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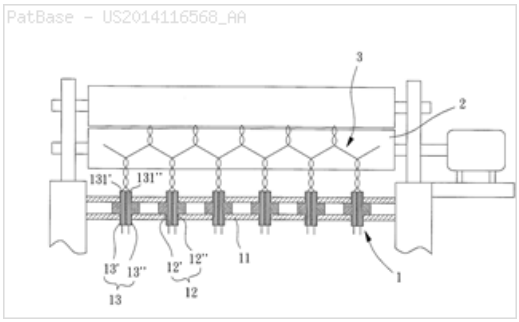
Search 2: FT=(WIRE~ AND GRATING~ OR MESH~ AND ESTRUCTURAL~) AND IC =(B21F) (Results 40)

1) Family number: 51441013 (US2014116568A)

Title: NET KNITTING METHOD

Abstract: Disclosed is a net knitting method. The knitting method comprises: leading multiple first thread materials (3a) and second thread materials (3b) through first rotating members (13a', 13b', 13c') and second rotating members (13a?, 13b?, 13c?) respectively, and cyclically and repeatedly performing the foregoing process through a step of rotating the first rotating members and the second rotating members simultaneously for an odd number of half circles and a step of staggering a first base (11') and a second base (11?), so as to form an obliquely knitted net. The knitting method can improve the structural strength of the net.

Classifications:
International (IPC 8-9): B21F27/00 B21F27/02 B21F27/06 B21F27/12 B21F7/00 D04B21/10 D04C D04C1/08 D04C3/00 D04C5/00 D04G1/00 E02D17/20 (Advanced/Invention);
B21F27/00 D04C5/00 (Core/Invention);
D04C (Subclass/Invention)
CPC: B21F27/06 D04B21/10 B21F27/02 D04G1/00
US: 140/30 140/6 66/170



Family:

Publication number	Publication date	Application number	Application date
AU2011371382 AA	20121227	AU20110371382	20110921
AU2011371382 BB	20150507	AU20110371382	20110921
CA2842315 AA	20131213	CA20112842315	20110921
CN102535004 A	20120704	CN201110170661	20110623
CN102535004 B	20141022	CN201110170661	20110623
EA201490121 A1	20140530	EA20140090121	20110921
EP2725128 A1	20140430	EP20110868047	20110921
EP2725128 A4	20151209	EP20110868047	20110921
IN10878DN2013 A	20141226	IN2013DN10878	20131217
JP2014519984 T2	20140821	JP20140516165T	20110921
KR20140019446 A	20140214	KR20137033977	20110921
MX2013014986 A1	20140925	MX20130014986	20110921
NZ619907 A	20141128	NZ20110619907	20110921
TH147092 A	20160304	TH20131007194	20110921
TW201226074 A	20120701	TW20100145001	20101221
TWI403371 B	20130801	TW20100145001	20101221
UA109063 C2	20150710	UA20140000416	20110921
US2014116568 AA	20140501	US20110126874	20110921
WO12174801 A1	20121227	WO2011CN79947	20110921
ZA201400385 A	20150527	ZA20140000385	20110921

Priority:
TW20100145001 20101221 CN201110170661 20110623 WO2011CN079947 20110921

Probable Assignee: CHEN CHUNG PING
Assignee(s): (std): CHEN CHUNG PING ; ZHONGPING CHEN
Assignee(s): CHEN ZHONGPING
Inventor(s): (std): CHEN CHUNG PING ; ZHONGPING CHEN
Inventor(s): CHEN ZHONGPING
Agent(s): COLLISON AND CO; ADE AND CO INC; LANG CHRISTIAN; BEIJING HC IP AGENCY CO LTD
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)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU2011371382 AA	20121227	LSPB	+	published / reissued	
AU2011371382 AA	20150903	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2011371382 AA	20170413	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2011371382 BB	20150507	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2011371382 BB	20310921	PEXP		Calculated Patent Term Expiry	
CA2842315 AA	20131213	LSPB	+	published / reissued	

CA2842315 AA	20140225	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20131213
CA2842315 AA	20170801	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20170620
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CN102535004 B	20310623	PEXP		Calculated Patent Term Expiry	
EA201490121 A1	20140530	LSPB	+	published / reissued	
EP2725128 A1	20140430	LSPB	+	published / reissued	
EP2725128 A1	20140430	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20131218
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KR20140019446 A	20140214	LSPB	+	published / reissued	
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KR20140019446 A	20141126	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20140019446 A	20150429	LSRV	-E601	DECISION TO REFUSE APPLICATION	
MX2013014986 A1	20140925	LSPB	+	published / reissued	
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NZ619907 A	20150327	LSGT	+PSEA	PATENT SEALED	
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NZ619907 A	20170331	LSLE	-LAPS	PATENT LAPSED	
TH147092 A	20160304	LSPB	+	published / reissued	
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TWI403371 B	20130801	LSGT	+	granted / extensions (spc, cpc, pte)	
TWI403371 B	20301221	PEXP		Calculated Patent Term Expiry	
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UA109063 C2	20310921	PEXP		Calculated Patent Term Expiry	
US2014116568 AA	20140501	LSPB	+	published / reissued	
US2014116568 AA	20161129	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
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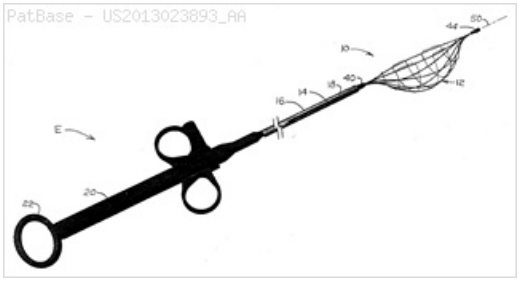
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ZA201400385 A	20150527	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA201400385 A	20310920	PEXP		Calculated Patent Term Expiry	

2) Family number: 52848055 (US2013023893A)

Title: ENDOSCOPIC SURGICAL RETRIEVAL APPARATUS AND METHOD WITH SEMI-RIGIDLY EXTENDABLE AND COLLAPSABLE BASKET

Abstract: An endoscopic surgical device includes a semi-rigid basket comprising a structural combination of resilient, semi-rigid **wire** frame members, which provide basket shape and form as well as strength, and a web of interspersed flexible threads for enhanced tissue retaining capability.

Classifications:
International (IPC 8-9): A61B10/02 A61B10/04 A61B17/22 A61B17/221 A61B17/26 A61B17/3205 A61B17/94 B21F45/00 B23P11/00 (Advanced/Invention); A61B17/00 (Advanced/Non-invention)
CPC: Y10T29/49826 A61B10/02 A61B10/04 A61B17/221 A61B2017/00287 B21F45/008
US: 1/1 140/71R 29/428 606/113



Family:

Publication number	Publication date	Application number	Application date
AU2012287405 AA	20140227	AU20120287405	20120706
AU2012287405 AA	20130131	AU20120287405	20120706
AU2012287405 BB	20160414	AU20120287405	20120706
CA2842667 AA	20140121	CA20122842667	20120706
CA2842667 C	20160119	CA20122842667	20120706
CN103826553 A	20140528	CN201280046088	20120706
CN103826553 B	20170503	CN201280046088	20120706
DK2734128 T3	20190812	DK20120818329T	20120706
EP2734128 A1	20140528	EP20120818329	20120706
EP2734128 A4	20150701	EP20120818329	20120706
EP2734128 B1	20190619	EP20120818329	20120706
ES2744485 T3	20200225	ES20120818329T	20120706
JP2014527849 T2	20141023	JP20140521647T	20120706
JP6120014 B2	20170426	JP20140521647T	20120706
US2013023893 AA	20130124	US20110189041	20110722
US2013023894 AA	20130124	US20120356436	20120123
US2013023895 AA	20130124	US20120458351	20120427
US9101342 BB	20150811	US20120458351	20120427
WO13015964 A1	20130131	WO2012US45671	20120706

Priority:

US20110189041 20110722 US20120356436 20120123 US20120458351 20120427
EP20120818329 20120706 WO2012US45671 20120706

Probable Assignee: SALEH RAFIC

Assignee(s): (std): SALEH RAFIC

Inventor(s): (std): SALEH RAFIC

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; ADE AND CO INC; GRUENECKER KINKELDEY STOCKMAIR AND SCHWANHAEUSSER; GRUENECKER PATENT U RECHTSANWAELTE PARTG MBB; PETER MILTENYI MILTENYI; COCHRAN FREUND AND YOUNG LLC; JAMES R; YOUNG JAMES 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 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
AU2012287405 AA	20130131	LSPB	+	published / reissued	
AU2012287405 AA	20140227	LSPB	+	published / reissued	
AU2012287405 BB	20160414	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2012287405 BB	20161020	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2012287405 BB	20320706	PEXP		Calculated Patent Term Expiry	
CA2842667 AA	20140121	LSPB	+	published / reissued	
CA2842667 AA	20150930	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20150918
CA2842667 C	20160119	LSGT	+	granted / extensions (spc, cpc, pte)	

CA2842667 C	20320706	PEXP		Calculated Patent Term Expiry	
CN103826553 A	20140528	LSPB	+	published / reissued	
CN103826553 A	20140528	LSPB	+C06	PUBLICATION	
CN103826553 A	20170503	LSGT	+GR01	PATENT GRANT	
CN103826553 B	20170503	LSGT	+	granted / extensions (spc, cpc, pte)	
CN103826553 B	20320706	PEXP		Calculated Patent Term Expiry	
DK2734128 T3	20190812	LSGT	+	granted / extensions (spc, cpc, pte)	
DK2734128 T3	20320706	PEXP		Calculated Patent Term Expiry	
EP2734128 A1	20140528	LSPB	+	published / reissued	
EP2734128 A1	20140528	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20140220
EP2734128 A4	20150701	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	EFFECTIVE DATE : 20150529
EP2734128 A4	20180509	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20180410
EP2734128 A4	20190320	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20190221
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				EPO]	THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190619
EP2734128 B1	20200228	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 : 20191019
EP2734128 B1	20200228	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
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EP2734128 B1	20200331	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 : 20190619
EP2734128 B1	20320706	PEXP		Calculated Patent Term Expiry	
ES2744485 T3	20200225	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2744485 T3	20200225	LSGT	+FG2A	DEFINITIVE PROTECTION	FILING DATE : 20200225 EFFECTIVE DATE : 20200225
ES2744485 T3	20320706	PEXP		Calculated Patent Term Expiry	
JP2014527849 T2	20150710	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20150623
JP2014527849 T2	20150918	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20150901
JP2014527849 T2	20160607	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20160607
JP2014527849 T2	20161128	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20161128
JP2014527849 T2	20170215	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2014527849 T2	20170221	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20170221
JP2014527849 T2	20170406	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20170314
JP2014527849 T2	20170407	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6120014 COUNTRY OF REF DOCUMENT : JP
JP6120014 B2	20170426	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6120014 B2	20170223	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6120014 B2	20170404	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6120014 B2	20170407	LSGT	+R150	特許証 (Patent certificate)	

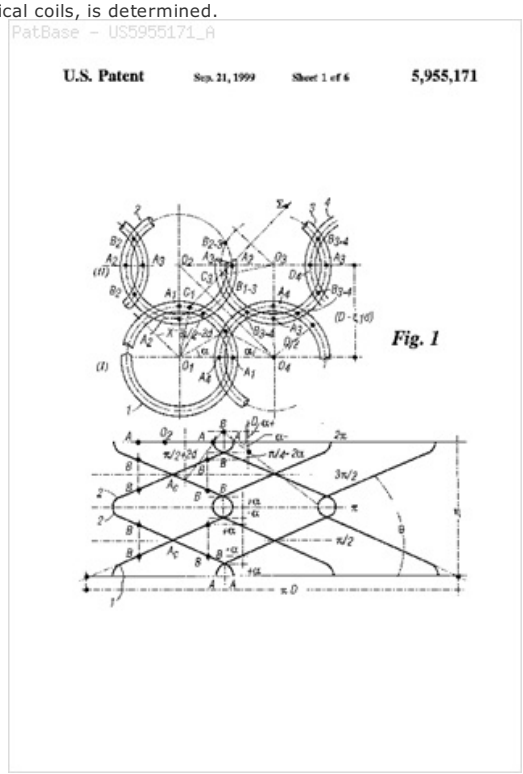
JP6120014 B2	20320706	PEXP		Calculated Patent Term Expiry	
US2013023893 AA	20130124	LSPB	+	published / reissued	
US2013023893 AA	20130520	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2013023894 AA	20130124	LSPB	+	published / reissued	
US2013023894 AA	20131224	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2013023895 AA	20130124	LSPB	+	published / reissued	
US2013023895 AA	20150722	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9101342 BB	20150811	LSGT	+	granted / extensions (spc, cpc, pte)	
US9101342 BB	20150722	LSGT	PAT1	Patented Case	
US9101342 BB	20190124	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9101342 BB	20320427	PEXP		Calculated Patent Term Expiry	
WO13015964 A1	20130131	LSPB	+	published / reissued	
WO13015964 A1	20140121	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2842667 COUNTRY OF REF DOCUMENT : CA
WO13015964 A1	20140121	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2014521647 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13015964 A1	20140122	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13015964 A1	20140220	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012818329 COUNTRY OF REF DOCUMENT : EP
WO13015964 A1	20140227	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2012287405 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20120706 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

3) Family number: 15141055 (US5955171A)

Title: PROCEDURE FOR MAKING HIGHLY RESISTANT STRUCTURES, WITH ABILITY TO ABSORB ENERGY BY THE INTERLINKING OF LAYERS FORMED WITH LONGITUDINAL HELICAL METAL STRIPS AND STRUCTURES OBTAINED THEREFROM

Abstract: Described is a particular procedure to make structures from longitudinal helical metal strips, the same are adecuate to conform different objects, such as plates, planks, sheets, tubes, shafts, etc. and they are porous, flexible, highly resistant and with great ability to absorb the different applications to which they may be subjected, i.e. mechanical, caloric, sound, etc. The procedure consists in stinging the entangled metal strips, each metal strip with its adyacent, until "layers" are formed, and these, in turn, are entangled to each other until a structure is formed, which gaps determining the porosity will be at least the same size than the thickness of the filament constituting the metal strip. The layers may be formed by metal strips made of any type of material (metallic, synthetic, etc.) and they may be combined among them. The invention describes a mathematical calculation that allows to determine the behavior of the structure obtained once the material and thickness, as well as the diameter and the pitch of the respective helical coils, is determined.

Classifications:
International (IPC 8-9): B21F27/02 B21F27/12 B21F35/00 (Advanced/Invention); B21F27/00 (Core/Invention)
International (IPC 1-7): B21F27/02 B21F33/04 B32B5/00 F16F3/04 F16F7/116 F16S
CPC: Y10T428/12333 Y10T428/24 Y10T428/24124 Y10T428/26 B21F27/02
European: B21F27/02
US: 267/182 267/92 428/113 428/332 428/592 428/98



Family:

Publication number	Publication date	Application number	Application date
AR007082 AA	19991013	AR1997P101959	19970509
BRPI9806541 A	20000815	BR1998PI06541	19980508
EP0876864 A2	19981111	EP19980500109	19980507
EP0876864 A3	20010103	EP19980500109	19980507
IL124355 A0	19981206	IL19980124355	19980507
US5955171 A	19990921	US19980074777	19980508

Priority:
AR19970001959 19970509 AR1997P101959 19970509

Probable Assignee: BONAPARTE LUJAN DARDO
Assignee(s): (std): BONAPARTE LUJAN DARDO ; LUJAN DARDO BONAPARTE
Inventor(s): (std): LUJAN DARDO BONAPARTE ; BONAPARTE LUJAN DARDO
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

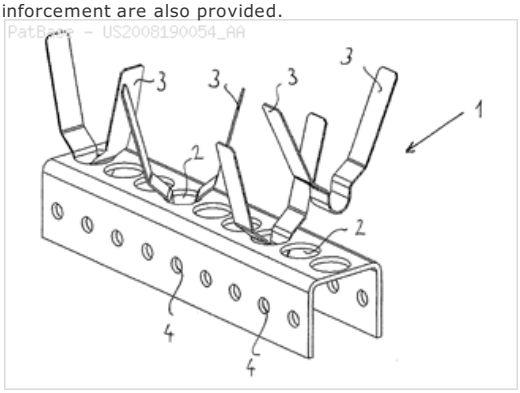
Patent	Date recorded	Event group	Code	Event	Details
AR007082 AA	19991013	LSPB	+	published / reissued	
BRPI9806541 A	20000815	LSPB	+	published / reissued	
BRPI9806541 A	20040831	LSGT	B09A	DECISION: INTENTION TO GRANT	
BRPI9806541 A	20050628	LSRV	-B11D	DISMISSAL ACC. ART. 38, PAR 2 OF IPL - FAILURE TO PAY FEE AFTER GRANT IN TIME	
EP0876864 A2	19981111	LSPB	+	published / reissued	
EP0876864 A2	19990421	LSRE	K1C3	CORRECTION OF PATENT APPLICATION (COMPLETE REPRINT) PUBLISHED	EFFECTIVE DATE : 19981111

EP0876864 A3	20010816	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20010612
EP0876864 A3	20010919	LSFE	+AKX	DESIGNATION FEES PAID	TEXT : AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT SE
EP0876864 A3	20030604	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20021203
US5955171 A	19990921	LSGT	+	granted / extensions (spc, cpc, pte)	
US5955171 A	20030321	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5955171 A	20070321	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5955171 A	20110921	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5955171 A	20111017	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5955171 A	20111017	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5955171 A	20111108	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20110921
US5955171 A	20180508	PEXP		Calculated Patent Term Expiry	

4) Family number: 34708084 (US2008190054A)

Title: STRUCTURAL ELEMENT, BASIC ELEMENT, HOLDING MEANS AND AUXILIARY MEANS FOR THE MANUFACTURE OF A REINFORCEMENT, METHOD FOR CONSTRUCTING SUCH AN AUXILIARY MEANS AND METHOD FOR MANUFACTURING A REINFORCEMENT

Abstract: A structural element for constructing an auxiliary means for the manufacture of a reinforcement includes at least one coupling point for coupling the structural element to another structural element. The structural element is formed from a basic element. The structural element may further include a holding means for holding a reinforcement rod. A method for constructing an auxiliary means and a method for manufacturing a reinforcement are also provided.



Classifications:
International (IPC 8-9): B21F B21F27/08 B21F27/12 B23K B23K37/04 E04B1/00 E04B1/41 E04C E04C5/01 E04C5/06 E04C5/16 E04G21/12 F16B2/24 (Advanced/Invention);
B21F27/08 B23K37/04 E04C5/06 (Advanced/Non-invention);
B21F27/00 B23K37/00 B23K37/04 E04B1/41 E04C5/01 E04C5/16 E04G21/12 F16B2/20 (Core/Invention)
International (IPC 1-7): B21F27/08 B23K37/04 E04C5/06
CPC: E04C5/162 Y10T403/4363 B21F27/12 F16B2/243 Y10T403/4309 Y10T403/46 B21F27/08 E04C5/06
European: B21F27/08 B21F27/12 E04C5/06 F16B2/24B2
US: 248/113 248/230.7 248/62 248/63 248/74.2 403/207 403/213 403/230 52/223.13 52/223.130P 52/583.1 52/583.100S 52/677 52/685 52/686 52/687 52/687S 52/712 52/719 52/741.1 52/745.21 52/745.210S

Family:

Publication number	Publication date	Application number	Application date
BRPI0511503 A	20080108	BR2005PI11503	20050526
CN1984748 A	20070620	CN200580023197	20050526
EA010843 B1	20081230	EA20060001999	20050526
EA200601999 A1	20070427	EA20060001999	20050526
EP1750896 A1	20070214	EP20050749187	20050526
HK1108854 A1	20080523	HK20070113939	20071220
HK1108854 A3	20080523	HK20070113939	20071220
IN04360CN2006 A	20070629	IN2006CN04360	20061127
IN258864 B	20140214	IN2006CN04360	20061127
JP2008500473 T2	20080110	JP20070514952T	20050526
JP5014124 B2	20120829	JP20070514952T	20050526
KR101300969 B1	20130827	KR20067027215	20050526
KR20070022346 A	20070226	KR20067027215	20050526
MXPA06013789 A1	20070402	MX2006PA13789	20050526
NL1026278 C2	20051130	NL20041026278	20040527
NO20066004 A	20070222	NO20060006004	20061222
NO20066004 L	20070222	NO20060006004	20061222
US2008190054 AA	20080814	US20050597697	20050526
US2014311080 AA	20141023	US20140197740	20140305
US8701370 BB	20140422	US20050597697	20050526
US9032687 BB	20150519	US20140197740	20140305
WO05115682 A1	20051208	WO2005NL00389	20050526

Priority:

NL20041026278 20040527 WO2005NL00389 20050526 US20080597697 20080305
US20140197740 20140305

Probable Assignee: KELLY STEVEN EDWARD

Assignee(s): (std): EDWARD KELLY STEVEN ; KELLY STEVEN EDWARD

Assignee(s): STEVEN EDWARD KELLY

Inventor(s): (std): STEVEN EDWARD KELLY ; CLEMENS BRES ; BRES CLEMENS ; KELLY STEVEN EDWARD ; EDWARD KELLY STEVEN

Inventor(s): KELLY STEVEN

Agent(s): CLT PATENT AND TRADEMARK HK LTD; WEBB LAW FIRM PC; WEBB LAW FIRM

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

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
BRPI0511503 A	20080108	LSPB	+	published / reissued	
BRPI0511503 A	20160913	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 11A ANUIDADE.
BRPI0511503 A	20170110	LSLE	-B08K	LAPSE AS NO	TEXT : EM VIRTUDE DO

				EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	ARQUIVAMENTO PUBLICADO NA RPI 2384 DE 13-09-2016 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.
CN1984748 A	20070620	LSPB	+	published / reissued	
CN1984748 A	20070620	LSPB	+C06	PUBLICATION	
CN1984748 A	20130213	LSRV	-C12	REJECTION OF A PATENT APPLICATION AFTER ITS PUBLICATION	
EA010843 B1	20081230	LSGT	+	granted / extensions (spc, cpc, pte)	
EA010843 B1	20100226	LSLE	-MM4A	LAPSE OF A EURASIAN PATENT DUE TO NON-PAYMENT OF RENEWAL FEES WITHIN THE TIME LIMIT IN THE FOLLOWING DESIGNATED STATE(S)	COUNTRY OF REF DOCUMENT : AM COUNTRY OF REF DOCUMENT : AZ COUNTRY OF REF DOCUMENT : BY COUNTRY OF REF DOCUMENT : KG COUNTRY OF REF DOCUMENT : KZ COUNTRY OF REF DOCUMENT : MD COUNTRY OF REF DOCUMENT : TJ COUNTRY OF REF DOCUMENT : TM
EA010843 B1	20170228	LSLE	-MM4A	LAPSE OF A EURASIAN PATENT DUE TO NON-PAYMENT OF RENEWAL FEES WITHIN THE TIME LIMIT IN THE FOLLOWING DESIGNATED STATE(S)	COUNTRY OF REF DOCUMENT : RU
EA010843 B1	20250526	PEXP		Calculated Patent Term Expiry	
EA200601999 A1	20070427	LSPB	+	published / reissued	
EP1750896 A1	20070214	LSPB	+	published / reissued	
EP1750896 A1	20070214	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20061125
EP1750896 A1	20080402	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20080303
EP1750896 A1	20150610	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150515
EP1750896 A1	20150715	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : KELLY, STEVEN EDWARD
EP1750896 A1	20160406	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20150926
HK1108854 A1	20080523	LSPB	+	published / reissued	
HK1108854 A3	20080523	LSPB	+	published / reissued	
IN04360CN2006 A	20070629	LSPB	+	published / reissued	
IN258864 B	20140214	LSGT	+	granted / extensions (spc, cpc, pte)	
IN258864 B	20261127	PEXP		Calculated Patent Term Expiry	
JP2008500473 T2	20080524	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20080523
JP2008500473 T2	20110105	LSES	-A131	NOTIFICATION OF	TEXT : JAPANESE INTERMEDIATE

				REASONS FOR REFUSAL	CODE: A131 EFFECTIVE DATE : 20110104
JP2008500473 T2	20110405	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110404
JP2008500473 T2	20110727	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110726
JP2008500473 T2	20111020	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20111019
JP2008500473 T2	20120511	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2008500473 T2	20120516	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20120515
JP2008500473 T2	20120517	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP2008500473 T2	20120614	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120605
JP2008500473 T2	20120615	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2008500473 T2	20120615	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP5014124 B2	20120829	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5014124 B2	20120612	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5014124 B2	20151126	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5014124 B2	20151201	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5014124 B2	20160602	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5014124 B2	20160607	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
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JP5014124 B2	20170622	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5014124 B2	20170705	LSLE	R280	納付書補充指令書 (Payment refilling order form)	
JP5014124 B2	20170726	LSLE	R270	手続却下の処分 (年金) (Disposition of procedure rejection (pension))	
JP5014124 B2	20250526	PEXP		Calculated Patent Term Expiry	
KR101300969 B1	20130827	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101300969 B1	20160805	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20160808 YEAR OF FEE PAYMENT : 4
KR101300969 B1	20250526	PEXP		Calculated Patent Term Expiry	
KR20070022346 A	20070226	LSPB	+	published / reissued	

KR20070022346 A	20100525	LSES	A201	REQUEST FOR EXAMINATION	
KR20070022346 A	20120105	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20070022346 A	20120507	LSRV	-E601	DECISION TO REFUSE APPLICATION	
KR20070022346 A	20130522	LSGT	+GRNO	DECISION TO GRANT (AFTER OPPOSITION)	
KR20070022346 A	20130821	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
MXPA06013789 A1	20070402	LSPB	+	published / reissued	
MXPA06013789 A1	20120326	LSGT	+FG	GRANT OR REGISTRATION	
NL1026278 C2	20051130	LSGT	+	granted / extensions (spc, cpc, pte)	
NL1026278 C2	20060201	LSES	+PD2B	A SEARCH REPORT HAS BEEN DRAWN UP	
NL1026278 C2	20160203	LSLE	-MM	LAPSED BECAUSE OF NON-PAYMENT OF THE ANNUAL FEE	EFFECTIVE DATE : 20150601
NL1026278 C2	20240527	PEXP		Calculated Patent Term Expiry	
NO20066004 A	20070222	LSPB	+	published / reissued	
NO20066004 A	20151221	LSRV	-FC2A	WITHDRAWAL, REJECTION OR DISMISSAL OF LAID OPEN PATENT APPLICATION	
US2008190054 AA	20080814	LSPB	+	published / reissued	
US2008190054 AA	20140402	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014311080 AA	20141023	LSPB	+	published / reissued	
US2014311080 AA	20150429	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8701370 BB	20140422	LSGT	+	granted / extensions (spc, cpc, pte)	
US8701370 BB	20140402	LSGT	PAT1	Patented Case	
US8701370 BB	20150929	LSRE	CC	CERTIFICATE OF CORRECTION	
US8701370 BB	20171204	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.)
US8701370 BB	20180208	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : SURCHARGE FOR LATE PAYMENT, LARGE ENTITY (ORIGINAL EVENT CODE: M1554)
US8701370 BB	20180208	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8701370 BB	20281027	PEXP		Calculated Patent Term Expiry (PTA 1250 days)	
US9032687 BB	20150519	LSGT	+	granted / extensions (spc, cpc, pte)	
US9032687 BB	20150429	LSGT	PAT1	Patented Case	
US9032687 BB	20151229	LSRE	CC	CERTIFICATE OF CORRECTION	
US9032687 BB	20190107	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9032687 BB	20190624	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
US9032687 BB	20190624	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US9032687 BB	20190624	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US9032687 BB	20190716	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20190519
US9032687 BB	20340305	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
WO05115682 A1	20051208	LSPB	+	published / reissued	
WO05115682 A1	20061125	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2005749187 COUNTRY OF REF DOCUMENT : EP
WO05115682 A1	20061127	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007514952 COUNTRY OF REF DOCUMENT : JP
WO05115682 A1	20061127	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2006/013789 COUNTRY OF REF DOCUMENT : MX
WO05115682 A1	20061127	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 4360/CHENP/2006 COUNTRY OF REF DOCUMENT : IN
WO05115682 A1	20061128	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO05115682 A1	20061128	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	TEXT : DE
WO05115682 A1	20061226	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020067027215 COUNTRY OF REF DOCUMENT : KR
WO05115682 A1	20061228	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200601999 COUNTRY OF REF DOCUMENT : EA
WO05115682 A1	20070109	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200580023197.X COUNTRY OF REF DOCUMENT : CN
WO05115682 A1	20070214	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2005749187 COUNTRY OF REF DOCUMENT : EP
WO05115682 A1	20070226	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1020067027215 COUNTRY OF REF DOCUMENT : KR
WO05115682 A1	20080108	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0511503 COUNTRY OF REF DOCUMENT : BR
WO05115682 A1	20080305	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 11597697 COUNTRY OF REF DOCUMENT : US

5) Family number: 60020102 (WO15114177A1)

Title: METHOD AND MACHINE FOR PRODUCING **MESH** SHEETS

Abstract: The invention relates to a method and machine for producing **mesh** sheets, wherein: **wires** are shaped such as to form a spiral with each **wire**; different adjacent spirals are interlaced with one another, in pairs, in order to create a **mesh**; different **meshes** are interlaced with one another in order to create a **mesh** assembly (3); a lateral closure is made at both lateral ends (30) of the **mesh** assembly (3); and the **mesh** assembly (3) is subjected to a pre-stressing process, thereby producing a **mesh** sheet. The lateral closures of a **mesh** assembly (3) are made simultaneously, and each lateral closure is made by creating a plurality of closure knots. Each closure knot is made by twisting one end of one spiral around one end of another spiral, and by subsequently bending the ends inwards.

Classifications:
International (IPC 8-9): B21F15/04 B21F15/08 B21F27/04 B21F27/14 E02D17/20 (Advanced/Invention)
CPC: B21F15/04 B21F15/08 B21F27/02 B21F27/04 B21F27/14 B21F29/00 E02D17/20

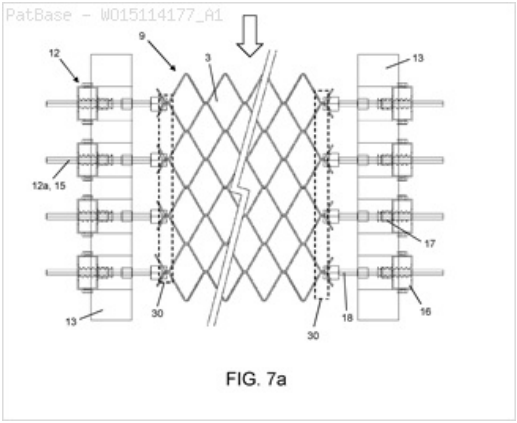


FIG. 7a

Family:

Publication number	Publication date	Application number	Application date
EP3103926 A1	20161214	EP20140880649	20140203
EP3103926 A4	20171025	EP20140880649	20140203
WO15114177 A1	20150806	WO2014ES70073	20140203

Priority:

WO2014ES70073 20140203

Probable Assignee: 3S GEOTECNIA Y TECNOLOGIA S L

Assignee(s): (std): 3S GEOTECNIA Y TECNOLOGIA S L

Assignee(s): 3S GEOTECNIA Y TECNOLOGIA SL

Inventor(s): (std): TORRES VILA JUAN ANTONIO

Agent(s): IGARTUA ISMAEL; IGARTUA IRIZAR ISMAEL

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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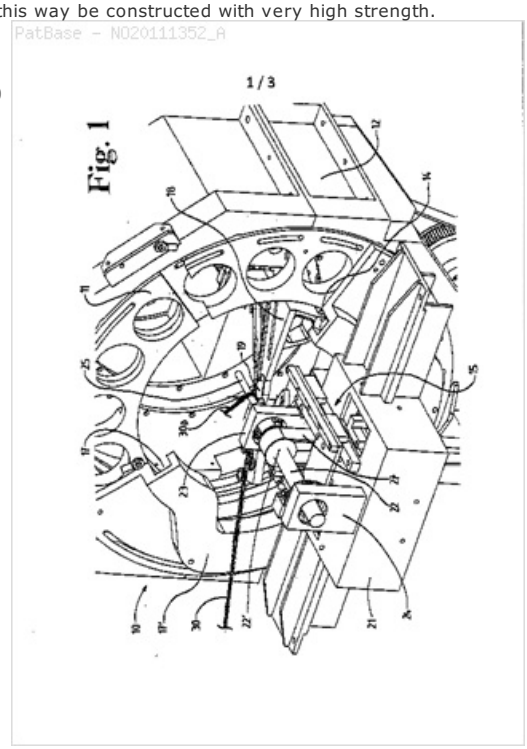
Patent	Date recorded	Event group	Code	Event	Details
EP3103926 A1	20161214	LSPB	+	published / reissued	
EP3103926 A1	20161214	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20160905
EP3103926 A4	20171025	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20170927
EP3103926 A4	20181024	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20180424
WO15114177 A1	20150806	LSPB	+	published / reissued	
WO15114177 A1	20160803	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO15114177 A1	20160824	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2014880649 COUNTRY OF REF DOCUMENT : EP

6) Family number: 50961104 (ZA201106940A)

Title: SAFETY NET,PREFERABLY FOR SECURING AN EMBANKMENT

Abstract: A safety net, in particular for protection against falling rocks or for securing an embankment, with a diagonal netting (2) is formed by a three-dimensional mattress-type structure. It is woven here from individual **wire** strands, **wire** bundles, **wire** ropes (11, 12, 13, 14) or similar woven in coil shapes, which comprise two or more **wires** (22) or **wire** strands made of steel. It is very advantageous if the **wire** strands, **wire** ropes or **wire** bundles or similar are produced at least partially from a high-strength steel, and the safety nets can in this way be constructed with very high strength.

Classifications:
International (IPC 8-9): B21D11/07 B21F1/02 B21F27/00 B21F27/02 B21F27/04 B21F27/12 B21F27/14 B21F31/00 B21F33/00 D03D15/00 D03D9/00 E01F7/04 E02B3/12 E02B3/16 E02D E02D17/20 E02D3/00 E04H17/04 F02B (Advanced/Invention)
CPC: Y02A10/24 E01F7/045 B21F27/02 B21F29/00 E02D17/202
European: B21F27/02 B21F29/00 E01F7/04B E02D17/20B



Family:

Publication number	Publication date	Application number	Application date
CA2752023 AA	20120412	CA20112752023	20110913
CA2752023 C	20190430	CA20112752023	20110913
CH703929 A2	20120413	CH20100001667	20101012
CH703929 B1	20141114	CH20100001667	20101012
CL2011002501 A1	20120113	CL20110002501	20111007
CL53766 B	20170117	CL20110002501	20111007
CN102444113 A	20120509	CN201110307812	20111012
CN102444113 B	20160316	CN201110307812	20111012
IN02680DE2011 A	20130104	IN2011DE02680	20110916
MA34040 B1	20130305	MA20110034229	20111004
MX2011010038 A1	20120416	MX20110010038	20110923
NO20111352 A	20120413	NO20110001352	20111005
PL396610 A1	20120423	PL20110396610	20111011
ZA201106940 A	20120725	ZA20110006940	20110922

Priority:
CH20100001667 20101012 CA20112752023 20110913

Probable Assignee: GEOBRUGG AG
Assignee(s): (std): GEOBRUGG AG
Assignee(s): WARTMANN STEPHAN
Inventor(s): (std): WARTMANN STEPHAN ; STEPHAN WARTMANN ; WARTANN STEPHAN ; WARTMANN STEPHEN
Agent(s): MACRAE AND CO; BEUCHAT BARROS

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2752023 AA	20120412	LSPB	+	published / reissued	
CA2752023 AA	20160916	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20160909
CA2752023 C	20190430	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2752023 C	20310913	PEXP		Calculated Patent Term Expiry	
CH703929 A2	20120413	LSPB	+	published / reissued	

CH703929 B1	20141114	LSGT	+	granted / extensions (spc, cpc, pte)
CH703929 B1	20180531	LSLE	-PL	PATENT CEASED
CH703929 B1	20301012	PEXP		Calculated Patent Term Expiry
CL2011002501 A1	20120113	LSPB	+	published / reissued
CL53766 B	20170117	LSGT	+	granted / extensions (spc, cpc, pte)
CL53766 B	20311007	PEXP		Calculated Patent Term Expiry
CN102444113 A	20120509	LSPB	+	published / reissued
CN102444113 A	20120509	LSPB	+C06	PUBLICATION
CN102444113 B	20160316	LSGT	+	granted / extensions (spc, cpc, pte)
CN102444113 B	20160316	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL
CN102444113 B	20311012	PEXP		Calculated Patent Term Expiry
IN02680DE2011 A	20130104	LSPB	+	published / reissued
MA34040 B1	20130305	LSGT	+	granted / extensions (spc, cpc, pte)
MA34040 B1	20311004	PEXP		Calculated Patent Term Expiry
MX2011010038 A1	20120416	LSPB	+	published / reissued
NO20111352 A	20120413	LSPB	+	published / reissued
PL396610 A1	20120423	LSPB	+	published / reissued
ZA201106940 A	20120725	LSGT	+	granted / extensions (spc, cpc, pte)
ZA201106940 A	20310921	PEXP		Calculated Patent Term Expiry

7) Family number: 26220184 (EP1270807A1)

Title: PIN SEAMED PAPERMAKER'S PRESS FELT WITH LAMINATED BASE FABRIC HAVING LOW MELT MATERIAL MACHINE DIRECTIONS YARNS

Abstract: A press felt (14) that can have a reduced tendency to fray at the seam cut (48) includes: a paper side batt layer (52); a machine side batt layer (50); and a base fabric layer (22) sandwiched between the paper side batt layer (52) and the machine side batt layer (50). The base fabric layer comprises a first fabric (24) and a second fabric (36). The first fabric (24) includes machine direction yarns (26) and cross machine direction yarns (28) interwoven with the machine direction yarns (26). The first fabric (24) has first and second ends (29a,29b) with loops (30), wherein the loops (30) of the first end (29a) are interdigitated with the loops (30) of the second end (29b), and the loops (30) of said first and second ends (29a,29b) receive a pin (34) to form the first fabric (24) into an endless belt having a seam. The second fabric (36) is formed into an endless belt overlying the first fabric (24) and includes machine direction yarns and cross machine direction yarns (40) interwoven with the machine direction yarns (38), wherein the machine direction yarns (38) are formed of a low melt material. In this configuration, the low melt machine direction yarns (40) of the second fabric (36) may have a reduced tendency to fray at the seam cut (48) during prolonged operation.

Classifications:
International (IPC 8-9): D03D3/04 D21F5/00 D21F7/08 D21F7/10 (Advanced/Invention); D21F7/08 (Advanced/Non-invention); D03D3/00 D21F5/00 D21F7/08 (Core/Invention)
International (IPC 1-7): B21F27/18 D03D3/4 D21F1/10 D21F1/12 D21F3/02 D21F5/0 D21F7/08 D21F7/10
CPC: D03D3/04 D21F7/083 D21F7/10
European: D03D3/04 D21F7/08B D21F7/10

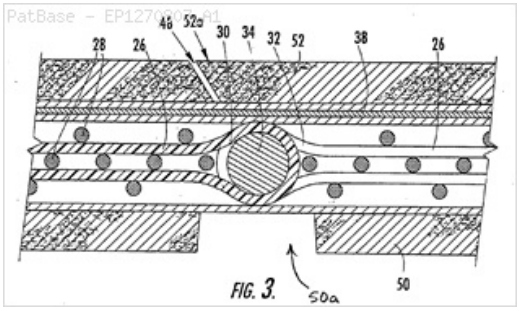


FIG. 3.

Family:

Publication number	Publication date	Application number	Application date
AT315682 E	20060215	AT20020013714T	20020620
AU200248877 A1	20030102	AU20020048877	20020620
AU200248877 A5	20030102	AU20020048877	20020620
BRPI0202331 A	20030415	BR2002PI02331	20020620
CA2391027 AA	20021220	CA20022391027	20020619
CN1396339 A	20030212	CN20021028612	20020619
DE60208607 D1	20060406	DE20026008607	20020620
EP1270807 A1	20030102	EP20020013714	20020620
EP1270807 B1	20060111	EP20020013714	20020620
ES2257488 T3	20060801	ES20020013714T	20020620
JP2003096685 A2	20030403	JP20020179716	20020620
KR20020097031 A	20021231	KR20020034698	20020620
MXPA02006129 A1	20031006	MX2002PA06129	20020620

Priority:
US20010885430 20010620 CA20022391027 20020619

Probable Assignee: WEAVEXX CORP
Assignee(s): (std): WEAVEXX CORP
Assignee(s): WEAVEXX CORP WAKE FOREST ; MARCHAND RENE
Inventor(s): (std): R MACHANDER ; MACHANDER R ; MARCHAND RENE
Inventor(s): RENE MARCHAND
Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; SMART AND BIGGAR
Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT315682 E	20060215	LSGT	+	granted / extensions (spc, cpc, pte)	
AT315682 E	20060715	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT315682 E	20220620	PEXP		Calculated Patent Term Expiry	
AU200248877 A1	20030102	LSPB	+	published / reissued	
AU200248877 A1	20040819	LSLE	-MK1	APPLICATION LAPSED SECTION 142(2)(A) - NO REQUEST FOR EXAMINATION IN RELEVANT PERIOD	
BRPI0202331 A	20030415	LSPB	+	published / reissued	
BRPI0202331 A	20110426	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL	TEXT : REFERENTE A 9A ANUIDADE.

				PROPERTY LAW	
BRPI0202331 A	20111108	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 2103 DE 26/04/2011.
CA2391027 AA	20021220	LSPB	+	published / reissued	
CA2391027 AA	20060619	LSLE	-FZDE	DEAD	
CN1396339 A	20030212	LSPB	+	published / reissued	
CN1396339 A	20030212	LSPB	+C06	PUBLICATION	
CN1396339 A	20061025	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
DE60208607 D1	20061214	LSWD	-8332	NO LEGAL EFFECT FOR DE	
EP1270807 A1	20030102	LSPB	+	published / reissued	
EP1270807 A1	20030409	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20030206
EP1270807 A1	20030924	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT COUNTRY OF REF DOCUMENT : BE COUNTRY OF REF DOCUMENT : CH COUNTRY OF REF DOCUMENT : CY 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 : GR COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : LU COUNTRY OF REF DOCUMENT : MC COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : SE COUNTRY OF REF DOCUMENT : TR
EP1270807 A1	20041222	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20041105
EP1270807 B1	20060111	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1270807 B1	20060111	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 : 20060111
EP1270807 B1	20060111	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 : 20060111
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EP1270807 B1	20060412	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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20060412
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EP1270807 B1	20060620	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 : 20060620
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EP1270807 B1	20060703	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
EP1270807 B1	20060801	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2257488 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1270807 B1	20061220	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20061012
EP1270807 B1	20080430	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 : 20060412
EP1270807 B1	20080731	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 : 20060620
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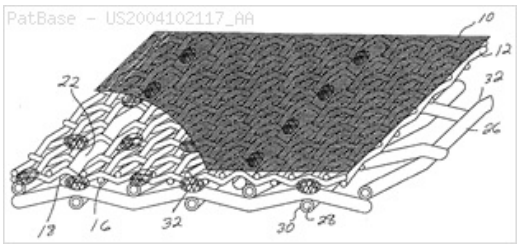
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EP1270807 B1	20090731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20090626 YEAR OF FEE PAYMENT : 8
EP1270807 B1	20090831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20090630 YEAR OF FEE PAYMENT : 8
EP1270807 B1	20090831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20090617 YEAR OF FEE PAYMENT : 8
EP1270807 B1	20090831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20090625 YEAR OF FEE PAYMENT : 8
EP1270807 B1	20091030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20090625 YEAR OF FEE PAYMENT : 8
EP1270807 B1	20091130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20090625 YEAR OF FEE PAYMENT : 8
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EP1270807 B1	20110131	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1270807 B1	20110201	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF COUNTRY CODE : EP
EP1270807 B1	20110223	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20100620
EP1270807 B1	20110318	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20110228
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ES2257488 T3	20060801	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2257488 T3	20220620	PEXP		Calculated Patent Term Expiry	
KR20020097031 A	20021231	LSPB	+	published / reissued	
KR20020097031 A	20081211	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
MXPA02006129 A1	20031006	LSPB	+	published / reissued	
MXPA02006129 A1	20080128	LSGT	+FG	GRANT OR REGISTRATION	

8) Family number: 30589213 (US2004102117A)

Title: VIBRATORY SCREEN

Abstract: A screen includes three or four layers of woven metal screen cloth. The coarsest of these layers is a structural layer includes threads which are woven into the cloth with surfaces which are fusible below a temperature at which the other layers of screen cloth are heat affected. These woven threads include each of the threads in the coarse screen cloth with the coated threads being **wire** with fusible polypropylene or polyethylene coatings. The cloth could alternatively be coated or a fusible grid used between screens instead. A support layer above the structural layer may include a woven metal screen with woven elements which are either coated with fusible material or are solidly of fusible material woven periodically therethrough in at least one direction. A fusible grid could alternatively be employed. Screens are laminated with one or two fine **mesh** screens heated on the support woven screen cloth with fusible surfaces to locate the fusible material in the finer cloths. The structural layer of woven screen cloth has the fusible surfaces only encapsulating the support layer just above and not the finer screen cloths on the other side of the support layer.



Classifications:
International (IPC 8-9): B01D33/00 B07B1/46 B07B1/49 B21F21/00 B21F99/00 B32B15/02 B32B15/14 B32B5/26 B32B7/04 B32B7/12 D03D15/00 (Advanced/Invention);
B01D33/00 B07B1/46 B21F21/00 B21F99/00 B32B15/02 B32B15/14 B32B5/22 B32B7/04 B32B7/12 D03D15/00 (Core/Invention)
International (IPC 1-7): B01D33/00 B07B1/49 B07B21/00 B21F21/00 B32B15/14 B32B5/26 B32B7/12 D03D15/00
CPC: B07B1/4618 B07B1/4672 B32B15/02 D03D9/00 D03D15/00 D03D15/02 D10B2101/20 D10B2401/062 Y10T442/339 B32B5/028 B32B37/10 B32B2262/103 B32B2305/38 B32B2307/54 B07B1/4663 B32B5/26 B32B7/04
European: B01D33/00B B07B1/46B B07B1/46B12 B07B1/46B14 B07B1/46B2 B32B15/02 B32B5/26 B32B7/04 D03D15/00 D03D15/02 D03D9/00 N10B101/20 N10B401/062
US: 209/401 209/403 442/229 442/229P

Family:

Publication number	Publication date	Application number	Application date
AT390215 E	20080415	AT20030812030T	20031113
AU2003297265 AA	20040618	AU20030297265	20031113
AU2003297265 BB	20090604	AU20030297265	20031113
CA2506116 AA	20050513	CA20032506116	20031113
CA2506116 C	20110405	CA20032506116	20031113
DE60320030 D1	20080508	DE20036020030	20031113
DE60320030 D1	20080508	DE20036020030T	20031113
DE60320030 T2	20090507	DE20036020030T	20031113
DK1583616 T3	20080728	DK20030812030T	20031113
EA006956 B1	20060630	EA20050000855	20031113
EA200500855 A1	20051229	EA20050000855	20031113
EP1583616 A1	20051012	EP20030812030	20031113
EP1583616 A4	20061129	EP20030812030	20031113
EP1583616 B1	20080326	EP20030812030	20031113
IN00923KN2005 A	20060609	IN2005KN00923	20050518
IN213251 B	20071228	IN2005KN00923	20050518
MXPA05005411 A1	20050803	MX2005PA05411	20031113
NO20052941 A	20050616	NO20050002941	20050616
NO20052941 A0	20050616	NO20050002941	20050616
NO20052941 L	20050616	NO20050002941	20050616
NO331151 B1	20111024	NO20050002941	20050616
NZ540781 A	20070223	NZ20030540781	20031113
OA13011 A	20061110	OA20051000153	20031113
US2004102117 AA	20040527	US20020302789	20021121
US7682996 BB	20100323	US20020302789	20021121
WO04048005 A1	20040610	WO2003US36325	20031113

Priority:
US20020302789 20021121 WO2003US36325 20031113

Probable Assignee: M I LLC

Assignee(s): (std): M I L ; M I LLC ; MI LLC

Assignee(s): M I L L C ; CARR BRIAN S

Inventor(s): (std): CARR BRIAN S ; BRIAN S CARR ; CARR BRIAN

Agent(s): DARK IP; PIZZEYS PATENT AND TRADE MARK ATTORNEYS; DIMOCK STRATTON LLP; SCHLEE ALEXANDER RICHARD; CONNOLLY BOVE LODGE AND HUTZ 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 NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AT390215 E	20080415	LSGT	+	granted / extensions (spc, cpc, pte)	
AT390215 E	20080915	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING	

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AU2003297265 AA	20040618	LSPB	+	published / reissued	
AU2003297265 BB	20090604	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2003297265 BB	20091001	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2003297265 BB	20231113	PEXP		Calculated Patent Term Expiry	
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DK1583616 T3	20080728	LSGT	+	granted / extensions (spc, cpc, pte)	
DK1583616 T3	20231113	PEXP		Calculated Patent Term Expiry	
EA006956 B1	20060630	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP1583616 A1	20051012	LSPB	+	published / reissued	
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EP1583616 B1	20080430	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP

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EP1583616 B1	20090831	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 : 20080326
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EP1583616 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 : 20081130
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NZ540781 A	20071026	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
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US2004102117 AA	20100303	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7682996 BB	20100323	LSGT	+	granted / extensions (spc, cpc, pte)	
US7682996 BB	20030312	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : M-I L.L.C., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CARR, BRIAN S.; REEL/FRAME:013886/0760 EFFECTIVE DATE : 20030210
US7682996 BB	20030312	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : M-I L.L.C.,TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:CARR, BRIAN S.; REEL/FRAME:013886/0760 EFFECTIVE DATE : 20030210
US7682996 BB	20100303	LSGT	PAT1	Patented Case	
US7682996 BB	20130828	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7682996 BB	20170920	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7682996 BB	20250211	PEXP		Calculated Patent Term Expiry (PTA 813 days)	
WO04048005 A1	20040610	LSPB	+	published / reissued	
WO04048005 A1	20050513	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2506116 COUNTRY OF REF DOCUMENT : CA
WO04048005 A1	20050518	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 923/KOLNP/2005 COUNTRY OF REF DOCUMENT : IN
WO04048005 A1	20050519	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2003297265 COUNTRY OF REF DOCUMENT : AU
WO04048005 A1	20050520	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2005/005411 COUNTRY OF REF DOCUMENT : MX
WO04048005 A1	20050525	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2003812030 COUNTRY OF REF DOCUMENT : EP

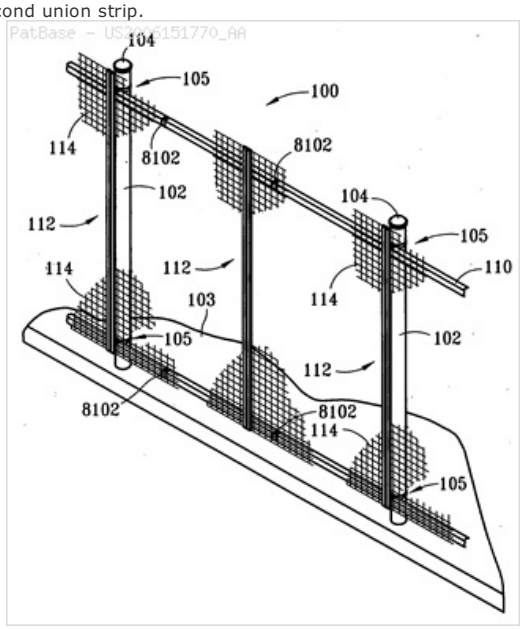
WO04048005 A1	20050615	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 540781 COUNTRY OF REF DOCUMENT : NZ
WO04048005 A1	20050620	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1200500837 COUNTRY OF REF DOCUMENT : VN
WO04048005 A1	20050621	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200500855 COUNTRY OF REF DOCUMENT : EA
WO04048005 A1	20051012	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2003812030 COUNTRY OF REF DOCUMENT : EP
WO04048005 A1	20061023	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : JP
WO04048005 A1	20061023	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	TEXT : JP

9) Family number: 33111222 (US2006151770A)

Title: FENCE SYSTEM

Abstract: In a fence having a plurality of posts, vertically-spaced rails extend across the posts. Horizontally-spaced union strips are extended across the rails, and sheeted infill material is positioned within the open faces of the union strips, so that the sheeted infill material extends from the first union strip to the second union strip.

