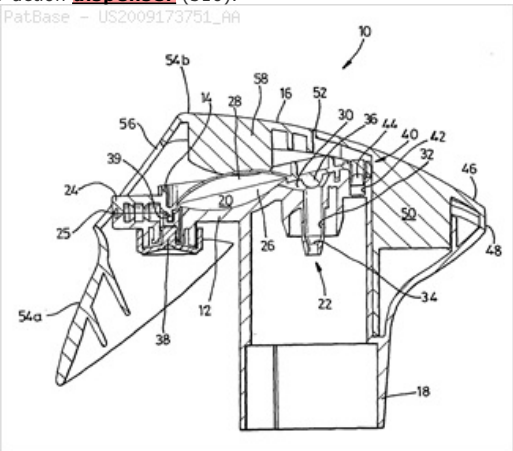
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WO03064286 A1	20041027	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2003700233 COUNTRY OF REF DOCUMENT : EP
WO03064286 A1	20041029	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 533834 COUNTRY OF REF DOCUMENT : NZ
WO03064286 A1	20050210	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 533834 COUNTRY OF REF DOCUMENT : NZ
WO03064286 A1	20070420	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 12004501042 COUNTRY OF REF DOCUMENT : PH
ZA200405183 A	20050629	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA200405183 A	20050831	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA200405183 A	20240628	PEXP		Calculated Patent Term Expiry	
ZA200405183 A	20240628	PEXP		Calculated Patent Term Expiry	

125) Family number: 32200084 (US2009173751A)

Title: CHECK VALVE AND A SPLIT-BODY FLUID DEVICE HAVING SUCH A CHECK VALVE

Abstract: A valve (338) has a body (312, 314) a fluid inlet (378), a fluid outlet (399) and a bore (362) defined in the body and which forms at least part of a fluid passage from the inlet to the outlet. The valve also has a movable valve member (366) with a resiliency flexible diaphragm portion (370) and a valve bore closure portion (374) mounted to the diaphragm for movement therewith. The flexible diaphragm portion (370) is movable in a valve opening direction from an initial resiliently biased configuration (as shown), in which the valve bore closure portion (374) closes the bore (362), to a valve open configuration in which the valve bore closure portion (374) does not close the bore and a fluid flow path through the bore from the inlet to the outlet is established. The valve is configured such that the diaphragm (370) is able to move in the valve opening direction from its initial resiliently biased configuration towards its valve open configuration by a limited amount during which range of movement the valve bore (362) is closed by the valve bore closure portion (374). The valve is particular suited for use as a pre-compression outlet valve for a pump-action **dispenser** (310).

Classifications:
International (IPC 8-9): B05B11/00 B65D37/00 B67D5/40 B67D7/58 (Advanced/Invention);
B05B11/00 B65D37/00 B67D7/58 (Core/Invention)
CPC: B05B11/3022 B05B11/303 B05B11/3036 B05B11/304
European: B05B11/30E5B B05B11/30E9 B05B11/30F5 L05B11/30C8C
US: 222/207 222/383.1 222/383.100S



Family:

Publication number	Publication date	Application number	Application date
CN101272865 A	20080924	CN200680021904	20060526
CN101272865 B	20100616	CN200680021904	20060526
EP1888252 A2	20080220	EP20060744027	20060526
GB200510707 A0	20050629	GB20050010707	20050526
GB200512237 A0	20050727	GB20050012237	20050616
US2009173751 AA	20090709	US20060920946	20060526
WO06126014 A2	20061130	WO2006GB01963	20060526
WO06126014 A3	20080228	WO2006GB01963	20060526

Priority:
GB20050010707 20050526 GB20050012237 20050616 WO2006GB01963 20060526

Probable Assignee: INCRO LTD
Assignee(s): (std): INCRO LTD ; LAIDLER KEITH ; RODD TIMOTHY
Assignee(s): INCRO LIMITED
Inventor(s): (std): KEITH LAIDLER ; TIMOTHY RODD ; RODD TIMOTHY ; LAIDLER KEITH
Agent(s): WILSON GUNN; PEARSON AND PEARSON 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 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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN101272865 A	20080924	LSPB	+	published / reissued	
CN101272865 A	20080924	LSPB	+C06	PUBLICATION	
CN101272865 B	20100616	LSGT	+	granted / extensions (spc, cpc, pte)	
CN101272865 B	20100616	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN101272865 B	20120725	LSLE	-C17	CESSATION OF PATENT RIGHT	
CN101272865 B	20260526	PEXP		Calculated Patent Term Expiry	
EP1888252 A2	20080220	LSPB	+	published / reissued	
EP1888252 A2	20080220	LSES	+17P	REQUEST FOR EXAMINATION	EFFECTIVE DATE : 20071204

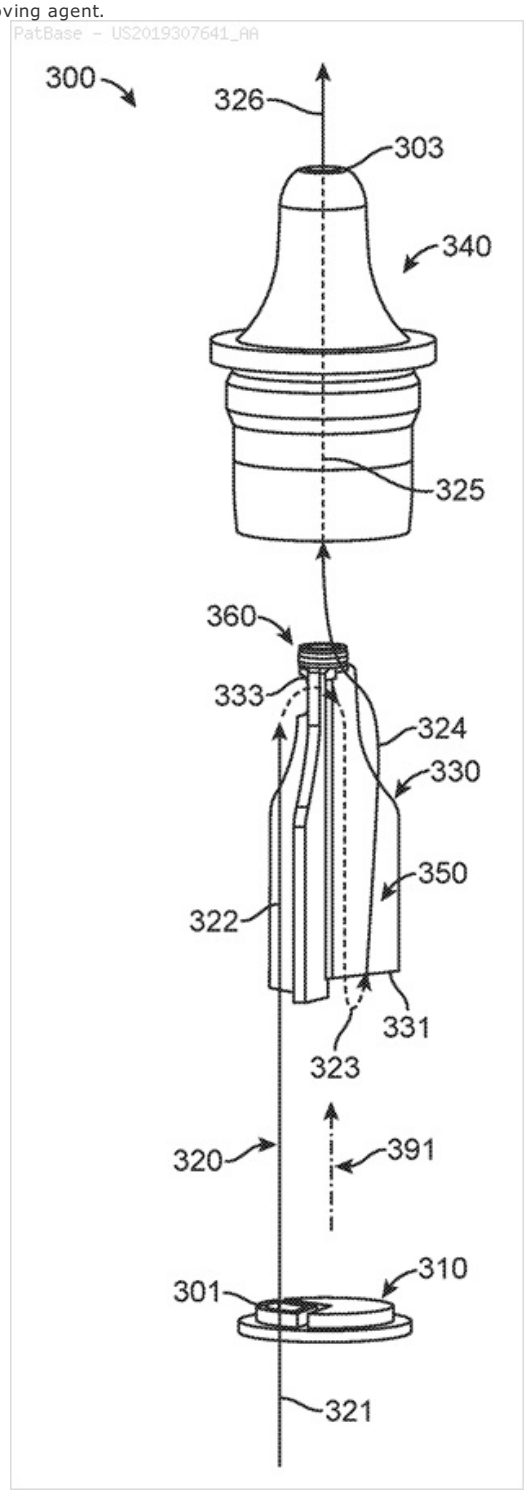
				FILED	
EP1888252 A2	20080409	LSES	R17D	DEFERRED SEARCH REPORT PUBLISHED (CORRECTED)	EFFECTIVE DATE : 20080228
EP1888252 A2	20090812	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20090708
EP1888252 A2	20110629	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20101201
GB200510707 A0	20060927	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB200512237 A0	20061122	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
US2009173751 AA	20090709	LSPB	+	published / reissued	
US2009173751 AA	20080403	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : INCRO LIMITED, UNITED KINGDOM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LAIDLER, KEITH; RODD, TIMOTHY; REEL/FRAME:020761/0157 EFFECTIVE DATE : 20071217
US2009173751 AA	20111202	LSWD	-ABD2	Abandoned -- Failure to Pay Issue Fee	
WO06126014 A2	20061130	LSPB	+	published / reissued	
WO06126014 A2	20071127	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO06126014 A2	20071127	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	TEXT : DE
WO06126014 A2	20071204	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006744027 COUNTRY OF REF DOCUMENT : EP
WO06126014 A2	20071218	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200680021904.6 COUNTRY OF REF DOCUMENT : CN
WO06126014 A2	20071226	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : RU
WO06126014 A2	20071226	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	TEXT : RU
WO06126014 A2	20080220	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2006744027 COUNTRY OF REF DOCUMENT : EP
WO06126014 A3	20081229	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 11920946 COUNTRY OF REF DOCUMENT : US

126) Family number: 76110085 (US2019307641A)

Title: SYSTEMS AND METHODS FOR DELIVERY OF A THERAPEUTIC AGENT

Abstract: The present disclosure relates to nozzles for removing a preservative from a fluid comprising a therapeutic agent to an eye. More particularly, the nozzles disclosed herein may minimize patient exposure to preservative by rapidly and selectively removing a preservative from a solution comprising a therapeutic agent. An example nozzle may comprise a flow diverter which directs a flow path from a fluid inlet to a fluid outlet over a length longer than the distance from the inlet to the outlet. In some cases, the nozzle may comprise a preservative removing agent.

Classifications:
International (IPC 8-9): A61F9/00 A61J1/14 B05B1/14 B05B1/34 B65D25/42 B65D35/28 B65D41/20 B65D47/06 (Advanced/Invention)
CPC: A61J1/1456 A61F9/0008 B65D47/06 B65D25/42 B65D2555/00 B05B1/34 B65D41/20 B65D35/28 B65D2547/06 B05B1/14



Family:

Publication number	Publication date	Application number	Application date
TW202005623 A	20200201	TW20190112040	20190403
US2019307641 AA	20191010	US20190376387	20190405
WO19195734 A1	20191010	WO2019US26070	20190405

Priority:
US20180654089P 20180406 US20190827743P 20190401 US20190376387 20190405

Probable Assignee: TEARCLEAR CORP
Assignee(s): (std): TEARCLEAR CORP ; UNIV FLORIDA ; UNIV OF FLORIDA RESEARCH FOUNDATION INC
Assignee(s): OF FLORIDA RESEARCH FOUNDATION INC UNIV
Inventor(s): (std): WILLIAMS MICHAEL ; CHAUHAN ANUJ ; GOLUB HOWARD L

Agent(s): BRESNAHAN MATTHEW J

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ 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 IR IS IT JO JP KE KG KH KM KN KP KR KW 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 PA PE PG PH PL PT QA RO RS RU RW SA 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 ZA ZM ZW

Legal status (INPADOC)

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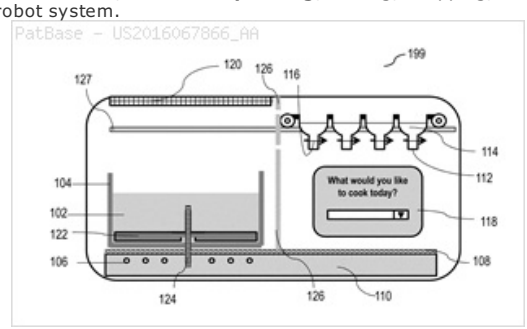
Patent	Date recorded	Event group	Code	Event	Details
TW202005623 A	20200201	LSPB	+	published / reissued	
US2019307641 AA	20191010	LSPB	+	published / reissued	
US2019307641 AA	20190816	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : UNIVERSITY OF FLORIDA RESEARCH FOUNDATION, INCORPO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CHAUHAN, ANUJ; REEL/FRAME:050075/0911 EFFECTIVE DATE : 20190801
US2019307641 AA	20190816	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TEARCLEAR CORP., OHIO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GOLUB, HOWARD L.; WILLIAMS, MICHAEL; REEL/FRAME:050082/0296 EFFECTIVE DATE : 20190815
US2019307641 AA	20190913	LSES	PIC1	Pre-Interview Communication Mailed	
US2019307641 AA	20191122	LSES	NFA1	Non Final Action Mailed	
WO19195734 A1	20191010	LSPB	+	published / reissued	

127) Family number: 61842086 (US2016067866A)

Title: AUTOMATED COOKING MACHINE USING A CARTESIAN BOT

Abstract: An automated cooking machine is described wherein various functions, such as **dispensing**, stirring, chopping, baking and cleaning are conducted by intelligent use of a Cartesian robot system.

Classifications:
International (IPC 8-9): A21C1/14 A21D8/06 A47F1/02 A47F1/035 A47J36/00 A47J44/00 A47J44/02 B05B7/24 B25J11/00 B25J9/00 B25J9/02 B65D83/06 B67D7/02 (Advanced/Invention)
CPC: A47J36/00 B25J9/026 B25J9/0084 B25J11/0045 Y10S901/16 A47J44/00
US: 1/1 222/1 901/16 99/325 99/348 99/353



Family:

Publication number	Publication date	Application number	Application date
CA3055291 AA	20190903	CA20183055291	20180404
CN110913728 A	20200324	CN201880028412	20180404
EP3209134 A1	20170830	EP20150840037	20150908
EP3209134 A4	20180905	EP20150840037	20150908
EP3589169 A2	20200108	EP20180761194	20180404
IN201917039732 A	20191101	IN201917039732	20191001
US2016067866 AA	20160310	US20150847959	20150908
US2017172351 AA	20170622	US20170449548	20170303
US2018310773 AA	20181101	US20180945483	20180404
WO16040361 A1	20160317	WO2015US49003	20150908
WO17155829 A2	20170914	WO2017US20785	20170303
WO17155829 A3	20171019	WO2017US20785	20170303
WO18161096 A2	20180907	WO2018US26065	20180404
WO18161096 A3	20181101	WO2018US26065	20180404

Priority:

US20140047785P 20140909 US20140056368P 20140926 US20140094595P 20141219
US20150150303P 20150421 US20150185524P 20150626 US20150201105P 20150804
US20150847959 20150908 WO2015US49003 20150908 US20160304277P 20160306
US20170449548 20170303 US20170481217P 20170404 US20180945483 20180404
WO2018US26065 20180404

Probable Assignee: CASABOTS INC

Assignee(s): (std): BHAT SANATH ; CASABOTS INC ; REIDLING VICTORIA ; KATHIRASEN KATHIRGUGAN ; CHOWBOTICS ; RICHARDSON BRIAN ; SEKAR DEEPAK

Assignee(s): SEKAR DEEPAK CHANDRA ; LALLA LEVI

Inventor(s): (std): BOSE AMIT ; SWAB PHIL ; SEKAR DEEPAK CHANDRA ; RICHARDSON BRIAN ; CHAUDHURI RUPSHA ; KATHIRASEN KATHIRGUGAN ; SEKAR DEEPAK C ; REIDLING VICTORIA ; BHAT SANATH ; SEKAR DEEPAK ; LALLA LEVI

Agent(s): GOWLING WLG CANADA LLP; REICHERT AND LINDNER PARTNERSCHAFT PATENTANWAELTE; LAWRENCE BENJAMIN TOBY; FARNSWORTH TODD R; SCHWARZ STEVEN J

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ 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 IR IS IT JO JP KE KG KH KM KN KP KR KW 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 PA PE PG PH PL PT QA RO RS RU RW SA 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 ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA3055291 AA	20190903	LSPB	+	published / reissued	
CN110913728 A	20200324	LSPB	+	published / reissued	
CN110913728 A	20200324	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
EP3209134 A1	20170830	LSPB	+	published / reissued	
EP3209134 A1	20170830	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20170707
EP3209134 A4	20180905	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20180803

EP3209134 A4	20190828	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20190302
EP3589169 A2	20200108	LSPB	+	published / reissued	
EP3589169 A2	20200108	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20191003
IN201917039732 A	20191101	LSPB	+	published / reissued	
US2016067866 AA	20160310	LSPB	+	published / reissued	
US2016067866 AA	20151103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CASABOTS INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SEKAR, DEEPAK CHANDRA; SWAB, PHIL; CHAUDHURI, RUPSHA; AND OTHERS; SIGNING DATES FROM 20150928 TO 20151024; REEL/FRAME:036945/0723
US2016067866 AA	20171005	LSES	NFA1	Non Final Action Mailed	
US2016067866 AA	20171222	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2016067866 AA	20171227	LSES	NFA1	Non Final Action Mailed	
US2016067866 AA	20181226	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2017172351 AA	20170622	LSPB	+	published / reissued	
US2017172351 AA	20180517	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CASABOTS INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KATHIRASEN, KATHIRGUGAN; SEKAR, DEEPAK C.; RICHARDSON, BRIAN; AND OTHERS; SIGNING DATES FROM 20180508 TO 20180509; REEL/FRAME:045838/0305
US2017172351 AA	20190628	LSES	NFA1	Non Final Action Mailed	
US2017172351 AA	20190912	LSES	NFA1	Non Final Action Mailed	
US2018310773 AA	20181101	LSPB	+	published / reissued	
US2018310773 AA	20180720	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CHOWBOTICS, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SEKAR, DEEPAK CHANDRA; KATHIRASEN, KATHIRGUGAN; RICHARDSON, BRIAN; AND OTHERS; SIGNING DATES FROM 20180508 TO 20180509; REEL/FRAME:046417/0647
WO16040361 A1	20160317	LSPB	+	published / reissued	
WO16040361 A1	20170309	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO17155829 A2	20170914	LSPB	+	published / reissued	
WO17155829 A3	20180907	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO17155829 A3	20190918	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 17763800 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO18161096 A2	20180907	LSPB	+	published /	

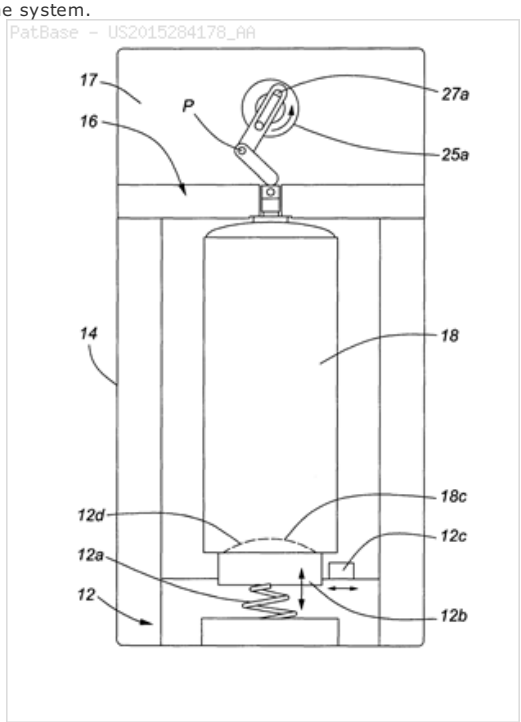
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WO18161096 A3	20190903	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 3055291 COUNTRY OF REF DOCUMENT : CA
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WO18161096 A3	20190904	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO18161096 A3	20191011	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2018761194 COUNTRY OF REF DOCUMENT : EP EFFECTIVE DATE : 20191004

128) Family number: 56265086 (US2015284178A)

Title: AEROSOL **DISPENSING** APPARATUS

Abstract: A **dispensing** system adapted for repeated activation of an aerosol can is described. The **dispensing** system includes components that improve the ability to receive and secure aerosol cans of different sizes within the **dispensing** system as well as improving the reliability and energy efficiency of the system.

Classifications:
International (IPC 8-9): B05B12/08 B65D83/00 B65D83/22 B65D83/26 B65D83/38 B65D83/56 B67D1/00 B67D7/14 (Advanced/Invention)
CPC: B05B12/08 B65D83/26 B65D83/262 B65D83/38 B65D83/56 B65D83/22
US: 1/1 222/1 222/52 222/63 222/635



Family:

Publication number	Publication date	Application number	Application date
CA2886894 AA	20150326	CA20132886894	20131015
CA2886894 C	20170228	CA20132886894	20131015
CA2929861 AA	20140424	CA20132929861	20131015
CA2929861 C	20180605	CA20132929861	20131015
DE602013048236 D1	20190110	DE201360048236T	20131015
EP2906482 A1	20150819	EP20130846707	20131015
EP2906482 A4	20160824	EP20130846707	20131015
EP2906482 B1	20181212	EP20130846707	20131015
EP3498631 A1	20190619	EP20180204094	20131015
US2015284178 AA	20151008	US20130435886	20131015
US2017073150 AA	20170316	US20160344056	20161104
US2018334312 AA	20181122	US20180050811	20180731
US9522775 BB	20161220	US20130435886	20131015
US10106310 BB	20181023	US20160344056	20161104
US10450127 BB	20191022	US20180050811	20180731
WO14059525 A1	20140424	WO2013CA00883	20131015

Priority:

US20120714081P 20121015 CA20132886894 20131015 US20130435886 20131015
EP20130846707 20131015 WO2013CA00883 20131015 US20150435886 20150415
CA20162886894 20160517 US20160344056 20161104 US20180050811 20180731

Probable Assignee: SMART WAVE TECHNOLOGIES INC

Assignee(s): (std): SMART WAVE TECHNOLOGIES CORP ; SMART WAVE TECH CORP ; SMART WAVE TECH INC

Assignee(s): SMART WAVE TECHNOLOGIES CORP TORONTO ; SMART WAVE TECHNOLOGIES INC ; ZOSIMADIS PETER ; SLOWIK STEVE ; 1928732 ONTARIO INC ; BELLINGER SEAN ; MCMULLEN SCOTT ARTHUR ; SCOLA MICHAEL

Inventor(s): (std): MCMULLEN SCOTT ARTHUR ; SCOLA MICHAEL ; ZOSIMADIS PETER ; BELLINGER SEAN ; SLOWIK STEVE

Inventor(s): BELLINGER SEAN KENOSHA ; SLOWIK STEVE WHEELING ; SCOLA MICHAEL ROSELLE ; MCMULLEN SCOTT ARTHUR TORONTO ; ZOSIMADIS PETER TORONTO

Agent(s): HICKS INTELLECTUAL PROPERTY LAW; HICKS AND ASSOCIATES; BUCHANAN LUKE NOEL; HERTIN U PARTNER RECHTS U PATENTANWAELTE PARTG MBB; WHITMYER IP GROUP LLC; HICKS ANDREW

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN 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 IR 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 PA PE PG PH PL PT QA RO RS RU RW SA 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 ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
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CA2886894 AA	20150420	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20150326
CA2886894 C	20170228	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2886894 C	20331015	PEXP		Calculated Patent Term Expiry	
CA2929861 AA	20140424	LSPB	+	published / reissued	
CA2929861 AA	20160607	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20160511
CA2929861 C	20180605	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2929861 C	20331015	PEXP		Calculated Patent Term Expiry	
EP2906482 A1	20150819	LSPB	+	published / reissued	
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EP2906482 A4	20160824	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20160725
EP2906482 A4	20170524	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20170421
EP2906482 A4	20180801	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20180705
EP2906482 B1	20181212	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2906482 B1	20181212	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2906482 B1	20181214	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2906482 B1	20181215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1075690 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20181215
EP2906482 B1	20190109	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2906482 B1	20190110	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602013048236 COUNTRY OF REF DOCUMENT : DE
EP2906482 B1	20190425	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2906482 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181212
EP2906482 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181212
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EP2906482 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181212
EP2906482 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181212
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EP2906482 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190312
EP2906482 B1	20190515	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 1075690 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20181212
EP2906482 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190313
EP2906482 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181212
EP2906482 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181212
EP2906482 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181212
EP2906482 B1	20190619	LSAS	RAP2	RIGHTS OF A PATENT TRANSFERRED	PARTYTYPE : OWNER OWNER : SMART WAVE TECHNOLOGIES, INC.
EP2906482 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181212
EP2906482 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181212
EP2906482 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181212
EP2906482 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181212
EP2906482 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190412
EP2906482 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181212
EP2906482 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190412
EP2906482 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181212
EP2906482 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181212
EP2906482 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181212
EP2906482 B1	20190913	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602013048236 COUNTRY OF REF DOCUMENT : DE
EP2906482 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-

				FROM NATIONAL OFFICE TO EPO]	LIMIT LAPSED DATE : 20181212
EP2906482 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181212
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EP2906482 B1	20191120	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20190913
EP2906482 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20191018 YEAR OF FEE PAYMENT : 7
EP2906482 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20191016 YEAR OF FEE PAYMENT : 7
EP2906482 B1	20331015	PEXP		Calculated Patent Term Expiry	
EP3498631 A1	20190619	LSPB	+	published / reissued	
EP3498631 A1	20191211	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20191101
US10106310 BB	20181023	LSGT	+	granted / extensions (spc, cpc, pte)	
US10106310 BB	20170131	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SMART WAVE TECHNOLOGIES CORP., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BELLINGER, SEAN; SLOWIK, STEVE; SCOLA, MICHAEL; AND OTHERS; SIGNING DATES FROM 20150609 TO 20151008; REEL/FRAME:041129/0029
US10106310 BB	20181003	LSGT	PAT1	Patented Case	
US10106310 BB	20361104	PEXP		Calculated Patent Term Expiry	
US10450127 BB	20191022	LSGT	+	granted / extensions (spc, cpc, pte)	
US10450127 BB	20180731	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10450127 BB	20180814	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10450127 BB	20380731	PEXP		Calculated Patent Term Expiry	
US2015284178 AA	20151008	LSPB	+	published / reissued	
US2015284178 AA	20151111	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SMART WAVE TECHNOLOGIES CORP., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BELLINGER, SEAN; SLOWIK, STEVE; SCOLA, MICHAEL; AND OTHERS; SIGNING DATES FROM 20150609 TO 20151008; REEL/FRAME:037016/0188
US2015284178 AA	20161130	LSGT	STCF	INFORMATION ON STATUS: PATENT	TEXT : PATENTED CASE

				GRANT	
US2017073150 AA	20170316	LSPB	+	published / reissued	
US2017073150 AA	20171128	LSES	NFA1	Non Final Action Mailed	
US2017073150 AA	20180109	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SMART WAVE TECHNOLOGIES, INC., MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:1928732 ONTARIO INC., F/K/A SMARTWAVE TECHNOLOGIES CORP.; REEL/FRAME:044577/0744 EFFECTIVE DATE : 20171229
US2017073150 AA	20180206	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : 1928732 ONTARIO INC., CANADA OLDPARTY : SECURITY INTEREST; ASSIGNOR:SMART WAVE TECHNOLOGIES, INC.; REEL/FRAME:044842/0683 EFFECTIVE DATE : 20180119
US2017073150 AA	20180809	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017073150 AA	20181003	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018334312 AA	20181122	LSPB	+	published / reissued	
US2018334312 AA	20190401	LSES	NFA1	Non Final Action Mailed	
US2018334312 AA	20190620	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018334312 AA	20190729	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SMART WAVE TECHNOLOGIES CORP., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BELLINGER, SEAN; SLOWIK, STEVE; SCOLA, MICHAEL; AND OTHERS; SIGNING DATES FROM 20150609 TO 20151008; REEL/FRAME:049884/0816
US2018334312 AA	20190730	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SMART WAVE TECHNOLOGIES, INC., MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:1928732 ONTARIO INC., F/K/A SMART WAVE TECHNOLOGIES CORP.; REEL/FRAME:049904/0587 EFFECTIVE DATE : 20171229
US2018334312 AA	20190807	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018334312 AA	20190910	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2018334312 AA	20191002	LSGT	PAT1	Patented Case	
US2018334312 AA	20191002	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9522775 BB	20161220	LSGT	+	granted / extensions (spc, cpc, pte)	
US9522775 BB	20161130	LSGT	PAT1	Patented Case	
US9522775 BB	20180109	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SMART WAVE TECHNOLOGIES, INC., MARYLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:1928732 ONTARIO INC., F/K/A SMARTWAVE TECHNOLOGIES CORP.; REEL/FRAME:044577/0744

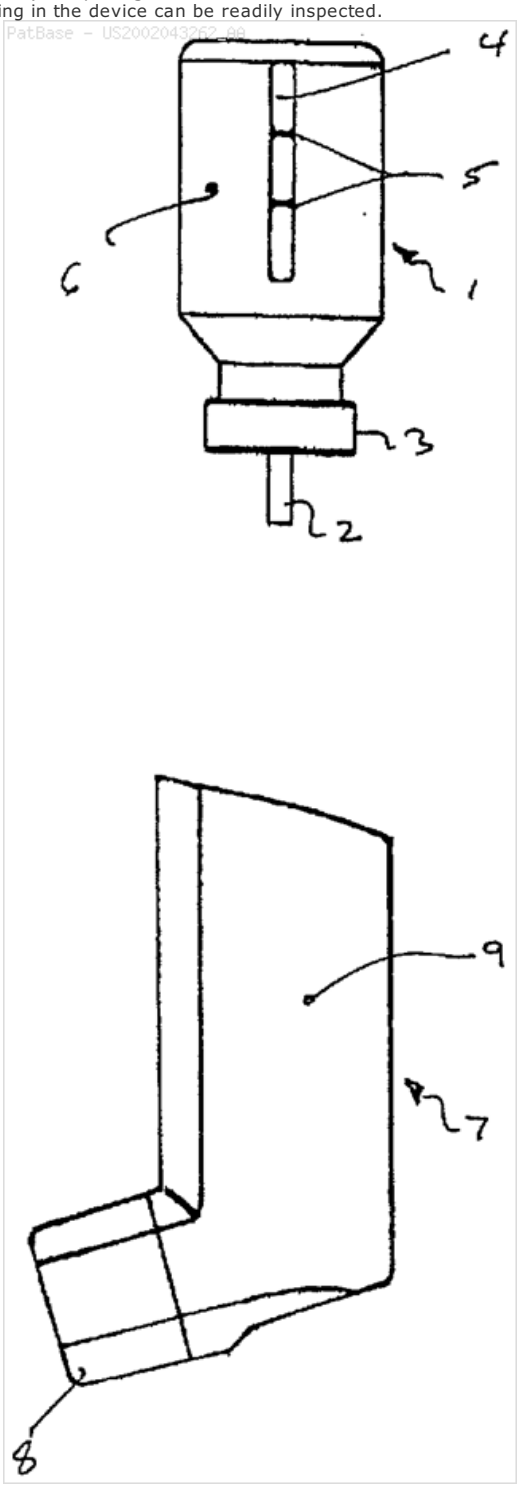
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US9522775 BB	20180206	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : 1928732 ONTARIO INC., CANADA OLDPARTY : SECURITY INTEREST; ASSIGNOR:SMART WAVE TECHNOLOGIES, INC.; REEL/FRAME:044842/0683 EFFECTIVE DATE : 20180119
US9522775 BB	20331015	PEXP		Calculated Patent Term Expiry	
WO14059525 A1	20140424	LSPB	+	published / reissued	
WO14059525 A1	20150326	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2886894 COUNTRY OF REF DOCUMENT : CA
WO14059525 A1	20150415	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO14059525 A1	20150415	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 14435886 COUNTRY OF REF DOCUMENT : US
WO14059525 A1	20150506	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2013846707 COUNTRY OF REF DOCUMENT : EP

129) Family number: 22459088 (US2002043262A)

Title: SPRAY DEVICE

Abstract: The present invention relates to a spray device (eg an inhaler) comprising an aerosol formulation administered to the respiratory or nasal tract in which the level of formulation remaining in the device can be readily inspected.

Classifications:
International (IPC 8-9): A61K45/00 A61M11/00 A61M11/06 A61M15/00 A61M15/08 A61P11/00 B05B9/04 B65D23/08 B65D83/14 B65D83/38 B65G23/08 G01F23/02 (Advanced/Invention);
A61M11/00 A61M15/08 B65D83/38 G01F23/02 (Advanced/Non-invention);
A61M11/00 A61M11/06 A61M15/00 A61M15/08 B65D23/00 B65D83/14 B65G23/00 (Core/Invention);
A61M15/08 B65D83/38 G01F23/02 (Core/Non-invention)
International (IPC 1-7): A61K45/00 A61M015/00 A61M11/00 A61M15/00 A61P11/00 B05B9/04 B65D083/14 B65D23/08 B65D83/14 B65D83/38 B65G023/08 B65G23/08 B67D5/06 B67D5/38
CPC: A61M15/009 A61M15/08 B65D83/38 A61P11/00
European: A61M15/00P B65D83/38 K61M15/08
US: 128/200.14 128/200.23 128/200.230P 128/205.23 128/205.230S 215/366 215/366S 222/23 222/23S



Family:

Publication number	Publication date	Application number	Application date
AT280112 E	20041115	AT20010963124T	20010815
AU2001284158 AA	20020304	AU20010284158	20010815
AU2001284158 BB	20040325	AU20010284158	20010815
AU200184158 A1	20020304	AU20010084158	20010815
AU200184158 A5	20020304	AU20010084158	20010815
CA2418613 AA	20030217	CA20012418613	20010815
CA2418613 C	20090224	CA20012418613	20010815
CA2570809 AA	20020228	CA20012570809	20010815
CA2570809 C	20090120	CA20012570809	20010815
DE60106629 D1	20041125	DE20016006629	20010815
DE60106629 D1	20041125	DE20016006629T	20010815
DE60106629 T2	20060202	DE20016006629T	20010815
DK1309503 T3	20050228	DK20010963124T	20010815

EP1309503 A1	20030514	EP20010963124	20010815
EP1309503 B1	20041020	EP20010963124	20010815
ES2231540 T3	20050516	ES20010963124T	20010815
GB200020296 A0	20001004	GB20000020296	20000818
JP2004506495 T2	20040304	JP20020521120T	20010815
JP4546699 B2	20100915	JP20020521120T	20010815
KR100773608 B1	20071105	KR20037002374	20010815
KR20030045034 A	20030609	KR20037002374	20030218
NZ524248 A	20041224	NZ20010524248	20010815
PT1309503 T	20050228	PT20010963124T	20010815
SI1309503 T1	20050228	SI20010030223T	20010815
US2002043262 AA	20020418	US20010935787	20010822
US2005121024 AA	20050609	US20010344789	20010815
US7845346 BB	20101207	US20010344789	20010815
WO0216235 A1	20020228	WO2001GB03648	20010815

Priority:

GB20000020296 20000818 US20000227149P 20000822 CA20012418613 20010815
CA20012570809 20010815 EP20010963124 20010815 WO2001GB03648 20010815
US20010935787 20010822 WO2001GB03648 20030218 US20030344789 20031203

Probable Assignee: NORTON HEALTHCARE LTD

Assignee(s): (std): BARNEY BRIAN ; LANGFORD ALAN ; NORTON HEALTHCARE LTD ; STRETTON CAROLINE

Assignee(s): NORTON HEALTHCARE LTD LONDON ; NORTON HEALTHCARE LIMITED

Inventor(s): (std): CAROLINE STRETTON ; ALAN LANGFORD ; BRIAN BARNEY ; STRETTON CAROLINE ; BARNEY BRIAN ; LANGFORD ALAN

Agent(s): GRIFFITH HACK; SIM AND MCBURNEY; SIMONA LEVI MINZI IVAX CORP; RATNERPRESTIA

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 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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT280112 E	20041115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT280112 E	20050515	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	REF DOCUMENT NUMBER : 1309503 COUNTRY OF REF DOCUMENT : EP
AT280112 E	20210815	PEXP		Calculated Patent Term Expiry	
AU2001284158 AA	20020304	LSPB	+	published / reissued	
AU2001284158 BB	20040325	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2001284158 BB	20040722	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2001284158 BB	20180315	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2001284158 BB	20210815	PEXP		Calculated Patent Term Expiry	
AU200184158 A1	20020304	LSPB	+	published / reissued	
CA2418613 AA	20030217	LSPB	+	published / reissued	
CA2418613 AA	20030217	LSES	+EEER	EXAMINATION REQUEST	
CA2418613 C	20090224	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2418613 C	20180926	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20180815
CA2418613 C	20210815	PEXP		Calculated Patent Term Expiry	
CA2570809 AA	20020228	LSPB	+	published / reissued	
CA2570809 AA	20070103	LSES	+EEER	EXAMINATION REQUEST	
CA2570809 C	20090120	LSGT	+	granted /	

				extensions (spc, cpc, pte)	
CA2570809 C	20180926	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20180815
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DE60106629 D1	20051201	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
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DE60106629 T2	20060202	LSGT	+	granted / extensions (spc, cpc, pte)	
DE60106629 T2	20210815	PEXP		Calculated Patent Term Expiry	
DK1309503 T3	20050228	LSGT	+	granted / extensions (spc, cpc, pte)	
DK1309503 T3	20210815	PEXP		Calculated Patent Term Expiry	
EP1309503 A1	20030514	LSPB	+	published / reissued	
EP1309503 A1	20030514	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20030311
EP1309503 A1	20040324	LSRE	RTI1	TITLE (CORRECTION)	TEXT : MEDICAL SPRAY DEVICE
EP1309503 A1	20151030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20150827 YEAR OF FEE PAYMENT : 15
EP1309503 A1	20151130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20150728 YEAR OF FEE PAYMENT : 15
EP1309503 A1	20151130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20150819 YEAR OF FEE PAYMENT : 15
EP1309503 A1	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY PAYMENT DATE : 20150810 YEAR OF FEE PAYMENT : 15
EP1309503 B1	20041020	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1309503 B1	20041020	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1309503 B1	20041029	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1309503 B1	20041117	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1309503 B1	20041217	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20040403812 COUNTRY OF REF DOCUMENT : GR
EP1309503 B1	20050516	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2231540 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3