Classifications:
International (IPC 8-9): B21F27/00 B23P11/00 E04H17/02 E04H17/04 E04H17/14 E04H17/16 E04H17/20 E04H17/24 (Advanced/Invention); E04H17/00 (Advanced/Non-invention); B21F27/00 B23P11/00 E04H17/02 E04H17/14 E04H17/16 (Core/Invention); B21F E04H (Subclass/Invention)
International (IPC 1-7): E04H17/02
CPC: E04H17/16 E04H17/20 E04H17/00 E04H17/02 Y10T29/49948 E04H17/168 Y10T29/49947 E04H17/1421 E04H17/04 E04H17/1417 E04H17/161 E04H17/24
European: E04H17/16A E04H17/16D E04H17/24
US: 1/1 256/24 256/25 256/33 256/45 256/45P 256/47 256/47P 256/49 256/54 256/65.03 256/65.12 256/68 256/73 29/525.01 29/525.02 29/525.020S



Family:

Publication number	Publication date	Application number	Application date
AU2006203840 AA	20060713	AU20060203840	20060109
AU2006203840 BB	20111013	AU20060203840	20060109
AU2012200179 AA	20120202	AU20120200179	20120112
BRPI0606470 A2	20090630	BR2006PI06470	20060109
CA2593795 AA	20070704	CA20062593795	20060109
CA2593795 C	20150224	CA20062593795	20060109
EP1841551 A2	20071010	EP20060717847	20060109
IL184422 A0	20071031	IL20060184422	20060109
IN05244DN2007 A	20070817	IN2007DN05244	20070706
MX2007008316 A1	20071023	MX20070008316	20060109
MX352156 B	20171110	MX20100007409	20060109
US2006151770 AA	20060713	US20050110579	20050419
US2007272909 AA	20071129	US20070669601	20070131
US2008173856 AA	20080724	US20080024102	20080131
US2010078613 AA	20100401	US20090632693	20091207
US7628386 BB	20091208	US20050110579	20050419
US7866635 BB	20110111	US20080024102	20080131
US8783661 BA	20140722	US20100969785	20101216
US8910925 BB	20141216	US20070669601	20070131
US9428934 BA	20160830	US20140338267	20140722
US9435136 BB	20160906	US20090632693	20091207
US10006221 BA	20180626	US20160252136	20160830
WO06074440 A2	20060713	WO2006US00694	20060109
WO06074440 A3	20061130	WO2006US00694	20060109
WO08095147 A2	20080807	WO2008US52731	20080131
WO08095147 A3	20090312	WO2008US52731	20080131
ZA200705558 A	20081029	ZA20070005558	20070706

Priority:

US20050642079 20050107 US200506420 79P 20050107 US20050110579 20050419
AU20060203840 20060109 WO2006US00694 20060109 US20060763851P 20060131
US20070669601 20070131 US20080024102 20080131 US20090632693 20091207
US20100969785 20101216 AU20120200179 20120112 US20140338267 20140722
US20160252136 20160830

Probable Assignee: GUARDIAR USA LLC

Assignee(s): (std): JOHN F PAYNE ; JOHN PAYNE ; PAYNE JOHN F ; PAYNE FENCE PRODUCTS LLC ; BETAFENCE HOLDING NV ; BETAFENCE USA LLC

Assignee(s): GUARDIAR USA LLC

Inventor(s): (std): PAYNE JOHN F ; JOHN F PAYNE

Inventor(s): PAYNE JOHN

Agent(s): SPRUSON AND FERGUSON; KIRBY EADES GALE BAKER; DOCKET CLERK SCHEEF AND STONE LLP; SCHEEF AND STONE LLP; BAKER BOTTS LLP; JACK D; FROST BROWN TODD LLC; STONE JACK D JR

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 YU ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2006203840 AA	20060713	LSPB	+	published / reissued	
AU2006203840 AA	20110707	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	PARTYTYPE : OWNER OWNER : BETAFENCE HOLDING NV OLDPARTY : FORMER APPLICANT(S): PAYNE, JOHN
AU2006203840 BB	20111013	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2006203840 BB	20120216	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2006203840 BB	20160804	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2006203840 BB	20260109	PEXP		Calculated Patent Term Expiry	
AU2012200179 AA	20120202	LSPB	+	published / reissued	
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BRPI0606470 A2	20151124	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 10A ANUIDADE.
BRPI0606470 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 2342 DE 24-11-2015 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.
CA2593795 AA	20070704	LSPB	+	published / reissued	
CA2593795 AA	20110104	LSES	+EEER	EXAMINATION REQUEST	
CA2593795 C	20150224	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2593795 C	20260109	PEXP		Calculated Patent Term Expiry	
EP1841551 A2	20071010	LSPB	+	published / reissued	
EP1841551 A2	20071010	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20070807
EP1841551 A2	20110907	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : BETAFENCE HOLDING NV
EP1841551 A2	20130123	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20120801
IN05244DN2007 A	20070817	LSPB	+	published / reissued	
MX2007008316 A1	20071023	LSPB	+	published / reissued	

MX2007008316 A1	20110616	LSGT	+FG	GRANT OR REGISTRATION	
MX352156 B	20171110	LSGT	+	granted / extensions (spc, cpc, pte)	
MX352156 B	20260109	PEXP		Calculated Patent Term Expiry	
US10006221 BA	20180626	LSGT	+	granted / extensions (spc, cpc, pte)	
US10006221 BA	20180606	LSGT	PAT1	Patented Case	
US10006221 BA	20180606	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US10006221 BA	20360830	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US2006151770 AA	20060713	LSPB	+	published / reissued	
US2006151770 AA	20090528	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PAYNE FENCE PRODUCTS, LLC, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PAYNE, JOHN F.; REEL/FRAME:022745/0086 EFFECTIVE DATE : 20080630
US2006151770 AA	20091118	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2007272909 AA	20071129	LSPB	+	published / reissued	
US2007272909 AA	20090528	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PAYNE FENCE PRODUCTS, LLC, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PAYNE, JOHN F.; REEL/FRAME:022745/0086 EFFECTIVE DATE : 20080630
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US2007272909 AA	20141125	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008173856 AA	20080724	LSPB	+	published / reissued	
US2008173856 AA	20090528	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PAYNE FENCE PRODUCTS, LLC, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PAYNE, JOHN F.; REEL/FRAME:022745/0086 EFFECTIVE DATE : 20080630
US2008173856 AA	20101222	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010078613 AA	20100401	LSPB	+	published / reissued	
US2010078613 AA	20110930	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PAYNE FENCE PRODUCTS, LLC, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PAYNE, JOHN F.; REEL/FRAME:026995/0849 EFFECTIVE DATE : 20080630
US2010078613 AA	20111005	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BETAFENCE USA LLC, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PAYNE FENCE PRODUCTS, LLC; REEL/FRAME:027020/0270 EFFECTIVE DATE : 20100126

US2010078613 AA	20160817	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7628386 BB	20091208	LSGT	+	granted / extensions (spc, cpc, pte)	
US7628386 BB	20091118	LSGT	PAT1	Patented Case	
US7628386 BB	20130311	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7628386 BB	20131212	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BETAFENCE USA LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:PAYNE FENCE PRODUCTS, LLC; REEL/FRAME:031814/0081 EFFECTIVE DATE : 20100126
US7628386 BB	20170501	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7628386 BB	20180709	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GUARDIAR USA LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:BETAFENCE USA LLC; REEL/FRAME:046509/0181 EFFECTIVE DATE : 20180426
US7628386 BB	20250419	PEXP		Calculated Patent Term Expiry	
US7866635 BB	20110111	LSGT	+	granted / extensions (spc, cpc, pte)	
US7866635 BB	20101222	LSGT	PAT1	Patented Case	
US7866635 BB	20131212	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BETAFENCE USA LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:PAYNE FENCE PRODUCTS, LLC; REEL/FRAME:031814/0081 EFFECTIVE DATE : 20100126
US7866635 BB	20140711	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
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US7866635 BB	20181115	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : 7.5 YR SURCHARGE - LATE PMT W/IN 6 MO, LARGE ENTITY (ORIGINAL EVENT CODE: M1555); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US7866635 BB	20181115	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7866635 BB	20280131	PEXP		Calculated Patent Term Expiry	
US8783661 BA	20140722	LSGT	+	granted / extensions (spc, cpc, pte)	
US8783661 BA	20140702	LSGT	PAT1	Patented Case	
US8783661 BA	20140702	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
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US8783661 BA	20180709	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PAYNE FENCE PRODUCTS, LLC, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PAYNE, JOHN F; REEL/FRAME:046296/0677 EFFECTIVE DATE : 20080630
US8783661 BA	20180709	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

					OWNER : BETAFENCE USA LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:PAYNE FENCE PRODUCTS, LLC; REEL/FRAME:046509/0141 EFFECTIVE DATE : 20100420
US8783661 BA	20180709	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GUARDIAR USA LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:BETAFENCE USA LLC; REEL/FRAME:046509/0181 EFFECTIVE DATE : 20180426
US8783661 BA	20301216	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8910925 BB	20141216	LSGT	+	granted / extensions (spc, cpc, pte)	
US8910925 BB	20141125	LSGT	PAT1	Patented Case	
US8910925 BB	20180709	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GUARDIAR USA LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:BETAFENCE USA LLC; REEL/FRAME:046509/0181 EFFECTIVE DATE : 20180426
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US8910925 BB	20181115	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : SURCHARGE FOR LATE PAYMENT, LARGE ENTITY (ORIGINAL EVENT CODE: M1554); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
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US8910925 BB	20270131	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9428934 BA	20160830	LSGT	+	granted / extensions (spc, cpc, pte)	
US9428934 BA	20160810	LSGT	PAT1	Patented Case	
US9428934 BA	20160810	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9428934 BA	20180709	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PAYNE FENCE PRODUCTS, LLC, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PAYNE, JOHN F; REEL/FRAME:046296/0677 EFFECTIVE DATE : 20080630
US9428934 BA	20180709	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GUARDIAR USA LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:BETAFENCE USA LLC; REEL/FRAME:046509/0181 EFFECTIVE DATE : 20180426
US9428934 BA	20180709	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BETAFENCE USA LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:PAYNE FENCE PRODUCTS, LLC; REEL/FRAME:046509/0141 EFFECTIVE DATE : 20100420
US9428934 BA	20200212	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
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US9435136 BB	20160906	LSGT	+	granted / extensions	

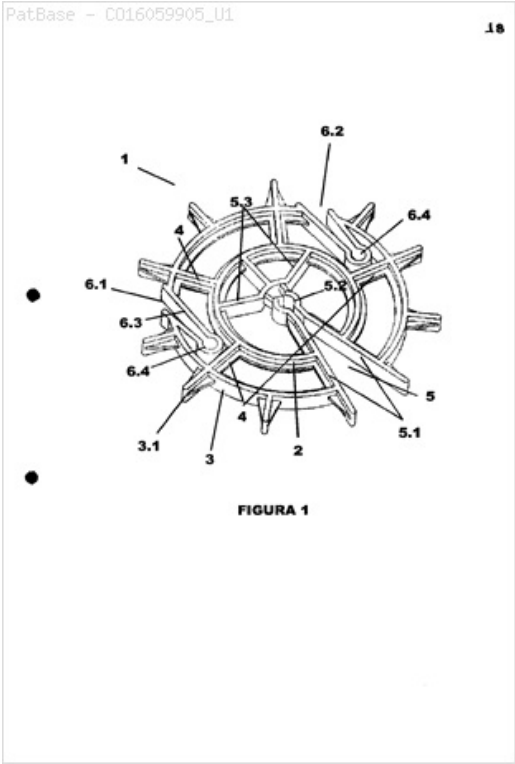
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US9435136 BB	20291207	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
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WO06074440 A3	20070704	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2593795 COUNTRY OF REF DOCUMENT : CA
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WO06074440 A3	20070706	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 556371 COUNTRY OF REF DOCUMENT : NZ
WO06074440 A3	20070706	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2007/008316 COUNTRY OF REF DOCUMENT : MX
WO06074440 A3	20070706	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 5244/DELNP/2007 COUNTRY OF REF DOCUMENT : IN
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WO06074440 A3	20070718	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006203840 COUNTRY OF REF DOCUMENT : AU
WO06074440 A3	20070806	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006717847 COUNTRY OF REF DOCUMENT : EP
WO06074440 A3	20070809	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2006203840 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20060109 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO06074440 A3	20090630	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0606470 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO08095147 A2	20080807	LSPB	+	published / reissued	
WO08095147 A3	20090801	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO08095147 A3	20100310	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 08728783 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
ZA200705558 A	20081029	LSGT	+	granted / extensions (spc, cpc, pte)	

ZA200705558 A	20270705	PEXP	Calculated Patent Term Expiry

10) Family number: 65747230 (CO16059905U)

Title: DISPOSITIVO SEPARADOR DUAL DE MALLAS Y ACEROS PARA FORMALETAS Dual **mesh** and steel separator device for forms (Machine translation)

Classifications:
International (IPC 8-9): B21F15/06 E04C5/20 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CO16059905 U1	20160810	CO20160059905U	20160308

Priority:
CO20160059905U 20160308

Probable Assignee: LUIS JAVIER DUQUE ARBELAEZ
Assignee(s): LUIS JAVIER DUQUE ARBELAEZ
Inventor(s): LUIS JAVIER DUQUE ARBELAEZ
Agent(s): MARIA VICTORIA HENAO HERNANDEZ

Legal status (INPADOC)

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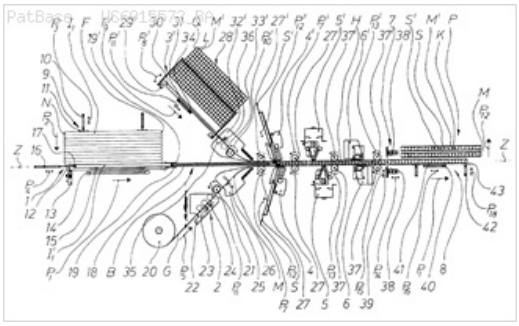
Patent	Date recorded	Event group	Code	Event	Details
CO16059905 U1	20160810	LSPB	+	published / reissued	

11) Family number: 29462263 (US6915572B)

Title: METHOD AND PLANT FOR CONTINUOUSLY PRODUCING CONSTRUCTION

Abstract: Method and apparatus for the continuous manufacture of structural members, in which two parallel, flat **wire mesh** mats comprising longitudinal and transverse **wires** intersecting with each other and welded together at the points of intersection are advanced on a production line and between the **wire mesh** mats is introduced an insulating body, whereupon the straight link **wires** are passed through the insulating body and with their ends welded to the **wire mesh** mats, so that the latter are held a predetermined distance apart, wherein first an endless, coherent web of insulating material is produced from individual insulating panels and advanced and then the insulating body is cut off this web of insulating material in a selectable length.

Classifications:
International (IPC 8-9): B21F27/12 B21F27/20 B21F29/00 (Advanced/Invention); B21F27/20 (Advanced/Non-invention); B21F27/00 B21F29/00 (Core/Invention)
International (IPC 1-7): B21F B21F27/10 B21F27/20 B21F29/00 B23P17/00 B23P21/00
CPC: B21F27/128 Y10T29/49618 Y10T29/49623 Y10T29/49629 Y10T29/49632 Y10T29/49829 Y10T29/49885 Y10T29/53348 Y10T29/53361 Y10T29/53365 Y10T29/534 Y10T29/53526 Y10T29/5353
European: B21F27/12D
US: 29/430 29/458 29/779 29/782 29/783 29/791 29/819 29/820 29/897.1 29/897.3 29/897.32 29/897.34



Family:

Publication number	Publication date	Application number	Application date
AR020764 AA	20020529	AR1999P105118	19991008
AT169298 A	20010315	AT19980001692	19981009
AT238860 E	20030515	AT19990947081T	19991005
AT408321 B	20011025	AT19980001692	19981009
CN1236877 C	20060118	CN19998011948	19991005
CN1323249 A	20011121	CN19998011948	19991005
DE59905359 D1	20030605	DE19995005359	19991005
EP1124656 A1	20010822	EP19990947081	19991005
EP1124656 B1	20030502	EP19990947081	19991005
ES2162777 T1	20020116	ES19990947081T	19991005
ES2162777 T3	20031201	ES19990947081T	19991005
GR20010300052 T1	20010928	GR20010300052T	20010928
JP2002527242 T2	20020827	JP20000575650T	19991005
KR100603471 B1	20060724	KR20017004431	19991005
KR20010080048 A	20010822	KR20017004431	19991005
MXPA01003621 A1	20020830	MX2001PA03621	19991005
US6915572 BA	20050712	US20020807106	20020401
WO0021698 A1	20000420	WO1999AT00240	19991005
ZA200102560 A	20020718	ZA20010002560	20010328

Priority:

AT19980001692 19981009 EP19990947081 19991005 WO1999AT00240 19991005

Probable Assignee: EVG ENTWICKLUNGS U VERWERTUNGS GES MBH

Assignee(s): (std): EVG ENTWICKLUNG VERWERT GES ; EVG ENTWICKLUNGS U VERWERTUNGS GES MGH ; EVG ENTWICKLUNGS U VERWERTUNGS GES M B H ; RITTER GERHARD ; VERWERTUNGS GES MBH ; RITTER KLAUS ; SCHMIDT GERHARD R ; VERWERTUNGS GMBH

Assignee(s): FRIED RICE IS A BIG ENTRANCE IS SNAPPED GAZARA SHAFT OF BERBERS ; VERWERTUNGS GESELLSCHAFT MBH ; EVG ENTWICKLUNGS U VERWERTUNGS GESELLSCHAFT MGH ; EVG ENTWICKLUNGS U VERWERTUNGS GESELLSCHAFT M B H RAABA ; EVG ENTWICKLUNGS UVERWERTUNGS GES MBH ; SCHMIDT GERHARD ; EVG ENTWICKLUNGS U ; EVG ENTWICKLUNGS U VERWERTUNGS ; EVG ENTWICKLUNGS U VERWERTUNGS GES ; EVG ENTWICKLUNGS U VERWERTUNGS GES MBH ; EVG ENTWICKLUNGS U VERWERTUNGS GESELLSCHAFT MBH ; EVG ENTWICKLUNGS U VERWERTUNGS GESELLSCHAFT M B H

Inventor(s): (std): RITTER INGRID ; KLAUS RITTER ; GERHARD RITTER ; GERHARD SCHMIDT ; KLAUS RITTER GERHARD RITTER GERHARD SCHMIDT ; SCHMIDT KLAUS RITTER GERHARD R ; SCHMIDT GERHARD ; RITTER GERHARD ; RITTER KLAUS

Agent(s): COHEN PONTANI LIEBERMAN AND PAVANE

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

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AR020764 AA	20020529	LSPB	+	published / reissued	
AR020764 AA	20050527	LSGT	+FG	GRANT, REGISTRATION	
AT169298 A	20010315	LSPB	+	published / reissued	
AT238860 E	20030515	LSGT	+	granted / extensions (spc, cpc, pte)	

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AT238860 E	20191005	PEXP		Calculated Patent Term Expiry	
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CN1236877 C	20060118	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1236877 C	20161123	LSWD	-EXPY	TERMINATION OF PATENT RIGHT OR UTILITY MODEL	
CN1236877 C	20191005	PEXP		Calculated Patent Term Expiry	
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EP1124656 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20151223 YEAR OF FEE PAYMENT : 17

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ES2162777 T1	20020116	LSPB	+	published / reissued	
ES2162777 T3	20031201	LSGT	+	granted / extensions (spc, cpc, pte)	
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JP2002527242 T2	20060628	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20060627
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KR100603471 B1	20060724	LSGT	+	granted / extensions (spc, cpc, pte)	
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KR100603471 B1	20060713	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR100603471 B1	20090706	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20090707 YEAR OF FEE PAYMENT : 4
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MXPA01003621 A1	20020830	LSPB	+	published / reissued	
MXPA01003621 A1	20050302	LSGT	+FG	GRANT OR REGISTRATION	
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US6915572 BA	20050622	LSGT	PAT1	Patented Case	
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US6915572 BA	20161222	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6915572 BA	20220401	PEXP		Calculated Patent Term Expiry	
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WO0021698 A1	20010312	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1999947081 COUNTRY OF REF DOCUMENT : EP
WO0021698 A1	20010328	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200102560 COUNTRY OF REF DOCUMENT : ZA
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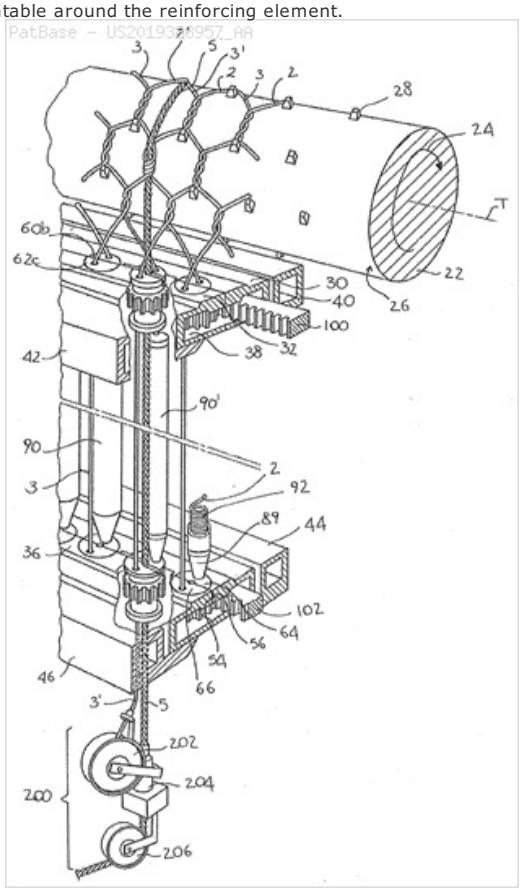
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ZA200102560 A	20020718	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA200102560 A	20210327	PEXP		Calculated Patent Term Expiry	

12) Family number: 70790270 (US2019388957A)

Title: MACHINE AND METHOD FOR MANUFACTURING A REINFORCED NET AND REINFORCED NET

Abstract: A machine for manufacturing a reinforced net with hexagonal **meshes** including a plurality of permanently deformable **wires**, a reinforcing element, and a mechanism for the reciprocal coiling of first **wires** and second **wires** in twos. The mechanism has passages for the reinforcing elements, and a feed system for: the first **wires**, fed in from a plurality of containers mounted on board the machine and provided internally with a predetermined length of the first **wires**; for part of the second **wires**, fed in alternately with the first **wires**, so as to be interwoven therewith in twos in the coiling mechanism; and for the reinforcing elements, fed into the machine. For all the reinforcing elements, a **wire** receptacle is provided for one of the second **wires**, the **wire** receptacle being rotatable around the reinforcing element.

Classifications:
International (IPC 8-9): B21F27/06 B21F27/08 E04C5/04 (Advanced/Invention)
CPC: B21F27/06 E04C5/015 E04C5/04



Family:

Publication number	Publication date	Application number	Application date
AR110914 AA	20190515	AR2018P100200	20180129
AU2017397831 AA	20190725	AU20170397831	20170209
BR112019014648 A2	20200414	BR20191114648	20170209
CL2019002230 A1	20200124	CL20190002230	20190807
CN110382134 A	20191025	CN201780086018	20170209
CO20190008580 A2	20190930	CO20190008580	20190806
EP3579991 A1	20191218	EP20170713433	20170209
IN201917035838 A	20191101	IN201917035838	20190905
JP2020507477 T2	20200312	JP20190543080T	20170209
MX2019009467 A1	20191105	MX20190009467	20170209
PE20191402 A1	20191004	PE20190001551	20170209
US2019388957 AA	20191226	US20170478677	20170209
WO18146516 A1	20180816	WO2017IB50700	20170209

Priority:
WO2017IB50700 20170209 CL20190002230 20190807

Probable Assignee: MACCAFERRI OFF SPA

Assignee(s): (std): MACCAFERRI OFF SPA ; MACCAFERRI S P A OFF

Inventor(s): (std): FRANCESCO FERRAIOLO ; FERRAIOLO FRANCESCO

Agent(s): FB RICE PTY LTD; ESTUDIO VILLASECA Y CIA; PROVVISIONATO PAOLO

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

AR110914 AA	20190515	LSPB	+	published / reissued	
AU2017397831 AA	20190725	LSPB	+	published / reissued	
CL2019002230 A1	20200124	LSPB	+	published / reissued	
CN110382134 A	20191025	LSPB	+	published / reissued	
CN110382134 A	20191025	LSPB	PB01	PUBLICATION	
CO20190008580 A2	20190930	LSPB	+	published / reissued	
EP3579991 A1	20191218	LSPB	+	published / reissued	
EP3579991 A1	20191218	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20190718
IN201917035838 A	20191101	LSPB	+	published / reissued	
JP2020507477 T2	20191125	LSRE	A529	WRITTEN SUBMISSION OF COPY OF AMENDMENT UNDER SECTION 34 (PCT)	TEXT : JAPANESE INTERMEDIATE CODE: A529 EFFECTIVE DATE : 20190808
JP2020507477 T2	20191127	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20191127
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MX2019009467 A1	20191105	LSPB	+	published / reissued	
PE20191402 A1	20191004	LSPB	+	published / reissued	
US2019388957 AA	20191226	LSPB	+	published / reissued	
US2019388957 AA	20190718	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OFFICINE MACCAFERRI S.P.A., ITALY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:FERRAIOLO, FRANCESCO; REEL/FRAME:049790/0049 EFFECTIVE DATE : 20190717
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US2019388957 AA	20190801	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OFFICINE MACCAFERRI S.P.A., ITALY OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE NAME OF ASSIGNEE PREVIOUSLY RECORDED AT REEL: 049829 FRAME: 0274. ASSIGNOR(S) HEREBY CONFIRMS THE CORRECTIVE ASSIGNMENT; ASSIGNOR:FERRAIOLO, FRANCESCO; REEL/FRAME:050747/0433 EFFECTIVE DATE : 20170206
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WO18146516 A1	20190725	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2017397831 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20170209 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO18146516 A1	20190808	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2019543080 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A

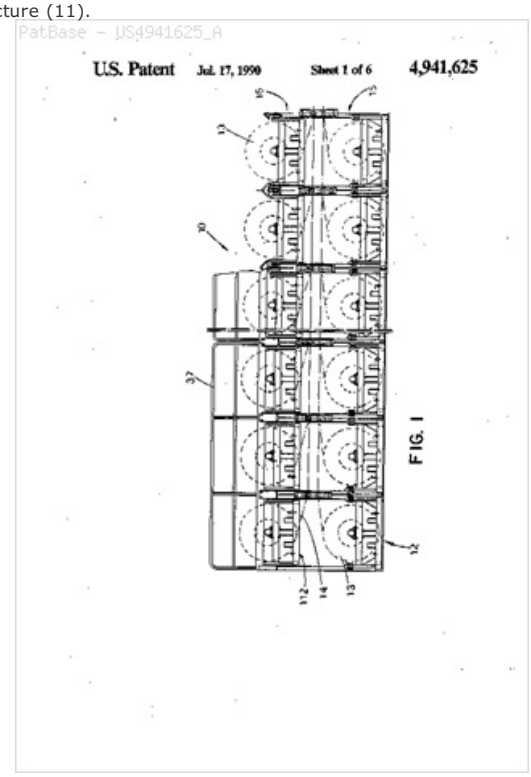
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WO18146516 A1	20190913	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2017713433 COUNTRY OF REF DOCUMENT : EP EFFECTIVE DATE : 20190909
WO18146516 A1	20200414	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112019014648 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20190716

13) Family number: 3170383 (US4941625A)

Title: CREEL FOR THE SIMULTANEOUS CHANGING OF REELS OF METALLIC **WIRE**

Abstract: Creel (10) for the simultaneous changing of reels (13) of metallic **wire** (14), cooperating with machines in the production of metallic **mesh**, advantageously electrically welded **mesh**, the machines being located downstream of the creel (10) and being fed with a plurality of metallic **wires** (14), the creel (10) comprising a structure (11) with a first (15) and second (16) parallel tiers of which one is superimposed on the other and on which are positioned respectively equal numbers of units (12-112) that support the reels (13), the support units (12-112) for the reels (13) consisting of a portion (17) fixed to the structure (11) and a portion (23) movable in relation to the structure (11).

Classifications:
International (IPC 8-9): B65H49/26 B65H49/32 (Advanced/Invention); B65H49/00 (Core/Invention)
International (IPC 1-7): B21F B65H49/20 B65H49/26 B65H49/32 B65H67/00
CPC: B65H49/26 B65H49/32
European: B65H49/26 B65H49/32
US: 242/129.6 242/131 242/25R 242/474



Family:

Publication number	Publication date	Application number	Application date
AT72659 E	19920315	AT19880108984T	19880606
DE3868444 D1	19920326	DE19883868444	19880606
EP0297314 A1	19890104	EP19880108984	19880606
EP0297314 B1	19920219	EP19880108984	19880606
ES2029698 T3	19920901	ES19880108984T	19880606
IT1221710 A	19900712	IT19870083400	19870703
IT8783400 A0	19870703	IT19870083400	19870703
US4941625 A	19900717	US19880208036	19880617

Priority:
IT19870083400 19870703 EP19880108984 19880606

Probable Assignee: IMPIANTI INDUSTRIALI SPA
Assignee(s): (std): IMPIANTI INDUSTRIALI SPA
Assignee(s): IMPIANTI INDUSTRIALI ZONA INDUSTRIALE RIVOLI SPA ; IMPIANTI INDUSTRIALI S P A ; IMPIANTI INDUSTRIALI S P A OSOPPO IT
Inventor(s): (std): SARO GIANCARLO ; GIANCARLO SARO
Inventor(s): SARO GIANCARLO I 33035 CERESETTO DI MARTIGNACCO U ; SARO GIANCARLO I 33035 CERESETTO DI... ; SARO GIANCARLO I 33035 CERESETTO DI MARTIGNACCO
Designated states: AT BE CH DE ES FR GB GR IT LI LU NL SE

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AT72659 E	19920315	LSGT	+	granted / extensions (spc, cpc, pte)	
AT72659 E	19921115	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	
AT72659 E	19960315	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT72659 E	20080606	PEXP		Calculated Patent Term Expiry	

DE3868444 D1	19930325	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE3868444 D1	19960613	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
EP0297314 A1	19890104	LSPB	+	published / reissued	
EP0297314 A1	19890809	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19890613
EP0297314 A1	19910529	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19910416
EP0297314 B1	19920219	LSGT	+	granted / extensions (spc, cpc, pte)	
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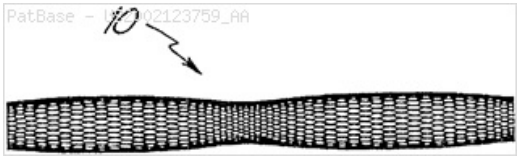
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EP0297314 B1	19960229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR LAPSED DATE : 19960229
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EP0297314 B1	19960301	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE LAPSED DATE : 19960301
EP0297314 B1	19960419	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP0297314 B1	19991116	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 19901007
EP0297314 B1	20050606	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 : 20050606

EP0297314 B1	20080606	PEXP		Calculated Patent Term Expiry	
ES2029698 T3	19920901	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2029698 T3	19920901	LSGT	+FG2A	DEFINITIVE PROTECTION	REF DOCUMENT NUMBER : 297314 COUNTRY OF REF DOCUMENT : ES
ES2029698 T3	20080606	PEXP		Calculated Patent Term Expiry	
IT1221710 A	19900712	LSGT	+	granted / extensions (spc, cpc, pte)	
IT1221710 A	20070703	PEXP		Calculated Patent Term Expiry	
US4941625 A	19900717	LSGT	+	granted / extensions (spc, cpc, pte)	
US4941625 A	19880617	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : IMPIANTI INDUSTRIALI SPA, ZONA INDUSTRIALE RIVOLI, OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:SARO, GIANCARLO; REEL/FRAME:004896/0751 EFFECTIVE DATE : 19880530
US4941625 A	19880617	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : IMPIANTI INDUSTRIALI SPA,ITALY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SARO, GIANCARLO; REEL/FRAME:004896/0751 EFFECTIVE DATE : 19880530
US4941625 A	19900523	LSGT	PAT1	Patented Case	
US4941625 A	19940111	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4941625 A	19980719	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4941625 A	19980929	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 19980722
US4941625 A	20180130	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4941625 A	20180130	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US4941625 A	20080617	PEXP		Calculated Patent Term Expiry	

14) Family number: 28307405 (US2002123759A)

Title: INTRAVASCULAS OCCLUSION DEVICES

Abstract: The present invention provides a method of forming a medical device and medical devices which can be formed in accordance with the method. In one embodiment, the method includes the steps of a) providing a metal fabric formed of a plurality of strands formed of a metal which can be heat treated to substantially set a desired shape; b) deforming the metal fabric to generally conform to a surface of a molding element; c) heat treating the metal fabric in contact with the surface of the molding element to substantially set the shape of the fabric in its deformed state; and d) removing the metal fabric from contact with the molding element. The resulting metal fabric will define a medical device which can be collapsed for passage through a catheter or the like for deployment in a channel of a patient's body. Medical devices made in accordance with this method can have varying structures.



Classifications:
International (IPC 8-9): A61B17/00 A61B17/08 A61B17/12 A61F2/00 A61F2/01 A61F2/02 A61F2/06 A61F2/84 A61F2/90 A61F2/95 A61M25/00 B21F45/00 C22F1/00 (Advanced/Invention);
A61B17/12 A61F2/00 A61F2/01 A61F2/06 A61F2/90 A61M25/00 (Advanced/Non-invention);
A61B17/00 A61B17/12 A61F2/01 A61F2/06 A61F2/82 B21F45/00 (Core/Invention);
A61F2/00 (Core/Non-invention)
International (IPC 1-7): A61B17/00 A61B17/08 A61B17/12 A61B18/00 A61D1/00 A61F2/01 A61F2/06 A61M25/00 A61M29/00 B21F45/00 C22F1/00
CPC: A61F2002/30092 A61B17/0057 A61B17/12022 A61B17/12109 A61B17/12122 A61B17/12172 A61B17/12177 A61B2017/00526 A61B2017/00575 A61B2017/00592 A61B2017/00606 A61B2017/00615 A61B2017/00867 A61F2/01 A61F2/90 A61F2/95 A61F2002/016 A61F2002/018 A61F2210/0019 A61F2220/0041 A61F2230/0006 A61F2230/0069 A61F2230/0078 A61F2230/008 A61F2240/001 B21F45/00 B21F45/008 A61F2230/0065 A61F2230/0071 A61B17/1215 A61F2230/0067 D04C1/06 D10B2509/06 Y10S623/901
European: A61B17/00P A61B17/12P A61B17/12P5B A61B17/12P5H A61B17/12P7C3 A61B17/12P7W1 A61B17/12P7W3 A61F2/01 A61F2/90 B21F45/00 B21F45/00M K61B17/00M K61B17/00P5 K61B17/00P5E K61B17/00P5H K61B17/00P5K K61F2/01M K61F2/30A1W20B K61F2/90 K61F2/95 K61F210/00D2 K61F240/00M
US: 604/285 604/509 604/523 606/1 606/151 606/151P 606/200 606/200P 606/200S 606/213 606/213S 623/1.11 623/1.2 623/1.51 623/11 623/23.7 623/901

Family:

Publication number	Publication date	Application number	Application date
AT305759 E	20051015	AT19950926193T	19950710
AT442102 E	20090915	AT19950204926T	19950710
AT511796 E	20110615	AT19970922307T	19970414
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AU199893740 A1	19990329	AU19980093740	19980901
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AU727012 B2	20001130	AU19980093740	19980901
CA2194669 AA	19960125	CA19952194669	19950710
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CN1106828 C	20030430	CN19971094488	19970414
CN1218379 A	19990602	CN19971094488	19970414
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DE09075025 T1	20120906	DE20090075025T	19950710
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DE29825257 U1	20070628	DE19982025257U	19980901
DE69534505 D1	20060216	DE19956034505	19950710
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DE69536001 D1	20091022	DE19956036001	19950710
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EP1210919 A3	20060510	EP20010204926	19950710

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EP1862122 A1	20071205	EP20070015958	19980901
EP1862122 B1	20190501	EP20070015958	19980901
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ES2357498 T3	20110427	ES20010204926T	19950710
ES2395213 T3	20130211	ES19970922307T	19970414
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ES2549804 T3	20151102	ES20140163104T	19950710
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US2002123760 AA	20020905	US20020061591	20020509
US2002198561 AA	20021226	US20020193969	20020715
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US6447531 BA	20020910	US20000613412	20000710
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US6599308 BB	20030729	US20020061590	20020201
US6682546 BB	20040127	US20020061591	20020509
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WO9742878 A1	19971120	WO1997US06194	19970414
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Priority:

US19940272335 19940708
EP19950926193 19950710
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US20020061590 20020201
US20020061591 20020509
US20020193969 20020715

Probable Assignee: AGA MEDICAL CORP

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Designated states: AM AT AU AZ BE BY CA CH CN CY DE DK ES FI FR GB GR IE IT JP KG KP KR KZ LI LU MC MD NL PT RU SE TJ TM

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT305759 E	20051015	LSGT	+	granted / extensions (spc, cpc, pte)	
AT305759 E	20060515	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	REF DOCUMENT NUMBER : 0808138 COUNTRY OF REF DOCUMENT : EP
AT305759 E	20080115	LSAS	EEIH	CHANGE IN THE PERSON OF PATENT OWNER	
AT305759 E	20150710	PEXP		Calculated Patent Term Expiry	
AT442102 E	20090915	LSGT	+	granted / extensions (spc, cpc, pte)	
AT442102 E	20100315	LSPB	+UEP	PUBLICATION OF TRANSLATION OF	REF DOCUMENT NUMBER : 1210919

				EUROPEAN PATENT SPECIFICATION	COUNTRY OF REF DOCUMENT : EP
AT442102 E	20150710	PEXP		Calculated Patent Term Expiry	
AT511796 E	20110615	LSGT	+	granted / extensions (spc, cpc, pte)	
AT511796 E	20120115	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	REF DOCUMENT NUMBER : 0957773 COUNTRY OF REF DOCUMENT : EP
AT511796 E	20170414	PEXP		Calculated Patent Term Expiry	
AU199728018 A1	19971205	LSPB	+	published / reissued	
AU199893740 A1	19990329	LSPB	+	published / reissued	
AU711677 B2	19991021	LSGT	+	granted / extensions (spc, cpc, pte)	
AU711677 B2	20170414	PEXP		Calculated Patent Term Expiry	
AU727012 B2	20001130	LSGT	+	granted / extensions (spc, cpc, pte)	
AU727012 B2	20010329	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU727012 B2	20180920	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU727012 B2	20180901	PEXP		Calculated Patent Term Expiry	
CA2194669 AA	19960125	LSPB	+	published / reissued	
CA2194669 AA	20010215	LSES	+EEER	EXAMINATION REQUEST	
CA2194669 C	20050705	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2194669 C	20150913	LSLE	-MKEX	EXPIRY	EFFECTIVE DATE : 20150710
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CA2302164 AA	19990318	LSPB	+	published / reissued	
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CA2302164 C	20040302	LSGT	+	granted / extensions (spc, cpc, pte)	
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CN1106828 C	20030430	LSGT	+	granted / extensions (spc, cpc, pte)	
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CN1106828 C	20120704	LSRV	-C35	PARTIAL OR WHOLE INVALIDATION OF PATENT OR UTILITY	

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CN1218379 A	19990602	LSPB	+	published / reissued	
CN1218379 A	19990602	LSPB	+C06	PUBLICATION	
CN1269707 A	20001011	LSPB	+	published / reissued	
CN1269707 A	20001011	LSPB	+C06	PUBLICATION	
DE09075025 T1	20120906	LSPB	+	published / reissued	
DE14163104 T1	20140925	LSPB	+	published / reissued	
DE29825257 U1	20070628	LSGT	+	granted / extensions (spc, cpc, pte)	
DE29825257 U1	20070628	LSGT	R207	UTILITY MODEL SPECIFICATION	EFFECTIVE DATE : 20070628
DE29825257 U1	20070802	LSGT	+R152	UTILITY MODEL MAINTAINED AFTER PAYMENT OF THIRD MAINTENANCE FEE AFTER EIGHT YEARS	EFFECTIVE DATE : 20070524
DE29825257 U1	20080605	LSOP	-R165	REQUEST FOR CANCELLATION OR RULING FILED	
DE29825257 U1	20080930	LSLE	-R071	EXPIRY OF RIGHT	
DE29825257 U1	20120503	LSAL	R006	APPEAL FILED	
DE29825257 U1	20120608	LSOP	R008	CASE PENDING AT FEDERAL PATENT COURT	
DE29825257 U1	20140317	LSAL	R011	ALL APPEALS REJECTED, REFUSED OR OTHERWISE SETTLED	
DE29825257 U1	20140317	LSWD	-R168	UTILITY MODEL CANCELLED	
DE29825257 U1	20140317	LSRV	-R170	UTILITY MODEL RULED INVALID	
DE29825257 U1	20140825	LSAL	R006	APPEAL FILED	
DE29825257 U1	20141007	LSOP	R008	CASE PENDING AT FEDERAL PATENT COURT	
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DE69534505 D1	20061026	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69534505 D1	20071108	LSOP	-8310	ACTION FOR DECLARATION OF ANNULMENT	
DE69534505 D1	20130312	LSRE	-R040	WITHDRAWAL/REFUSAL OF REVOCATION ACTION NOW FINAL	
DE69534505 D1	20150710	LSLE	-R071	EXPIRY OF RIGHT	
DE69534505 T2	20060614	LSGT	+	granted / extensions (spc, cpc, pte)	
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DE69536001 D1	20090813	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : AGA MEDICAL CORP., PLYMOUTH, MINN., US OLDPARTY : AMPLATZ, CURTIS, ST. PAUL, MINN., US
DE69536001 D1	20100609	LSOP	R026	OPPOSITION FILED AGAINST PATENT	
DE69536001 D1	20100826	LSOP	-8363	OPPOSITION AGAINST THE PATENT	
DE69536001 D1	20150917	LSRV	-R064	EPO'S REVOCATION DECISION NOW FINAL	
DE69536001 D1	20150917	LSRV	-R103	PATENT REVOKED BY EPO	
DE69536332 D1	20150527	LSOP	R026	OPPOSITION FILED	

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DE69536332 D1	20150710	LSLE	-R071	EXPIRY OF RIGHT	
DE69740218 D1	20110512	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OLDPARTY : AGA MEDICAL CORP., GOLDEN VALLEY, MINN., US
DE69740218 D1	20110614	LSOP	R026	OPPOSITION FILED AGAINST PATENT	
DE69740218 D1	20180205	LSRV	-R064	EPO'S REVOCATION DECISION NOW FINAL	
DE69740218 D1	20180205	LSRV	-R103	PATENT REVOKED BY EPO	
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DK0808138 T3	20150710	PEXP		Calculated Patent Term Expiry	
DK0957773 T3	20110919	LSGT	+	granted / extensions (spc, cpc, pte)	
DK0957773 T3	20170414	PEXP		Calculated Patent Term Expiry	
DK1210919 T3	20100104	LSGT	+	granted / extensions (spc, cpc, pte)	
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DK2055263 T3	20150710	PEXP		Calculated Patent Term Expiry	
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EA001480 B1	20010423	LSGT	+	granted / extensions (spc, cpc, pte)	
EA001480 B1	20090227	LSLE	-MM4A	LAPSE OF A EURASIAN PATENT DUE TO NON-PAYMENT OF RENEWAL FEES WITHIN THE TIME LIMIT IN THE FOLLOWING DESIGNATED STATE(S)	COUNTRY OF REF DOCUMENT : AM COUNTRY OF REF DOCUMENT : AZ COUNTRY OF REF DOCUMENT : KG COUNTRY OF REF DOCUMENT : KZ COUNTRY OF REF DOCUMENT : MD COUNTRY OF REF DOCUMENT : TJ COUNTRY OF REF DOCUMENT : TM
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EA199800922 A1	19990624	LSPB	+	published / reissued	
EA200000206 A1	20000828	LSPB	+	published / reissued	
EP0808138 A1	19971126	LSPB	+	published / reissued	
EP0808138 A1	19971126	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19970210
EP0808138 A1	20010711	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20010525
EP0808138 B1	20051005	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0808138 B1	20051005	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP0808138 B1	20051014	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0808138 B1	20051102	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP0808138 B1	20060224	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20050403950 COUNTRY OF REF DOCUMENT : GR
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EP0808138 B1	20060913	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20060706
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EP0808138 B1	20070501	LSAS	NLS	NL: ASSIGNMENTS OF EP-PATENTS	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : AGA MEDICAL CORPORATION EFFECTIVE DATE : 20070222
EP0808138 B1	20070531	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : PT OWNER : AGA MEDICAL CORPORATION, US REF LEGAL EVENT CODE : PC4A EFFECTIVE DATE : 20070516
EP0808138 B1	20070627	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20070627 YEAR OF FEE PAYMENT : 13
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EP0808138 B1	20070921	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : TP
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					OWNER : AGA MEDICAL CORPORATION REF LEGAL EVENT CODE : PFA OLDPARTY : AGA MEDICAL CORPORATION#682 MENDELSSOHN AVENUE#GOLDEN VALLEY, MINNESOTA 55427 (US) - TRANSFER TO- AGA MEDICAL CORPORATION#682 MENDELSSOHN AVENUE#GOLDEN VALLEY, MINNESOTA 55427 (US)
EP0808138 B1	20071231	LSAS	BECH	BE: CHANGE OF HOLDER	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : *AGA MEDICAL CORP. EFFECTIVE DATE : 20051005
EP0808138 B1	20090331	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 : 20080731
EP0808138 B1	20130312	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 69534505 COUNTRY OF REF DOCUMENT : DE
EP0808138 B1	20130829	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R040 REF DOCUMENT NUMBER : 69534505 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130312
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EP0808138 B1	20141031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20140729 YEAR OF FEE PAYMENT : 20
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EP0808138 B1	20150315	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MM01 REF DOCUMENT NUMBER : 305759 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140710
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EP0808138 B1	20151026	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20151026
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EP0808138 B1	20150709	PEXP		Calculated Patent Term Expiry	
EP0808138 B1	20150710	PEXP		Calculated Patent Term Expiry	
EP0957773 A1	19991124	LSPB	+	published / reissued	
EP0957773 A1	19991124	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19981203
EP0957773 A4	20010307	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20010123
EP0957773 A4	20060823	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : AGA MEDICAL CORPORATION
EP0957773 A4	20070103	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20061201
EP0957773 B1	20110608	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0957773 B1	20110608	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D

EP0957773 B1	20110615	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0957773 B1	20110706	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP0957773 B1	20110720	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : OCCLUTECH HOLDING AG EFFECTIVE DATE : 20110614
EP0957773 B1	20110721	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 69740218 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20110721
EP0957773 B1	20110908	LSOP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R026 REF DOCUMENT NUMBER : 69740218 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20110614
EP0957773 B1	20110921	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP0957773 B1	20110922	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20110401696 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20110829
EP0957773 B1	20120207	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : RPOT
EP0957773 B1	20120418	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : OCCLUTECH HOLDING AG EFFECTIVE DATE : 20110614
EP0957773 B1	20120418	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : OCCLUTECH GMBH EFFECTIVE DATE : 20120308
EP0957773 B1	20130211	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2395213 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20130211
EP0957773 B1	20130329	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20120321 YEAR OF FEE PAYMENT : 16
EP0957773 B1	20130430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20130319 YEAR OF FEE PAYMENT : 17
EP0957773 B1	20130731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20130502 YEAR OF FEE PAYMENT : 17
EP0957773 B1	20130731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20130429 YEAR OF FEE PAYMENT : 17
EP0957773 B1	20130731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20130429 YEAR OF FEE PAYMENT : 17
EP0957773 B1	20130731	LSFE	+PGFP	ANNUAL FEE PAID TO	COUNTRY OF REF

				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	DOCUMENT : IE PAYMENT DATE : 20130425 YEAR OF FEE PAYMENT : 17
EP0957773 B1	20130830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20130426 YEAR OF FEE PAYMENT : 17
EP0957773 B1	20130830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20130429 YEAR OF FEE PAYMENT : 17
EP0957773 B1	20141124	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP EFFECTIVE DATE : 20140430
EP0957773 B1	20141128	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 : 20140430
EP0957773 B1	20141128	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 : 20140414
EP0957773 B1	20141215	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MM01 REF DOCUMENT NUMBER : 511796 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140414
EP0957773 B1	20150120	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : ML REF DOCUMENT NUMBER : 20110401696 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20141104
EP0957773 B1	20150128	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP0957773 B1	20150130	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 : 20140414
EP0957773 B1	20150130	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 : 20141104
EP0957773 B1	20150227	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 : 20140414
EP0957773 B1	20150430	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 : 20140430
EP0957773 B1	20150430	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 : 20140414
EP0957773 B1	20160425	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 20

EP0957773 B1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20160323 YEAR OF FEE PAYMENT : 20
EP0957773 B1	20160601	LSOP	-R26	OPPOSITION FILED (CORRECTED)	PARTYTYPE : OPPONENT OPPONENT : OCCLUTECH GMBH EFFECTIVE DATE : 20120308
EP0957773 B1	20160630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160426 YEAR OF FEE PAYMENT : 20
EP0957773 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : THE PATENT HAS BEEN ANNULLED BY A DECISION OF A NATIONAL AUTHORITY LAPSED DATE : 20141121
EP0957773 B1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20160427 YEAR OF FEE PAYMENT : 20
EP0957773 B1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160427 YEAR OF FEE PAYMENT : 20
EP0957773 B1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160426 YEAR OF FEE PAYMENT : 20
EP0957773 B1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160427 YEAR OF FEE PAYMENT : 20
EP0957773 B1	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160421 YEAR OF FEE PAYMENT : 20
EP0957773 B1	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160425 YEAR OF FEE PAYMENT : 20
EP0957773 B1	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20160427 YEAR OF FEE PAYMENT : 20
EP0957773 B1	20170414	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69740218 COUNTRY OF REF DOCUMENT : DE
EP0957773 B1	20170428	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0957773 B1	20170731	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 : 20140430
EP0957773 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 EXPIRATION OF PROTECTION LAPSED DATE : 20170427
EP0957773 B1	20180205	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R064 REF DOCUMENT NUMBER : 69740218 COUNTRY OF REF DOCUMENT : DE

EP0957773 B1	20180205	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R103 REF DOCUMENT NUMBER : 69740218 COUNTRY OF REF DOCUMENT : DE
EP0957773 B1	20180321	LSRV	-27W	PATENT REVOKED	EFFECTIVE DATE : 20180205
EP0957773 B1	20180515	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MA03 REF DOCUMENT NUMBER : 511796 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20180205
EP0957773 B1	20180529	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : ECNC
EP0957773 B1	20170414	PEXP		Calculated Patent Term Expiry	
EP1011469 A1	20000628	LSPB	+	published / reissued	
EP1011469 A1	20000628	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19991211
EP1011469 A4	20010509	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20010326
EP1011469 A4	20060823	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : AGA MEDICAL CORPORATION
EP1011469 A4	20060906	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20060808
EP1011469 A4	20090403	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : WD REF DOCUMENT NUMBER : 1027016 COUNTRY OF REF DOCUMENT : HK
EP1011469 A4	20170621	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20170529
EP1011469 A4	20171011	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : ST. JUDE MEDICAL, CARDIOLOGY DIVISION, INC.
EP1011469 B1	20171108	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1011469 B1	20171108	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1011469 B1	20171115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1011469 B1	20171115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 943390 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20171115
EP1011469 B1	20171129	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1011469 B1	20171214	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 69843645 COUNTRY OF REF DOCUMENT : DE

EP1011469 B1	20180415	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 943390 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20171108
EP1011469 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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171108
EP1011469 B1	20180430	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 : 20171108
EP1011469 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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171108
EP1011469 B1	20180430	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 : 20171108
EP1011469 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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180209
EP1011469 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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171108
EP1011469 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 : 20171108
EP1011469 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 : 20171108
EP1011469 B1	20180809	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 69843645 COUNTRY OF REF DOCUMENT : DE

EP1011469 B1	20180901	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69843645 COUNTRY OF REF DOCUMENT : DE
EP1011469 B1	20180914	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1011469 B1	20181003	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MK9A
EP1011469 B1	20181017	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20180809
EP1011469 B1	20181031	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 : 20180901
EP1011469 B1	20190220	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20180831
EP1011469 B1	20190430	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 : 20180831
EP1011469 B1	20180831	PEXP		Calculated Patent Term Expiry	
EP1011469 B1	20180901	PEXP		Calculated Patent Term Expiry	
EP1210919 A2	20020605	LSPB	+	published / reissued	
EP1210919 A2	20020605	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20011217
EP1210919 A2	20060426	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : AMPLATZ, CURTIS
EP1210919 A2	20070117	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT 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 : FR COUNTRY OF REF DOCUMENT : GB COUNTRY OF REF DOCUMENT : GR COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : LU COUNTRY OF REF DOCUMENT : MC COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : SE
EP1210919 A2	20070829	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20070726
EP1210919 A2	20080528	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : AGA MEDICAL CORPORATION
EP1210919 A2	20090909	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D

EP1210919 A2	20090915	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1210919 A2	20091014	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : OCCLUTECH GMBH EFFECTIVE DATE : 20090909
EP1210919 A2	20091014	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1210919 A2	20091201	LSOP	-NLR1	NL: OPPOSITION HAS BEEN FILED WITH THE EPO	PARTYTYPE : OPPONENT REF COUNTRY CODE : EP OPPONENT : OCCLUTECH GMBH
EP1210919 A2	20100104	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20090402979 COUNTRY OF REF DOCUMENT : GR
EP1210919 A2	20100714	LSOP	-R26	OPPOSITION FILED (CORRECTED)	PARTYTYPE : OPPONENT OPPONENT : OCCLUTECH GMBH EFFECTIVE DATE : 20090909
EP1210919 A2	20100714	LSOP	-R26	OPPOSITION FILED (CORRECTED)	PARTYTYPE : OPPONENT OPPONENT : LIFETECH SCIENTIFIC (SHENZHEN) CO. LTD. EFFECTIVE DATE : 20100609
EP1210919 A2	20110427	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2357498 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20110427
EP1210919 A2	20130731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20130618 YEAR OF FEE PAYMENT : 19
EP1210919 A2	20130830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20130730 YEAR OF FEE PAYMENT : 19
EP1210919 A2	20131031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20130725 YEAR OF FEE PAYMENT : 19
EP1210919 A2	20131031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20130729 YEAR OF FEE PAYMENT : 19
EP1210919 A2	20131031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20130725 YEAR OF FEE PAYMENT : 19
EP1210919 A2	20131031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20130619 YEAR OF FEE PAYMENT : 19
EP1210919 A2	20131031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20130729 YEAR OF FEE PAYMENT : 19
EP1210919 A2	20140829	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20140623 YEAR OF FEE PAYMENT : 20
EP1210919 A2	20141031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20140726 YEAR OF FEE PAYMENT : 20

				EPO]	
EP1210919 A2	20141031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20140728 YEAR OF FEE PAYMENT : 20
EP1210919 A2	20141031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20140729 YEAR OF FEE PAYMENT : 20
EP1210919 A2	20141128	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20140717 YEAR OF FEE PAYMENT : 20
EP1210919 A2	20141128	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20140728 YEAR OF FEE PAYMENT : 20
EP1210919 A2	20141128	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20140729 YEAR OF FEE PAYMENT : 20
EP1210919 A2	20141128	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20140729 YEAR OF FEE PAYMENT : 20
EP1210919 A2	20141231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20140724 YEAR OF FEE PAYMENT : 20
EP1210919 A2	20150223	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP EFFECTIVE DATE : 20140731
EP1210919 A2	20150227	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 : 20140710
EP1210919 A2	20150315	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MM01 REF DOCUMENT NUMBER : 442102 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140710
EP1210919 A2	20150406	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : ML REF DOCUMENT NUMBER : 20090402979 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20150204
EP1210919 A2	20150422	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1210919 A2	20150529	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 : 20150204
EP1210919 A2	20150529	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 : 20140710
EP1210919 A2	20150710	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69536001 COUNTRY OF REF DOCUMENT : DE

EP1210919 A2	20150715	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1210919 A2	20150717	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : PT REF LEGAL EVENT CODE : MM4A TEXT : MAXIMUM VALIDITY LIMIT REACHED EFFECTIVE DATE : 20150710
EP1210919 A2	20150722	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : V4 EFFECTIVE DATE : 20150710
EP1210919 A2	20150729	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20150709
EP1210919 A2	20150729	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : V4 EFFECTIVE DATE : 20150710
EP1210919 A2	20150731	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 : 20140731
EP1210919 A2	20150831	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 : 20140710
EP1210919 A2	20150901	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : EUG
EP1210919 A2	20150917	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R064 REF DOCUMENT NUMBER : 69536001 COUNTRY OF REF DOCUMENT : DE
EP1210919 A2	20150917	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R103 REF DOCUMENT NUMBER : 69536001 COUNTRY OF REF DOCUMENT : DE
EP1210919 A2	20151026	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20151026
EP1210919 A2	20151030	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 : 20150709
EP1210919 A2	20151030	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 : 20150717
EP1210919 A2	20160229	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 : 20150711
EP1210919 A2	20160429	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 : 20140731

EP1210919 A2	20160615	LSRV	-27W	PATENT REVOKED	EFFECTIVE DATE : 20150917
EP1210919 A2	20161115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MA03 REF DOCUMENT NUMBER : 442102 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150917
EP1210919 A2	20170822	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : ECNC
EP1210919 B1	20090909	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1210919 B1	20150709	PEXP		Calculated Patent Term Expiry	
EP1210919 B1	20150710	PEXP		Calculated Patent Term Expiry	
EP1862122 A1	20071205	LSPB	+	published / reissued	
EP1862122 A1	20071205	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20070824
EP1862122 A1	20080730	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20080627
EP1862122 A1	20080813	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT COUNTRY OF REF DOCUMENT : BE COUNTRY OF REF DOCUMENT : CH COUNTRY OF REF DOCUMENT : CY 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 : GR COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : LU COUNTRY OF REF DOCUMENT : MC COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : SE
EP1862122 A1	20190123	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20190108
EP1862122 B1	20190501	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1862122 B1	20190501	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1862122 B1	20190515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1862122 B1	20190515	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1862122 B1	20190515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1125838 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190515

EP1862122 B1	20190516	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 69843685 COUNTRY OF REF DOCUMENT : DE
EP1862122 B1	20190529	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1862122 B1	20190626	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MK9A
EP1862122 B1	20190828	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20180831
EP1862122 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 : 20190501
EP1862122 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 : 20190901
EP1862122 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 : 20190501
EP1862122 B1	20191129	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 : 20190802
EP1862122 B1	20191215	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 1125838 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190501
EP1862122 B1	20200131	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 : 20190501
EP1862122 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 : 20190501
EP1862122 B1	20200204	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097

					REF DOCUMENT NUMBER : 69843685 COUNTRY OF REF DOCUMENT : DE
EP1862122 B1	20200408	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20200204
EP1862122 B1	20180831	PEXP		Calculated Patent Term Expiry	
EP1862122 B1	20180901	PEXP		Calculated Patent Term Expiry	
EP2055263 A2	20090506	LSPB	+	published / reissued	
EP2055263 A2	20090506	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20090205
EP2055263 A3	20130227	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT 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 : FR COUNTRY OF REF DOCUMENT : GB COUNTRY OF REF DOCUMENT : GR COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : LU COUNTRY OF REF DOCUMENT : MC COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : SE
EP2055263 A3	20130626	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20130523
EP2055263 A3	20131120	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20131022
EP2055263 A3	20140122	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20140102
EP2055263 B1	20140618	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2055263 B1	20140618	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2055263 B1	20140623	LSOP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R026 REF DOCUMENT NUMBER : 69536315 COUNTRY OF REF DOCUMENT : DE
EP2055263 B1	20140630	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2055263 B1	20140709	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP2055263 B1	20140715	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 672896 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140715
EP2055263 B1	20140716	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2055263 B1	20140730	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : OCCLUTECH

					HOLDING AG EFFECTIVE DATE : 20140623
EP2055263 B1	20140731	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 69536315 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140731
EP2055263 B1	20140821	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2487515 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20140821
EP2055263 B1	20140829	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20140730 YEAR OF FEE PAYMENT : 20
EP2055263 B1	20140904	LSOP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R026 REF DOCUMENT NUMBER : 69536315 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140623
EP2055263 B1	20141023	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20140401667 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20140930
EP2055263 B1	20141031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20140821 YEAR OF FEE PAYMENT : 20
EP2055263 B1	20141031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20140726 YEAR OF FEE PAYMENT : 20
EP2055263 B1	20141031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20140728 YEAR OF FEE PAYMENT : 20
EP2055263 B1	20141031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20140729 YEAR OF FEE PAYMENT : 20
EP2055263 B1	20141031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20140728 YEAR OF FEE PAYMENT : 20
EP2055263 B1	20141031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20140725 YEAR OF FEE PAYMENT : 20
EP2055263 B1	20141031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20140722 YEAR OF FEE PAYMENT : 20
EP2055263 B1	20141119	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : LIFETECH SCIENTIFIC (SHENZHEN) CO. LTD. EFFECTIVE DATE : 20141010
EP2055263 B1	20141128	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20140728 YEAR OF FEE PAYMENT : 20
EP2055263 B1	20141128	LSFE	+PGFP	ANNUAL FEE PAID TO	COUNTRY OF REF

				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	DOCUMENT : FR PAYMENT DATE : 20140717 YEAR OF FEE PAYMENT : 20
EP2055263 B1	20141128	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20140729 YEAR OF FEE PAYMENT : 20
EP2055263 B1	20141128	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20140721 YEAR OF FEE PAYMENT : 20
EP2055263 B1	20141128	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20140729 YEAR OF FEE PAYMENT : 20
EP2055263 B1	20141231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20140724 YEAR OF FEE PAYMENT : 20
EP2055263 B1	20150130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20140730 YEAR OF FEE PAYMENT : 20
EP2055263 B1	20150422	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : OCCLUTECH GMBH EFFECTIVE DATE : 20150316
EP2055263 B1	20150710	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69536315 COUNTRY OF REF DOCUMENT : DE
EP2055263 B1	20150713	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EUP EFFECTIVE DATE : 20150710
EP2055263 B1	20150715	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2055263 B1	20150717	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : PT REF LEGAL EVENT CODE : MM4A TEXT : MAXIMUM VALIDITY LIMIT REACHED EFFECTIVE DATE : 20150710
EP2055263 B1	20150722	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : V4 EFFECTIVE DATE : 20150710
EP2055263 B1	20150729	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20150709
EP2055263 B1	20150729	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : V4 EFFECTIVE DATE : 20150710
EP2055263 B1	20150815	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK07 REF DOCUMENT NUMBER : 672896 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150710
EP2055263 B1	20150826	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MK9A
EP2055263 B1	20150901	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : EUG
EP2055263 B1	20150903	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : MA

					REF DOCUMENT NUMBER : 20140401667 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20150711
EP2055263 B1	20151026	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20151026
EP2055263 B1	20151030	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 : 20150709
EP2055263 B1	20151030	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 : 20150710
EP2055263 B1	20151030	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 : 20150717
EP2055263 B1	20160229	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 : 20150711
EP2055263 B1	20160803	LSOP	-R26	OPPOSITION FILED (CORRECTED)	PARTYTYPE : OPPONENT OPPONENT : OCCLUTECH GMBH EFFECTIVE DATE : 20150316
EP2055263 B1	20170417	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R064 REF DOCUMENT NUMBER : 69536315 COUNTRY OF REF DOCUMENT : DE
EP2055263 B1	20170417	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R103 REF DOCUMENT NUMBER : 69536315 COUNTRY OF REF DOCUMENT : DE
EP2055263 B1	20170823	LSRV	-27W	PATENT REVOKED	EFFECTIVE DATE : 20170417
EP2055263 B1	20171024	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : ECNC
EP2055263 B1	20171115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MA03 REF DOCUMENT NUMBER : 672896 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170417
EP2055263 B1	20150709	PEXP		Calculated Patent Term Expiry	
EP2055263 B1	20150710	PEXP		Calculated Patent Term Expiry	
EP2754415 A1	20140716	LSPB	+	published / reissued	
EP2754415 A1	20140716	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20140401
EP2754415 A1	20140730	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20140701
EP2754415 A1	20150506	LSGT	+INTG	INTENTION TO GRANT	EFFECTIVE DATE : 20150409

				ANNOUNCED	
EP2754415 A1	20150527	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2754415 A1	20150527	LSOP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R026 REF DOCUMENT NUMBER : 69536332 COUNTRY OF REF DOCUMENT : DE
EP2754415 A1	20150529	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2754415 A1	20150615	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 728418 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150615
EP2754415 A1	20150701	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : LIFETECH SCIENTIFIC (SHENZHEN) CO. LTD. EFFECTIVE DATE : 20150527
EP2754415 A1	20150701	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2754415 A1	20150701	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP2754415 A1	20150708	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : OCCLUTECH HOLDING AG (CH) / OCCLUTECH GMBH (DE) EFFECTIVE DATE : 20150528
EP2754415 A1	20150709	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 69536332 COUNTRY OF REF DOCUMENT : DE
EP2754415 A1	20150709	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 69536332 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20150709
EP2754415 A1	20150710	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69536332 COUNTRY OF REF DOCUMENT : DE
EP2754415 A1	20150715	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2754415 A1	20150722	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : V4 EFFECTIVE DATE : 20150710
EP2754415 A1	20150729	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : V4 EFFECTIVE DATE : 20150710
EP2754415 A1	20150815	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK07 REF DOCUMENT NUMBER : 728418 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150710

EP2754415 A1	20150826	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MK9A
EP2754415 A1	20150901	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : EUG
EP2754415 A1	20150916	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20150709
EP2754415 A1	20151030	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 : 20150710
EP2754415 A1	20151030	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 : 20150928
EP2754415 A1	20151030	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 : 20150709
EP2754415 A1	20151130	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 : 20150828
EP2754415 A1	20160129	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 : 20150527
EP2754415 A1	20160229	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 : 20150711
EP2754415 A1	20160831	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 : 20150527
EP2754415 A1	20170422	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R100 REF DOCUMENT NUMBER : 69536332 COUNTRY OF REF DOCUMENT : DE
EP2754415 A1	20170830	LSRE	+27C	OPPOSITION PROCEEDINGS TERMINATED	EFFECTIVE DATE : 20170422
EP2754415 B1	20150527	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2754415 B1	20150709	PEXP		Calculated Patent Term Expiry	
EP2754415 B1	20150710	PEXP		Calculated Patent Term	

				Expiry	
ES2250973 T3	20060416	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2250973 T3	20150710	PEXP		Calculated Patent Term Expiry	
ES2357498 T3	20110427	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2357498 T3	20150710	PEXP		Calculated Patent Term Expiry	
ES2395213 T3	20130211	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2395213 T3	20170414	PEXP		Calculated Patent Term Expiry	
ES2487515 T3	20140821	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2487515 T3	20150710	PEXP		Calculated Patent Term Expiry	
ES2549804 T3	20151102	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2549804 T3	20150710	PEXP		Calculated Patent Term Expiry	
JP11512641 T2	20040706	LSAL	-A912	REMOVAL OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A912 EFFECTIVE DATE : 20040701
JP11512641 T2	20050929	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20050928
JP11512641 T2	20051117	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20051110
JP11512641 T2	20051118	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2001515748 T2	20040406	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20040406
JP2001515748 T2	20040908	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20040811
JP2001515748 T2	20070825	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20070824
JP2006061719 A2	20051203	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20051202
JP2006061719 A2	20071024	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20071023
JP2006061719 A2	20080702	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20080701
JP3742113 B2	20060201	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3742113 B2	20051104	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP3742113 B2	20051115	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP3742113 B2	20081204	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3742113 B2	20081209	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 4
JP3742113 B2	20091112	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 4
JP3742113 B2	20091117	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 5

JP3742113 B2	20101111	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3742113 B2	20101116	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 6
JP3742113 B2	20111110	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3742113 B2	20111115	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
JP3742113 B2	20121108	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3742113 B2	20121113	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 8
JP3742113 B2	20131114	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3742113 B2	20131119	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP3742113 B2	20141113	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3742113 B2	20141118	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP3742113 B2	20151112	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3742113 B2	20151117	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP3742113 B2	20161110	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3742113 B2	20161115	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP3742113 B2	20170414	LSLE	-EXPY	CANCELLATION BECAUSE OF COMPLETION OF TERM	
JP3742113 B2	20170414	PEXP		Calculated Patent Term Expiry	
KR100393441 B1	20030806	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100393441 B1	20000112	LSES	A201	REQUEST FOR EXAMINATION	
KR100393441 B1	20130705	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20130708 YEAR OF FEE PAYMENT : 11
KR100393441 B1	20140708	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20140709 YEAR OF FEE PAYMENT : 12
KR100393441 B1	20150706	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20150707 YEAR OF FEE PAYMENT : 13
KR100393441 B1	20160711	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20160712 YEAR OF FEE PAYMENT : 14
KR100393441 B1	20170710	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20170711 YEAR OF FEE PAYMENT : 15
KR100393441 B1	20180628	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20180628 YEAR OF FEE PAYMENT : 16
KR100393441 B1	20180901	PEXP		Calculated Patent Term Expiry	
KR20010013991 A	20010226	LSPB	+	published / reissued	
KR20010013991 A	20020329	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20010013991 A	20020926	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20010013991 A	20030506	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20010013991 A	20030722	LSGT	+GRNT	WRITTEN DECISION TO GRANT	

PT1210919 T	20091117	LSGT	+	granted / extensions (spc, cpc, pte)	
PT1210919 T	20241117	PEXP		Calculated Patent Term Expiry	
PT2055263 T	20140725	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2055263 T	20290725	PEXP		Calculated Patent Term Expiry	
PT957773 T	20110729	LSGT	+	granted / extensions (spc, cpc, pte)	
PT957773 T	20170414	PEXP		Calculated Patent Term Expiry	
US2002123759 AA	20020905	LSPB	+	published / reissued	
US2002123760 AA	20020905	LSPB	+	published / reissued	
US2002198561 AA	20021226	LSPB	+	published / reissued	
US5725552 A	19980310	LSGT	+	granted / extensions (spc, cpc, pte)	
US5725552 A	19960514	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AGA MEDICAL CORPORATION, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KOTULA, FRANK; AMPLATZ, KURT; AMPLATZ, CURTIS; REEL/FRAME:007996/0869; SIGNING DATES FROM 19960507 TO 19960508
US5725552 A	19980202	LSGT	PAT1	Patented Case	
US5725552 A	19980202	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5725552 A	20001208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AGA MEDICAL CORPORATION, MINNESOTA OLDPARTY : QUIT CLAIM ASSIGNMENT; ASSIGNOR:AMPLATZ, CURTIS; REEL/FRAME:011356/0729 EFFECTIVE DATE : 20001122
US5725552 A	20010403	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5725552 A	20050728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LEHMAN COMMERCIAL PAPER, INC., NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:AGA MEDICAL CORPORATION; REEL/FRAME:016323/0057 EFFECTIVE DATE : 20050728
US5725552 A	20050816	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5725552 A	20090910	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5725552 A	20091012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A., CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY INTEREST ASSIGNMENT AGREEMENT; ASSIGNOR:LEHMAN COMMERCIAL PAPER, INC.; REEL/FRAME:023355/0424 EFFECTIVE DATE : 20091009
US5725552 A	20091012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A.,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY INTEREST ASSIGNMENT AGREEMENT; ASSIGNOR:LEHMAN COMMERCIAL PAPER, INC.; REEL/FRAME:023355/0424 EFFECTIVE DATE : 20091009
US5725552 A	20160514	PEXP		Calculated Patent Term Expiry	
US5846261 A	19981208	LSGT	+	granted / extensions (spc, cpc, pte)	

US5846261 A	19970908	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AGA MEDICAL CORPORATION, MINNESOTA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KOTULA, FRANK; AMPLATZ, KURT; REEL/FRAME:008825/0063 EFFECTIVE DATE : 19970822
US5846261 A	19981102	LSGT	PAT1	Patented Case	
US5846261 A	19981102	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5846261 A	20011228	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5846261 A	20050728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LEHMAN COMMERCIAL PAPER, INC., NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:AGA MEDICAL CORPORATION; REEL/FRAME:016323/0057 EFFECTIVE DATE : 20050728
US5846261 A	20060112	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5846261 A	20091012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A., CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY INTEREST ASSIGNMENT AGREEMENT; ASSIGNOR:LEHMAN COMMERCIAL PAPER, INC.; REEL/FRAME:023355/0424 EFFECTIVE DATE : 20091009
US5846261 A	20091012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A.,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY INTEREST ASSIGNMENT AGREEMENT; ASSIGNOR:LEHMAN COMMERCIAL PAPER, INC.; REEL/FRAME:023355/0424 EFFECTIVE DATE : 20091009
US5846261 A	20100608	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5846261 A	20170908	PEXP		Calculated Patent Term Expiry	
US6123715 A	20000926	LSGT	+	granted / extensions (spc, cpc, pte)	
US6123715 A	20000906	LSGT	PAT1	Patented Case	
US6123715 A	20000906	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6123715 A	20001208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AGA MEDICAL CORPORATION, MINNESOTA OLDPARTY : QUIT CLAIM ASSIGNMENT; ASSIGNOR:AMPLATZ, CURTIS; REEL/FRAME:011356/0729 EFFECTIVE DATE : 20001122
US6123715 A	20040227	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6123715 A	20050728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LEHMAN COMMERCIAL PAPER, INC., NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:AGA MEDICAL CORPORATION; REEL/FRAME:016323/0057 EFFECTIVE DATE : 20050728
US6123715 A	20071120	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6123715 A	20091012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A., CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY

					INTEREST ASSIGNMENT AGREEMENT; ASSIGNOR:LEHMAN COMMERCIAL PAPER, INC.; REEL/FRAME:023355/0424 EFFECTIVE DATE : 20091009
US6123715 A	20091012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A.,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY INTEREST ASSIGNMENT AGREEMENT; ASSIGNOR:LEHMAN COMMERCIAL PAPER, INC.; REEL/FRAME:023355/0424 EFFECTIVE DATE : 20091009
US6123715 A	20120326	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6123715 A	20160105	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ST. JUDE MEDICAL, CARDIOLOGY DIVISION, INC., MINNE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:AGA MEDICAL CORPORATION; REEL/FRAME:037427/0527 EFFECTIVE DATE : 20151216
US6123715 A	20170926	PEXP		Calculated Patent Term Expiry	
US6368339 BA	20020409	LSGT	+	granted / extensions (spc, cpc, pte)	
US6368339 BA	20020321	LSGT	PAT1	Patented Case	
US6368339 BA	20020321	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6368339 BA	20050525	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6368339 BA	20050728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LEHMAN COMMERCIAL PAPER, INC., NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:AGA MEDICAL CORPORATION; REEL/FRAME:016323/0057 EFFECTIVE DATE : 20050728
US6368339 BA	20091009	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6368339 BA	20091012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A., CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY INTEREST ASSIGNMENT AGREEMENT; ASSIGNOR:LEHMAN COMMERCIAL PAPER, INC.; REEL/FRAME:023355/0424 EFFECTIVE DATE : 20091009
US6368339 BA	20091012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A.,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY INTEREST ASSIGNMENT AGREEMENT; ASSIGNOR:LEHMAN COMMERCIAL PAPER, INC.; REEL/FRAME:023355/0424 EFFECTIVE DATE : 20091009
US6368339 BA	20131009	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6368339 BA	20200519	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US6447531 BA	20020910	LSGT	+	granted / extensions (spc, cpc, pte)	
US6447531 BA	20020822	LSGT	PAT1	Patented Case	
US6447531 BA	20020822	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6447531 BA	20050728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

					OWNER : LEHMAN COMMERCIAL PAPER, INC., NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:AGA MEDICAL CORPORATION; REEL/FRAME:016323/0057 EFFECTIVE DATE : 20050728
US6447531 BA	20051012	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6447531 BA	20091012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A., CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY INTEREST ASSIGNMENT AGREEMENT; ASSIGNOR:LEHMAN COMMERCIAL PAPER, INC.; REEL/FRAME:023355/0424 EFFECTIVE DATE : 20091009
US6447531 BA	20091012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A.,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY INTEREST ASSIGNMENT AGREEMENT; ASSIGNOR:LEHMAN COMMERCIAL PAPER, INC.; REEL/FRAME:023355/0424 EFFECTIVE DATE : 20091009
US6447531 BA	20100310	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6447531 BA	20140310	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6447531 BA	20200710	PEXP		Calculated Patent Term Expiry	
US6579303 BB	20030617	LSGT	+	granted / extensions (spc, cpc, pte)	
US6579303 BB	20050728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LEHMAN COMMERCIAL PAPER, INC., NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:AGA MEDICAL CORPORATION; REEL/FRAME:016323/0057 EFFECTIVE DATE : 20050728
US6579303 BB	20070129	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6579303 BB	20091012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A., CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY INTEREST ASSIGNMENT AGREEMENT; ASSIGNOR:LEHMAN COMMERCIAL PAPER, INC.; REEL/FRAME:023355/0424 EFFECTIVE DATE : 20091009
US6579303 BB	20091012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A.,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY INTEREST ASSIGNMENT AGREEMENT; ASSIGNOR:LEHMAN COMMERCIAL PAPER, INC.; REEL/FRAME:023355/0424 EFFECTIVE DATE : 20091009
US6579303 BB	20101217	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6579303 BB	20150617	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6579303 BB	20150713	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6579303 BB	20150713	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362

US6579303 BB	20150804	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20150617
US6579303 BB	20220715	PEXP		Calculated Patent Term Expiry	
US6599308 BB	20030729	LSGT	+	granted / extensions (spc, cpc, pte)	
US6599308 BB	20050728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LEHMAN COMMERCIAL PAPER, INC., NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:AGA MEDICAL CORPORATION; REEL/FRAME:016323/0057 EFFECTIVE DATE : 20050728
US6599308 BB	20060816	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6599308 BB	20091012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A., CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY INTEREST ASSIGNMENT AGREEMENT; ASSIGNOR:LEHMAN COMMERCIAL PAPER, INC.; REEL/FRAME:023355/0424 EFFECTIVE DATE : 20091009
US6599308 BB	20091012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A.,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY INTEREST ASSIGNMENT AGREEMENT; ASSIGNOR:LEHMAN COMMERCIAL PAPER, INC.; REEL/FRAME:023355/0424 EFFECTIVE DATE : 20091009
US6599308 BB	20110131	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6599308 BB	20150729	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6599308 BB	20150824	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6599308 BB	20150824	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6599308 BB	20150915	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20150729
US6599308 BB	20220201	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US6682546 BB	20040127	LSGT	+	granted / extensions (spc, cpc, pte)	
US6682546 BB	20040108	LSGT	PAT1	Patented Case	
US6682546 BB	20050728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LEHMAN COMMERCIAL PAPER, INC., NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:AGA MEDICAL CORPORATION; REEL/FRAME:016323/0057 EFFECTIVE DATE : 20050728
US6682546 BB	20070404	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6682546 BB	20091012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A., CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY INTEREST ASSIGNMENT AGREEMENT; ASSIGNOR:LEHMAN COMMERCIAL PAPER, INC.; REEL/FRAME:023355/0424 EFFECTIVE DATE : 20091009
US6682546 BB	20091012	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

					OWNER : BANK OF AMERICA, N.A.,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY INTEREST ASSIGNMENT AGREEMENT; ASSIGNOR:LEHMAN COMMERCIAL PAPER, INC.; REEL/FRAME:023355/0424 EFFECTIVE DATE : 20091009
US6682546 BB	20110727	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6682546 BB	20160127	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6682546 BB	20160222	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
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US6682546 BB	20220509	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
WO9601599 A1	19960125	LSPB	+	published / reissued	
WO9601599 A1	19970108	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2194669 COUNTRY OF REF DOCUMENT : CA
WO9601599 A1	19970210	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1995926193 COUNTRY OF REF DOCUMENT : EP
WO9601599 A1	19971126	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995926193 COUNTRY OF REF DOCUMENT : EP
WO9601599 A1	20051005	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995926193 COUNTRY OF REF DOCUMENT : EP
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WO9742878 A1	19970414	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 97194488.1 COUNTRY OF REF DOCUMENT : CN
WO9742878 A1	19981029	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2252913 COUNTRY OF REF DOCUMENT : CA
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WO9742878 A1	19981128	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1997922307 COUNTRY OF REF DOCUMENT : EP
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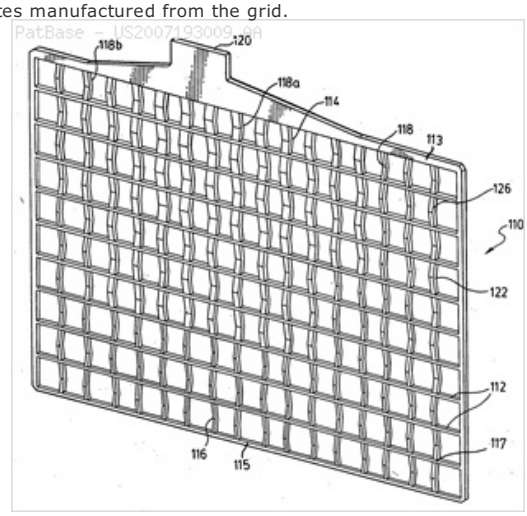
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WO9912478 A1	19990318	LSPB	+	published / reissued	
WO9912478 A1	19980901	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 98808876.2 COUNTRY OF REF DOCUMENT : CN
WO9912478 A1	19991209	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1998946804 COUNTRY OF REF DOCUMENT : EP
WO9912478 A1	19991218	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1019997012018 COUNTRY OF REF DOCUMENT : KR
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WO9912478 A1	20000307	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2000 510380 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO9912478 A1	20000307	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200000206 COUNTRY OF REF DOCUMENT : EA
WO9912478 A1	20000628	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998946804 COUNTRY OF REF DOCUMENT : EP
WO9912478 A1	20010226	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019997012018 COUNTRY OF REF DOCUMENT : KR
WO9912478 A1	20010315	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 93740/98 COUNTRY OF REF DOCUMENT : AU
WO9912478 A1	20030506	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019997012018 COUNTRY OF REF DOCUMENT : KR

15) Family number: 35562420 (US2007193009A)

Title: METHOD AND APPARATUS FOR CONTINUOUS MANUFACTURE OF BATTERY GRIDS

Abstract: A method and apparatus for continuous, high-speed production of strip having an array of high-tolerance closely-spaced holes forming a continuous grid structure having **wires** bent out of the plane of the grid. The strip can be produced by continuous casting, extruding or by rolling reduction methods and the holes can be formed such as by linear punching and rotary punching. An apparatus for rotary punching comprises a first pair of opposed rotary dies, one a female die and the other a male/female die, which punches a first set of holes in a strip fed continuously between the dies, and a second pair of opposed rotary dies, one the male/female die and the other a male die, which punches a second set of holes in the strip between the first set of holes defining a continuous grid structure having grid **wires**, the strip being wrapped about the common male/female die during punching of the first and second sets of holes to continuously index the strip with the two opposed pairs of rotary dies to ensure production of the high-tolerance closely-spaced holes. A third pair of opposed rotary dies bends the grid **wires** of the continuous grid structure out of the plane of the grid, preferably symmetrically about the plane of the grid, to provide enhanced paste retention to battery plates manufactured from the grid.

Classifications:
International (IPC 8-9): B21D28/26 B21D28/36 B21F1/00 H01M10/06 H01M4/20 H01M4/73 H01M4/74 H01M4/82 (Advanced/Invention);
B21D28/24 B21D28/36 B21F1/00 H01M10/06 H01M4/16 H01M4/64 H01M4/72 (Core/Invention)
CPC: B21C37/02 B21D31/04 H01M4/73 H01M4/74 H01M4/742 H01M4/82 H01M4/84 Y10T29/10
European: B21C37/02 B21D31/04 H01M4/73 H01M4/74 H01M4/74A H01M4/82 H01M4/84 Y02E60/12
US: 29/2 29/2P 429/241 429/241S



Family:

Publication number	Publication date	Application number	Application date
AT467916 E	20100515	AT20070701793T	20070216
DE602007006439 D1	20100624	DE200760006439T	20070216
EP1994589 A1	20081126	EP20070701793	20070216
EP1994589 A4	20090805	EP20070701793	20070216
EP1994589 B1	20100512	EP20070701793	20070216
ES2346091 T3	20101008	ES20070701793T	20070216
US2007193009 AA	20070823	US20070707085	20070216
WO07095725 A1	20070830	WO2007CA00244	20070216

Priority:

US20060775340P 20060222 US20070707085 20070216 WO2007CA00244 20070216

Probable Assignee: MITEK HOLDINGS INC

Assignee(s): (std): MARLOW JOHN V ; TECK COMINCO METALS LTD ; TECK METALS LTD ; VINCZE ALBERT M

Assignee(s): MITEK HOLDINGS INC

Inventor(s): (std): VINCZE ALBERT M ; MARLOW JOHN V

Agent(s): LOUIS POEHLAU LOHRENTZ; ARNE I FORS GROWLING LAFLEUR HENDERSON LLP

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT467916 E	20100515	LSGT	+	granted / extensions (spc, cpc, pte)	
AT467916 E	20101115	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT467916 E	20270216	PEXP		Calculated Patent Term Expiry	
DE602007006439 D1	20110601	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE602007006439 D1	20130823	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : MITEK HOLDINGS, INC., WILMINGTON, DEL., US OLDPARTY : TECK METALS LTD., VANCOUVER, CA

EP1994589 A1	20081126	LSPB	+	published / reissued	
EP1994589 A1	20081126	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20080910
EP1994589 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160226 YEAR OF FEE PAYMENT : 10
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EP1994589 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160226 YEAR OF FEE PAYMENT : 10
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EP1994589 A4	20100210	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : TECK METALS LTD.
EP1994589 B1	20100512	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1994589 B1	20100512	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1994589 B1	20100514	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1994589 B1	20100623	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1994589 B1	20100825	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20100512
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EP1994589 B1	20101025	LSRV	-LTIE	LT: INVALIDATION OF EUROPEAN PATENT OR PATENT EXTENSION	REF COUNTRY CODE : EP EFFECTIVE DATE : 20100512
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EP1994589 B1	20101231	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 : 20100602
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EP1994589 B1	20110930	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
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EP1994589 B1	20111031	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 : 20110228

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EP1994589 B1	20130930	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 : 20100812
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EP1994589 B1	20131017	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : MITEK HOLDINGS, INC., WILMINGTON, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602007006439 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: TECK METALS LTD., VANCOUVER, CA EFFECTIVE DATE : 20130823
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EP1994589 B1	20131101	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : FR OWNER : MITEK HOLDINGS, INC, US REF LEGAL EVENT CODE : TP EFFECTIVE DATE : 20130930
EP1994589 B1	20131105	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : ES OWNER : MITEK HOLDINGS,INC. REF LEGAL EVENT CODE : PC2A EFFECTIVE DATE : 20131023
EP1994589 B1	20160217	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
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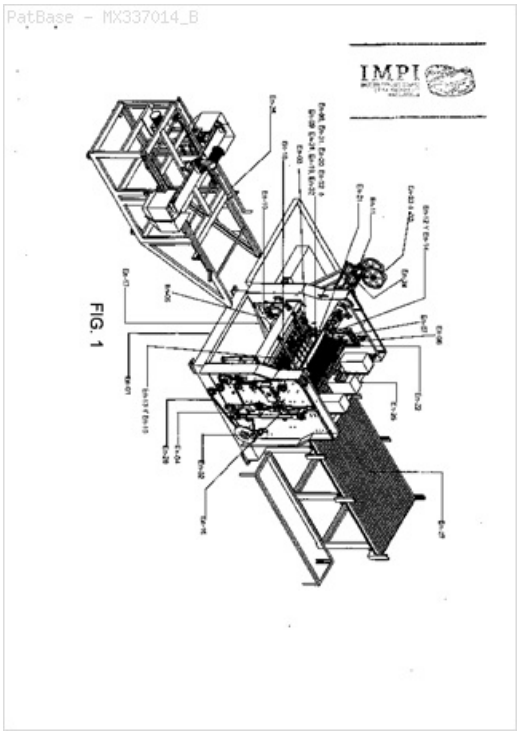
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16) Family number: 63990428 (MX337014B)

Title: IMPROVED MACHINE FOR THE ASSEMBLY OF ELECTROWELDED **MESH** FOR FORMING THREE-DIMENSIONAL **WIRE** STRUCTURES.

Abstract: The present invention is referred to an improved machine for the assembly of electrowelded **mesh** for forming three-dimensional **wire** structures useful for the construction industry as constructive panels; the machine is longitudinally supplied with electrowelded **mesh** strips and straight transversal **wires**, which are perpendicularly attached by a welding system for forming a three-dimensional structure. The inventive machine includes improvements in the main axle of the mechanical transmission, as well as in right and left oscillation axles useful for avoiding synchrony problems and enabling thickness variations; the upper and lower tunnel carrier plate which prevents the supplied **wire** from being jammed; upper and lower finger carrier plates for facilitating the fingers alignment; plates for carrying upper left and right Thomson axle, and lower left and right Thomson axle for achieving restructure thickness variations; the supplying system for avoiding the need of synchrony; cutting syste ms; bridge guide bars for carrying bayonets, and the welding control system for improving the welding process.

Classifications:
International (IPC 8-9): B21F27/10 (Advanced/Invention); B23K11/00 (Core/Invention)



Family:

Publication number	Publication date	Application number	Application date
MX337014 B	20151216	MX20080012383	20080722

Priority:
MX20080012383 20080722

Probable Assignee:	CONCRETO W S A DE C V
Assignee(s): (std):	CONCRETO W S A DE C V
Assignee(s):	CONCRETO W DE CV SA
Inventor(s): (std):	FAINSHTEIN CARLOS RABINOVITZ
Inventor(s):	CARLOS RABINOVITZ FAINSHTEIN

Legal status (INPADOC)

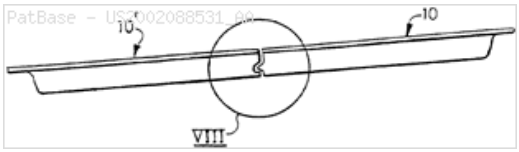
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Patent	Date recorded	Event group	Code	Event	Details
MX337014 B	20151216	LSGT	+	granted / extensions (spc, cpc, pte)	
MX337014 B	20280722	PEXP		Calculated Patent Term Expiry	

17) Family number: 30019453 (US2002088531A)

Title: FILTERING SCREEN AND SUPPORT FRAME THEREFOR

Abstract: A method of constructing a frame (10) for a filtering screen from a polymer material is described in which a **wire** frame reinforcement is wholly encapsulated during the frame moulding process so that two parallel spaced apart **wires** extend through each of the intersecting orthogonal ribs (14, 16) which define the open area of the frame (10) across which the **wire**-cloths (158, 159) are stretched. The surfaces of the frame (10) in which the wirecloths (158, 159) are embedded are formed with ridges (22, 30, 32) and the crests of the latter extend to different heights. The crest are softened by heating during the manufacturing process and the wirecloths (158, 159) stretched over the frame (10) are forced into the softened crests after which the assembly is allowed to cool and cure. The frame (10) is re-usable by stripping wirecloths (158, 159) from the top of the frame (10) and fitting fresh wirecloths over the plastics material and heating the regions which are to encapsulate the fresh wirecloth.



Classifications:
International (IPC 8-9): B01D29/01 B01D33/00 B01D33/15 B01D35/20 B03B5/00 B03B5/04 B07B B07B1/46 B07B1/48 B29C B29C33/40 B29C39/10 B29C45/14 B29C70/56 B29C70/68 B29C70/70 B29C70/82 B29C70/88 D03D15/02 D03D9/00 E21C50/00 (Advanced/Invention);
B07B1/46 B29C33/40 B29C70/00 (Core/Invention);
B07B B29C (Subclass/Invention)
International (IPC 1-7): B01D29/01 B01D29/03 B01D29/05 B01D33/03 B01D39/10 B07B1/46 B21F15/08 B23K11/00 B23P15/12 B29C33/40 B29C43/00 B29C45/14 B29C70/68 B29C70/70 B32B15/04 B32B15/18 B32B31/16 B32B35/00 B32B5/22 C09J1/00
CPC: Y10T29/49616 Y10T29/4962 Y10T29/49895 Y10T428/12347 Y10T428/12361 Y10T428/12444 Y10T428/12965 Y10T428/298 B07B1/4618 B01D29/012 B07B1/46 B07B1/4627 B07B1/4645 B07B1/4663 B07B1/4672 B07B1/48 B29C45/14336 B29C70/56 B29C70/82 B29C70/885 B29C2045/14442 B29L2031/14 B29L2031/737 Y10T428/249923 B01D29/05 B01D29/445
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Probable Assignee: UNITED WIRE LTD

Assignee(s): (std): BAILEY ARTHUR ROBERT ; COOK GORDON JAMES ; HARTNUP GEORGE CHARLES ; HUGHES ANDREW ; STEWART DUGALD ; UNITED WIRE LTD ; UNITED WIRE LIMITED

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Agent(s): CALLINANS; FISHER ADAMS KELLY CALLINANS; SPRUSON AND FERGUSON; KIRBY EADES GALE BAKER; WILKINSON AND GRIST 6 FL PRINCE S BUILDING 10 CHATER ROAD HONG KONG; HORII YUTAKA; MORITA TOSHIO; FUKAMI HISAO

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU 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 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
AT237409 E	20030515	LSGT	+	granted / extensions (spc, cpc, pte)	
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AU724886 B2	20001005	LSGT	+	granted / extensions (spc, cpc, pte)	
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BRPI9807644 A	20040908	LSGT	B09A	DECISION: INTENTION TO GRANT	
BRPI9807644 A	20050215	LSGT	+B16A	PATENT OR CERTIFICATE OF ADDITION OF INVENTION GRANTED	
BRPI9807644 A	20180821	LSLE	-B21A	EXPIRY ACC. ART. 78, ITEM I OF IPL- EXPIRY OF THE TERM OF PROTECTION	
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DE69820683 T2	20180225	PEXP		Calculated Patent Term Expiry	
DE69824052 D1	20050616	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69824052 D1	20050616	LSGT	+8364	NO OPPOSITION DURING TERM	

				OF OPPOSITION
DE69824052 T2	20050203	LSGT	+	granted / extensions (spc, cpc, pte)
DE69824052 T2	20050616	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION
DE69824052 T2	20180225	PEXP		Calculated Patent Term Expiry
DE69825329 D1	20050825	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION
DE69825329 D1	20050825	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION
DE69825329 T2	20041230	LSGT	+	granted / extensions (spc, cpc, pte)
DE69825329 T2	20050825	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION
DE69825329 T2	20180225	PEXP		Calculated Patent Term Expiry
DE69827046 D1	20051110	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION
DE69827046 D1	20051110	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION
DE69827046 T2	20050303	LSGT	+	granted / extensions (spc, cpc, pte)
DE69827046 T2	20051110	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION
DE69827046 T2	20180225	PEXP		Calculated Patent Term Expiry
DK0963261 T3	20030602	LSGT	+	granted / extensions (spc, cpc, pte)
DK0963261 T3	20180225	PEXP		Calculated Patent Term Expiry
DK1205261 T3	20040830	LSGT	+	granted / extensions (spc, cpc, pte)
DK1205261 T3	20040830	LSGT	+	granted / extensions (spc, cpc, pte)
DK1205261 T3	20180225	PEXP		Calculated Patent Term Expiry
DK1205261 T3	20180225	PEXP		Calculated Patent Term Expiry
DK1205262 T3	20040628	LSGT	+	granted / extensions (spc, cpc, pte)
DK1205262 T3	20040628	LSGT	+	granted / extensions (spc, cpc, pte)
DK1205262 T3	20180225	PEXP		Calculated Patent Term Expiry
DK1205262 T3	20180225	PEXP		Calculated Patent Term Expiry
DK1205263 T3	20040105	LSGT	+	granted / extensions (spc, cpc, pte)
DK1205263 T3	20040105	LSGT	+	granted / extensions (spc, cpc, pte)
DK1205263 T3	20180225	PEXP		Calculated Patent Term Expiry
DK1205263 T3	20180225	PEXP		Calculated Patent Term

				Expiry	
DK1205264 T3	20041108	LSGT	+	granted / extensions (spc, cpc, pte)	
DK1205264 T3	20041108	LSGT	+	granted / extensions (spc, cpc, pte)	
DK1205264 T3	20180225	PEXP		Calculated Patent Term Expiry	
DK1205264 T3	20180225	PEXP		Calculated Patent Term Expiry	
DK1205265 T3	20040308	LSGT	+	granted / extensions (spc, cpc, pte)	
DK1205265 T3	20040308	LSGT	+	granted / extensions (spc, cpc, pte)	
DK1205265 T3	20180225	PEXP		Calculated Patent Term Expiry	
DK1205265 T3	20180225	PEXP		Calculated Patent Term Expiry	
EP0963261 A1	19991215	LSPB	+	published / reissued	
EP0963261 A1	19991215	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19990826
EP0963261 A1	20010502	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20010319
EP0963261 B1	20030416	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0963261 B1	20030416	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP0963261 B1	20030430	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0963261 B1	20030528	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP0963261 B1	20030909	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20030402469 COUNTRY OF REF DOCUMENT : GR
EP0963261 B1	20040101	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2197462 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP0963261 B1	20040225	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 : 20040225
EP0963261 B1	20040407	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20040119
EP0963261 B1	20040831	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 : 20040831
EP0963261 B1	20040903	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 : 20040903
EP0963261 B1	20041117	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A

EP0963261 B1	20070831	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : CH OWNER : UNITED WIRE LIMITED REF LEGAL EVENT CODE : PFA OLDPARTY : UNITED WIRE LIMITED#GRANTON PARK AVENUE#EDINBURGH EH5 1HT (GB) -TRANSFER TO- UNITED WIRE LIMITED#GRANTON PARK AVENUE#EDINBURGH EH5 1HT (GB)
EP0963261 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17
EP0963261 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17
EP0963261 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20140212 YEAR OF FEE PAYMENT : 17
EP0963261 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20140128 YEAR OF FEE PAYMENT : 17
EP0963261 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20140214 YEAR OF FEE PAYMENT : 17
EP0963261 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20140218 YEAR OF FEE PAYMENT : 17
EP0963261 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17
EP0963261 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20140113 YEAR OF FEE PAYMENT : 17
EP0963261 B1	20150630	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 : 20150228
EP0963261 B1	20150929	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : EUG
EP0963261 B1	20150930	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0963261 B1	20151015	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MM01 REF DOCUMENT NUMBER : 237409 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150225
EP0963261 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 : 20150228
EP0963261 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSED DATE : 20150225
EP0963261 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 : 20150228
EP0963261 B1	20151127	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20151030
EP0963261 B1	20151130	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 : 20150226
EP0963261 B1	20151130	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 : 20150225
EP0963261 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 : 20150225
EP0963261 B1	20160229	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 : 20150302
EP0963261 B1	20160329	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20160329
EP0963261 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 : 20150226
EP0963261 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160216 YEAR OF FEE PAYMENT : 19
EP0963261 B1	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 : 19
EP0963261 B1	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 : 19
EP0963261 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170228 YEAR OF FEE PAYMENT : 20
EP0963261 B1	20170901	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 69813521 COUNTRY OF REF DOCUMENT : DE
EP0963261 B1	20170918	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP EFFECTIVE DATE : 20170228

EP0963261 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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20170301
EP0963261 B1	20180131	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 : 20170228
EP0963261 B1	20180131	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 : 20170901
EP0963261 B1	20180321	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20180224
EP0963261 B1	20180430	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 : 20180224
EP0963261 B1	20180224	PEXP		Calculated Patent Term Expiry	
EP0963261 B1	20180225	PEXP		Calculated Patent Term Expiry	
EP1205261 A2	20020515	LSPB	+	published / reissued	
EP1205261 A2	20020515	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20020215
EP1205261 A3	20030212	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT 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 : GR COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : SE
EP1205261 A3	20031126	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20031014
EP1205261 B1	20040728	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1205261 B1	20040728	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 : 20040728
EP1205261 B1	20040728	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 : 20040728
EP1205261 B1	20040728	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1205261 B1	20040730	LSNP	REG	REFERENCE TO A	REF COUNTRY CODE : CH

				NATIONAL CODE	REF LEGAL EVENT CODE : EP
EP1205261 B1	20040825	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1205261 B1	20041028	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 : 20041028
EP1205261 B1	20041028	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 : 20041028
EP1205261 B1	20041108	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 : 20041108
EP1205261 B1	20041217	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : GR REF DOCUMENT NUMBER : 1046655 COUNTRY OF REF DOCUMENT : HK
EP1205261 B1	20050225	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 : 20050225
EP1205261 B1	20050720	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20050429
EP1205261 B1	20051130	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1205261 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 : 20041228
EP1205261 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20140212 YEAR OF FEE PAYMENT : 17
EP1205261 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20140128 YEAR OF FEE PAYMENT : 17
EP1205261 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20140214 YEAR OF FEE PAYMENT : 17
EP1205261 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17
EP1205261 B1	20150630	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 : 20150228
EP1205261 B1	20150930	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL

EP1205261 B1	20151015	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MM01 REF DOCUMENT NUMBER : 271932 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150225
EP1205261 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 : 20150228
EP1205261 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 : 20150228
EP1205261 B1	20151127	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20151030
EP1205261 B1	20151130	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 : 20150225
EP1205261 B1	20160229	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 : 20150302
EP1205261 B1	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 : 19
EP1205261 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160216 YEAR OF FEE PAYMENT : 19
EP1205261 B1	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 : 19
EP1205261 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170228 YEAR OF FEE PAYMENT : 20
EP1205261 B1	20170901	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 69825329 COUNTRY OF REF DOCUMENT : DE
EP1205261 B1	20170918	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP EFFECTIVE DATE : 20170228
EP1205261 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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20170301
EP1205261 B1	20180131	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 : 20170901

EP1205261 B1	20180131	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 : 20170228
EP1205261 B1	20180321	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20180224
EP1205261 B1	20180430	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 : 20180224
EP1205261 B1	20180224	PEXP		Calculated Patent Term Expiry	
EP1205261 B1	20180225	PEXP		Calculated Patent Term Expiry	
EP1205262 A2	20020515	LSPB	+	published / reissued	
EP1205262 A2	20020515	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20020215
EP1205262 A3	20030212	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT 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 : GR COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : SE
EP1205262 B1	20040519	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1205262 B1	20040519	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 : 20040519
EP1205262 B1	20040519	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1205262 B1	20040528	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1205262 B1	20040616	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1205262 B1	20040819	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 : 20040819
EP1205262 B1	20040830	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 : 20040830
EP1205262 B1	20180224	PEXP		Calculated Patent Term Expiry	
EP1205262 B1	20180225	PEXP		Calculated Patent Term Expiry	

EP1205262 B9	20041210	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : GR REF DOCUMENT NUMBER : 1046657 COUNTRY OF REF DOCUMENT : HK
EP1205262 B9	20050225	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 : 20050225
EP1205262 B9	20050511	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20050222
EP1205262 B9	20051130	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1205262 B9	20070831	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : CH OWNER : UNITED WIRE LIMITED REF LEGAL EVENT CODE : PFA OLDPARTY : UNITED WIRE LIMITED#GRANTON PARK AVENUE#GRANTON, EDINBURGH EH5 1HT (GB) -TRANSFER TO- UNITED WIRE LIMITED#GRANTON PARK AVENUE#GRANTON, EDINBURGH EH5 1HT (GB)
EP1205262 B9	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 : 20041019
EP1205262 B9	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20140212 YEAR OF FEE PAYMENT : 17
EP1205262 B9	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17
EP1205262 B9	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17
EP1205262 B9	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20140128 YEAR OF FEE PAYMENT : 17
EP1205262 B9	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17
EP1205262 B9	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20140214 YEAR OF FEE PAYMENT : 17
EP1205262 B9	20150630	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 : 20150228
EP1205262 B9	20150929	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : EUG
EP1205262 B9	20150930	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1205262 B9	20151015	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MM01 REF DOCUMENT NUMBER : 267058 COUNTRY OF REF DOCUMENT : AT

					KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150225
EP1205262 B9	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 : 20150228
EP1205262 B9	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 : 20150228
EP1205262 B9	20151030	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 : 20150225
EP1205262 B9	20151127	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20151030
EP1205262 B9	20151130	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 : 20150225
EP1205262 B9	20151130	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 : 20150226
EP1205262 B9	20160229	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 : 20150302
EP1205262 B9	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 : 19
EP1205262 B9	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160216 YEAR OF FEE PAYMENT : 19
EP1205262 B9	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 : 19
EP1205262 B9	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170228 YEAR OF FEE PAYMENT : 20
EP1205262 B9	20170901	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 69824052 COUNTRY OF REF DOCUMENT : DE
EP1205262 B9	20170918	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP EFFECTIVE DATE : 20170228
EP1205262 B9	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170301

				INFORMATION FROM NATIONAL OFFICE TO EPO]	
EP1205262 B9	20180131	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 : 20170228
EP1205262 B9	20180131	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 : 20170901
EP1205262 B9	20180321	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20180224
EP1205262 B9	20180430	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 : 20180224
EP1205263 A2	20020515	LSPB	+	published / reissued	
EP1205263 A2	20020515	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20020215
EP1205263 A3	20030212	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT 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 : GR COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : SE
EP1205263 A3	20030416	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20030226
EP1205263 A3	20030709	LSRE	RTI1	TITLE (CORRECTION)	TEXT : METHOD OF REPAIRING OF A FILTERING SCREEN AND A SUPPORT FRAME THEREOF
EP1205263 B1	20031217	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1205263 B1	20031217	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1205263 B1	20031231	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1205263 B1	20040128	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1205263 B1	20040225	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 : 20040225
EP1205263 B1	20040317	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 : 20040317
EP1205263 B1	20040816	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A

					REF DOCUMENT NUMBER : 2213125 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1205263 B1	20041117	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1205263 B1	20041208	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20040920
EP1205263 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 : 20040517
EP1205263 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20140212 YEAR OF FEE PAYMENT : 17
EP1205263 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17
EP1205263 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17
EP1205263 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20140213 YEAR OF FEE PAYMENT : 17
EP1205263 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17
EP1205263 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20140214 YEAR OF FEE PAYMENT : 17
EP1205263 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20140128 YEAR OF FEE PAYMENT : 17
EP1205263 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20140113 YEAR OF FEE PAYMENT : 17
EP1205263 B1	20150630	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 : 20150228
EP1205263 B1	20150929	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : EUG
EP1205263 B1	20150930	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1205263 B1	20151015	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MM01 REF DOCUMENT NUMBER : 256509 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150225
EP1205263 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150228

				INFORMATION FROM NATIONAL OFFICE TO EPO]	
EP1205263 B1	20151030	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 : 20150225
EP1205263 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 : 20150228
EP1205263 B1	20151127	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20151030
EP1205263 B1	20151130	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 : 20150226
EP1205263 B1	20151130	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 : 20150225
EP1205263 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 : 20150225
EP1205263 B1	20160229	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 : 20150302
EP1205263 B1	20160329	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20160329
EP1205263 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 : 20150226
EP1205263 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160216 YEAR OF FEE PAYMENT : 19
EP1205263 B1	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 : 19
EP1205263 B1	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 : 19
EP1205263 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170228 YEAR OF FEE PAYMENT : 20
EP1205263 B1	20170901	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 69820683

					COUNTRY OF REF DOCUMENT : DE
EP1205263 B1	20170918	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP EFFECTIVE DATE : 20170228
EP1205263 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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20170301
EP1205263 B1	20180131	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 : 20170901
EP1205263 B1	20180131	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 : 20170228
EP1205263 B1	20180321	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20180224
EP1205263 B1	20180430	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 : 20180224
EP1205263 B1	20180224	PEXP		Calculated Patent Term Expiry	
EP1205263 B1	20180225	PEXP		Calculated Patent Term Expiry	
EP1205264 A2	20020515	LSPB	+	published / reissued	
EP1205264 A2	20020515	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20020215
EP1205264 A3	20030212	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT 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 : GR COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : SE
EP1205264 A3	20030702	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20030520
EP1205264 B1	20041013	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1205264 B1	20041013	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1205264 B1	20041015	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1205264 B1	20041117	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1205264 B1	20050113	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE

				INFORMATION FROM NATIONAL OFFICE TO EPO]	WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20050113
EP1205264 B1	20050218	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : GR REF DOCUMENT NUMBER : 1046659 COUNTRY OF REF DOCUMENT : HK
EP1205264 B1	20050225	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 : 20050225
EP1205264 B1	20050316	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2225661 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1205264 B1	20051005	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20050714
EP1205264 B1	20051130	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1205264 B1	20070831	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : CH OWNER : UNITED WIRE LIMITED REF LEGAL EVENT CODE : PFA OLDPARTY : UNITED WIRE LIMITED#GRANTON PARK AVENUE#GRANTON, EDINBURGH EH5 1HT (GB) -TRANSFER TO- UNITED WIRE LIMITED#GRANTON PARK AVENUE#GRANTON, EDINBURGH EH5 1HT (GB)
EP1205264 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 : 20050313
EP1205264 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17
EP1205264 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17
EP1205264 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20140212 YEAR OF FEE PAYMENT : 17
EP1205264 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20140128 YEAR OF FEE PAYMENT : 17
EP1205264 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20140214 YEAR OF FEE PAYMENT : 17
EP1205264 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20140213 YEAR OF FEE PAYMENT : 17
EP1205264 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20140113 YEAR OF FEE PAYMENT : 17
EP1205264 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17

				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	
EP1205264 B1	20150630	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 : 20150228
EP1205264 B1	20150929	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : EUG
EP1205264 B1	20150930	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1205264 B1	20151015	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MM01 REF DOCUMENT NUMBER : 279268 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150225
EP1205264 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 : 20150228
EP1205264 B1	20151030	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 : 20150225
EP1205264 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 : 20150228
EP1205264 B1	20151127	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20151030
EP1205264 B1	20151130	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 : 20150226
EP1205264 B1	20151130	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 : 20150225
EP1205264 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 : 20150225
EP1205264 B1	20160229	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 : 20150302
EP1205264 B1	20160329	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20160329
EP1205264 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150226

				INFORMATION FROM NATIONAL OFFICE TO EPO]	
EP1205264 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160216 YEAR OF FEE PAYMENT : 19
EP1205264 B1	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 : 19
EP1205264 B1	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 : 19
EP1205264 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170228 YEAR OF FEE PAYMENT : 20
EP1205264 B1	20170901	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 69827046 COUNTRY OF REF DOCUMENT : DE
EP1205264 B1	20170918	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP EFFECTIVE DATE : 20170228
EP1205264 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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20170301
EP1205264 B1	20180131	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 : 20170901
EP1205264 B1	20180131	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 : 20170228
EP1205264 B1	20180321	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20180224
EP1205264 B1	20180430	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 : 20180224
EP1205264 B1	20180224	PEXP		Calculated Patent Term Expiry	
EP1205264 B1	20180225	PEXP		Calculated Patent Term Expiry	
EP1205265 A2	20020515	LSPB	+	published / reissued	
EP1205265 A2	20020515	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20020215
EP1205265 A3	20030212	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT 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 : GR COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : SE
EP1205265 A3	20030402	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20030212
EP1205265 B1	20031029	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1205265 B1	20031029	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1205265 B1	20031031	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1205265 B1	20031126	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1205265 B1	20040129	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 : 20040129
EP1205265 B1	20040701	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2210192 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1205265 B1	20041020	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20040730
EP1205265 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 : 20040329
EP1205265 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20140212 YEAR OF FEE PAYMENT : 17
EP1205265 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17
EP1205265 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17
EP1205265 B1	20140430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17
EP1205265 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20140213 YEAR OF FEE PAYMENT : 17
EP1205265 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20140211 YEAR OF FEE PAYMENT : 17
EP1205265 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20140214 YEAR OF FEE PAYMENT : 17

EP1205265 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20140113 YEAR OF FEE PAYMENT : 17
EP1205265 B1	20140530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20140128 YEAR OF FEE PAYMENT : 17
EP1205265 B1	20150630	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 : 20150228
EP1205265 B1	20150929	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : EUG
EP1205265 B1	20150930	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1205265 B1	20151015	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MM01 REF DOCUMENT NUMBER : 252949 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150225
EP1205265 B1	20151030	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 : 20150225
EP1205265 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 : 20150228
EP1205265 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 : 20150228
EP1205265 B1	20151118	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1205265 B1	20151127	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20151030
EP1205265 B1	20151130	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 : 20150225
EP1205265 B1	20151130	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 : 20150226
EP1205265 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 : 20150225
EP1205265 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSED DATE : 20150225
EP1205265 B1	20160229	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 : 20150302
EP1205265 B1	20160329	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20160329
EP1205265 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 : 20150226
EP1205265 B1	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 : 19
EP1205265 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160216 YEAR OF FEE PAYMENT : 19
EP1205265 B1	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 : 19
EP1205265 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170228 YEAR OF FEE PAYMENT : 20
EP1205265 B1	20170901	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 69819371 COUNTRY OF REF DOCUMENT : DE
EP1205265 B1	20170918	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP EFFECTIVE DATE : 20170228
EP1205265 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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20170301
EP1205265 B1	20180131	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 : 20170228
EP1205265 B1	20180131	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 : 20170901
EP1205265 B1	20180321	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20180224
EP1205265 B1	20180430	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 : 20180224

EP1205265 B1	20180224	PEXP		Calculated Patent Term Expiry	
EP1205265 B1	20180225	PEXP		Calculated Patent Term Expiry	
ES2197462 T3	20040101	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2197462 T3	20180225	PEXP		Calculated Patent Term Expiry	
ES2210192 T3	20040701	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2210192 T3	20180225	PEXP		Calculated Patent Term Expiry	
ES2213125 T3	20040816	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2213125 T3	20180225	PEXP		Calculated Patent Term Expiry	
ES2225661 T3	20050316	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2225661 T3	20180225	PEXP		Calculated Patent Term Expiry	
GB2322590 A1	19980902	LSPB	+	published / reissued	
GB2322590 B2	19991201	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2322590 B2	20180321	LSLE	-PE20	PATENT EXPIRED AFTER TERMINATION OF 20 YEARS	EXPIRY DATE : 20180224
GB2322590 B2	20180224	PEXP		Calculated Patent Term Expiry	
GB2337019 A1	19991110	LSPB	+	published / reissued	
GB2337019 B2	20010613	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2337019 B2	20180321	LSLE	-PE20	PATENT EXPIRED AFTER TERMINATION OF 20 YEARS	EXPIRY DATE : 20180224
GB2337019 B2	20180224	PEXP		Calculated Patent Term Expiry	
HK1024200 A1	20030808	LSPB	+	published / reissued	
HK1024200 A1	20041215	LSFE	+PF	PATENT IN FORCE	
HK1024200 A1	20150918	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	EFFECTIVE DATE : 20150225
HK1024200 A1	20200607	PEXP		Calculated Patent Term Expiry	
HK1046655 A1	20041217	LSPB	+	published / reissued	
HK1046655 A1	20150918	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	
HK1046655 A1	20200607	PEXP		Calculated Patent Term Expiry	
HK1046655 B	20041217	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1046655 B	20200607	PEXP		Calculated	

				Patent Term Expiry	
HK1046656 A1	20040305	LSPB	+	published / reissued	
HK1046656 A1	20041215	LSFE	+PF	PATENT IN FORCE	
HK1046656 A1	20150918	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	
HK1046656 A1	20200607	PEXP		Calculated Patent Term Expiry	
HK1046657 A1	20041210	LSPB	+	published / reissued	
HK1046657 A1	20041215	LSFE	+PF	PATENT IN FORCE	
HK1046657 A1	20150918	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	
HK1046657 A1	20200607	PEXP		Calculated Patent Term Expiry	
HK1046657 B	20041210	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1046657 B	20200607	PEXP		Calculated Patent Term Expiry	
HK1046658 A1	20040312	LSPB	+	published / reissued	
HK1046658 A1	20041215	LSFE	+PF	PATENT IN FORCE	
HK1046658 A1	20150918	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	
HK1046658 A1	20200607	PEXP		Calculated Patent Term Expiry	
HK1046659 A1	20050218	LSPB	+	published / reissued	
HK1046659 A1	20150918	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	
HK1046659 A1	20200607	PEXP		Calculated Patent Term Expiry	
HK1046659 B	20050218	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1046659 B	20200607	PEXP		Calculated Patent Term Expiry	
JP2001513020 T2	20040520	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20040420
JP2001513020 T2	20061010	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20061010
JP2001513020 T2	20070510	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20070409
JP2001513020 T2	20081113	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2001513020 T2	20081125	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20081125

				(UTILITY MODEL)	
JP2001513020 T2	20081127	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP2001513020 T2	20081225	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20081217
JP2001513020 T2	20081226	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2001513020 T2	20090105	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2007190558 A2	20070502	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20070501
JP2007190558 A2	20070502	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20070501
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JP2007190558 A2	20100811	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100810
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JP2007203299 A2	20100727	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100726
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JP2007209983 A2	20100811	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100810
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JP2007237177 A2	20100812	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100811
JP2007237177 A2	20110706	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110705

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JP4586037 B2	20101124	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4586037 B2	20100907	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4586037 B2	20130829	LSFE	R20	特許料納付書 (Patent fee payment form)	
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JP4837616 B2	20141002	LSFE	R20	特許料納付書 (Patent fee payment form)	
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NO322936 B1	20190901	PEXP		Calculated Patent Term Expiry	
NO994245 A	19990901	LSPB	+	published / reissued	
PT963261 T	20030829	LSGT	+	granted / extensions (spc, cpc, pte)	
PT963261 T	20180225	PEXP		Calculated Patent Term Expiry	
US2002088531 AA	20020711	LSPB	+	published / reissued	
US2002088531 AA	20040617	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2002088532 AA	20020711	LSPB	+	published / reissued	
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US2002088747 AA	20020711	LSPB	+	published / reissued	
US2002088747 AA	20050418	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2002096470 AA	20020725	LSPB	+	published / reissued	
US2002096470 AA	20040129	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2002113043 AA	20020822	LSPB	+	published / reissued	
US2002113043 AA	20040311	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6675975 BA	20040113	LSGT	+	granted / extensions (spc, cpc, pte)	

US6675975 BA	19991101	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : UNITED WIRE LIMITED, UNITED KINGDOM OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:COOK, GORDON JAMES; HUGHES, ANDREW; BAILEY, ARTHUR ROBERT; AND OTHERS; REEL/FRAME:010348/0297; SIGNING DATES FROM 19990818 TO 19990924
US6675975 BA	20031223	LSGT	PAT1	Patented Case	
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US6713190 BB	20040330	LSGT	+	granted / extensions (spc, cpc, pte)	
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US6759000 BB	20040706	LSGT	+	granted / extensions (spc, cpc, pte)	
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US6759000 BB	20071219	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
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US6759000 BB	20151223	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
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US6800163 BB	20040916	LSGT	PAT1	Patented Case	
US6800163 BB	20080320	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
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US6800163 BB	20160323	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
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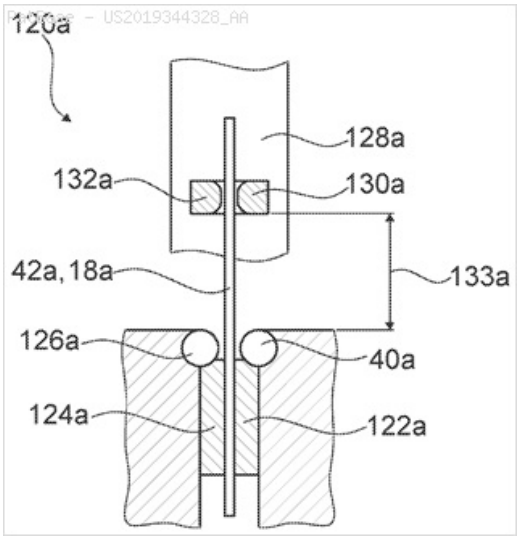
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WO9837988 A1	19980903	LSPB	+	published / reissued	
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WO9837988 A1	19990813	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2281098 COUNTRY OF REF DOCUMENT : CA
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WO9837988 A1	19990826	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1998907063 COUNTRY OF REF DOCUMENT : EP
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WO9837988 A1	19991101	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 09367379 COUNTRY OF REF DOCUMENT : US
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WO9837988 A1	19991230	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO9837988 A1	20010125	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 63044/98 COUNTRY OF REF DOCUMENT : AU
WO9837988 A1	20030416	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998907063 COUNTRY OF REF DOCUMENT : EP
ZA9801678 A	19990827	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA9801678 A	20180226	PEXP		Calculated Patent Term Expiry	
ZA9902852 A	19990827	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA9902852 A	20180226	PEXP		Calculated Patent Term Expiry	

18) Family number: 70166456 (US2019344328A)

Title: **WIRE** **MESH** AND METHOD FOR IDENTIFYING A SUITABLE **WIRE**

Abstract: A **wire** netting, in particular a safety net, includes a plurality of helices which are braided with one another and at least one of which is manufactured of at least one single **wire**, a **wire** bundle, a **wire** strand, a **wire** rope and/or another longitudinal element with at least one **wire**, in particular made of a high-tensile steel. The **wire** is bendable in a reverse bend test in opposite directions, by at least 90 degrees respectively, about at least one bending cylinder having a diameter of maximally 2 d, at least M times without breaking, wherein M may be determined (by rounding down if applicable) to be $C \cdot R^{-0.5} \cdot d^{-0.5}$ and wherein a diameter d of the **wire** is given in mm, R is a tensile strength of the **wire** in N mm^{-2} and C is a factor of at least 400 $N^{0.5}$ $mm^{0.5}$

Classifications:
International (IPC 8-9): B21F27/00 B21F27/02 E01F7/04 G01N3/20 (Advanced/Invention);
E01F7/04 (Advanced/Non-invention)
International (IPC 1-7): E01F7/04
CPC: E01F7/04 E01F7/045 G01N2203/0023 B21F27/005 G01N3/20 B21F27/02 G01N2203/028



Family:

Publication number	Publication date	Application number	Application date
AU2018213793 AA	20190704	AU20180213793	20180116
AU2018213793 BB	20200312	AU20180213793	20180116
BR112019012357 A2	20191126	BR20191112357	20180116
CA3051935 AA	20190729	CA20183051935	20180116
CL2019001910 A1	20190927	CL20190001910	20190709
CN110226008 A	20190910	CN201880008832	20180116
CN110226008 B	20200218	CN201880008832	20180116
CN110226008 B9	20200331	CN201880008832	20180116
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JP2020506060 T2	20200227	JP20190538502T	20180116
KR20190103465 A	20190904	KR20197024944	20180116
MX2019008215 A1	20190906	MX20190008215	20180116
PE20191294 A1	20190920	PE20190001491	20180116
PH2019501481 A	20200309	PH20190501481	20190625
US2019344328 AA	20191114	US20180475868	20180116
US10549335 BB	20200204	US20180475868	20180116
WO18137968 A1	20180802	WO2018EP50974	20180116

Priority:

DE201710101761 20170130 WO2018EP50974 20180116

Probable Assignee: GEOBRUGG AG

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Assignee(s): WENDELER GOGGELMANN CORINNA

Inventor(s): (std): WENDELER GOGGELMANN CORINNA ; WENDELER G GGELMANN CORINNA ; CORINNA WENDELER GOEGGELMANN ; WENDELER GOEGGELMANN CORINNA

Inventor(s): WENDELER GOEGGELMANN CORINNA DR

Agent(s): SPRUSON AND FERGUSON; NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL; SILVA Y CIA; PATENT U RECHTSANWALTSKANZLEI DAUB; DAUB THOMAS; POSZ LAW GROUP PLC

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

AU2018213793 AA	20190704	LSPB	+	published / reissued	
AU2018213793 BB	20200312	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2018213793 BB	20380116	PEXP		Calculated Patent Term Expiry	
CA3051935 AA	20190729	LSPB	+	published / reissued	
CA3051935 AA	20190819	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20190729
CA3051935 AA	20190903	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20190729
CL2019001910 A1	20190927	LSPB	+	published / reissued	
CN110226008 A	20190910	LSPB	+	published / reissued	
CN110226008 A	20190910	LSPB	PB01	PUBLICATION	
CN110226008 B	20200218	LSGT	+	granted / extensions (spc, cpc, pte)	
CN110226008 B	20200218	LSGT	+GR01	PATENT GRANT	
CN110226008 B	20380116	PEXP		Calculated Patent Term Expiry	
CN110226008 B9	20200331	LSRE	CI03	发明专利更正 (Correction of patent for invention)	TEXT : 发明专利更正 (INVENTION PATENT CORRECTIONS) GAZETTE VOLUME : 36 GAZETTE NUMBER : 08-01 GAZETTE PAGE : 全文 CORRECTION ITEM : 权利要求书; 说明书 (CLAIMS; DESCRIPTION) INCORRECT ITEM : 错误 (ERROR) CORRECTED ITEM : 正确 (CORRECT)
CN110226008 B9	20200331	LSRE	CI03	CORRECTION OF INVENTION PATENT	
CO20190006942 A2	20200117	LSPB	+	published / reissued	
DE102017101761 B3	20180621	LSGT	+	granted / extensions (spc, cpc, pte)	
DE102017101761 B3	20170822	LSES	+R012	REQUEST FOR EXAMINATION VALIDLY FILED	
DE102017101761 B3	20180205	LSES	R016	RESPONSE TO EXAMINATION COMMUNICATION	
DE102017101761 B3	20180308	LSGT	+R018	GRANT DECISION BY EXAMINATION SECTION/EXAMINING DIVISION	
DE102017101761 B3	20190322	LSGT	+R020	PATENT GRANT NOW FINAL	
DE102017101761 B3	20370130	PEXP		Calculated Patent Term Expiry	
EP3574146 A1	20191204	LSPB	+	published / reissued	
EP3574146 A1	20191204	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20190703
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JP2020506060 T2	20191112	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20190927
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JP2020506060 T2	20200128	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20200128
JP2020506060 T2	20200420	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20200420

KR20190103465 A	20190904	LSPB	+	published / reissued	
KR20190103465 A	20190826	LSES	A201	REQUEST FOR EXAMINATION	
KR20190103465 A	20190828	LSES	A302	REQUEST FOR ACCELERATED EXAMINATION	
KR20190103465 A	20200101	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
MX2019008215 A1	20190906	LSPB	+	published / reissued	
PE20191294 A1	20190920	LSPB	+	published / reissued	
PH2019501481 A	20200309	LSPB	+	published / reissued	
US10549335 BB	20200204	LSGT	+	granted / extensions (spc, cpc, pte)	
US10549335 BB	20190703	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GEOBRUGG AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:WENDELER-GOEGGELMANN, CORINNA; REEL/FRAME:049664/0513 EFFECTIVE DATE : 20190529
US10549335 BB	20190703	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US10549335 BB	20380116	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US2019344328 AA	20191114	LSPB	+	published / reissued	
US2019344328 AA	20191004	LSES	NFA1	Non Final Action Mailed	
US2019344328 AA	20191213	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2019344328 AA	20191226	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2019344328 AA	20200115	LSGT	PAT1	Patented Case	
US2019344328 AA	20200115	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
WO18137968 A1	20180802	LSPB	+	published / reissued	
WO18137968 A1	20190704	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2018213793 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20180116 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
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WO18137968 A1	20190731	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
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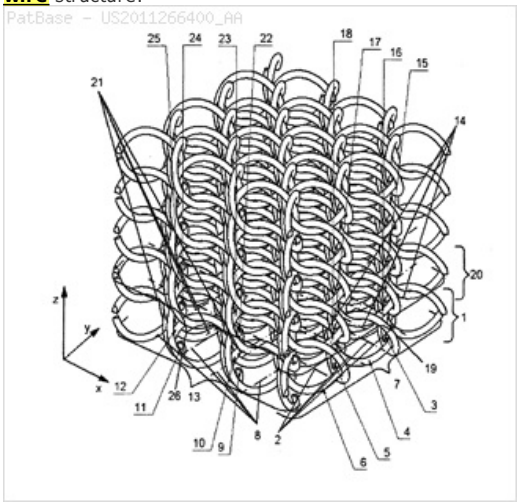
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19) Family number: 45887466 (US2011266400A)

Title: LIGHTWEIGHT THREE-DIMENSIONAL **WIRE** STRUCTURE AND METHOD FOR THE PRODUCTION THEREOF

Abstract: The invention relates to a lightweight three-dimensional **wire** structure which comprises a plurality of **wires** that are connected to each other and intersect in the three-dimensional space so as to form a plurality of cells. In addition, the invention relates to a method for producing such a three-dimensional **wire** structure.

Classifications:
International (IPC 8-9): B01J19/32 B21F27/00 B21F27/02 B21F27/12 B21F31/00 D03D25/00 E04B1/19 F16S3/08 (Advanced/Invention);
B01J19/32 B21F27/00 B21F27/12 D03D25/00 E04B1/19 (Advanced/Non-invention);
B01J19/32 B21F27/00 D03D25/00 E04B1/19 (Core/Invention)
CPC: B21F27/12 B22F3/002 B01J19/32 D03D25/00 E04B1/19
European: B21F27/12 B22F3/00F
US: 140/124 140/71.00RS 140/71R 245/2 245/5 245/6 245/6P



Family:

Publication number	Publication date	Application number	Application date
CA2748804 AA	20110630	CA20092748804	20091229
CA2748804 C	20171121	CA20092748804	20091229
DE102008063289 A1	20100701	DE200810063289	20081230
DE502009006318 D1	20130418	DE200950006318T	20091229
EP2384248 A1	20111109	EP20090808987	20091229
EP2384248 B1	20130220	EP20090808987	20091229
JP2012513901 T2	20120621	JP20110542675T	20091229
JP5521254 B2	20140611	JP20110542675T	20091229
KR101596260 B1	20160222	KR20117017528	20091229
KR20110099769 A	20110908	KR20117017528	20091229
MX2011006942 A1	20111012	MX20110006942	20091229
RU2011130059 A	20130210	RU20110130059	20091229
RU2508175 C2	20140227	RU20110130059	20091229
US2011266400 AA	20111103	US20090142879	20091229
US8474764 BB	20130702	US20090142879	20091229
WO10075853 A1	20100708	WO2009DE01831	20091229

Priority:
DE200810063289 20081230 EP20090808987 20091229 WO2009DE001831 20091229

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Assignee(s): KIESELSTEIN INT GMBH ; KIESELSTEIN INT GMBH3 ERZBERGERSTRABE09116CHEMNITZDE ; KIESELSTEIN GMBHERZBERGERSTRASSE 309116CHEMNITZDE

Inventor(s): (std): KIZEL SHTAJN SHTEFAN ; VAJNRIKH TOMAS ; WEINRICH THOMAS ; KIESELSTEIN STEPHAN

Inventor(s): KIESELSTEIN STEPHANDE ; WEINRICH THOMASDE ; THOMAS WEINRICH ; STEPHAN KIESELSTEIN

Agent(s): RIDOUT AND MAYBEE LLP; PATENTANWAELTE FINDEISEN AND NEUMANN; Findeisen Hübner Neumann; KIMURA TAKAHISA; LAURENCE A; WERNER H; RALPH E; FINDEISEN ANDREAS ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT 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
CA2748804 AA	20110630	LSPB	+	published / reissued	
CA2748804 AA	20141204	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20141124
CA2748804 C	20171121	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2748804 C	20291229	PEXP		Calculated Patent Term Expiry	
DE102008063289 A1	20100701	LSPB	+	published / reissued	
DE102008063289 A1	20100701	LSES	+OM8	SEARCH REPORT	

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DE502009006318 D1	20140306	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : KIESELSTEIN INTERNATIONAL GMBH, 09116 CHEMNITZ, DE OLDPARTY : KIESELSTEIN GMBH, 09117 CHEMNITZ, DE
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EP2384248 B1	20130315	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 597309 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20130315
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EP2384248 B1	20130725	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
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EP2384248 B1	20130731	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 : 20130220
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EP2384248 B1	20141114	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : FR OWNER : KIESELSTEIN INTERNATIONAL GMBH, DE REF LEGAL EVENT CODE : TP EFFECTIVE DATE : 20141013
EP2384248 B1	20150115	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : AT OWNER : KIESELSTEIN INTERNATIONAL GMBH, DE REF LEGAL EVENT CODE : PC REF DOCUMENT NUMBER : 597309 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20141124
EP2384248 B1	20150430	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 : 20130220
EP2384248 B1	20150529	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 : 20130220
EP2384248 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 : 20130220
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				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	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 : 20130220
EP2384248 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 : 20091229
EP2384248 B1	20150731	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 : 20130220
EP2384248 B1	20150831	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 : 20130220
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EP2384248 B1	20161221	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 : 8
EP2384248 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20161223 YEAR OF FEE PAYMENT : 8
EP2384248 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20161222 YEAR OF FEE PAYMENT : 8
EP2384248 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20161222 YEAR OF FEE PAYMENT : 8
EP2384248 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161124 YEAR OF FEE PAYMENT : 8
EP2384248 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20161221 YEAR OF FEE PAYMENT : 8
EP2384248 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161221 YEAR OF FEE PAYMENT : 8
EP2384248 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20161219 YEAR OF FEE PAYMENT : 8
EP2384248 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20161221

				NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 8
EP2384248 B1	20171219	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 9
EP2384248 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20171219 YEAR OF FEE PAYMENT : 9
EP2384248 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171219 YEAR OF FEE PAYMENT : 9
EP2384248 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20171215 YEAR OF FEE PAYMENT : 9
EP2384248 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20171221 YEAR OF FEE PAYMENT : 9
EP2384248 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20171219 YEAR OF FEE PAYMENT : 9
EP2384248 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20171221 YEAR OF FEE PAYMENT : 9
EP2384248 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20171215 YEAR OF FEE PAYMENT : 9
EP2384248 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171218 YEAR OF FEE PAYMENT : 9
EP2384248 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20181217 YEAR OF FEE PAYMENT : 10
EP2384248 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20181214 YEAR OF FEE PAYMENT : 10
EP2384248 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20181213 YEAR OF FEE PAYMENT : 10
EP2384248 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181207 YEAR OF FEE PAYMENT : 10
EP2384248 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20181219 YEAR OF FEE PAYMENT : 10
EP2384248 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20181217 YEAR OF FEE PAYMENT : 10
EP2384248 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20181219 YEAR OF FEE PAYMENT : 10
EP2384248 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181218 YEAR OF FEE PAYMENT : 10
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				NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 11
EP2384248 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20191217 YEAR OF FEE PAYMENT : 11
EP2384248 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20191218 YEAR OF FEE PAYMENT : 11
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EP2384248 B1	20200331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20191220 YEAR OF FEE PAYMENT : 11
EP2384248 B1	20200331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20191213 YEAR OF FEE PAYMENT : 11
EP2384248 B1	20291229	PEXP		Calculated Patent Term Expiry	
JP2012513901 T2	20121115	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20121114
JP2012513901 T2	20130130	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130110
JP2012513901 T2	20131216	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2012513901 T2	20131225	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20131224
JP2012513901 T2	20140130	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20140122
JP2012513901 T2	20140410	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20140320
JP2012513901 T2	20140418	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5521254 COUNTRY OF REF DOCUMENT : JP
JP5521254 B2	20140611	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5521254 B2	20131226	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5521254 B2	20140128	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5521254 B2	20140219	LSRV	R160	却下理由通知書 (設定) (Rejection reason notice (setting))	
JP5521254 B2	20140408	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5521254 B2	20140418	LSGT	+R150	特許証 (Patent certificate)	
JP5521254 B2	20140501	LSES	R170	手続却下の処分 (設定) (Disposition of procedure rejection (setting))	
JP5521254 B2	20140929	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	TEXT : JAPANESE INTERMEDIATE CODE: R313113

JP5521254 B2	20141217	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	TEXT : JAPANESE INTERMEDIATE CODE: R313113
JP5521254 B2	20141226	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP5521254 B2	20170413	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5521254 B2	20170418	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5521254 B2	20180412	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5521254 B2	20180417	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5521254 B2	20190411	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5521254 B2	20190416	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5521254 B2	20200415	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20200414
JP5521254 B2	20200416	LSFE	+R250	年金領収書, 年金領収書(分納) (Pension receipt, annuity receipt (scheduled))	EFFECTIVE DATE : 20200501
JP5521254 B2	20291229	PEXP		Calculated Patent Term Expiry	
KR101596260 B1	20160222	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101596260 B1	20200206	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20200206 YEAR OF FEE PAYMENT : 5
KR101596260 B1	20291229	PEXP		Calculated Patent Term Expiry	
KR20110099769 A	20110908	LSPB	+	published / reissued	
KR20110099769 A	20141001	LSES	A201	REQUEST FOR EXAMINATION	
KR20110099769 A	20141226	LSAS	N231	NOTIFICATION OF CHANGE OF APPLICANT	
KR20110099769 A	20150615	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20110099769 A	20150930	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20110099769 A	20160127	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20110099769 A	20160216	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
MX2011006942 A1	20111012	LSPB	+	published / reissued	
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MX2011006942 A1	20150318	LSAS	PD	CHANGE OF PROPRIETORSHIP	PARTYTYPE : OWNER OWNER : KIESELSTEIN INTERNATIONAL GMBH
RU2011130059 A	20130210	LSPB	+	published / reissued	
RU2508175 C2	20140227	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2508175 C2	20141227	LSLI	PC41	OFFICIAL REGISTRATION OF THE TRANSFER OF EXCLUSIVE RIGHT	EFFECTIVE DATE : 20141209
RU2508175 C2	20291229	PEXP		Calculated Patent Term Expiry	
US2011266400 AA	20111103	LSPB	+	published / reissued	
US2011266400 AA	20130612	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8474764 BB	20130702	LSGT	+	granted / extensions (spc, cpc, pte)	

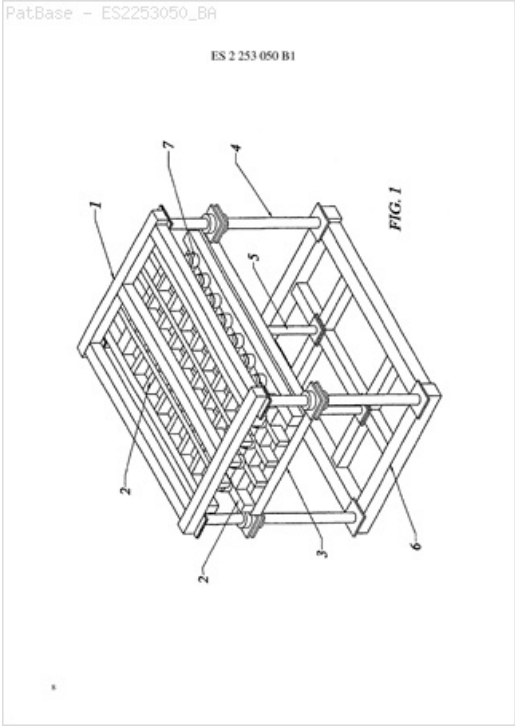
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US8474764 BB	20161227	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8474764 BB	20300413	PEXP		Calculated Patent Term Expiry (PTA 105 days)	
WO10075853 A1	20100708	LSPB	+	published / reissued	
WO10075853 A1	20110627	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2011/006942 COUNTRY OF REF DOCUMENT : MX
WO10075853 A1	20110628	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011542675 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO10075853 A1	20110630	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13142879 COUNTRY OF REF DOCUMENT : US
WO10075853 A1	20110630	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2748804 COUNTRY OF REF DOCUMENT : CA
WO10075853 A1	20110708	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009808987 COUNTRY OF REF DOCUMENT : EP
WO10075853 A1	20110726	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20117017528 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO10075853 A1	20110801	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011130059 COUNTRY OF REF DOCUMENT : RU

20) Family number: 33060478 (ES2253050B)

Title: MAQUINA PARA EL ENSAMBLE O PRODUCCION DE PANELES TIPO SANDWICH Y PANEL ASI OBTENIDO.

Abstract: Source: ES2253050B [ES] La invencion se refiere a una maquina para el ensamble o produccion de paneles tipo sandwich, para ser utilizados en la industria de la construccion, los cuales no tienen problemas de oxidacion y utilizan conectores de silla de soporte de cierre metalico. La maquina esta constituida por: a) un marco en la parte superior 1 y un marco inferior 6, unidos por columnas 4; b) un plano o marco intermedio 3; c) dos gatos hidraulicos 5; d) unas vigas 2; y e) los accionadores 7. Los paneles estan conformados por: a) un alma 10 o almas; b) conectores de sillas de soporte 11 de cierre mecanico; c) unas varillas 8 y 9, cuerdas o lazos de material metalico o compuesto; d) unos separadores 12; y, e) unos separadores centrales 35.

Classifications:
International (IPC 8-9)**:** B21F15/06 B21F27/08 B21F27/12 B21F33/00 (Advanced/Invention);
B21F15/00 B21F27/00 B21F33/00 (Core/Invention)
CPC: B21F15/06 B21F27/08 B21F27/128 B21F33/007
European: B21F15/06 B21F27/08 B21F27/12D B21F33/00D



Family:

Publication number	Publication date	Application number	Application date
ES2253050 AA	20060516	ES20030050060	20011026
ES2253050 BA	20071001	ES20030050060	20011026

Priority:
ES20030050060 20011026

Probable Assignee: GOMEZ SANCHEZ FELIX ARTURO
Assignee(s): (std)**:** GOMEZ SANCHEZ FELIX ARTURO
Inventor(s): (std)**:** GOMEZ SANCHEZ FELIX ARTURO

Legal status (INPADOC)

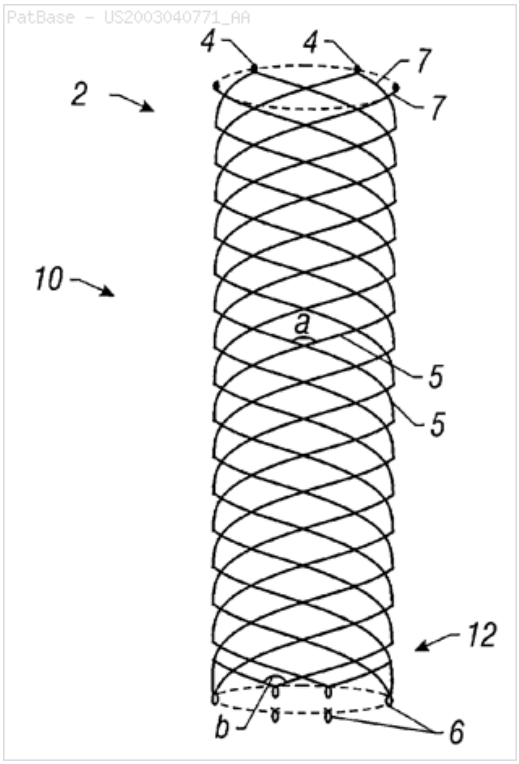
View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
ES2253050 AA	20060516	LSPB	+	published / reissued	
ES2253050 AA	20060516	LSES	+EC2A	SEARCH REPORT PUBLISHED	DATE OF REF DOCUMENT : 20060516 KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
ES2253050 BA	20071001	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2253050 BA	20071001	LSGT	+FG2A	DEFINITIVE PROTECTION	REF DOCUMENT NUMBER : 2253050B1 COUNTRY OF REF DOCUMENT : ES
ES2253050 BA	20080701	LSWD	-FA2A	APPLICATION WITHDRAWN	EFFECTIVE DATE : 20080603
ES2253050 BA	20211026	PEXP		Calculated Patent Term Expiry	

21) Family number: 31494545 (US2003040771A)

Title: METHODS FOR CREATING WOVEN DEVICES

Abstract: Self-expandable, woven intravascular devices for use as stents (both straight and tapered), filters (both temporary and permanent) and occluders for insertion and implantation into a variety of anatomical structures. The devices may be formed from shape memory metals such as nitinol. The devices may also be formed from biodegradable materials. Delivery systems for the devices include two hollow tubes that operate coaxially. A device is secured to the tubes prior to the implantation and delivery of the device by securing one end of the device to the outside of the inner tube and by securing the other end of the device to the outside of the outer tube. The stents may be partially or completely covered by graft materials, but may also be bare. The devices may be formed from a single **wire**. The devices may be formed by either hand or machine weaving. The devices may be created by bending shape memory **wires** around tabs projecting from a template, and weaving the ends of the **wires** to create the body of the device such that the **wires** cross each other to form a plurality of angles, at least one of the angles being obtuse. The value of the obtuse angle may be increased by axially compressing the body.



Classifications:
International (IPC 8-9): A61B A61B17/00 A61B17/12 A61F A61F2/00 A61F2/01 A61F2/02 A61F2/04 A61F2/06 A61F2/07 A61F2/82 A61F2/84 A61F2/856 A61F2/86 A61F2/88 A61F2/90 A61F2/95 A61F2/954 A61F2/962 A61F2/966 A61L27/00 A61L29/00 A61L31/00 A61L31/02 A61L31/04 A61L31/06 A61M29/00 B21F27/02 B21F3/00 D03D15/02 D03D25/00 D04C1/06 D04C3/48 D04C5/00 (Advanced/Invention);
A61B17/00 A61F2/00 A61F2/01 A61F2/02 A61F2/04 A61F2/07 A61F2/84 A61F2/856 A61F2/95 A61F2/954 A61F2/962 (Advanced/Non-invention);
A61F2/06 (Core/Invention)
International (IPC 1-7): A61B17/00 A61B17/12 A61F2/01 A61F2/06 A61L29/00 A61L31/00 A61M29/00 A61M29/02 B21F27/02 D03D15/02 D03D25/00 D04C1/06 D04C5/00
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Family:

Publication number	Publication date	Application number	Application date
AT311833 E	20051215	AT20000911687T	20000201
AU200033548 A1	20000818	AU20000033548	20000201
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Priority:

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US20180926710	20180320				

Probable Assignee: BOARD OF REGENTS UNIV OF TEXAS SYSTEM

Assignee(s): (std): BOARD OF REGENTS UNIV OF TEXAS SYSTEM ; REGENTS BOARD OF ; HYODOH HIDEKI ; KONYA ANDRAS ; REGENTS THE UNIV OF TEXAS SYSTEM BOARD OF ; BOARD OF UNIV OF TEXAS SYSTEM ; IDEV TECHNOLOGIES INC ; WRIGHT KENNETH C ; UNIV TEXAS ; REGENTS UNIV OF TEXAS SYSTEM BOARD OF

Assignee(s): UNIV TEXAS SYST ; BOARD OF REGENTS UNIVESITY OF TEXAS SYSTEM ; BOARD OF REGENTS UNIV OF TEXAS SYSTEM AUSTIN ; BOARD OF REGENTS UNIVERSITY OF TEXAS SYSTEM ; BOARD OF REGENTS UNIV TEXAS SYSTEM ; BOARD OF REGENTS ; BOARD OF REGENTS THE UNIV OF TEXAS SYSTEM ; BOARD OF REGENTS THE UNIVERSITY OF TEXAS SYSTEM ; BOARD OF REGENTS UNIV

Inventor(s): (std): KONYA ANDREAS ; KAWACHI TOCHIGI ; KENNETH C WRIGHT ; ANDRAS KONYA ; HIDEKI HYODOH ; HYODO HIDEKI ; HYODOH HIDEKI ; KONYA ANDRAS ; WRIGHT KENNETH C ; WRIGHT C ; KOENYA ANDRAS

Inventor(s): HYODOH HIDEKI SAPPORO

Agent(s): FB RICE PTY LTD; FB RICE; BERESKIN AND PARR LLP SENCRL SRL; HOFFMANN EITLE PATENT U RECHTSANWAELTE PARTMBB; BOULT WADE TENNANT; HOFFMANN EITLE; DEHMEL ALBRECHT; WIEDEMANN PETER; BOULT WADE TENNANT LLP; ELLA CHEONG HONG KONG LTD; REINHOLD COHN AND PARTNERS; OSAKABE SUGURU; SHIMIZU HATSUSHI; KNOBBE MARTENS OLSON AND BEAR LLP; FULBRIGHT AND JAWORSKI LLP; JONATHAN D; JONATHAN; FULWIDER PATTON LLP

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT311833 E	20051215	LSGT	+	granted / extensions (spc, cpc, pte)	
AT311833 E	20060815	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	REF DOCUMENT NUMBER : 1156757 COUNTRY OF REF DOCUMENT : EP
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AU200033548 A1	20000818	LSPB	+	published / reissued	
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EP1574169 A3	20160831	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160804
EP1574169 B1	20170118	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1574169 B1	20170118	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1574169 B1	20170131	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1574169 B1	20170215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 862428 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170215
EP1574169 B1	20170222	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1574169 B1	20170302	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 60049531 COUNTRY OF REF DOCUMENT : DE
EP1574169 B1	20170419	LSAS	RAP2	RIGHTS OF A PATENT TRANSFERRED	PARTYTYPE : OWNER OWNER : BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM
EP1574169 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170125 YEAR OF FEE PAYMENT : 18
EP1574169 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170228

				EPO]	
EP1574169 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170201 YEAR OF FEE PAYMENT : 18
EP1574169 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20170209 YEAR OF FEE PAYMENT : 18
EP1574169 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20170210 YEAR OF FEE PAYMENT : 18
EP1574169 B1	20170615	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 862428 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170118
EP1574169 B1	20170731	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 : 20170419
EP1574169 B1	20170731	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 : 20170118
EP1574169 B1	20170831	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 : 20170118
EP1574169 B1	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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170118
EP1574169 B1	20170831	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 : 20170118
EP1574169 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 : 20170518
EP1574169 B1	20170929	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1574169 B1	20171019	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 60049531 COUNTRY OF REF DOCUMENT : DE

EP1574169 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
EP1574169 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
EP1574169 B1	20171031	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 : 20170118
EP1574169 B1	20171130	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 : 20170118
EP1574169 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 : 20170118
EP1574169 B1	20171201	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20171031
EP1574169 B1	20171227	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20171019
EP1574169 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 : 20170201
EP1574169 B1	20180131	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 : 20170320
EP1574169 B1	20180330	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20180115 YEAR OF FEE PAYMENT : 19
EP1574169 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180131 YEAR OF FEE PAYMENT : 19
EP1574169 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180117 YEAR OF FEE PAYMENT : 19
EP1574169 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20180212 YEAR OF FEE PAYMENT : 19
EP1574169 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20190116 YEAR OF FEE PAYMENT : 20
EP1574169 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190115 YEAR OF FEE PAYMENT : 20

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EP1574169 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190128 YEAR OF FEE PAYMENT : 20
EP1574169 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20190129 YEAR OF FEE PAYMENT : 20
EP1574169 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 : 20170118
EP1574169 B1	20200201	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 60049531 COUNTRY OF REF DOCUMENT : DE
EP1574169 B1	20200226	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20200131
EP1574169 B1	20200304	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MK9A
EP1574169 B1	20200131	PEXP		Calculated Patent Term Expiry	
EP1574169 B1	20200201	PEXP		Calculated Patent Term Expiry	
EP1576937 A2	20050921	LSPB	+	published / reissued	
EP1576937 A2	20130628	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 : 20130228
EP1576937 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160127 YEAR OF FEE PAYMENT : 17
EP1576937 A2	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170125 YEAR OF FEE PAYMENT : 18
EP1576937 A2	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170201 YEAR OF FEE PAYMENT : 18
EP1576937 A3	20070124	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20061211
EP1576937 A3	20070228	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT COUNTRY OF REF DOCUMENT : BE COUNTRY OF REF DOCUMENT : CH COUNTRY OF REF DOCUMENT : CY 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 : GR COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : LU

					COUNTRY OF REF DOCUMENT : MC COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : SE
EP1576937 A3	20070509	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20070411
EP1576937 B1	20121031	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1576937 B1	20121031	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1576937 B1	20121031	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1576937 B1	20121115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 581579 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20121115
EP1576937 B1	20121121	LSAS	RAP2	RIGHTS OF A PATENT TRANSFERRED	PARTYTYPE : OWNER OWNER : BOARD OF REGENTS THE UNIVERSITY OF TEXAS SYSTEM
EP1576937 B1	20121205	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1576937 B1	20121227	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 60047611 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20121227
EP1576937 B1	20130315	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 581579 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20121031
EP1576937 B1	20130403	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20121031
EP1576937 B1	20130430	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 : 20121031
EP1576937 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 : 20130211
EP1576937 B1	20130430	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 : 20121031
EP1576937 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121031
EP1576937 B1	20130531	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 : 20130228
EP1576937 B1	20130531	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 : 20121031
EP1576937 B1	20130531	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 : 20121031
EP1576937 B1	20130531	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 : 20130201
EP1576937 B1	20130628	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 : 20121031
EP1576937 B1	20130731	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 : 20121031
EP1576937 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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121031
EP1576937 B1	20130930	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 : 20130228
EP1576937 B1	20130930	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1576937 B1	20131009	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20130801
EP1576937 B1	20131031	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 : 20130228
EP1576937 B1	20131031	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT :

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20130228
EP1576937 B1	20131122	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20131031
EP1576937 B1	20131128	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 60047611 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130801
EP1576937 B1	20131204	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1576937 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 : 20130201
EP1576937 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 : 20130228
EP1576937 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 : 20130201
EP1576937 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180117 YEAR OF FEE PAYMENT : 19
EP1576937 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180131 YEAR OF FEE PAYMENT : 19
EP1576937 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190115 YEAR OF FEE PAYMENT : 20
EP1576937 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190128 YEAR OF FEE PAYMENT : 20
EP1576937 B1	20200201	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 60047611 COUNTRY OF REF DOCUMENT : DE
EP1576937 B1	20200226	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20200131
EP1576937 B1	20200131	PEXP		Calculated Patent Term Expiry	
EP1576937 B1	20200201	PEXP		Calculated Patent Term Expiry	
EP1582178 A2	20051005	LSPB	+	published / reissued	
EP1582178 A2	20130628	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 : 20130128
EP1582178 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160127

				NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 17
EP1582178 A2	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 : 17
EP1582178 A2	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 : 17
EP1582178 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160127 YEAR OF FEE PAYMENT : 17
EP1582178 A2	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 : 17
EP1582178 A3	20070124	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20061211
EP1582178 A3	20070228	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT COUNTRY OF REF DOCUMENT : BE COUNTRY OF REF DOCUMENT : CH COUNTRY OF REF DOCUMENT : CY 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 : GR COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : LU COUNTRY OF REF DOCUMENT : MC COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : SE
EP1582178 A3	20070509	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20070411
EP1582178 A3	20120919	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM
EP1582178 B1	20120926	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1582178 B1	20120926	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1582178 B1	20120928	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1582178 B1	20121015	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 576654 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20121015
EP1582178 B1	20121024	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1582178 B1	20121122	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096

					REF DOCUMENT NUMBER : 60047527 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20121122
EP1582178 B1	20121227	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP1582178 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 : 20120926
EP1582178 B1	20130215	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 576654 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20120926
EP1582178 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 : 20120926
EP1582178 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 : 20121227
EP1582178 B1	20130430	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 : 20120926
EP1582178 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 : 20130106
EP1582178 B1	20130531	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 : 20130128
EP1582178 B1	20130531	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 : 20120926
EP1582178 B1	20130628	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 : 20120926

EP1582178 B1	20130731	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 : 20120926
EP1582178 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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120926
EP1582178 B1	20130904	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20130627
EP1582178 B1	20130930	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 : 20130228
EP1582178 B1	20130930	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1582178 B1	20131024	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 60047527 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130627
EP1582178 B1	20131031	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 : 20130228
EP1582178 B1	20131031	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 : 20130228
EP1582178 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 : 20130201
EP1582178 B1	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 : 17
EP1582178 B1	20170112	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
EP1582178 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170112 YEAR OF FEE PAYMENT : 18
EP1582178 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170125 YEAR OF FEE PAYMENT : 18
EP1582178 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20170209 YEAR OF FEE PAYMENT : 18
EP1582178 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170201 YEAR OF FEE PAYMENT : 18

EP1582178 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20170210 YEAR OF FEE PAYMENT : 18
EP1582178 B1	20171211	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 19
EP1582178 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171211 YEAR OF FEE PAYMENT : 19
EP1582178 B1	20180330	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20180115 YEAR OF FEE PAYMENT : 19
EP1582178 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180131 YEAR OF FEE PAYMENT : 19
EP1582178 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180117 YEAR OF FEE PAYMENT : 19
EP1582178 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20180212 YEAR OF FEE PAYMENT : 19
EP1582178 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181213 YEAR OF FEE PAYMENT : 20
EP1582178 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190115 YEAR OF FEE PAYMENT : 20
EP1582178 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20190129 YEAR OF FEE PAYMENT : 20
EP1582178 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20190116 YEAR OF FEE PAYMENT : 20
EP1582178 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190128 YEAR OF FEE PAYMENT : 20
EP1582178 B1	20200201	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 60047527 COUNTRY OF REF DOCUMENT : DE
EP1582178 B1	20200226	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20200131
EP1582178 B1	20200304	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MK9A
EP1582178 B1	20200131	PEXP		Calculated Patent Term Expiry	
EP1582178 B1	20200201	PEXP		Calculated Patent Term Expiry	
EP1582179 A2	20051005	LSPB	+	published / reissued	
EP1582179 A3	20090401	LSRE	RTI1	TITLE (CORRECTION)	TEXT : APPARATUS FOR DELIVERY OF WOVEN INTRAVASCULAR DEVICES DELIVERY OF THE SAME
EP1582179 A3	20091209	LSFE	+AKX	DESIGNATION FEES PAID	
EP1582179 A3	20100324	LSDW	-18D	APPLICATION DEEMED TO BE	EFFECTIVE DATE : 20091002

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EP2294989 A2	20110316	LSPB	+	published / reissued	
EP2294989 A3	20141015	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20140905
EP2294989 A3	20161123	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20161020
EP2294989 A3	20171129	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20171030
EP2294989 A3	20180418	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20180320
EP2294989 A3	20180620	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20180528
EP2294989 B1	20181114	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2294989 B1	20181114	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2294989 B1	20181115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2294989 B1	20181115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1063909 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20181115
EP2294989 B1	20181129	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 60049884 COUNTRY OF REF DOCUMENT : DE
EP2294989 B1	20181212	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2294989 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20181228 YEAR OF FEE PAYMENT : 20
EP2294989 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20181227 YEAR OF FEE PAYMENT : 20
EP2294989 B1	20190228	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 : 20
EP2294989 B1	20190415	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 1063909 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20181114
EP2294989 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 : 20181114
EP2294989 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 : 20181114
EP2294989 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : AT

				[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 : 20181114
EP2294989 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181227 YEAR OF FEE PAYMENT : 20
EP2294989 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20190102 YEAR OF FEE PAYMENT : 20
EP2294989 B1	20190531	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 : 20190314
EP2294989 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 : 20190215
EP2294989 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 : 20181114
EP2294989 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 : 20181114
EP2294989 B1	20190731	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 : 20181114
EP2294989 B1	20190815	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 60049884 COUNTRY OF REF DOCUMENT : DE
EP2294989 B1	20190930	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2294989 B1	20191023	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20190815
EP2294989 B1	20191031	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 : 20190201
EP2294989 B1	20191031	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 : 20181114

EP2294989 B1	20191231	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 : 20190228
EP2294989 B1	20191231	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 : 20190228
EP2294989 B1	20200201	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 60049884 COUNTRY OF REF DOCUMENT : DE
EP2294989 B1	20200226	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20200131
EP2294989 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 : 20190228
EP2294989 B1	20200304	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MK9A
EP2294989 B1	20200131	PEXP		Calculated Patent Term Expiry	
EP2294989 B1	20200201	PEXP		Calculated Patent Term Expiry	
EP3173035 A1	20170531	LSPB	+	published / reissued	
EP3173035 A1	20180110	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20171130
EP3173035 A1	20200401	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20200228
EP3228263 A1	20171011	LSPB	+	published / reissued	
EP3228263 A1	20180516	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20180406
ES2251973 T3	20060516	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2251973 T3	20200201	PEXP		Calculated Patent Term Expiry	
HK1153370 A1	20120330	LSPB	+	published / reissued	
IL144646 A0	20070521	LSGT	+FF	PATENT GRANTED	
IL144646 A0	20070521	LSFE	+KB	PATENT RENEWED	
IL144646 A0	20100616	LSFE	+KB	PATENT RENEWED	
IL144646 A1	20061005	LSPB	+	published / reissued	
IL144646 A1	20140130	LSFE	+KB	PATENT RENEWED	
IL144646 A1	20180131	LSFE	+KB	PATENT RENEWED	
JP2002535075 T2	20070201	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20070131
JP2002535075 T2	20070201	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20070131
JP2002535075 T2	20080109	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20080108
JP2002535075 T2	20080409	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20080408
JP2002535075 T2	20080526	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20080523
JP2002535075 T2	20080920	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523

					EFFECTIVE DATE : 20080919
JP2002535075 T2	20081205	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20081204
JP2002535075 T2	20081210	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20081209
JP2002535075 T2	20090209	LSAL	-A912	REMOVAL OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A912 EFFECTIVE DATE : 20090206
JP2002535075 T2	20091002	LSWD	-A761	WRITTEN WITHDRAWAL OF APPLICATION	TEXT : JAPANESE INTERMEDIATE CODE: A761 EFFECTIVE DATE : 20091001
JP2009056314 A2	20100510	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20100507
JP2009056314 A2	20101109	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20101108
JP2009056314 A2	20110526	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20110525
JP2009056314 A2	20110914	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110826
JP2009056314 A2	20121207	LSWD	-A761	WRITTEN WITHDRAWAL OF APPLICATION	TEXT : JAPANESE INTERMEDIATE CODE: A761 EFFECTIVE DATE : 20121206
JP2011062537 A2	20111126	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20111125
JP2011062537 A2	20120622	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20120621
JP2011062537 A2	20121221	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20121220
JP2011062537 A2	20130627	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130626
JP2011062537 A2	20131211	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2011062537 A2	20131217	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20131216
JP2011062537 A2	20131226	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20131219
JP2011062537 A2	20131227	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2013052296 A2	20131217	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20131216
JP2013052296 A2	20140301	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20140228
JP2013052296 A2	20140723	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
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JP2013052296 A2	20140815	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5597242 COUNTRY OF REF DOCUMENT : JP
JP2014111126 A2	20140730	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20140729
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JP2014111126 A2	20141023	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20141015
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JP5443321 B2	20131219	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5443321 B2	20131224	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5443321 B2	20131227	LSGT	+R150	特許証 (Patent certificate)	
JP5443321 B2	20161201	LSFE	R20	特許料納付書 (Patent fee payment form)	
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JP5443321 B2	20171130	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5443321 B2	20171205	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
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JP5443321 B2	20181204	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
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JP5443321 B2	20190228	LSLE	R270	手続却下の処分 (年金) (Disposition of procedure rejection (pension))	
JP5443321 B2	20301108	PEXP		Calculated Patent Term Expiry	
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JP5597242 B2	20130111	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130110
JP5597242 B2	20130111	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20130110
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JP5597242 B2	20140815	LSGT	+R150	特許証 (Patent certificate)	
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JP5635175 B2	20141021	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5635175 B2	20141024	LSGT	+R150	特許証 (Patent certificate)	
JP5635175 B2	20170928	LSFE	R20	特許料納付書 (Patent fee payment form)	
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JP5635175 B2	20181004	LSFE	R20	特許料納付書 (Patent fee payment form)	
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JP5635175 B2	20190104	LSLE	R270	手続却下の処分 (年金) (Disposition of procedure rejection (pension))	
JP5635175 B2	20331220	PEXP		Calculated Patent Term Expiry	
SG148822 A1	20090129	LSPB	+	published / reissued	
SG82491 A1	20010821	LSPB	+	published / reissued	
US2003040771 AA	20030227	LSPB	+	published / reissued	
US2003040771 AA	20060503	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2003040772 AA	20030227	LSPB	+	published / reissued	
US2003040772 AA	20090413	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2003149475 AA	20030807	LSPB	+	published / reissued	
US2003149475 AA	20040902	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2009099643 AA	20090416	LSPB	+	published / reissued	
US2009099643 AA	20130320	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012330398 AA	20121227	LSPB	+	published / reissued	
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					KENNETH C.; SIGNING DATES FROM 20000511 TO 20000515; REEL/FRAME:029582/0047
US2012330398 AA	20141015	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014114389 AA	20140424	LSPB	+	published / reissued	
US2014114389 AA	20150218	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015148883 AA	20150528	LSPB	+	published / reissued	
US2015148883 AA	20171106	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2015148883 AA	20180307	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2018235788 AA	20180823	LSPB	+	published / reissued	
US2018235788 AA	20200121	LSES	NFA1	Non Final Action Mailed	
US6792979 BB	20040921	LSGT	+	granted / extensions (spc, cpc, pte)	
US6792979 BB	20040902	LSGT	PAT1	Patented Case	
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US6792979 BB	20120222	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6792979 BB	20160309	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6792979 BB	20220916	PEXP		Calculated Patent Term Expiry	
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US7018401 BA	20000619	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM, OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HYODOH, HIDEKI; KONYA, ANDRAS; WRIGHT, KENNETH C.; REEL/FRAME:011067/0319; SIGNING DATES FROM 20000511 TO 20000515
US7018401 BA	20001106	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM, OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HYODOH, HIDEKI; KONYA, ANDRAS; WRIGHT, KENNETH C.; REEL/FRAME:011305/0321; SIGNING DATES FROM 20000511 TO 20000515
US7018401 BA	20060308	LSGT	PAT1	Patented Case	
US7018401 BA	20060308	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
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US7018401 BA	20130828	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7018401 BA	20170914	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US7018401 BA	20200201	PEXP		Calculated Patent Term Expiry	
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US7048014 BB	20060503	LSGT	PAT1	Patented Case	
US7048014 BB	20091023	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7048014 BB	20131023	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
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US8414635 BB	20130409	LSGT	+	granted / extensions (spc, cpc, pte)	
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US8414635 BB	20130605	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM, OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HYODOH, HIDEKI; KONYA, ANDRAS; WRIGHT, KENNETH C.; SIGNING DATES FROM 20000511 TO 20000515; REEL/FRAME:030553/0545
US8414635 BB	20130716	LSRE	CC	CERTIFICATE OF CORRECTION	
US8414635 BB	20141014	LSRE	CC	CERTIFICATE OF CORRECTION	
US8414635 BB	20160922	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8414635 BB	20300815	PEXP		Calculated Patent Term Expiry (PTA 815 days)	
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US8876880 BB	20120809	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOARD OF REGENTS, THE UNIVESITY OF TEXAS SYSTEM, T OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HYODOH, HIDEKI; KONYA, ANDRAS; WRIGHT, KENNETH C.; SIGNING DATES FROM 20000511 TO 20000515; REEL/FRAME:028761/0357
US8876880 BB	20120809	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM, OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HYODOH, HIDEKI; KONYA, ANDRAS; WRIGHT, KENNETH C.; SIGNING DATES FROM 20000511 TO 20000515; REEL/FRAME:028761/0357
US8876880 BB	20141015	LSGT	PAT1	Patented Case	
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US8876880 BB	20320713	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8974516 BB	20150310	LSGT	+	granted / extensions (spc, cpc, pte)	
US8974516 BB	20150218	LSGT	PAT1	Patented Case	
US8974516 BB	20180821	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8974516 BB	20331217	PEXP		Calculated Patent Term Expiry	
US9925074 BB	20180327	LSGT	+	granted / extensions (spc, cpc, pte)	
US9925074 BB	20180307	LSGT	PAT1	Patented Case	
US9925074 BB	20350801	PEXP		Calculated Patent Term Expiry (PTA 178 days)	
WO0044308 A2	20000803	LSPB	+	published / reissued	
WO0044308 A2	20000201	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 144646 COUNTRY OF REF DOCUMENT : IL
WO0044308 A3	20010801	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2360620 COUNTRY OF REF DOCUMENT : CA

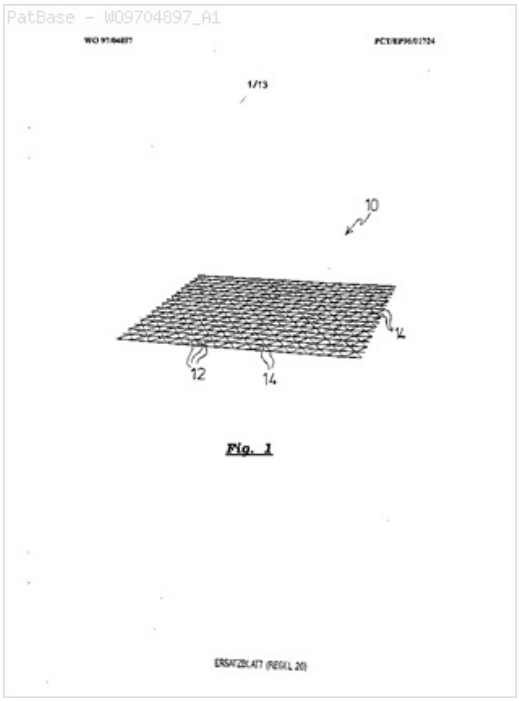
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WO0044308 A3	20010807	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 33548/00 COUNTRY OF REF DOCUMENT : AU
WO0044308 A3	20010808	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2000911687 COUNTRY OF REF DOCUMENT : EP
WO0044308 A3	20011128	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2000911687 COUNTRY OF REF DOCUMENT : EP
WO0044308 A3	20011206	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO0044308 A3	20040122	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 33548/00 COUNTRY OF REF DOCUMENT : AU
WO0044308 A3	20051207	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2000911687 COUNTRY OF REF DOCUMENT : EP

22) Family number: 50832548 (WO9704897A1)

Title: GRID BLOCK MATERIAL

Abstract: The description relates to a structural material having the configuration or form of a **wire** grid. The structural material can be made by first winding a continuous **wire** on a loom structure. Once the **wire** has been wound into an array of parallel **wires**, it is secured in place and separated into segments. The segments are then arranged in a frame. The frame arranges the segments at relative angles so that they form a matrix or network or sieve. In the final production step, the **wires** are welded together, e.g. in a forging press. Alternatively, the material may also be produced by first securing **wire** segments in a pair of frames and then welding them together. The structural material of the invention can be used alone or in layers to form a multi-layer material.

Classifications:
International (IPC 8-9): B21F27/00 B21F27/02 B21F27/10 B21F27/12 B23K11/00 B23K20/02 B32B3/24 B32B9/00 F16S3/08 F23N5/10 F23N5/26 (Advanced/Invention);
B21F27/00 (Advanced/Non-invention);
B21F E04C (Subclass/Invention)
International (IPC 1-7): B21F27/00 B21F27/12
CPC: B21F27/02 B21F27/10 B21F27/128 B23K11/008 B23K20/02 B23K2101/22 B32B3/266 B32B9/00
European: B21F27/02 B21F27/10 B21F27/12D B23K11/00F10 B23K20/02 B32B3/26B B32B9/00 L23K201/22



Family:

Publication number	Publication date	Application number	Application date
AU199656477 A1	19970226	AU19960056477	19960425
BRPI9610090 A	19990105	BR1996PI10090	19960425
CN1192173 A	19980902	CN19961095997	19960425
CZ23498 A3	19990414	CZ19980000234	19960425
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JP11514928 T2	19991221	JP19970507133T	19960425
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NO980397 A0	19980129	NO19980000397	19980129
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PL324801 A1	19980622	PL19960324801	19960425
RU98103682 A	20000127	RU19980103682	19980302
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WO9704897 A1	19970213	WO1996EP01724	19960425

Priority:

DE19951027618 19950730 DE19951042510 19951115 WO1996EP01724 19960425 CZ201100240090U 20110321

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

Designated states: AT AU BE BG BR CH CN CZ DE DK ES FI FR GB GR HU IE IT JP KR LI LU MC MX NL NO NZ PL PT RO RU SE SG SK UA

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU199656477 A1	19970226	LSPB	+	published / reissued	
AU199656477 A1	20001026	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2)(E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
BRPI9610090 A	19990105	LSPB	+	published / reissued	
BRPI9610090 A	20020402	LSRV	-FA14	DISMISSAL: DISMISSAL - ARTICLE 34 OF INDUSTRIAL PROPERTY LAW	
CN1192173 A	19980902	LSPB	+	published / reissued	
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CN1192173 A	20010725	LSDW	-C01	DEEMED WITHDRAWAL OF PATENT APPLICATION (PATENT LAW 1993)	
CZ23498 A3	19990414	LSPB	+	published / reissued	
CZ23498 U1	20120321	LSGT	+	granted / extensions (spc, cpc, pte)	
CZ23498 U1	20120321	LSGT	+FG1K	UTILITY MODEL REGISTERED	EFFECTIVE DATE : 20120308
CZ23498 U1	20151014	LSLE	-MK1K	UTILITY MODEL EXPIRED	EFFECTIVE DATE : 20150321
CZ23498 U1	20210321	PEXP		Calculated Patent Term Expiry	
CZ9800234 A3	19990414	LSPB	+	published / reissued	
DE19527618 A1	19970206	LSPB	+	published / reissued	
DE19527618 A1	19970206	LSES	+OM8	SEARCH REPORT AVAILABLE AS TO PARAGRAPH 43 LIT. 1 SENTENCE 1 PATENT LAW	
DE19527618 A1	20000907	LSLE	-8139	DISPOSAL/NON-PAYMENT OF THE ANNUAL FEE	
DE19542510 A1	19970522	LSPB	+	published / reissued	
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EP0842000 A1	19980520	LSPB	+	published / reissued	
EP0842000 A1	19980520	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19980108
EP0842000 A1	19980902	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19980717
EP0842000 A1	20000510	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 19991115
HU9802346 AB	19990201	LSPB	+	published / reissued	
KR19990035888 A	19990525	LSPB	+	published / reissued	
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PL324801 A1	19980622	LSPB	+	published / reissued	
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WO9704897 A1	19970213	LSPB	+	published / reissued	
WO9704897 A1	19960425	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 96195997.5 COUNTRY OF REF DOCUMENT : CN
WO9704897 A1	19980108	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1996913524 COUNTRY OF REF DOCUMENT : EP

WO9704897 A1	19980123	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1019980700549 COUNTRY OF REF DOCUMENT : KR
WO9704897 A1	19980127	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PV1998-234 COUNTRY OF REF DOCUMENT : CZ
WO9704897 A1	19980128	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/1998/000799 COUNTRY OF REF DOCUMENT : MX
WO9704897 A1	19980128	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12298 COUNTRY OF REF DOCUMENT : SK
WO9704897 A1	19980129	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 1997 507133 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO9704897 A1	19980129	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 307191 COUNTRY OF REF DOCUMENT : NZ
WO9704897 A1	19980520	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1996913524 COUNTRY OF REF DOCUMENT : EP
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WO9704897 A1	20020313	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019980700549 COUNTRY OF REF DOCUMENT : KR
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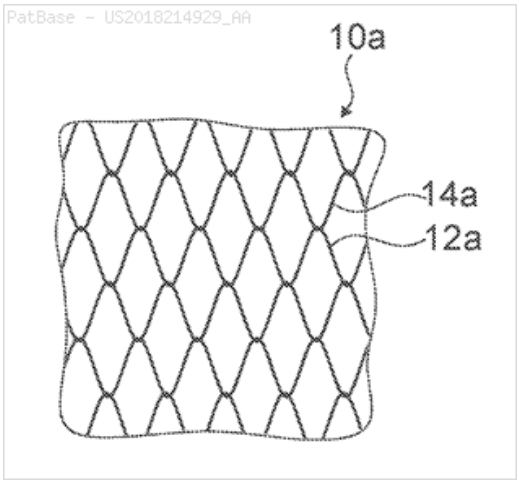
23) Family number: 69740590 (US2018214929A)

Title: **WIRE** NETTING AND METHOD FOR PRODUCING A HELIX FOR A **WIRE** NETTING

Abstract: A **wire** netting, in particular a safety net, with a plurality of helices which are braided with each other, of which at least one helix is bent from at least one single **wire**, a **wire** bundle, a **wire** strand, a **wire** rope and/or another longitudinal element with at least one **wire**, in particular comprises a high-tensile steel, the at least one helix having at least one first leg, at least one second leg as well as at least one bending region connecting the first leg and the second leg to each other, wherein

- the longitudinal element is bent at least substantially torsion-free in itself along a contour of the first leg and/or of the second leg.

Classifications:
International (IPC 8-9): A01K61/00 A01K75/00 B21D7/00 B21F B21F1/00 B21F23/00 B21F27/00 B21F27/02 B21F27/04 B21F27/14 B21F3/02 B21F3/04 B65D30/04 D07B1/06 E01F E01F7/04 E02B3/12 E02D17/20 (Advanced/Invention);
A01K75/00 E01F7/04 E02B3/12 (Advanced/Non-invention)
CPC: B21F27/005 B21F27/02 A01K75/00 B21F23/00 B21F27/04 E01F7/04 B21F27/14 E01F7/045 E02B3/124
US: 1/1 245/6



Family:

Publication number	Publication date	Application number	Application date
AR110863 AA	20190508	AR2018P100203	20180129
AU2018200124 BA	20180726	AU20180200124	20180108
BR112019014970 A2	20200407	BR20191114970	20180116
CA3052089 AA	20190730	CA20183052089	20180116
CA3052089 C	20200310	CA20183052089	20180116
CL2018000245 A1	20180629	CL20180000245	20180126
CN108372260 A	20180807	CN201810083574	20180129
CN108372260 B	20200221	CN201810083574	20180129
CO20180000432 A1	20180719	CO20180000432	20180117
DE102017101754 B3	20180517	DE201710101754	20170130
DE502018000007 D1	20190307	DE201850000007T	20180116
EP3354365 A1	20180801	EP20180151841	20180116
EP3354365 B1	20190213	EP20180151841	20180116
EP3573775 A1	20191204	EP20180700895	20180116
ES2721800 T3	20190805	ES20180151841T	20180116
HK1259144 A1	20191129	HK20190101146	20190123
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IN201827038679 A	20190719	IN201827038679	20181011
JP2018122360 A2	20180809	JP20180012884	20180129
JP6453498 B2	20190116	JP20180012884	20180129
KR101929702 B1	20181214	KR20180010519	20180129
KR20180089304 A	20180808	KR20180010519	20180129
MX2019008640 A1	20191121	MX20190008640	20180116
PE20191263 A1	20190918	PE20190001492	20180116
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PH2018000009 B	20180813	PH20180000009	20180108
PL3354365 T3	20190830	PL20180151841T	20180116
RS58660 B1	20190531	RS20190000447	20180116
RU2664846 C1	20180823	RU20180103232	20180129
TR201905328 T4	20190521	TR20190005328T	20180116
TW201829088 A	20180816	TW20180101101	20180111
TWI647024 B	20190111	TW20180101101	20180111
US2018214929 AA	20180802	US20180876257	20180122
US10058909 BB	20180828	US20180876257	20180122
WO18137970 A1	20180802	WO2018EP50978	20180116

Priority:

DE201710101754 20170130 EP20180151841 20180116 WO2018EP50978 20180116
KR20180010519 20180129 JP20180012884 20180129

Probable Assignee: GEOBRUGG AG

Assignee(s): (std): GEOBRUGG AG

Assignee(s): WENDELER GOEGGELMANN CORINNA ; WENDELER GOGGELMANN CORINNA

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Inventor(s): WENDELER G GGELMANN CORINNA ; GOEGGELMANN CORINNA WENDELER

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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
AR110863 AA	20190508	LSPB	+	published / reissued	
AU2018200124 BA	20180726	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2018200124 BA	20181122	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2018200124 BA	20380108	PEXP		Calculated Patent Term Expiry	
CA3052089 AA	20190730	LSPB	+	published / reissued	
CA3052089 AA	20190829	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20190730
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CN108372260 A	20180807	LSPB	PB01	PUBLICATION	
CN108372260 B	20200221	LSGT	+	granted / extensions (spc, cpc, pte)	
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CN108372260 B	20380129	PEXP		Calculated Patent Term Expiry	
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DE102017101754 B3	20180517	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP3354365 B1	20190625	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP3354365 B1	20190708	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NO REF LEGAL EVENT CODE : T2 EFFECTIVE DATE : 20190213
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JP2018122360 A2	20181221	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6453498 COUNTRY OF REF DOCUMENT : JP
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JP6453498 B2	20181218	LSFE	R100	特許料納付書 (Patent fee payment form)	
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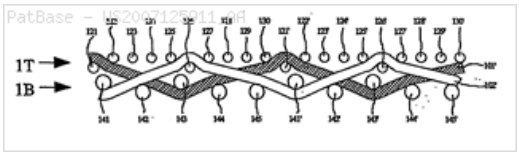
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PE20191263 A1	20190918	LSPB	+	published / reissued	
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PL3354365 T3	20190830	LSGT	+	granted / extensions (spc, cpc, pte)	
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TR201905328 T4	20190521	LSGT	+	granted / extensions (spc, cpc, pte)	
TR201905328 T4	20380116	PEXP		Calculated Patent Term Expiry	
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US10058909 BB	20180828	LSGT	+	granted / extensions (spc, cpc, pte)	
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US10058909 BB	20380122	PEXP		Calculated Patent Term Expiry	
US2018214929 AA	20180802	LSPB	+	published / reissued	
US2018214929 AA	20180808	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
WO18137970 A1	20180802	LSPB	+	published / reissued	
WO18137970 A1	20190730	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 3052089 COUNTRY OF REF DOCUMENT : CA

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WO18137970 A1	20200407	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112019014970 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20190719

24) Family number: 32156592 (US2007125911A)

Title: **WIRE** CLOTH, IN PARTICULAR PAPER MAKING **WIRE** CLOTH

Abstract: A **wire** cloth, in particular a paper making **wire** cloth, comprises at least two fabric layers (1 B, 1 T; 2 B, 2 T;), including an upper fabric layer made of **wires** in the making direction (101, 110) and **wires** in the cross direction (121, 130), and a lower fabric layer made of **wires** in the making direction and **wires** in the cross direction (141, 145). **Wire** bridges are formed for the individual fabric layers in such a way that they extend over a predeterminable distance within a pattern repeat without being tied to other **wires**. The **wire** bridges of the upper, cross direction **wires** extend within a pattern repeat over at least nine making direction **wires** and under maximum one making direction **wire**, the **wire** bridges of the lower cross direction **wires** extend within the pattern repeat at least under six and over two making direction **wires**, and between two making direction **wires** which extend over a cross direction **wire** at least one other making direction **wire** extends under the same cross direction **wire**.



Classifications:
International (IPC 8-9): B21F27/00 D03D1/00 D03D11/00 D03D3/04 D21F1/00 D21F1/10 (Advanced/Invention);
D21F1/00 (Advanced/Non-invention);
B21F27/00 D03D1/00 D03D11/00 D03D3/00 D21F1/00 D21F1/10 (Core/Invention)
International (IPC 1-7): D21F1/00 D21F1/10
CPC: D21F1/0036
European: D21F1/00E2
US: 139/383A 162/348 245/2

Family:

Publication number	Publication date	Application number	Application date
AT367478 E	20070815	AT20050701331T	20050203
BRPI0509295 A	20070918	BR2005PI09295	20050203
BRPI0509295 B1	20150203	BR2005PI09295	20050203
CN1930342 A	20070314	CN200580007295	20050203
CN1930342 B	20100602	CN200580007295	20050203
DE102004016640 B3	20050811	DE200410016640	20040330
DE502005001077 D1	20070830	DE200550001077T	20050203
EP1738020 A1	20070103	EP20050701331	20050203
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ES2287895 T3	20071216	ES20050701331T	20050203
JP2007535619 T2	20071206	JP20070505399T	20050203
JP4874952 B2	20120215	JP20070505399T	20050203
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MXPA06011075 A1	20070315	MX2006PA11075	20050203
PL1738020 T3	20071130	PL20050701331T	20050203
US2007125911 AA	20070607	US20050587298	20050203
US7585394 BB	20090908	US20050587298	20050203
WO05106115 A1	20051110	WO2005EP01070	20050203

Priority:
DE200410016640 20040330 EP20050701331 20050203 WO2005EP01070 20050203

Probable Assignee: ANDRITZ TECHNOLOGY AND ASSET MANAGEMENT GMBH

Assignee(s): (std): ANDRITZ TECH AND ASSET MAN GMBH ; ANDRITZ TECH AND ASSET MANAGEMENT GMBH ; FICHTER KLAUS ; KUFFERATH ANDREAS GMBH ; HEGER WOLFGANG

Assignee(s): ANDRITZ TECHNOLOGY AND ASSET MANAGEMENT GMBH ; ANDREAS KUFFERATH GMBH ; ANDREAS KUFFERATH GMBH AND CO KG

Inventor(s): (std): HEGER WOLFGANG ; FICHTER KLAUS ; KLAUS FICHTER ; WOLFGANG HEGER

Inventor(s): HEGER WOLFGANG FICHTER KLAUS

Agent(s): AOKI ATSUSHI; KOGA TETSUJI; ISHIDA TAKASHI; ROYLANCE ABRAMS BERDO AND GOODMAN 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 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
AT367478 E	20070815	LSGT	+	granted / extensions (spc, cpc, pte)	
AT367478 E	20100315	LSAS	EEIH	CHANGE IN THE PERSON OF PATENT OWNER	
AT367478 E	20250203	PEXP		Calculated Patent Term Expiry	
BRPI0509295 A	20070918	LSPB	+	published / reissued	
BRPI0509295 A	20100921	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS APPROVED	PARTYTYPE : OWNER OWNER : ANDRITZ TECHNOLOGY AND ASSET MANAGEMENT GMBH (AT) OLDPARTY : TRANSFERIDO DE: ANDREAS KUFFERATH GMBH AND CO. KG

BRPI0509295 A	20120515	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 7A ANUIDADE.
BRPI0509295 A	20120529	LSFE	B08H	APPLICATION FEES: DECISION CANCELLED	TEXT : REFERENTE AO DESPACHO 8.8 PUBLICADO NA RPI 2158 DE 15/05/2012.
BRPI0509295 A	20141021	LSGT	B09A	DECISION: INTENTION TO GRANT	
BRPI0509295 B1	20150203	LSGT	+B16A	PATENT OR CERTIFICATE OF ADDITION OF INVENTION GRANTED	TEXT : PRAZO DE VALIDADE: 20 (VINTE) ANOS CONTADOS A PARTIR DE 03/02/2005, OBSERVADAS AS CONDICOES LEGAIS.
BRPI0509295 B1	20250203	PEXP		Calculated Patent Term Expiry	
CN1930342 A	20070314	LSPB	+	published / reissued	
CN1930342 A	20070314	LSPB	+C06	PUBLICATION	
CN1930342 A	20100526	LSAS	ASS	SUCCESSION OR ASSIGNMENT OF PATENT RIGHT	PARTYTYPE : OWNER OWNER : ANDELICI TECHNOLOGY ASSET MANAGEMENT LTD. OLDPARTY : FORMER OWNER: ANDREAS KUFFERATH JOINT LIABILITY COMPANY EFFECTIVE DATE : 20100416
CN1930342 A	20100526	LSAS	C41	TRANSFER OF PATENT APPLICATION OR PATENT RIGHT OR UTILITY MODEL	
CN1930342 A	20100526	LSRE	COR	CHANGE OF BIBLIOGRAPHIC DATA	TEXT : CORRECT: ADDRESS; FROM: DUREN,GERMANY TO: GRAZ, AUSTRIA
CN1930342 B	20100602	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1930342 B	20100602	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1930342 B	20250203	PEXP		Calculated Patent Term Expiry	
DE102004016640 B3	20050811	LSGT	+	granted / extensions (spc, cpc, pte)	
DE102004016640 B3	20050811	LSPB	+8100	PUBLICATION OF THE EXAMINED APPLICATION WITHOUT PUBLICATION OF UNEXAMINED APPLICATION	
DE102004016640 B3	20060209	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE102004016640 B3	20100617	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	PARTYTYPE : OWNER OWNER : ANDRITZ TECHNOLOGY AND ASSET MANAGEMENT GMBH, , AT
DE102004016640 B3	20240330	PEXP		Calculated Patent Term Expiry	
DE502005001077 D1	20080807	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE502005001077 D1	20100413	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : ANDRITZ TECHNOLOGY AND ASSET MANAGEMENT GMBH, GRAZ, AT OLDPARTY : ANDREAS KUFFERATH GMBH & CO KG, 52353 DÜREN, DE
DE502005001077 D1	20100617	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	PARTYTYPE : OWNER OWNER : ANDRITZ TECHNOLOGY AND ASSET MANAGEMENT GMBH, , AT
EP1738020 A1	20070103	LSPB	+	published / reissued	
EP1738020 A1	20070103	LSES	+17P	REQUEST FOR	EFFECTIVE DATE :

				EXAMINATION FILED	20060516
EP1738020 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160223 YEAR OF FEE PAYMENT : 12
EP1738020 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160218 YEAR OF FEE PAYMENT : 12
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EP1738020 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160210 YEAR OF FEE PAYMENT : 12
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EP1738020 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160217 YEAR OF FEE PAYMENT : 12
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				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	DOCUMENT : FI PAYMENT DATE : 20160211 YEAR OF FEE PAYMENT : 12
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EP1738020 B1	20070718	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1738020 B1	20070718	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D TEXT : NOT ENGLISH
EP1738020 B1	20070815	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1738020 B1	20070905	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : LANGUAGE OF EP DOCUMENT: GERMAN
EP1738020 B1	20071216	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2287895 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1738020 B1	20080131	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 : 20071118
EP1738020 B1	20080131	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 : 20070718
EP1738020 B1	20080131	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 : 20071218
EP1738020 B1	20080305	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FD4D
EP1738020 B1	20080430	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 : 20070718
EP1738020 B1	20080430	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

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EP1738020 B1	20080530	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 : 20070718
EP1738020 B1	20080625	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20080421
EP1738020 B1	20080630	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 : 20070718
EP1738020 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 : 20080228
EP1738020 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 : 20070718
EP1738020 B1	20090630	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 : 20070718
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EP1738020 B1	20090831	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 : 20071018
EP1738020 B1	20090915	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : CH OWNER : ANDRITZ TECHNOLOGY AND ASSET MANAGEMENT GMBH REF LEGAL EVENT CODE : PUE OLDPARTY : ANDREAS KUFFERATH GMBH & CO. KG#ANDREAS-KUFFERATH-PLATZ#52353 DUEREN (DE) -TRANSFER TO- ANDRITZ TECHNOLOGY AND ASSET MANAGEMENT GMBH#STATTEGGER STRASSE 18#8045 GRAZ (AT)
EP1738020 B1	20091102	LSAS	NLS	NL: ASSIGNMENTS OF EP-PATENTS	PARTYTYPE : OWNER REF COUNTRY CODE : EP

					OWNER : ANDRITZ TECHNOLOGY AND ASSET MANAGEMENT GMBH EFFECTIVE DATE : 20090907
EP1738020 B1	20100101	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : TP
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EP1738020 B1	20160218	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
EP1738020 B1	20170217	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 : 13
EP1738020 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170217 YEAR OF FEE PAYMENT : 13
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EP1738020 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20170217 YEAR OF FEE PAYMENT : 13
EP1738020 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20170123 YEAR OF FEE PAYMENT : 13
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EP1738020 B1	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20170213 YEAR OF FEE PAYMENT : 13
EP1738020 B1	20180223	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 14
EP1738020 B1	20180330	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20180216 YEAR OF FEE PAYMENT : 14
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EP1738020 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20180219 YEAR OF FEE PAYMENT : 14
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EP1738020 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180216 YEAR OF FEE PAYMENT : 14
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EP1738020 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20180216 YEAR OF FEE PAYMENT : 14
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EP1738020 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20180123 YEAR OF FEE PAYMENT : 14
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EP1738020 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20180219 YEAR OF FEE PAYMENT : 14
EP1738020 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20180227 YEAR OF FEE PAYMENT : 14
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EP1738020 B1	20190329	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20190218 YEAR OF FEE PAYMENT : 15
EP1738020 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ PAYMENT DATE : 20190201 YEAR OF FEE PAYMENT : 15
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EP1738020 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20190219 YEAR OF FEE PAYMENT : 15
EP1738020 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20190122 YEAR OF FEE PAYMENT : 15
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JP2007535619 T2	20101217	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20101216
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KR20070004004 A	20090924	LSAS	N231	NOTIFICATION OF CHANGE OF APPLICANT	
KR20070004004 A	20100202	LSES	A201	REQUEST FOR EXAMINATION	
KR20070004004 A	20120326	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20070004004 A	20120625	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
MXPA06011075 A1	20070315	LSPB	+	published / reissued	
MXPA06011075 A1	20091109	LSAS	GB	TRANSFER OR ASSIGNMENT	
MXPA06011075 A1	20091118	LSGT	+FG	GRANT OR REGISTRATION	
PL1738020 T3	20071130	LSGT	+	granted / extensions (spc, cpc, pte)	
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US2007125911 AA	20090819	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7585394 BB	20090908	LSGT	+	granted / extensions (spc, cpc, pte)	
US7585394 BB	20060726	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ANDREAS KUFFERATH GMBH & CO. KG, GERMANY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HEGER, WOLFGANG; FICHTER, KLAUS; REEL/FRAME:018104/0021 EFFECTIVE DATE : 20060712
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US7585394 BB	20090910	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ANDRITZ TECHNOLOGY AND ASSET MANAGEMENT GMBH, AUST OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ANDREAS KUFFERATH GMBH & CO. KG; REEL/FRAME:023234/0138 EFFECTIVE DATE : 20090722
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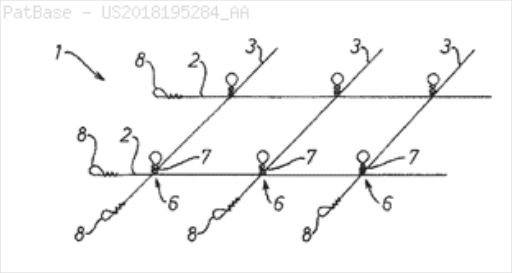
US7585394 BB	20170228	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7585394 BB	20251124	PEXP		Calculated Patent Term Expiry (PTA 294 days)	
WO05106115 A1	20051110	LSPB	+	published / reissued	
WO05106115 A1	20060516	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2005701331 COUNTRY OF REF DOCUMENT : EP
WO05106115 A1	20060726	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 10587298 COUNTRY OF REF DOCUMENT : US
WO05106115 A1	20060726	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007125911 COUNTRY OF REF DOCUMENT : US
WO05106115 A1	20060906	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200580007295.4 COUNTRY OF REF DOCUMENT : CN
WO05106115 A1	20060927	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2006/011075 COUNTRY OF REF DOCUMENT : MX
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WO05106115 A1	20060929	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020067020423 COUNTRY OF REF DOCUMENT : KR
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WO05106115 A1	20070103	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2005701331 COUNTRY OF REF DOCUMENT : EP
WO05106115 A1	20070607	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 10587298 COUNTRY OF REF DOCUMENT : US
WO05106115 A1	20070718	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2005701331 COUNTRY OF REF DOCUMENT : EP
WO05106115 A1	20070918	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0509295 COUNTRY OF REF DOCUMENT : BR

25) Family number: 64458593 (US2018195284A)

Title: LATTICE STRUCTURE AND A DEVICE AND METHOD FOR PRODUCING SAME

Abstract: A lattice structure is composed of intersecting longitudinal elements and transverse elements, e.g. **wires**, strands, ropes, rods and/or profiles, with intersection points allocated to the longitudinal elements and transverse elements. The longitudinal elements and transverse elements, extending in unifold and/or multifold fashion, are connected to one another at least in the intersection points, in particular via twisting, passing into one another and/or knotting with one another.

Classifications:
International (IPC 8-9): B21F B21F27/00 B21F27/02 E01F7/04 E02D17/20 E04C E04C5/01 E04C5/04 E04C5/06 F16S3/08 (Advanced/Invention)
International (IPC 1-7): B21F27/02 E04C5/04
CPC: B21F27/005 B21F27/02 E04C5/04 F16S3/08 E04C5/06
US: 1/1 52/309.1



Family:

Publication number	Publication date	Application number	Application date
AU2016279686 AA	20180118	AU20160279686	20160525
AU2016279686 BB	20200102	AU20160279686	20160525
BR112017027300 A2	20180904	BR20171127300	20160525
CA2989915 AA	20171218	CA20162989915	20160525
CH711251 A2	20161230	CH20150000920	20150619
CH711251 B1	20190215	CH20150000920	20150619
CL2017003272 A1	20180525	CL20170003272	20171219
CN107849845 A	20180327	CN201680045673	20160525
CO20170013071 A2	20180309	CO20170013071	20171219
EP3310976 A1	20180425	EP20160728858	20160525
HK1248783 A1	20181019	HK20180108648	20180704
ID201807335 A	20180720	ID2018P0000395	20160525
IN201827000171 A	20180928	IN201827000171	20180102
JP2018519441 T2	20180719	JP20170565746T	20160525
JP6585196 B2	20191002	JP20170565746T	20160525
KR20180019186 A	20180223	KR20187001395	20160525
MX2017016608 A1	20181109	MX20170016608	20160525
NZ738590 A	20190426	NZ20160738590	20160525
PE03682018 A1	20180221	PE20170002766	20160525
PE20180368 A1	20180221	PE20170002766	20160525
PH2017502344 A	20180625	PH20170502344	20171218
RU2018101983 A	20190724	RU20180101983	20160525
RU2018101983 A3	20190724	RU20180101983	20160525
RU2695913 C2	20190729	RU20180101983	20160525
US2018195284 AA	20180712	US20160737462	20160525
US10604932 BB	20200331	US20160737462	20160525
WO16202545 A1	20161222	WO2016EP61826	20160525

Priority:
CH20150000920 20150619 RU20180101983 20160525 WO2016EP61826 20160525

Probable Assignee: GEOBRUGG AG
Assignee(s): (std): GEOBRUGG AG
Assignee(s): VON ALLMEN HANS PETER
Inventor(s): (std): FON ALLMEN KHANS PETER ; HANS PETER VON ALLMEN ; VON ALLMEN HANS PETER
Agent(s): SPRUSON AND FERGUSON; NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL; BEUCHAT BARROS AND PFENNIGER; JOSE ANDRES RINCON USCATEGUI; DAUB THOMAS; EMILY YIP AND CO; IRMIGNI MYRIASANDRA NOERHADI MIP MSEL; ONDA MAKOTO; ONDA HIRONORI; POSZ LAW GROUP PLC; LUCHS WILLI
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
AU2016279686 AA	20180118	LSPB	+	published / reissued	
AU2016279686 BB	20200102	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2016279686 BB	20200430	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	

AU2016279686 BB	20360525	PEXP		Calculated Patent Term Expiry	
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CA2989915 AA	20180322	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20180309
CH711251 A2	20161230	LSPB	+	published / reissued	
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CH711251 B1	20350619	PEXP		Calculated Patent Term Expiry	
CL2017003272 A1	20180525	LSPB	+	published / reissued	
CN107849845 A	20180327	LSPB	+	published / reissued	
CN107849845 A	20180327	LSPB	PB01	PUBLICATION	
CO20170013071 A2	20180309	LSPB	+	published / reissued	
EP3310976 A1	20180425	LSPB	+	published / reissued	
EP3310976 A1	20180425	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20180117
EP3310976 A1	20190807	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20190704
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ID201807335 A	20180720	LSPB	+	published / reissued	
IN201827000171 A	20180928	LSPB	+	published / reissued	
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JP2018519441 T2	20190219	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20190219
JP2018519441 T2	20190515	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20190515
JP2018519441 T2	20190729	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
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JP2018519441 T2	20190912	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20190904
JP2018519441 T2	20190913	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6585196 COUNTRY OF REF DOCUMENT : JP
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JP6585196 B2	20190910	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6585196 B2	20190913	LSGT	+R150	特許証 (Patent certificate)	
JP6585196 B2	20360525	PEXP		Calculated Patent Term Expiry	
KR20180019186 A	20180223	LSPB	+	published / reissued	

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MX2017016608 A1	20181109	LSPB	+	published / reissued	
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PE03682018 A1	20180221	LSPB	+	published / reissued	
PE20180368 A1	20180221	LSPB	+	published / reissued	
PH2017502344 A	20180625	LSPB	+	published / reissued	
RU2018101983 A	20190724	LSPB	+	published / reissued	
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US10604932 BB	20180413	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GEOBRUGG AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VON ALLMEN, HANS-PETER; REEL/FRAME:045536/0221 EFFECTIVE DATE : 20180328
US10604932 BB	20200311	LSGT	PAT1	Patented Case	
US10604932 BB	20360525	PEXP		Calculated Patent Term Expiry	
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US2018195284 AA	20180709	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2018195284 AA	20180711	LSES	NFA1	Non Final Action Mailed	
US2018195284 AA	20190329	LSES	ADV1	Advisory Action Mailed	
US2018195284 AA	20190430	LSES	NFA1	Non Final Action Mailed	
US2018195284 AA	20200211	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2018195284 AA	20200226	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
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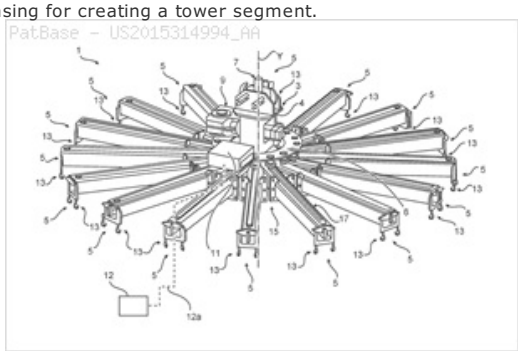
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WO16202545 A1	20171219	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : NC2017/0013071 COUNTRY OF REF DOCUMENT : CO
WO16202545 A1	20171220	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
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26) Family number: 56529593 (US2015314994A)

Title: GRIPPING DEVICE FOR HANDLING REINFORCEMENT CAGES FOR TOWER SEGMENTS OF A WIND TURBINE

Abstract: A gripping device for handling reinforcement cages for tower segments of a wind turbine, comprising a gripper arm holding fixture and multiple gripper arms arranged radially on the gripper arm holding fixture. In particular, it is proposed that there is a coupling mechanism that can be connected with the reinforcement cage on each gripper arm, the length of the gripper arms can be telescopically motor-adjusted, the gripping device can be coupled with a lifting device that can be moved horizontally and vertically, and is adapted to move a reinforcement cage from apparatus for manufacturing reinforcement cages and/or to put a reinforcement cage down in a casing for creating a tower segment.