					DESIGNATED STATE(S) :
EP1309503 B1	20051012	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20050721
EP1309503 B1	20071030	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : CH OWNER : NORTON HEALTHCARE LIMITED REF LEGAL EVENT CODE : PFA OLDPARTY : NORTON HEALTHCARE LIMITED#ALBERT BASIN, ROYAL DOCKS#LONDON E16 2QJ (GB) -TRANSFER TO- NORTON HEALTHCARE LIMITED#ALBERT BASIN, ROYAL DOCKS#LONDON E16 2QJ (GB)
EP1309503 B1	20150820	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 15
EP1309503 B1	20160822	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 16
EP1309503 B1	20160930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20160823 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20160930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160819 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20160819 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160819 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20160812 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160822 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20160811 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20160819 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20160823 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160825 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160822 YEAR OF FEE PAYMENT : 16

				TO EPO]	
EP1309503 B1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20160822 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20160816 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20160822 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20160819 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20161230	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160810 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20161230	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20160819 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20161230	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20160721 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY PAYMENT DATE : 20160727 YEAR OF FEE PAYMENT : 16
EP1309503 B1	20180301	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 60106629 COUNTRY OF REF DOCUMENT : DE
EP1309503 B1	20180326	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP EFFECTIVE DATE : 20170831
EP1309503 B1	20180329	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1309503 B1	20180330	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170831
EP1309503 B1	20180415	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MM01 REF DOCUMENT NUMBER : 280112 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170815
EP1309503 B1	20180425	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20170815
EP1309503 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170815

EP1309503 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170816
EP1309503 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170815
EP1309503 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170831
EP1309503 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170831
EP1309503 B1	20180525	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20180430
EP1309503 B1	20180530	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1309503 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170815
EP1309503 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180215
EP1309503 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180305
EP1309503 B1	20180531	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SI REF LEGAL EVENT CODE : KO00 EFFECTIVE DATE : 20180410
EP1309503 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170901
EP1309503 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170815
EP1309503 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170815
EP1309503 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180301
EP1309503 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170815

EP1309503 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170831
EP1309503 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170815
EP1309503 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170831
EP1309503 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170831
EP1309503 B1	20181025	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20181025
EP1309503 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170816
EP1309503 B1	20210815	PEXP		Calculated Patent Term Expiry	
ES2231540 T3	20050516	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2231540 T3	20210815	PEXP		Calculated Patent Term Expiry	
GB200020296 A0	20011114	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
JP2004506495 T2	20040304	LSPB	+	published / reissued	
JP2004506495 T2	20040513	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20040512
JP2004506495 T2	20060727	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20060726
JP2004506495 T2	20061125	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20061025
JP2004506495 T2	20070119	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20070118
JP2004506495 T2	20070315	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20070314
JP2004506495 T2	20070811	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20070810
JP2004506495 T2	20071025	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20071024
JP2004506495 T2	20080122	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20080121
JP2004506495 T2	20080227	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20080226

				BEFORE APPEAL (ZENCHI)	
JP2004506495 T2	20080428	LSAL	-A912	REMOVAL OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A912 EFFECTIVE DATE : 20080425
JP2004506495 T2	20100603	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP2004506495 T2	20100708	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20100702
JP2004506495 T2	20100709	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2004506495 T2	20100709	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP4546699 B2	20100915	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4546699 B2	20100706	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4546699 B2	20130704	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4546699 B2	20130709	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4546699 B2	20140703	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4546699 B2	20140708	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4546699 B2	20150702	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4546699 B2	20150707	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4546699 B2	20160630	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4546699 B2	20160705	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4546699 B2	20170709	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP4546699 B2	20210815	PEXP		Calculated Patent Term Expiry	
KR100773608 B1	20071105	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100773608 B1	20121019	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20121022 YEAR OF FEE PAYMENT : 6
KR100773608 B1	20131017	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20131017 YEAR OF FEE PAYMENT : 7
KR100773608 B1	20141016	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20141017 YEAR OF FEE PAYMENT : 8
KR100773608 B1	20151022	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20151022 YEAR OF FEE PAYMENT : 9
KR100773608 B1	20161020	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20161020 YEAR OF FEE PAYMENT : 10
KR100773608 B1	20171031	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR100773608 B1	20230218	PEXP		Calculated Patent Term Expiry	
KR20030045034 A	20030609	LSPB	+	published / reissued	

KR20030045034 A	20051209	LSES	A201	REQUEST FOR EXAMINATION	
KR20030045034 A	20061030	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20030045034 A	20070730	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20030045034 A	20071030	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
NZ524248 A	20041224	LSPB	+	published / reissued	
NZ524248 A	20050429	LSGT	+PSEA	PATENT SEALED	
NZ524248 A	20050729	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ524248 A	20080926	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ524248 A	20081031	LSAS	ASS	CHANGE OF OWNERSHIP	PARTYTYPE : OWNER OWNER : NORTON HEALTHCARE LIMITED, GB OLDPARTY : OLD OWNER(S): NORTON HEALTHCARE LIMITED
NZ524248 A	20110826	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ524248 A	20140725	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 7 YEARS UNTIL 15 AUG 2021 BY DENNEMEYER + CO EFFECTIVE DATE : 20140718
PT1309503 T	20050228	LSGT	+	granted / extensions (spc, cpc, pte)	
PT1309503 T	20210815	PEXP		Calculated Patent Term Expiry	
SI1309503 T1	20050228	LSGT	+	granted / extensions (spc, cpc, pte)	
SI1309503 T1	20210815	PEXP		Calculated Patent Term Expiry	
US2002043262 AA	20020418	LSPB	+	published / reissued	
US2002043262 AA	20011231	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NORTON HEALTHCARE LIMITED, UNITED KINGDOM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LANGFORD, ALAN; BARNEY, BRIAN; STRETTON, CAROLINE; REEL/FRAME:012420/0021 EFFECTIVE DATE : 20011111
US2002043262 AA	20020315	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NORTON HEALTHCARE LIMITED, UNITED KINGDOM OLDPARTY : CORRECTIVE RECORDING TO CORRECT THE EXECUTION DATE PREVIOUSLY RECORDED ON REEL 012420 FRAME 0021; ASSIGNORS:LANGFORD, ALAN; BARNEY, BRIAN; STRETTON, CAROLINE; REEL/FRAME:012720/0835 EFFECTIVE DATE : 20011107
US2002043262 AA	20030627	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2005121024 AA	20050609	LSPB	+	published / reissued	
US2005121024 AA	20070108	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NORTON HEALTHCARE LTD., UNITED KINGDOM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BARNEY, BRIAN; REEL/FRAME:018741/0994 EFFECTIVE DATE : 20050502
US2005121024 AA	20090130	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NORTON HEALTHCARE LTD, UNITED KINGDOM

					OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LANGFORD, ALAN; STRETTON, CAROLINE; REEL/FRAME:022193/0258; SIGNING DATES FROM 20080724 TO 20081021
US2005121024 AA	20090130	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NORTON HEALTHCARE LTD, UNITED KINGDOM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LANGFORD, ALAN; STRETTON, CAROLINE; SIGNING DATES FROM 20080724 TO 20081021; REEL/FRAME:022193/0258
US7845346 BB	20101207	LSGT	+	granted / extensions (spc, cpc, pte)	
US7845346 BB	20101117	LSGT	PAT1	Patented Case	
US7845346 BB	20140530	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7845346 BB	20180723	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.)
US7845346 BB	20190114	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US7845346 BB	20190114	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7845346 BB	20190114	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7845346 BB	20190205	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20181207
US7845346 BB	20231203	PEXP		Calculated Patent Term Expiry	
WO0216235 A1	20020228	LSPB	+	published / reissued	
WO0216235 A1	20030217	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2418613 COUNTRY OF REF DOCUMENT : CA
WO0216235 A1	20030218	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2001284158 COUNTRY OF REF DOCUMENT : AU
WO0216235 A1	20030218	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020037002374 COUNTRY OF REF DOCUMENT : KR
WO0216235 A1	20030218	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 524248 COUNTRY OF REF DOCUMENT : NZ
WO0216235 A1	20030218	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2002521120 COUNTRY OF REF DOCUMENT : JP
WO0216235 A1	20030311	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2001963124 COUNTRY OF REF DOCUMENT : EP
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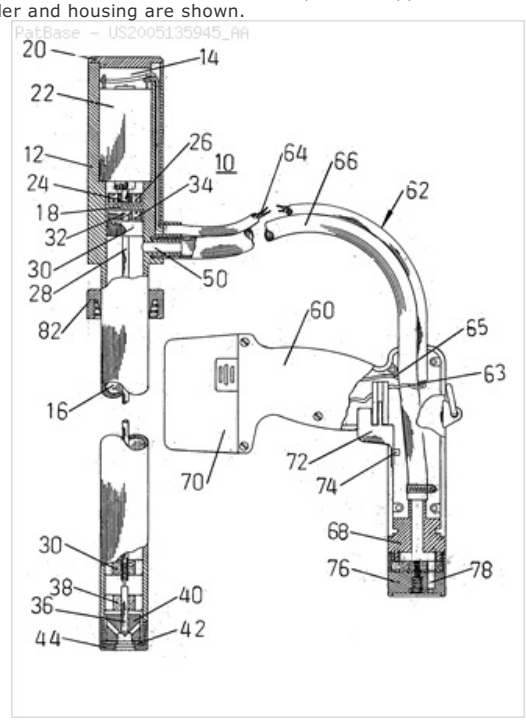
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WO0216235 A1	20041224	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 524248 COUNTRY OF REF DOCUMENT : NZ
WO0216235 A1	20050407	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 524248 COUNTRY OF REF DOCUMENT : NZ

130) Family number: 32021088 (US2005135945A)

Title: PORTABLE **DISPENSING** PUMP

Abstract: A lightweight portable battery powered pump for moving fluids from a reservoir to a variety of end applications is disclosed. A simple and easy to manufacture centrifugal pump impeller and housing are shown.

Classifications:
International (IPC 8-9): B05B9/004 B65D88/054 B67D5/012 F04B17/00 F04D13/02 F04D13/08 (Advanced/Invention); F04B17/00 F04D13/02 F04D13/06 (Core/Invention)
International (IPC 1-7): F04B17/00 F04B53/00
CPC: F04D13/068 F04D13/024 F04D13/08
European: F04D13/02B3 F04D13/08
US: 222/333 222/75 239/332 417/234 417/411 417/420 417/424.1



Family:

Publication number	Publication date	Application number	Application date
US2005135945 AA	20050623	US20030743627	20031222
US7121433 BB	20061017	US20030743627	20031222

Priority:

US20030743627 20031222

Probable Assignee:	NELSON JOHN E
Assignee(s): (std):	NELSON JOHN E ; REDDINGTON HUGH J
Inventor(s): (std):	NELSON JOHN E ; REDDINGTON HUGH J
Inventor(s):	NELSON JOHN ; REDDINGTON HUGH
Agent(s):	ROBERT O WRIGHT; ROBERT O

Legal status (INPADOC)

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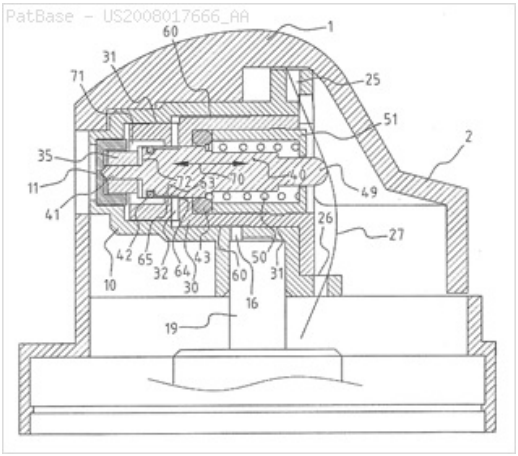
Patent	Date recorded	Event group	Code	Event	Details
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US7121433 BB	20061017	LSGT	+	granted / extensions (spc, cpc, pte)	
US7121433 BB	20091103	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7121433 BB	20141017	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US7121433 BB	20141117	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7121433 BB	20141117	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7121433 BB	20141209	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20141017
US7121433 BB	20250411	PEXP		Calculated Patent Term Expiry (PTA 476 days)	

131) Family number: 36075090 (US2008017666A)

Title: ACTUATOR FOR A RECEPTACLE HAVING A PRESSURIZED CONTENT AND METHOD FOR SPRAYING A PRESSURIZED CONTENT

Abstract: The invention relates to an actuator for a **dispenser** device for spraying contents of a receptacle that is pressurized or of a receptacle that has a pump, the actuator comprising a channel connectable to a receptacle outlet on one side of the actuator for receiving the pressurized contents of the receptacle, said channel having an orifice for spraying the contents on another side of the actuator, wherein an inlet connects the channel with a volume chamber, wherein the orifice has a valve for opening and closing the orifice, the valve biased by biasing means in the closed position, wherein the inlet has inlet reduction means for reducing the size of the inlet to the volume chamber. The invention is characterized in that the inlet reduction means comprises a flexible element.

Classifications:
International (IPC 8-9): B05B B05B1/30 B05B11/00 B05B7/32 B05B9/04 B65D B65D83/14 B65D83/40 B67D5/52 B67D7/70 (Advanced/Invention);
B05B1/30 B05B11/00 B05B9/04 B65D83/14 B65D83/40 B67D7/58 (Core/Invention);
B05B B65D (Subclass/Invention)
International (IPC 1-7): B05B11/00 B65D83/14
CPC: B05B11/0067 B05B11/3016 B05B11/3077 B65D83/44 B65D83/7535
European: B05B11/00B9L3 B05B11/30H8F B65D83/44 B65D83/7535
US: 222/135 222/321.8 222/321.800S 222/380 222/402.13 222/402.130S 222/495 222/496 239/337 239/453 239/455 239/459 239/533.1 239/533.100P 239/583 239/67



Family:

Publication number	Publication date	Application number	Application date
AT493207 E	20110115	AT20060075598T	20060314
AT516885 E	20110815	AT20060076815T	20061003
AU2007225030 AA	20070920	AU20070225030	20070313
AU2007225030 BB	20111006	AU20070225030	20070313
BRPI0708910 A2	20110614	BR2007PI08910	20070313
BRPI0708910 B1	20190709	BR2007PI08910	20070313
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CN101495240 B	20130116	CN200780009204	20070313
DE602006019197 D1	20110210	DE200660019197T	20060314
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EA200870353 A1	20090227	EA20080070353	20070313
EP1834701 A1	20070919	EP20060075598	20060314
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EP1834702 B1	20110720	EP20060076815	20061003
EP1837082 A1	20070926	EP20070075184	20070312
EP1837082 B1	20120829	EP20070075184	20070312
ES2358679 T3	20110512	ES20060075598T	20060314
ES2369565 T3	20111202	ES20060076815T	20061003
HK1133850 A1	20100409	HK20100100955	20100128
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IN288441 B	20171020	IN2008CN05521	20081014
JP2007246169 A2	20070927	JP20070063512	20070313
JP2009536568 T2	20091015	JP20080558594T	20070313
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MX2008011765 A1	20090115	MX20080011765	20070313
NZ571317 A	20110630	NZ20070571317	20070313
PL1834701 T3	20110531	PL20060075598T	20060314
PL1834702 T3	20120430	PL20060076815T	20061003
PT1834701 T	20110222	PT20060075598T	20060314
PT1834702 T	20111017	PT20060076815T	20061003
US2008017666 AA	20080124	US20070685508	20070313
US2009084872 AA	20090402	US20070282823	20070313
US7950597 BB	20110531	US20070282823	20070313
US8328120 BB	20121211	US20070685508	20070313
WO07104113 A2	20070920	WO2007BE00024	20070313
WO07104113 A3	20071101	WO2007BE00024	20070313
ZA200807999 A	20090826	ZA20080007999	20080917

Priority:

EP20060075598 20060314 EP20060076815 20061003 EP20070075184 20070312
WO2007BE00024 20070313

Probable Assignee: PACKAGING TECHNOLOGY PARTICIPATION NETHERLANDS BV

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Inventor(s):	WILLY LEONARD ALICE KEGELS ; ROLAND FRANS CYRILLE VANBLAERE ; KEGELS WILLY LA ; VANBLAERE ROLAND ; KEGELS WILLY
Agent(s):	GRIFFITH HACK; LORD AND CO; GOWLING LAFLEUR HENDERSON LLP; STOLMAR AND PARTNER PATENTANWAELTE PARTG MBB; HOUBEN CHRISTIAAN HEIN WILLEM FRANS; LEVINE BAGADE HAN LLP; MORGAN LEWIS AND BOCKIUS 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 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 YU ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT493207 E	20110115	LSGT	+	granted / extensions (spc, cpc, pte)	
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AT493207 E	20260314	PEXP		Calculated Patent Term Expiry	
AT516885 E	20110815	LSGT	+	granted / extensions (spc, cpc, pte)	
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AT516885 E	20261003	PEXP		Calculated Patent Term Expiry	
AU2007225030 AA	20070920	LSPB	+	published / reissued	
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AU2007225030 BB	20111006	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2007225030 BB	20270313	PEXP		Calculated Patent Term Expiry	
BRPI0708910 A2	20170919	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS APPROVED	PARTYTYPE : OWNER OWNER : PACKAGING TECHNOLOGY PARTICIPATION NETHERLANDS B.V
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EP1834701 B1	20110531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20101229
EP1834701 B1	20110531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20101229
EP1834701 B1	20110729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110330
EP1834701 B1	20110729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110429
EP1834701 B1	20110729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20101229
EP1834701 B1	20110729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20101229

EP1834701 B1	20110831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20101229
EP1834701 B1	20110831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20101229
EP1834701 B1	20111031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20101229
EP1834701 B1	20111031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110331
EP1834701 B1	20111031	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1834701 B1	20111207	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20110930
EP1834701 B1	20120104	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1834701 B1	20120126	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602006019197 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20110930
EP1834701 B1	20120131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110314
EP1834701 B1	20120131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110331
EP1834701 B1	20120131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110331
EP1834701 B1	20120430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20120328 YEAR OF FEE PAYMENT : 7
EP1834701 B1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20101229
EP1834701 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-

				INFORMATION FROM NATIONAL OFFICE TO EPO]	PAYMENT OF DUE FEES LAPSED DATE : 20130314
EP1834701 B1	20160324	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
EP1834701 B1	20170214	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : PACKAGING TECHNOLOGY PARTICIPATION NETHERLANDS, NL REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006019197 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: PACKAGING TECHNOLOGY PARTICIPATION S.A., LUXEMBOURG, LU
EP1834701 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20161228 YEAR OF FEE PAYMENT : 12
EP1834701 B1	20170328	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12
EP1834701 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170327 YEAR OF FEE PAYMENT : 12
EP1834701 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170328 YEAR OF FEE PAYMENT : 12
EP1834701 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20170330 YEAR OF FEE PAYMENT : 12
EP1834701 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170224 YEAR OF FEE PAYMENT : 12
EP1834701 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20170327 YEAR OF FEE PAYMENT : 12
EP1834701 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20170119 YEAR OF FEE PAYMENT : 12
EP1834701 B1	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170330 YEAR OF FEE PAYMENT : 12
EP1834701 B1	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20170303 YEAR OF FEE PAYMENT : 12
EP1834701 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20170324 YEAR OF FEE PAYMENT : 12
EP1834701 B1	20171011	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : ES OWNER : PACKAGING TECHNOLOGY PARTICIPATION NETHERLANDS B.V REF LEGAL EVENT CODE : PC2A EFFECTIVE DATE : 20171005

EP1834701 B1	20171020	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : FR OWNER : PACKAGING TECHNOLOGY PARTICIPATION NETHERLANDS, NL REF LEGAL EVENT CODE : TP EFFECTIVE DATE : 20170914
EP1834701 B1	20180321	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 13
EP1834701 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180322 YEAR OF FEE PAYMENT : 13
EP1834701 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180226 YEAR OF FEE PAYMENT : 13
EP1834701 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20180323 YEAR OF FEE PAYMENT : 13
EP1834701 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20180220 YEAR OF FEE PAYMENT : 13
EP1834701 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20180322 YEAR OF FEE PAYMENT : 13
EP1834701 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20180221 YEAR OF FEE PAYMENT : 13
EP1834701 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20180228 YEAR OF FEE PAYMENT : 13
EP1834701 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180321 YEAR OF FEE PAYMENT : 13
EP1834701 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20180619 YEAR OF FEE PAYMENT : 13
EP1834701 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180323 YEAR OF FEE PAYMENT : 13
EP1834701 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190325 YEAR OF FEE PAYMENT : 14
EP1834701 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190325 YEAR OF FEE PAYMENT : 14
EP1834701 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20190311 YEAR OF FEE PAYMENT : 14
EP1834701 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190321 YEAR OF FEE PAYMENT : 14
EP1834701 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190328 YEAR OF FEE PAYMENT : 14
EP1834701 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : BE

				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	PAYMENT DATE : 20190325 YEAR OF FEE PAYMENT : 14
EP1834701 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20190215 YEAR OF FEE PAYMENT : 14
EP1834701 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20190329 YEAR OF FEE PAYMENT : 14
EP1834701 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190624 YEAR OF FEE PAYMENT : 14
EP1834701 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20190208 YEAR OF FEE PAYMENT : 14
EP1834701 B1	20260314	PEXP		Calculated Patent Term Expiry	
EP1834702 A1	20070919	LSPB	+	published / reissued	
EP1834702 A1	20080423	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20080311
EP1834702 A1	20080514	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20080409
EP1834702 A1	20080521	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : PACKAGING TECHNOLOGY PARTICIPATION SA
EP1834702 A1	20080528	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT COUNTRY OF REF DOCUMENT : BE COUNTRY OF REF DOCUMENT : BG COUNTRY OF REF DOCUMENT : CH COUNTRY OF REF DOCUMENT : CY COUNTRY OF REF DOCUMENT : CZ COUNTRY OF REF DOCUMENT : DE COUNTRY OF REF DOCUMENT : DK COUNTRY OF REF DOCUMENT : EE COUNTRY OF REF DOCUMENT : ES COUNTRY OF REF DOCUMENT : FI COUNTRY OF REF DOCUMENT : FR COUNTRY OF REF DOCUMENT : GB COUNTRY OF REF DOCUMENT : GR COUNTRY OF REF DOCUMENT : HU COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IS COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : LT COUNTRY OF REF DOCUMENT : LU COUNTRY OF REF DOCUMENT : LV COUNTRY OF REF DOCUMENT : MC COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : RO COUNTRY OF REF DOCUMENT : SE COUNTRY OF REF DOCUMENT : SI COUNTRY OF REF DOCUMENT : SK COUNTRY OF REF DOCUMENT : TR

EP1834702 A1	20160129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20151029 YEAR OF FEE PAYMENT : 10
EP1834702 A1	20160129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20151027 YEAR OF FEE PAYMENT : 10
EP1834702 A1	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20151028 YEAR OF FEE PAYMENT : 10
EP1834702 A1	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20151028 YEAR OF FEE PAYMENT : 10
EP1834702 A1	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20151027 YEAR OF FEE PAYMENT : 10
EP1834702 A1	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20151027 YEAR OF FEE PAYMENT : 10
EP1834702 B1	20110720	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1834702 B1	20110720	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1834702 B1	20110721	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : PACKAGING TECHNOLOGY PARTICIPATION NETHERLANDS, NL REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006023139 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: PACKAGING TECHNOLOGY HOLDING S.A., LUXEMBURG, LU
EP1834702 B1	20110729	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1834702 B1	20110908	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602006023139 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20110908
EP1834702 B1	20111026	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP1834702 B1	20111202	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2369565 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20111202
EP1834702 B1	20120115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 516885 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20110720
EP1834702 B1	20120131	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	: IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20111120
EP1834702 B1	20120131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110720
EP1834702 B1	20120131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110720
EP1834702 B1	20120131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110720
EP1834702 B1	20120131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20111017 YEAR OF FEE PAYMENT : 6
EP1834702 B1	20120131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20111027 YEAR OF FEE PAYMENT : 6
EP1834702 B1	20120229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110720
EP1834702 B1	20120229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110720
EP1834702 B1	20120229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110720
EP1834702 B1	20120229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110720
EP1834702 B1	20120229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20111021

EP1834702 B1	20120430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110720
EP1834702 B1	20120430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110720
EP1834702 B1	20120531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110720
EP1834702 B1	20120531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20111031
EP1834702 B1	20120531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110720
EP1834702 B1	20120531	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1834702 B1	20120627	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20120423
EP1834702 B1	20120629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110720
EP1834702 B1	20120731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20111031
EP1834702 B1	20120731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20111031
EP1834702 B1	20120801	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1834702 B1	20120816	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602006023139 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20120423
EP1834702 B1	20121031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES

				NATIONAL OFFICE TO EPO]	LAPSED DATE : 20111003
EP1834702 B1	20130628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20111020
EP1834702 B1	20130710	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : PT REF LEGAL EVENT CODE : MM4A TEXT : LAPSE DUE TO NON-PAYMENT OF FEES EFFECTIVE DATE : 20130703
EP1834702 B1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110720
EP1834702 B1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130703
EP1834702 B1	20140131	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : PL REF LEGAL EVENT CODE : LAPE
EP1834702 B1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121003
EP1834702 B1	20140530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20121003
EP1834702 B1	20151028	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 10
EP1834702 B1	20161026	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
EP1834702 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160927 YEAR OF FEE PAYMENT : 11
EP1834702 B1	20161230	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20160908 YEAR OF FEE PAYMENT : 11
EP1834702 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20161027 YEAR OF FEE PAYMENT : 11
EP1834702 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161026 YEAR OF FEE PAYMENT : 11
EP1834702 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161026 YEAR OF FEE PAYMENT : 11
EP1834702 B1	20170215	LSAS	REG	REFERENCE TO A	PARTYTYPE : OWNER

				NATIONAL CODE	REF COUNTRY CODE : DE OWNER : PACKAGING TECHNOLOGY PARTICIPATION NETHERLANDS, NL REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602006023139 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: PACKAGING TECHNOLOGY PARTICIPATION S.A., LUXEMBOURG, LU
EP1834702 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20161026 YEAR OF FEE PAYMENT : 11
EP1834702 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20161027 YEAR OF FEE PAYMENT : 11
EP1834702 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20161026 YEAR OF FEE PAYMENT : 11
EP1834702 B1	20171011	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : ES OWNER : PACKAGING TECHNOLOGY PARTICIPATION NETHERLANDS B.V REF LEGAL EVENT CODE : PC2A EFFECTIVE DATE : 20171005
EP1834702 B1	20171020	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : FR OWNER : PACKAGING TECHNOLOGY PARTICIPATION NETHERLANDS, NL REF LEGAL EVENT CODE : TP EFFECTIVE DATE : 20170914
EP1834702 B1	20171025	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12
EP1834702 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170926 YEAR OF FEE PAYMENT : 12
EP1834702 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20170808 YEAR OF FEE PAYMENT : 12
EP1834702 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171025 YEAR OF FEE PAYMENT : 12
EP1834702 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171025 YEAR OF FEE PAYMENT : 12
EP1834702 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20171027 YEAR OF FEE PAYMENT : 12
EP1834702 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20171108 YEAR OF FEE PAYMENT : 12
EP1834702 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20171030 YEAR OF FEE PAYMENT : 12
EP1834702 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20171025

				NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 12
EP1834702 B1	20181031	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 13
EP1834702 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20180911 YEAR OF FEE PAYMENT : 13
EP1834702 B1	20181231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20181029 YEAR OF FEE PAYMENT : 13
EP1834702 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181024 YEAR OF FEE PAYMENT : 13
EP1834702 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181031 YEAR OF FEE PAYMENT : 13
EP1834702 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20181024 YEAR OF FEE PAYMENT : 13
EP1834702 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20181024 YEAR OF FEE PAYMENT : 13
EP1834702 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20181024 YEAR OF FEE PAYMENT : 13
EP1834702 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190123 YEAR OF FEE PAYMENT : 13
EP1834702 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20190904 YEAR OF FEE PAYMENT : 14
EP1834702 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20191024 YEAR OF FEE PAYMENT : 14
EP1834702 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20191024 YEAR OF FEE PAYMENT : 14
EP1834702 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20191024 YEAR OF FEE PAYMENT : 14
EP1834702 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20191023 YEAR OF FEE PAYMENT : 14
EP1834702 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20191031 YEAR OF FEE PAYMENT : 14
EP1834702 B1	20261003	PEXP		Calculated Patent Term Expiry	
EP1837082 A1	20070926	LSPB	+	published / reissued	
EP1837082 A1	20080423	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20080311
EP1837082 A1	20080514	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20080409
EP1837082 A1	20080521	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : PACKAGING TECHNOLOGY

					PARTICIPATION SA
EP1837082 A1	20080604	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT COUNTRY OF REF DOCUMENT : BE COUNTRY OF REF DOCUMENT : BG COUNTRY OF REF DOCUMENT : CH COUNTRY OF REF DOCUMENT : CY COUNTRY OF REF DOCUMENT : CZ COUNTRY OF REF DOCUMENT : DE COUNTRY OF REF DOCUMENT : DK COUNTRY OF REF DOCUMENT : EE COUNTRY OF REF DOCUMENT : ES COUNTRY OF REF DOCUMENT : FI COUNTRY OF REF DOCUMENT : FR COUNTRY OF REF DOCUMENT : GB COUNTRY OF REF DOCUMENT : GR COUNTRY OF REF DOCUMENT : HU COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IS COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : LT COUNTRY OF REF DOCUMENT : LU COUNTRY OF REF DOCUMENT : LV COUNTRY OF REF DOCUMENT : MC COUNTRY OF REF DOCUMENT : MT COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : RO COUNTRY OF REF DOCUMENT : SE COUNTRY OF REF DOCUMENT : SI COUNTRY OF REF DOCUMENT : SK COUNTRY OF REF DOCUMENT : TR
EP1837082 A1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121229
EP1837082 A1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 A1	20130531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160329 YEAR OF FEE PAYMENT : 10

EP1837082 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160324 YEAR OF FEE PAYMENT : 10
EP1837082 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160225 YEAR OF FEE PAYMENT : 10
EP1837082 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20160322 YEAR OF FEE PAYMENT : 10
EP1837082 A1	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160324 YEAR OF FEE PAYMENT : 10
EP1837082 B1	20120829	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1837082 B1	20120829	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1837082 B1	20120829	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : PACKAGING TECHNOLOGY PARTICIPATION NETHERLANDS, NL REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602007025066 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNERS: PACKAGING TECHNOLOGY HOLDING S.A., LUXEMBURG, LU; PACKAGING TECHNOLOGY PARTICIPATION S.A., LUXEMBOURG, LU
EP1837082 B1	20120831	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1837082 B1	20120915	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 572771 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20120915
EP1837082 B1	20120926	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1837082 B1	20121025	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602007025066 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20121025
EP1837082 B1	20121128	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP1837082 B1	20130115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 572771 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20120829
EP1837082 B1	20130125	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D EFFECTIVE DATE : 20120829
EP1837082 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : LT

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121229
EP1837082 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 B1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 B1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 B1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121130
EP1837082 B1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121231
EP1837082 B1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829

EP1837082 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121210
EP1837082 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 B1	20130531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 B1	20130531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 B1	20130531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 B1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121129
EP1837082 B1	20130807	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20130530
EP1837082 B1	20130926	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602007025066 COUNTRY OF REF DOCUMENT : DE

					EFFECTIVE DATE : 20130530
EP1837082 B1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130331
EP1837082 B1	20131031	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1837082 B1	20140101	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1837082 B1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130331
EP1837082 B1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130331
EP1837082 B1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130312
EP1837082 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 B1	20150630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120829
EP1837082 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20070312
EP1837082 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130312
EP1837082 B1	20160324	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 10
EP1837082 B1	20170214	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : PACKAGING TECHNOLOGY PARTICIPATION NETHERLANDS, NL REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602007025066 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: PACKAGING TECHNOLOGY

					PARTICIPATION S.A., LUXEMBOURG, LU
EP1837082 B1	20170328	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
EP1837082 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170328 YEAR OF FEE PAYMENT : 11
EP1837082 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20170330 YEAR OF FEE PAYMENT : 11
EP1837082 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170327 YEAR OF FEE PAYMENT : 11
EP1837082 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20170327 YEAR OF FEE PAYMENT : 11
EP1837082 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170224 YEAR OF FEE PAYMENT : 11
EP1837082 B1	20171020	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : FR OWNER : PACKAGING TECHNOLOGY PARTICIPATION NETHERLANDS, NL REF LEGAL EVENT CODE : TP EFFECTIVE DATE : 20170914
EP1837082 B1	20180321	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12
EP1837082 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180226 YEAR OF FEE PAYMENT : 12
EP1837082 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20180323 YEAR OF FEE PAYMENT : 12
EP1837082 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180322 YEAR OF FEE PAYMENT : 12
EP1837082 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180321 YEAR OF FEE PAYMENT : 12
EP1837082 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20180322 YEAR OF FEE PAYMENT : 12
EP1837082 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190325 YEAR OF FEE PAYMENT : 13
EP1837082 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190325 YEAR OF FEE PAYMENT : 13
EP1837082 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190321 YEAR OF FEE PAYMENT : 13
EP1837082 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE

				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	PAYMENT DATE : 20190321 YEAR OF FEE PAYMENT : 13
EP1837082 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20190329 YEAR OF FEE PAYMENT : 13
EP1837082 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20190325 YEAR OF FEE PAYMENT : 13
EP1837082 B1	20270312	PEXP		Calculated Patent Term Expiry	
ES2358679 T3	20110512	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2358679 T3	20260314	PEXP		Calculated Patent Term Expiry	
ES2369565 T3	20111202	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2369565 T3	20261003	PEXP		Calculated Patent Term Expiry	
HK1133850 A1	20100409	LSPB	+	published / reissued	
IN05521CN2008 A	20090320	LSPB	+	published / reissued	
IN288441 B	20171020	LSGT	+	granted / extensions (spc, cpc, pte)	
IN288441 B	20281014	PEXP		Calculated Patent Term Expiry	
JP2007246169 A2	20070927	LSPB	+	published / reissued	
JP2007246169 A2	20071226	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20071126
JP2007246169 A2	20080410	LSAS	A711	NOTIFICATION OF CHANGE IN APPLICANT	TEXT : JAPANESE INTERMEDIATE CODE: A711 EFFECTIVE DATE : 20080409
JP2007246169 A2	20080510	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20080409
JP2007246169 A2	20080531	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20080530
JP2007246169 A2	20100313	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20100312
JP2007246169 A2	20110303	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110302
JP2007246169 A2	20120314	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20120313
JP2007246169 A2	20120714	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20120713
JP2007246169 A2	20120802	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2007246169 A2	20120808	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20120807
JP2007246169 A2	20120809	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP2007246169 A2	20120830	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120822
JP2007246169 A2	20120831	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150

JP2007246169 A2	20120903	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2009536568 T2	20091015	LSPB	+	published / reissued	
JP2009536568 T2	20100313	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20100312
JP2009536568 T2	20120808	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20120807
JP2009536568 T2	20130109	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20130108
JP5073326 B2	20121114	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5073326 B2	20120828	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5073326 B2	20150604	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5073326 B2	20150609	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5073326 B2	20160609	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5073326 B2	20160614	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5073326 B2	20170419	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	TEXT : JAPANESE INTERMEDIATE CODE: R313113
JP5073326 B2	20170427	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP5073326 B2	20170615	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5073326 B2	20170620	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5073326 B2	20180607	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5073326 B2	20180612	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5073326 B2	20190801	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5073326 B2	20190806	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5073326 B2	20270313	PEXP		Calculated Patent Term Expiry	
KR20080110808 A	20081219	LSPB	+	published / reissued	
KR20080110808 A	20120215	LSES	A201	REQUEST FOR EXAMINATION	
KR20080110808 A	20130227	LSRV	-E601	DECISION TO REFUSE APPLICATION	
MX2008011765 A1	20090115	LSPB	+	published / reissued	
MX2008011765 A1	20111125	LSGT	+FG	GRANT OR REGISTRATION	
NZ571317 A	20110630	LSPB	+	published / reissued	
NZ571317 A	20111028	LSGT	+PSEA	PATENT SEALED	
NZ571317 A	20111222	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ571317 A	20140328	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 3 YEARS UNTIL 13 MAR 2017 BY BALDWINS INTELLECTUAL PROPERTY EFFECTIVE DATE : 20140311
NZ571317 A	20170127	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 13 MAR 2018 BY BALDWINS