Classifications:
International (IPC 8-9): B21F27/12 B28B21/64 B66C B66C1/00 B66C1/10 B66C1/22 B66C1/42 B66C1/68 F03D F03D1/00 F03D11/04 F03D13/00 (Advanced/Invention)
CPC: F03D1/001 B66C1/425 B66C1/10 F03D13/10 B21F27/12 B66C1/108 B66C1/42
US: 294/81.21 414/589



Family:

Publication number	Publication date	Application number	Application date
AR093558 AA	20150610	AR2013P104277	20131120
AU2013350006 AA	20140530	AU20130350006	20131014
AU2013350006 BB	20160107	AU20130350006	20131014
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DE102012221453 A1	20140528	DE201210221453	20121123
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DK2922779 T3	20170313	DK20130776499T	20131014
EP2922779 A1	20150930	EP20130776499	20131014
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IN03558DN2015 A	20160708	IN2015DN03558	20150427
JP2015535566 T2	20151214	JP20150543359T	20131014
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KR101847696 B1	20180410	KR20157016322	20131014
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MX359237 B	20180920	MX20150006034	20131014
NZ707676 A	20160226	NZ20130707676	20131014
PL2922779 T3	20170531	PL20130776499T	20131014
PT2922779 T	20170320	PT20130776499T	20131014
RU2606161 C1	20170110	RU20150124253	20131014
TR201703764 T4	20170421	TR20170003764T	20131014
TW201437477 A	20141001	TW20130140159	20131105
TWI537465 B	20160611	TW20130140159	20131105
US2015314994 AA	20151105	US20130646314	20131014
US10023441 BB	20180717	US20130646314	20131014
WO14079628 A1	20140530	WO2013EP71427	20131014
ZA201502828 A	20160127	ZA20150002828	20150424

Priority:

DE201210221453 20121123 EP20130776499 20131014 WO2013EP71427 20131014

Probable Assignee: WOBBEN PROPERTIES GMBH

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Assignee(s): MEYER INGO ; VOBBEN PROPERTIZ GMBKH

Inventor(s): (std): INGO MEYER ; MEJER INGO ; MEYER INGO

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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
AR093558 AA	20150610	LSPB	+	published / reissued	
AU2013350006 AA	20140530	LSPB	+	published / reissued	
AU2013350006 BB	20160107	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2013350006 BB	20160505	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2013350006 BB	20331014	PEXP		Calculated Patent Term Expiry	
CA2889923 AA	20150429	LSPB	+	published / reissued	
CA2889923 AA	20150514	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20150429
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DK2922779 T3	20170313	LSGT	+	granted / extensions (spc, cpc, pte)	
DK2922779 T3	20331014	PEXP		Calculated Patent Term Expiry	
EP2922779 A1	20150930	LSPB	+	published / reissued	
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EP2922779 B1	20170126	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 502013005761 COUNTRY OF REF DOCUMENT : DE
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EP2922779 B1	20170531	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 : 20161214
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EP2922779 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 : 20161214
EP2922779 B1	20181023	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2922779 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20180926 YEAR OF FEE PAYMENT : 6
EP2922779 B1	20181231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20181022 YEAR OF FEE PAYMENT : 6
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EP2922779 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20181025 YEAR OF FEE PAYMENT : 6
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EP2922779 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20181022 YEAR OF FEE PAYMENT : 6
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EP2922779 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20181025 YEAR OF FEE PAYMENT : 6
EP2922779 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20181003 YEAR OF FEE PAYMENT : 6
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EP2922779 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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161214
EP2922779 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 : 20161214
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EP2922779 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20191023 YEAR OF FEE PAYMENT : 7
EP2922779 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20191014 YEAR OF FEE PAYMENT : 7
EP2922779 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20191022 YEAR OF FEE PAYMENT : 7
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EP2922779 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20191022 YEAR OF FEE PAYMENT : 7
EP2922779 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20191105 YEAR OF FEE PAYMENT : 7
EP2922779 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20191022 YEAR OF FEE PAYMENT : 7
EP2922779 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20191022 YEAR OF FEE PAYMENT : 7
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EP2922779 B1	20200331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20191010 YEAR OF FEE PAYMENT : 7
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ES2617908 T3	20170620	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2617908 T3	20331014	PEXP		Calculated Patent Term Expiry	
IN03558DN2015 A	20160708	LSPB	+	published / reissued	
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JP2015535566 T2	20170307	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20170307

JP2015535566 T2	20170330	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20170324
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JP6118420 B2	20200327	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20200326
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KR101847696 B1	20180410	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101847696 B1	20331014	PEXP		Calculated Patent Term Expiry	
KR20150086531 A	20150728	LSPB	+	published / reissued	
KR20150086531 A	20150618	LSES	A201	REQUEST FOR EXAMINATION	
KR20150086531 A	20150623	LSRE	AMND	AMENDMENT	
KR20150086531 A	20161121	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20150086531 A	20170522	LSRE	AMND	AMENDMENT	
KR20150086531 A	20170929	LSRV	-E601	DECISION TO REFUSE APPLICATION	
KR20150086531 A	20180105	LSRE	AMND	AMENDMENT	
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ME02591 B	20331014	PEXP		Calculated Patent Term Expiry	
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MX359237 B	20331014	PEXP		Calculated Patent Term Expiry	
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NZ707676 A	20160527	LSGT	+PSEA	PATENT SEALED	
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RU2606161 C1	20331014	PEXP		Calculated Patent Term Expiry	
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TR201703764 T4	20331014	PEXP		Calculated Patent Term Expiry	
TW201437477 A	20141001	LSPB	+	published / reissued	
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TWI537465 B	20331105	PEXP		Calculated Patent Term Expiry	
US10023441 BB	20180717	LSGT	+	granted / extensions (spc, cpc, pte)	
US10023441 BB	20150626	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WOBBEN PROPERTIES GMBH, GERMANY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MEYER, INGO; REEL/FRAME:035916/0485 EFFECTIVE DATE : 20150611
US10023441 BB	20180627	LSGT	PAT1	Patented Case	
US10023441 BB	20340703	PEXP		Calculated Patent Term Expiry (PTA 262 days)	
US2015314994 AA	20151105	LSPB	+	published / reissued	
US2015314994 AA	20170511	LSES	NFA1	Non Final Action Mailed	
US2015314994 AA	20180102	LSES	ADV1	Advisory Action Mailed	
US2015314994 AA	20180102	LSES	ADV2	Advisory Action Counted, Not Yet Mailed	
US2015314994 AA	20180323	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2015314994 AA	20180421	LSFE	-AWA4	Awaiting TC Resp., Issue Fee Not Paid	
US2015314994 AA	20180424	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2015314994 AA	20180619	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2015314994 AA	20180627	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
WO14079628 A1	20140530	LSPB	+	published / reissued	
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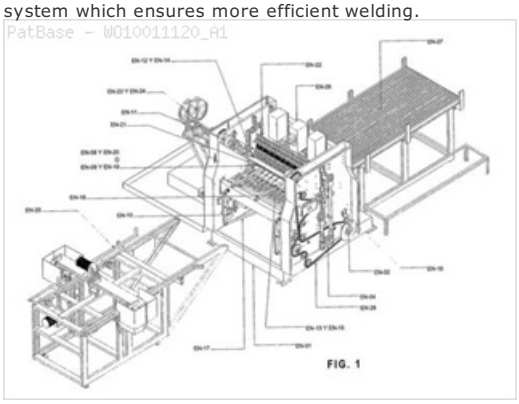
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WO14079628 A1	20150520	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 14646314 COUNTRY OF REF DOCUMENT : US
WO14079628 A1	20150521	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013350006 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20131014 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO14079628 A1	20150522	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2015543359 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO14079628 A1	20150526	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO14079628 A1	20150618	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20157016322 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO14079628 A1	20150623	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2015124253 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
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ZA201502828 A	20160127	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA201502828 A	20350423	PEXP		Calculated Patent Term Expiry	

27) Family number: 43648600 (WO10011120A1)

Title: IMPROVEMENTS TO A MACHINE FOR ASSEMBLING ELECTROWELDED **MESHES** INTENDED TO FORM THREE-DIMENSIONAL **WIRE** STRUCTURES

Abstract: The present invention relates to an improved machine for assembling electrowelded **meshes** intended to form three-dimensional **wire** structures, said **meshes** being employed in the construction industry as construction panels; the machine is of the type which is fed longitudinally with strips of electrowelded **meshes** and straightened transverse **wires**, these being joined together by means of a perpendicular welding system forming a three-dimensional structure, characterized in that the improvements consist in the mechanical transmission of the main sag as well as the right-hand and left-hand oscillating deflection, preventing synchronization problems and allowing variation of the thicknesses; the top and bottom tunnel support plate which prevents jamming of the **wire** being fed; top and bottom finger support plates facilitating alignment of the fingers; top right-hand and left-hand and bottom left-hand and right-hand Thomson sag support plates for achieving a variation in thickness of the structures; the feed system dispensing with the need for synchronization; cutting cylinders; the bayonet support bridge guide bars; the welding control system which ensures more efficient welding.

Classifications:
International (IPC 8-9): B21F27/10 E04C2/00 (Advanced/Invention); B21F27/00 E04C2/00 (Core/Invention)
CPC: B21F27/10 B21F27/20
European: B21F27/10 B21F27/20



Family:

Publication number	Publication date	Application number	Application date
CO6331317 A2	20111020	CO20100157168	20101214
MX2008009399 A1	20090115	MX20080009399	20080722
MX337011 B	20151216	MX20080009399	20080722
PE01992011 A1	20110401	PE20100001180	20090721
PE20110199 A1	20110401	PE20100001180	20090721
WO10011120 A1	20100128	WO2009MX00076	20090721

Priority:
MX20080009399 20080722

Probable Assignee: CONCRETO W S A DE C V
Assignee(s): (std): CONCRETO W S A DE C V ; RABINOVITZ FAINSHTEIN CARLOS
Assignee(s): CONCRETO W DE CV SA
Inventor(s): (std): RABINOVITZ FAINSHTEIN CARLOS ; RABINOVITZ CARLOS ; FAINSHTEIN CARLOS RABINOVITZ
Inventor(s): CARLOS RABINOVITZ FAINSHTEIN
Agent(s): VILA VELAZQUEZ VICTOR MANUEL
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
CO6331317 A2	20111020	LSPB	+	published / reissued	
CO6331317 A2	20120417	LSGT	+FG	APPLICATION GRANTED	
MX2008009399 A1	20090115	LSPB	+	published / reissued	
MX337011 B	20151216	LSGT	+	granted / extensions (spc, cpc, pte)	
MX337011 B	20151216	LSGT	+FG	GRANT OR REGISTRATION	
MX337011 B	20280722	PEXP		Calculated Patent Term Expiry	
PE01992011 A1	20110401	LSPB	+	published / reissued	
PE01992011 A1	20150130	LSGT	+FG	GRANT, REGISTRATION	
PE20110199 A1	20110401	LSPB	+	published /	

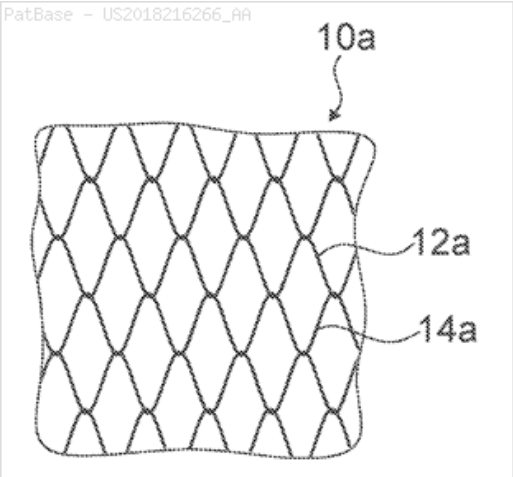
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WO10011120 A1	20100128	LSPB	+	published / reissued	
WO10011120 A1	20101214	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 10157168 COUNTRY OF REF DOCUMENT : CO
WO10011120 A1	20101222	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 001180-2010 COUNTRY OF REF DOCUMENT : PE
WO10011120 A1	20110125	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO10011120 A1	20120411	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 09800599 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO10011120 A1	20190910	LSNE	-ENPW	STARTED TO ENTER NATIONAL PHASE AND WAS WITHDRAWN OR FAILED FOR OTHER REASONS	TEXT : PEDIDO RETIRADO EM RELACAO AO BRASIL POR TER SIDO INTEMPESTIVO, JA QUE A SOLICITACAO DE RESTABELECIMENTO DE DIREITO FOI NEGADA CONFORME PARECER DISPONIVEL NO E-PARECER E NAO TENDO O DEPOSITANTE ENTRADO COM NENHUMA MANIFESTACAO CONTRA A DECISAO. REF DOCUMENT NUMBER : PI0913790 COUNTRY OF REF DOCUMENT : BR

28) Family number: 69740613 (US2018216266A)

Title: **WIRE** NETTING AND METHOD FOR PRODUCING A HELIX FOR A **WIRE** NETTING

Abstract: A **wire** netting, in particular a safety net, with a plurality of helices which are braided and at least one of which is manufactured of at least one single **wire**, a **wire** bundle, a **wire** strand, a **wire** rope and/or another longitudinal element with at least one **wire** comprising one first leg, one second leg and one bending region, wherein, in a front view perpendicularly to a main extension plane of the helix, the first leg extends with at least one first gradient angle with respect to a longitudinal direction of the helix, wherein, in a transverse view in parallel to the main extension plane of the helix and perpendicularly to the longitudinal direction of the helix, the bending region extends at least section-wise with a second gradient angle with respect to the longitudinal direction of the helix, wherein the second gradient angle differs from the first gradient angle.

Classifications:
International (IPC 8-9): A01K61/00 B21D11/06 B21F B21F15/04 B21F27/00 B21F27/02 B21F27/04 B21F3/02 D04C1/06 E01F E01F7/04 E02D17/20 (Advanced/Invention)
International (IPC 1-7): B21F27/04 E01F7/04
CPC: B21F27/005 B21F27/02 B21D11/06 B21F27/00 B21F27/04 E01F7/04 D04C1/06 D10B2101/20 D10B2507/02
US: 1/1 87/8



Family:

Publication number	Publication date	Application number	Application date
AR110784 AA	20190502	AR2018P100204	20180129
AU2018200123 BA	20180726	AU20180200123	20180108
BR112019006839 A2	20190625	BR20191106839	20180116
CA3045972 AA	20190603	CA20183045972	20180116
CL2018000247 A1	20180629	CL20180000247	20180126
CN108372261 A	20180807	CN201810084319	20180129
CO20180000508 A1	20180719	CO20180000508	20180119
DE102017101756 B3	20180517	DE201710101756	20170130
EP3354799 A1	20180801	EP20180151838	20180116
ES2677169 AA	20180730	ES20180030080	20180129
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FR3062322 A1	20180803	FR20180070091	20180129
HK1259235 A1	20191129	HK20190101428	20190128
ID201810315 A	20180921	ID2018P0000652	20180126
IN201827038678 A	20190719	IN201827038678	20181011
JP2018122359 A2	20180809	JP20180012883	20180129
JP6421259 B2	20181107	JP20180012883	20180129
KR20190104224 A	20190906	KR20197024951	20180116
PE20191167 A1	20190909	PE20190001478	20180116
PH2018000008 A	20180829	PH20180000008	20180108
PH2018000008 B	20180829	PH20180000008	20180108
PL424400 A1	20180813	PL20180424400	20180129
RU2664845 C1	20180823	RU20180103231	20180129
TW201834762 A	20181001	TW20180101102	20180111
TWI647025 B	20190111	TW20180101102	20180111
US2018216266 AA	20180802	US20180876491	20180122
US10145045 BB	20181204	US20180876491	20180122
WO18137964 A1	20180802	WO2018EP50959	20180116
ZA201901833 A	20200129	ZA20190001833	20190325

Priority:
DE201710101756 20170130 WO2018EP50959 20180116 JP20180012883 20180129

Probable Assignee: GEOBRUGG AG

Assignee(s): (std): GEOBRUGG AG

Assignee(s): WENDELER GOGGELMANN CORINNA

Inventor(s): (std): WENDELER GOEGGELMANN CORINNA ; WENDELER GOGGELMANN CORINNA ; DR CORINNA WENDELER GOEGGELMANN ; VENDELER GEGGELMANN KORINNA ; CORINNA WENDELER GOEGGELMANN

Inventor(s): WENDELER G GGELMANN CORINNA

Agent(s): SPRUSON AND FERGUSON; NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL; BEUCHAT BARROS AND PFENNIGER; JOSE ANDRES RINCON USCATEGUI; DAUB THOMAS; TORO FRANCISCO JAVIER; CABINET FLECHNER; EAGLE IP LTD; IRMIGNI MYRIASANDRA NOERHADI MIP MSEL; ONDA MAKOTO; ONDA HIRONORI; ROMULO MABANTA BUENAVENTURA SAYOC AND DELOS ANGELES; EVROMARKPAT; POSZ LAW GROUP PLC; DAUB PATENT U RECHTSANWALTSKANZLEI

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
AR110784 AA	20190502	LSPB	+	published / reissued	
AU2018200123 BA	20180726	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2018200123 BA	20181122	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2018200123 BA	20380108	PEXP		Calculated Patent Term Expiry	
CA3045972 AA	20190603	LSPB	+	published / reissued	
CA3045972 AA	20191029	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20191023
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CN108372261 A	20180807	LSPB	PB01	PUBLICATION	
CO20180000508 A1	20180719	LSPB	+	published / reissued	
DE102017101756 B3	20180517	LSGT	+	granted / extensions (spc, cpc, pte)	
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JP2018122359 A2	20181009	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20181009
JP2018122359 A2	20181018	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20181015
JP2018122359 A2	20181019	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6421259 COUNTRY OF REF DOCUMENT : JP
JP6421259 B2	20181107	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6421259 B2	20181011	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6421259 B2	20181016	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6421259 B2	20181019	LSGT	+R150	特許証 (Patent certificate)	
JP6421259 B2	20380129	PEXP		Calculated Patent Term Expiry	
KR20190104224 A	20190906	LSPB	+	published / reissued	
KR20190104224 A	20190826	LSES	A201	REQUEST FOR EXAMINATION	
KR20190104224 A	20190828	LSES	A302	REQUEST FOR ACCELERATED EXAMINATION	
KR20190104224 A	20191205	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20190104224 A	20200406	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
PE20191167 A1	20190909	LSPB	+	published / reissued	
PH2018000008 A	20180829	LSPB	+	published / reissued	
PH2018000008 B	20180829	LSGT	+	granted / extensions (spc, cpc, pte)	
PL424400 A1	20180813	LSPB	+	published / reissued	
RU2664845 C1	20180823	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2664845 C1	20380129	PEXP		Calculated Patent Term Expiry	
TW201834762 A	20181001	LSPB	+	published / reissued	
TWI647025 B	20190111	LSGT	+	granted / extensions (spc, cpc, pte)	
TWI647025 B	20380111	PEXP		Calculated Patent	

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US10145045 BB	20181204	LSGT	+	granted / extensions (spc, cpc, pte)	
US10145045 BB	20180122	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US10145045 BB	20180223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : GEOBRUGG AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:WENDELER-GOEGGELMANN, CORINNA; REEL/FRAME:045431/0016 EFFECTIVE DATE : 20180220
US10145045 BB	20181114	LSGT	PAT1	Patented Case	
US10145045 BB	20380122	PEXP		Calculated Patent Term Expiry	
US2018216266 AA	20180802	LSPB	+	published / reissued	
US2018216266 AA	20181114	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
WO18137964 A1	20180802	LSPB	+	published / reissued	
WO18137964 A1	20190603	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 3045972 COUNTRY OF REF DOCUMENT : CA
WO18137964 A1	20190625	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112019006839 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20190404
WO18137964 A1	20190731	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO18137964 A1	20190826	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20197024951 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO18137964 A1	20200129	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 18700744 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
ZA201901833 A	20200129	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA201901833 A	20390324	PEXP		Calculated Patent Term Expiry	

29) Family number: 42456630 (EP2095891A1)

Title: SUPPORT DEVICE FOR A FEEDER OF RODS WITH A BENT END FOR FEEDING A WELDING STATION AND CORRESPONDING FEEDER

Abstract: Support device for a feeder of rods with a bent end for feeding a welding station. The device comprises rod (4) supporting means (2) capable of movably supporting said rod (4) with respect to said support device (1). The supporting means (2) are pivotally mounted between a supporting position of said rod (4) and a withdrawn position. When the bent end (5) passes by said device (1), the supporting means (2) move from said supporting position towards said withdrawn position enabling the passing of said bent end (5). The invention further proposes a feeder (13) of rods (4) with a bent bent end (5) with a plurality of support devices (1).

Classifications:
International (IPC 8-9): B21F23/00 B21F27/12 (Advanced/Invention); B21F27/14 (Advanced/Non-invention); B21F23/00 (Core/Invention)
CPC: B21F27/125 B21F23/00 B21F27/14
European: B21F23/00 B21F27/12B4 B21F27/14

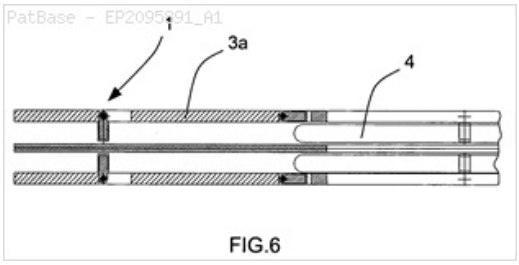


FIG.6

Family:

Publication number	Publication date	Application number	Application date
EP2095891 A1	20090902	EP20090380034	20090227
ES2306617 AA	20081101	ES20080000668	20080228
ES2306617 BA	20091009	ES20080000668	20080228

Priority:
ES20080000668 20080228

Probable Assignee: MECANICA RIELLS S L
Assignee(s): (std): MECANICA RIELLS S L
Assignee(s): MECANICA RIELLS SL
Inventor(s): (std): SALICHS PUIG JOSEP ; FRIAS REDONDO JUAN ANTONIO
Inventor(s): JUAN ANTONIO FRIAS REDONDO ; JOSEP SALICHS PUIG
Agent(s): CURELL AGUILA MARCELINO
Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK TR

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
EP2095891 A1	20090902	LSPB	+	published / reissued	
EP2095891 A1	20100505	LSFE	+AKX	DESIGNATION FEES PAID	
EP2095891 A1	20100915	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20100303
ES2306617 AA	20081101	LSPB	+	published / reissued	
ES2306617 AA	20081101	LSES	+EC2A	SEARCH REPORT PUBLISHED	DATE OF REF DOCUMENT : 20081101 KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
ES2306617 BA	20091009	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2306617 BA	20280228	PEXP		Calculated Patent Term Expiry	

30) Family number: 28107631 (US2001020319A)

Title: METHOD OF MAKING A MULTI-ELECTRODE DOUBLE LAYER CAPACITOR HAVING SINGLE ELECTROLYTE SEAL AND ALUMINUM-IMPREGNATED CARBON CLOTH ELECTRODES

Abstract: Abstract of Disclosure A method of making a double layer capacitor consists of the steps of: impregnating each of a plurality of carbon preforms with a metal; forming a plurality of current collector foils, each of the plurality of current collector foils having a tab portion and a paddle portion; forming a plurality of electrodes by positioning one of the plurality of carbon preforms against respective paddle portions of each of the plurality of current collector foils, wherein each of the plurality of electrodes comprises one of the plurality of current collector foils and one of the plurality of carbon preforms; stacking each of the plurality of electrodes such that tab portions of adjacent ones of the plurality of current collector foils are offset, thereby forming an electrode stack; interposing respective porous separator portions between each of the plurality of electrodes, wherein the porous separator portions function as electrical insulators between the adjacent ones of the plurality of electrodes preventing electrical shorting against each other; applying a modest constant pressure against the electrode stack; saturating the electrode stack with an electrolytic solution; and maintaining the electrode stack immersed within the electrolytic solution.

Classifications:

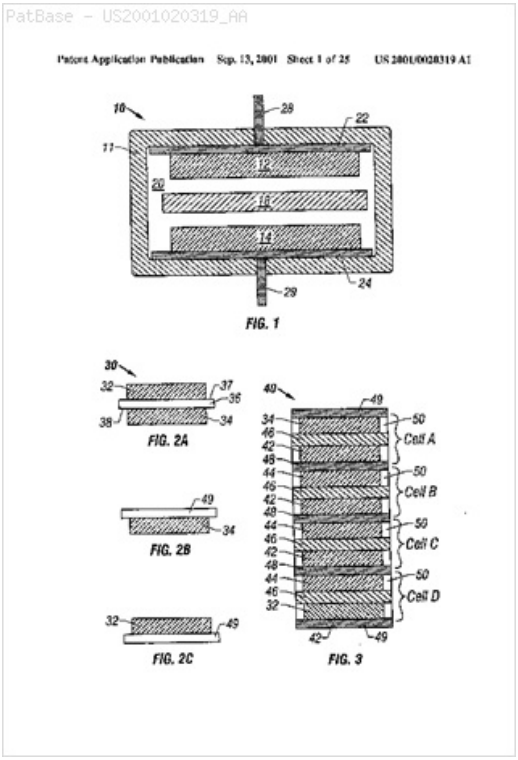
International (IPC 8-9): H01G H01G11/00 H01G11/08 H01G11/22 H01G11/26 H01G11/34 H01G11/38 H01G11/40 H01G11/52 H01G11/54 H01G11/62 H01G11/66 H01G11/78 H01G11/82 H01G11/84 H01G2/10 H01G9/00 H01G9/016 H01G9/02 H01G9/038 H01G9/04 H01G9/042 H01G9/058 H01G9/155 H05K5/03 (Advanced/Invention); H01G9/00 H01G9/038 H01G9/04 H01G9/042 H01G9/058 H01G9/155 (Advanced/Non-invention); H01G9/00 H01G9/008 H01G9/02 H01G9/022 H01G9/04 H01G9/042 H01G9/058 H01G9/155 (Core/Invention)

International (IPC 1-7): B21F41/00 B23K1/19 B23K35/12 C21D1/09 H01G2/10 H01G5/38 H01G7/00 H01G9/00 H01G9/016 H01G9/02 H01G9/038 H01G9/04 H01G9/042 H01G9/058 H01G9/155 H01G90/38 H01J1/02 H01J1/48 H01J3/14 H01J7/38 H01R9/00 H05K5/03

CPC: H01G11/24 H01G11/26 H01G11/28 Y10T29/49149 Y10T156/10 H01G9/038 H01G9/155 H01G11/12 Y02E60/13 Y10T29/43 Y10T29/435

European: H01G11/12 H01G11/24 H01G11/26 H01G11/28 H01G9/00D H01G9/02D H01G9/038 H01G9/155 Y02E60/13

US: 148/527 148/558 148/688 156/163 156/60 19/102 19/107 19/111 228/262 228/262.5 25/25.41 29/25.03 29/25.030P 29/25.41 29/25.42 29/843 313/352 361/309 361/502 361/503 361/504 361/505 361/509 361/512 361/516 361/517 361/518 361/520 361/522 361/523 361/525 361/529 429/129 429/163



Family:

Publication number	Publication date	Application number	Application date
AT167954 E	19980715	AT19950937337T	19951004
AT279014 E	20041015	AT19970940689T	19970829
AU199539470 A1	19960502	AU19950039470	19951004
AU199742410 A1	19980505	AU19970042410	19970829
AU686904 B2	19980212	AU19950039470	19951004
AU732298 B2	20010412	AU19970042410	19970829
BRPI9509273 A	19971223	BR1995PI09273	19951004
BRPI9712213 A	19990831	BR1997PI12213	19970829
CA2200762 AA	19970321	CA19952200762	19951004
CA2267422 AA	19990331	CA19972267422	19970829
CN1111885 C	20030618	CN19951095510	19951004
CN1160455 A	19970924	CN19951095510	19951004
CN1238855 A	19991215	CN19971080012	19970829
CN1306531 C	20070321	CN19971080012	19970829
DE69503255 D1	19980806	DE19956003255	19951004
DE69503255 T2	19981217	DE19956003255T	19951004
DE69731109 D1	20041111	DE19976031109	19970829
DK0786142 T3	19990412	DK19950937337T	19951004
EP0786142 A1	19970730	EP19950937337	19951004
EP0786142 B1	19980701	EP19950937337	19951004
EP0946954 A1	19991006	EP19970940689	19970829
EP0946954 B1	20041006	EP19970940689	19970829
ES2119495 T3	19981001	ES19950937337T	19951004
HK1022987 A1	20050527	HK20000101940	20000329
HK1022987 B	20050527	HK20000101940	20000329
IL115516 A0	19960119	IL19950115516	19951005
IL115516 A1	19990509	IL19950115516	19951005
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KR100359030 B1	20030124	KR19970702273	19951004
KR100485098 B1	20050422	KR19997003009	19970829
KR19970706591 A	19971103	KR19970702273	19970407
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RU2174263 C2	20010927	RU19990109117	19970829
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US2001020319 AA	20010913	US20010783728	20010213
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US6233135 BA	20010515	US19990377327	19990818
US6430031 BA	20020806	US20010782577	20010212
US6451073 BA	20020917	US20000573443	20000516
US6585152 BB	20030701	US20010783728	20010213
WO9611486 A1	19960418	WO1995US12772	19951004
WO9815962 A1	19980416	WO1997US15257	19970829

Priority:

US19940319493 19941007 JP19960512650 19951004 WO1995US12772 19951004
US19960686579 19960726 US19960686580 19960726 US19960726728 19961007
WO1997US15257 19970829 US19980087471 19980529 US19990233294 19990119
US19990377327 19990818 US20000573443 20000516 US20010782577 20010212
US20010783728 20010213

Probable Assignee: MAXWELL TECHNOLOGIES INC

Assignee(s): (std): MAXWELL LAB INC ; MAXWELL ENERGY PRODUCTS INC ; MAXWELL TECHNOLOGIES INC ; MAXWELL ELECTRONIC COMPONENTS ; MAXWELL ELECT COMPONENTS GROUP ; MAXWELL LABORATORIES INC

Assignee(s): US DEPARTMENT OF ENERGY ; MAXWELL TECHNOLOGIES INC SAN DIEGO CALIF US ; MAXWELL TECHNOLOGIES INC 8888 BALBOA AVENUE SAN DIEGO CA 92123 ; MAXWELL LABORATORIES ; MAXWELL ELECTRONIC COMPONENTS GROUP INC ; SANWA BANK CALIFORNIA ; BLANK EDWARD ; COMERICA BANK CALIFORNIA ; DISPENNETTE JOHN M ; EAST WEST BANK ; ENERGY US DEPARTMENT OF ; FARAHMANDI C JOSEPH ; KOLB ALAN C ; MAKSVELL TEKNOLODZHIZ INK

Inventor(s): (std): FARAHMANDI C JOSEPH ; DISPENNETTE JOHN M ; BLANK EDWARD ; KOLB ALAN C ; JOHN M DISPENNETTE ; C JOSEPH FARAHMANDI ; EDWARD BLANK ; ALAN C KOLB ; DZHON M DISPENNETTE ; K DZHOZEF FARAKHMANDI ; CRAWFORD ROBERT W ; DISPENNETTE JOHN ; FARAHMANDI C ; BLANK E ; DISPENNETTE J M ; FARAHMANDI C J ; BLANK C J FARAHMANDI J M DISPE

Inventor(s): C J FARAHMANDI J M DISPENNETTE E BLANK ; JM DISPENNETTE ; CJ FARAHMANDI ; E BLANK ; J M DISPENNETTE ; C J FARAHMANDI ; DISPENNETTE M ; FARAHMANDI JOSEPH ; KOLB C ; BLEHNK EHDVARD ; KOLB ALAN S. ; DISPENNETTE DZHON M. ; FARAKHMANDI S. DZHOZEF ; C

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; MACRAE AND CO; CHINA PATENT AGENT HK LTD 22 F GREAT EAGLE CENTRE 23 HARBOUR ROAD WANCHAI; REINHOLD COHN AND PARTNERS

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CZ DE DK EE ES FI FR GA GB GE GH GN GR HU 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 UZ VN ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT167954 E	19980715	LSGT	+	granted / extensions (spc, cpc, pte)	
AT167954 E	19990315	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	
AT167954 E	20020715	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT167954 E	20151004	PEXP		Calculated Patent Term Expiry	
AT279014 E	20041015	LSGT	+	granted / extensions (spc, cpc, pte)	
AT279014 E	20050415	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT279014 E	20170829	PEXP		Calculated Patent Term Expiry	
AU199539470 A1	19960502	LSPB	+	published / reissued	
AU199742410 A1	19980505	LSPB	+	published / reissued	

AU686904 B2	19980212	LSGT	+	granted / extensions (spc, cpc, pte)	
AU686904 B2	20040506	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU686904 B2	20151004	PEXP		Calculated Patent Term Expiry	
AU732298 B2	20010412	LSGT	+	granted / extensions (spc, cpc, pte)	
AU732298 B2	20010809	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU732298 B2	20040401	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU732298 B2	20170829	PEXP		Calculated Patent Term Expiry	
BRPI9509273 A	19971223	LSPB	+	published / reissued	
BRPI9509273 A	20010403	LSGT	+FF	DECISION: INTENTION TO GRANT	
BRPI9509273 A	20010807	LSGT	+FG9A	PATENT OR CERTIFICATE OF ADDITION GRANTED	
BRPI9509273 A	20100413	LSFE	B24C	PATENT ANNUAL FEE: REQUEST FOR FOR RESTORATION	TEXT : REFERENTE 11A., 12A., 13A., E 14A., ANUIDADES.
BRPI9509273 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 2049 DE 13/04/2010 E COMPROVAR RECOLHIMENTO DA 15A , 16A , 17A E 18A ANUIDADES.
BRPI9712213 A	19990831	LSPB	+	published / reissued	
BRPI9712213 A	20050628	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	
CA2200762 AA	19970321	LSPB	+	published / reissued	
CA2200762 AA	20021002	LSES	+EEER	EXAMINATION REQUEST	
CA2200762 AA	20041004	LSLE	-FZDE	DEAD	
CA2267422 AA	19990331	LSPB	+	published / reissued	
CA2267422 AA	20020606	LSES	+EEER	EXAMINATION REQUEST	
CA2267422 AA	20051121	LSLE	-FZDE	DEAD	
CN1111885 C	20030618	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1111885 C	20030618	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1111885 C	20121128	LSLE	-C17	CESSATION OF PATENT RIGHT	
CN1111885 C	20151004	PEXP		Calculated Patent Term Expiry	
CN1160455 A	19970924	LSPB	+	published / reissued	
CN1160455 A	19970924	LSPB	+C06	PUBLICATION	
CN1238855 A	19991215	LSPB	+	published / reissued	
CN1238855 A	19991215	LSPB	+C06	PUBLICATION	
CN1306531 C	20070321	LSGT	+	granted / extensions (spc, cpc, pte)	
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				OR UTILITY MODEL	
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CN1306531 C	20170829	PEXP		Calculated Patent Term Expiry	
DE69503255 D1	19990729	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69503255 T2	19981217	LSGT	+	granted / extensions (spc, cpc, pte)	
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DE69731109 D1	20050908	LSWD	-8332	NO LEGAL EFFECT FOR DE	
DK0786142 T3	19990412	LSGT	+	granted / extensions (spc, cpc, pte)	
DK0786142 T3	20151004	PEXP		Calculated Patent Term Expiry	
EP0786142 A1	19970730	LSPB	+	published / reissued	
EP0786142 A1	19970730	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19970422
EP0786142 A1	19970903	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC.
EP0786142 A1	19971210	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19971027
EP0786142 B1	19980701	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0786142 B1	19980715	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0786142 B1	19981001	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2119495 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP0786142 B1	19981004	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 : 19981004
EP0786142 B1	19981007	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP0786142 B1	19990430	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 : 19990430
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EP0786142 B1	20000921	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20000921 YEAR OF FEE PAYMENT : 6
EP0786142 B1	20001018	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20001018 YEAR OF FEE PAYMENT : 6

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EP0786142 B1	20011004	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 : 20011004
EP0786142 B1	20011004	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 : 20011004
EP0786142 B1	20011031	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 : 20011031
EP0786142 B1	20020430	LSLE	-BERE	BE: LAPSED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : MAXWELL TECHNOLOGIES INC. EFFECTIVE DATE : 20011031
EP0786142 B1	20020430	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 : 20020430
EP0786142 B1	20020501	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 : 20020501
EP0786142 B1	20020610	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP
EP0786142 B1	20020701	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20020501
EP0786142 B1	20020830	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 : 20020430
EP0786142 B1	20021014	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20021014 YEAR OF FEE PAYMENT : 8
EP0786142 B1	20021016	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20021016 YEAR OF FEE PAYMENT : 8
EP0786142 B1	20021017	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20021017 YEAR OF FEE PAYMENT : 8
EP0786142 B1	20021021	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20021021 YEAR OF FEE PAYMENT : 8
EP0786142 B1	20021030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20021030

				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 8
EP0786142 B1	20021031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20021031 YEAR OF FEE PAYMENT : 8
EP0786142 B1	20021127	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20021127 YEAR OF FEE PAYMENT : 8
EP0786142 B1	20031004	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 : 20031004
EP0786142 B1	20031005	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 : 20031005
EP0786142 B1	20031006	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 : 20031006
EP0786142 B1	20031006	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 : 20031006
EP0786142 B1	20031031	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 : 20031031
EP0786142 B1	20031031	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 : 20031031
EP0786142 B1	20040504	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 : 20040504
EP0786142 B1	20040526	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20031004
EP0786142 B1	20040601	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF COUNTRY CODE : EP
EP0786142 B1	20040615	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0786142 B1	20040630	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 : 20040630
EP0786142 B1	20040728	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP0786142 B1	20040730	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP0786142 B1	20050116	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20031006

EP0786142 B1	20061031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20061031 YEAR OF FEE PAYMENT : 12
EP0786142 B1	20090831	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 : 20071004
EP0786142 B1	20110228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20101022 YEAR OF FEE PAYMENT : 16
EP0786142 B1	20120731	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 : 20120501
EP0786142 B1	20120816	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 69503255 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20120501
EP0786142 B1	20151004	PEXP		Calculated Patent Term Expiry	
EP0946954 A1	19991006	LSPB	+	published / reissued	
EP0946954 A1	19991006	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19990419
EP0946954 A1	20011114	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20011001
EP0946954 A1	20041006	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 : 20041006
EP0946954 A1	20041006	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 : 20041006
EP0946954 A1	20041006	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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20041006
EP0946954 A1	20041006	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 : 20041006
EP0946954 A1	20041006	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 : 20041006

EP0946954 A1	20041006	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 : 20041006
EP0946954 A1	20041006	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 : 20041006
EP0946954 A1	20041006	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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20041006
EP0946954 A1	20041006	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 : 20041006
EP0946954 A1	20041006	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP0946954 A1	20041015	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0946954 A1	20041103	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP0946954 A1	20050106	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 : 20050106
EP0946954 A1	20050106	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 : 20050106
EP0946954 A1	20050106	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 : 20050106
EP0946954 A1	20050108	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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20050108
EP0946954 A1	20050401	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
EP0946954 A1	20050415	LSLE	REG	REFERENCE TO A	REF COUNTRY CODE : CH

				NATIONAL CODE	REF LEGAL EVENT CODE : PL
EP0946954 A1	20050527	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : GR REF DOCUMENT NUMBER : 1022987 COUNTRY OF REF DOCUMENT : HK
EP0946954 A1	20050829	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 : 20050829
EP0946954 A1	20050831	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 : 20050831
EP0946954 A1	20050831	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 : 20050831
EP0946954 A1	20050928	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20050707
EP0946954 A1	20060517	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP0946954 A1	20060731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20060731 YEAR OF FEE PAYMENT : 10
EP0946954 A1	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 : 20050306
EP0946954 A1	20080423	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20070829
EP0946954 A1	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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20070829
EP0946954 B1	20041006	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0946954 B1	20170829	PEXP		Calculated Patent Term Expiry	
ES2119495 T3	19981001	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2119495 T3	19981001	LSGT	+FG2A	DEFINITIVE PROTECTION	REF DOCUMENT NUMBER : 786142 COUNTRY OF REF DOCUMENT : ES
ES2119495 T3	20151004	PEXP		Calculated Patent Term Expiry	
HK1022987 A1	20050527	LSPB	+	published / reissued	
HK1022987 A1	20130328	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	EFFECTIVE DATE : 20120829
HK1022987 A1	20200329	PEXP		Calculated Patent Term Expiry	
HK1022987 B	20050527	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1022987 B	20200329	PEXP		Calculated Patent	

				Term Expiry	
IL115516 A1	19990509	LSPB	+	published / reissued	
IL115516 A1	19990922	LSGT	+FF	PATENT GRANTED	
IL115516 A1	20000716	LSGT	+FF	PATENT GRANTED	
IL115516 A1	20000831	LSFE	+KB	PATENT RENEWED	
IL115516 A1	20020210	LSFE	+KB	PATENT RENEWED	
IL115516 A1	20060801	LSLE	-MM9K	PATENT NOT IN FORCE DUE TO NON-PAYMENT OF RENEWAL FEES	
JP10509560 T2	20051220	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20051220
JP10509560 T2	20060713	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20060619
JP10509560 T2	20070130	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20070130
JP10509560 T2	20070823	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20070730
JP10509560 T2	20071106	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20071106
JP10509560 T2	20080306	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20080305
JP10509560 T2	20080405	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20080404
JP10509560 T2	20080523	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20080422
JP10509560 T2	20080611	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20080612
JP2008172269 A2	20080429	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20080428
JP2008172269 A2	20080805	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20080804
JP2008172269 A2	20090205	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090204
JP2008172269 A2	20090331	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20090330
JP2008172269 A2	20090729	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090728
JP2008172269 A2	20090909	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090908
JP2008172269 A2	20090915	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20090914
JP2008172269 A2	20091005	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2008172269 A2	20091009	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20091008

				REGISTRATION (UTILITY MODEL)	
JP2008172269 A2	20091015	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP2008172269 A2	20091112	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20091109
JP2008172269 A2	20091113	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2008172269 A2	20091113	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP4406667 B2	20100203	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4406667 B2	20121113	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP4406667 B2	20280305	PEXP		Calculated Patent Term Expiry	
KR100359030 B1	20030124	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100359030 B1	20000927	LSES	A201	REQUEST FOR EXAMINATION	
KR100359030 B1	20020722	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR100359030 B1	20021017	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR100359030 B1	20060920	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20060921 YEAR OF FEE PAYMENT : 5
KR100359030 B1	20071018	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR100359030 B1	20170407	PEXP		Calculated Patent Term Expiry	
KR100485098 B1	20050422	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100485098 B1	20110404	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20110405 YEAR OF FEE PAYMENT : 7
KR100485098 B1	20120415	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR100485098 B1	20190407	PEXP		Calculated Patent Term Expiry	
KR19970706591 A	19971103	LSPB	+	published / reissued	
KR19977006591 A	19971103	LSPB	+	published / reissued	
KR20000048961 A	20000725	LSPB	+	published / reissued	
KR20000048961 A	20020829	LSES	A201	REQUEST FOR EXAMINATION	
KR20000048961 A	20040820	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20000048961 A	20050223	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20000048961 A	20050414	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR970706591 A	19971103	LSPB	+	published / reissued	
MX9702485 A1	19970731	LSPB	+	published / reissued	

MX9702485 A1	20041231	LSAS	GB	TRANSFER OR ASSIGNMENT	
MX9702485 A1	20041231	LSAS	GB	TRANSFER OR ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC.
MX9702485 A1	20131219	LSWD	-FA	ABANDONMENT OR WITHDRAWAL	
RU2163041 C2	20010210	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2163041 C2	20051020	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	EFFECTIVE DATE : 20031005
RU2163041 C2	20151004	PEXP		Calculated Patent Term Expiry	
RU2174263 C2	20010927	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2174263 C2	20050510	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	EFFECTIVE DATE : 20030830
RU2174263 C2	20170829	PEXP		Calculated Patent Term Expiry	
RU97107469 A	19990520	LSPB	+	published / reissued	
RU99109117 A	20010520	LSPB	+	published / reissued	
US2001020319 AA	20010913	LSPB	+	published / reissued	
US2001020319 AA	20021104	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : MERGER; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:013456/0201 EFFECTIVE DATE : 20021007
US2001020319 AA	20030612	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5621607 A	19970415	LSGT	+	granted / extensions (spc, cpc, pte)	
US5621607 A	19941219	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL LABORATORIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:DISPENNETTE, JOHN M.; REEL/FRAME:007501/0640 EFFECTIVE DATE : 19941207
US5621607 A	19941219	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL LABORATORIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:FARAHMANDI, C. JOSEPH; REEL/FRAME:007501/0647 EFFECTIVE DATE : 19941207
US5621607 A	19960726	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL LABORATORIES, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FARAHMANDI, C. JOSEPH; DISPENNETTE, JOHN M.; REEL/FRAME:008164/0576 EFFECTIVE DATE : 19941207
US5621607 A	19970310	LSGT	PAT1	Patented Case	
US5621607 A	19970310	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5621607 A	19970324	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA

					OLDPARTY : MERGER; ASSIGNOR:MAXWELL LABORATORIES, INC.; REEL/FRAME:008430/0433 EFFECTIVE DATE : 19960830
US5621607 A	19980409	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL ENERGY PRODUCTS, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MAXWELL TECHNOLOGIES, INC.; REEL/FRAME:009097/0861 EFFECTIVE DATE : 19980330
US5621607 A	20000419	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5621607 A	20001027	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL ELECTRONIC COMPONENTS GROUP, INC., CALIFOR OLDPARTY : CHANGE OF NAME; ASSIGNOR:MAXWELL ENERGY PRODUCTS, INC.; REEL/FRAME:011190/0771 EFFECTIVE DATE : 20000601
US5621607 A	20010419	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK-CALIFORNIA, CALIFORNIA OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:011731/0922 EFFECTIVE DATE : 20010226
US5621607 A	20021104	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : MERGER; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:013456/0201 EFFECTIVE DATE : 20021007
US5621607 A	20040914	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5621607 A	20060712	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : REASSIGNMENT AND RELEASE OF SECURITY INTEREST; ASSIGNOR:COMERICA BANK-CALIFORNIA; REEL/FRAME:017914/0717 EFFECTIVE DATE : 20060612
US5621607 A	20090306	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5621607 A	20141007	PEXP		Calculated Patent Term Expiry	
US5777428 A	19980707	LSGT	+	granted / extensions (spc, cpc, pte)	
US5777428 A	19970324	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : MERGER; ASSIGNOR:MAXWELL LABORATORIES, INC.; REEL/FRAME:008430/0433 EFFECTIVE DATE : 19960830
US5777428 A	19980409	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL ENERGY PRODUCTS, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MAXWELL TECHNOLOGIES, INC.; REEL/FRAME:009097/0861 EFFECTIVE DATE : 19980330
US5777428 A	19980630	LSGT	PAT1	Patented Case	
US5777428 A	19980630	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE

US5777428 A	20001027	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL ELECTRONIC COMPONENTS GROUP, INC., CALIFOR OLDPARTY : CHANGE OF NAME; ASSIGNOR:MAXWELL ENERGY PRODUCTS, INC.; REEL/FRAME:011190/0771 EFFECTIVE DATE : 20000601
US5777428 A	20010419	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK-CALIFORNIA, CALIFORNIA OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:011731/0922 EFFECTIVE DATE : 20010226
US5777428 A	20010830	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5777428 A	20021104	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : MERGER; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:013456/0201 EFFECTIVE DATE : 20021007
US5777428 A	20051202	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5777428 A	20060712	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : REASSIGNMENT AND RELEASE OF SECURITY INTEREST; ASSIGNOR:COMERICA BANK-CALIFORNIA; REEL/FRAME:017914/0717 EFFECTIVE DATE : 20060612
US5777428 A	20070424	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ENERGY, U.S. DEPARTMENT OF, DISTRICT OF COLUMBIA OLDPARTY : CONFIRMATORY LICENSE; ASSIGNOR:MAXWELL TECHNOLOGIES, INC.; REEL/FRAME:019204/0113 EFFECTIVE DATE : 19970331
US5777428 A	20100104	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5777428 A	20160726	PEXP		Calculated Patent Term Expiry	
US5862035 A	19990119	LSGT	+	granted / extensions (spc, cpc, pte)	
US5862035 A	19961216	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL LABORATORIES, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BLANK, ED; FARAHMANDI, C. JOSEPH; DISPENNETTE, JOHN; AND OTHERS; REEL/FRAME:008311/0293; SIGNING DATES FROM 19961204 TO 19961212
US5862035 A	19980409	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL ENERGY PRODUCTS, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MAXWELL TECHNOLOGIES, INC.; REEL/FRAME:009097/0861 EFFECTIVE DATE : 19980330
US5862035 A	19981221	LSGT	PAT1	Patented Case	
US5862035 A	19981221	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5862035 A	19990629	LSRE	CC	CERTIFICATE OF CORRECTION	

US5862035 A	20001027	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL ELECTRONIC COMPONENTS GROUP, INC., CALIFOR OLDPARTY : CHANGE OF NAME; ASSIGNOR:MAXWELL ENERGY PRODUCTS, INC.; REEL/FRAME:011190/0771 EFFECTIVE DATE : 20000601
US5862035 A	20001113	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SANWA BANK CALIFORNIA, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MAXWELL ELECTRONICS COMPONENTS GROUP, INC.; REEL/FRAME:011284/0599 EFFECTIVE DATE : 20001026
US5862035 A	20010409	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL ELECTRONIC COMPONENTS GROUP, INC, CALIFORN OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS; ASSIGNOR:SANWA BANK CALIFORNIA; REEL/FRAME:011692/0443 EFFECTIVE DATE : 20010226
US5862035 A	20020219	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5862035 A	20021104	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : MERGER; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:013456/0201 EFFECTIVE DATE : 20021007
US5862035 A	20060619	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5862035 A	20100715	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5862035 A	20161007	PEXP		Calculated Patent Term Expiry	
US5907472 A	19990525	LSGT	+	granted / extensions (spc, cpc, pte)	
US5907472 A	19990514	LSGT	PAT1	Patented Case	
US5907472 A	19990514	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5907472 A	20000125	LSRE	CC	CERTIFICATE OF CORRECTION	
US5907472 A	20001027	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL ELECTRONIC COMPONENTS GROUP, INC., CALIFOR OLDPARTY : CHANGE OF NAME; ASSIGNOR:MAXWELL ENERGY PRODUCTS, INC.; REEL/FRAME:011190/0771 EFFECTIVE DATE : 20000601
US5907472 A	20010419	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK-CALIFORNIA, CALIFORNIA OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:011731/0922 EFFECTIVE DATE : 20010226
US5907472 A	20020614	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5907472 A	20021104	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : MERGER; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:013456/0201 EFFECTIVE DATE : 20021007

US5907472 A	20060712	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : REASSIGNMENT AND RELEASE OF SECURITY INTEREST; ASSIGNOR:COMERICA BANK-CALIFORNIA; REEL/FRAME:017914/0717 EFFECTIVE DATE : 20060612
US5907472 A	20060822	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5907472 A	20101119	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5907472 A	20180529	PEXP		Calculated Patent Term Expiry	
US6059847 A	20000509	LSGT	+	granted / extensions (spc, cpc, pte)	
US6059847 A	19970324	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : MERGER; ASSIGNOR:MAXWELL LABORATORIES, INC.; REEL/FRAME:008430/0433 EFFECTIVE DATE : 19960830
US6059847 A	19980409	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL ENERGY PRODUCTS, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MAXWELL TECHNOLOGIES, INC.; REEL/FRAME:009097/0861 EFFECTIVE DATE : 19980330
US6059847 A	20001027	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL ELECTRONIC COMPONENTS GROUP, INC., CALIFOR OLDPARTY : CHANGE OF NAME; ASSIGNOR:MAXWELL ENERGY PRODUCTS, INC.; REEL/FRAME:011190/0771 EFFECTIVE DATE : 20000601
US6059847 A	20010419	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK-CALIFORNIA, CALIFORNIA OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:011731/0922 EFFECTIVE DATE : 20010226
US6059847 A	20021104	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : MERGER; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:013456/0201 EFFECTIVE DATE : 20021007
US6059847 A	20031110	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6059847 A	20060712	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : REASSIGNMENT AND RELEASE OF SECURITY INTEREST; ASSIGNOR:COMERICA BANK-CALIFORNIA; REEL/FRAME:017914/0717 EFFECTIVE DATE : 20060612
US6059847 A	20070424	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : U.S. DEPARTMENT OF ENERGY, DISTRICT OF COLUMBIA OLDPARTY : CONFIRMATORY LICENSE; ASSIGNOR:MAXWELL TECHNOLOGIES, INC.; REEL/FRAME:019204/0111 EFFECTIVE DATE : 19970331

US6059847 A	20080320	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6059847 A	20120509	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6059847 A	20120604	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6059847 A	20120604	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6059847 A	20120626	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20120509
US6059847 A	20160726	PEXP		Calculated Patent Term Expiry	
US6094788 A	20000801	LSGT	+	granted / extensions (spc, cpc, pte)	
US6094788 A	20001027	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL ELECTRONIC COMPONENTS GROUP, INC., CALIFOR OLDPARTY : CHANGE OF NAME; ASSIGNOR:MAXWELL ENERGY PRODUCTS, INC.; REEL/FRAME:011190/0771 EFFECTIVE DATE : 20000601
US6094788 A	20001113	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SANWA BANK CALIFORNIA, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MAXWELL ELECTRONICS COMPONENTS GROUP, INC.; REEL/FRAME:011284/0599 EFFECTIVE DATE : 20001026
US6094788 A	20010409	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL ELECTRONIC COMPONENTS GROUP, INC, CALIFORN OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS; ASSIGNOR:SANWA BANK CALIFORNIA; REEL/FRAME:011692/0443 EFFECTIVE DATE : 20010226
US6094788 A	20010419	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK-CALIFORNIA, CALIFORNIA OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:011731/0922 EFFECTIVE DATE : 20010226
US6094788 A	20010918	LSRE	CC	CERTIFICATE OF CORRECTION	
US6094788 A	20021104	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : MERGER; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:013456/0201 EFFECTIVE DATE : 20021007
US6094788 A	20040122	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6094788 A	20060712	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : REASSIGNMENT AND RELEASE OF SECURITY INTEREST; ASSIGNOR:COMERICA BANK-CALIFORNIA; REEL/FRAME:017914/0717 EFFECTIVE DATE : 20060612
US6094788 A	20080320	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8

US6094788 A	20120801	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6094788 A	20120827	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6094788 A	20120827	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6094788 A	20120918	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20120801
US6094788 A	20190119	PEXP		Calculated Patent Term Expiry	
US6233135 BA	20010515	LSGT	+	granted / extensions (spc, cpc, pte)	
US6233135 BA	19991112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL ENERGY PRODUCTS, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:FARAHMANDI, C. JOSEPH; DISPENNETTE, JOHN M.; BLANK, EDWARD; AND OTHERS; REEL/FRAME:010378/0588 EFFECTIVE DATE : 19991022
US6233135 BA	20001027	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL ELECTRONIC COMPONENTS GROUP, INC., CALIFOR OLDPARTY : CHANGE OF NAME; ASSIGNOR:MAXWELL ENERGY PRODUCTS, INC.; REEL/FRAME:011190/0771 EFFECTIVE DATE : 20000601
US6233135 BA	20010419	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK-CALIFORNIA, CALIFORNIA OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:011731/0922 EFFECTIVE DATE : 20010226
US6233135 BA	20021104	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : MERGER; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:013456/0201 EFFECTIVE DATE : 20021007
US6233135 BA	20030624	LSRE	CC	CERTIFICATE OF CORRECTION	
US6233135 BA	20040930	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6233135 BA	20060712	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : REASSIGNMENT AND RELEASE OF SECURITY INTEREST; ASSIGNOR:COMERICA BANK-CALIFORNIA; REEL/FRAME:017914/0717 EFFECTIVE DATE : 20060612
US6233135 BA	20090514	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6233135 BA	20130515	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6233135 BA	20130610	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6233135 BA	20130610	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362

US6233135 BA	20130702	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20130515
US6233135 BA	20190818	PEXP		Calculated Patent Term Expiry	
US6430031 BA	20020806	LSGT	+	granted / extensions (spc, cpc, pte)	
US6430031 BA	20020718	LSGT	PAT1	Patented Case	
US6430031 BA	20020718	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6430031 BA	20021104	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : MERGER; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:013456/0201 EFFECTIVE DATE : 20021007
US6430031 BA	20051230	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6430031 BA	20100129	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6430031 BA	20140122	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6430031 BA	20210212	PEXP		Calculated Patent Term Expiry	
US6451073 BA	20020917	LSGT	+	granted / extensions (spc, cpc, pte)	
US6451073 BA	20001218	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL ELECTRONIC COMPONENTS GROUP, INC., CALIFOR OLDPARTY : CHANGE OF NAME; ASSIGNOR:MAXWELL ENERGY PRODUCTS, INC.; REEL/FRAME:011372/0852 EFFECTIVE DATE : 20000601
US6451073 BA	20010419	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK-CALIFORNIA, CALIFORNIA OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:011731/0922 EFFECTIVE DATE : 20010226
US6451073 BA	20021104	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : MERGER; ASSIGNOR:MAXWELL ELECTRONIC COMPONENTS GROUP, INC.; REEL/FRAME:013456/0201 EFFECTIVE DATE : 20021007
US6451073 BA	20030812	LSRE	CC	CERTIFICATE OF CORRECTION	
US6451073 BA	20060210	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6451073 BA	20060712	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : REASSIGNMENT AND RELEASE OF SECURITY INTEREST; ASSIGNOR:COMERICA BANK-CALIFORNIA; REEL/FRAME:017914/0717 EFFECTIVE DATE : 20060612
US6451073 BA	20100312	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6451073 BA	20140917	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6451073 BA	20141013	LSLE	-PEX1	Patent Expired Due to NonPayment of	

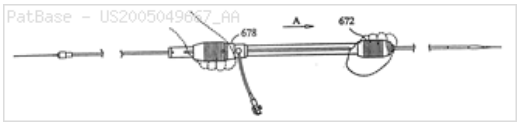
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US6451073 BA	20141013	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6451073 BA	20141104	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20140917
US6451073 BA	20200516	PEXP		Calculated Patent Term Expiry	
US6585152 BB	20030701	LSGT	+	granted / extensions (spc, cpc, pte)	
US6585152 BB	20030612	LSGT	PAT1	Patented Case	
US6585152 BB	20061212	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6585152 BB	20101223	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6585152 BB	20141222	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6585152 BB	20150706	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : EAST WEST BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:MAXWELL TECHNOLOGIES, INC.; REEL/FRAME:036064/0636 EFFECTIVE DATE : 20150703
US6585152 BB	20190516	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:EAST WEST BANK; REEL/FRAME:049216/0304 EFFECTIVE DATE : 20190516
US6585152 BB	20190524	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAXWELL TECHNOLOGIES, INC., CALIFORNIA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:EAST WEST BANK; REEL/FRAME:051441/0005 EFFECTIVE DATE : 20190524
US6585152 BB	20210213	PEXP		Calculated Patent Term Expiry	
WO9611486 A1	19960418	LSPB	+	published / reissued	
WO9611486 A1	19951004	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 95195510.1 COUNTRY OF REF DOCUMENT : CN
WO9611486 A1	19970321	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2200762 COUNTRY OF REF DOCUMENT : CA
WO9611486 A1	19970321	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2200762 COUNTRY OF REF DOCUMENT : CA KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO9611486 A1	19970404	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/1997/002485 COUNTRY OF REF DOCUMENT : MX
WO9611486 A1	19970407	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1019970702273 COUNTRY OF REF DOCUMENT : KR
WO9611486 A1	19970422	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1995937337 COUNTRY OF REF DOCUMENT : EP
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WO9611486 A1	19971103	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019970702273 COUNTRY OF REF DOCUMENT : KR
WO9611486 A1	19980701	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1995937337 COUNTRY OF REF DOCUMENT : EP
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WO9815962 A1	19970829	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 97180012.X COUNTRY OF REF DOCUMENT : CN
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31) Family number: 43811633 (US2005049667A)

Title: SELF-ALIGNING STENT GRAFT DELIVERY SYSTEM, KIT, AND METHOD

Abstract: A delivery system and kit for endovascularly delivering a prosthesis along a guidewire to an curved implantation site includes a control handle having a handle body with a prosthesis movement control assembly movably disposed thereto. A proximal end of a catheter is connected to the control handle. A prosthesis delivery assembly is movably disposed in the catheter. The delivery assembly has a guidewire lumen slidably receiving therein the guidewire and having a curved distal end orienting the delivery assembly when passing through a curved vessel portion. A method for automatic endovascular alignment of the prosthesis includes loading it in the distal delivery assembly, positioning the guidewire into the curved implantation site, and threading the guidewire lumen over the guidewire with the delivery assembly and into the implantation site to at least approximately align the curved distal portion to a curve of the curved implantation site and, thereby, orient the prosthesis.



Classifications:
International (IPC 8-9): A61F A61F11/00 A61F2/04 A61F2/06 A61F2/07 A61F2/66 A61F2/82 A61F2/84 A61F2/852 A61F2/86 A61F2/89 A61F2/90 A61F2/915 A61F2/95 A61F2/962 A61F2/966 A61L31/00 A61M25/00 A61M25/01 A61M29/00 B01L3/02 B21F3/00 (Advanced/Invention);
A61F2/06 A61F2/82 A61F2/848 A61F2/86 A61F2/89 A61F2/90 A61F2/915 A61F2/95 A61F2/962 A61F2/966 A61M25/00 (Advanced/Non-invention);
A61F2/04 A61F2/06 A61F2/60 A61F2/82 A61L31/00 (Core/Invention);
A61F (Subclass/Invention)
International (IPC 1-7): A61F2/06
CPC: A61F2/844 A61F2/848 A61F2002/91525 A61F2250/0048 A61F2/86 A61F2/915 A61F2210/0014 A61F2230/0091 A61F2002/9511 A61M25/0105 A61M25/0108 A61F2/9517 A61F2/9522 A61F2230/008 A61F2/90 A61F2/966 A61F2230/0054 A61F2002/825 A61F2002/826 A61F2220/0008 A61F2220/0016 A61F2230/0067 A61F2250/0098 A61F2/07 A61F2/89 A61F2/95 A61F2002/075 A61F2002/828 A61F2002/9505 A61F2002/9528 A61F2002/9665 Y10T29/49799 Y10T74/18392 A61F2/962
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US: 1/1 140/92.1 148/563 29/418 422/100 422/400 606/108 623/1.11 623/1.12 623/1.13 623/1.15 623/1.16 623/1.18 623/1.22 623/1.32 623/1.34 623/1.35 63/1.11 74/67

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Priority:

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Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT430536 E	20090515	LSGT	+	granted / extensions (spc, cpc, pte)	
AT430536 E	20091115	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
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AT521306 E	20110915	LSGT	+	granted / extensions (spc, cpc, pte)	
AT521306 E	20120415	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	REF DOCUMENT NUMBER : 1772120 COUNTRY OF REF DOCUMENT : EP
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AU2004270186 AA	20100225	LSRE	DA3	AMENDMENTS MADE SECTION 104	TEXT : THE NATURE OF THE AMENDMENT IS: AMEND THE CO-INVENTOR NAME FROM OUELETTE, GERRY TO OUELLETTE, GERRY
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AU2004270186 BB	20101021	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	

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DK1776938 T3	20090831	LSGT	+	granted / extensions (spc, cpc, pte)	
DK1776938 T3	20090831	LSGT	+	granted / extensions (spc, cpc, pte)	
DK1776938 T3	20240902	PEXP		Calculated Patent Term Expiry	
DK1776938 T3	20240902	PEXP		Calculated Patent Term Expiry	
EP1673033 A2	20060628	LSPB	+	published / reissued	
EP1673033 A2	20060628	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20060403
EP1673033 A2	20151030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20150928 YEAR OF FEE PAYMENT : 12
EP1673033 A2	20151231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20150923 YEAR OF FEE PAYMENT : 12
EP1673033 A2	20160129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20150929 YEAR OF FEE PAYMENT : 12
EP1673033 A2	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 : 13
EP1673033 A2	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160926 YEAR OF FEE PAYMENT : 13
EP1673033 A2	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160923 YEAR OF FEE PAYMENT : 13

EP1673033 A4	20071226	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20071127
EP1673033 A4	20090114	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20081211
EP1673033 A4	20110223	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL INC.
EP1673033 A4	20140820	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20140721
EP1673033 A4	20140820	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL INC.
EP1673033 B1	20150107	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1673033 B1	20150107	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1673033 B1	20150115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1673033 B1	20150128	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1673033 B1	20150215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 705156 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150215
EP1673033 B1	20150226	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602004046469 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20150226
EP1673033 B1	20150416	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2533969 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20150416
EP1673033 B1	20150520	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20150107
EP1673033 B1	20150615	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 705156 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150107
EP1673033 B1	20150731	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 : 20150407
EP1673033 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE

				INFORMATION FROM NATIONAL OFFICE TO EPO]	TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP1673033 B1	20150731	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 : 20150107
EP1673033 B1	20150831	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 : 20150107
EP1673033 B1	20150831	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 : 20150107
EP1673033 B1	20150831	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 : 20150408
EP1673033 B1	20150831	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 : 20150107
EP1673033 B1	20150917	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
EP1673033 B1	20151008	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602004046469 COUNTRY OF REF DOCUMENT : DE
EP1673033 B1	20151030	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 : 20150107
EP1673033 B1	20151030	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 : 20150107
EP1673033 B1	20151030	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 : 20150107
EP1673033 B1	20151030	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 : 20150107
EP1673033 B1	20151030	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 : 20150107
EP1673033 B1	20151216	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20151008
EP1673033 B1	20160229	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 : 20150107
EP1673033 B1	20160429	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 : 20150902
EP1673033 B1	20160429	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 : 20150107
EP1673033 B1	20160429	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1673033 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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150107
EP1673033 B1	20160729	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 : 20150930
EP1673033 B1	20160729	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 : 20150930
EP1673033 B1	20160926	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 : 13
EP1673033 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20160927 YEAR OF FEE PAYMENT : 13
EP1673033 B1	20161230	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160926

				NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 13
EP1673033 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160928 YEAR OF FEE PAYMENT : 13
EP1673033 B1	20170531	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 : 20040902
EP1673033 B1	20170630	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 : 20150107
EP1673033 B1	20170831	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 : 20150107
EP1673033 B1	20170925	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 14
EP1673033 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 14
EP1673033 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170925 YEAR OF FEE PAYMENT : 14
EP1673033 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170925 YEAR OF FEE PAYMENT : 14
EP1673033 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20170928 YEAR OF FEE PAYMENT : 14
EP1673033 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 14
EP1673033 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20171002 YEAR OF FEE PAYMENT : 14
EP1673033 B1	20180629	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 : 20150107
EP1673033 B1	20180913	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 15
EP1673033 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180913 YEAR OF FEE PAYMENT : 15

EP1673033 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180828 YEAR OF FEE PAYMENT : 15
EP1673033 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 : 15
EP1673033 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20180911 YEAR OF FEE PAYMENT : 15
EP1673033 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180829 YEAR OF FEE PAYMENT : 15
EP1673033 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20181001 YEAR OF FEE PAYMENT : 15
EP1673033 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190820 YEAR OF FEE PAYMENT : 16
EP1673033 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190917 YEAR OF FEE PAYMENT : 16
EP1673033 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20190910 YEAR OF FEE PAYMENT : 16
EP1673033 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190815 YEAR OF FEE PAYMENT : 16
EP1673033 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190830 YEAR OF FEE PAYMENT : 16
EP1673033 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20191001 YEAR OF FEE PAYMENT : 16
EP1673033 B1	20240902	PEXP		Calculated Patent Term Expiry	
EP1772120 A2	20070411	LSPB	+	published / reissued	
EP1772120 A2	20070411	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20061213
EP1772120 A2	20151030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20150928 YEAR OF FEE PAYMENT : 12
EP1772120 A2	20151231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20150923 YEAR OF FEE PAYMENT : 12
EP1772120 A2	20160129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20150929 YEAR OF FEE PAYMENT : 12
EP1772120 A2	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20160927 YEAR OF FEE PAYMENT : 13
EP1772120 A2	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 : 13
EP1772120 A2	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160926 YEAR OF FEE PAYMENT : 13

EP1772120 A2	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20160928 YEAR OF FEE PAYMENT : 13
EP1772120 A2	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160923 YEAR OF FEE PAYMENT : 13
EP1772120 A3	20080102	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 : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : LU 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
EP1772120 A3	20080709	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20080610
EP1772120 A3	20110223	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL INC.
EP1772120 A3	20110803	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL INC.
EP1772120 B1	20110824	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1772120 B1	20110824	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1772120 B1	20110831	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1772120 B1	20110914	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1772120 B1	20111110	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602004034164 COUNTRY OF REF DOCUMENT : DE

					EFFECTIVE DATE : 20111110
EP1772120 B1	20111123	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP1772120 B1	20120124	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2372591 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20120124
EP1772120 B1	20120131	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 : 20111226
EP1772120 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 : 20110824
EP1772120 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 : 20110824
EP1772120 B1	20120229	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 : 20110824
EP1772120 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 : 20110824
EP1772120 B1	20120314	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20110402795 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20120117
EP1772120 B1	20120330	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 : 20110824
EP1772120 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 : 20110824
EP1772120 B1	20120430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE :

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110824
EP1772120 B1	20120430	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 : 20110930
EP1772120 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 : 20110824
EP1772120 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 : 20110824
EP1772120 B1	20120620	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1772120 B1	20120731	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 : 20110902
EP1772120 B1	20120801	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20120525
EP1772120 B1	20120920	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602004034164 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20120525
EP1772120 B1	20130531	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 : 20110902
EP1772120 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 : 20111124
EP1772120 B1	20130930	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 : 20110824
EP1772120 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 : 20110824
EP1772120 B1	20150917	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
EP1772120 B1	20160926	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 : 13
EP1772120 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160926 YEAR OF FEE PAYMENT : 13
EP1772120 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20160927 YEAR OF FEE PAYMENT : 13
EP1772120 B1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20160928 YEAR OF FEE PAYMENT : 13
EP1772120 B1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20160819 YEAR OF FEE PAYMENT : 13
EP1772120 B1	20161230	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160926 YEAR OF FEE PAYMENT : 13
EP1772120 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160928 YEAR OF FEE PAYMENT : 13
EP1772120 B1	20170925	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 14
EP1772120 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170925 YEAR OF FEE PAYMENT : 14
EP1772120 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20170929 YEAR OF FEE PAYMENT : 14
EP1772120 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 14
EP1772120 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170925 YEAR OF FEE PAYMENT : 14
EP1772120 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 14
EP1772120 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20170925 YEAR OF FEE PAYMENT : 14
EP1772120 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20170821 YEAR OF FEE PAYMENT : 14
EP1772120 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20170926 YEAR OF FEE PAYMENT : 14
EP1772120 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 14

EP1772120 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 14
EP1772120 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20171002 YEAR OF FEE PAYMENT : 14
EP1772120 B1	20180913	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 15
EP1772120 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 : 15
EP1772120 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180828 YEAR OF FEE PAYMENT : 15
EP1772120 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180913 YEAR OF FEE PAYMENT : 15
EP1772120 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20180910 YEAR OF FEE PAYMENT : 15
EP1772120 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20180829 YEAR OF FEE PAYMENT : 15
EP1772120 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20180828 YEAR OF FEE PAYMENT : 15
EP1772120 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180829 YEAR OF FEE PAYMENT : 15
EP1772120 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20180913 YEAR OF FEE PAYMENT : 15
EP1772120 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20180912 YEAR OF FEE PAYMENT : 15
EP1772120 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20180911 YEAR OF FEE PAYMENT : 15
EP1772120 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20181001 YEAR OF FEE PAYMENT : 15
EP1772120 B1	20190930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20190814 YEAR OF FEE PAYMENT : 16
EP1772120 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20190910 YEAR OF FEE PAYMENT : 16
EP1772120 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190815 YEAR OF FEE PAYMENT : 16
EP1772120 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190917 YEAR OF FEE PAYMENT : 16
EP1772120 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO	COUNTRY OF REF DOCUMENT

				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	: DE PAYMENT DATE : 20190820 YEAR OF FEE PAYMENT : 16
EP1772120 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20190910 YEAR OF FEE PAYMENT : 16
EP1772120 B1	20191129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20190814 YEAR OF FEE PAYMENT : 16
EP1772120 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20190827 YEAR OF FEE PAYMENT : 16
EP1772120 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190830 YEAR OF FEE PAYMENT : 16
EP1772120 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20190913 YEAR OF FEE PAYMENT : 16
EP1772120 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20191001 YEAR OF FEE PAYMENT : 16
EP1772120 B1	20240902	PEXP		Calculated Patent Term Expiry	
EP1776938 A2	20070425	LSPB	+	published / reissued	
EP1776938 A2	20070425	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20061213
EP1776938 A2	20151030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20150928 YEAR OF FEE PAYMENT : 12
EP1776938 A2	20151231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20150923 YEAR OF FEE PAYMENT : 12
EP1776938 A2	20160129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20150929 YEAR OF FEE PAYMENT : 12
EP1776938 A2	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 : 13
EP1776938 A2	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20160927 YEAR OF FEE PAYMENT : 13
EP1776938 A2	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160926 YEAR OF FEE PAYMENT : 13
EP1776938 A2	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160923 YEAR OF FEE PAYMENT : 13
EP1776938 A3	20080109	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20071213
EP1776938 A3	20080123	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 : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : LU 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
EP1776938 A3	20080820	LSRE	RTI1	TITLE (CORRECTION)	TEXT : STENT GRAFT DELIVERY SYSTEM AND KIT FOR IMPLANTING A STENT GRAFT
EP1776938 B1	20090506	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1776938 B1	20090506	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1776938 B1	20090515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1776938 B1	20090610	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1776938 B1	20091026	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2327150 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1776938 B1	20091030	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 : 20090506
EP1776938 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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090906
EP1776938 B1	20091130	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 : 20090506
EP1776938 B1	20091130	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 : 20090506
EP1776938 B1	20100129	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 : 20090506
EP1776938 B1	20100129	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 : 20090506
EP1776938 B1	20100129	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 : 20090506
EP1776938 B1	20100226	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 : 20090506
EP1776938 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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090506
EP1776938 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 : 20090806
EP1776938 B1	20100414	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20100209
EP1776938 B1	20100430	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 : 20090930
EP1776938 B1	20100623	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1776938 B1	20100730	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 : 20090902
EP1776938 B1	20101027	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20100209
EP1776938 B1	20101029	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	: 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 : 20090807
EP1776938 B1	20110228	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 : 20090506
EP1776938 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 : 20090902
EP1776938 B1	20110630	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 : 20091107
EP1776938 B1	20110812	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : ES OWNER : BOLTON MEDICAL INC. REF LEGAL EVENT CODE : PC2A EFFECTIVE DATE : 20110802
EP1776938 B1	20110831	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 : 20090506
EP1776938 B1	20110930	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 : 20090506
EP1776938 B1	20111026	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : SD EFFECTIVE DATE : 20111018
EP1776938 B1	20111103	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : BOLTON MEDICAL INC., SUNRISE, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602004021041 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: BOLTON MEDICAL INC.,SAMUEL ARBEFEUILLE, , US EFFECTIVE DATE : 20110914
EP1776938 B1	20111103	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : BOLTON MEDICAL INC., SUNRISE, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602004021041 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNERS: BOLTON MEDICAL INC., SUNRISE, FLA., US; ARBEFEUILLE, SAMUEL, HOLLYWOOD, FLA., US

					EFFECTIVE DATE : 20110914
EP1776938 B1	20111202	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : FR OWNER : BOLTON MEDICAL INC., US REF LEGAL EVENT CODE : TP EFFECTIVE DATE : 20111018
EP1776938 B1	20160926	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 : 13
EP1776938 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20160927 YEAR OF FEE PAYMENT : 13
EP1776938 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160926 YEAR OF FEE PAYMENT : 13
EP1776938 B1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20160928 YEAR OF FEE PAYMENT : 13
EP1776938 B1	20161230	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160926 YEAR OF FEE PAYMENT : 13
EP1776938 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160928 YEAR OF FEE PAYMENT : 13
EP1776938 B1	20170925	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 14
EP1776938 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170925 YEAR OF FEE PAYMENT : 14
EP1776938 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 14
EP1776938 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 14
EP1776938 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170925 YEAR OF FEE PAYMENT : 14
EP1776938 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20170926 YEAR OF FEE PAYMENT : 14
EP1776938 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20170925 YEAR OF FEE PAYMENT : 14
EP1776938 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 14
EP1776938 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 14
EP1776938 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20171002 YEAR OF FEE PAYMENT : 14

EP1776938 B1	20180913	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 15
EP1776938 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 : 15
EP1776938 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180828 YEAR OF FEE PAYMENT : 15
EP1776938 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180913 YEAR OF FEE PAYMENT : 15
EP1776938 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20180910 YEAR OF FEE PAYMENT : 15
EP1776938 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180829 YEAR OF FEE PAYMENT : 15
EP1776938 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20180913 YEAR OF FEE PAYMENT : 15
EP1776938 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20180911 YEAR OF FEE PAYMENT : 15
EP1776938 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20180912 YEAR OF FEE PAYMENT : 15
EP1776938 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20181001 YEAR OF FEE PAYMENT : 15
EP1776938 B1	20190930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20190814 YEAR OF FEE PAYMENT : 16
EP1776938 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190820 YEAR OF FEE PAYMENT : 16
EP1776938 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190815 YEAR OF FEE PAYMENT : 16
EP1776938 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190917 YEAR OF FEE PAYMENT : 16
EP1776938 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20190910 YEAR OF FEE PAYMENT : 16
EP1776938 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20190910 YEAR OF FEE PAYMENT : 16
EP1776938 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190830 YEAR OF FEE PAYMENT : 16
EP1776938 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20190913 YEAR OF FEE PAYMENT : 16
EP1776938 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO	COUNTRY OF REF DOCUMENT

				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	: ES PAYMENT DATE : 20191001 YEAR OF FEE PAYMENT : 16
EP1776938 B1	20240902	PEXP		Calculated Patent Term Expiry	
EP1986573 A2	20081105	LSPB	+	published / reissued	
EP1986573 A2	20081105	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20080902
EP1986573 A2	20081224	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL INC.
EP1986573 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160226 YEAR OF FEE PAYMENT : 10
EP1986573 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160223 YEAR OF FEE PAYMENT : 10
EP1986573 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20160226 YEAR OF FEE PAYMENT : 10
EP1986573 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160226 YEAR OF FEE PAYMENT : 10
EP1986573 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160217 YEAR OF FEE PAYMENT : 10
EP1986573 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160226 YEAR OF FEE PAYMENT : 10
EP1986573 A4	20130410	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20130313
EP1986573 A4	20140409	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20140305
EP1986573 A4	20150429	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150331
EP1986573 B1	20150916	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1986573 B1	20150916	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1986573 B1	20150930	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1986573 B1	20151007	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1986573 B1	20151015	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 749178 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20151015
EP1986573 B1	20151029	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602007043156 COUNTRY OF REF DOCUMENT : DE
EP1986573 B1	20151223	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2554758

					COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20151223
EP1986573 B1	20160129	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 : 20150916
EP1986573 B1	20160129	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 : 20150916
EP1986573 B1	20160129	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 : 20151217
EP1986573 B1	20160129	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 : 20150916
EP1986573 B1	20160210	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP1986573 B1	20160215	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 749178 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150916
EP1986573 B1	20160217	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
EP1986573 B1	20160229	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 : 20150916
EP1986573 B1	20160331	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 : 20150916
EP1986573 B1	20160429	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 : 20150916
EP1986573 B1	20160429	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 : 20150916
EP1986573 B1	20160429	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 : 20160116
EP1986573 B1	20160429	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 : 20150916
EP1986573 B1	20160531	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 : 20160118
EP1986573 B1	20160531	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 : 20150916
EP1986573 B1	20160531	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 : 20150916
EP1986573 B1	20160531	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 : 20150916
EP1986573 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 : 20160229
EP1986573 B1	20160617	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602007043156 COUNTRY OF REF DOCUMENT : DE
EP1986573 B1	20160824	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20160617
EP1986573 B1	20160831	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 : 20150916

EP1986573 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 : 20150916
EP1986573 B1	20160930	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 : 20160202
EP1986573 B1	20160930	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1986573 B1	20161031	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 : 20160229
EP1986573 B1	20161031	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 : 20160229
EP1986573 B1	20161130	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 : 20150916
EP1986573 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 : 20150916
EP1986573 B1	20170223	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
EP1986573 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170227 YEAR OF FEE PAYMENT : 11
EP1986573 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170223 YEAR OF FEE PAYMENT : 11
EP1986573 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170227 YEAR OF FEE PAYMENT : 11
EP1986573 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20170228 YEAR OF FEE PAYMENT : 11
EP1986573 B1	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20170227 YEAR OF FEE PAYMENT : 11
EP1986573 B1	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170223 YEAR OF FEE PAYMENT : 11

EP1986573 B1	20180126	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12
EP1986573 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180123 YEAR OF FEE PAYMENT : 12
EP1986573 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180131 YEAR OF FEE PAYMENT : 12
EP1986573 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20180301 YEAR OF FEE PAYMENT : 12
EP1986573 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 : 20150916
EP1986573 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 : 20070202
EP1986573 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180126 YEAR OF FEE PAYMENT : 12
EP1986573 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20180212 YEAR OF FEE PAYMENT : 12
EP1986573 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180221 YEAR OF FEE PAYMENT : 12
EP1986573 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 : 20150916
EP1986573 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 : 20150916
EP1986573 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190122 YEAR OF FEE PAYMENT : 13
EP1986573 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190130 YEAR OF FEE PAYMENT : 13
EP1986573 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190125 YEAR OF FEE PAYMENT : 13
EP1986573 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190301

				NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 13
EP1986573 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20190211 YEAR OF FEE PAYMENT : 13
EP1986573 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190221 YEAR OF FEE PAYMENT : 13
EP1986573 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190122 YEAR OF FEE PAYMENT : 13
EP1986573 B1	20270202	PEXP		Calculated Patent Term Expiry	
EP2259757 A1	20101215	LSPB	+	published / reissued	
EP2259757 A1	20101215	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20100930
EP2259757 A4	20140212	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20140110
EP2259757 A4	20161123	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20161020
EP2259757 A4	20181107	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20181012
EP2259757 B1	20190313	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2259757 B1	20190313	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2259757 B1	20190315	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2259757 B1	20190315	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1106671 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190315
EP2259757 B1	20190403	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2259757 B1	20190404	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602009057419 COUNTRY OF REF DOCUMENT : DE
EP2259757 B1	20190725	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2259757 B1	20190731	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 : 20190613
EP2259757 B1	20190731	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 : 20190313
EP2259757 B1	20190731	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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190313
EP2259757 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 : 20190313
EP2259757 B1	20190830	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 : 20190313
EP2259757 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 : 20190613
EP2259757 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 : 20190614
EP2259757 B1	20190830	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 : 20190313
EP2259757 B1	20190830	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 : 20190313
EP2259757 B1	20190915	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 1106671 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190313
EP2259757 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 : 20190713
EP2259757 B1	20191031	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 : 20190313

EP2259757 B1	20191031	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 : 20190313
EP2259757 B1	20191031	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 : 20190313
EP2259757 B1	20191031	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 : 20190313
EP2259757 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190709 YEAR OF FEE PAYMENT : 11
EP2259757 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190705 YEAR OF FEE PAYMENT : 11
EP2259757 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190723 YEAR OF FEE PAYMENT : 11
EP2259757 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20190705 YEAR OF FEE PAYMENT : 11
EP2259757 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190705 YEAR OF FEE PAYMENT : 11
EP2259757 B1	20191106	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2729853 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20191106
EP2259757 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 : 20190313
EP2259757 B1	20191129	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2259757 B1	20191216	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602009057419 COUNTRY OF REF DOCUMENT : DE
EP2259757 B1	20191231	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 : 20190401

EP2259757 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 : 20190713
EP2259757 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 : 20190313
EP2259757 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190704 YEAR OF FEE PAYMENT : 11
EP2259757 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 : 20190313
EP2259757 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 : 20190430
EP2259757 B1	20200131	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 : 20190313
EP2259757 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 : 20190430
EP2259757 B1	20200219	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20191216
EP2259757 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 : 20190430
EP2259757 B1	20200228	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 : 20190313
EP2259757 B1	20200331	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 : 20190313
EP2259757 B1	20290401	PEXP		Calculated Patent Term Expiry	
EP2397106 A1	20111221	LSPB	+	published / reissued	
EP2397106 A1	20120808	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120621
EP2397106 A1	20140312	LSES	+17Q	FIRST EXAMINATION	EFFECTIVE DATE : 20140210

				REPORT DESPATCHED	
EP2397106 A1	20160608	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160510
EP2397106 B1	20161109	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2397106 B1	20161109	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2397106 B1	20161115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2397106 B1	20161115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 843169 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20161115
EP2397106 B1	20161130	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2397106 B1	20161222	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602004050276 COUNTRY OF REF DOCUMENT : DE
EP2397106 B1	20170415	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 843169 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20161109
EP2397106 B1	20170428	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 : 20170210
EP2397106 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 : 20161109
EP2397106 B1	20170428	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 : 20161109
EP2397106 B1	20170516	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2612339 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20170516
EP2397106 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO

				EPO]	PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170309
EP2397106 B1	20170531	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 : 20161109
EP2397106 B1	20170531	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 : 20161109
EP2397106 B1	20170531	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 : 20161109
EP2397106 B1	20170731	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 : 20161109
EP2397106 B1	20170731	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 : 20161109
EP2397106 B1	20170731	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 : 20161109
EP2397106 B1	20170731	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 : 20161109
EP2397106 B1	20170731	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 : 20161109
EP2397106 B1	20170808	LSOP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R026 REF DOCUMENT NUMBER : 602004050276 COUNTRY OF REF DOCUMENT : DE
EP2397106 B1	20170831	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 : 20161109
EP2397106 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 : 20170209
EP2397106 B1	20170913	LSOP	-26	OPPOSITION FILED	PARTYTYPE : OPPONENT OPPONENT : COOK MEDICAL TECHNOLOGIES LLC EFFECTIVE DATE : 20170808
EP2397106 B1	20170925	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 14
EP2397106 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170925 YEAR OF FEE PAYMENT : 14
EP2397106 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 14
EP2397106 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170925 YEAR OF FEE PAYMENT : 14
EP2397106 B1	20171130	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 : 20161109
EP2397106 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20170928 YEAR OF FEE PAYMENT : 14
EP2397106 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 14
EP2397106 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20171002 YEAR OF FEE PAYMENT : 14
EP2397106 B1	20180430	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2397106 B1	20180531	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 : 20161109
EP2397106 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 : 20170902
EP2397106 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 : 20170930
EP2397106 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-

				INFORMATION FROM NATIONAL OFFICE TO EPO]	PAYMENT OF DUE FEES LAPSED DATE : 20170930
EP2397106 B1	20180913	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 15
EP2397106 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 : 15
EP2397106 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180828 YEAR OF FEE PAYMENT : 15
EP2397106 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20180911 YEAR OF FEE PAYMENT : 15
EP2397106 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180913 YEAR OF FEE PAYMENT : 15
EP2397106 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180829 YEAR OF FEE PAYMENT : 15
EP2397106 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20181001 YEAR OF FEE PAYMENT : 15
EP2397106 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 : 20040902
EP2397106 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 : 20161109
EP2397106 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190815 YEAR OF FEE PAYMENT : 16
EP2397106 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190917 YEAR OF FEE PAYMENT : 16
EP2397106 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190820 YEAR OF FEE PAYMENT : 16
EP2397106 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20190910 YEAR OF FEE PAYMENT : 16
EP2397106 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190830 YEAR OF FEE PAYMENT : 16
EP2397106 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20191001 YEAR OF FEE PAYMENT : 16
EP2397106 B1	20200331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO

				EPO]	PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161109
EP2397106 B1	20240902	PEXP		Calculated Patent Term Expiry	
EP2397112 A1	20111221	LSPB	+	published / reissued	
EP2397112 A1	20120808	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120621
EP2397112 A1	20140312	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20140210
ES2327150 T3	20091026	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2327150 T3	20240902	PEXP		Calculated Patent Term Expiry	
ES2372591 T3	20120124	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2372591 T3	20240902	PEXP		Calculated Patent Term Expiry	
ES2533969 T3	20150416	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2533969 T3	20240902	PEXP		Calculated Patent Term Expiry	
ES2612339 T3	20170516	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2612339 T3	20240902	PEXP		Calculated Patent Term Expiry	
ES2729853 T3	20191106	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2729853 T3	20290401	PEXP		Calculated Patent Term Expiry	
HK1098944 A1	20070803	LSPB	+	published / reissued	
HK1098944 A3	20070803	LSPB	+	published / reissued	
HK1129831 A1	20091211	LSPB	+	published / reissued	
HK1129831 A3	20091211	LSPB	+	published / reissued	
IL174066 A1	20130731	LSPB	+	published / reissued	
IL174066 A1	20131128	LSGT	+FF	PATENT GRANTED	
IL174066 A1	20140227	LSFE	+KB	PATENT RENEWED	
IL174066 A1	20140930	LSFE	+KB	PATENT RENEWED	
IL174066 A1	20180920	LSFE	+KB	PATENT RENEWED	
IL193197 A1	20120830	LSPB	+	published / reissued	
IL193197 A1	20121231	LSGT	+FF	PATENT GRANTED	
IL193197 A1	20170131	LSFE	+KB	PATENT RENEWED	
IN01584DN2006 A	20070810	LSPB	+	published / reissued	
IN06740DN2008 A	20081024	LSPB	+	published / reissued	
IN257284 B	20130927	LSGT	+	granted / extensions (spc, cpc, pte)	
IN257284 B	20260323	PEXP		Calculated Patent Term Expiry	
JP2007503923 T2	20070904	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20070903
JP2007503923 T2	20070904	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20070903
JP2007503923 T2	20071025	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20071024
JP2007503923 T2	20071120	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20071024
JP2007503923 T2	20100421	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20100420
JP2007503923 T2	20100821	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100820

JP2007503923 T2	20100922	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20100921
JP2007503923 T2	20101222	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20101221
JP2007503923 T2	20110302	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20110301
JP2007503923 T2	20110407	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20110329
JP2007503923 T2	20110422	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110405
JP2007503923 T2	20110611	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110610
JP2007503923 T2	20110722	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2007503923 T2	20110725	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2009525139 T2	20100122	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100121
JP2009525139 T2	20100122	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20100121
JP2009525139 T2	20110524	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20110502
JP2009525139 T2	20110602	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20110516
JP2009525139 T2	20110818	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20110801
JP2009525139 T2	20111226	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20111222
JP2009525139 T2	20120623	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20120622
JP2009525139 T2	20121115	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20121114
JP2009525139 T2	20130315	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130314
JP2009525139 T2	20130409	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2009525139 T2	20130415	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20130412
JP2009525139 T2	20130502	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20130425
JP2009525139 T2	20130502	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2009525139 T2	20130502	LSGT	+R150	CERTIFICATE OF	TEXT : JAPANESE

				PATENT OR REGISTRATION OF UTILITY MODEL	INTERMEDIATE CODE: R150
JP2009525139 T2	20130529	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2009525139 T2	20130529	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5260317 COUNTRY OF REF DOCUMENT : JP
JP2011517593 T2	20120315	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20120314
JP2011517593 T2	20130531	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130530
JP2011517593 T2	20130830	LSRE	A524	WRITTEN SUBMISSION OF COPY OF AMENDMENT UNDER SECTION 19 (PCT)	TEXT : JAPANESE INTERMEDIATE CODE: A524 EFFECTIVE DATE : 20130829
JP2011517593 T2	20130926	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2011517593 T2	20131002	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20131001
JP2011517593 T2	20131031	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20131028
JP2011517593 T2	20131101	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2011517593 T2	20131101	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5401536 COUNTRY OF REF DOCUMENT : JP
JP2012050841 A2	20130215	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130214
JP2012050841 A2	20130515	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130514
JP2012050841 A2	20131212	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20131211
JP2012050841 A2	20140611	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20140610
JP2012050841 A2	20141119	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2012050841 A2	20141126	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20141125
JP2012050841 A2	20141218	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20141212
JP2012050841 A2	20141219	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5667544 COUNTRY OF REF DOCUMENT : JP
JP4783876 B2	20110928	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4783876 B2	20110303	LSGT	+A01	特許査定書 (Decision of patent grant)	

JP4783876 B2	20110405	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4783876 B2	20140724	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4783876 B2	20140729	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4783876 B2	20150709	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4783876 B2	20150714	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4783876 B2	20160714	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4783876 B2	20160719	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4783876 B2	20170713	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4783876 B2	20170718	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4783876 B2	20180628	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4783876 B2	20180703	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4783876 B2	20190627	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4783876 B2	20190702	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4783876 B2	20240902	PEXP		Calculated Patent Term Expiry	
JP5260317 B2	20130814	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5260317 B2	20130418	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5260317 B2	20130430	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5260317 B2	20160428	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5260317 B2	20160510	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5260317 B2	20170427	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5260317 B2	20170509	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5260317 B2	20180426	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5260317 B2	20180508	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5260317 B2	20190425	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5260317 B2	20190514	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5260317 B2	20200428	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20200425
JP5260317 B2	20270202	PEXP		Calculated Patent Term Expiry	
JP5401536 B2	20140129	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5401536 B2	20131003	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5401536 B2	20131029	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5401536 B2	20131101	LSGT	+R150	特許証 (Patent certificate)	
JP5401536 B2	20161027	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5401536 B2	20161101	LSFE	+R250	RECEIPT OF ANNUAL	TEXT : JAPANESE

				FEES	INTERMEDIATE CODE: R250
JP5401536 B2	20171026	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5401536 B2	20171031	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5401536 B2	20181101	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5401536 B2	20181106	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5401536 B2	20191031	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20191028
JP5401536 B2	20191105	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5401536 B2	20290401	PEXP		Calculated Patent Term Expiry	
JP5667544 B2	20150212	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5667544 B2	20141127	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5667544 B2	20141216	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5667544 B2	20141219	LSGT	+R150	特許証 (Patent certificate)	
JP5667544 B2	20171207	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5667544 B2	20171212	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5667544 B2	20181129	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5667544 B2	20181204	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5667544 B2	20191128	LSFE	R20	特許料納付書 (Patent fee payment form)	EFFECTIVE DATE : 20191127
JP5667544 B2	20191203	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5667544 B2	20311019	PEXP		Calculated Patent Term Expiry	
KR101260518 B1	20130506	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101260518 B1	20240902	PEXP		Calculated Patent Term Expiry	
KR101453571 B1	20141021	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101453571 B1	20180917	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20180918 YEAR OF FEE PAYMENT : 5
KR101453571 B1	20190917	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20190917 YEAR OF FEE PAYMENT : 6
KR101453571 B1	20270202	PEXP		Calculated Patent Term Expiry	
KR20060072137 A	20060627	LSPB	+	published / reissued	
KR20060072137 A	20060703	LSAS	N231	NOTIFICATION OF CHANGE OF APPLICANT	
KR20060072137 A	20090831	LSES	A201	REQUEST FOR EXAMINATION	
KR20060072137 A	20110518	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20060072137 A	20120427	LSRV	-E90F	NOTIFICATION OF REASON FOR FINAL REFUSAL	
KR20060072137 A	20130225	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20060072137 A	20130426	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR20060072137 A	20160408	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20160411 YEAR OF FEE PAYMENT : 4

KR20060072137 A	20170412	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20170413 YEAR OF FEE PAYMENT : 5
KR20060072137 A	20190327	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20190328 YEAR OF FEE PAYMENT : 7
KR20090003163 A	20090109	LSPB	+	published / reissued	
KR20090003163 A	20120119	LSES	A201	REQUEST FOR EXAMINATION	
KR20090003163 A	20130429	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20090003163 A	20140127	LSRV	-E90F	NOTIFICATION OF REASON FOR FINAL REFUSAL	
KR20090003163 A	20140728	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20090003163 A	20141015	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
RU2008135681 A	20100310	LSPB	+	published / reissued	
RU2008135681 A	20100520	LSWD	-FA93	ACKNOWLEDGEMENT OF APPLICATION WITHDRAWN (NO REQUEST FOR EXAMINATION)	EFFECTIVE DATE : 20100408
US2005049667 AA	20050303	LSPB	+	published / reissued	
US2005049667 AA	20050513	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO A.; OUELLETTE, GERRY; REEL/FRAME:016558/0200 EFFECTIVE DATE : 20050429
US2005049667 AA	20100707	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2005049674 AA	20050303	LSPB	+	published / reissued	
US2005049674 AA	20121003	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2006129224 AA	20060615	LSPB	+	published / reissued	
US2006129224 AA	20121024	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2006188408 AA	20060824	LSPB	+	published / reissued	
US2006188408 AA	20111116	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2006276872 AA	20061207	LSPB	+	published / reissued	
US2006276872 AA	20140514	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2007135818 AA	20070614	LSPB	+	published / reissued	
US2007135818 AA	20160406	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2007135889 AA	20070614	LSPB	+	published / reissued	
US2007135889 AA	20151111	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2007142894 AA	20070621	LSPB	+	published / reissued	
US2007142894 AA	20090914	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MOORE, MICHAEL; ARBEFEUILLE, SAMUEL; REEL/FRAME:023224/0630; SIGNING DATES FROM 20070321 TO 20070322
US2007142894 AA	20090914	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL,

					INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MOORE, MICHAEL; ARBEFEUILLE, SAMUEL; SIGNING DATES FROM 20070321 TO 20070322; REEL/FRAME:023224/0630
US2007142894 AA	20111102	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2007163668 AA	20070719	LSPB	+	published / reissued	
US2007163668 AA	20110810	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2007198078 AA	20070823	LSPB	+	published / reissued	
US2007198078 AA	20070516	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BERRA, HUMBERTO; ARBEFEUILLE, SAMUEL; CHRISTIAN, FLETCHER; AND OTHERS; REEL/FRAME:019303/0578; SIGNING DATES FROM 20070327 TO 20070330
US2007198078 AA	20110604	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2007203566 AA	20070830	LSPB	+	published / reissued	
US2007203566 AA	20070411	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; REEL/FRAME:019150/0838; SIGNING DATES FROM 20070321 TO 20070322
US2007203566 AA	20110318	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2008077226 AA	20080327	LSPB	+	published / reissued	
US2008077226 AA	20071217	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OUELLETTE, GERRY; ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; AND OTHERS; REEL/FRAME:020266/0837; SIGNING DATES FROM 20071212 TO 20071213
US2008077226 AA	20140630	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2008077227 AA	20080327	LSPB	+	published / reissued	
US2008077227 AA	20111102	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008264102 AA	20081030	LSPB	+	published / reissued	
US2008264102 AA	20080612	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BERRA, HUMBERTO; REEL/FRAME:021083/0543 EFFECTIVE DATE : 20080611
US2008264102 AA	20150401	LSWD	-EAB2	Expressly Abandoned -- During Publication Process	
US2010030318 AA	20100204	LSPB	+	published / reissued	
US2010030318 AA	20130717	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2011208288 AA	20110825	LSPB	+	published / reissued	

US2011208288 AA	20110614	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; SIGNING DATES FROM 20070321 TO 20070322; REEL/FRAME:026438/0094
US2011208288 AA	20120724	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2011218607 AA	20110908	LSPB	+	published / reissued	
US2011218607 AA	20170118	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2011313503 AA	20111222	LSPB	+	published / reissued	
US2011313503 AA	20110823	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BERRA, HUMBERTO; ARBEFEUILLE, SAMUEL; CHRISTIAN, FLETCHER; AND OTHERS; SIGNING DATES FROM 20070320 TO 20070328; REEL/FRAME:026791/0051
US2011313503 AA	20150612	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2012123517 AA	20120517	LSPB	+	published / reissued	
US2012123517 AA	20130508	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012143305 AA	20120607	LSPB	+	published / reissued	
US2012143305 AA	20151014	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012296413 AA	20121122	LSPB	+	published / reissued	
US2012296413 AA	20140108	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013325099 AA	20131205	LSPB	+	published / reissued	
US2013325099 AA	20130807	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BERRA, HUMBERTO; REEL/FRAME:030956/0429 EFFECTIVE DATE : 20090915
US2013325099 AA	20140630	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2013331924 AA	20131212	LSPB	+	published / reissued	
US2014135892 AA	20140515	LSPB	+	published / reissued	
US2014135892 AA	20160720	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014135896 AA	20140515	LSPB	+	published / reissued	
US2014135896 AA	20160720	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014148890 A9	20160420	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014288627 AA	20140925	LSPB	+	published / reissued	
US2014288627 AA	20170623	LSES	NFA1	Non Final Action Mailed	
US2014288627 AA	20171206	LSES	+ALW2	Allowed -- Notice of Allowance Not Yet Mailed	
US2014288627 AA	20171207	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of	

				Publications	
US2014288627 AA	20180119	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2014288627 AA	20180214	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014316510 AA	20141023	LSPB	+	published / reissued	
US2014316510 AA	20151209	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015202066 AA	20150723	LSPB	+	published / reissued	
US2015202066 AA	20150115	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BERRA, HUMBERTO; ARBEFEUILLE, SAMUEL; CHRISTIAN, FLETCHER; AND OTHERS; SIGNING DATES FROM 20070327 TO 20070330; REEL/FRAME:034720/0923
US2015202066 AA	20170106	LSES	NFA1	Non Final Action Mailed	
US2015202066 AA	20180108	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2015202068 AA	20150723	LSPB	+	published / reissued	
US2015202068 AA	20170111	LSES	NFA1	Non Final Action Mailed	
US2015202068 AA	20171016	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017151076 A9	20170620	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ARBEFEUILLE, SAMUEL; OUELLETTE, GERRY; BERRA, HUMBERTO; SIGNING DATES FROM 20080611 TO 20170619; REEL/FRAME:042758/0498
US2017151076 A9	20180110	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7763063 BB	20100727	LSGT	+	granted / extensions (spc, cpc, pte)	
US7763063 BB	20100707	LSGT	PAT1	Patented Case	
US7763063 BB	20100928	LSRE	CC	CERTIFICATE OF CORRECTION	
US7763063 BB	20140115	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7763063 BB	20171206	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7763063 BB	20290119	PEXP		Calculated Patent Term Expiry (PTA 1662 days)	
US7901525 BB	20110308	LSGT	+	granted / extensions (spc, cpc, pte)	
US7901525 BB	20110810	LSGT	PAT1	Patented Case	
US7901525 BB	20270130	PEXP		Calculated Patent Term Expiry	
US8007605 BB	20110830	LSGT	+	granted / extensions (spc, cpc, pte)	
US8007605 BB	20070411	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; REEL/FRAME:019150/0914; SIGNING DATES FROM 20070321 TO 20070322
US8007605 BB	20070411	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL,

					INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; SIGNING DATES FROM 20070321 TO 20070322; REEL/FRAME:019150/0914
US8007605 BB	20150123	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8007605 BB	20180904	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8007605 BB	20291231	PEXP		Calculated Patent Term Expiry (PTA 1066 days)	
US8062345 BB	20111122	LSGT	+	granted / extensions (spc, cpc, pte)	
US8062345 BB	20071217	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OUELLETTE, GERRY; ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; AND OTHERS; REEL/FRAME:020266/0831; SIGNING DATES FROM 20071212 TO 20071213
US8062345 BB	20071217	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OUELLETTE, GERRY; ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; AND OTHERS; SIGNING DATES FROM 20071212 TO 20071213; REEL/FRAME:020266/0831
US8062345 BB	20111102	LSGT	PAT1	Patented Case	
US8062345 BB	20130305	LSRE	CC	CERTIFICATE OF CORRECTION	
US8062345 BB	20150325	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8062345 BB	20161208	LSGT	+PTEG	GRANT OF A PATENT TERM EXTENSION	TEXT : PRODUCT NAME: RELAY THORACIC STENT-GRAFT FILING DATE : 20121116 EXPIRY DATE : 20260209
US8062345 BB	20190509	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8062345 BB	20260209	PEXP		Calculated Patent Term Expiry	
US8062349 BB	20111122	LSGT	+	granted / extensions (spc, cpc, pte)	
US8062349 BB	20111102	LSGT	PAT1	Patented Case	
US8062349 BB	20150324	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8062349 BB	20190509	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8062349 BB	20300609	PEXP		Calculated Patent Term Expiry (PTA 1225 days)	
US8070790 BB	20111206	LSGT	+	granted / extensions (spc, cpc, pte)	
US8070790 BB	20060517	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BERRA, HUMBERTO; ARBEFEUILLE, SAMUEL; OUELLETTE, GERRY; REEL/FRAME:017902/0158 EFFECTIVE DATE : 20060410
US8070790 BB	20111116	LSGT	PAT1	Patented Case	
US8070790 BB	20150421	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8070790 BB	20290415	PEXP		Calculated Patent Term Expiry (PTA	