					INTELLECTUAL PROPERTY EFFECTIVE DATE : 20161229
NZ571317 A	20170224	LSAS	ASS	CHANGE OF OWNERSHIP	PARTYTYPE : OWNER OWNER : PACKAGING TECHNOLOGY PARTICIPATION NETHERLANDS, NL EFFECTIVE DATE : 20170216
NZ571317 A	20180223	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 13 MAR 2019 BY BALDWINS INTELLECTUAL PROPERTY EFFECTIVE DATE : 20180222
NZ571317 A	20190222	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 13 MAR 2020 BY BALDWINS INTELLECTUAL PROPERTY EFFECTIVE DATE : 20190213
NZ571317 A	20200228	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 13 MAR 2021 BY BALDWINS INTELLECTUAL PROPERTY EFFECTIVE DATE : 20200210
PL1834701 T3	20110531	LSGT	+	granted / extensions (spc, cpc, pte)	
PL1834702 T3	20120430	LSGT	+	granted / extensions (spc, cpc, pte)	
PT1834701 T	20110222	LSGT	+	granted / extensions (spc, cpc, pte)	
PT1834701 T	20260314	PEXP		Calculated Patent Term Expiry	
PT1834702 T	20111017	LSGT	+	granted / extensions (spc, cpc, pte)	
PT1834702 T	20261003	PEXP		Calculated Patent Term Expiry	
US2008017666 AA	20080124	LSPB	+	published / reissued	
US2008017666 AA	20080402	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PACKAGING TECHNOLOGY PARTICIPATION SA, LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PACKAGING TECHNOLOGY HOLDING SA; REEL/FRAME:020745/0254 EFFECTIVE DATE : 20080310
US2008017666 AA	20121121	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2009084872 AA	20090402	LSPB	+	published / reissued	
US2009084872 AA	20110511	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7950597 BB	20110531	LSGT	+	granted / extensions (spc, cpc, pte)	
US7950597 BB	20081216	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PACKAGING TECHNOLOGY PARTICIPATION S.A., LUXEMBOUR OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:VANBLAERE, ROLAND FRANS CYRILLE CORNELIUS; KEGELS, WILLY LEONARD ALICE; REEL/FRAME:021987/0545 EFFECTIVE DATE : 20081211
US7950597 BB	20110511	LSGT	PAT1	Patented Case	
US7950597 BB	20141201	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7950597 BB	20170303	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PACKAGING TECHNOLOGY PARTICIPATION NETHERLANDS B.V OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PACKAGING TECHNOLOGY PARTICIPATION S.A.;

					REEL/FRAME:041887/0354 EFFECTIVE DATE : 20161005
US7950597 BB	20181130	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7950597 BB	20270529	PEXP		Calculated Patent Term Expiry (PTA 77 days)	
US8328120 BB	20121211	LSGT	+	granted / extensions (spc, cpc, pte)	
US8328120 BB	20070927	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PACKAGING TECHNOLOGY HOLDING SA, LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:VANBLAERE, ROLAND FRANS CYRILLE CORNELIUS; KEGELS, WILLY LEONARD ALICE; REEL/FRAME:019891/0726 EFFECTIVE DATE : 20070823
US8328120 BB	20070927	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PACKAGING TECHNOLOGY PARTICIPATION SA, LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:VANBLAERE, ROLAND FRANS CYRILLE CORNELIUS; KEGELS, WILLY LEONARD ALICE; REEL/FRAME:019891/0726 EFFECTIVE DATE : 20070823
US8328120 BB	20121121	LSGT	PAT1	Patented Case	
US8328120 BB	20160613	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8328120 BB	20170303	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PACKAGING TECHNOLOGY PARTICIPATION NETHERLANDS B.V OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PACKAGING TECHNOLOGY PARTICIPATION S.A.; REEL/FRAME:041887/0354 EFFECTIVE DATE : 20161005
US8328120 BB	20290323	PEXP		Calculated Patent Term Expiry (PTA 741 days)	
WO07104113 A2	20070920	LSPB	+	published / reissued	
WO07104113 A2	20070313	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200780009204.X COUNTRY OF REF DOCUMENT : CN
WO07104113 A3	20080910	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2642975 COUNTRY OF REF DOCUMENT : CA
WO07104113 A3	20080911	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 194035 COUNTRY OF REF DOCUMENT : IL
WO07104113 A3	20080912	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2008558594 COUNTRY OF REF DOCUMENT : JP
WO07104113 A3	20080912	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12282823 COUNTRY OF REF DOCUMENT : US
WO07104113 A3	20080912	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2008/011765 COUNTRY OF REF DOCUMENT : MX
WO07104113 A3	20080916	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE

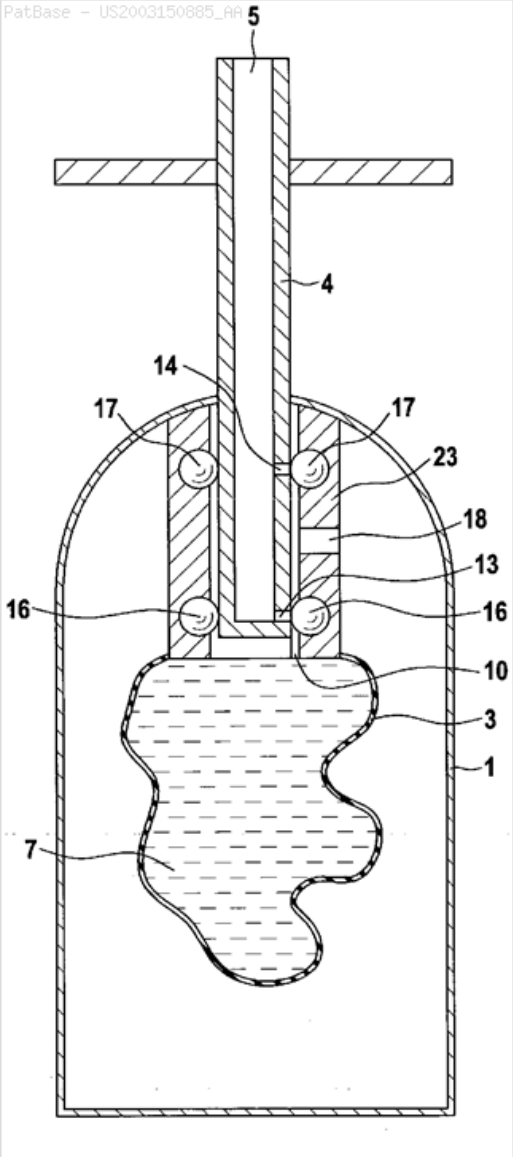
WO07104113 A3	20080917	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 571317 COUNTRY OF REF DOCUMENT : NZ
WO07104113 A3	20081003	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007225030 COUNTRY OF REF DOCUMENT : AU
WO07104113 A3	20081013	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200870353 COUNTRY OF REF DOCUMENT : EA
WO07104113 A3	20081013	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020087024987 COUNTRY OF REF DOCUMENT : KR
WO07104113 A3	20081014	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 5521/CHENP/2008 COUNTRY OF REF DOCUMENT : IN
WO07104113 A3	20081030	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2007225030 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20070313 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO07104113 A3	20090408	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 07719189 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO07104113 A3	20110614	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0708910 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20080912
ZA200807999 A	20090826	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA200807999 A	20280916	PEXP		Calculated Patent Term Expiry	

132) Family number: 29773092 (US2003150885A)

Title: APPARATUS FOR **DISPENSING** AN ATOMIZED **LIQUID** PRODUCT

Abstract: The invention is directed to an apparatus for atomizing a **liquid** product using a propellant, which may be integrated into aerosol packs, for atomization of a **liquid** product. The **liquid** product may have a high viscosity. The total flow rate ranges from about 0.5 grams per second to about 0.01 grams per second through a single capillary tube. The **liquid** product is atomized within a capillary tube. The apparatus may be designed as a handheld unit or as a stationary or mobile unit using a plurality of capillary tubes.

Classifications:
International (IPC 8-9): B05B7/04 B65D83/14 B65D83/16 B65D83/32 B65D83/36 (Advanced/Invention); B65D83/62 (Advanced/Non-invention); B05B7/04 B65D83/14 (Core/Invention)
International (IPC 1-7): B05B7/04 B65D83/00 B65D83/14
CPC: B05B7/0416 B65D83/62
European: B05B7/04C B65D83/62
US: 222/402.18 222/402.24 222/402.240P 222/402.25 222/95



Family:

Publication number	Publication date	Application number	Application date
AT464949 E	20100515	AT20020796645T	20021216
AU2002361427 AA	20030630	AU20020361427	20021216
AU2002361427 AH	20030630	AU20020361427	20021216
AU2002366258 AA	20030630	AU20020366258	20020719
DE60236104 D1	20100602	DE20026036104	20021216
EP1453611 A2	20040908	EP20020796645	20021216
EP1453611 B1	20100421	EP20020796645	20021216
ES2341095 T3	20100615	ES20020796645T	20021216
GB200130057 A0	20020206	GB20010030057	20011214
US2003150885 AA	20030814	US20020319571	20021216
US2005098588 AA	20050512	US20040992766	20041122
US7237697 BB	20070703	US20040992766	20041122
WO03051522 A2	20030626	WO2002EP14327	20021216
WO03051522 A3	20031218	WO2002EP14327	20021216
WO03051522 C2	20041229	WO2002EP14327	20021216
WO03051523 A1	20030626	WO2002EP08053	20020719

Priority:

GB20010030057 20011214 WO2002EP80053 20020719 WO2002EP08053 20020719
EP20020796645 20021216 US20020319571 20021216 WO2002EP14327 20021216
US20040992766 20041122

Probable Assignee: STEAG MICROPARTS GMBH

Assignee(s): (std): DUNNE STEPHEN T ; DUNNE STEPHEN TERENCE ; STEAG MICROPARTS GMBH ; BOEHRINGER

	INGELHEIM MICROPART
Assignee(s):	BOEHRINGER INGELHEIM MICROPARTS GMBH
Inventor(s): (std):	DUNNE STEPHEN TERENCE ; DUNNE STEPHEN T ; STEPHEN TERENCE DUNNE
Inventor(s):	DUNNE STEPHEN
Agent(s):	GESTHUYSEN VON ROHR AND EGGERT; NIXON PEABODY LLP; DAVID S; TOENHARDT MARION
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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT464949 E	20100515	LSGT	+	granted / extensions (spc, cpc, pte)	
AT464949 E	20101015	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT464949 E	20221216	PEXP		Calculated Patent Term Expiry	
AU2002361427 AA	20030630	LSPB	+	published / reissued	
AU2002361427 AA	20040902	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2) (F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
AU2002366258 AA	20030630	LSPB	+	published / reissued	
AU2002366258 AA	20040219	LSWD	-MK13	APPLICATION WITHDRAWN SECTION 141(2)/REG 8.3(2) - PCT APPL. NON-ENTERING NAT. PHASE, WITHDRAWN BY APPLICANT	
DE60236104 D1	20100325	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : BOEHRINGER INGELHEIM MICROPARTS GMBH, 44227 DORTMUND, DE OLDPARTY : STEAG MICROPARTS GMBH, 44227 DORTMUND, DE
DE60236104 D1	20110512	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
EP1453611 A2	20040908	LSPB	+	published / reissued	
EP1453611 A2	20040908	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20040617
EP1453611 A2	20050302	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : BOEHRINGER INGELHEIM MICROPARTS GMBH
EP1453611 A2	20061220	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20061121
EP1453611 A2	20140228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20131127 YEAR OF FEE PAYMENT : 12
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EP1453611 A2	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20151228 YEAR OF FEE PAYMENT : 14

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EP1453611 B1	20100421	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1453611 B1	20100421	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1453611 B1	20100430	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1453611 B1	20100526	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1453611 B1	20100615	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2341095 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1453611 B1	20100804	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20100421
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EP1453611 B1	20110228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20100421
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				INFORMATION FROM NATIONAL OFFICE TO EPO]	PAYMENT OF DUE FEES LAPSED DATE : 20101231
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EP1453611 B1	20161222	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 15
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EP1453611 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20180123 YEAR OF FEE PAYMENT : 16
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EP1453611 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181210 YEAR OF FEE PAYMENT : 17
EP1453611 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20181128 YEAR OF FEE PAYMENT : 17
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EP1453611 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20191230 YEAR OF FEE PAYMENT : 18
EP1453611 B1	20221216	PEXP		Calculated Patent Term Expiry	
ES2341095 T3	20100615	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2341095 T3	20221216	PEXP		Calculated Patent Term Expiry	
GB200130057 A0	20021113	LSAS	COOA	CHANGE IN APPLICANT'S NAME OR OWNERSHIP OF THE APPLICATION	
GB200130057 A0	20030416	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
US2003150885 AA	20030814	LSPB	+	published / reissued	
US2003150885 AA	20030401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : STEAG MICROPARTS GMBH, GERMANY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:DUNNE, STEPHEN TERENCE; REEL/FRAME:013908/0854 EFFECTIVE DATE : 20030325

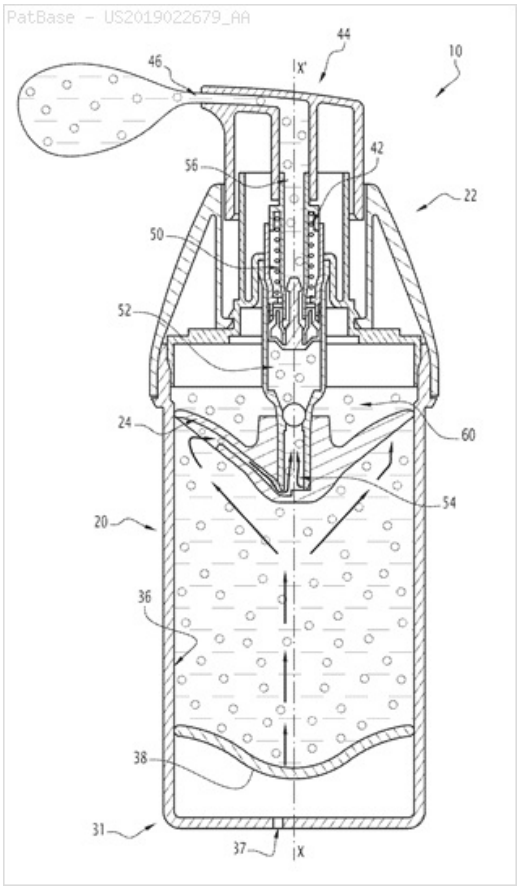
US2003150885 AA	20050405	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOEHRINGER INGELHEIM MICROPARTS GMBH, GERMANY OLDPARTY : EXTRACT FROM FEDERAL REGISTER; ASSIGNOR:STEAG MICROPARTS GMBH; REEL/FRAME:016010/0312 EFFECTIVE DATE : 20050209
US2003150885 AA	20051109	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2005098588 AA	20050512	LSPB	+	published / reissued	
US2005098588 AA	20070613	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7237697 BB	20070703	LSGT	+	granted / extensions (spc, cpc, pte)	
US7237697 BB	20050405	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOEHRINGER INGELHEIM MICROPARTS GMBH, GERMANY OLDPARTY : EXTRACT FROM FEDERAL REGISTER; ASSIGNOR:STEAG MICROPARTS GMBH; REEL/FRAME:016010/0312 EFFECTIVE DATE : 20050209
US7237697 BB	20070613	LSGT	PAT1	Patented Case	
US7237697 BB	20101230	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7237697 BB	20141224	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7237697 BB	20181221	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US7237697 BB	20250224	PEXP		Calculated Patent Term Expiry (PTA 94 days)	
WO03051522 A2	20030626	LSPB	+	published / reissued	
WO03051522 A3	20040602	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2002796645 COUNTRY OF REF DOCUMENT : EP
WO03051522 A3	20040908	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2002796645 COUNTRY OF REF DOCUMENT : EP
WO03051522 C2	20060605	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : JP
WO03051522 C2	20060605	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	TEXT : JP
WO03051523 A1	20030626	LSPB	+	published / reissued	
WO03051523 A1	20040723	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : JP

133) Family number: 66458093 (US2019022679A)

Title: DEVICE FOR PACKAGING AND **DISPENSING** A PRODUCT IN AN AIRLESS MANNER, NOTABLY IN SEVERAL PHASES, ASSOCIATED PURGE RING AND METHOD

Abstract: This device comprises: a **container** defining an inner volume intended to **contain** the product closed off by a movable bottom and opening out through a **dispensing** neck; a **dispensing** member; a purge ring comprising a base that delimits a central orifice defining a central axis of the ring, the base having an outer contour and a side surface converging from the outer contour toward a second end of the central orifice. The device is characterized in that the purge ring comprises at least one radial opening arranged radially relative to the central axis and allowing the passage of the product from the **container** toward the central orifice.

Classifications:
International (IPC 8-9): B05B11/00 B05B15/00 B05B15/30 B65D83/76 (Advanced/Invention)
CPC: B05B11/00416 B05B11/00446 B05B11/0081 B05B11/0097 B05B11/3045 B05B11/3047 B05B11/3074 B05B15/30
US: 1/1 222/129



Family:

Publication number	Publication date	Application number	Application date
CN108778525 A	20181109	CN201780018318	20170120
EP3405291 A1	20181128	EP20170700713	20170120
FR3046944 A1	20170728	FR20160050524	20160122
KR20180109948 A	20181008	KR20187024035	20170120
US2019022679 AA	20190124	US20170071794	20170120
WO17125590 A1	20170727	WO2017EP51251	20170120

Priority:
FR20160050524 20160122 WO2017EP51251 20170120

Probable Assignee: CAPSUM
Assignee(s): (std): CAPSUM
Inventor(s): (std): GOUTAYER MATHIEU ; PAFUMI YAN ERIC
Inventor(s): YAN ERIC PAFUMI ; MATHIEU GOUTAYER
Agent(s): LAVOIX; BLOT PHILIPPE ET AL
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ 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 IR IS IT JP KE KG KH KM KN KP KR KW 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 PA PE PG PH PL PT QA RO RS RU RW SA 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 ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN108778525 A	20181109	LSPB	+	published / reissued	
CN108778525 A	20181109	LSPB	PB01	PUBLICATION	
EP3405291 A1	20181128	LSPB	+	published / reissued	

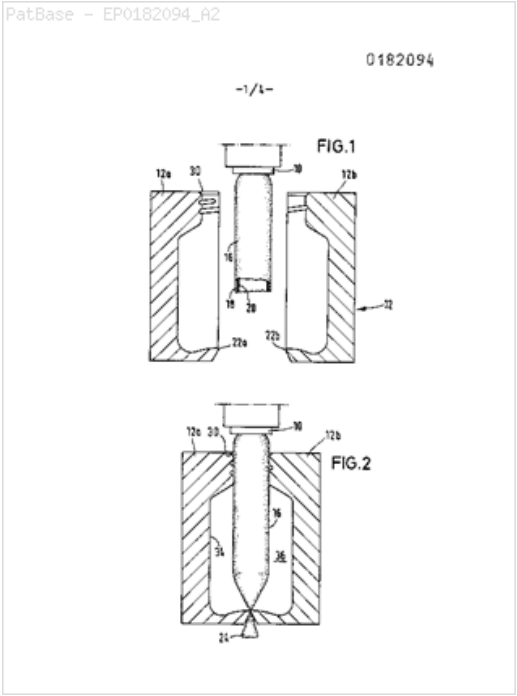
EP3405291 A1	20181128	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20180720
EP3405291 A1	20200226	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20200124
FR3046944 A1	20170728	LSPB	+	published / reissued	
FR3046944 A1	20161129	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 2
FR3046944 A1	20170728	LSES	PLSC	SEARCH REPORT READY	EFFECTIVE DATE : 20170728
FR3046944 A1	20171031	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 3
FR3046944 A1	20181214	LSFE	PLFP	Fee Payement (FEE PAYMENT)	PAYMENT DATE : 20181214 YEAR OF FEE PAYMENT : 4
FR3046944 A1	20191212	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 5
KR20180109948 A	20181008	LSPB	+	published / reissued	
US2019022679 AA	20190124	LSPB	+	published / reissued	
US2019022679 AA	20180807	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CAPSUM, FRANCE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GOUTAYER, MATHIEU; PAFUMI, YAN ERIC; REEL/FRAME:046574/0766 EFFECTIVE DATE : 20180723
US2019022679 AA	20190829	LSES	NFA1	Non Final Action Mailed	
WO17125590 A1	20170727	LSPB	+	published / reissued	
WO17125590 A1	20180724	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO17125590 A1	20180821	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20187024035 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO17125590 A1	20180822	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2017700713 COUNTRY OF REF DOCUMENT : EP
WO17125590 A1	20180824	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2017700713 COUNTRY OF REF DOCUMENT : EP EFFECTIVE DATE : 20180822

134) Family number: 3826093 (EP0182094A2)

Title: METHOD FOR MAKING A **CONTAINER** WITH A SEALABLE OPENING, AND **CONTAINER** OBTAINED THEREBY.

Abstract: 1. A process for the production of a packaging (38) which is provided with a closable opening and which is provided with an outer **container** (40) which is substantially stiff in respect of shape and within which is disposed a **container** (42) of flexible material for accommodating the filling material, wherein a preform (16) comprising two substantially coaxial tubular portions (18, 20) is firstly extruded in a co-extrusion process and the simultaneously extruded portions (18, 20) comprise different thermoplastic materials which do not become joined together and after reaching the required length in a blowing mould (12), are expanded by the application of an internal increased pressure until the outer portion (18) bears against the wall of the blowing mould (12) and the bottom (52) of the packaging (38) is formed with excess material (24) being squeezed off with the simultaneous formation of a welded seam (51) on the inner **container** (42), characterised in that the operation of squeezing off excess material (24) is effected without the simultaneous formation on the outer **container** (40) of a welded seam which would close off the outer **container** (40) so that there is a sufficiently large opening (57) in the outer **container** (40) through which the region between the outer **container** (40) and the easily deformable, bag-like inner **container** (42) is communicated with the ambient atmosphere in order for the pressure of the ambient atmosphere to act permanently on the inner **container** (42).

Classifications:
International (IPC 8-9): B05B11/00 B29C49/22 B65D83/00 (Advanced/Invention); B29C49/04 (Advanced/Non-invention); B05B11/00 B29C49/22 B65D83/00 (Core/Invention); B29C49/04 (Core/Non-invention)
International (IPC 1-7): B29C49/00 B29C49/22 B65D25/16 B65D83/00
CPC: B05B11/00412 B29C49/04 B29C49/22 B29C2793/0054 B29K2995/0046 B29L2009/001 B29L2031/7158 B65D83/0055 B65D2231/004
European: B05B11/00B5A2 B29C49/22 B65D83/00B L29C49/04 L29C793/00F L29K995/00F7 L29L31/7158 L29L9/00B L65D231/00A2



Family:

Publication number	Publication date	Application number	Application date
AT55724 E	19900915	AT19850113071T	19851015
DE3442092 A1	19860528	DE19843442092	19841117
DE3579293 D1	19900927	DE19853579293	19851015
EP0182094 A2	19860528	EP19850113071	19851015
EP0182094 A3	19871202	EP19850113071	19851015
EP0182094 B1	19900822	EP19850113071	19851015

Priority:
DE19843442092 19841117 DE19853579293 19851015 EP19850113071 19851015

Probable Assignee: KAUTEX WERKE GMBH
Assignee(s): (std): KAUTEX WERKE GMBH
Assignee(s): KAUTEX WERKE REINOLD HAGEN AG ; KAUTEX WERKE REINOLD HAGEN AG 5300 BONN DE ; KAUTEX WERKE REINOLD HAGEN AKTIENGESELLSCHAFT
Inventor(s): (std): THOMAS ALFRED
Inventor(s): THOMAS ALFRED D 5201 DAMBROICH DE
Designated states: AT BE CH DE FR GB IT LI LU NL SE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT55724 E	19900915	LSGT	+	granted / extensions (spc, cpc, pte)	
AT55724 E	20060115	LSLE	-EELA	CANCELLED DUE TO LAPSE OF TIME	
AT55724 E	20051015	PEXP		Calculated Patent Term Expiry	
DE3442092 A1	19860528	LSPB	+	published / reissued	
DE3442092 A1	19860528	LSES	+OP8	REQUEST FOR EXAMINATION AS TO PARAGRAPH 44 PATENT LAW	

DE3442092 A1	19920312	LSWD	-8130	WITHDRAWAL	
DE3579293 D1	19910919	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE3579293 D1	19980507	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	PARTYTYPE : OWNER OWNER : KAUTEX TEXTRON GMBH & CO. KG, 53229 BONN, DE
EP0182094 A2	19860528	LSPB	+	published / reissued	
EP0182094 A3	19880720	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19880519
EP0182094 A3	19891123	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19891012
EP0182094 B1	19900822	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP0182094 B1	19910814	LSGT	+26N	NO OPPOSITION FILED	
EP0182094 B1	19931031	LSFE	ITTA	IT: LAST PAID ANNUAL FEE	REF COUNTRY CODE : EP
EP0182094 B1	19931213	LSFE	+EPTA	LU: LAST PAID ANNUAL FEE	REF COUNTRY CODE : EP
EP0182094 B1	19991014	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 19991014 YEAR OF FEE PAYMENT : 15
EP0182094 B1	20001015	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20001015
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EP0182094 B1	20041022	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20041022 YEAR OF FEE PAYMENT : 20
EP0182094 B1	20041025	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20041025 YEAR OF FEE PAYMENT : 20
EP0182094 B1	20041229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20041229 YEAR OF FEE PAYMENT : 20
EP0182094 B1	20051014	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : GB

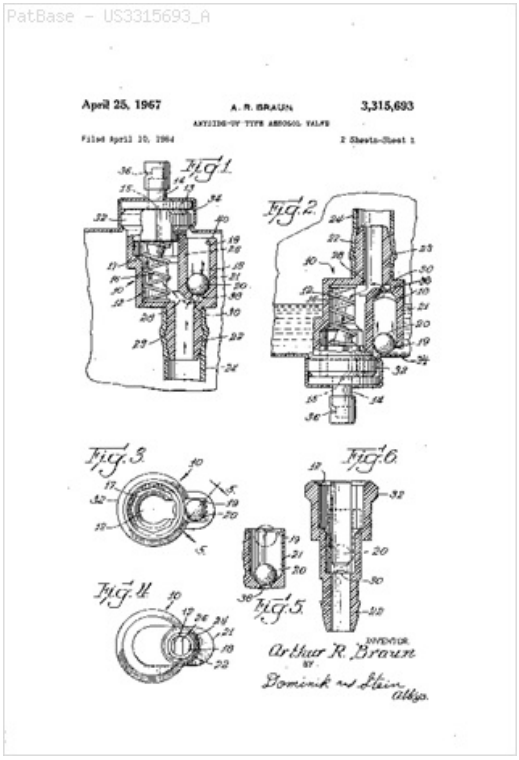
				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF EXPIRATION OF PROTECTION LAPSED DATE : 20051014
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EP0182094 B1	20051109	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20
EP0182094 B1	20051115	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0182094 B1	20051201	LSLE	-NLV7	NL: LAPSED DUE TO REACHING THE MAXIMUM LIFETIME OF A PATENT	REF COUNTRY CODE : EP EFFECTIVE DATE : 20051015
EP0182094 B1	20071231	LSLE	-BE20	BE: PATENT EXPIRED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : *KAUTEX-WERKE REINOLD HAGEN A.G. EFFECTIVE DATE : 20051015
EP0182094 B1	20051015	PEXP		Calculated Patent Term Expiry	

135) Family number: 765093 (US3315693A)

Title: ANYSIDE-UP TYPE AEROSOL VALVE

Abstract: 1,101,805. Valves. PITTSBURGH RAILWAYS CO., [trading as SEAQUIST VALVE CO 8 April, 1965 [10 April, 1964], No. 14953/65. Heading F2V. [Also in Division F1] The valve chamber 12 of a pressurized **dispensing** **container** valve, in addition to communicating with the dip-tube 24 is connected to a chamber 18 opening at the top adjacent the top of the **container**, a valve 20 closing the connection when the **container** is upright and opening when the **container** is inverted. The chamber 18 is of polygonal cross-section so that **liquid** flows past the valve 20 to the chamber 12 when the valve 14 is opened with the **container** in inverted position. In an alternative arrangement for modifying normal discharge valves, the chambers 12, 18 and dip-tube 24 comprise a unit, the chamber 12 being arranged for attachment to the dip tube connection of the normal valve.

Classifications:
International (IPC 8-9): B05B11/00 B65D83/14 F16K31/58 (Advanced/Invention); B05B11/00 B65D83/14 F16K31/44 (Core/Invention)
International (IPC 1-7): B05B1/00 B65D83/14 F16K21/04
CPC: Y10T137/0874 Y10T137/791 B65D83/36 B05B11/0059 F16K31/58
European: B05B11/00B6 B65D83/36 F16K31/58
US: 137/43 137/533.11 222/394 222/402.19 251/322 251/353 251/354 251/368



Family:

Publication number	Publication date	Application number	Application date
FR1463819 A	19660722	FR19650012725	19650409
GB1101805 A	19680131	GB19650014953	19650408
NL6504400 A	19651011	NL19650004400	19650407
US3315693 A	19670425	US19640358757	19640410

Priority:
US19640358757 19640410 FR19650012725 19650409

Probable Assignee: SEAQUIST VALVE CO
Assignee(s): (std): PITTSBURGH RAILWAYS CO ; PITTSBURGH RAILWAYS COMPANY ; SEAQUIST VALVE CO
Assignee(s): SEAQUIST VALVE COMPANY
Inventor(s): (std): BRAUN ARTHUR R

Legal status (INPADOC)

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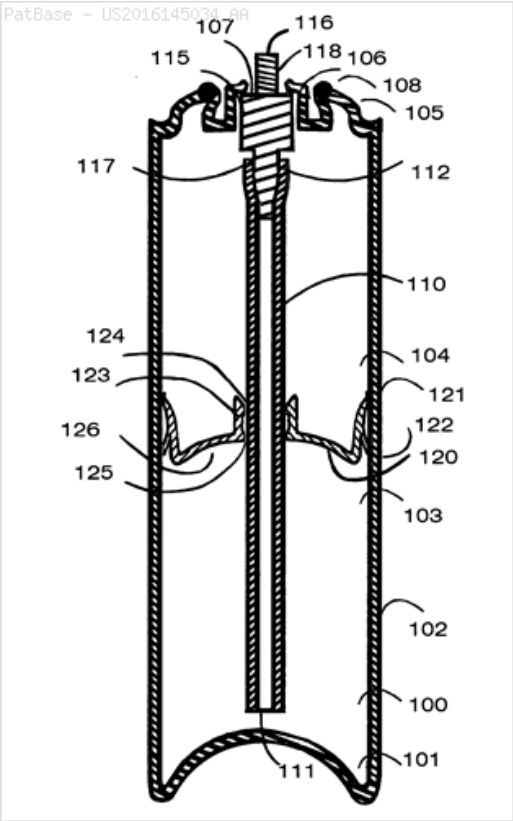
Patent	Date recorded	Event group	Code	Event	Details
FR1463819 A	19660722	LSGT	+	granted / extensions (spc, cpc, pte)	
FR1463819 A	19850409	PEXP		Calculated Patent Term Expiry	
GB1101805 A	19680131	LSGT	+	granted / extensions (spc, cpc, pte)	
GB1101805 A	19850408	PEXP		Calculated Patent Term Expiry	
NL6504400 A	19651011	LSPB	+	published / reissued	
US3315693 A	19670425	LSGT	+	granted / extensions (spc, cpc, pte)	

136) Family number: 54729094 (US2016145034A)

Title: **DISPENSER** WITH A RESERVOIR COMPRISING A DIVIDER OR A POROUS MATERIAL

Abstract: A pressurized **dispenser** includes a base and a peripheral wall having an open end sealed by a **dispensing** element comprising a dip-tube, a fluid reservoir in contact with the dip-tube for reducing the compressed gas lost from the pressurized **dispenser**, a compressed gas and a **dispensing** **liquid**. In embodiments, a majority of the fluid reservoir may be located outside of the dip-tube, and the fluid reservoir may include a porous material, arranged in use to hold a volume of the **dispensing** **liquid**. Such porous material may be configured so that, in use, at least a portion of any compressed gas in the reservoir can be displaced by the **liquid**, ejecting such portion of the compressed gas into the **dispenser**. In embodiments, the **dispensing** element may be configured to **dispense** **dispensing** **liquid** continuously for at least 0.5 seconds, upon actuation of the **dispensing** element.

Classifications:
International (IPC 8-9): B05B B05B11/00 B05B15/00 B05B15/30 B05B9/04 B65B31/00 B65D B65D83/14 B65D83/32 B65D83/36 B65D83/42 B65D83/44 B65D83/60 B65D83/64 (Advanced/Invention); B05B11/00 B65D83/42 B65D83/64 (Advanced/Non-invention)
International (IPC 1-7): B05B11/00 B05B15/00 B65D83/32 B65D83/36 B65D83/42 B65D83/64
CPC: B05B11/0048 B05B11/0051 B05B11/00416 B05B11/00418 B05B11/0059 B05B15/30 B65D83/32 B65D83/36 B65D83/42 B65D83/425 B65D83/64 B65D83/646 B65B31/003 B65D83/44 B65D83/60 B65D83/754
US: 222/189.1 53/470 53/473



Family:

Publication number	Publication date	Application number	Application date
AU2014289073 AA	20160121	AU20140289073	20140708
AU2014289073 BB	20190912	AU20140289073	20140708
BR112016000420 A2	20170725	BR20161100420	20140708
BR112016000420 A8	20200107	BR20161100420	20140708
CA2917071 AA	20151230	CA20142917071	20140708
CN105592933 A	20160518	CN201480043330	20140708
CN105592933 B	20191018	CN201480043330	20140708
CN110465421 A	20191119	CN201910878498	20140708
CO16004668 A2	20160630	CO20160004668	20160108
EP3019281 A1	20160518	EP20140753281	20140708
GB201312362 A0	20130821	GB20130012362	20130710
GB201314023 A0	20130918	GB20130014023	20130806
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GB201406951 A0	20140604	GB20140006951	20140417
GB201409751 A0	20140716	GB20140009751	20140602
IN201617000812 A	20160318	IN201617000812	20160108
JP2016529169 T2	20160923	JP20160524885T	20140708
JP2020007047 A2	20200116	JP20190152267	20190822
MX2016000305 A1	20160505	MX20160000305	20140708
MX368862 B	20191018	MX20160000305	20140708
RU2016103893 A	20170811	RU20160103893	20140708
US2016145034 AA	20160526	US20140903345	20140708
US10077150 BB	20180918	US20140903345	20140708
WO15004410 A1	20150115	WO2014GB00272	20140708
ZA201600156 A	20170426	ZA20160000156	20160108

Priority:

GB20130012362 20130710 GB20130014023 20130806 GB20140002413 20140212
GB20140006951 20140417 GB20140009751 20140602 CN201480043330 20140708
WO2014GB00272 20140708 JP20160524885T 20140708

Probable Assignee: LEAFGREEN LTD

Assignee(s): (std): PLASTIPAK BAWT S A R L ; PLASTIPAK BAWT SARL ; LAIDLER KEITH ; LEAFGREEN LTD

Assignee(s): PLASTIPAK BAWT RL SA ; APPE UK LTD ; RODD TIMOTHY ; WELLS FARGO BANK NA ADMINISTRATIVE

AGENT AS

Inventor(s): (std): KEITH LAIDLER ; TIMOTHY RODD ; LAIDLER KEITH ; RODD TIMOTHY

Agent(s): PIZZEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; GOUDREAU GAGE DUBUC; LAVERY DE BILLY LLP; JOSE ANDRES RINCON USCATEGUI; MATKOWSKA FRANCK; FISHMAN STEWART PLLC; LEAFGREEN LTD

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN 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 IR 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 PA PE PG PH PL PT QA RO RS RU RW SA 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 ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2014289073 AA	20160121	LSPB	+	published / reissued	
AU2014289073 BB	20190912	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2014289073 BB	20200116	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2014289073 BB	20340708	PEXP		Calculated Patent Term Expiry	
CA2917071 AA	20151230	LSPB	+	published / reissued	
CA2917071 AA	20190531	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20190523
CN105592933 A	20160518	LSPB	+	published / reissued	
CN105592933 A	20160518	LSPB	+C06	PUBLICATION	
CN105592933 A	20160518	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
CN105592933 B	20191018	LSGT	+	granted / extensions (spc, cpc, pte)	
CN105592933 B	20191018	LSGT	+GR01	PATENT GRANT	
CN105592933 B	20340708	PEXP		Calculated Patent Term Expiry	
CN110465421 A	20191119	LSPB	+	published / reissued	
CN110465421 A	20191119	LSPB	PB01	PUBLICATION	
CO16004668 A2	20160630	LSPB	+	published / reissued	
EP3019281 A1	20160518	LSPB	+	published / reissued	
EP3019281 A1	20160518	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20160108
EP3019281 A1	20190220	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20190117
GB201312362 A0	20150204	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB201314023 A0	20150107	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB201402413 A0	20150107	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB201406951 A0	20150114	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB201409751 A0	20150311	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
IN201617000812 A	20160318	LSPB	+	published /	

				reissued	
JP2016529169 T2	20160923	LSPB	+	published / reissued	
JP2016529169 T2	20160425	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20160112
JP2016529169 T2	20170703	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20170703
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JP2016529169 T2	20180918	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20180918
JP2016529169 T2	20190301	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20190301
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MX368862 B	20340708	PEXP		Calculated Patent Term Expiry	
RU2016103893 A	20170811	LSPB	+	published / reissued	
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US10077150 BB	20180918	LSGT	+	granted / extensions (spc, cpc, pte)	
US10077150 BB	20180829	LSGT	PAT1	Patented Case	
US10077150 BB	20340708	PEXP		Calculated Patent Term Expiry	
US2016145034 AA	20160526	LSPB	+	published / reissued	
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US2016145034 AA	20170210	LSES	NFA1	Non Final Action	

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US2016145034 AA	20171012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WELLS FARGO BANK, N.A., AS ADMINISTRATIVE AGENT, V OLDPARTY : SECURITY INTEREST; ASSIGNOR:PLASTIPAK PACKAGING, INC.; REEL/FRAME:044204/0547 EFFECTIVE DATE : 20171012
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US2016145034 AA	20180602	LSFE	-AWA4	Awaiting TC Resp., Issue Fee Not Paid	
US2016145034 AA	20180620	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016145034 AA	20180813	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : APPE UK LIMITED, UNITED KINGDOM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LEAFGREEN LIMITED; REEL/FRAME:046624/0924 EFFECTIVE DATE : 20150301
US2016145034 AA	20180813	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LEAFGREEN LIMITED, UNITED KINGDOM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RODD, TIMOTHY; LAIDLER, KEITH; REEL/FRAME:046624/0828 EFFECTIVE DATE : 20160502
US2016145034 AA	20180814	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2016145034 AA	20180829	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
WO15004410 A1	20150115	LSPB	+	published / reissued	
WO15004410 A1	20151230	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2917071 COUNTRY OF REF DOCUMENT : CA
WO15004410 A1	20160104	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2014753281 COUNTRY OF REF DOCUMENT : EP
WO15004410 A1	20160107	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 14903345 COUNTRY OF REF DOCUMENT : US
WO15004410 A1	20160108	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2016/000305 COUNTRY OF REF DOCUMENT : MX
WO15004410 A1	20160108	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 16004668 COUNTRY OF REF DOCUMENT : CO
WO15004410 A1	20160111	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO15004410 A1	20160112	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2016524885 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

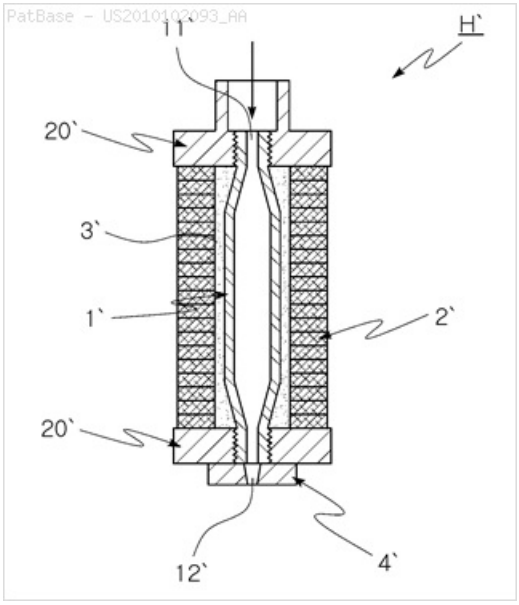
WO15004410 A1	20160121	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2014289073 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20140708 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO15004410 A1	20160210	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2016103893 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO15004410 A1	20170725	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112016000420 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20160108
ZA201600156 A	20170426	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA201600156 A	20360107	PEXP		Calculated Patent Term Expiry	

137) Family number: 44938094 (US2010102093A)

Title: HOLLOW ACTUATOR-DRIVEN DROPLET **DISPENSING** APPARATUS

Abstract: A hollow actuator-driven droplet **dispensing** apparatus may include an elastic tube having an elastic body, defining a storage space therein, and extending a predetermined length, and a hollow actuator fitted around the elastic tube so as to generate a force and a displacement in the longitudinal direction when an electric field is applied. The hollow actuator is expanded or contracted in the longitudinal direction of the elastic tube when the external voltage is applied, thereby reducing or enlarging the volume of an inner space of the elastic tube. The droplet **dispensing** apparatus can press the elastic tube to expand or contract the volume of the inner space of the tube using the hollow actuator capable of quickly generating a displacement in response to an application voltage so that a fixed amount of content can be discharged out and taken into the tube.

Classifications:
International (IPC 8-9): B01J4/02 B05B1/00 B05B1/08 B05B12/00 B05B15/00 B05B17/04 B05B3/04 B05C17/00 B05C17/005 B41J2/04 B41J2/14 B65D47/18 G01N1/00 (Advanced/Invention);
B01J4/02 B05B1/00 B05B12/00 B05B15/00 B05B17/04 B05C17/00 B05C17/005 B65D47/06 G01N1/00 (Core/Invention)
CPC: B05B1/00 B05B15/00 B05B1/086
European: B05B17/06B
US: 222/214 222/420 239/101 239/101P 239/102.1 239/102.2 239/102.200S 347/47 347/48 347/54 347/68



Family:

Publication number	Publication date	Application number	Application date
CN101722127 A	20100609	CN200910209289	20091028
CN101722127 B	20121017	CN200910209289	20091028
DE102009050782 A1	20100512	DE200910050782	20091027
JP2010104986 A2	20100513	JP20090244697	20091023
JP5254177 B2	20130807	JP20090244697	20091023
KR101093686 B1	20111215	KR20090097599	20091014
KR20100047797 A	20100510	KR20090097599	20091014
US2010102093 AA	20100429	US20090606335	20091027
US8678299 BB	20140325	US20090606335	20091027

Priority:
KR20080106557 20081029 KR20090097599 20091014

Probable Assignee: KOREA INST OF MACHINERY AND MATERIALS

Assignee(s): (std): CHOI SANG GYU ; HAM YOUNG BOG ; KOREA MACH AND MATERIALS INST ; PARK JUNG HO ; YUN SO NAM

Assignee(s): KOREA INST OF MACHINERY AND MATERIALS ; KOREA INSTITUTE OF MACHINERY AND MATERIALS

Inventor(s): (std): YOUNG BOG HAM ; JUNG HO PARK ; SO NAM YUN ; SANG GYU CHOI ; YUN SO NAM ; CHOI SANG GYU ; HAM YOUNG BOG ; PARK JUNG HO

Agent(s): REINHART BOERNER VAN DEUREN PC

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN101722127 A	20100609	LSPB	+	published / reissued	
CN101722127 A	20100609	LSPB	+C06	PUBLICATION	
CN101722127 B	20121017	LSGT	+	granted / extensions (spc, cpc, pte)	
CN101722127 B	20121017	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN101722127 B	20291028	PEXP		Calculated Patent Term Expiry	
DE102009050782 A1	20100512	LSPB	+	published / reissued	
DE102009050782 A1	20100512	LSES	+OP8	REQUEST FOR EXAMINATION AS TO PARAGRAPH 44	

				PATENT LAW	
DE102009050782 A1	20150205	LSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE102009050782 A1	20200131	LSGT	+R018	GRANT DECISION BY EXAMINATION SECTION/EXAMINING DIVISION	
JP2010104986 A2	20100513	LSPB	+	published / reissued	
JP2010104986 A2	20111130	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20111129
JP2010104986 A2	20120224	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20120223
JP2010104986 A2	20121128	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20121127
JP2010104986 A2	20130227	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130226
JP2010104986 A2	20130326	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2010104986 A2	20130403	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20130402
JP2010104986 A2	20130425	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20130417
JP2010104986 A2	20130426	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2010104986 A2	20130502	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP5254177 B2	20130807	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5254177 B2	20130404	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5254177 B2	20130423	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5254177 B2	20160407	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5254177 B2	20160419	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5254177 B2	20170330	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5254177 B2	20170411	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5254177 B2	20180329	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5254177 B2	20180403	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5254177 B2	20190328	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5254177 B2	20190402	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5254177 B2	20200330	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20200327
JP5254177 B2	20291023	PEXP		Calculated Patent Term Expiry	
KR101093686 B1	20111215	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101093686 B1	20091014	LSES	A201	REQUEST FOR	

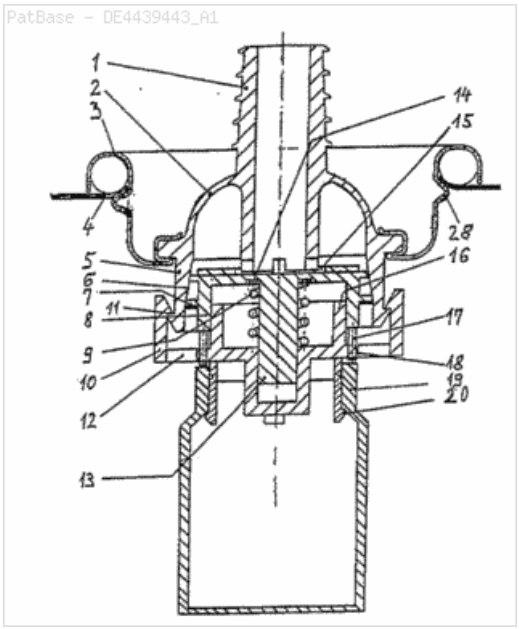
				EXAMINATION	
KR101093686 B1	20140917	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20140917 YEAR OF FEE PAYMENT : 4
KR101093686 B1	20150909	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20150909 YEAR OF FEE PAYMENT : 5
KR101093686 B1	20160907	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20160907 YEAR OF FEE PAYMENT : 6
KR101093686 B1	20170907	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20170907 YEAR OF FEE PAYMENT : 7
KR101093686 B1	20190906	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20190909 YEAR OF FEE PAYMENT : 9
KR101093686 B1	20291014	PEXP		Calculated Patent Term Expiry	
KR20100047797 A	20100510	LSPB	+	published / reissued	
KR20100047797 A	20110406	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20100047797 A	20111125	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20100047797 A	20111207	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
US2010102093 AA	20100429	LSPB	+	published / reissued	
US2010102093 AA	20140305	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8678299 BB	20140325	LSGT	+	granted / extensions (spc, cpc, pte)	
US8678299 BB	20091027	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KOREA INSTITUTE OF MACHINERY & MATERIALS,KOREA, RE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HAM, YOUNG BOG; PARK, JUNG HO; YUN, SO NAM; AND OTHERS; SIGNING DATES FROM 20091025 TO 20091026; REEL/FRAME:023428/0209
US8678299 BB	20091027	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KOREA INSTITUTE OF MACHINERY & MATERIALS, KOREA, R OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HAM, YOUNG BOG; PARK, JUNG HO; YUN, SO NAM; AND OTHERS; SIGNING DATES FROM 20091025 TO 20091026; REEL/FRAME:023428/0209
US8678299 BB	20140305	LSGT	PAT1	Patented Case	
US8678299 BB	20170914	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8678299 BB	20320108	PEXP		Calculated Patent Term Expiry (PTA 803 days)	

138) Family number: 11915095 (DE4439443A1)

Title: Economically constructed valve delivering one- or two-component fluid or foam systems

Abstract: This valve delivers fluid or foam from a pressurised vessel; esp. polyurethane foam for e.g. mounting or sealing. Valve body and stem are fastened in a circular opening of the top valve plate. Pressing the stem down against spring loading, opens a valve sealed by lips over conical surfaces. The following novel arrangement minimises the number of components: (i) the stem (1) is united with a flexible dome (2), its outer edges fastened in the valve plate opening (3); (ii) the opening penetrates to the vessel interior, the seal being formed between surfaces (6) and lips (7) on a plug (8) fastened to, or sprung against the lower end of the stem (1); and (iii) pressing the dome (2) region opens the valve. Pref. the dome (2) blends into an integral cylindrical wall section (5) within the vessel. Sealing surfaces (6) are located low inside this section (5) and have conical internal section. An alternative arrangement has the seals on the outside of this section, with a lower plug gripping round the wall. The cylindrical wall section may carry the sealing lips, with sealing surfaces on the plug (8). On the underside of the cylindrical wall section (5) is a valve plate (10) supporting a compression spring (9) which spring loads for valve closure.

Classifications:
International (IPC 8-9): B65D83/14 B65D83/16 (Advanced/Invention)
International (IPC 1-7): B05B7/12 B05C17/005 B29C67/20 B29K75/00 B65D83/44 F16K21/04
CPC: B65D83/20 B65D83/687
European: B65D83/14N2 B65D83/20



Family:

Publication number	Publication date	Application number	Application date
DE4439443 A1	19960509	DE19944439443	19941104

Priority:
DE19944439443 19941104

Probable Assignee: AMV AUTOM MONTAGE VERTRIEB FA
Assignee(s): (std): AMV AUTOM MONTAGE VERTRIEB FA
Assignee(s): AMV AUTOMATION MONTAGE VERTRIEB 91575 WINDSBACH DE
Inventor(s): (std): KELLNER KLAUS
Inventor(s): KELLNER KLAUS 91126 KAMMERSTEIN DE

Legal status (INPADOC)

View legal status timeline

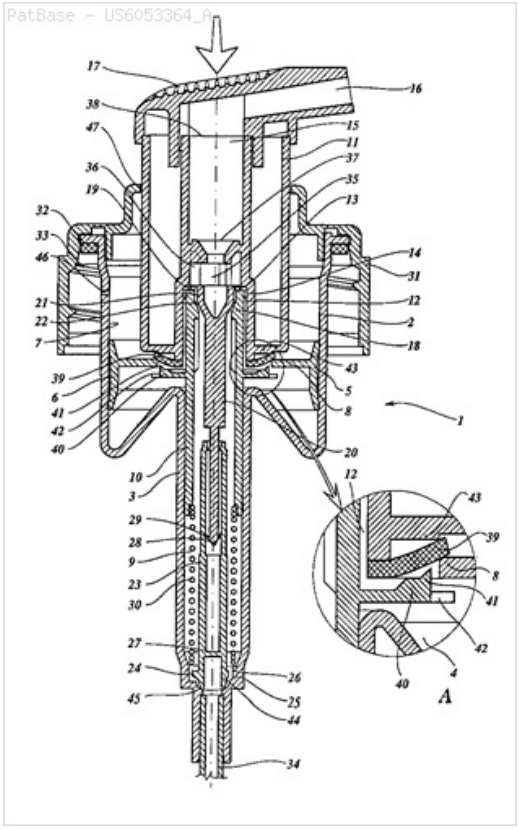
Patent	Date recorded	Event group	Code	Event	Details
DE4439443 A1	19960509	LSPB	+	published / reissued	
DE4439443 A1	20010111	LSLE	-8139	DISPOSAL/NON-PAYMENT OF THE ANNUAL FEE	

139) Family number: 8789096 (US6053364A)

Title: DEVICE FOR **DISPENSING** AN AIR-**LIQUID** MIXTURE, IN PARTICULAR FOAM, AND OPERATING UNIT INTENDED THEREFOR

Abstract: PCT No. PCT/NL96/00378 Sec. 371 Date Apr. 3, 1998 Sec. 102(e) Date Apr. 3, 1998 PCT Filed Sep. 30, 1996 PCT Pub. No. WO97/13585 PCT Pub. Date Apr. 17, 1997Device for **dispensing** an air-**liquid** mixture, such as foam, comprising a **liquid** **container** and an operating unit, which unit comprises at least a concentric air pump and **liquid** pump, which each comprise a piston chamber with a piston which is displaceable therein and a inlet and discharge, an operating component for operating the two pumps, which component is integral with the **liquid** piston and comprises an outflow channel with a **dispensing** opening, while shut-off device, which make it possible to suck up air or **liquid**, respectively, and **dispense** them, are present in the inlet and discharge of the pumps, the air pump comprising a double-acting shut-off device which can be operated actively by the operating component and shuts off both the inlet of air to the air pump and shuts off the discharge of air therefrom, and the air piston is an air piston which can be moved freely at least over a small distance with respect to the operating component.

Classifications:
International (IPC 8-9): B05B1/02 B05B11/00 B05B7/00 B65D47/34 (Advanced/Invention);
B05B1/02 B05B11/00 B05B7/00 (Advanced/Non-invention);
B05B1/02 B05B11/00 B05B7/00 B65D47/34 (Core/Invention)
International (IPC 1-7): B05B1/02 B05B11/00 B05B7/00 B67D5/00 B67D5/06
CPC: B05B7/0037 B05B11/3087
European: B05B11/00E B05B11/30L B05B7/00C1A1
US: 222/145.6 222/190 222/321.9



Family:

Publication number	Publication date	Application number	Application date
AU199671473 A1	19970430	AU19960071473	19960930
AU709501 B2	19990902	AU19960071473	19960930
BRPI9611012 A	19990713	BR1996PI11012	19960930
CA2233005 AA	19980324	CA19962233005	19960930
CA2233005 C	20051115	CA19962233005	19960930
DE69607634 D1	20000511	DE19966007634	19960930
DE69607634 T2	20000831	DE19966007634T	19960930
EP0853500 A1	19980722	EP19960932864	19960930
EP0853500 B1	20000405	EP19960932864	19960930
JP11513308 T2	19991116	JP19970514936T	19960930
JP4489188 B2	20100623	JP19970514936T	19960930
KR100428471 B1	20040731	KR19980702281	19960930
KR19990063813 A	19990726	KR19980702281	19960930
MX9802678 A1	19981129	MX19980002678	19980403
MX9802678 A1	19981130	MX19980002678	19980403
NL1001366 C2	19970408	NL19951001366	19951006
US6053364 A	20000425	US19980051305	19980403
WO9713585 A1	19970417	WO1996NL00378	19960930

Priority:
NL19951001366 19951006 WO1996NL00378 19960930

Probable Assignee: ALBEA ALKMAAR BV

Assignee(s): (std): AIRSPRAY NV ; PARK TOWERS INTERNAT B V ; AIRSPRAY N V ; PARK TOWERS INT BV ; HEIJDEN EDGAR IVO MARIA V D ; AIRSPRAY INT BV

Assignee(s): AIRSPRAY INTERNATIONAL B V ; AIRSPRAY IVOORSTRAAT NV ; IC IDEAS INC ; PARK TOWERS INT ; HEIJDEN EDGAR IVO MARIA VAN D ; ALBEA ALKMAAR BV ; VAN DER HEIJDEN EDGAR IVO MARIA ; PARK TOWERS INTERNATIONAL B V ; PARK TOWERS INTERNATIONAL B V BEVERWIJK ; REXAM AIRSPRAY NV ; REXAM AIRSPRAY BV

Inventor(s): (std): HEIJDEN EDGAR IVO MARIA VAN DE ; HEIJDEN EDGAR IVO MARI VAN D ; VAN DER HEIJDEN EDGAR IVO MARI ; HEIJDEN IVO VAN D ; VAN DER HEIJDEN IVO

Inventor(s): HEIJDEN EDGAR IVO MARIA VAN D ; EDGAR IVO MARIA VAN DER HEIJDEN ; EDGAR IVO MARIA VAN

DE HEIJDEN ; VAN DER HEIJDEN EDGAR IVO MARIA

Agent(s): LORD AND CO; RIDOUT AND MAYBEE LLP

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CN CU CZ DE DK EE ES FI FR GB GE GR HU IE IL IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MC MD MG MK MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SZ TJ TM TR TT UA UG US UZ VN

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU199671473 A1	19970430	LSPB	+	published / reissued	
AU709501 B2	19990902	LSGT	+	granted / extensions (spc, cpc, pte)	
AU709501 B2	20160930	PEXP		Calculated Patent Term Expiry	
BRPI9611012 A	19990713	LSPB	+	published / reissued	
BRPI9611012 A	20020305	LSGT	+FF	DECISION: INTENTION TO GRANT	
BRPI9611012 A	20020709	LSGT	+FG9A	PATENT OR CERTIFICATE OF ADDITION GRANTED	
BRPI9611012 A	20140401	LSLE	-B24H	LAPSE BECAUSE OF NON-PAYMENT OF ANNUAL FEES (DEFINITIVELY: ART 78 IV LPI)	
CA2233005 AA	19980324	LSPB	+	published / reissued	
CA2233005 AA	20000121	LSES	+EEER	EXAMINATION REQUEST	
CA2233005 C	20051115	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2233005 C	20121001	LSLE	-MKLA	LAPSED	
CA2233005 C	20160930	PEXP		Calculated Patent Term Expiry	
DE69607634 D1	20010426	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69607634 T2	20000831	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69607634 T2	20160930	PEXP		Calculated Patent Term Expiry	
EP0853500 A1	19980722	LSPB	+	published / reissued	
EP0853500 A1	19980722	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19980324
EP0853500 A1	19981014	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19980827
EP0853500 B1	20000405	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0853500 B1	20000414	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0853500 B1	20010321	LSGT	+26N	NO OPPOSITION FILED	
EP0853500 B1	20101029	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20100928 YEAR OF FEE PAYMENT : 15
EP0853500 B1	20101231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20100831 YEAR OF FEE PAYMENT : 15
EP0853500 B1	20110131	LSFE	+PGFP	ANNUAL FEE PAID	COUNTRY OF REF DOCUMENT :

				TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	FR PAYMENT DATE : 20101008 YEAR OF FEE PAYMENT : 15
EP0853500 B1	20110131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20100929 YEAR OF FEE PAYMENT : 15
EP0853500 B1	20110228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20100928 YEAR OF FEE PAYMENT : 15
EP0853500 B1	20110228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20100922 YEAR OF FEE PAYMENT : 15
EP0853500 B1	20110331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20100929 YEAR OF FEE PAYMENT : 15
EP0853500 B1	20120331	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : *PARK TOWERS INTERNATIONAL B.V. EFFECTIVE DATE : 20110930
EP0853500 B1	20120411	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : V1 EFFECTIVE DATE : 20120401
EP0853500 B1	20120430	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0853500 B1	20120523	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20110930
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EP0853500 B1	20120622	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20120531
EP0853500 B1	20120629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110930
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JP11513308 T2	20060704	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20060704
JP11513308 T2	20061026	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20061004
JP11513308 T2	20061219	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20061219
JP11513308 T2	20070419	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20070418
JP11513308 T2	20070523	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20070524
JP11513308 T2	20070619	LSAL	-A912	REMOVAL OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A912 EFFECTIVE DATE : 20070614
JP11513308 T2	20090224	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090223
JP11513308 T2	20090813	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090812
JP11513308 T2	20100220	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100219
JP11513308 T2	20100318	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP11513308 T2	20100408	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20100331
JP11513308 T2	20100409	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP11513308 T2	20100409	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150

JP4489188 B2	20100623	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4489188 B2	20130409	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 4
JP4489188 B2	20140409	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP4489188 B2	20160930	PEXP		Calculated Patent Term Expiry	
KR100428471 B1	20040731	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100428471 B1	20010917	LSES	A201	REQUEST FOR EXAMINATION	
KR100428471 B1	20030930	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR100428471 B1	20040309	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR100428471 B1	20040410	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR100428471 B1	20110407	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20110408 YEAR OF FEE PAYMENT : 8
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NL1001366 C2	19970408	LSGT	+	granted / extensions (spc, cpc, pte)	
NL1001366 C2	19970602	LSES	+PD2B	A SEARCH REPORT HAS BEEN DRAWN UP	
NL1001366 C2	20020701	LSLE	-VD1	LAPSED DUE TO NON-PAYMENT OF THE ANNUAL FEE	EFFECTIVE DATE : 20020501
NL1001366 C2	20151006	PEXP		Calculated Patent Term Expiry	
US6053364 A	20000425	LSGT	+	granted / extensions (spc, cpc, pte)	
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US6053364 A	20000131	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AIRSPRAY N.V.,

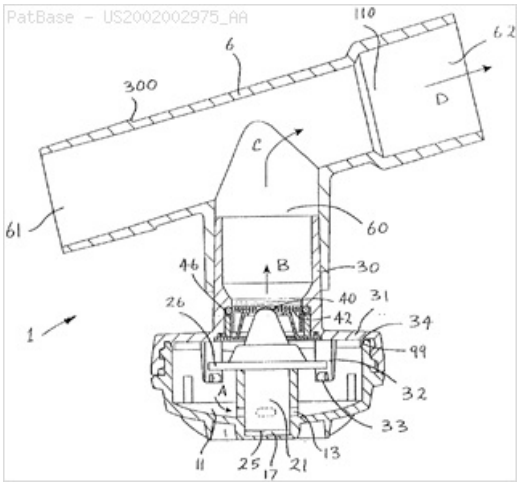
					NETHERLANDS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PARK TOWERS INTERNATIONAL B.V.; REEL/FRAME:010580/0408 EFFECTIVE DATE : 20000117
US6053364 A	20000414	LSGT	PAT1	Patented Case	
US6053364 A	20000414	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6053364 A	20030730	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6053364 A	20070316	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : REXAM AIRSPRAY N.V., NETHERLANDS OLDPARTY : CHANGE OF NAME; ASSIGNOR:AIRSPRAY N.V.; REEL/FRAME:019019/0527 EFFECTIVE DATE : 20060908
US6053364 A	20070316	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : REXAM AIRSPRAY B.V., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:REXAM AIRSPRAY N.V.; REEL/FRAME:019019/0579 EFFECTIVE DATE : 20070315
US6053364 A	20070329	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : REXAM AIRSPRAY B.V., NETHERLANDS OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE ASSIGNEE'S ADDRESS PREVIOUSLY RECORDED ON REEL 019019, FRAME 0579; ASSIGNOR:REXAM ALRSPRAY N.V.; REEL/FRAME:019084/0992 EFFECTIVE DATE : 20070315
US6053364 A	20071025	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6053364 A	20111128	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6053364 A	20150511	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ALBEA ALKMAAR B.V., NETHERLANDS OLDPARTY : CHANGE OF NAME; ASSIGNOR:REXAM AIRSPRAY B.V.; REEL/FRAME:035635/0478 EFFECTIVE DATE : 20120321
US6053364 A	20180403	PEXP		Calculated Patent Term Expiry	
WO9713585 A1	19970417	LSPB	+	published / reissued	
WO9713585 A1	19980324	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2233005 COUNTRY OF REF DOCUMENT : CA
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WO9713585 A1	19980327	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1019980702281 COUNTRY OF REF DOCUMENT : KR
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WO9713585 A1	19980722	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1996932864 COUNTRY OF REF DOCUMENT : EP
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WO9713585 A1	19990726	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019980702281 COUNTRY OF REF DOCUMENT : KR
WO9713585 A1	20000405	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1996932864 COUNTRY OF REF DOCUMENT : EP
WO9713585 A1	20040309	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019980702281 COUNTRY OF REF DOCUMENT : KR

140) Family number: 30142097 (US2002002975A)

Title: APPARATUS AND METHODS FOR THE DELIVERY OF MEDICAMENTS TO THE RESPIRATORY SYSTEM

Abstract: An apparatus for delivery of a medicament to the respiratory system comprises a reservoir that is adapted to hold a **liquid** medicament that is to be delivered to a respiratory system. An aerosol generator is provided that is adapted to aerosolize the **liquid** medicament. A **liquid** supplier is used to deliver the **liquid** medicament from the reservoir to the aerosol generator. A connector is operably coupled to the aerosol generator and comprises a gas conduit having an inlet, and an outlet, and an aerosol supply conduit. The aerosol generator is configured to provide the aerosolized **liquid** medicament into the gas conduit through the aerosol supply conduit, and the gas conduit is adapted to pass gases to entrain the aerosolized **liquid** medicament.



Classifications:

International (IPC 8-9): A61J1/06 A61K A61K31/557 A61K31/57 A61K31/7036 A61K45/00 A61K47/02 A61K47/04 A61K9/12 A61K9/72 A61M A61M11/00 A61M11/02 A61M11/06 A61M15/00 A61M16/00 A61M16/01 A61M16/08 A61M16/10 A61M16/20 A61P11/00 A61P31/04 A61P31/10 A61P31/12 A61P33/02 A62B7/00 B05B11/00 B05B17/06 B05B7/24 B05B7/26 B05B7/28 B65D1/09 B65D83/04 B65D85/42 (Advanced/Invention);
A61M16/00 A61M16/04 A61M16/06 B05B15/00 B05B17/06 B65D1/09 (Advanced/Non-invention);
A61J1/06 A61K47/02 A61K9/12 A61M11/00 A61M15/00 A61M16/00 A61M16/08 A61M16/10 B05B17/04 B05B7/24 B65D1/09 (Core/Invention);
A61M16/00 A61M16/04 A61M16/06 B05B15/00 (Core/Non-invention);
A61K A61M (Subclass/Invention)

International (IPC 1-7): A61K47/04 A61K9/12 A61M11/00 A61M11/06 A61M15/00 A61M16/00 A61M16/08 A61M16/10 A62B18/00 A62B7/00 A62B9/00 B05B17/06 B05D7/14 B05D83/06 B65B1/04 B65D1/02

CPC: Y10S206/828 Y10S215/03 A61M16/024 A61K9/0078 A61K31/7036 A61M11/00 A61M16/14 A61M16/208 A61M2016/0027 A61M2205/3561 A61M2205/3569 A61M16/049 A61P11/00 A61P31/04 A61P31/10 A61P31/12 A61P33/02 A61M16/0833 A61M11/005 A61M16/0858 A61M16/1065 A61M16/20 A61M16/201 A61J2205/10 A61J2205/60 A61M15/00 A61M15/0033 A61M16/04 A61M16/06 A61M16/08 A61M2016/0021 A61M2016/0024 A61M2205/52 A61M2205/6072 A61M2205/8206 A61M2205/8262 A61M2209/082 B05B17/0646 A61J1/065 A61M15/0028 A61M15/0031 A61M15/0085 A61M15/009 A61M2205/6045 A61M2205/6054 B05B17/0607 B65D1/095 B65D2203/00

European: A61J1/06C A61K31/7036 A61M11/00F A61M15/00 A61M15/00C A61M15/00F A61M15/00P A61M16/08 A61M16/20 B05B17/06B5F B65D1/09D K61J205/10 K61J205/60 K61K9/00M20B K61K9/00M20B5 K61M11/00 K61M15/00C1B K61M15/00C1P K61M15/00F K61M16/00 K61M16/00A10 K61M16/00A11 K61M16/00A12 K61M16/00A8B2 K61M16/00A8B4 K61M16/04 K61M16/06 K61M16/10F2A K61M205/35R2 K61M205/35R3 K61M205/52 K61M205/60H K61M205/60M K61M205/60P2 K61M205/82B K61M205/82E K61M209/08A L05B17/06B L65D203/00

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Publication number	Publication date	Application number	Application date
AT376851 E	20071115	AT20010928171T	20010504
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CA2441493 C	20100713	CA20022441493	20020319
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Priority:

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WO2002US08379 20020319	WO2002US08380 20020319	US20020380655P 20020514
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US20020284068 20021030	US20020349763P 20021115	US20030439045P 20030108
EP20030702161 20030115	JP20030559583 20030115	JP20100182645 20030115
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WO2006US10278 20060322	US20070654212 20070116	US20070928214 20071030
US20070963345 20071221	US20080018716 20080123	CA20092409722 20090311
US20090583256 20090817		

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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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT376851 E	20071115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT376851 E	20080415	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	REF DOCUMENT NUMBER : 1278569 COUNTRY OF REF DOCUMENT : EP
AT376851 E	20210504	PEXP		Calculated Patent Term Expiry	
AU200155033 A1	20011120	LSPB	+	published / reissued	
AU2002255815 AA	20021003	LSPB	+	published / reissued	
AU2002258556 AA	20021003	LSPB	+	published / reissued	
AU2003203043 AA	20030730	LSPB	+	published / reissued	
AU2003203043 AA	20040930	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
AU2003235678 AA	20030730	LSPB	+	published / reissued	
AU2003235678 AA	20040930	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
AU2006227168 AA	20060928	LSPB	+	published / reissued	
AU2006227168 AA	20071122	LSRE	DA3	AMENDMENTS MADE SECTION 104	TEXT : THE NATURE OF THE AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 10 OCT 2007
AU2006227168 AA	20090723	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	PARTYTYPE : OWNER OWNER : NOVARTIS AG OLDPARTY : FORMER APPLICANT(S): AEROGEN, INC.

AU2006227168 BB	20120426	LSGT	+	granted / extensions (spc, cpc, pte)
AU2006227168 BB	20120823	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)
AU2006227168 BB	20260322	PEXP		Calculated Patent Term Expiry
AU782735 B2	20050825	LSGT	+	granted / extensions (spc, cpc, pte)
AU782735 B2	20020418	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE
AU782735 B2	20210504	PEXP		Calculated Patent Term Expiry
BRPI0609725 A2	20180619	LSES	B07D	TECHNICAL EXAMINATION (OPINION) RELATED TO ARTICLE 229 OF INDUSTRIAL PROPERTY LAW
CA2409722 AA	20011115	LSPB	+	published / reissued
CA2409722 AA	20060330	LSES	+EEER	EXAMINATION REQUEST
CA2409722 C	20090303	LSGT	+	granted / extensions (spc, cpc, pte)
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CA2441493 AA	20070223	LSES	+EEER	EXAMINATION REQUEST
CA2441493 C	20100713	LSGT	+	granted / extensions (spc, cpc, pte)
CA2441493 C	20220319	PEXP		Calculated Patent Term Expiry
CA2441587 AA	20030919	LSPB	+	published / reissued
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CA2441587 C	20100727	LSGT	+	granted / extensions (spc, cpc, pte)
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CA2599018 AA	20110225	LSES	+EEER	EXAMINATION REQUEST
CA2599018 C	20140513	LSGT	+	granted / extensions (spc, cpc, pte)
CA2599018 C	20260322	PEXP		Calculated Patent Term Expiry
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CA2653847 AA	20090130	LSES	+EEER	EXAMINATION REQUEST
CA2653847 C	20130813	LSGT	+	granted / extensions (spc, cpc, pte)
CA2653847 C	20210504	PEXP		Calculated Patent Term Expiry
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CN101146517 A	20080319	LSPB	+C06	PUBLICATION
CN101146517 B	20130904	LSGT	+	granted / extensions (spc, cpc, pte)
CN101146517 B	20130904	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL
CN101146517 B	20260322	PEXP		Calculated Patent Term Expiry
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DE60131156 D1	20081120	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION
DE60131156 T2	20080807	LSGT	+	granted / extensions (spc, cpc, pte)

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DE60131156 T2	20210504	PEXP		Calculated Patent Term Expiry	
DE60348390 D1	20160111	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OLDPARTY : AEROGEN, INC., MOUNTAIN VIEW, CALIF., US
EP1278569 A1	20030129	LSPB	+	published / reissued	
EP1278569 A1	20030129	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20021107
EP1278569 A1	20041222	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20041109
EP1278569 A1	20061025	LSRE	RTI1	TITLE (CORRECTION)	TEXT : APPARATUS FOR THE DELIVERY OF MEDICAMENTS TO THE RESPIRATORY SYSTEM
EP1278569 A1	20150731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20150428 YEAR OF FEE PAYMENT : 15
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EP1278569 A1	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160524 YEAR OF FEE PAYMENT : 16
EP1278569 A1	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160412 YEAR OF FEE PAYMENT : 16
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EP1278569 A1	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20160425 YEAR OF FEE PAYMENT : 16
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EP1278569 B1	20071128	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D

EP1278569 B1	20071130	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
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EP1278569 B1	20080401	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	REF COUNTRY CODE : EP
EP1278569 B1	20080416	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2295154 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1278569 B1	20080430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20071031
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EP1278569 B1	20081008	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20080801
EP1278569 B1	20081231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20080531
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EP1278569 B1	20160412	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 16

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EP1278569 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170427 YEAR OF FEE PAYMENT : 17
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EP1278569 B1	20180501	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 18
EP1278569 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20180601 YEAR OF FEE PAYMENT : 18
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EP1278569 B1	20210504	PEXP		Calculated Patent Term Expiry	
EP1370316 A1	20031217	LSPB	+	published / reissued	
EP1370316 A1	20031217	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20031013
EP1370316 A4	20060823	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20060726
EP1370316 A4	20071114	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20071012
EP1370316 A4	20090624	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : NOVARTIS AG
EP1370316 A4	20180620	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20180522
EP1370316 B1	20190227	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1370316 B1	20190227	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1370316 B1	20190228	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1370316 B1	20190314	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 60249801 COUNTRY OF REF DOCUMENT : DE
EP1370316 B1	20190315	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1100435 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190315
EP1370316 B1	20190320	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1370316 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP1370316 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP1370316 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190627
EP1370316 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

					PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP1370316 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190510 YEAR OF FEE PAYMENT : 18
EP1370316 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190528
EP1370316 B1	20190915	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 1100435 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190227
EP1370316 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP1370316 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP1370316 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP1370316 B1	20191031	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1370316 B1	20191128	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 60249801 COUNTRY OF REF DOCUMENT : DE
EP1370316 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190319
EP1370316 B1	20191231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP1370316 B1	20191231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190227
EP1370316 B1	20200129	LSLE	-GBPC	GB: EUROPEAN	REF COUNTRY CODE : EP

				PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 20190527
EP1370316 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190331
EP1370316 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190319
EP1370316 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190331
EP1370316 B1	20200205	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20191128
EP1370316 B1	20200228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190427
EP1370316 B1	20200228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20190331
EP1370316 B1	20220319	PEXP		Calculated Patent Term Expiry	
EP1370317 A1	20031217	LSPB	+	published / reissued	
EP1370317 A1	20031217	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20031013
EP1370317 A4	20060913	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20060811
EP1370317 A4	20090624	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : NOVARTIS AG
EP1370317 A4	20101222	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20101118
EP1370317 A4	20160207	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R003
EP1370317 A4	20160615	LSRV	-18R	APPLICATION REFUSED	EFFECTIVE DATE : 20160207
EP1474196 A1	20041110	LSPB	+	published / reissued	
EP1474196 A1	20041110	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20040813
EP1474196 A4	20070425	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20070326
EP1474196 A4	20090624	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : NOVARTIS AG
EP1474196 A4	20101215	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20101110
EP1474196 A4	20160316	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160218
EP1474196 A4	20160706	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160610
EP1474196 B1	20160817	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1474196 B1	20160817	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1474196 B1	20160831	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP

EP1474196 B1	20160907	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1474196 B1	20160915	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 820456 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160915
EP1474196 B1	20160929	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 60349276 COUNTRY OF REF DOCUMENT : DE
EP1474196 B1	20161229	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 15
EP1474196 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP1474196 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP1474196 B1	20170223	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2603067 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20170223
EP1474196 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161118
EP1474196 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP1474196 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161219
EP1474196 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161229 YEAR OF FEE PAYMENT : 15
EP1474196 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20161229

				NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 15
EP1474196 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP1474196 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170110 YEAR OF FEE PAYMENT : 15
EP1474196 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20170112 YEAR OF FEE PAYMENT : 15
EP1474196 B1	20170518	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 60349276 COUNTRY OF REF DOCUMENT : DE
EP1474196 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP1474196 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP1474196 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161117
EP1474196 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP1474196 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP1474196 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170111 YEAR OF FEE PAYMENT : 15
EP1474196 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20170109 YEAR OF FEE PAYMENT : 15
EP1474196 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20161223 YEAR OF FEE PAYMENT : 15
EP1474196 B1	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO	COUNTRY OF REF DOCUMENT :

				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	IT PAYMENT DATE : 20170123 YEAR OF FEE PAYMENT : 15
EP1474196 B1	20170726	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170518
EP1474196 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP1474196 B1	20170929	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160817
EP1474196 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170115
EP1474196 B1	20171221	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 16
EP1474196 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171221 YEAR OF FEE PAYMENT : 16
EP1474196 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20180115 YEAR OF FEE PAYMENT : 16
EP1474196 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180110 YEAR OF FEE PAYMENT : 16
EP1474196 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20180201 YEAR OF FEE PAYMENT : 16
EP1474196 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180103 YEAR OF FEE PAYMENT : 16
EP1474196 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20180110 YEAR OF FEE PAYMENT : 16
EP1474196 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180122 YEAR OF FEE PAYMENT : 16
EP1474196 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20171228 YEAR OF FEE PAYMENT : 16
EP1474196 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181227 YEAR OF FEE PAYMENT : 17
EP1474196 B1	20190415	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : UEP REF DOCUMENT NUMBER : 820456 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160817

EP1474196 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190109 YEAR OF FEE PAYMENT : 17
EP1474196 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20190109 YEAR OF FEE PAYMENT : 17
EP1474196 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190102 YEAR OF FEE PAYMENT : 17
EP1474196 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190121 YEAR OF FEE PAYMENT : 17
EP1474196 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190201 YEAR OF FEE PAYMENT : 17
EP1474196 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20190115 YEAR OF FEE PAYMENT : 17
EP1474196 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20181221 YEAR OF FEE PAYMENT : 17
EP1474196 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20030115
EP1474196 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160817
EP1474196 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20191230 YEAR OF FEE PAYMENT : 18
EP1474196 B1	20230115	PEXP		Calculated Patent Term Expiry	
EP1474198 A1	20041110	LSPB	+	published / reissued	
EP1474198 A1	20041110	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20040813
EP1474198 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20160126 YEAR OF FEE PAYMENT : 14
EP1474198 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160119 YEAR OF FEE PAYMENT : 14
EP1474198 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160315 YEAR OF FEE PAYMENT : 14
EP1474198 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160203 YEAR OF FEE PAYMENT : 14
EP1474198 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20160204 YEAR OF FEE PAYMENT : 14
EP1474198 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160113

				NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 14
EP1474198 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160125 YEAR OF FEE PAYMENT : 14
EP1474198 A4	20070509	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20070412
EP1474198 A4	20090624	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : NOVARTIS AG
EP1474198 A4	20101215	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20101110
EP1474198 A4	20150902	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150806
EP1474198 B1	20151230	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1474198 B1	20151230	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1474198 B1	20151231	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1474198 B1	20160115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 767173 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160115
EP1474198 B1	20160125	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 14
EP1474198 B1	20160127	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1474198 B1	20160218	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 60348390 COUNTRY OF REF DOCUMENT : DE
EP1474198 B1	20160307	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2562682 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20160307
EP1474198 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP1474198 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160331
EP1474198 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

					LAPSED DATE : 20151230
EP1474198 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160131
EP1474198 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP1474198 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP1474198 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160115
EP1474198 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160502
EP1474198 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP1474198 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP1474198 B1	20160930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP1474198 B1	20161003	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 60348390 COUNTRY OF REF DOCUMENT : DE
EP1474198 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP1474198 B1	20161102	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A

EP1474198 B1	20161207	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20161003
EP1474198 B1	20161229	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 15
EP1474198 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP1474198 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160115
EP1474198 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP1474198 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20161229 YEAR OF FEE PAYMENT : 15
EP1474198 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161229 YEAR OF FEE PAYMENT : 15
EP1474198 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20170112 YEAR OF FEE PAYMENT : 15
EP1474198 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170110 YEAR OF FEE PAYMENT : 15
EP1474198 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170111 YEAR OF FEE PAYMENT : 15
EP1474198 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20161223 YEAR OF FEE PAYMENT : 15
EP1474198 B1	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170123 YEAR OF FEE PAYMENT : 15
EP1474198 B1	20171221	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 16
EP1474198 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171221 YEAR OF FEE PAYMENT : 16
EP1474198 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180110 YEAR OF FEE PAYMENT : 16
EP1474198 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20180201 YEAR OF FEE PAYMENT : 16
EP1474198 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE

				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	PAYMENT DATE : 20180103 YEAR OF FEE PAYMENT : 16
EP1474198 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20180115 YEAR OF FEE PAYMENT : 16
EP1474198 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20030115
EP1474198 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP1474198 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20171228 YEAR OF FEE PAYMENT : 16
EP1474198 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180122 YEAR OF FEE PAYMENT : 16
EP1474198 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP1474198 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151230
EP1474198 B1	20181115	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : UEP REF DOCUMENT NUMBER : 767173 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20151230
EP1474198 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181227 YEAR OF FEE PAYMENT : 17
EP1474198 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190102 YEAR OF FEE PAYMENT : 17
EP1474198 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20190115 YEAR OF FEE PAYMENT : 17
EP1474198 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190201 YEAR OF FEE PAYMENT : 17
EP1474198 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190109 YEAR OF FEE PAYMENT : 17

EP1474198 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190121 YEAR OF FEE PAYMENT : 17
EP1474198 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20181221 YEAR OF FEE PAYMENT : 17
EP1474198 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20191230 YEAR OF FEE PAYMENT : 18
EP1474198 B1	20230115	PEXP		Calculated Patent Term Expiry	
EP1868570 A2	20071226	LSPB	+	published / reissued	
EP1868570 A2	20071226	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20071019
EP1868570 A2	20110622	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20110518
EP1868570 A2	20170426	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20170331
EP1868570 B1	20170920	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1868570 B1	20170920	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1868570 B1	20170929	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1868570 B1	20171015	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 929610 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20171015
EP1868570 B1	20171018	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1868570 B1	20171026	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602006053660 COUNTRY OF REF DOCUMENT : DE
EP1868570 B1	20171115	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2642041 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20171115
EP1868570 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP1868570 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP1868570 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

					PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP1868570 B1	20180212	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP1868570 B1	20180227	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 13
EP1868570 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171220
EP1868570 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171221
EP1868570 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP1868570 B1	20180330	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP1868570 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP1868570 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP1868570 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP1868570 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180306 YEAR OF FEE PAYMENT : 13
EP1868570 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180321 YEAR OF FEE PAYMENT : 13
EP1868570 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20180314 YEAR OF FEE PAYMENT : 13

EP1868570 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180120
EP1868570 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP1868570 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP1868570 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20180226 YEAR OF FEE PAYMENT : 13
EP1868570 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180227 YEAR OF FEE PAYMENT : 13
EP1868570 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180321 YEAR OF FEE PAYMENT : 13
EP1868570 B1	20180621	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602006053660 COUNTRY OF REF DOCUMENT : DE
EP1868570 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP1868570 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20180402 YEAR OF FEE PAYMENT : 13
EP1868570 B1	20180829	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20180621
EP1868570 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP1868570 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP1868570 B1	20181226	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1868570 B1	20181231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF

				INFORMATION FROM NATIONAL OFFICE TO EPO]	DUE FEES LAPSED DATE : 20180322
EP1868570 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180322
EP1868570 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20180331
EP1868570 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190326 YEAR OF FEE PAYMENT : 14
EP1868570 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190312 YEAR OF FEE PAYMENT : 14
EP1868570 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190305 YEAR OF FEE PAYMENT : 14
EP1868570 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20190314 YEAR OF FEE PAYMENT : 14
EP1868570 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190320 YEAR OF FEE PAYMENT : 14
EP1868570 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20190226 YEAR OF FEE PAYMENT : 14
EP1868570 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190401 YEAR OF FEE PAYMENT : 14
EP1868570 B1	20260322	PEXP		Calculated Patent Term Expiry	
ES2295154 T3	20080416	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2295154 T3	20210504	PEXP		Calculated Patent Term Expiry	
ES2562682 T3	20160307	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2562682 T3	20230115	PEXP		Calculated Patent Term Expiry	
ES2603067 T3	20170223	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2603067 T3	20230115	PEXP		Calculated Patent Term Expiry	
ES2642041 T3	20171115	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2642041 T3	20260322	PEXP		Calculated Patent Term Expiry	
HK1117732 A1	20090123	LSPB	+	published / reissued	
HK1117732 A3	20090123	LSPB	+	published / reissued	
IL186162 A0	20160929	LSGT	+FF	PATENT GRANTED	
IL186162 A0	20160929	LSFE	+KB	PATENT RENEWED	
IL186162 A1	20160531	LSPB	+	published / reissued	
IL186162 A1	20160929	LSGT	+FF	PATENT GRANTED	
IL186162 A1	20160929	LSFE	+KB	PATENT RENEWED	
IN07970DN2007 A	20080704	LSPB	+	published / reissued	
IN292554 B	20180209	LSGT	+	granted / extensions (spc, cpc, pte)	
IN292554 B	20271016	PEXP		Calculated Patent	

				Term Expiry	
JP2003532502 T2	20031105	LSPB	+	published / reissued	
JP2003532502 T2	20080223	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20080222
JP2003532502 T2	20080530	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20080430
JP2003532502 T2	20100818	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20100817
JP2003532502 T2	20110114	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110113
JP2003532502 T2	20110118	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110117
JP2003532502 T2	20110218	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110217
JP2003532502 T2	20110728	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2003532502 T2	20110823	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20110823
JP2003532502 T2	20110929	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20110922
JP2003532502 T2	20111208	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20111205
JP2003532502 T2	20120113	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2003532502 T2	20120113	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 4899015 COUNTRY OF REF DOCUMENT : JP
JP2003532502 T2	20120120	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2005514990 T2	20050526	LSPB	+	published / reissued	
JP2005514990 T2	20060113	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20060112
JP2005514990 T2	20060113	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20060112
JP2005514990 T2	20090116	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20090115
JP2005514990 T2	20090422	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090421
JP2005514990 T2	20090930	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20090929
JP2005514990 T2	20100130	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100129
JP2005514990 T2	20100323	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20100319

JP2005514990 T2	20100818	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100817
JP2005514990 T2	20101222	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2005514990 T2	20101228	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20101227
JP2005514990 T2	20110106	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP2005514990 T2	20110120	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20110114
JP2005514990 T2	20110121	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2005514990 T2	20110121	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2005514990 T2	20110121	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 4669224 COUNTRY OF REF DOCUMENT : JP
JP2005514991 T2	20050526	LSPB	+	published / reissued	
JP2005514991 T2	20060114	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20060113
JP2005514991 T2	20060114	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20060113
JP2005514991 T2	20090113	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20090109
JP2005514991 T2	20090523	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090522
JP2005514991 T2	20090613	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20090522
JP2005514991 T2	20090821	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20090820
JP2005514991 T2	20091120	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20091119
JP2005514991 T2	20100528	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20100527
JP2005514991 T2	20100923	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100922
JP2005514991 T2	20110128	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110127
JP2005514991 T2	20110215	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110214
JP2005514991 T2	20110602	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2005514991 T2	20110607	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20110606

				(UTILITY MODEL)	
JP2005514991 T2	20110609	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP2005514991 T2	20110616	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20110607
JP2005514991 T2	20110617	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2005514991 T2	20110617	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2006150093 A2	20060615	LSPB	+	published / reissued	
JP2006150093 A2	20090115	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20090114
JP2006150093 A2	20090523	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090522
JP2006150093 A2	20090613	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20090522
JP2006150093 A2	20090917	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20090916
JP2008536546 T2	20080911	LSPB	+	published / reissued	
JP2008536546 T2	20090116	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20090115
JP2008536546 T2	20090403	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090402
JP2008536546 T2	20110627	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110624
JP2008536546 T2	20111117	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20111116
JP2008536546 T2	20120521	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2008536546 T2	20120524	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20120523
JP2008536546 T2	20120531	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP2008536546 T2	20120607	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120524
JP2008536546 T2	20120608	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2008536546 T2	20120611	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2010279733 A2	20101216	LSPB	+	published / reissued	
JP2010279733 A2	20120702	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20120629
JP2010279733 A2	20121228	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20121227

JP2010279733 A2	20130704	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20130703
JP2010279733 A2	20131227	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20131209
JP2013099544 A2	20130523	LSPB	+	published / reissued	
JP2013099544 A2	20131016	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20131015
JP2013099544 A2	20140116	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20140115
JP2013099544 A2	20140210	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20140207
JP2013099544 A2	20140606	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20140605
JP2013099544 A2	20140701	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20140630
JP4669224 B2	20110413	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4669224 B2	20110118	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4669224 B2	20140109	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4669224 B2	20140114	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4669224 B2	20150108	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4669224 B2	20150113	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4669224 B2	20160104	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4669224 B2	20160112	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4669224 B2	20170105	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4669224 B2	20170110	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4669224 B2	20180104	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4669224 B2	20180116	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4669224 B2	20181227	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4669224 B2	20190108	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4669224 B2	20191226	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20191224
JP4669224 B2	20200107	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4669224 B2	20230115	PEXP		Calculated Patent Term Expiry	
JP4761709 B2	20110831	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4761709 B2	20110614	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4761709 B2	20140529	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4761709 B2	20140603	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250

JP4761709 B2	20150528	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4761709 B2	20150602	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4761709 B2	20160602	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4761709 B2	20160607	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4761709 B2	20170601	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4761709 B2	20170606	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4761709 B2	20180531	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4761709 B2	20180605	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4761709 B2	20190530	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4761709 B2	20190604	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4761709 B2	20230115	PEXP		Calculated Patent Term Expiry	
JP4899015 B2	20120321	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4899015 B2	20110825	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP4899015 B2	20110927	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4899015 B2	20111107	LSRV	R160	却下理由通知書 (設定) (Rejection reason notice (setting))	
JP4899015 B2	20111206	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4899015 B2	20120113	LSGT	+R150	特許証 (Patent certificate)	
JP4899015 B2	20120120	LSES	R170	手続却下の処分 (設定) (Disposition of procedure rejection (setting))	
JP4899015 B2	20150108	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4899015 B2	20150113	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4899015 B2	20160104	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4899015 B2	20160112	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4899015 B2	20170105	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4899015 B2	20170110	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4899015 B2	20180104	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4899015 B2	20180116	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4899015 B2	20181227	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4899015 B2	20190108	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4899015 B2	20191226	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20191224
JP4899015 B2	20200107	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4899015 B2	20210504	PEXP		Calculated Patent Term Expiry	
JP5008093 B2	20120822	LSGT	+	granted / extensions (spc, cpc, pte)	

JP5008093 B2	20120605	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5008093 B2	20150528	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5008093 B2	20150602	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5008093 B2	20160602	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5008093 B2	20160607	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5008093 B2	20170601	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5008093 B2	20170606	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5008093 B2	20180531	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5008093 B2	20180605	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5008093 B2	20190530	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5008093 B2	20190604	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5008093 B2	20260322	PEXP		Calculated Patent Term Expiry	
KR101301163 B1	20130903	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101301163 B1	20071114	LSRE	AMND	AMENDMENT	
KR101301163 B1	20160720	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20160720 YEAR OF FEE PAYMENT : 4
KR101301163 B1	20170804	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20170804 YEAR OF FEE PAYMENT : 5
KR101301163 B1	20180730	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20180730 YEAR OF FEE PAYMENT : 6
KR101301163 B1	20190729	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20190729 YEAR OF FEE PAYMENT : 7
KR101301163 B1	20260322	PEXP		Calculated Patent Term Expiry	
KR20070113257 A	20071128	LSPB	+	published / reissued	
KR20070113257 A	20090807	LSAS	N231	NOTIFICATION OF CHANGE OF APPLICANT	
KR20070113257 A	20110322	LSES	A201	REQUEST FOR EXAMINATION	
KR20070113257 A	20110322	LSRE	AMND	AMENDMENT	
KR20070113257 A	20120808	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20070113257 A	20121008	LSRE	AMND	AMENDMENT	
KR20070113257 A	20130225	LSRV	-E601	DECISION TO REFUSE APPLICATION	
KR20070113257 A	20130527	LSRE	AMND	AMENDMENT	
KR20070113257 A	20130709	LSGT	+B701	DECISION TO GRANT	
KR20070113257 A	20130822	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
MX2007011786 A1	20071107	LSPB	+	published / reissued	
MX2007011786 A1	20120409	LSGT	+FG	GRANT OR REGISTRATION	
MXPA02010884 A1	20030327	LSPB	+	published / reissued	
MXPA02010884 A1	20060908	LSGT	+FG	GRANT OR REGISTRATION	
NZ561943 A	20100730	LSPB	+	published / reissued	
NZ561943 A	20101126	LSGT	+PSEA	PATENT SEALED	

NZ561943 A	20101126	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ561943 A	20130222	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 3 YEARS UNTIL 22 MAR 2016 BY CPA GLOBAL EFFECTIVE DATE : 20130211
NZ561943 A	20160226	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 22 MAR 2017 BY CPA GLOBAL EFFECTIVE DATE : 20160205
NZ561943 A	20170224	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 22 MAR 2018 BY CPA GLOBAL EFFECTIVE DATE : 20170217
NZ561943 A	20180223	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 22 MAR 2019 BY CPA GLOBAL EFFECTIVE DATE : 20180222
NZ561943 A	20190222	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 22 MAR 2020 BY CPA GLOBAL EFFECTIVE DATE : 20190221
NZ595112 A	20130328	LSPB	+	published / reissued	
NZ595112 A	20130628	LSAS	ASS	CHANGE OF OWNERSHIP	PARTYTYPE : OWNER OWNER : NEKTAR THERAPEUTICS, US EFFECTIVE DATE : 20130620
NZ595112 A	20130726	LSGT	+PSEA	PATENT SEALED	
NZ595112 A	20131129	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 6 YEARS UNTIL 22 MAR 2016 BY AJ PARK EFFECTIVE DATE : 20131030
NZ595112 A	20160226	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 22 MAR 2017 BY THOMSON REUTERS EFFECTIVE DATE : 20160217
NZ595112 A	20170224	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 22 MAR 2018 BY THOMSON REUTERS EFFECTIVE DATE : 20170221
NZ595112 A	20180223	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 22 MAR 2019 BY THOMSON REUTERS EFFECTIVE DATE : 20180217
NZ595112 A	20190927	LSLE	-LAPS	PATENT LAPSED	
PT1278569 T	20080225	LSGT	+	granted / extensions (spc, cpc, pte)	
PT1278569 T	20210504	PEXP		Calculated Patent Term Expiry	
US2002002975 AA	20020110	LSPB	+	published / reissued	
US2002002975 AA	20030821	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2002134372 AA	20020926	LSPB	+	published / reissued	
US2002134372 AA	20030919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SF CAPITAL PARTNERS, LTD., WISCONSIN OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:014491/0108 EFFECTIVE DATE : 20030908
US2002134372 AA	20050907	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2002134374 AA	20020926	LSPB	+	published / reissued	
US2002134374 AA	20030808	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2002134374 AA	20030919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SF CAPITAL PARTNERS, LTD., WISCONSIN OLDPARTY : SECURITY AGREEMENT;

					ASSIGNOR:AEROGEN, INC.; REEL/FRAME:014491/0108 EFFECTIVE DATE : 20030908
US2002134374 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2002134374 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2002134375 AA	20020926	LSPB	+	published / reissued	
US2002134375 AA	20030825	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2002134375 AA	20030919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SF CAPITAL PARTNERS, LTD., WISCONSIN OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:014491/0108 EFFECTIVE DATE : 20030908
US2002134375 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2002134375 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2002134377 AA	20020926	LSPB	+	published / reissued	
US2002134377 AA	20030919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SF CAPITAL PARTNERS, LTD., WISCONSIN OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:014491/0108 EFFECTIVE DATE : 20030908
US2002134377 AA	20060816	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2003136400 AA	20030724	LSPB	+	published / reissued	
US2003136400 AA	20030919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SF CAPITAL PARTNERS, LTD., WISCONSIN OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:014491/0108 EFFECTIVE DATE : 20030908
US2003136400 AA	20031008	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : CORRECTING PREVIOUSLY SUBMITTED RECORDATION FORM COVER SHEET, CORRECTING NAME OF SECOND INVENTOR; ASSIGNORS:KLIMOWICZ, MICHAEL; FINK, JAMES B.; REEL/FRAME:014577/0817; SIGNING DATES FROM 20030324 TO 20030325
US2003136400 AA	20050106	LSGT	PAT1	Patented Case	
US2003136400 AA	20050106	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE

US2003140921 AA	20030731	LSPB	+	published / reissued	
US2003140921 AA	20030919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SF CAPITAL PARTNERS, LTD., WISCONSIN OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:014491/0108 EFFECTIVE DATE : 20030908
US2003140921 AA	20051109	LSGT	PAT1	Patented Case	
US2003140921 AA	20051109	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2003150445 AA	20030814	LSPB	+	published / reissued	
US2003150445 AA	20030919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SF CAPITAL PARTNERS, LTD., WISCONSIN OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:014491/0108 EFFECTIVE DATE : 20030908
US2003150445 AA	20070613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:SF CAPITAL PARTNERS LTD.; REEL/FRAME:019425/0539 EFFECTIVE DATE : 20050513
US2003150445 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2003150445 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2003150445 AA	20090923	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2004035490 AA	20040226	LSPB	+	published / reissued	
US2004035490 AA	20070614	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POWER, JOHN S.; REEL/FRAME:019428/0712 EFFECTIVE DATE : 20010810
US2004035490 AA	20080109	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2004139968 AA	20040722	LSPB	+	published / reissued	
US2004139968 AA	20060405	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2004256488 AA	20041223	LSPB	+	published / reissued	
US2004256488 AA	20070307	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2005172954 AA	20050811	LSPB	+	published / reissued	
US2005172954 AA	20070614	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SMITH, NIALL; POWER, JOHN; FINK, JAMES B.; AND OTHERS; REEL/FRAME:019430/0920; SIGNING DATES FROM 20030324 TO 20030326
US2005172954 AA	20080130	LSGT	STCF	INFORMATION ON	TEXT : PATENTED CASE

				STATUS: PATENT GRANT	
US2005217666 AA	20051006	LSPB	+	published / reissued	
US2005217666 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2005217666 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2005217666 AA	20110524	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVARTIS PHARMA AG; REEL/FRAME:026330/0560 EFFECTIVE DATE : 20090119
US2005217666 AA	20110615	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2006169279 AA	20060803	LSPB	+	published / reissued	
US2006169279 AA	20080508	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2006169279 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2006169279 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2007267010 AA	20071122	LSPB	+	published / reissued	
US2007267010 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2007267010 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2007267010 AA	20121205	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008060641 AA	20080313	LSPB	+	published / reissued	
US2008060641 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2008060641 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.;

					REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2008060641 AA	20100512	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVARTIS PHARMA AG; REEL/FRAME:024376/0037 EFFECTIVE DATE : 20090119
US2008060641 AA	20100512	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVARTIS PHARMA AG; REEL/FRAME:024376/0037 EFFECTIVE DATE : 20090119
US2008060641 AA	20100616	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008142002 AA	20080619	LSPB	+	published / reissued	
US2008142002 AA	20080724	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FINK, JAMES B.; POWER, JOHN; IVRI, EHUD; AND OTHERS; REEL/FRAME:021288/0745; SIGNING DATES FROM 20080330 TO 20080416
US2008142002 AA	20080724	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FINK, JAMES B.; POWER, JOHN; IVRI, EHUD; AND OTHERS; SIGNING DATES FROM 20080330 TO 20080416; REEL/FRAME:021288/0745
US2008142002 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2008142002 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2008142002 AA	20120509	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVARTIS PHARMA AG; REEL/FRAME:028181/0470 EFFECTIVE DATE : 20090119
US2008142002 AA	20120523	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008149096 AA	20080626	LSPB	+	published / reissued	
US2008149096 AA	20080313	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:POWER, JOHN S.; REEL/FRAME:020648/0663 EFFECTIVE DATE : 20080220
US2008149096 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905

					EFFECTIVE DATE : 20081231
US2008149096 AA	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US2008149096 AA	20150923	LSWD	-ABD1	Abandoned -- After Examiner's Answer or Board of Appeals Decision	
US2009308384 AA	20091217	LSPB	+	published / reissued	
US2009308384 AA	20150623	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NEKTAR THERAPEUTICS, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVARTIS PHARMA AG; REEL/FRAME:035952/0205 EFFECTIVE DATE : 20150401
US2009308384 AA	20151208	LSES	WAE1	Withdrawn Abandonment, awaiting examiner action	
US2009308384 AA	20160926	LSAL	NAF1	Notice of Appeal Filed	
US2009308384 AA	20170523	LSAL	ABE1	Appeal Brief (or Supplemental Brief) Entered and Forwarded to Examiner	
US2009308384 AA	20171018	LSAL	EAA1	Examiner's Answer to Appeal Brief Mailed	
US2009308384 AA	20171222	LSAL	APL3	Appeal Ready for Review	
US2009308384 AA	20171226	LSAL	APL1	Appeal Awaiting BPAI Docketing	
US2009308384 AA	20171226	LSAL	APL5	On Appeal -- Awaiting Decision by the Board of Appeals	
US2009308384 AA	20171226	LSAL	STCV	INFORMATION ON STATUS: APPEAL PROCEDURE	TEXT : ON APPEAL -- AWAITING DECISION BY THE BOARD OF APPEALS
US2009308384 AA	20191011	LSAL	BDR1	Board of Appeals Decision Rendered	
US2009308384 AA	20191011	LSAL	STCV	INFORMATION ON STATUS: APPEAL PROCEDURE	TEXT : BOARD OF APPEALS DECISION RENDERED
US2009308384 AA	20191113	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : STAMFORD DEVICES LTD, IRELAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NEKTAR THERAPEUTICS; REEL/FRAME:050999/0630 EFFECTIVE DATE : 20191101
US2009308384 AA	20191211	LSAL	APL6	Request Reconsideration after Board of Appeals Decision	
US2009308384 AA	20191211	LSAL	STCV	INFORMATION ON STATUS: APPEAL PROCEDURE	TEXT : REQUEST RECONSIDERATION AFTER BOARD OF APPEALS DECISION
US2009308384 AA	20200110	LSAL	APL4	Board of Appeals Decision Rendered after Request for Reconsideration	
US2009308384 AA	20200110	LSAL	STCV	INFORMATION ON STATUS: APPEAL PROCEDURE	TEXT : BOARD OF APPEALS DECISION RENDERED AFTER REQUEST FOR RECONSIDERATION
US6615824 BB	20030909	LSGT	+	granted / extensions (spc, cpc, pte)	
US6615824 BB	20010820	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF

					ASSIGNORS INTEREST; ASSIGNOR:POWER, JOHN S.; REEL/FRAME:012095/0620 EFFECTIVE DATE : 20010810
US6615824 BB	20030821	LSGT	PAT1	Patented Case	
US6615824 BB	20030919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SF CAPITAL PARTNERS, LTD., WISCONSIN OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:014491/0108 EFFECTIVE DATE : 20030908
US6615824 BB	20070220	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6615824 BB	20070613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:SF CAPITAL PARTNERS LTD.; REEL/FRAME:019419/0577 EFFECTIVE DATE : 20050513
US6615824 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US6615824 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US6615824 BB	20110210	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6615824 BB	20150225	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6615824 BB	20210504	PEXP		Calculated Patent Term Expiry	
US6845770 BB	20050125	LSGT	+	granted / extensions (spc, cpc, pte)	
US6845770 BB	20030404	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KLIMOWICZ, MICHAEL; FIND, JAMES B.; REEL/FRAME:013935/0885; SIGNING DATES FROM 20030324 TO 20030325
US6845770 BB	20070613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:SF CAPITAL PARTNERS LTD.; REEL/FRAME:019419/0577 EFFECTIVE DATE : 20050513
US6845770 BB	20080619	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6845770 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US6845770 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US6845770 BB	20120627	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8

US6845770 BB	20160714	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6845770 BB	20230219	PEXP		Calculated Patent Term Expiry (PTA 35 days)	
US6948491 BB	20050927	LSGT	+	granted / extensions (spc, cpc, pte)	
US6948491 BB	20010820	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LOEFFLER, JOSEPH P.; RAPP, DAVID; BRIONES, VICTOR; AND OTHERS; REEL/FRAME:012104/0875; SIGNING DATES FROM 20010807 TO 20010810
US6948491 BB	20050907	LSGT	PAT1	Patented Case	
US6948491 BB	20070613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:SF CAPITAL PARTNERS LTD.; REEL/FRAME:019419/0577 EFFECTIVE DATE : 20050513
US6948491 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US6948491 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US6948491 BB	20090224	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6948491 BB	20130227	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6948491 BB	20170316	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6948491 BB	20220320	PEXP		Calculated Patent Term Expiry (PTA 365 days)	
US6968840 BB	20051129	LSGT	+	granted / extensions (spc, cpc, pte)	
US6968840 BB	20030409	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SMITH, NIALL; POWER, JOHN; FINK, JAMES B.; AND OTHERS; REEL/FRAME:013935/0313; SIGNING DATES FROM 20030324 TO 20030326
US6968840 BB	20070613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:SF CAPITAL PARTNERS LTD.; REEL/FRAME:019419/0577 EFFECTIVE DATE : 20050513
US6968840 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US6968840 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND

					OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US6968840 BB	20090429	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6968840 BB	20130308	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6968840 BB	20170518	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6968840 BB	20230727	PEXP		Calculated Patent Term Expiry (PTA 193 days)	
US7032590 BB	20060425	LSGT	+	granted / extensions (spc, cpc, pte)	
US7032590 BB	20060405	LSGT	PAT1	Patented Case	
US7032590 BB	20071127	LSRE	CC	CERTIFICATE OF CORRECTION	
US7032590 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US7032590 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US7032590 BB	20090923	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7032590 BB	20130925	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7032590 BB	20171012	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US7032590 BB	20240111	PEXP		Calculated Patent Term Expiry (PTA 6 days)	
US7100600 BB	20060905	LSGT	+	granted / extensions (spc, cpc, pte)	
US7100600 BB	20010803	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LOEFFLER, JOSEPH P.; POYNTER, RICHARD Q.; RAPP, DAVID; AND OTHERS; REEL/FRAME:012063/0622; SIGNING DATES FROM 20010717 TO 20010724
US7100600 BB	20060816	LSGT	PAT1	Patented Case	
US7100600 BB	20070613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:SF CAPITAL PARTNERS LTD.; REEL/FRAME:019419/0577 EFFECTIVE DATE : 20050513
US7100600 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US7100600 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231

US7100600 BB	20100218	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7100600 BB	20140206	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7100600 BB	20180222	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US7100600 BB	20230918	PEXP		Calculated Patent Term Expiry (PTA 912 days)	
US7195011 BB	20070327	LSGT	+	granted / extensions (spc, cpc, pte)	
US7195011 BB	20070307	LSGT	PAT1	Patented Case	
US7195011 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US7195011 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US7195011 BB	20100826	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7195011 BB	20140827	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7195011 BB	20180913	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US7195011 BB	20241204	PEXP		Calculated Patent Term Expiry (PTA 157 days)	
US7322349 BB	20080129	LSGT	+	granted / extensions (spc, cpc, pte)	
US7322349 BB	20080109	LSGT	PAT1	Patented Case	
US7322349 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US7322349 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US7322349 BB	20110629	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7322349 BB	20150715	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7322349 BB	20190718	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US7322349 BB	20230618	PEXP		Calculated Patent Term Expiry	
US7331339 BB	20080219	LSGT	+	granted / extensions (spc, cpc, pte)	
US7331339 BB	20080130	LSGT	PAT1	Patented Case	
US7331339 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS; ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US7331339 BB	20090107	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NOVARTIS PHARMA AG,SWITZERLAND OLDPARTY : ASSIGNMENT OF PATENT RIGHTS;

					ASSIGNOR:AEROGEN, INC.; REEL/FRAME:022062/0905 EFFECTIVE DATE : 20081231
US7331339 BB	20110721	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7331339 BB	20150805	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7331339 BB	20190808	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US7331339 BB	20260414	PEXP		Calculated Patent Term Expiry (PTA 507 days)	
US7600511 BB	20091013	LSGT	+	granted / extensions (spc, cpc, pte)	
US7600511 BB	20030411	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:POWER, JOHN; REGAN, DESMOND; MORAN, DECLAN; REEL/FRAME:013934/0615 EFFECTIVE DATE : 20030402
US7600511 BB	20090923	LSGT	PAT1	Patented Case	
US7600511 BB	20130306	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7600511 BB	20150623	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NEKTAR THERAPEUTICS, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NOVARTIS PHARMA AG; REEL/FRAME:035952/0205 EFFECTIVE DATE : 20150401
US7600511 BB	20170327	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7600511 BB	20191113	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : STAMFORD DEVICES LTD, IRELAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NEKTAR THERAPEUTICS; REEL/FRAME:050999/0630 EFFECTIVE DATE : 20191101
US7600511 BB	20221231	PEXP		Calculated Patent Term Expiry (PTA 62 days)	
US7748377 BB	20100706	LSGT	+	granted / extensions (spc, cpc, pte)	
US7748377 BB	20071109	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SMITH, NIALL; POWER, JOHN; FINK, JAMES B.; AND OTHERS; REEL/FRAME:020093/0602; SIGNING DATES FROM 20030325 TO 20030329
US7748377 BB	20071109	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SMITH, NIALL; POWER, JOHN; FINK, JAMES B.; AND OTHERS; SIGNING DATES FROM 20030325 TO 20030329; REEL/FRAME:020093/0602
US7748377 BB	20100616	LSGT	PAT1	Patented Case	
US7748377 BB	20131211	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7748377 BB	20171221	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7748377 BB	20280818	PEXP		Calculated Patent Term Expiry (PTA 293 days and a terminal disclaimer has been filed)	

US7971588 BB	20110705	LSGT	+	granted / extensions (spc, cpc, pte)	
US7971588 BB	20050602	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FINK, JAMES B.; POWER, JOHN; IVRI, EHUD; AND OTHERS; REEL/FRAME:016090/0437; SIGNING DATES FROM 20050518 TO 20050526
US7971588 BB	20050602	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AEROGEN, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FINK, JAMES B.; POWER, JOHN; IVRI, EHUD; AND OTHERS; SIGNING DATES FROM 20050518 TO 20050526; REEL/FRAME:016090/0437
US7971588 BB	20110615	LSGT	PAT1	Patented Case	
US7971588 BB	20141217	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7971588 BB	20181220	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7971588 BB	20280504	PEXP		Calculated Patent Term Expiry (PTA 1137 days)	
US8196573 BB	20120612	LSGT	+	granted / extensions (spc, cpc, pte)	
US8196573 BB	20120523	LSGT	PAT1	Patented Case	
US8196573 BB	20151125	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8196573 BB	20191202	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8196573 BB	20281001	PEXP		Calculated Patent Term Expiry (PTA 252 days)	
US8336545 BB	20121225	LSGT	+	granted / extensions (spc, cpc, pte)	
US8336545 BB	20070502	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NEKTAR THERAPEUTICS, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FINK, JAMES B.; POWER, JOHN; IVRI, EHUD; AND OTHERS; REEL/FRAME:019241/0271; SIGNING DATES FROM 20070426 TO 20070501
US8336545 BB	20070502	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NEKTAR THERAPEUTICS, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FINK, JAMES B.; POWER, JOHN; IVRI, EHUD; AND OTHERS; SIGNING DATES FROM 20070426 TO 20070501; REEL/FRAME:019241/0271
US8336545 BB	20121205	LSGT	PAT1	Patented Case	
US8336545 BB	20160609	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8336545 BB	20301119	PEXP		Calculated Patent Term Expiry (PTA 1403 days)	
WO0185244 A1	20011115	LSPB	+	published / reissued	
WO0185244 A1	20021031	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 55033/01 COUNTRY OF REF DOCUMENT : AU
WO0185244 A1	20021105	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2409722 COUNTRY OF REF DOCUMENT : CA
WO0185244 A1	20021105	LSNP	+WWE	WIPO	REF DOCUMENT NUMBER :

				INFORMATION: ENTRY INTO NATIONAL PHASE	PA/A/2002/010884 COUNTRY OF REF DOCUMENT : MX
WO0185244 A1	20021107	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2001928171 COUNTRY OF REF DOCUMENT : EP
WO0185244 A1	20030129	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2001928171 COUNTRY OF REF DOCUMENT : EP
WO0185244 A1	20051208	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 55033/01 COUNTRY OF REF DOCUMENT : AU
WO0185244 A1	20071031	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2001928171 COUNTRY OF REF DOCUMENT : EP
WO02074373 A1	20020926	LSPB	+	published / reissued	
WO02074373 A1	20030918	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2002728510 COUNTRY OF REF DOCUMENT : EP
WO02074373 A1	20030919	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2441493 COUNTRY OF REF DOCUMENT : CA
WO02074373 A1	20031217	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2002728510 COUNTRY OF REF DOCUMENT : EP
WO02074373 A1	20040205	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
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WO02074374 A1	20020926	LSPB	+	published / reissued	
WO02074374 C2	20030918	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2002725236 COUNTRY OF REF DOCUMENT : EP
WO02074374 C2	20030919	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2441587 COUNTRY OF REF DOCUMENT : CA
WO02074374 C2	20031217	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2002725236 COUNTRY OF REF DOCUMENT : EP
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WO03059423 A1	20030724	LSPB	+	published / reissued	
WO03059423 A1	20040714	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2003559583 COUNTRY OF REF DOCUMENT : JP
WO03059423 A1	20040805	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2003729690 COUNTRY OF REF DOCUMENT : EP

WO03059423 A1	20041110	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2003729690 COUNTRY OF REF DOCUMENT : EP
WO03059424 A1	20030724	LSPB	+	published / reissued	
WO03059424 A1	20040713	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2003559584 COUNTRY OF REF DOCUMENT : JP
WO03059424 A1	20040805	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2003702161 COUNTRY OF REF DOCUMENT : EP
WO03059424 A1	20041110	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2003702161 COUNTRY OF REF DOCUMENT : EP
WO06102345 A2	20060928	LSPB	+	published / reissued	
WO06102345 A2	20060322	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200680009296.7 COUNTRY OF REF DOCUMENT : CN
WO06102345 A3	20070823	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2599018 COUNTRY OF REF DOCUMENT : CA
WO06102345 A3	20070829	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006227168 COUNTRY OF REF DOCUMENT : AU
WO06102345 A3	20070914	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2008503098 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO06102345 A3	20070920	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2006227168 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20060322 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO06102345 A3	20070921	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020077021946 COUNTRY OF REF DOCUMENT : KR
WO06102345 A3	20070923	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 186162 COUNTRY OF REF DOCUMENT : IL
WO06102345 A3	20070924	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2007/011786 COUNTRY OF REF DOCUMENT : MX
WO06102345 A3	20070925	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO06102345 A3	20070926	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 561943 COUNTRY OF REF DOCUMENT : NZ
WO06102345 A3	20071016	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 7970/DELNP/2007 COUNTRY OF REF DOCUMENT : IN
WO06102345 A3	20071019	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006739177 COUNTRY OF REF DOCUMENT : EP
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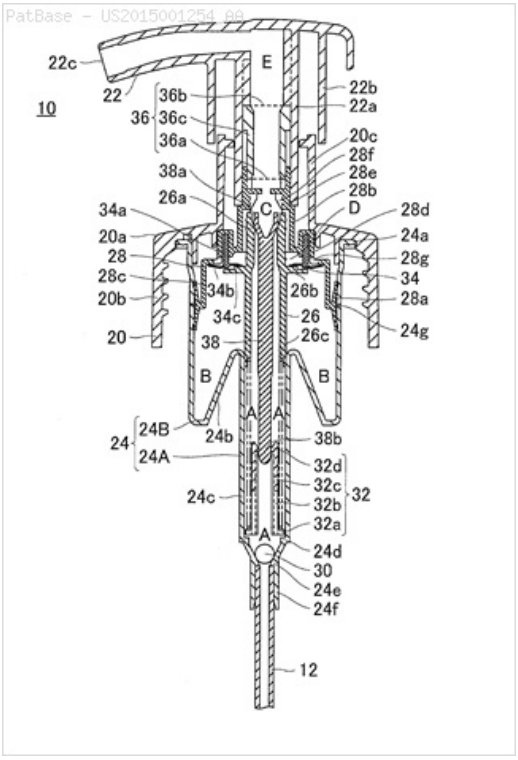
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141) Family number: 54554097 (US2015001254A)

Title: PUMP-**DISPENSING** **CONTAINER**

Abstract: The object of the present invention is to improve a pump-**dispensing** **container** structured to prevent leakage of **liquid** caused by slight vertical movements of the nozzle head, to make it easier to push out the **liquid** when the nozzle head is pressed down first from its highest position. If a primary check valve is configured to open the connection between the inside of the **liquid** chamber and the inside of the **container** body in a state in which the **liquid** chamber is filled with a **liquid** and the nozzle head is raised to its highest position, when the nozzle head is pressed down from its highest position to push out the **liquid**, resistance met during the pressing down of the nozzle head is significantly reduced because of the open connection between the inside of the **liquid** chamber and the inside of the **container** body, and the **liquid** can be pushed out easily by applying a small force.

Classifications:
International (IPC 8-9): B05B11/00 B05B7/00 B65D47/34 B65D83/76 B65D88/54 F04B9/14 G01F11/00 (Advanced/Invention)
CPC: B05B11/3001 B05B11/3073 B05B7/0037 B05B11/0064 B05B11/3014 B05B11/3019 B05B11/3087
US: 1/1 222/321.9



Family:

Publication number	Publication date	Application number	Application date
AU2013218641 AA	20130815	AU20130218641	20130207
CN104105645 A	20141015	CN201380008720	20130207
CN104105645 B	20160817	CN201380008720	20130207
EP2813444 A1	20141217	EP20130746052	20130207
EP2813444 A4	20151104	EP20130746052	20130207
EP2813444 B1	20190410	EP20130746052	20130207
JP2013118816 A1	20150511	JP20130557564T	20130207
JP6144209 B1	20170607	JP20130557564T	20130207
US2015001254 AA	20150101	US20130376926	20130207
US9308541 BB	20160412	US20130376926	20130207
WO13118816 A1	20130815	WO2013JP52851	20130207

Priority:
JP20120025857 20120209 WO2013JP52851 20130207

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Inventor(s): (std): UEHRIA SHOJI ; UEHIRA SHOJI ; YOSHIDA OSAMU ; OKADA TOMOKO ; ABE KAZUYA
Agent(s): MADDERNS PATENT AND TRADE MARK ATTORNEYS; MADDERNS PTY LTD; HENKEL BREUER AND PARTNER; IWAHASHI YUJI; RANKIN HILL AND CLARK LLP
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN 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 MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW 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 ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU2013218641 AA	20130815	LSPB	+	published / reissued	
AU2013218641 AA	20160204	LSLE	-MK1	APPLICATION LAPSED SECTION	

				142(2)(A) - NO REQUEST FOR EXAMINATION IN RELEVANT PERIOD	
CN104105645 A	20141015	LSPB	+	published / reissued	
CN104105645 A	20141015	LSPB	+C06	PUBLICATION	
CN104105645 B	20160817	LSGT	+	granted / extensions (spc, cpc, pte)	
CN104105645 B	20160817	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN104105645 B	20330207	PEXP		Calculated Patent Term Expiry	
EP2813444 A1	20141217	LSPB	+	published / reissued	
EP2813444 A1	20141217	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20140819
EP2813444 A4	20151104	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20151007
EP2813444 A4	20181114	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20181019
EP2813444 B1	20190410	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2813444 B1	20190410	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2813444 B1	20190415	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2813444 B1	20190415	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1118351 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190415
EP2813444 B1	20190425	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602013053686 COUNTRY OF REF DOCUMENT : DE
EP2813444 B1	20190501	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2813444 B1	20190826	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2813444 B1	20190915	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 1118351 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190410
EP2813444 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190410
EP2813444 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190410
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				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190410
EP2813444 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190410
EP2813444 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190410
EP2813444 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190910
EP2813444 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190710
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EP2813444 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190410
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EP2813444 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190410
EP2813444 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190710
EP2813444 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190410
EP2813444 B1	20191231	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT : AT

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190410
EP2813444 B1	20191231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190810
EP2813444 B1	20200113	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602013053686 COUNTRY OF REF DOCUMENT : DE
EP2813444 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190410
EP2813444 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190410
EP2813444 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190410
EP2813444 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190410
EP2813444 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190410
EP2813444 B1	20200228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190410
EP2813444 B1	20200228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190410
EP2813444 B1	20200318	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20200113
EP2813444 B1	20330207	PEXP		Calculated Patent Term Expiry	
JP2013118816 A1	20150511	LSPB	+	published / reissued	
JP2013118816 A1	20160112	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20160112

JP2013118816 A1	20160920	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20160920
JP2013118816 A1	20161108	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20161108
JP2013118816 A1	20170407	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013118816 A1	20170418	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20170418
JP2013118816 A1	20170518	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20170510
JP2013118816 A1	20170519	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6144209 COUNTRY OF REF DOCUMENT : JP
JP6144209 B1	20170607	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6144209 B1	20170420	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6144209 B1	20170516	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6144209 B1	20170519	LSGT	+R150	特許証 (Patent certificate)	
JP6144209 B1	20330207	PEXP		Calculated Patent Term Expiry	
US2015001254 AA	20150101	LSPB	+	published / reissued	
US2015001254 AA	20160323	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9308541 BB	20160412	LSGT	+	granted / extensions (spc, cpc, pte)	
US9308541 BB	20140806	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DAIWA CAN COMPANY, JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:UEHIRA, SHOJI; OKADA, TOMOKO; ABE, KAZUYA; AND OTHERS; SIGNING DATES FROM 20140708 TO 20140730; REEL/FRAME:033475/0271
US9308541 BB	20160323	LSGT	PAT1	Patented Case	
US9308541 BB	20170307	LSRE	CC	CERTIFICATE OF CORRECTION	
US9308541 BB	20191001	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9308541 BB	20330228	PEXP		Calculated Patent Term Expiry (PTA 21 days)	
WO13118816 A1	20130815	LSPB	+	published / reissued	
WO13118816 A1	20140730	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013557564 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13118816 A1	20140806	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 14376926 COUNTRY OF REF DOCUMENT : US
WO13118816 A1	20140811	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13118816 A1	20140819	LSNP	+WWE	WIPO	REF DOCUMENT NUMBER :

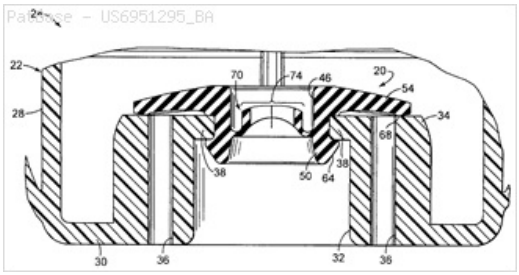
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WO13118816 A1	20140828	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013218641 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20130207 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

142) Family number: 32278099 (US6951295B)

Title: FLOW CONTROL ELEMENT AND **DISPENSING** STRUCTURE INCORPORATING SAME

Abstract: A flow control element is provided with a resilient sealing flange biased to seal in-venting passages in a housing around the element. The element also includes a self-sealing, pressure-openable, **dispensing** valve. The element and housing can be combined to form a **dispensing** structure that can function to discharge a fluent material product out of the **dispensing** structure through the **dispensing** valve while simultaneously venting exterior ambient air (or other exterior ambient environment fluent material) into the **dispensing** structure.

Classifications:
International (IPC 8-9): B05B11/00 B05B11/04 B05C17/005 B65D35/52 B65D47/20 B65D47/24 B65D51/16 B65D83/00 B67D B67D3/00 (Advanced/Invention);
B05B11/00 B05B11/04 B05C17/005 B65D35/00 B65D47/04 B65D51/16 B65D83/00 B67D3/00 (Core/Invention)
International (IPC 1-7): B67D3/00
CPC: B05B11/007 B05B11/047 B65D47/2031 B05B11/00442 B05B11/0039
European: B05B11/00B2B B05B11/00B9R B05B11/00P9R2 B65D47/20E2 L05B11/04E
US: 222/484 222/494



Family:

Publication number	Publication date	Application number	Application date
AU2005325168 AA	20060727	AU20050325168	20051213
BRPI0519859 A2	20090324	BR2005PI19859	20051213
CA2589778 AA	20070531	CA20052589778	20051213
CA2589778 C	20140204	CA20052589778	20051213
CN101102959 A	20080109	CN200580046719	20051212
EP1848656 A1	20071031	EP20050853790	20051213
EP1848656 A4	20091111	EP20050853790	20051213
HK1114830 A1	20081114	HK20080104391	20080418
IN02261KN2007 A	20070817	IN2007KN02261	20070619
JP2008526636 T2	20080724	JP20070551261T	20051212
MX2007006941 A1	20070802	MX20070006941	20051213
RU2007131448 A	20090227	RU20070131448	20051213
RU2369544 C2	20091010	RU20070131448	20051213
US6951295 BA	20051004	US20050038638	20050118
WO06078370 A1	20060727	WO2005US44961	20051213
WO06078370 C1	20070920	WO2005US44961	20051213

Priority:
US20050038638 20050118 WO2005US44961 20051212 WO2005US44961 20051213

Probable Assignee: SEAQUIST CLOSURES FOREIGN INC

Assignee(s): (std): SEAQUEST CLOSURES FOREIGN INC ; SEAQUIST CLOSURES ; SEAQUIST CLOSURES FOREIGN INC ; SIKVIST KLOUZHERZ FORIN INK

Assignee(s): SOCIER TIOMTHY R ; SOCIER TIMOTHY R ; APTARGROUP INC ; GAUS DAVID J ; HESS JOHN M III ; OLECHOWSKI GREGORY M

Inventor(s): (std): SOCIER TIOMTHY R ; HESS JOHN M III ; OLEKHOVSKI GREGORI M ; KHESS DZHON M III ; GAUS DEHVID DZH ; SOS E TIMOTI R ; GAUS DAVID J ; OLECHOWSKI GREGORY M ; SOCIER TIMOTHY R ; HESS III JOHN M

Inventor(s): HESS JOHN M ; HESS ; III JOHN M ; SOS'E TIMOTI R. ; JOHN M III HESS ; TIOMTHY R SOCIER ; DAVID J GAUS ; GREGORY M OLECHOWSKI ; JOHN M HESS III ; TIMOTHY R SOCIER

Agent(s): SPRUSON AND FERGUSON; FETHERSTONHAUGH AND CO; CHINA PATENT AGENT HK LTD; 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 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

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU2005325168 AA	20060727	LSPB	+	published / reissued	
AU2005325168 AA	20110331	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	PARTYTYPE : OWNER OWNER : APTARGROUP, INC. OLDPARTY : FORMER APPLICANT(S): SEAQUIST CLOSURES FOREIGN, INC.
AU2005325168 AA	20110707	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
BRPI0519859 A2	20130528	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS	PARTYTYPE : OWNER OWNER : APTARGROUP, INC. (US)

				APPROVED	
BRPI0519859 A2	20170530	LSES	B07A	TECHNICAL EXAMINATION (OPINION): PUBLICATION OF TECHNICAL EXAMINATION (OPINION)	
BRPI0519859 A2	20170912	LSRV	B09B	DECISION: REFUSAL	
BRPI0519859 A2	20180529	LSRV	B09B	DECISION: REFUSAL	
CA2589778 AA	20070531	LSPB	+	published / reissued	
CA2589778 AA	20101122	LSES	+EEER	EXAMINATION REQUEST	
CA2589778 C	20140204	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2589778 C	20190124	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20181213
CA2589778 C	20251213	PEXP		Calculated Patent Term Expiry	
CN101102959 A	20080109	LSPB	+	published / reissued	
CN101102959 A	20080109	LSPB	+C06	PUBLICATION	
CN101102959 A	20080611	LSRE	COR	CHANGE OF BIBLIOGRAPHIC DATA	TEXT : CORRECT: APPLICATION DATE; FROM: 2005.12.12 TO: 2005.12.13
CN101102959 A	20120418	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
EP1848656 A1	20071031	LSPB	+	published / reissued	
EP1848656 A1	20071031	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20070525
EP1848656 A4	20091111	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20090911
EP1848656 A4	20100609	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20091210
HK1114830 A1	20081114	LSPB	+	published / reissued	
IN02261KN2007 A	20070817	LSPB	+	published / reissued	
JP2008526636 T2	20080724	LSPB	+	published / reissued	
JP2008526636 T2	20080917	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20080916
JP2008526636 T2	20110119	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110118
JP2008526636 T2	20110801	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20110729
MX2007006941 A1	20070802	LSPB	+	published / reissued	
MX2007006941 A1	20090807	LSGT	+FG	GRANT OR REGISTRATION	
RU2007131448 A	20090227	LSPB	+	published / reissued	
RU2369544 C2	20091010	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2369544 C2	20180917	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	EFFECTIVE DATE : 20171214

RU2369544 C2	20251213	PEXP		Calculated Patent Term Expiry	
US6951295 BA	20051004	LSGT	+	granted / extensions (spc, cpc, pte)	
US6951295 BA	20050314	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEAQUIST CLOSURES FOREIGN, INC., ILLINOIS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GAUS, DAVID J.; OLECHOWSKI, GREGORY M.; SOCIER, TIMOTHY R.; AND OTHERS; REEL/FRAME:016358/0721 EFFECTIVE DATE : 20050124
US6951295 BA	20050914	LSGT	PAT1	Patented Case	
US6951295 BA	20050914	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6951295 BA	20090406	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6951295 BA	20130227	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6951295 BA	20170404	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6951295 BA	20250118	PEXP		Calculated Patent Term Expiry	
WO06078370 A1	20060727	LSPB	+	published / reissued	
WO06078370 A1	20070525	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2005853790 COUNTRY OF REF DOCUMENT : EP
WO06078370 A1	20070531	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2589778 COUNTRY OF REF DOCUMENT : CA
WO06078370 A1	20070601	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2005325168 COUNTRY OF REF DOCUMENT : AU
WO06078370 A1	20070611	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2007/006941 COUNTRY OF REF DOCUMENT : MX
WO06078370 A1	20070619	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2261/KOLNP/2007 COUNTRY OF REF DOCUMENT : IN
WO06078370 A1	20070628	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2005325168 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20051213 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO06078370 A1	20070628	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2005325168 COUNTRY OF REF DOCUMENT : AU
WO06078370 A1	20070717	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007551261 COUNTRY OF REF DOCUMENT : JP
WO06078370 A1	20070717	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200580046719.8 COUNTRY OF REF DOCUMENT : CN
WO06078370 A1	20070719	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO06078370 A1	20070820	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007131448 COUNTRY OF REF DOCUMENT : RU
WO06078370 C1	20071031	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2005853790 COUNTRY OF REF DOCUMENT : EP
WO06078370 C1	20090324	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	REF DOCUMENT NUMBER : PI0519859

	IN:	COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :

143) Family number: 43578100 (US2010294394A)

Title: METHOD FOR FILLING AND EVACUATING A **DISPENSER** UNIT AND FILLING INSERT FOR **DISPENSER** UNIT

Abstract: The invention relates to a method for filling and evacuating a **dispenser** unit for paste-like, foam-form or **liquid** media. In the known methods, a storage **container** is evacuated via a suction pump, which otherwise serves for the delivery of the medium, after filling. The risk exists hereby that medium is drawn in. In order to make the drawing-off process more effective and more reliable, a method and a filling insert for a **dispenser** unit are proposed according to the invention, wherein at least one air duct is provided parallel to the suction pump. The evacuation takes place by the application of a pressure difference between storage **container** and the environment, which is just so great that air can in fact be drawn through the air duct but no viscous medium can be drawn.

Classifications:
International (IPC 8-9): A47K5/12 B05B11/00 B05B9/04 B65B3/04 B65B31/00 B65B31/06 B65B31/10 B65D83/00 B67D7/08 (Advanced/Invention);
A47K5/12 B05B11/00 (Advanced/Non-invention);
A47K5/00 B65B31/00 B65D83/00 (Core/Invention);
B05B11/00 B65B31/10 B65D83/00 (Core/Non-invention)
CPC: A47K5/1202 A47K5/1207
European: A47K5/12C A47K5/12C1B
US: 141/18 141/2 141/2P 141/65 141/7 141/8 222/152 222/401 222/481 222/61 222/61S

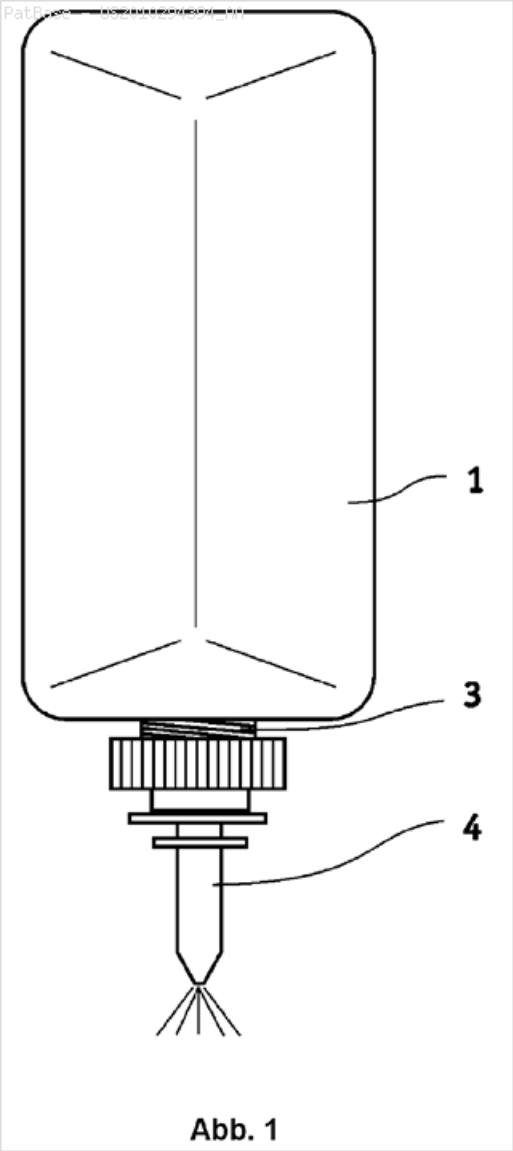


Abb. 1

Family:

Publication number	Publication date	Application number	Application date
AU2009210189 AA	20090806	AU20090210189	20090120
AU2009210189 AH	20100826	AU20090210189	20090120
AU2009210189 BB	20150319	AU20090210189	20090120
BRPI0905722 A2	20150714	BR2009PI05722	20090120
CA2712433 AA	20100716	CA20092712433	20090120
CA2712433 C	20160628	CA20092712433	20090120
CN101932273 A	20101229	CN200980103598	20090120
CN101932273 B	20120919	CN200980103598	20090120
DE102008002765 A1	20090806	DE200810002765	20080201
DE102008002765 B4	20160623	DE200810002765	20080201
EP2306877 A1	20110413	EP20090705300	20090120
IN03167KN2010 A	20160701	IN2010KN03167	20100826
KR20100106613 A	20101001	KR20107019463	20090120
MX2010007930 A1	20100804	MX20100007930	20090120
MX345652 B	20170209	MX20100007930	20090120
RU2010136924 A	20120310	RU20100136924	20090120
RU2489074 C2	20130810	RU20100136924	20090120
TW200938435 A	20090916	TW20090102334	20090122
TWI356686 B	20120121	TW20090102334	20090122
US2010294394 AA	20101125	US20090863868	20090120
US8555934 BB	20131015	US20090863868	20090120

WO09095337 A1	20090806	WO2009EP50606	20090120

Priority:

DE200810002765 20080201 WO2009EP50606 20090120

Probable Assignee: DEB IP LTD

Assignee(s): (std): ALLEF PETRA ; DEB IP LTD ; EHVONIK SHTOKKHAUZEN GMBKH ; EVONIK DEGUSSA GMBH ; EVONIK STOCKHAUSEN GMBH ; NAUELS BERND ; PIELEN MARKUS

Assignee(s): EVONIK STOCKHAUSEN GMBHBAKERPFAD 2547805KREFELDDE ; EVONIK DEGUSSA GMBHRELLINGHAUSER STRASSE 1-1145128ESSENDE ; DEB IP LTDDENBY HALL WAYDERBYSHIREDE5 8JZDENBYGB

Inventor(s): (std): MARKUS PIELEN ; BERND NAUELS ; PETRA ALLEF ; PILEN MARKUS ; NAUEHLS BERND ; ALLEF PETRA ; NAUELS BERND ; PIELEN MARKUS ; ALLEF ; BERND ; PETRA ; PIELEN ; NAUELS ; MARKUS ; ALLEF PETRA DR

Inventor(s): PIELEN, Markus ; NAUELS, Bernd ; ALLEF, Petra ; NAUELS BERNDDE ; ALLEF PETRADE ; PIELEN MARKUSDE

Agent(s): GRIFFITH HACK; ROBIC; HILL AND SCHUMACHER; BUNGARTZ KLAUS PETER; STETINA BRUNDA GARRED AND BRUCKER

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 ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU2009210189 AA	20090806	LSPB	+	published / reissued	
AU2009210189 AH	20140904	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	PARTYTYPE : OWNER OWNER : DEB IP LIMITED OLDPARTY : FORMER APPLICANT(S): EVONIK DEGUSSA GMBH
AU2009210189 BB	20150319	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2009210189 BB	20150716	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2009210189 BB	20190815	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2009210189 BB	20290120	PEXP		Calculated Patent Term Expiry	
BRPI0905722 A2	20160412	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS APPROVED	PARTYTYPE : OWNER OWNER : EVONIK DEGUSSA GMBH (DE)
BRPI0905722 A2	20170124	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS APPROVED	PARTYTYPE : OWNER OWNER : DEB IP LIMITED (GB)
BRPI0905722 A2	20180724	LSES	B07A	TECHNICAL EXAMINATION (OPINION): PUBLICATION OF TECHNICAL EXAMINATION (OPINION)	
BRPI0905722 A2	20190115	LSGT	B09A	DECISION: INTENTION TO GRANT	
BRPI0905722 A2	20190430	LSRV	-B11D	DISMISSAL ACC. ART. 38, PAR 2 OF IPL - FAILURE TO PAY FEE AFTER GRANT IN TIME	
CA2712433 AA	20100716	LSPB	+	published / reissued	
CA2712433 AA	20131203	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20131122
CA2712433 C	20160628	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2712433 C	20180305	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20180122
CA2712433 C	20290120	PEXP		Calculated Patent Term Expiry	
CN101932273 A	20101229	LSPB	+	published / reissued	
CN101932273 A	20101229	LSPB	+C06	PUBLICATION	
CN101932273 A	20101229	LSPB	PB01	公开 (The publication	TEXT : 公开 (DISCLOSURE)

				of application)	
CN101932273 B	20120919	LSGT	+	granted / extensions (spc, cpc, pte)	
CN101932273 B	20120919	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN101932273 B	20120919	LSGT	+GR01	授权 (The grant of patent right)	TEXT：授权 (AUTHORIZATION)
CN101932273 B	20130731	LSAS	ASS	SUCCESSION OR ASSIGNMENT OF PATENT RIGHT	PARTYTYPE：OWNER OWNER：EVONIK DEGUSSA GMBH OLDPARTY：FORMER OWNER: EVONIK STOCKHAUSEN GMBH EFFECTIVE DATE：20130708
CN101932273 B	20130731	LSAS	C41	TRANSFER OF PATENT APPLICATION OR PATENT RIGHT OR UTILITY MODEL	
CN101932273 B	20130731	LSAS	TR01	专利权的转移 (Transfer of patent right)	TEXT：专利申请权、专利权的转移 (TRANSFER OF PATENT APPLICATION OR PATENT RIGHT) PATENTEE AFTER CHANGE：赢创德固赛有限公司 (EVONIK DEGUSSA GMBH) PATENTEE BEFORE CHANGE：赢创施托克豪森有限责任公司 (G STOCKHAUSEN EVONIK SHI TORR LIMITED LIABILITY COMPANY) EFFECTIVE DATE：20130708
CN101932273 B	20150610	LSAS	ASS	SUCCESSION OR ASSIGNMENT OF PATENT RIGHT	PARTYTYPE：OWNER OWNER：DEB IP LTD. OLDPARTY：FORMER OWNER: EVONIK DEGUSSA GMBH EFFECTIVE DATE：20150521
CN101932273 B	20150610	LSAS	C41	TRANSFER OF PATENT APPLICATION OR PATENT RIGHT OR UTILITY MODEL	
CN101932273 B	20150610	LSAS	TR01	专利权的转移 (Transfer of patent right)	TEXT：专利申请权、专利权的转移 (TRANSFER OF PATENT APPLICATION OR PATENT RIGHT) PATENTEE AFTER CHANGE：戴博IP有限公司 (WORN BLOG IP CO., LTD.) PATENTEE BEFORE CHANGE：赢创德固赛有限公司 (EVONIK DEGUSSA GMBH) EFFECTIVE DATE：20150521
CN101932273 B	20200110	LSLE	-CF01	TERMINATION OF PATENT RIGHT DUE TO NON-PAYMENT OF ANNUAL FEE	
CN101932273 B	20200110	LSLE	-CF01	未缴年费专利权终止 (Termination of patent right due to unpaid annual fee)	TEXT：专利权的终止 (TERMINATION OF PATENT RIGHT) EFFECTIVE DATE：20190120
CN101932273 B	20290120	PEXP		Calculated Patent Term Expiry	
DE102008002765 A1	20090806	LSPB	+	published / reissued	
DE102008002765 A1	20090806	LSES	+OP8	REQUEST FOR EXAMINATION AS TO PARAGRAPH 44 PATENT LAW	
DE102008002765 A1	20121031	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE：OWNER OWNER：EVONIK DEGUSSA GMBH, DE OLDPARTY：FORMER OWNER: EVONIK STOCKHAUSEN GMBH, 47805 KREFELD, DE EFFECTIVE DATE：20120907
DE102008002765 A1	20121031	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE：OWNER OWNER：DEB IP LIMITED, DENBY, GB OLDPARTY：FORMER OWNER: EVONIK STOCKHAUSEN GMBH, 47805 KREFELD, DE EFFECTIVE DATE：20120907
DE102008002765 A1	20150312	LSAS	R081	CHANGE OF	PARTYTYPE：OWNER

				APPLICANT/PATENTEE	OWNER : DEB IP LIMITED, DENBY, GB OLDPARTY : FORMER OWNER: EVONIK DEGUSSA GMBH, 45128 ESSEN, DE EFFECTIVE DATE : 20150129
DE102008002765 A1	20160308	LSGT	+R018	GRANT DECISION BY EXAMINATION SECTION/EXAMINING DIVISION	
DE102008002765 B4	20160623	LSGT	+	granted / extensions (spc, cpc, pte)	
DE102008002765 B4	20170324	LSGT	+R020	PATENT GRANT NOW FINAL	
DE102008002765 B4	20190903	LSDW	-R119	APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF RENEWAL FEE	
DE102008002765 B4	20280201	PEXP		Calculated Patent Term Expiry	
EP2306877 A1	20110413	LSPB	+	published / reissued	
EP2306877 A1	20110413	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20101220
EP2306877 A1	20121017	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : EVONIK DEGUSSA GMBH
EP2306877 A1	20141105	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : DEB IP LIMITED
EP2306877 A1	20160113	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20151215
EP2306877 A1	20200101	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20190801
IN03167KN2010 A	20160701	LSPB	+	published / reissued	
KR20100106613 A	20101001	LSPB	+	published / reissued	
KR20100106613 A	20130522	LSAS	N231	NOTIFICATION OF CHANGE OF APPLICANT	
KR20100106613 A	20150810	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20100106613 A	20160127	LSRV	-E601	DECISION TO REFUSE APPLICATION	
MX2010007930 A1	20100804	LSPB	+	published / reissued	
MX2010007930 A1	20130716	LSAS	GB	TRANSFER OR ASSIGNMENT	
MX2010007930 A1	20130716	LSAS	GB	TRANSFER OR ASSIGNMENT	PARTYTYPE : OWNER OWNER : EVONIK DEGUSSA GMBH
MX2010007930 A1	20170209	LSGT	+FG	GRANT OR REGISTRATION	
MX345652 B	20170209	LSGT	+	granted / extensions (spc, cpc, pte)	
MX345652 B	20290120	PEXP		Calculated Patent Term Expiry	
RU2010136924 A	20120310	LSPB	+	published / reissued	
RU2489074 C2	20130810	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2489074 C2	20150227	LSLI	PC41	OFFICIAL REGISTRATION OF THE TRANSFER OF EXCLUSIVE RIGHT	EFFECTIVE DATE : 20150210
RU2489074 C2	20171003	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	EFFECTIVE DATE : 20170121
RU2489074 C2	20290120	PEXP		Calculated Patent Term Expiry	
TW200938435 A	20090916	LSPB	+	published / reissued	
TWI356686 B	20120121	LSGT	+	granted / extensions (spc, cpc, pte)	
TWI356686 B	20161021	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF	

				FEES	
TWI356686 B	20290122	PEXP		Calculated Patent Term Expiry	
US2010294394 AA	20101125	LSPB	+	published / reissued	
US2010294394 AA	20130515	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : EVONIK DEGUSSA GMBH, GERMANY OLDPARTY : MERGER; ASSIGNOR:EVONIK STOCKHAUSEN GMBH; REEL/FRAME:030417/0037 EFFECTIVE DATE : 20120606
US2010294394 AA	20130925	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8555934 BB	20131015	LSGT	+	granted / extensions (spc, cpc, pte)	
US8555934 BB	20100721	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : EVONIK STOCKHAUSEN GMBH, GERMANY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ALLEF, PETRA; NAUELS, BERND; PIELEN, MARKUS; SIGNING DATES FROM 20100526 TO 20100527; REEL/FRAME:024720/0854
US8555934 BB	20130925	LSGT	PAT1	Patented Case	
US8555934 BB	20140820	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DEB IP LIMITED, UNITED KINGDOM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:EVONIK DEGUSSA GMBH; REEL/FRAME:033569/0517 EFFECTIVE DATE : 20140530
US8555934 BB	20170403	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8555934 BB	20300510	PEXP		Calculated Patent Term Expiry (PTA 475 days)	
WO09095337 A1	20090806	LSPB	+	published / reissued	
WO09095337 A1	20090120	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200980103598.4 COUNTRY OF REF DOCUMENT : CN
WO09095337 A1	20100715	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12010501591 COUNTRY OF REF DOCUMENT : PH
WO09095337 A1	20100716	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2712433 COUNTRY OF REF DOCUMENT : CA
WO09095337 A1	20100720	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2010/007930 COUNTRY OF REF DOCUMENT : MX
WO09095337 A1	20100721	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009210189 COUNTRY OF REF DOCUMENT : AU
WO09095337 A1	20100721	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12863868 COUNTRY OF REF DOCUMENT : US
WO09095337 A1	20100803	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO09095337 A1	20100812	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2009210189 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20090120 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

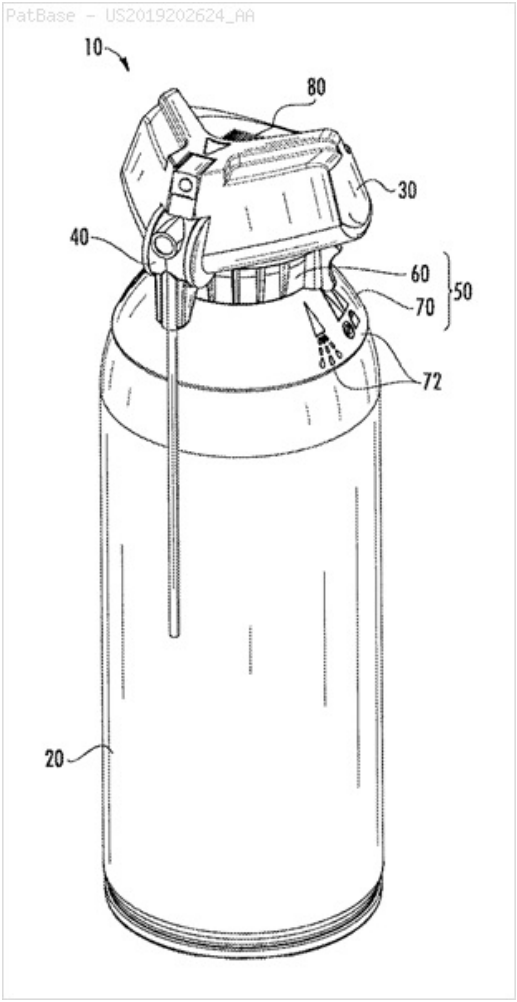
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WO09095337 A1	20100831	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20107019463 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO09095337 A1	20100901	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010136924 COUNTRY OF REF DOCUMENT : RU
WO09095337 A1	20101018	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009705300 COUNTRY OF REF DOCUMENT : EP
WO09095337 A1	20150714	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0905722 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20100716

144) Family number: 68507101 (US2019202624A)

Title: MULTI-FUNCTIONAL FLUID **DISPENSING** SYSTEM AND ASSOCIATED METHODS FOR **DISPENSING**

Abstract: A multi-functional fluid **dispensing** system and method for **dispensing** fluid which provides an end-user the ability to control the fluid flow **dispensed** from the **container** while, in some embodiments, providing illumination of a target area to which the fluids are desired.

Classifications:
International (IPC 8-9): B05B15/00 B65D83/22 B65D83/28 B65D83/30 (Advanced/Invention)
CPC: B65D83/22 B05B11/0094 B65D83/222 B65D83/226 B65D83/228 B65D83/303 B65D83/54 F21V33/00 F21Y2115/10



Family:

Publication number	Publication date	Application number	Application date
CA3032151 AA	20190125	CA20173032151	20170804
EP3493919 A1	20190612	EP20170837758	20170804
US2019202624 AA	20190704	US20170322560	20170804
WO18027129 A1	20180208	WO2017US45489	20170804

Priority:

US20160370960P 20160804 US20160399870P 20160926 WO2017US45489 20170804 US20170322560 20170804

Probable Assignee: RSC CHEMICAL SOLUTIONS

Assignee(s): (std): RSC CHEMICAL SOLUTIONS ; RSC CHEMICAL SOLUTIONS LLC

Assignee(s): WILLIAMSON MURRAY ; ANDREWS NICOLE ; BEAVER LARRY GENE ; LIVINGSTONE MARSHAL ; MACLEAN BLEVINS MARK T

Inventor(s): (std): WILLIAMSON MURRAY ; MACLEAN BLEVINS MARK T ; LIVINGSTONE MARSHAL ; BEAVER LARRY GENE ; ANDREWS NICOLE

Agent(s): BRION RAFFOUL; THUM BERNHARD; EDWARDS JAMES C

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ 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 IR IS IT JO JP KE KG KH KM KN KP KR KW 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 PA PE PG PH PL PT QA RO RS RU RW SA 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 ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CA3032151 AA	20190125	LSPB	+	published / reissued	
EP3493919 A1	20190612	LSPB	+	published /	

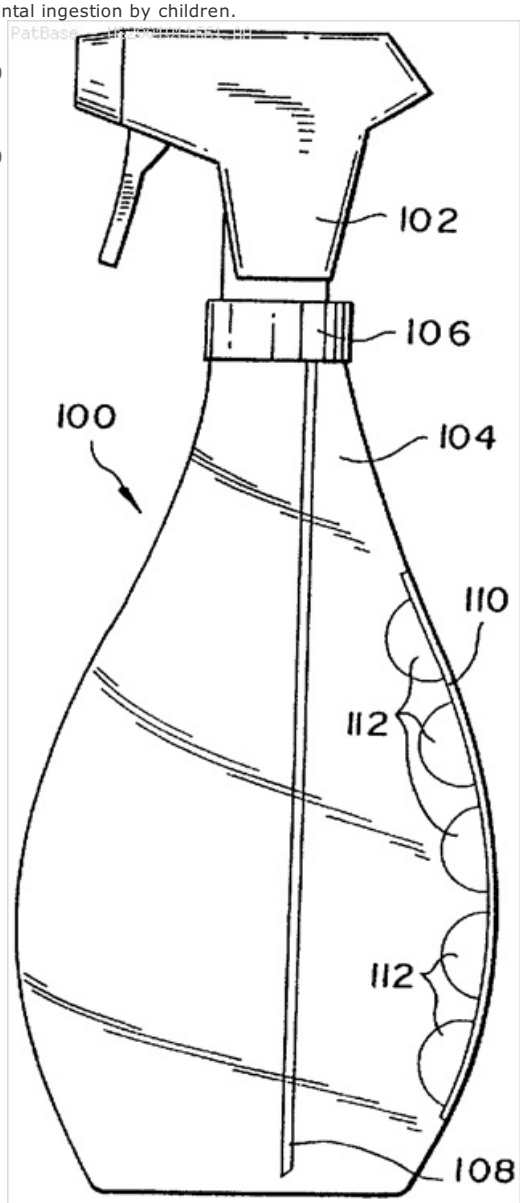
				reissued	
EP3493919 A1	20190612	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20190222
US2019202624 AA	20190704	LSPB	+	published / reissued	
US2019202624 AA	20190201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : RSC CHEMICAL SOLUTIONS, LLC, NORTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ANDREWS, NICOLE; BEAVER, LARRY GENE; LIVINGSTONE, MARSHAL; AND OTHERS; SIGNING DATES FROM 20161213 TO 20161214; REEL/FRAME:048216/0841
US2019202624 AA	20191112	LSES	NFA1	Non Final Action Mailed	
WO18027129 A1	20180208	LSPB	+	published / reissued	
WO18027129 A1	20190125	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 3032151 COUNTRY OF REF DOCUMENT : CA
WO18027129 A1	20190205	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO18027129 A1	20190308	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2017837758 COUNTRY OF REF DOCUMENT : EP EFFECTIVE DATE : 20190304

145) Family number: 23369102 (US2001011661A)

Title: RECHARGEABLE **DISPENSERS**

Abstract: Rechargeable **dispensers**, in particular spray bottle **dispensers** including at least one chemical reservoir for recharging the spray bottle **dispenser**. Preferably, a plurality of separate chemical reservoirs **containing** chemical concentrate are provided within the spray bottle **dispenser** to fully **contain** any inadvertent spillage of chemicals, and to insure a high degree of safety against accidental spills, and/or accidental ingestion by children.

Classifications:
International (IPC 8-9): B05B11/00 B05B7/04 B05B7/26 B05B9/03 B29C49/04 B29C49/06 B29C49/20 B29C49/50 B29C49/74 B29D1/00 B29D22/00 B65D1/00 B65D1/02 B65D1/20 B65D25/08 B65D47/06 B65D81/32 B65D83/76 B67D3/00 B67D5/40 B67D5/52 B67D5/56 B67D7/58 B67D7/70 B67D7/74 (Advanced/Invention);
B29C49/04 B29C49/06 B65D47/06 B65D81/32 B65D83/76 B67D3/00 B67D7/58 B67D7/70 (Advanced/Non-invention);
B05B11/00 B05B7/04 B05B7/24 B05B9/03 B65D47/06 B65D81/32 B65D83/76 B67D3/00 B67D7/58 (Core/Invention)
International (IPC 1-7): B05B1/12 B05B11/00 B05B7/04 B05B7/26 B05B9/03 B05B9/043 B29C49/04 B29C49/06 B67D5/00 B67D5/40 B67D5/52 B67D5/60
CPC: B29C49/04 B05B11/0083 B65D1/20 B65D1/023 B29K2067/00 B29K2027/06 B29K2023/12 B29K2023/06 B29C2793/009 B29C2049/5837 B29C2049/048 B29C49/06 B05B11/0081 B05B11/3057 Y10T428/13 B05B11/00 B05B11/0056 B05B11/0086 B05B11/0097 B05B11/3081 B29L2031/7158
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Publication number	Publication date	Application number	Application date
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CA2223443 AA	19971204	CA19962223443	19960607
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Priority:

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US20020217138	20020813	US20070822229	20070703		

Probable Assignee: SUNPAT LLC

Assignee(s): (std): KLIMA WALTER F ; KLIMA WALTER F JR ; KLIMA WILLIAM L ; SPRAYER L L C ; SPRAYEX INC ; SPRAYEX L L C ; SPRAYEX LLC ; SPRAYEX LLC SUBSTITUTION UNDER ; SPRAYEX LLC SUBSTITUTION UNDER SECTION 24 1 SU ; WALTER F KLIMA JR ; SPRAYTEC SYSTEMS LLC ; SUNPAT L L C ; SPRAYTEC SYSTEMS ; SPRAYTEC SYSTEMS L L C ; WILLIAM L KLIMA

Assignee(s): SUNPAT LLC ; SUNPAT LLC LI ILITY CO IN COMMW ABLTD ; SPRAYEX LLC SUBSTITUTION UNDER SECTION 24 1 SUBSTITUTION UNDER SECTION 24 1

Inventor(s): (std): KLIMA WILLIAM L ; KLIMA WALTER F JR ; WILLIAM L KLIMA ; WALTER F KLIMA JR ; KLIMA JR WALTER F ; JR ; KLIMA F ; KLIMA W F JR ; KLIMA W L ; KLIMA WALTER F ; WALTER F JR KLIMA ; WALTER F KLIMA ; WALTER JR ; WFJRKLIMA ; WLKLIMA

Inventor(s): WILLIAML KLIMA ; WALTERF KLIMA ; KLIMA WALTER FJR ; KLIMA WILLIAM ; W F JR KLIMA ; W L KLIMA

; KLIMA WALTER ; F KLIMA

Agent(s): PETER MAXWELL AND ASSOCIATES; MAXWELLS PATENT AND TRADE MARK ATTORNEYS PTY LTD; GOWLING LAFLEUR HENDERSON LLP; LAW OFFICES OF WILLIAM L KLIMA PC; WILLIAM L KLIMA

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 GE GH GM GN GR GW HR HU ID IE IL IS IT JP KE KG KP KR KZ LC LI 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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU199532005 A1	19960222	LSPB	+	published / reissued	
AU199661702 A1	19961230	LSPB	+	published / reissued	
AU199661702 A1	20010111	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2)(E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
AU199665962 A1	19970226	LSPB	+	published / reissued	
AU199665962 A1	20001214	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2)(E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
AU199745145 A1	19980205	LSPB	+	published / reissued	
AU199745145 A1	20001214	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2)(E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
AU199864163 A1	19980918	LSPB	+	published / reissued	
AU199864163 A1	20020926	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2)(E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
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AU200227698 A1	20020516	LSPB	+	published / reissued	
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AU2002300215 AA	20021219	LSPB	+	published / reissued	
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AU746911 B2	20020829	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	

AU746911 B2	20040226	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU746911 B2	20190715	PEXP		Calculated Patent Term Expiry	
AU753451 B2	20021017	LSGT	+	granted / extensions (spc, cpc, pte)	
AU753451 B2	20030213	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
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AU753451 B2	20180720	PEXP		Calculated Patent Term Expiry	
CA2195781 AA	19970122	LSPB	+	published / reissued	
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CN1057974 C	20001101	LSGT	+GR01	授权 (The grant of patent right)	TEXT：授权 (AUTHORIZATION)
CN1057974 C	20060927	LSLE	-C19	LAPSE OF PATENT RIGHT DUE TO NON-PAYMENT OF THE ANNUAL FEE	
CN1057974 C	20060927	LSLE	-CF01	未缴年费专利权终止 (Termination of patent right due to unpaid annual fee)	TEXT：专利权的终止未缴年费专利权终止 (ANY CESSATION TERMINATION OF PATENT RIGHT DUE TO FAILURE TO PAY ANNUAL FEE)

CN1057974 C	20150725	PEXP		Calculated Patent Term Expiry	
CN1060452 C	20010110	LSGT	+	granted / extensions (spc, cpc, pte)	
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CN1060452 C	20010124	LSRE	C53	CORRECTION OF PATENT FOR INVENTION OR PATENT APPLICATION	
CN1060452 C	20010124	LSRE	COR	CHANGE OF BIBLIOGRAPHIC DATA	TEXT : CORRECT: APPLICANT; FROM: SPRAYECS LTD. TO: SPRAYECS COMPANY
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CN1161028 A	19971001	LSPB	+	published / reissued	
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CN1165506 A	19971119	LSPB	+	published / reissued	
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CN1165506 A	19971119	LSPB	PB01	公开 (The publication of application)	TEXT : 公开 (DISCLOSURE)
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CN1165506 A	19990120	LSAS	CP03	专利权人的姓名或者名称、地址的变更 (Change of the name or address of a patentee)	TEXT : 著录项目变更 (CHANGES IN BIBLIOGRAPHIC DATA) ASSIGNEE AFTER CHANGE : 斯普瑞克斯有限公司 (ALEX ADAMS PURI LTD.) ASSIGNEE BEFORE CHANGE : 威廉·L·克利莫; 沃尔特·F·JR·克利莫 (WILLIAM · L · MO CLEVELAND.; WALTER · F · JR · MO CLEVELAND.)
CN1165506 A	20000216	LSRE	C53	CORRECTION OF PATENT FOR INVENTION OR PATENT APPLICATION	
CN1165506 A	20000216	LSRE	COR	CHANGE OF BIBLIOGRAPHIC DATA	TEXT : CORRECT: APPLICANT; FROM: SPRAYECS LTD. TO: SPRAYECS COMPANY
CN1165506 A	20000216	LSAS	CP03	专利权人的姓名或者名称、地址的变更 (Change of the	TEXT : 著录项目变更 (CHANGES IN BIBLIOGRAPHIC DATA) ASSIGNEE AFTER CHANGE : 斯普瑞

				name or address of a patentee)	克斯公司 (SPRINGFIELD PHOENIX CO) ASSIGNEE BEFORE CHANGE : 斯普瑞克斯有限公司 (ALEX ADAMS PURI LTD.)
CN1186476 A	19980701	LSPB	+	published / reissued	
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EP0777625 A4	20030806	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20030108
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JP10511629 T2	20070510	LSRV	-A313	FINAL DECISION OF REJECTION WITHOUT A DISSENTING RESPONSE FROM THE APPLICANT	TEXT : JAPANESE INTERMEDIATE CODE: A313 EFFECTIVE DATE : 20070420
JP10511629 T2	20070529	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20070529
JP2001510127 T2	20010731	LSPB	+	published / reissued	
JP2001516314 T2	20010925	LSPB	+	published / reissued	
JP2001517182 T2	20011002	LSPB	+	published / reissued	
JP2001517182 T2	20041019	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20041019
JP2001517182 T2	20050616	LSRV	-A313	FINAL DECISION OF REJECTION WITHOUT A DISSENTING RESPONSE FROM THE APPLICANT	TEXT : JAPANESE INTERMEDIATE CODE: A313 EFFECTIVE DATE : 20050530
JP2001517182 T2	20050705	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20050705
JP2002509504 T2	20020326	LSPB	+	published / reissued	
JP2005289518 A2	20051020	LSPB	+	published / reissued	
JP2005289518 A2	20050906	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20050905
JP2005289518 A2	20070807	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20070807
JP2005289518 A2	20080208	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20080207
JP2005289518 A2	20080729	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20080729
JP2005289518 A2	20081125	LSWD	-A045	WRITTEN MEASURE OF DISMISSAL OF APPLICATION	TEXT : JAPANESE INTERMEDIATE CODE: A045 EFFECTIVE DATE : 20081125
JP2007210682 A2	20070823	LSPB	+	published / reissued	
JP2007210682 A2	20071127	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20071127
JP2007210682 A2	20080722	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20080722

KR19970704626 A	19970906	LSPB	+	published / reissued	
KR19970706201 A	19971103	LSPB	+	published / reissued	
KR19977006201 A	19971103	LSPB	+	published / reissued	
KR19990022409 A	19990325	LSPB	+	published / reissued	
KR19990022409 A	19990302	LSAS	N231	NOTIFICATION OF CHANGE OF APPLICANT	
KR19990022409 A	20020313	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
KR20000075750 A	20001226	LSPB	+	published / reissued	
KR20000075750 A	19991025	LSAS	N231	NOTIFICATION OF CHANGE OF APPLICANT	
KR20000075750 A	20030228	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
KR20010022048 A	20010315	LSPB	+	published / reissued	
KR20010022048 A	20000705	LSAS	N231	NOTIFICATION OF CHANGE OF APPLICANT	
KR20010022048 A	20030721	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
KR970704626 A	19970906	LSPB	+	published / reissued	
KR970704626 A	19990302	LSAS	N231	NOTIFICATION OF CHANGE OF APPLICANT	
KR970704626 A	20000724	LSES	A201	REQUEST FOR EXAMINATION	
KR970704626 A	20021121	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR970704626 A	20030829	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR970704626 A	20040214	LSRV	-E601	DECISION TO REFUSE APPLICATION	
KR970706201 A	19971103	LSPB	+	published / reissued	
KR970706201 A	19990302	LSAS	N231	NOTIFICATION OF CHANGE OF APPLICANT	
KR970706201 A	20020313	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
NZ291008 A	19990729	LSPB	+	published / reissued	
NZ335647 A	20010126	LSPB	+	published / reissued	
NZ502248 A	20020828	LSPB	+	published / reissued	
NZ502248 A	20030131	LSGT	+PSEA	PATENT SEALED	
US2001011661 AA	20010809	LSPB	+	published / reissued	
US2001011661 AA	20011120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SUNPAT L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX, INC.; REEL/FRAME:012273/0812 EFFECTIVE DATE : 20011120
US2001011661 AA	20030723	LSWD	-ABD2	Abandoned -- Failure to Pay Issue Fee	
US2002031625 AA	20020314	LSPB	+	published / reissued	
US2002031625 AA	20031001	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	

US2003000961 AA	20030102	LSPB	+	published / reissued	
US2003000961 AA	20090717	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2003038186 AA	20030227	LSPB	+	published / reissued	
US2003038186 AA	20100524	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2008011779 AA	20080117	LSPB	+	published / reissued	
US2008011779 AA	20101206	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US5529216 A	19960625	LSGT	+	granted / extensions (spc, cpc, pte)	
US5529216 A	19951025	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYTEC SYSTEMS, VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KLIMA, WILLIAM L.; KLIMA, WALTER P., JR.; REEL/FRAME:007686/0021; SIGNING DATES FROM 19950731 TO 19950831
US5529216 A	19960610	LSGT	PAT1	Patented Case	
US5529216 A	19960610	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5529216 A	19980812	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYEX L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYTEC SYSTEMS; REEL/FRAME:009386/0840 EFFECTIVE DATE : 19970822
US5529216 A	19990430	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYEX, INC., SOUTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX L.L.C.; REEL/FRAME:009950/0483 EFFECTIVE DATE : 19990429
US5529216 A	19991221	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5529216 A	20011120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SUNPAT L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX, INC.; REEL/FRAME:012273/0812 EFFECTIVE DATE : 20011120
US5529216 A	20031229	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5529216 A	20080625	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYEX, LLC, VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SUNPAT, LLC; REEL/FRAME:021172/0300 EFFECTIVE DATE : 20080625
US5529216 A	20080625	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5529216 A	20140725	PEXP		Calculated Patent Term Expiry	
US5836479 A	19981117	LSGT	+	granted / extensions (spc, cpc, pte)	
US5836479 A	19980205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYEX L.L.C., SOUTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KLIMA, WILLIAM L.; KLIMA, WALTER F., JR.; REEL/FRAME:008968/0421;

					SIGNING DATES FROM 19980119 TO 19980205
US5836479 A	19990430	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYEX, INC., SOUTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX L.L.C.; REEL/FRAME:009950/0483 EFFECTIVE DATE : 19990429
US5836479 A	20011120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SUNPAT L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX, INC.; REEL/FRAME:012273/0812 EFFECTIVE DATE : 20011120
US5836479 A	20021105	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5836479 A	20061117	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5836479 A	20101117	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5836479 A	20101213	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5836479 A	20101213	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5836479 A	20110104	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20101117
US5836479 A	20170721	PEXP		Calculated Patent Term Expiry	
US5871122 A	19990216	LSGT	+	granted / extensions (spc, cpc, pte)	
US5871122 A	19960903	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYTEC SYSTEMS, L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KLIMA, WILLIAM L.; KLIMA, WALTER F., JR; REEL/FRAME:008114/0090 EFFECTIVE DATE : 19960823
US5871122 A	19970821	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYEX L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYTEC SYSTEMS; REEL/FRAME:008689/0871 EFFECTIVE DATE : 19970821
US5871122 A	19990430	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYEX, INC., SOUTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX L.L.C.; REEL/FRAME:009950/0483 EFFECTIVE DATE : 19990429
US5871122 A	20011120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SUNPAT L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX, INC.; REEL/FRAME:012273/0812 EFFECTIVE DATE : 20011120
US5871122 A	20021105	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5871122 A	20060815	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5871122 A	20110216	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5871122 A	20110314	LSLE	-PEX1	Patent Expired Due to NonPayment of	

				Maintenance Fees Under 37 CFR 1.362	
US5871122 A	20110314	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5871122 A	20110405	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20110216
US5871122 A	20160621	PEXP		Calculated Patent Term Expiry	
US5890624 A	19990406	LSGT	+	granted / extensions (spc, cpc, pte)	
US5890624 A	19950918	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYTEC SYSTEMS, VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KLIMA, WILLIAM L.; KLIMA, WALTER F. JR.; REEL/FRAME:007664/0632; SIGNING DATES FROM 19950731 TO 19950918
US5890624 A	19970821	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYEX L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYTEC SYSTEMS; REEL/FRAME:008689/0842 EFFECTIVE DATE : 19970821
US5890624 A	19990430	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYEX, INC., SOUTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX L.L.C.; REEL/FRAME:009950/0483 EFFECTIVE DATE : 19990429
US5890624 A	20011120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SUNPAT L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX, INC.; REEL/FRAME:012273/0812 EFFECTIVE DATE : 20011120
US5890624 A	20030407	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5890624 A	20061005	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5890624 A	20110406	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5890624 A	20110502	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5890624 A	20110502	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5890624 A	20110524	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20110406
US5890624 A	20160406	PEXP		Calculated Patent Term Expiry	
US5944223 A	19990831	LSGT	+	granted / extensions (spc, cpc, pte)	
US5944223 A	19990430	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYEX, INC., SOUTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX L.L.C.; REEL/FRAME:009950/0483 EFFECTIVE DATE : 19990429
US5944223 A	20011120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SUNPAT L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST;

					ASSIGNOR:SPRAYEX, INC.; REEL/FRAME:012273/0812 EFFECTIVE DATE : 20011120
US5944223 A	20030902	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5944223 A	20031001	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5944223 A	20031001	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5944223 A	20031028	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20030831
US5944223 A	20171104	PEXP		Calculated Patent Term Expiry	
US5947332 A	19990907	LSGT	+	granted / extensions (spc, cpc, pte)	
US5947332 A	19971020	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYEX L.L.C., SOUTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KLIMA, WALTER F., JR.; KLIMA, WILLIAM L.; REEL/FRAME:008810/0354; SIGNING DATES FROM 19970829 TO 19971017
US5947332 A	19990430	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYEX, INC., SOUTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX L.L.C.; REEL/FRAME:009950/0483 EFFECTIVE DATE : 19990429
US5947332 A	20011120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SUNPAT L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX, INC.; REEL/FRAME:012273/0812 EFFECTIVE DATE : 20011120
US5947332 A	20030904	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5947332 A	20070306	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5947332 A	20110907	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5947332 A	20111003	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5947332 A	20111003	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5947332 A	20111025	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20110907
US5947332 A	20170507	PEXP		Calculated Patent Term Expiry	
US6073808 A	20000613	LSGT	+	granted / extensions (spc, cpc, pte)	
US6073808 A	19990430	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYEX, INC., SOUTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX L.L.C.; REEL/FRAME:009950/0483 EFFECTIVE DATE : 19990429
US6073808 A	20011120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SUNPAT L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF

					ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX, INC.; REEL/FRAME:012273/0812 EFFECTIVE DATE : 20011120
US6073808 A	20031212	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6073808 A	20070613	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6073808 A	20120613	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6073808 A	20120709	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6073808 A	20120709	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6073808 A	20120731	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20120613
US6073808 A	20190211	PEXP		Calculated Patent Term Expiry	
US6319453 BA	20011120	LSGT	+	granted / extensions (spc, cpc, pte)	
US6319453 BA	19970807	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYTEC SYSTEMS, L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KLIMA, WALTER F., JR.; KLIMA, WILLIAM L.; REEL/FRAME:008638/0330; SIGNING DATES FROM 19970729 TO 19970807
US6319453 BA	19970821	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYEX L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYTEC SYSTEMS, L.L.C.; REEL/FRAME:008688/0698 EFFECTIVE DATE : 19970821
US6319453 BA	19990430	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYEX, INC., SOUTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX L.L.C.; REEL/FRAME:009950/0483 EFFECTIVE DATE : 19990429
US6319453 BA	20011120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SUNPAT L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX, INC.; REEL/FRAME:012273/0812 EFFECTIVE DATE : 20011120
US6319453 BA	20051110	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6319453 BA	20091120	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6319453 BA	20091221	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6319453 BA	20091221	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6319453 BA	20100112	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20091120
US6319453 BA	20170228	PEXP		Calculated Patent Term Expiry	
US6431402 BA	20020813	LSGT	+	granted / extensions (spc,	

				cpc, pte)	
US6431402 BA	20011120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SUNPAT L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX, INC.; REEL/FRAME:012273/0812 EFFECTIVE DATE : 20011120
US6431402 BA	20060209	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6431402 BA	20100813	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6431402 BA	20100913	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6431402 BA	20100913	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6431402 BA	20101005	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20100813
US6431402 BA	20200613	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US6540109 BA	20030401	LSGT	+	granted / extensions (spc, cpc, pte)	
US6540109 BA	19990430	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SPRAYEX, INC., SOUTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX L.L.C.; REEL/FRAME:009950/0483 EFFECTIVE DATE : 19990429
US6540109 BA	20011120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SUNPAT L.L.C., VIRGINIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPRAYEX, INC.; REEL/FRAME:012273/0812 EFFECTIVE DATE : 20011120
US6540109 BA	20061002	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6540109 BA	20110401	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6540109 BA	20110502	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6540109 BA	20110502	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6540109 BA	20110524	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20110401
US6540109 BA	20181116	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
WO9603344 A1	19960208	LSPB	+	published / reissued	
WO9603344 A1	19950725	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 95194342.1 COUNTRY OF REF DOCUMENT : CN
WO9603344 A1	19970122	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2195781 COUNTRY OF REF DOCUMENT : CA
WO9603344 A1	19970123	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 291008 COUNTRY OF REF DOCUMENT : NZ

WO9603344 A1	19970124	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1019970700466 COUNTRY OF REF DOCUMENT : KR
WO9603344 A1	19970410	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1995928137 COUNTRY OF REF DOCUMENT : EP
WO9603344 A1	19970430	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO9603344 A1	19970611	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995928137 COUNTRY OF REF DOCUMENT : EP
WO9603344 A1	19970906	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019970700466 COUNTRY OF REF DOCUMENT : KR
WO9603344 A1	20030108	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995928137 COUNTRY OF REF DOCUMENT : EP
WO9603344 A1	20040214	LSRV	-WWR	WIPO INFORMATION: REFUSED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019970700466 COUNTRY OF REF DOCUMENT : KR
WO9640583 A1	19961219	LSPB	+	published / reissued	
WO9640583 A1	19960607	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 96194426.9 COUNTRY OF REF DOCUMENT : CN
WO9640583 A1	19971126	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 310833 COUNTRY OF REF DOCUMENT : NZ
WO9640583 A1	19971127	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1996919344 COUNTRY OF REF DOCUMENT : EP
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WO9640583 A1	19971205	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1019970708889 COUNTRY OF REF DOCUMENT : KR
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WO9640583 A1	19990325	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019970708889 COUNTRY OF REF DOCUMENT : KR

WO9640583 A1	20020313	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019970708889 COUNTRY OF REF DOCUMENT : KR
WO9640583 A1	20040414	LSRV	-WWR	WIPO INFORMATION: REFUSED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1996919344 COUNTRY OF REF DOCUMENT : EP
WO9640583 A1	20040726	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1996919344 COUNTRY OF REF DOCUMENT : EP
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WO9705056 A1	19960725	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 96190810.6 COUNTRY OF REF DOCUMENT : CN
WO9705056 A1	19970324	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2200864 COUNTRY OF REF DOCUMENT : CA
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WO9705056 A1	19970325	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1019970701940 COUNTRY OF REF DOCUMENT : KR
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WO9838094 A2	19980227	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 98802948.0 COUNTRY OF REF DOCUMENT : CN
WO9838094 A3	19990805	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 337083 COUNTRY OF REF DOCUMENT : NZ
WO9838094 A3	19990806	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 64163/98 COUNTRY OF REF DOCUMENT : AU
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WO9838094 A3	20030801	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998909703 COUNTRY OF REF DOCUMENT : EP
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WO9903778 A1	19980720	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 98807463.X COUNTRY OF REF DOCUMENT : CN
WO9903778 A1	20000111	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 502248 COUNTRY OF REF DOCUMENT : NZ
WO9903778 A1	20000112	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2302465 COUNTRY OF REF DOCUMENT : CA
WO9903778 A1	20000112	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2302465 COUNTRY OF REF DOCUMENT : CA KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO9903778 A1	20000112	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 84848/98 COUNTRY OF REF DOCUMENT : AU
WO9903778 A1	20000120	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020007000617 COUNTRY OF REF DOCUMENT : KR
WO9903778 A1	20000121	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1998935651 COUNTRY OF REF DOCUMENT : EP
WO9903778 A1	20000510	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998935651 COUNTRY OF REF DOCUMENT : EP

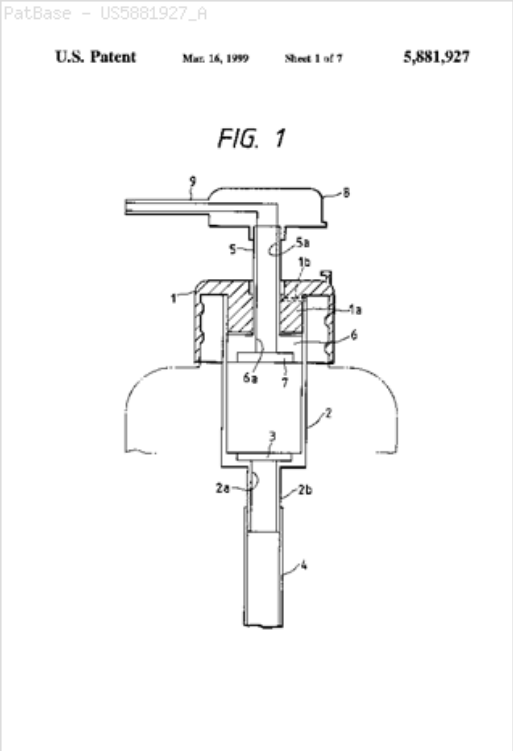
WO9903778 A1	20000525	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
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WO9903778 A1	20030130	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 84848/98 COUNTRY OF REF DOCUMENT : AU
WO9903778 A1	20030721	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1020007000617 COUNTRY OF REF DOCUMENT : KR
WO9903778 A1	20030801	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998935651 COUNTRY OF REF DOCUMENT : EP

146) Family number: 10764102 (US5881927A)

Title: Pump mechanism

Abstract: In a pump mechanism attached to a **container** to fill a **liquid** and eject the **liquid** from the **container**, the pump mechanism includes: a cylinder having a **liquid** introduction port; a piston which is displaceable in the cylinder; an ejection guide path for the **liquid**, the path being communicated with the space in the cylinder, the **liquid** stored in the cylinder being ejected via the ejection guide path by a pushing force which causes the piston to be displaced from the original position to a displaced position; and a recovery device for restoring the piston from the displaced position to the original position by a gas pressure and storing the **liquid** in the cylinder when the pushing force is released. The pushing force causes the space in the piston to enter a substantially vacuum state, and the gas pressure is generated by a pressure difference between the internal pressure of the space and atmospheric pressure acting via the **liquid** on the piston. With the pump mechanism, when it is to be subjected to a disposal process or a recycle process, it is not required to conduct selection according to the material and which can be therefore subjected to such a process at a low cost.

Classifications:
International (IPC 8-9): A47K5/12 B05B11/00
B65D47/34 (Advanced/Invention);
F04B1/02 (Advanced/Non-invention);
A47K5/00 B65D47/34 B67D5/42 (Core/Invention);
A47K5/12 B65D47/34 (Core/Non-invention)
International (IPC 1-7): A47K5/12 B05B11/00 B65D47/34
B65D83/16 B67D5/42 F04B1/02 F04B9/14
CPC: B05B11/3001 B05B11/3078 B05B11/3097
European: B05B11/00P3 B05B11/30C B05B11/30H8H B05B11/30T
US: 222/321.7 222/321.9 222/336



Family:

Publication number	Publication date	Application number	Application date
CN1076308 C	20011219	CN19961022407	19960907
CN1159416 A	19970917	CN19961022407	19960907
DE69624642 D1	20021212	DE19966024642	19960826
DE69624642 T2	20030320	DE19966024642T	19960826
DE69637330 D1	20080103	DE19966037330	19960826
DE69637330 T2	20080320	DE19966037330T	19960826
EP0761559 A2	19970312	EP19960113661	19960826
EP0761559 A3	19980506	EP19960113661	19960826
EP0761559 B1	20021106	EP19960113661	19960826
EP1083002 A2	20010314	EP20000124659	19960826
EP1083002 A3	20030604	EP20000124659	19960826
EP1083002 B1	20071121	EP20000124659	19960826
JP3804691 B2	20060802	JP19960093770	19960416
JP9131275 A2	19970520	JP19960093770	19960416
KR19970016111 A	19970428	KR19960038578	19960906
KR970016111 A	19970428	KR19960038578	19960906
TH19696 B	20060320	TH19961002960	19960904
TH32502 A	19990310	TH19961002960	19960904
TW312676 B	19970811	TW19960109808	19960813
US5881927 A	19990316	US19960696802	19960814
US6105830 A	20000822	US19980165093	19981002

Priority:

JP19950230520 19950907 JP19960093770 19960416 US19960696802 19960814
EP19960113661 19960826 US19980165093 19981002

Probable Assignee: KAO CORP
Assignee(s): (std): KAO CORP
Assignee(s): KAO CORP TOKIO TOKYO ; KAO CORPJP
Inventor(s): (std): INAGAWA YOSHINORI ; YOSHINORI INAKAWA
Inventor(s): INAKAWA YOSHINORI ; Yoshinori ; Inagawa
Designated states: DE FR GB

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CN1076308 C	20011219	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1076308 C	20011219	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1076308 C	20141029	LSLE	-C17	CESSATION OF PATENT RIGHT	
CN1076308 C	20160907	PEXP		Calculated Patent Term Expiry	
CN1159416 A	19970917	LSPB	+	published / reissued	
CN1159416 A	19970917	LSPB	+C06	PUBLICATION	
DE69624642 D1	20031204	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69624642 T2	20030320	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69624642 T2	20160826	PEXP		Calculated Patent Term Expiry	
DE69637330 D1	20081211	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69637330 T2	20080320	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69637330 T2	20160826	PEXP		Calculated Patent Term Expiry	
EP0761559 A2	19970312	LSPB	+	published / reissued	
EP0761559 A3	19981223	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19981026
EP0761559 A3	19991222	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19991105
EP0761559 B1	20021106	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0761559 B1	20021106	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP0761559 B1	20031029	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20030807
EP0761559 B1	20121031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20120822 YEAR OF FEE PAYMENT : 17
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EP0761559 B1	20121231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20120822 YEAR OF FEE PAYMENT : 17
EP0761559 B1	20140423	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20130826
EP0761559 B1	20140430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140301
EP0761559 B1	20140523	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20140430
EP0761559 B1	20140528	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119

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EP0761559 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130826
EP0761559 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130902
EP0761559 B1	20160826	PEXP		Calculated Patent Term Expiry	
EP1083002 A2	20010314	LSPB	+	published / reissued	
EP1083002 A3	20031217	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20031017
EP1083002 A3	20040225	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : DE COUNTRY OF REF DOCUMENT : FR COUNTRY OF REF DOCUMENT : GB
EP1083002 A3	20070124	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20061222
EP1083002 B1	20071121	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1083002 B1	20071121	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1083002 B1	20081029	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20080822
EP1083002 B1	20121031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20120822 YEAR OF FEE PAYMENT : 17
EP1083002 B1	20121231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20120823 YEAR OF FEE PAYMENT : 17
EP1083002 B1	20121231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20120822 YEAR OF FEE PAYMENT : 17
EP1083002 B1	20140423	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20130826
EP1083002 B1	20140430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140301
EP1083002 B1	20140522	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 69637330 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140301
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					20140430
EP1083002 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130826
EP1083002 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130902
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JP3804691 B2	20090421	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 4
JP3804691 B2	20100420	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 5
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JP3804691 B2	20110419	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 6
JP3804691 B2	20120424	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
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JP3804691 B2	20160416	PEXP		Calculated Patent Term Expiry	
JP9131275 A2	19970520	LSPB	+	published / reissued	
JP9131275 A2	20050608	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20050607
JP9131275 A2	20050808	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20050805
JP9131275 A2	20051214	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20051213
JP9131275 A2	20060209	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20060208
JP9131275 A2	20060428	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP9131275 A2	20060508	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20060502
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KR19970016111 A	19970428	LSPB	+	published / reissued	
KR970016111 A	19970428	LSPB	+	published / reissued	
KR970016111 A	20020313	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	

TH19696 B	20060320	LSGT	+	granted / extensions (spc, cpc, pte)	
TH19696 B	20160904	PEXP		Calculated Patent Term Expiry	
TH32502 A	19990310	LSPB	+	published / reissued	
TW312676 B	19970811	LSGT	+	granted / extensions (spc, cpc, pte)	
TW312676 B	20140511	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TW312676 B	20160813	PEXP		Calculated Patent Term Expiry	
US5881927 A	19990316	LSGT	+	granted / extensions (spc, cpc, pte)	
US5881927 A	19960916	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KAO CORPORATION, JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:INAGAWA, YOSHINORI; REEL/FRAME:008137/0552 EFFECTIVE DATE : 19960802
US5881927 A	19990208	LSGT	PAT1	Patented Case	
US5881927 A	19990208	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5881927 A	20020822	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5881927 A	20060828	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5881927 A	20100818	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5881927 A	20160814	PEXP		Calculated Patent Term Expiry	
US6105830 A	20000822	LSGT	+	granted / extensions (spc, cpc, pte)	
US6105830 A	20000803	LSGT	PAT1	Patented Case	
US6105830 A	20000803	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6105830 A	20040121	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6105830 A	20080125	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6105830 A	20110921	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6105830 A	20181002	PEXP		Calculated Patent Term Expiry	

147) Family number: 30416102 (US5435452A)

Title: MULTILAYER BOTTLE WITH SEPARABLE LAYER

Abstract: PCT No. PCT/JP92/00997 Sec. 371 Date May 5, 1993 Sec. 102(e) Date May 5, 1993 PCT Filed Aug. 5, 1992 PCT Pub. No. WO93/02926 PCT Pub. Date Feb. 18, 1993.In a multilayer bottle having at least two layers including an outer layer and an inner layer according to the present invention, the inner layer and the outer layer adjacent thereto are separable from each other at a body of the bottle while the inner layer and the outer layer are adhered to each other at at least a part thereof in order to prevent the deformation of the bottle due to the reduction of a pressure in the bottle. When the pressure in the bottle reduces due to the volatilization of a content in the bottle or due to the discharge of the content by a pump and the like, the inner layer is separated from the outer layer and is crushed in the form of a bag, so that the outer layer is not deformed at all.

Classifications:

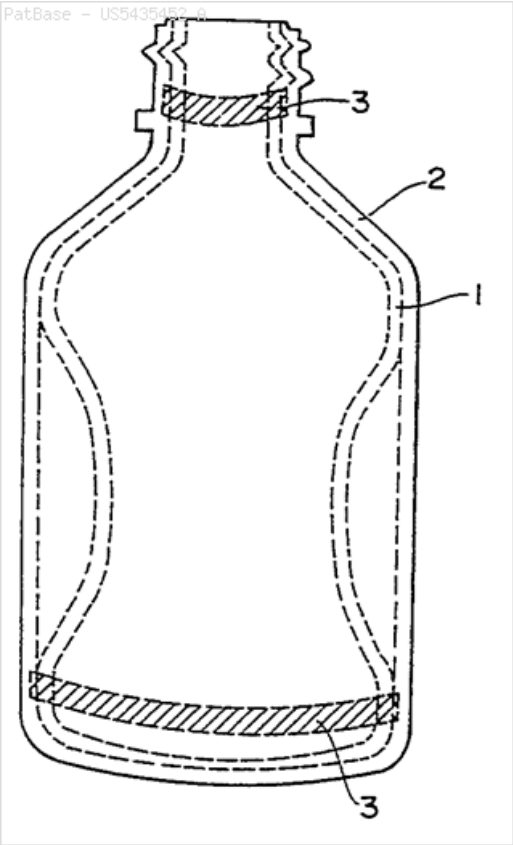
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International (IPC 1-7): B05B11/00 B29B11/14 B29C49/04 B29C49/22 B29C49/42 B29D24/00 B32B1/02 B32B27/00 B32B7/06 B65D1/00 B65D1/02 B65D1/09 B65D1/40 B65D23/00 B65D23/02 B65D25/40 B65D35/28 B65D47/34 B65D77/04 B65D77/06 B65D83/00 B65D83/76 F04B9/14

CPC: B05B11/30 B05B15/30 B65D83/0055 B05B11/00412 B65D1/0215 B29C49/04 B29C49/06 B29C2793/0045 B29C2793/0054 B29L2009/001 B29L2031/7158

European: B05B11/00B5A2 B05B15/00E B65D1/02B1 L05B11/00B5A2 L05B11/30 L05B15/00Y20 L29C49/04 L29C49/06 L29C793/00E L29C793/00F L29L31/7158 L29L9/00B

US: 215/12.1 220/410 220/413 220/495.05 222/105 222/183 222/382 222/464.1 222/464.2 222/95 264/139 264/154 264/515



Family:

Publication number	Publication date	Application number	Application date
AU199224153 A1	19930302	AU19920024153	19920805
AU199342723 A1	19931213	AU19930042723	19930511
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Priority:

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Inventor(s): NAKAMURA TETSUZO OSAKA PLANT IBARAKI SHI OSAKA... ; HONDA MASATO FUKUOKA PLANT BUZEN SHI FUKUOKA... ; NAKAMURA TETSUZO OSAKA PLANT IBARAKI SHI OSAKA 567 JP ; HONDA MASATO FUKUOKA PLANT BUZEN SHI FUKUOKA 828 JP ; NISHIGAMI AKIRA OSAKA PLANT IBARAKI SHI OSAKA 567 JP ; NISHIGAMI AKIRA OSAKA PLANT IBARAKI SHI OSAKA... ; NISHIGAMI AKIRA OSAKA PLANT IBARAKI SHI OSAKA 567 ; NAKAMURA TETSUZO OSAKA PLANT IBARAKI SHI OSAKA 567 ; HONDA MASATO FUKUOKA PLANT BUZEN SHI FUKUOKA 828 J

Agent(s): GRIFFITH HACK; SMART AND BIGGAR; SUGIMURA KOSAKU; MATSUKURA HIDEMI; TOYAMA TSUTOMU; WATANABE KAZUTOYO

Designated states: AT AU BB BE BF BG BJ BR CA CF CG CH CI CM CS CZ DE DK ES FI FR GA GB GN GR HU IE IT KR KZ LI LK LU MC MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SK SN TD TG UA US VN

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU199224153 A1	19930302	LSPB	+	published / reissued	
AU199342723 A1	19931213	LSPB	+	published / reissued	
AU199540282 A1	19960229	LSPB	+	published / reissued	
AU199654503 A1	19960905	LSPB	+	published / reissued	
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				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20070511
EP1026086 B1	20120731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20120510 YEAR OF FEE PAYMENT : 20
EP1026086 B1	20120831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20120509 YEAR OF FEE PAYMENT : 20
EP1026086 B1	20120831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20120608 YEAR OF FEE PAYMENT : 20
EP1026086 B1	20130514	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69333246 COUNTRY OF REF DOCUMENT : DE
EP1026086 B1	20130605	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20130510
EP1026086 B1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF EXPIRATION OF PROTECTION LAPSED DATE : 20130514
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EP1026086 B1	20130510	PEXP		Calculated Patent Term Expiry	
EP1026086 B1	20130511	PEXP		Calculated Patent Term Expiry	
JP2579322 Y2	19980827	LSPB	+	published / reissued	
JP2579322 Y2	20070605	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP2584405 Y2	19981105	LSPB	+	published / reissued	
JP2584405 Y2	20070828	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP3014858 B2	20000228	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3014858 B2	20071213	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 8
JP3014858 B2	20071218	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 9
JP3014858 B2	20081224	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 10
JP3014858 B2	20091210	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 10
JP3014858 B2	20091215	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 11
JP3014858 B2	20101216	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 11
JP3014858 B2	20101221	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE	YEAR OF FEE PAYMENT : 12

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JP3025578 B2	20080117	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 8
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JP3025578 B2	20090127	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 10
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JP3025578 B2	20120514	PEXP		Calculated Patent Term Expiry	
JP3062631 B2	20000712	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3062631 B2	20000321	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20000321
JP3062631 B2	20060801	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP3062631 B2	20071129	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 9
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JP3062631 B2	20110512	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP3062631 B2	20110805	PEXP		Calculated Patent Term Expiry	
JP3124620 B2	20010115	LSGT	+	granted / extensions (spc, cpc, pte)	
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JP3124620 B2	20071023	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 8
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JP3124620 B2	20101019	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 11
JP3124620 B2	20111027	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP3124620 B2	20120511	PEXP		Calculated Patent Term Expiry	
JP5077345 A2	19930330	LSPB	+	published / reissued	
JP5310265 A2	19931122	LSPB	+	published / reissued	
JP5310265 A2	20000927	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20000926
JP5319467 A2	19931203	LSPB	+	published / reissued	
JP5319467 A2	19991222	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 19991221
JP5319468 A2	19931203	LSPB	+	published / reissued	
JP5319468 A2	19991117	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 19991116
JP6027523 U1	19940412	LSPB	+	published / reissued	
JP6049353 U1	19940705	LSPB	+	published / reissued	
KR100297118 B1	20011122	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100297118 B1	20161122	PEXP		Calculated Patent Term Expiry	
KR100299080 B1	20011122	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100299080 B1	20161122	PEXP		Calculated Patent Term Expiry	
KR19937002197 A	19930908	LSPB	+	published / reissued	
KR19940701748 A	19940628	LSPB	+	published / reissued	
KR19947001748 A	19940628	LSPB	+	published / reissued	
US5435452 A	19950725	LSGT	+	granted / extensions (spc, cpc, pte)	
US5435452 A	19930505	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : YOSHINO

					KOGYOSHO CO., LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:NISHIGAMI, AKIRA; NAKAMURA, TETSUZO; HONDA, MASATO; REEL/FRAME:006564/0954 EFFECTIVE DATE : 19930408
US5435452 A	19950714	LSGT	PAT1	Patented Case	
US5435452 A	19990119	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5435452 A	20021218	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5435452 A	20061229	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5435452 A	20130505	PEXP		Calculated Patent Term Expiry	
US5513761 A	19960507	LSGT	+	granted / extensions (spc, cpc, pte)	
US5513761 A	19940201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : YOSHINO KOGYOSHO CO., LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KOBAYASHI, TSUTOMU; NISHIGAMI, AKIRA; REEL/FRAME:006999/0464 EFFECTIVE DATE : 19940117
US5513761 A	19960424	LSGT	PAT1	Patented Case	
US5513761 A	19960424	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5513761 A	19991101	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5513761 A	20031007	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5513761 A	20071012	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5513761 A	20140201	PEXP		Calculated Patent Term Expiry	
US5567377 A	19961022	LSGT	+	granted / extensions (spc, cpc, pte)	
US5567377 A	19960916	LSGT	PAT1	Patented Case	
US5567377 A	19960916	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5567377 A	20000412	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5567377 A	20040317	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5567377 A	20080411	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5567377 A	20150523	PEXP		Calculated Patent Term Expiry	
US5711454 A	19980127	LSGT	+	granted / extensions (spc, cpc, pte)	
US5711454 A	19971222	LSGT	PAT1	Patented Case	
US5711454 A	19971222	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5711454 A	20010705	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5711454 A	20050628	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5711454 A	20090624	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5711454 A	20150519	PEXP		Calculated Patent Term Expiry	
US5921438 A	19990713	LSGT	+	granted / extensions (spc, cpc, pte)	
US5921438 A	19990706	LSGT	PAT1	Patented Case	
US5921438 A	19990706	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE

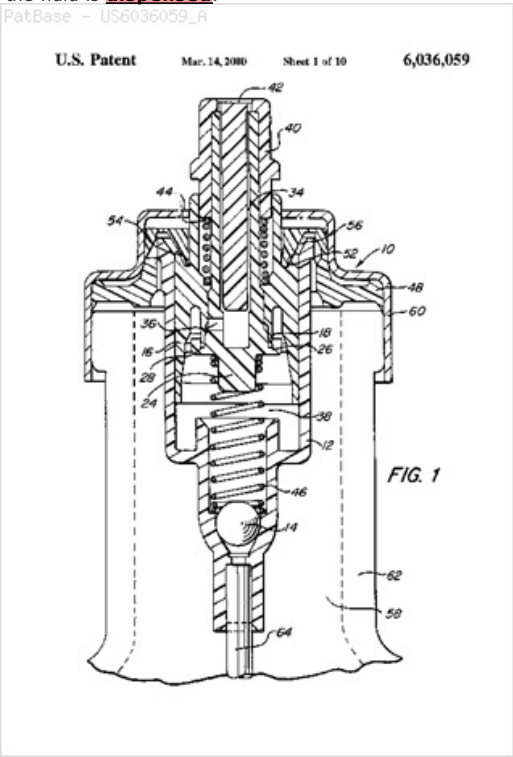
US5921438 A	20021213	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5921438 A	20061226	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5921438 A	20101216	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5921438 A	20171024	PEXP		Calculated Patent Term Expiry	
WO9302926 A1	19930218	LSPB	+	published / reissued	
WO9302926 A1	19930331	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1992916825 COUNTRY OF REF DOCUMENT : EP
WO9302926 A1	19930402	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2093320 COUNTRY OF REF DOCUMENT : CA
WO9302926 A1	19930402	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1019930701029 COUNTRY OF REF DOCUMENT : KR
WO9302926 A1	19930714	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1992916825 COUNTRY OF REF DOCUMENT : EP
WO9302926 A1	19981209	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1992916825 COUNTRY OF REF DOCUMENT : EP
WO9323311 A1	19931125	LSPB	+	published / reissued	
WO9323311 A1	19940107	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2113117 COUNTRY OF REF DOCUMENT : CA
WO9323311 A1	19940111	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1993911993 COUNTRY OF REF DOCUMENT : EP
WO9323311 A1	19940111	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1019940700070 COUNTRY OF REF DOCUMENT : KR
WO9323311 A1	19940201	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 08175390 COUNTRY OF REF DOCUMENT : US
WO9323311 A1	19940511	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1993911993 COUNTRY OF REF DOCUMENT : EP
WO9323311 A1	20001011	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1993911993 COUNTRY OF REF DOCUMENT : EP

148) Family number: 20647102 (US6036059A)

Title: LOW PROFILE AND LOW FORCE ACTUATION **DISPENSING** PUMP

Abstract: A smooth actuating, non-throttling **dispensing** pump with a low force to actuate is provided. The pump will **dispense** a fluid at a pressure and flow velocity sufficient to allow the fluid to exit through the actuator in a fine particle spray. This action occurs when the actuator, depressed by the finger, moves a displacement piston downward pressurizing the fluid in the fluid chamber. When a predetermined pressure is reached, seals between the piston and stem open permitting the pressurized fluid to exit the fluid chamber through the actuator. The relationship of the frictional and spring forces plus the pressure acting on the piston and stem determines when and how the fluid is **dispensed**.

Classifications:
International (IPC 8-9): B05B11/00 B65D88/54 B67D7/58 G01F11/28 (Advanced/Invention);
B05B11/00 B65D88/00 B67D7/58 G01F11/00 (Core/Invention)
International (IPC 1-7): B65D88/54 B67D5/40 G01F11/28
CPC: B05B11/305 G01F11/28 B05B11/3025
European: B05B11/00P3T2 B05B11/00T2 B05B11/30C9B G01F11/28
US: 222/321.9 222/341 222/385



Family:

Publication number	Publication date	Application number	Application date
AT405503 E	20080915	AT19990931796T	19990614
AU199948226 A1	20000105	AU19990048226	19990614
AU199948226 A5	20000105	AU19990048226	19990614
DE69939391 D1	20081002	DE19996039391	19990614
EP1119506 A1	20010801	EP19990931796	19990614
EP1119506 A4	20060614	EP19990931796	19990614
EP1119506 B1	20080820	EP19990931796	19990614
ES2316189 T3	20090401	ES19990931796T	19990614
US6036059 A	20000314	US19980098475	19980616
WO9965798 A1	19991223	WO1999US13408	19990614

Priority:
US19980098475 19980616 WO1999US13408 19990614

Probable Assignee: REXAM BEAUTY AND CLOSURES INC

Assignee(s) (std): REXAM BEAUTY AND CLOSURES INC ; RISDON AMS USA INC ; VANBROCKLIN OWEN V

Assignee(s): WILMINGTON TRUST LONDON LTD ; ALBEA BEAUTY SOLUTIONS USA LLC ; ALBEA COSMETICS AMERICA INC ; ALBEA THOMASTON INC ; ALBEA THOMASTON INC WAS KNOWN AS REXAM BEAUTY AND CLOSURES INC.. ; RISDON AMS INC ; CROWN CORK AND SEAL TECHNOLOGIES CORP ; CHASE MANHATTAN BANK AS COLLATERAL AGENT ; CHASE MANHATTAN BANK COLLATERAL AGENT AS ; REXAM BEAUTY AND CLOSURES INC A DELAWARE CORP ; RISDON AMS (USA) INC ; BNP PARIBAS SECURITY AGENT AS SA

Inventor(s) (std): VANBROCKLIN OWEN ; VANBROCKLIN OWEN V ; VANBROCKLIN OWEN F

Inventor(s): OWEN V VANBROCKLIN

Agent(s): MURGATROYD SUSAN ELIZABETH

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

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AT405503 E	20080915	LSGT	+	granted / extensions (spc, cpc, pte)	
AT405503 E	20090215	LSLE	-RER	CEASED AS TO	

				PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT405503 E	20190614	PEXP		Calculated Patent Term Expiry	
AU199948226 A1	20000105	LSPB	+	published / reissued	
AU199948226 A1	20010308	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
DE69939391 D1	20090910	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
EP1119506 A1	20010801	LSPB	+	published / reissued	
EP1119506 A1	20010801	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20001214
EP1119506 A1	20020612	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : CROWN CORK & SEAL TECHNOLOGIES CORPORATION
EP1119506 A1	20021204	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : REXAM BEAUTY AND CLOSURES INC.
EP1119506 A1	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160627 YEAR OF FEE PAYMENT : 18
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EP1119506 A4	20070110	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20061205
EP1119506 A4	20070523	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20061205
EP1119506 B1	20080820	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP1119506 B1	20080831	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1119506 B1	20080917	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1119506 B1	20090130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080820
EP1119506 B1	20090227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080820
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				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080820
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EP1119506 B1	20090430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080820
EP1119506 B1	20090529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090120
EP1119506 B1	20090729	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20090525
EP1119506 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090630
EP1119506 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20081120
EP1119506 B1	20100129	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1119506 B1	20100224	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20090614
EP1119506 B1	20100331	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
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EP1119506 B1	20110331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100614
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EP1119506 B1	20111130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20110630 YEAR OF FEE PAYMENT : 13
EP1119506 B1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20120614
EP1119506 B1	20130418	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 69939391 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130101
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EP1119506 B1	20131021	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20131021
EP1119506 B1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20120615
EP1119506 B1	20150619	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 17
EP1119506 B1	20160627	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 18

EP1119506 B1	20170627	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 19
EP1119506 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170627 YEAR OF FEE PAYMENT : 19
EP1119506 B1	20180626	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 20
EP1119506 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180626 YEAR OF FEE PAYMENT : 20
EP1119506 B1	20190614	PEXP		Calculated Patent Term Expiry	
ES2316189 T3	20090401	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2316189 T3	20190614	PEXP		Calculated Patent Term Expiry	
US6036059 A	20000314	LSGT	+	granted / extensions (spc, cpc, pte)	
US6036059 A	19980616	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : RISDON/AMS (USA), INC., CONNECTICUT OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VANBROCKLIN, OWEN F.; REEL/FRAME:009265/0124 EFFECTIVE DATE : 19980610
US6036059 A	19981204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CROWN CORK & SEAL TECHNOLOGIES CORPORATION, ILLINO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:RISDON/AMS (USA), INC.; REEL/FRAME:009616/0991 EFFECTIVE DATE : 19981130
US6036059 A	20000302	LSGT	PAT1	Patented Case	
US6036059 A	20000302	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6036059 A	20010411	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CHASE MANHATTAN BANK, AS COLLATERAL AGENT, THE, NE OLDPARTY : SECURITY INTEREST; ASSIGNOR:CROWN CORK & SEAL TECHNOLOGIES CORPORATION; REEL/FRAME:011667/0001 EFFECTIVE DATE : 20010302
US6036059 A	20020416	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CROWN CORK & SEAL TECHNOLOGIES CORPORATION, ILLINO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:RISDON/AMS (USA), INC.; REEL/FRAME:012822/0955 EFFECTIVE DATE : 20020208
US6036059 A	20020709	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : REXAM BEAUTY AND CLOSURES INC., A DELAWARE CORPORA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CROWN CORK & SEAL TECHNOLOGIES CORPORATION, A CORPORATION OF THE STATE OF DELAWARE; REEL/FRAME:013056/0927 EFFECTIVE DATE : 20020122
US6036059 A	20030905	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6036059 A	20070910	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6036059 A	20110603	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12

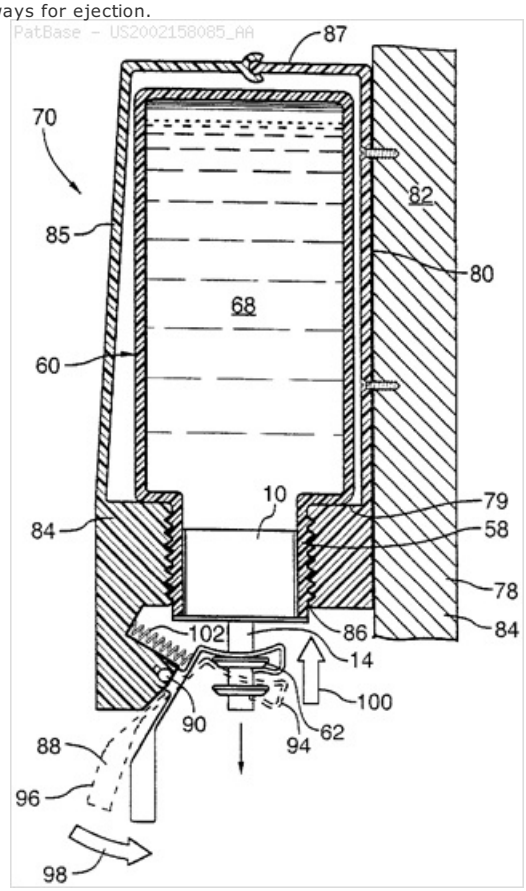
US6036059 A	20130110	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WILMINGTON TRUST (LONDON) LIMITED, UNITED KINGDOM OLDPARTY : SECURITY AGREEMENT; ASSIGNORS:ALBEA COSMETICS AMERICA, INC.; REXAM BEAUTY AND CLOSURES INC.; ALBEA BEAUTY SOLUTIONS USA, LLC; REEL/FRAME:029603/0251 EFFECTIVE DATE : 20121231
US6036059 A	20170418	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ALBEA THOMASTON INC., CONNECTICUT OLDPARTY : CHANGE OF NAME; ASSIGNOR:REXAM BEAUTY AND CLOSURES INC.; REEL/FRAME:042280/0315 EFFECTIVE DATE : 20130130
US6036059 A	20170420	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BNP PARIBAS S.A., AS SECURITY AGENT, FRANCE OLDPARTY : SECURITY INTEREST; ASSIGNOR:ALBEA THOMASTON INC.; REEL/FRAME:042081/0278 EFFECTIVE DATE : 20170420
US6036059 A	20170421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ALBEA BEAUTY SOLUTIONS USA, LLC, NEW JERSEY OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:WILMINGTON TRUST (LONDON) LIMITED; REEL/FRAME:042310/0875 EFFECTIVE DATE : 20170420
US6036059 A	20170421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ALBEA COSMETICS AMERICA, INC., NEW JERSEY OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:WILMINGTON TRUST (LONDON) LIMITED; REEL/FRAME:042310/0875 EFFECTIVE DATE : 20170420
US6036059 A	20170421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ALBEA THOMASTON INC. (FORMERLY KNOWN AS REXAM BEAU OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:WILMINGTON TRUST (LONDON) LIMITED; REEL/FRAME:042310/0875 EFFECTIVE DATE : 20170420
US6036059 A	20180616	PEXP		Calculated Patent Term Expiry	
WO9965798 A1	19991223	LSPB	+	published / reissued	
WO9965798 A1	20001214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1999931796 COUNTRY OF REF DOCUMENT : EP
WO9965798 A1	20010419	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO9965798 A1	20010801	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1999931796 COUNTRY OF REF DOCUMENT : EP

149) Family number: 28276103 (US2002158085A)

Title: **LIQUID** **DISPENSER** FOR **DISPENSING** FOAM

Abstract: A pump assembly provides for direct replacement of volumes of **liquid** from a reservoir with equal volumes of air preferably at substantially atmospheric pressure, the same pressure or with pressure equalization to be at least equal to atmospheric pressure. A slide arrangement preferably positively displaces **liquid** from the reservoir and air into the reservoir. The pump draws air from the atmosphere into a chamber from which the air either is available for passage to replace **liquid** from the reservoir or is pressurized to assist **dispensing** **liquid**, preferably, admixing with the **liquid** to provide foaming. Gravity separation of air and **liquid** to be **dispensed** is used to replace **liquid** with air in the reservoir and to selectively place air and **liquid** into communication with passageways for ejection.

Classifications:
International (IPC 8-9): A47K5/12 A47K5/14 B01F3/04 B01F5/06 B05B11/00 B05B7/00 B05B9/043 B65D35/28 B67D5/00 B67D5/06 B67D7/06 B67D99/00 F04B15/02 F04B23/02 F04B9/14 G01F11/16 (Advanced/Invention);
A47K5/00 B01F3/04 B01F5/06 B05B11/00 B05B7/00 B67D7/06 B67D99/00 G01F11/10 (Core/Invention)
International (IPC 1-7): A47K5/12 A47K5/14 B05B11/02 B05B7/00 B05B9/043 B65D35/28 B65D47/34 B65D83/76 B67D5/00 B67D5/06 B67D5/40 F04B15/02 F04B19/06 F04B23/02 F04B9/14
CPC: A47K5/14 B01F3/04446 B01F5/0682 B01F5/0693 B05B7/0025 B05B11/3001 B05B11/307 B05B11/3087 B05B11/3098 G01F11/16
European: A47K5/14 B01F3/04C3 B01F5/06F B01F5/06F4F B05B11/00E B05B11/00P3 B05B11/00P9R4 B05B11/30C B05B11/30H7D B05B11/30L B05B11/30V B05B7/00C1 G01F11/16
US: 222/181.1 222/321.8 222/321.9 222/383.1 222/383.100P



Family:

Publication number	Publication date	Application number	Application date
CA2341659 AA	20020920	CA20012341659	20010320
CA2341659 C	20070807	CA20012341659	20010320
DE10211978 A1	20020926	DE20021011978	20020318
DE10211978 B4	20131010	DE20021011978	20020318
FR2822502 A1	20020927	FR20020003480	20020320
FR2822502 B1	20121026	FR20020003480	20020320
GB200206032 A0	20020424	GB20020006032	20020314
GB2380470 A1	20030409	GB20020006032	20020314
GB2380470 B2	20050309	GB20020006032	20020314
US2002158085 AA	20021031	US20020118340	20020409
US6409050 BA	20020625	US20010965821	20011001
US6601736 BB	20030805	US20020118340	20020409
USRE40319 E	20080520	US20050197729	20050805

Priority:

CA200102341659 20010320 CA20012341659 20010320 US20010965821 20011001
US20020118340 20020409 US20050197729 20050805

Probable Assignee: HYGIENE TECHNIK INC

Assignee(s): (std): HYGIENE TECHNIK INC

Assignee(s): HYGIENE TECHNIK INC 4743 CHRISTIE DRI VEB ; HYGIENE TECHNIK INC BEAMSVILLE ; MIRBACH ALI ; OPHARDT HEINER

Inventor(s): (std): OPHARDT HEINER ; MIRBACH ALI

Inventor(s): HEINER OPHARDT ; ALI MIRBACH

Agent(s): RICHES MCKENZIE AND HERBERT LLP; NOVAGRAAF TECHNOLOGIES

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2341659 AA	20020920	LSPB	+	published /	

				reissued	
CA2341659 AA	20041103	LSES	+EEER	EXAMINATION REQUEST	
CA2341659 C	20070807	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2341659 C	20210320	PEXP		Calculated Patent Term Expiry	
DE10211978 A1	20020926	LSPB	+	published / reissued	
DE10211978 A1	20050728	LSES	+8110	REQUEST FOR EXAMINATION PARAGRAPH 44	
DE10211978 A1	20130430	LSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE10211978 A1	20130502	LSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE10211978 A1	20130516	LSGT	+R018	GRANT DECISION BY EXAMINATION SECTION/EXAMINING DIVISION	
DE10211978 A1	20140403	LSGT	+R020	PATENT GRANT NOW FINAL	EFFECTIVE DATE : 20140111
DE10211978 B4	20131010	LSGT	+	granted / extensions (spc, cpc, pte)	
DE10211978 B4	20220318	PEXP		Calculated Patent Term Expiry	
FR2822502 A1	20020927	LSPB	+	published / reissued	
FR2822502 B1	20121026	LSGT	+	granted / extensions (spc, cpc, pte)	
FR2822502 B1	20160226	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 15
FR2822502 B1	20170228	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 16
FR2822502 B1	20180216	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 17
FR2822502 B1	20220320	PEXP		Calculated Patent Term Expiry	
GB2380470 A1	20030409	LSPB	+	published / reissued	
GB2380470 B2	20050309	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2380470 B2	20050720	LSRE	711B	APPLICATION MADE FOR CORRECTION OF ERROR (SECT. 117/77)	
GB2380470 B2	20220314	PEXP		Calculated Patent Term Expiry	
US2002158085 AA	20021031	LSPB	+	published / reissued	
US2002158085 AA	20030717	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6409050 BA	20020625	LSGT	+	granted / extensions (spc, cpc, pte)	
US6409050 BA	20011001	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYGIENE-TECHNIK INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OPHARDT, HEINER; MIRBACH, ALI; REEL/FRAME:012224/0192; SIGNING DATES FROM 20010817 TO 20010824
US6409050 BA	20020606	LSGT	PAT1	Patented Case	
US6409050 BA	20020606	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
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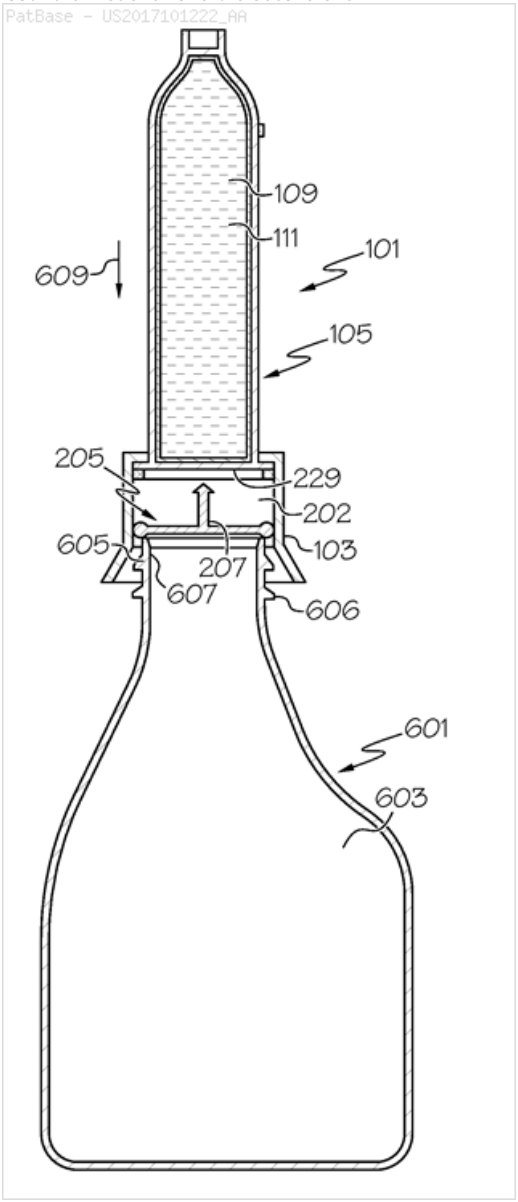
					ASSIGNORS INTEREST; ASSIGNORS:OPHARDT, HEINER; MIRBACH, ALI; REEL/FRAME:013065/0381 EFFECTIVE DATE : 20020606
US6409050 BA	20051026	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6409050 BA	20091112	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6409050 BA	20131108	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6409050 BA	20211001	PEXP		Calculated Patent Term Expiry	
US6601736 BB	20030805	LSGT	+	granted / extensions (spc, cpc, pte)	
US6601736 BB	20020705	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HYGIENE-TECHNIK INC., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OPHARDT, HEINER; MIRBACH, ALI; REEL/FRAME:013065/0381 EFFECTIVE DATE : 20020606
US6601736 BB	20030717	LSGT	PAT1	Patented Case	
US6601736 BB	20070205	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6601736 BB	20220409	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
USRE40319 E	20080430	LSGT	PAT1	Patented Case	
USRE40319 E	20101116	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
USRE40319 E	20141209	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12

150) Family number: 65393105 (US2017101222A)

Title: APPLICATOR APPARATUS, MOUTH FILL DEVICES, COLLAPSIBLE **CONTAINERS** AND METHODS

Abstract: Applicator apparatus can include a circumferential wall and a support arm movably mounted relative to the circumferential wall. The support arm can include a protrusion extending in an axial direction within an interior passage of the circumferential wall. Methods of assembling the apparatus are provided in further embodiments. Methods of introducing an additive are provided in further embodiments. In further embodiments, a mouth fill device can include a circumferential shroud. In some embodiments, a plurality of apertures can be disposed in a circumferential lip circumscribing an end of the circumferential shroud. In further embodiments, a protrusion can be mounted relative to the circumferential shroud. In further embodiments, a collapsible **container** or a collapsed **container** can include a first shell, a second shell, and a circumferential bladder that can have a higher axial collapsibility than both the first shell and the second shell.

Classifications:
International (IPC 8-9): B05B11/00 B05B15/00 B65B39/04 B65D1/02 B65D23/04 B65D25/40 B65D81/32 B65D83/00 (Advanced/Invention);
B05B15/30 B65B39/04 (Advanced/Non-invention)
CPC: B65D25/40 B65D23/04 B65D83/00 B05B15/30 B05B11/0038 B05B11/00412 B05B11/0056 B05B11/0081 B05B11/0097 B65B39/04 B65D81/3205
US: 1/1 206/219



Family:

Publication number	Publication date	Application number	Application date
EP3162452 A2	20170503	EP20160191515	20160929
EP3162452 A3	20171122	EP20160191515	20160929
US2017101222 AA	20170413	US20160266921	20160915
US2019152652 AA	20190523	US20190258571	20190126
US10252836 BB	20190409	US20160266921	20160915

Priority:

US20150239215P 20151008 US20160384710P 20160907 US20160266921 20160915 US20190258571 20190126

Probable Assignee: GELDARD STEPHEN FRANK CHARLES

Assignee(s): (std): GELDARD STEPHEN FRANK CHARLES

Inventor(s): (std): GELDARD STEPHEN FRANK CHARLES

Agent(s): LEWICKA KATARZYNA DOROTA; WENTSLER LLC

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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
EP3162452 A2	20170503	LSPB	+	published / reissued	
EP3162452 A3	20180502	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20180326
EP3162452 A3	20190327	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20190222
US10252836 BB	20190409	LSGT	+	granted / extensions (spc, cpc, pte)	
US10252836 BB	20190320	LSGT	PAT1	Patented Case	
US10252836 BB	20360915	PEXP		Calculated Patent Term Expiry	
US2017101222 AA	20170413	LSPB	+	published / reissued	
US2017101222 AA	20171219	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2017101222 AA	20171221	LSES	NFA1	Non Final Action Mailed	
US2017101222 AA	20181126	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017101222 AA	20190213	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2017101222 AA	20190320	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2019152652 AA	20190523	LSPB	+	published / reissued	