				1157 days)	
US8292943 BB	20121023	LSGT	+	granted / extensions (spc, cpc, pte)	
US8292943 BB	20040426	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BERRA, HUMBERTO A.; ARBEFEUILLE, SAMUEL; REEL/FRAME:015257/0867 EFFECTIVE DATE : 20040421
US8292943 BB	20040706	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BERRA, HUMBERTO A.; ARBEFEUILLE, SAMUEL; REEL/FRAME:015532/0234 EFFECTIVE DATE : 20040421
US8292943 BB	20121003	LSGT	PAT1	Patented Case	
US8292943 BB	20160405	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8292943 BB	20200423	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8292943 BB	20240514	PEXP		Calculated Patent Term Expiry (PTA 81 days)	
US8308790 BB	20121113	LSGT	+	granted / extensions (spc, cpc, pte)	
US8308790 BB	20060517	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BERRA, HUMBERTO; ARBEFEUILLE, SAMUEL; OUELLETTE, GERRY; REEL/FRAME:017901/0961 EFFECTIVE DATE : 20060410
US8308790 BB	20121024	LSGT	PAT1	Patented Case	
US8308790 BB	20160422	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8308790 BB	20300506	PEXP		Calculated Patent Term Expiry (PTA 1550 days)	
US8449595 BB	20130528	LSGT	+	granted / extensions (spc, cpc, pte)	
US8449595 BB	20120103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OUELLETTE, GERRY; ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; AND OTHERS; SIGNING DATES FROM 20071212 TO 20071213; REEL/FRAME:027471/0037
US8449595 BB	20130508	LSGT	PAT1	Patented Case	
US8449595 BB	20131203	LSRE	CC	CERTIFICATE OF CORRECTION	
US8449595 BB	20161004	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8449595 BB	20311114	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8500792 BB	20130806	LSGT	+	granted / extensions (spc, cpc, pte)	
US8500792 BB	20091021	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC.,FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BERRA, HUMBERTO; REEL/FRAME:023403/0001 EFFECTIVE DATE : 20090915

US8500792 BB	20091021	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BERRA, HUMBERTO; REEL/FRAME:023403/0001 EFFECTIVE DATE : 20090915
US8500792 BB	20130717	LSGT	PAT1	Patented Case	
US8500792 BB	20131008	LSRE	CC	CERTIFICATE OF CORRECTION	
US8500792 BB	20140617	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BERRO, HUMBERTO; REEL/FRAME:033116/0024 EFFECTIVE DATE : 20090915
US8500792 BB	20161027	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8500792 BB	20320309	PEXP		Calculated Patent Term Expiry (PTA 1074 days and a terminal disclaimer has been filed)	
US8636788 BB	20140128	LSGT	+	granted / extensions (spc, cpc, pte)	
US8636788 BB	20120806	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; BARBRE, CAROL; AND OTHERS; SIGNING DATES FROM 20060616 TO 20060623; REEL/FRAME:028728/0433
US8636788 BB	20140108	LSGT	PAT1	Patented Case	
US8636788 BB	20140930	LSRE	CC	CERTIFICATE OF CORRECTION	
US8636788 BB	20170202	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8636788 BB	20320803	PEXP		Calculated Patent Term Expiry	
US8740963 BB	20140603	LSGT	+	granted / extensions (spc, cpc, pte)	
US8740963 BB	20060728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; BARBRE, CAROL; AND OTHERS; REEL/FRAME:018034/0548; SIGNING DATES FROM 20060616 TO 20060623
US8740963 BB	20060728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; BARBRE, CAROL; AND OTHERS; SIGNING DATES FROM 20060616 TO 20060623; REEL/FRAME:018034/0548
US8740963 BB	20140514	LSGT	PAT1	Patented Case	
US8740963 BB	20170707	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8740963 BB	20291209	PEXP		Calculated Patent Term Expiry (PTA 1280 days)	
US9173755 BB	20151103	LSGT	+	granted / extensions (spc, cpc, pte)	
US9173755 BB	20111215	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

					OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BERRA, HUMBERTO; ARBEFEUILLE, SAMUEL; OUELLETTE, GERRY; REEL/FRAME:027393/0068 EFFECTIVE DATE : 20060410
US9173755 BB	20151014	LSGT	PAT1	Patented Case	
US9173755 BB	20190425	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9173755 BB	20311205	PEXP		Calculated Patent Term Expiry	
US9198786 BB	20151201	LSGT	+	granted / extensions (spc, cpc, pte)	
US9198786 BB	20070404	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MOORE, MICHAEL; ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; REEL/FRAME:019150/0907; SIGNING DATES FROM 20070321 TO 20070322
US9198786 BB	20070404	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MOORE, MICHAEL; ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; SIGNING DATES FROM 20070321 TO 20070322; REEL/FRAME:019150/0907
US9198786 BB	20150721	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US9198786 BB	20151111	LSGT	PAT1	Patented Case	
US9198786 BB	20300710	PEXP		Calculated Patent Term Expiry (PTA 1255 days)	
US9220617 BB	20151229	LSGT	+	granted / extensions (spc, cpc, pte)	
US9220617 BB	20140627	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BERRA, HUMBERTO; REEL/FRAME:033196/0459 EFFECTIVE DATE : 20090915
US9220617 BB	20151029	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US9220617 BB	20151209	LSGT	PAT1	Patented Case	
US9220617 BB	20160315	LSRE	CC	CERTIFICATE OF CORRECTION	
US9220617 BB	20190613	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9220617 BB	20340610	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9320631 BB	20160426	LSGT	+	granted / extensions (spc, cpc, pte)	
US9320631 BB	20070404	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MOORE, MICHAEL; ARBEFEUILLE, SAMUEL; REEL/FRAME:019117/0881; SIGNING DATES FROM 20070321 TO 20070322
US9320631 BB	20070404	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF

					ASSIGNORS INTEREST; ASSIGNORS:MOORE, MICHAEL; ARBEFEUILLE, SAMUEL; SIGNING DATES FROM 20070321 TO 20070322; REEL/FRAME:019117/0881
US9320631 BB	20151207	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US9320631 BB	20160406	LSGT	PAT1	Patented Case	
US9320631 BB	20191010	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9320631 BB	20310317	PEXP		Calculated Patent Term Expiry (PTA 1506 days)	
US9333104 BB	20160510	LSGT	+	granted / extensions (spc, cpc, pte)	
US9333104 BB	20130524	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OUELLETTE, GERRY; ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; AND OTHERS; SIGNING DATES FROM 20071212 TO 20071213; REEL/FRAME:030480/0831
US9333104 BB	20150812	LSES	NFA1	Non Final Action Mailed	
US9333104 BB	20160406	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US9333104 BB	20160420	LSGT	PAT1	Patented Case	
US9333104 BB	20191024	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9333104 BB	20340501	PEXP		Calculated Patent Term Expiry (PTA 344 days and a terminal disclaimer has been filed)	
US9408734 BB	20160809	LSGT	+	granted / extensions (spc, cpc, pte)	
US9408734 BB	20131220	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; BARBRE, CAROL; AND OTHERS; SIGNING DATES FROM 20060616 TO 20060623; REEL/FRAME:031832/0752
US9408734 BB	20150818	LSES	NFA1	Non Final Action Mailed	
US9408734 BB	20160720	LSGT	PAT1	Patented Case	
US9408734 BB	20200210	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9408734 BB	20331213	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
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US9408735 BB	20140408	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; BARBRE, CAROL; AND OTHERS; SIGNING DATES FROM 20060616 TO 20060623; REEL/FRAME:032623/0962
US9408735 BB	20150810	LSES	NFA1	Non Final Action Mailed	
US9408735 BB	20160720	LSGT	PAT1	Patented Case	

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US9408735 BB	20340116	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
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US9561124 BB	20110210	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO A.; OUELLETTE, GERRY; REEL/FRAME:025785/0738 EFFECTIVE DATE : 20050429
US9561124 BB	20170118	LSGT	PAT1	Patented Case	
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US9877857 BB	20180130	LSGT	+	granted / extensions (spc, cpc, pte)	
US9877857 BB	20180110	LSGT	PAT1	Patented Case	
US9877857 BB	20180403	LSRE	CC	CERTIFICATE OF CORRECTION	
US9877857 BB	20350827	PEXP		Calculated Patent Term Expiry (PTA 149 days and a terminal disclaimer has been filed)	
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US9907686 BB	20140429	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BOLTON MEDICAL, INC., FLORIDA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:OUELLETTE, GERRY; ARBEFEUILLE, SAMUEL; BERRA, HUMBERTO; AND OTHERS; SIGNING DATES FROM 20071212 TO 20071213; REEL/FRAME:032775/0812
US9907686 BB	20180214	LSGT	PAT1	Patented Case	
US9907686 BB	20180918	LSRE	CC	CERTIFICATE OF CORRECTION	
US9907686 BB	20360227	PEXP		Calculated Patent Term Expiry (PTA 703 days)	
WO05023149 A2	20050317	LSPB	+	published / reissued	
WO05023149 A2	20040902	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200480032425.5 COUNTRY OF REF DOCUMENT : CN
WO05023149 A3	20060302	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2004270186 COUNTRY OF REF DOCUMENT : AU
WO05023149 A3	20060302	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 174066 COUNTRY OF REF DOCUMENT : IL
WO05023149 A3	20060303	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006525429 COUNTRY OF REF DOCUMENT : JP
WO05023149 A3	20060306	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020067004586 COUNTRY OF REF DOCUMENT : KR
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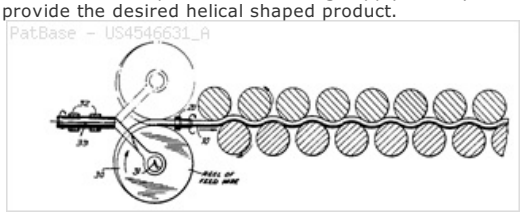
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WO05023149 A3	20060323	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2004270186 COUNTRY OF REF DOCUMENT : AU
WO05023149 A3	20060403	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2004782926 COUNTRY OF REF DOCUMENT : EP
WO05023149 A3	20060627	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1020067004586 COUNTRY OF REF DOCUMENT : KR
WO05023149 A3	20060628	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2004782926 COUNTRY OF REF DOCUMENT : EP
WO05023149 A3	20061031	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0414109 COUNTRY OF REF DOCUMENT : BR
WO07092276 A2	20070816	LSPB	+	published / reissued	
WO07092276 A3	20080731	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 193197 COUNTRY OF REF DOCUMENT : IL
WO07092276 A3	20080804	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2008553362 COUNTRY OF REF DOCUMENT : JP
WO07092276 A3	20080804	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 6740/DELNP/2008 COUNTRY OF REF DOCUMENT : IN
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WO07092276 A3	20080805	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020087019202 COUNTRY OF REF DOCUMENT : KR
WO07092276 A3	20080812	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007212623 COUNTRY OF REF DOCUMENT : AU
WO07092276 A3	20080902	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007763594 COUNTRY OF REF DOCUMENT : EP
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WO07092276 A3	20081006	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200780012452.X COUNTRY OF REF DOCUMENT : CN
WO07092276 A3	20110503	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI0707481

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WO07092276 A3	20120605	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 220198 COUNTRY OF REF DOCUMENT : IL
WO09124124 A1	20091008	LSPB	+	published / reissued	
WO09124124 A1	20090401	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200980114933.0 COUNTRY OF REF DOCUMENT : CN
WO09124124 A1	20100929	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011503140 COUNTRY OF REF DOCUMENT : JP
WO09124124 A1	20100930	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009728505 COUNTRY OF REF DOCUMENT : EP
WO09124124 A1	20110930	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE

32) Family number: 19216641 (US4546631A)

Title: Roller mechanism for forming helical shapes

Abstract: A roller mechanism and method for forming helical shaped structures from a feed **wire** or rod, wherein the feed **wire** is drawn through a plurality of staggered forming rollers by rotation of the rollers, while the **wire** is also being rotated about its own axis so as to form the desired helical shaped product. The mechanism includes a support frame and at least four lower fixed position driven rollers and at least five upper idler rollers having adjustable positions relative to the lower rollers rotatably mounted in the frame. The lower rollers usually have a roughened or grooved surface to facilitate drawing the feed **wire** through the staggered forming rollers. If desired, the feed **wire** can be pulled off a rotating supply reel by a pair of guiding rollers and then passed through the forming rollers to provide the desired helical shaped product.



Classifications:
International (IPC 8-9): B21D11/06 B21F1/00 B21F1/04 B21F3/00 B21F3/02 (Advanced/Invention);
B21F1/00 (Advanced/Non-invention);
B21D11/00 B21F1/00 B21F3/00 (Core/Invention)
International (IPC 1-7): B21D11/06 B21D13/04 B21F1/00 B21F1/04 B21F3/00 B21F3/02 B21H3/00 B21H3/12 B21H8/00
CPC: B21D11/06 B21F1/04 B21F3/02
European: B21D11/06 B21F1/04 B21F3/02
US: 72/135 72/145

Family:

Publication number	Publication date	Application number	Application date
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AU198655639 A1	19871008	AU19860055639	19860402
AU561706 B2	19870514	AU19840026241	19840329
AU594046 B2	19900301	AU19860055639	19860402
CA1240586 A1	19880816	CA19840451025	19840330
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ES531205 A0	19851001	ES19840531205	19840330
ES552741 A0	19870516	ES19860552741	19860306
ES552741 A2	19870616	ES19860552741	19860306
ES8600092 A1	19851001	ES19840531205	19840330
ES8706054 A1	19870516	ES19860552741	19860306
GB2138721 A1	19841031	GB19840008469	19840402
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GB8408469 A0	19840510	GB19840008469	19840402
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JP1056854 B4	19891201	JP19860050708	19860310
JP1569186 C3	19900710	JP19860050708	19860310
JP1655537 C3	19920413	JP19840061275	19840330
JP3008853 B4	19910207	JP19840061275	19840330
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US4546631 A	19851015	US19850701440	19850212
US4606209 A	19860819	US19850710652	19850311

Priority:

US19830481135 19830401 CA19840451025 19840330 US19850701440 19850212
US19850710652 19850311 CA19860501828 19860213 AU19860055639 19860402

Probable Assignee: FOSTER WHEELER ENERGY CORP

Assignee(s): (std): FOSTER WHEELER CORP ; FOSTER WHEELER ENERGY CORP ; KELO PUU I HAELIKKAE AND CO ; KELO PUU ILMARI HALIKKA Y CO

Assignee(s): WELLS FARGO BANK NATIONAL ASSOCIATION ; MORGAN STANLEY AND CO INC ; MORGAN STANLEY AND CO INC COLLATERAL AGENT AS ; FOSTER WHEELER LLC ; FOSTER WHEELER NORTH AMERICA CORP ; FOSTER WHEELER USA CORP ; FOSTR WHEELER ENERGY A DE CORP CORP ; FOSTR WHEELER ENERGY CORP ; FOSTER WHEELER DEVELOPMENT CORP ; BANK OF AMERICA NA ; BANK OF AMERICA NA ADMINISTRATIVE AND COLLATERAL A ; EISINGER FRANTISEK L

Inventor(s): (std): EISINGER FRANTISEK LEOPOLD ; FRANTISEK LEOPOLD EISINGER ; FURANTEISETSUKU REOPOODO AISHINGAA ; FURANTEISETSUKU ERU AISHINGAA ; FRANTISEK L EISINGER ; FURANTEISETSUKU REOPOODO AISHI ; EISINGER FRANTISEK L

Inventor(s): FURANTEISETSUKU REOHOODO AISHINGAA

Agent(s): MEREDITH AND FINLAYSON

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU198426241 A1	19841004	LSPB	+	published / reissued	
AU198655639 A1	19871008	LSPB	+	published / reissued	
AU561706 B2	19870514	LSGT	+	granted / extensions (spc, cpc, pte)	
AU561706 B2	20040329	PEXP		Calculated Patent Term Expiry	

AU594046 B2	19900301	LSGT	+	granted / extensions (spc, cpc, pte)	
AU594046 B2	20060402	PEXP		Calculated Patent Term Expiry	
ES8600092 A1	19851001	LSGT	+	granted / extensions (spc, cpc, pte)	
ES8600092 A1	20051001	PEXP		Calculated Patent Term Expiry	
ES8706054 A1	19870516	LSGT	+	granted / extensions (spc, cpc, pte)	
ES8706054 A1	19970801	LSLE	-FD1A	PATENT LAPSED	EFFECTIVE DATE : 19970612
ES8706054 A1	20070516	PEXP		Calculated Patent Term Expiry	
GB2138721 A1	19841031	LSPB	+	published / reissued	
GB2138721 B2	19860409	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2138721 B2	19911127	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	
GB2138721 B2	20040402	PEXP		Calculated Patent Term Expiry	
GB2172230 A1	19860917	LSPB	+	published / reissued	
GB2172230 B2	19880907	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2172230 B2	19961030	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 19960310
GB2172230 B2	20060310	PEXP		Calculated Patent Term Expiry	
JP1056854 B4	19891201	LSPB	+	published / reissued	
JP1569186 C3	19900710	LSGT	+	granted / extensions (spc, cpc, pte)	
JP1569186 C3	20060310	PEXP		Calculated Patent Term Expiry	
JP1655537 C3	19920413	LSGT	+	granted / extensions (spc, cpc, pte)	
JP1655537 C3	20040330	PEXP		Calculated Patent Term Expiry	
JP3008853 B4	19910207	LSPB	+	published / reissued	
US4546631 A	19851015	LSGT	+	granted / extensions (spc, cpc, pte)	
US4546631 A	19850813	LSGT	PAT1	Patented Case	
US4546631 A	19890630	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4546631 A	19931017	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4546631 A	19931228	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 19891017
US4546631 A	20180131	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4546631 A	20180131	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US4606209 A	19860819	LSGT	+	granted / extensions (spc, cpc, pte)	
US4606209 A	19850426	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FOSTR WHEELER ENERGY

					CORPORATION 110 SOUTH ORANGE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:EISINGER, FRANTISEK L.; REEL/FRAME:004392/0838 EFFECTIVE DATE : 19850417
US4606209 A	19860618	LSGT	PAT1	Patented Case	
US4606209 A	19860618	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US4606209 A	19900213	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4606209 A	19940411	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
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US4606209 A	20020930	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A., ADMINISTRATIVE AND COLLATER OLDPARTY : SECURITY AGREEMENT; ASSIGNORS:FOSTER WHEELER LLC; FOSTER WHEELER ENERGY INTERNATIONAL CORPORATION; FOSTER WHEELER INTERNATIONAL CORPORATION; AND OTHERS; REEL/FRAME:013128/0744 EFFECTIVE DATE : 20020816
US4606209 A	20040929	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WELLS FARGO BANK, NATIONAL ASSOCIATION, MINNESOTA OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:FOSTER WHEELER ENERGY CORPORATION; REEL/FRAME:015190/0778 EFFECTIVE DATE : 20040924
US4606209 A	20050413	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MORGAN STANLEY & CO. INCORPORATED, AS COLLATERAL A OLDPARTY : SECURITY AGREEMENT; ASSIGNORS:FOSTER WHEELER ENERGY CORPORATION; FOSTER WHEELER USA CORPORATION; FOSTER WHEELER DEVELOPMENT CORPORATION; AND OTHERS; REEL/FRAME:015896/0119 EFFECTIVE DATE : 20050324
US4606209 A	20050705	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FOSTER WHEELER LLC, NEW JERSEY OLDPARTY : RELEASE; ASSIGNOR:BANK OF AMERICA, N.A., AS COLLATERAL AGENT; REEL/FRAME:016489/0699 EFFECTIVE DATE : 20050324
US4606209 A	20061009	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FOSTER WHEELER ENERGY CORPORATION, NEW JERSEY OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:WELLS FARGO BANK, NATIONAL ASSOCIATION, NOT IN ITS INDIVIDUAL CAPACITY BUT AS TRUSTEE; REEL/FRAME:018362/0847 EFFECTIVE DATE : 20061009
US4606209 A	20061026	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FOSTER WHEELER ENERGY CORPORATION, NEW JERSEY OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENT COLLATERAL; ASSIGNOR:MORGAN STANLEY & CO., INCORPORATED; REEL/FRAME:018442/0026 EFFECTIVE DATE : 20061013
US4606209 A	20061026	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FOSTER WHEELER USA CORPORATION, NEW JERSEY OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENT COLLATERAL; ASSIGNOR:MORGAN STANLEY & CO., INCORPORATED; REEL/FRAME:018442/0026 EFFECTIVE DATE : 20061013

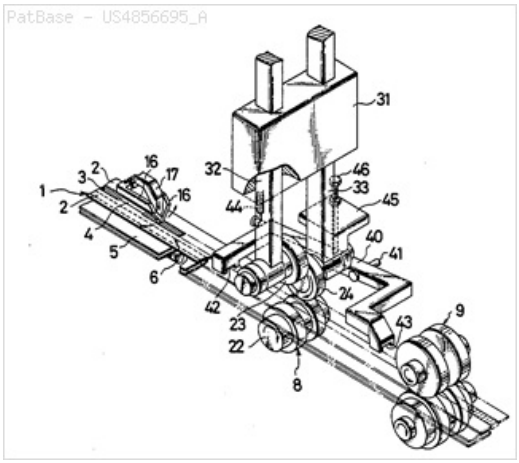
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US4606209 A	20061026	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FOSTER WHEELER NORTH AMERICA CORPORATION, NEW JERS OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENT COLLATERAL; ASSIGNOR:MORGAN STANLEY & CO., INCORPORATED; REEL/FRAME:018442/0026 EFFECTIVE DATE : 20061013

33) Family number: 18942667 (US4856695A)

Title: METHOD OF AND APPARATUS FOR FEEDING SLIDE FASTENER CHAIN WITH FLY STRIPS

Abstract: A method of feeding a continuous slide fastener chain with successive fly strips in a slide-fastener finishing machine, comprises feeding the slide fastener chain with successive fly strips along a horizontal straight path normally by applying driving force to one tape free of the fly strips, and feeding the slide fastener chain by applying the driving force to both of the opposed tapes while the slide fastener chain is threaded through a slider. An apparatus for carrying out this method comprises a main roller engageable with the lower surfaces of the opposed tapes, and first and second associate rollers engageable with the respective upper surfaces of the opposed tapes and vertically movable independently of each other.

Classifications:
International (IPC 8-9): A41H37/06 A41H43/02 A44B19/42 B26D7/32 B65H20/02 B65H29/20 (Advanced/Invention); B65H20/02 (Advanced/Non-invention); A41H37/00 A41H43/00 A44B19/42 B65H20/02 (Core/Invention)
International (IPC 1-7): A41H37/00 A41H37/06 A41H37/6 A41H43/02 A41H43/2 A44B19/00 A44B19/42 A44B19/58 A44B19/62 B21D53/54 B21F45/18 B26D7/32 B65G47/04 B65H20/02 B65H20/04 B65H29/20 B65H51/08
CPC: A41H37/06 A41H43/02 A44B19/42 Y10S83/921 Y10T29/5101 Y10T83/2024 Y10T83/2094 Y10T83/2192 Y10T83/2196 Y10T83/446 Y10T83/4592 Y10T83/543
European: A41H37/06 A41H43/02 A44B19/42
US: 226/154 226/181 29/33.2 83/110 83/155 83/156 83/210 83/261 83/371 83/80 83/921



Family:

Publication number	Publication date	Application number	Application date
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DE3872050 D1	19920723	DE19883872050	19880414
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ES2032014 T3	19930101	ES19880303378T	19880414
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FI881806 A0	19880418	FI19880001806	19880418
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KR19880012186 A	19881126	KR19880004497	19880420
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US4860619 A	19890829	US19880184595	19880421

Priority:

JP19870100411 19870422 JP19870100412 19870422 CA19880564619 19880420 CA19880564623 19880420

Probable Assignee: YKK CORP

Assignee(s): (std): YKK CORP ; YOSHIDA IND CO ; YOSHIDA KOGYO KK ; YOSHIDA KOGYO K K

Assignee(s):	YOSHIDA KOGYO CO LTD ; YUNOKI AKIO ; YOSHIDA KOGYO YKK KK ; YOSHIDA KOGYO K K TOKIO TOKYO JP ; YOSHIDA KOGYO CO LTD TOKIO TOKYO JP ; YOSHIDA KOGYO CO ; YOSHIDA IND CO LTD ; YOSHIDA INDCO
Inventor(s): (std):	YUNOKI AKO ; AKIO YUNOKI ; AKO YUNOKI ; YUNOKI AKIO
Inventor(s):	YUNOKI AKO NAMERIKAWA SHI TOYAMA KEN JP ; YUNOKI AKIO NAMERIKAWA SHI TOYAMA KEN JP
Agent(s):	FB RICE; GOWLING LAFLEUR HENDERSON LLP
Designated states:	BE DE ES FR GB IT NL

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AR243344 A1	19930831	LSGT	+	granted / extensions (spc, cpc, pte)	
AR243344 A1	20080421	PEXP		Calculated Patent Term Expiry	
AR244959 A1	19931230	LSGT	+	granted / extensions (spc, cpc, pte)	
AR244959 A1	20080421	PEXP		Calculated Patent Term Expiry	
AU198814737 A1	19881117	LSPB	+	published / reissued	
AU198814739 A1	19881103	LSPB	+	published / reissued	
AU581828 B2	19890302	LSGT	+	granted / extensions (spc, cpc, pte)	
AU582322 B2	19890316	LSGT	+	granted / extensions (spc, cpc, pte)	
BRPI8801987 A	19881122	LSPB	+	published / reissued	
BRPI8801987 A	19950926	LSAS	TC	CHANGE OF PROPRIETOR'S NAME	
BRPI8801987 A	20080902	LSLE	-B21A	EXPIRY ACC. ART. 78, ITEM I OF IPL- EXPIRY OF THE TERM OF PROTECTION	TEXT : PATENTE EXTINTA EM 21/04/2003
BRPI8802013 A	19881129	LSPB	+	published / reissued	
BRPI8802013 A	19950926	LSAS	TC	CHANGE OF PROPRIETOR'S NAME	
BRPI8802013 A	20080902	LSLE	-B21A	EXPIRY ACC. ART. 78, ITEM I OF IPL- EXPIRY OF THE TERM OF PROTECTION	TEXT : PATENTE EXTINTA EM 22/04/2003
CA1309238 A1	19921027	LSGT	+	granted / extensions (spc, cpc, pte)	
CA1309238 A1	20091027	LSLE	-MKEX	EXPIRY	
CA1309238 A1	20091027	PEXP		Calculated Patent Term Expiry	
CA1312004 A1	19921229	LSGT	+	granted / extensions (spc, cpc, pte)	
CA1312004 A1	19971229	LSLE	-MKLA	LAPSED	
CA1312004 A1	20091229	PEXP		Calculated Patent Term Expiry	
DE3872038 D1	19930715	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE3872038 D1	19950406	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	PARTYTYPE : OWNER OWNER : YKK CORP., TOKIO/TOKYO, JP
DE3872038 D1	19970410	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE3872038 T2	19930114	LSGT	+	granted / extensions (spc, cpc, pte)	
DE3872050 D1	19930715	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE3872050 D1	19950406	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	PARTYTYPE : OWNER OWNER : YKK CORP., TOKIO/TOKYO, JP
DE3872050 D1	19980409	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE3872050 T2	19921217	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0288213 A2	19881026	LSPB	+	published / reissued	
EP0288213 A2	19890329	LSES	+17P	REQUEST FOR	EFFECTIVE DATE :

				EXAMINATION FILED	19890127
EP0288213 A2	19910522	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19910410
EP0288213 A2	19930609	LSGT	+26N	NO OPPOSITION FILED	
EP0288213 A2	19941206	LSAS	ITPR	IT: CHANGES IN OWNERSHIP OF A EUROPEAN PATENT	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : CAMBIO RAGIONE SOCIALE; YKK CORPORATION
EP0288213 A2	19950119	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 19950119 YEAR OF FEE PAYMENT : 8
EP0288213 A2	19950120	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : CD
EP0288213 A2	19950206	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 19950206 YEAR OF FEE PAYMENT : 8
EP0288213 A2	19950216	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : ES OWNER : YKK CORPORATION REF LEGAL EVENT CODE : PC2A
EP0288213 A2	19950322	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 19950322 YEAR OF FEE PAYMENT : 8
EP0288213 A2	19950430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 19950430 YEAR OF FEE PAYMENT : 8
EP0288213 A2	19950531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 19950531 YEAR OF FEE PAYMENT : 8
EP0288213 A2	19960415	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 : 19960415
EP0288213 A2	19960430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE LAPSED DATE : 19960430
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EP0288213 A2	19961101	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL LAPSED DATE : 19961101
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EP0288213 A2	19970101	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : DE LAPSED DATE : 19970101

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EP0288213 A2	19970124	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP0288213 A2	19990401	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 19990301
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EP0288213 B1	19920617	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0288213 B1	20080413	PEXP		Calculated Patent Term Expiry	
EP0288213 B1	20080414	PEXP		Calculated Patent Term Expiry	
EP0292110 A2	19881123	LSPB	+	published / reissued	
EP0292110 A2	19890503	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19890228
EP0292110 A2	19910529	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19910417
EP0292110 A2	19920812	LSAS	RAP2	RIGHTS OF A PATENT TRANSFERRED	PARTYTYPE : OWNER OWNER : YOSHIDA KOGYO K.K.
EP0292110 A2	19930609	LSGT	+26N	NO OPPOSITION FILED	
EP0292110 A2	19941206	LSAS	ITPR	IT: CHANGES IN OWNERSHIP OF A EUROPEAN PATENT	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : CAMBIO RAGIONE SOCIALE; YKK CORPORATION
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EP0292110 A2	19950216	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : ES OWNER : YKK CORPORATION REF LEGAL EVENT CODE : PC2A
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EP0292110 A2	19990401	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 19990301
EP0292110 A2	20070615	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20070615 YEAR OF FEE PAYMENT : 20
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EP0292110 A2	20080430	LSLE	-BE20	BE: PATENT EXPIRED	PARTYTYPE : OWNER REF COUNTRY CODE : EP OWNER : *YKK CORP. EFFECTIVE DATE : 20080414
EP0292110 A2	20080430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20070411 YEAR OF FEE PAYMENT : 20
EP0292110 A2	20080507	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20080413
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ES2032013 T3	20080414	PEXP		Calculated Patent Term Expiry	
ES2032014 T3	19930101	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2032014 T3	20080414	PEXP		Calculated Patent Term Expiry	
FI881806 A	19881023	LSPB	+	published / reissued	
FI881806 A	19930901	LSPB	BB	PUBLICATION OF EXAMINED APPLICATION	
FI881807 A	19881023	LSPB	+	published / reissued	
FI881807 A	19930616	LSPB	BB	PUBLICATION OF EXAMINED APPLICATION	
FI89553 B	19930715	LSGT	+	granted / extensions (spc, cpc, pte)	
FI89553 C	19931025	LSGT	+	granted / extensions (spc, cpc, pte)	
FI89553 C	19941012	LSAS	TC	NAME/ COMPANY CHANGED IN PATENT	PARTYTYPE : OWNER OWNER : YKK CORPORATION
FI89553 C	19971114	LSLE	-MM	PATENT LAPSED	
FI89553 C	20040831	LSLE	-MM	PATENT LAPSED	PARTYTYPE : OWNER OWNER : YKK CORPORATION
FI89553 C	20080418	PEXP		Calculated Patent Term Expiry	
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FI90194 C	19961113	LSLE	-MM	PATENT LAPSED	
FI90194 C	20040831	LSLE	-MM	PATENT LAPSED	PARTYTYPE : OWNER OWNER : YKK CORPORATION
FI90194 C	20080418	PEXP		Calculated Patent Term Expiry	
HK190395 A	19951229	LSGT	+	granted / extensions (spc, cpc, pte)	
HK190395 A	20041215	LSFE	+PF	PATENT IN FORCE	
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HK190395 A	20151221	PEXP		Calculated Patent Term Expiry	
HK190795 A	19951229	LSGT	+	granted / extensions (spc, cpc, pte)	
HK190795 A	20041215	LSFE	+PF	PATENT IN FORCE	
HK190795 A	20080516	LSLE	-PE	PATENT EXPIRED	EFFECTIVE DATE : 20080413
HK190795 A	20151221	PEXP		Calculated Patent Term Expiry	
JP1987543 C3	19951108	LSGT	+	granted / extensions (spc, cpc, pte)	
JP1987543 C3	20070422	PEXP		Calculated Patent Term Expiry	
JP7004291 B4	19950125	LSPB	+	published / reissued	
KR19880012186 A	19881126	LSPB	+	published / reissued	
KR19880012461 A	19881126	LSPB	+	published / reissued	
KR900007092 B1	19900928	LSGT	+	granted / extensions (spc, cpc, pte)	
KR900007092 B1	19880420	LSES	A201	REQUEST FOR EXAMINATION	
KR900007092 B1	19900612	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR900007092 B1	19900830	LSPB	G160	DECISION TO PUBLISH	

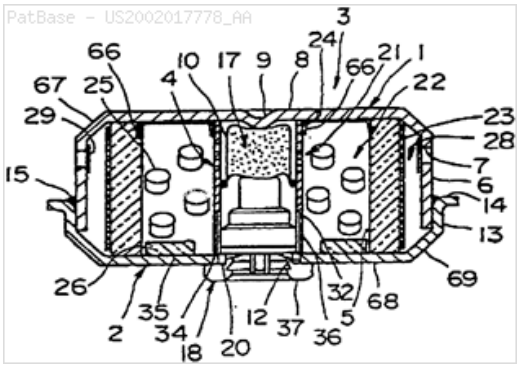
				PATENT APPLICATION	
KR900007092 B1	19901211	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR900007092 B1	19910305	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR900007092 B1	19950831	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 19950831 YEAR OF FEE PAYMENT : 6
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KR900007092 B1	20080420	PEXP		Calculated Patent Term Expiry	
KR910006548 B1	19910828	LSGT	+	granted / extensions (spc, cpc, pte)	
KR910006548 B1	19880421	LSES	A201	REQUEST FOR EXAMINATION	
KR910006548 B1	19910412	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR910006548 B1	19910730	LSPB	G160	DECISION TO PUBLISH PATENT APPLICATION	
KR910006548 B1	19911114	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR910006548 B1	19920131	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR910006548 B1	19950728	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 19950728 YEAR OF FEE PAYMENT : 5
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KR910006548 B1	20080421	PEXP		Calculated Patent Term Expiry	
US4856695 A	19890815	LSGT	+	granted / extensions (spc, cpc, pte)	
US4856695 A	19880421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : YOSHIDA KOGYO K.K., TOKYO, JAPAN A JAPANESE CORP. OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:YUNOKI, AKIO; REEL/FRAME:004867/0808 EFFECTIVE DATE : 19880329
US4856695 A	19880421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : YOSHIDA KOGYO K.K.,JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:YUNOKI, AKIO; REEL/FRAME:004867/0808 EFFECTIVE DATE : 19880329
US4856695 A	19890628	LSGT	PAT1	Patented Case	
US4856695 A	19890628	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US4856695 A	19930205	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4856695 A	19950310	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : YKK CORPORATION, JAPAN OLDPARTY : CHANGE OF NAME; ASSIGNOR:YOSHIDA KOGYO K.K.; REEL/FRAME:007378/0851 EFFECTIVE DATE : 19940801
US4856695 A	19970205	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4856695 A	20010108	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US4856695 A	20080421	PEXP		Calculated Patent Term Expiry	
US4860619 A	19890829	LSGT	+	granted / extensions (spc, cpc, pte)	

US4860619 A	19880421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : YOSHIDA KOGYO K.K., TOKYO, JAPAN A JAPANESE CORP. OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:YUNOKI, AKIO; REEL/FRAME:004867/0807 EFFECTIVE DATE : 19880329
US4860619 A	19880421	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : YOSHIDA KOGYO K.K.,JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:YUNOKI, AKIO; REEL/FRAME:004867/0807 EFFECTIVE DATE : 19880329
US4860619 A	19890714	LSGT	PAT1	Patented Case	
US4860619 A	19890714	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US4860619 A	19930208	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4860619 A	19950310	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : YKK CORPORATION, JAPAN OLDPARTY : CHANGE OF NAME; ASSIGNOR:YOSHIDA KOGYO K.K.; REEL/FRAME:007378/0851 EFFECTIVE DATE : 19940801
US4860619 A	19970218	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4860619 A	20010108	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US4860619 A	20080421	PEXP		Calculated Patent Term Expiry	

34) Family number: 28169668 (US2002017778A)

Title: AIRBAG INFLATOR AND AN AIRBAG APPARATUS

Abstract: An airbag inflator includes non-azide gas generating propellants, surrounding an ignition device, disposed inside a housing. The gas generating propellants are surrounded by a coolant/filter device having a pressure loss of 0.3x10-2 to 1.5x10-2 kg/cm2 at a flow rate of 100 l/min/cm2. A space is provided between an outer periphery of the coolant/filter device and the housing such that the combustion gas passes through the entire area of the coolant/filter device. The coolant/filter device is also surrounded by a swell suppressing layer which prevents the coolant/filter device from swelling due to a combustion of the gas generating propellants.



Classifications:
International (IPC 8-9): B01D46/24 B01J7/00 B21F45/00 B60R21/00 B60R21/16 B60R21/203 B60R21/26 B60R21/264 B60R21/33 C06C9/00 C06D5/00 C06D5/06 (Advanced/Invention);
B60R21/20 B60R21/203 B60R21/26 (Advanced/Non-invention);
B01J7/00 B21F45/00 B60R21/16 B60R21/26 C06C9/00 C06D5/00 (Core/Invention);
B60R21/16 B60R21/26 (Core/Non-invention)
International (IPC 1-7): B01D46/24 B01J7/00 B21F45/00 B60R21/16 B60R21/26 B60R21/28 B60R21/32 C06C9/00 C06D5/00 C06D5/06 C06D5/06
CPC: B01D46/2411 B01D46/4263 B01D2275/105 B01D2279/10 B60R21/2035 B60R21/2644 B60R21/33 C06D5/06
European: B01D46/24F4 B01D46/42T B60R21/264C B60R21/26D2 B60R21/32 B60R21/33 C06D5/06 L01D275/10W L01D279/10 L60R21/203H L60R21/33
US: 280/736 280/736P 280/736S 280/741 280/741P 280/741S 280/742 280/742S 55/525 55/526

Family:

Publication number	Publication date	Application number	Application date
CN100357137 C	20071226	CN200510126847	19970408
CN1101321 C	20030212	CN19971009635	19970408
CN1163206 A	19971029	CN19971009635	19970408
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EP1074433 A3	20010328	EP20000123121	19970403
EP1074433 B1	20040211	EP20000123121	19970403
EP1074436 A2	20010207	EP20000123119	19970403
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TW366310 B	19990811	TW19980106973	19970402

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Priority:

JP19960085389 19960408	JP19960085390 19960408	JP19960202461 19960731
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Probable Assignee: DAICEL GROUP

Assignee(s): (std): DAICEL CHEM ; DAICAL CHEMICAL IND LTD ; DAICEL CORP ; UEDA MASAYUKI ; KATSUDA N

Assignee(s): KATSUDA N ET AL ; DAISERU KAGAKU KOGYO KK ; KATSUDA NOBUYUKI ; ODA SHINGO ; DACIEL CHEMICAL IND LTD ; DAICEL GROUP ; DAICAL CHEMICAL INDUSTRIES LTD ; DAICEL CHEMICAL IND ; DAICEL CHEMICAL INDUSTRIES LTD ; DAICEL CHEM IND LTD ; DAISEL CHEMICAL INDUSTRIES LTD ; DAICEL CHEMICAL INDUSTRIES LTDJP ; DAICEL CHEMICAL IND LTD

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Inventor(s): UEDA C O DAICEL CHEMIC INDUSTRIES ; KATSUTA NOBUYUKI ODA SHINGO UEDA MASAYUKI ; UEDA C O DAICEL CHEMIC INDUSTRIES LTD ; NOBUY UKI KATSUTA ; UEDA MASAYUKI C O DAICEL CHEMIC IND LTD ; UEDA MASAYUKI C O DAICEL CHEMIC INDUSTRIES LTD ; KATSUTA SHINKO ; AGETA SEISHI ; KATSUTA SHINKO ODA SHINGO AGETA SEISHI

Designated states: DE ES FR GB IT

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CN100357137 C	20071226	LSGT	+	granted / extensions (spc, cpc, pte)	
CN100357137 C	20170408	PEXP		Calculated Patent Term Expiry	
CN1101321 C	20030212	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1101321 C	19971029	LSPB	+C06	PUBLICATION	
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CN1101321 C	20160907	LSAS	C56	CHANGE IN THE NAME OR ADDRESS OF THE PATENTEE	
CN1101321 C	20170524	LSLE	-CX01	EXPIRY OF PATENT TERM	
CN1101321 C	20170408	PEXP		Calculated Patent Term Expiry	
CN1163206 A	19971029	LSPB	+	published / reissued	
CN1238212 C	20060125	LSGT	+	granted / extensions (spc, cpc, pte)	
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CN1440896 A	20030910	LSPB	+	published / reissued	
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				OR ADDRESS OF THE PATENTEE	
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DE69729758 T2	20170403	PEXP		Calculated Patent Term Expiry	
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EP0800964 A3	19980708	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19980508
EP0800964 A3	19991013	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 19990831
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EP0800964 B1	20110331	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 : 20100403
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EP1020333 A1	20010404	LSFE	+AKX	DESIGNATION FEES PAID	TEXT : DE ES FR GB IT
EP1020333 A1	20020619	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20020503
EP1020333 A1	20031015	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20030408
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JP2989788 B2	20071012	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 9
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JP2989788 B2	20080924	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 10
JP2989788 B2	20090312	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 10
JP2989788 B2	20090513	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 10
JP2989788 B2	20091001	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 10
JP2989788 B2	20091006	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 11
JP2989788 B2	20100914	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 12
JP2989788 B2	20101207	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 12
JP2989788 B2	20171008	PEXP		Calculated Patent Term Expiry	
JP3218200 B2	20011015	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3218200 B2	20010712	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP3218200 B2	20010731	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP3218200 B2	20010803	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP3218200 B2	20040819	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3218200 B2	20040824	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3218200 B2	20050818	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3218200 B2	20050823	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3218200 B2	20060607	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP3218200 B2	20060803	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3218200 B2	20060808	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3218200 B2	20070802	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3218200 B2	20070807	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
JP3218200 B2	20071003	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
JP3218200 B2	20071012	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
JP3218200 B2	20071012	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP3218200 B2	20080724	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3218200 B2	20080729	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT	YEAR OF FEE PAYMENT : 8

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JP3218200 B2	20090806	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3218200 B2	20090901	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 9
JP3218200 B2	20100729	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3218200 B2	20100803	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 10
JP3218200 B2	20110714	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 10
JP3218200 B2	20110719	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 11
JP3218200 B2	20111006	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 11
JP3218200 B2	20111006	LSAS	S533	WRITTEN REQUEST FOR REGISTRATION OF CHANGE OF NAME	TEXT : JAPANESE INTERMEDIATE CODE: R313533
JP3218200 B2	20111017	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 11
JP3218200 B2	20111017	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP3218200 B2	20120802	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3218200 B2	20120807	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 12
JP3218200 B2	20130711	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3218200 B2	20130716	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3218200 B2	20140710	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3218200 B2	20140715	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3218200 B2	20150709	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3218200 B2	20150714	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3218200 B2	20150810	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP3218200 B2	20160707	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3218200 B2	20160712	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3218200 B2	20170408	LSLE	-EXPY	CANCELLATION BECAUSE OF COMPLETION OF TERM	
JP3218200 B2	20170408	PEXP		Calculated Patent Term Expiry	
JP3229840 B2	20011119	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3229840 B2	20010823	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP3229840 B2	20010904	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP3229840 B2	20010907	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	

JP3229840 B2	20040909	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3229840 B2	20040914	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3229840 B2	20050818	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3229840 B2	20050823	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3229840 B2	20060607	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP3229840 B2	20060824	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3229840 B2	20060829	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3229840 B2	20070802	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3229840 B2	20070807	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
JP3229840 B2	20071003	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
JP3229840 B2	20071012	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
JP3229840 B2	20071012	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP3229840 B2	20080724	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3229840 B2	20080729	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 8
JP3229840 B2	20090806	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 8
JP3229840 B2	20090901	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 9
JP3229840 B2	20100729	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3229840 B2	20100803	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 10
JP3229840 B2	20110714	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 10
JP3229840 B2	20110719	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 11
JP3229840 B2	20111006	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 11
JP3229840 B2	20111006	LSAS	S533	WRITTEN REQUEST FOR REGISTRATION OF CHANGE OF NAME	TEXT : JAPANESE INTERMEDIATE CODE: R313533
JP3229840 B2	20111017	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 11
JP3229840 B2	20111017	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP3229840 B2	20120802	LSFE	R20	特許料納付書 (Patent fee payment form)	

JP3229840 B2	20120807	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 12
JP3229840 B2	20130808	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3229840 B2	20130813	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3229840 B2	20140807	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3229840 B2	20140812	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3229840 B2	20150810	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP3229840 B2	20150813	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3229840 B2	20150818	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3229840 B2	20160804	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3229840 B2	20160809	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3229840 B2	20170731	LSLE	-EXPY	CANCELLATION BECAUSE OF COMPLETION OF TERM	
JP3229840 B2	20170731	PEXP		Calculated Patent Term Expiry	
JP3833891 B2	20061018	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3833891 B2	20060720	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP3833891 B2	20060725	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP3833891 B2	20060728	LSGT	R151	特許登録通知書 (一括) (Patent registration notice (collective))	
JP3833891 B2	20071003	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP3833891 B2	20071012	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP3833891 B2	20071012	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP3833891 B2	20090625	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3833891 B2	20090630	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 4
JP3833891 B2	20100520	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3833891 B2	20100525	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 5
JP3833891 B2	20110616	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 5
JP3833891 B2	20110621	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 6
JP3833891 B2	20111006	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 6
JP3833891 B2	20111006	LSAS	S533	WRITTEN REQUEST FOR REGISTRATION OF CHANGE OF NAME	TEXT : JAPANESE INTERMEDIATE CODE: R313533

JP3833891 B2	20111017	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 6
JP3833891 B2	20111017	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP3833891 B2	20120531	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 6
JP3833891 B2	20120605	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
JP3833891 B2	20130620	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3833891 B2	20130625	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3833891 B2	20140612	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3833891 B2	20140617	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3833891 B2	20150611	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3833891 B2	20150616	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3833891 B2	20150810	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP3833891 B2	20160609	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3833891 B2	20160614	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3833891 B2	20170608	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP3833891 B2	20170613	LSFE	R2501	年金領収書 (一括) (Pension receipt (bulk))	
JP3833891 B2	20170731	LSLE	-EXPY	CANCELLATION BECAUSE OF COMPLETION OF TERM	
JP3833891 B2	20201212	PEXP		Calculated Patent Term Expiry	
KR100523976 B1	20051221	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100523976 B1	20081010	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20081010 YEAR OF FEE PAYMENT : 4
KR100523976 B1	20091020	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR100523976 B1	20170404	PEXP		Calculated Patent Term Expiry	
KR100551959 B1	20060221	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100551959 B1	20050527	LSES	A201	REQUEST FOR EXAMINATION	
KR100551959 B1	20050810	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR100551959 B1	20051206	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR100551959 B1	20060207	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR100551959 B1	20090123	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20090123 YEAR OF FEE PAYMENT : 4
KR100551959 B1	20100208	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR100551959 B1	20250527	PEXP		Calculated Patent Term Expiry	

KR100551961 B1	20060221	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100551961 B1	20050527	LSES	A201	REQUEST FOR EXAMINATION	
KR100551961 B1	20050810	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR100551961 B1	20051206	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR100551961 B1	20060207	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR100551961 B1	20090123	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20090123 YEAR OF FEE PAYMENT : 4
KR100551961 B1	20100208	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR100551961 B1	20250527	PEXP		Calculated Patent Term Expiry	
KR100570536 B1	20060412	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100570536 B1	20050527	LSES	A201	REQUEST FOR EXAMINATION	
KR100570536 B1	20050810	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR100570536 B1	20060221	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR100570536 B1	20060406	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR100570536 B1	20090326	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20090326 YEAR OF FEE PAYMENT : 4
KR100570536 B1	20100407	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR100570536 B1	20250527	PEXP		Calculated Patent Term Expiry	
KR100570547 B1	20060412	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100570547 B1	20050527	LSES	A201	REQUEST FOR EXAMINATION	
KR100570547 B1	20050810	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR100570547 B1	20060221	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR100570547 B1	20060406	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR100570547 B1	20090326	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20090326 YEAR OF FEE PAYMENT : 4
KR100570547 B1	20100407	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR100570547 B1	20250527	PEXP		Calculated Patent Term Expiry	
KR19980032075 A	19980725	LSPB	+	published / reissued	
KR19980032075 A	20020319	LSES	A201	REQUEST FOR EXAMINATION	
KR19980032075 A	20041130	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR19980032075 A	20050810	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR19980032075 A	20051019	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
TW365587 B	19990801	LSGT	+	granted / extensions (spc, cpc, pte)	
TW365587 B	20110601	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TW365587 B	20170402	PEXP		Calculated Patent Term Expiry	
TW366310 B	19990811	LSGT	+	granted / extensions	

				(spc, cpc, pte)	
TW366310 B	20110601	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TW366310 B	20170402	PEXP		Calculated Patent Term Expiry	
TW366311 B	19990811	LSGT	+	granted / extensions (spc, cpc, pte)	
TW366311 B	20110601	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TW366311 B	20170402	PEXP		Calculated Patent Term Expiry	
TW366312 B	19990811	LSGT	+	granted / extensions (spc, cpc, pte)	
TW366312 B	20110601	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TW366312 B	20170402	PEXP		Calculated Patent Term Expiry	
TW366313 B	19990811	LSGT	+	granted / extensions (spc, cpc, pte)	
TW366313 B	20110601	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TW366313 B	20170402	PEXP		Calculated Patent Term Expiry	
TW386951 B	20000411	LSGT	+	granted / extensions (spc, cpc, pte)	
TW386951 B	20000805	LSGT	+GD4A	ISSUE OF PATENT CERTIFICATE FOR GRANTED INVENTION PATENT	
TW386951 B	20100121	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TW386951 B	20170402	PEXP		Calculated Patent Term Expiry	
TW438691 B	20010607	LSGT	+	granted / extensions (spc, cpc, pte)	
TW438691 B	20011011	LSGT	+GD4A	ISSUE OF PATENT CERTIFICATE FOR GRANTED INVENTION PATENT	
TW438691 B	20110311	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TW438691 B	20180402	PEXP		Calculated Patent Term Expiry	
US2002017778 AA	20020214	LSPB	+	published / reissued	
US2002017778 AA	20020606	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2003042718 AA	20030306	LSPB	+	published / reissued	
US2003042718 AA	20040205	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6196581 BA	20010306	LSGT	+	granted / extensions (spc, cpc, pte)	
US6196581 BA	20010215	LSGT	PAT1	Patented Case	
US6196581 BA	20010215	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6196581 BA	20040804	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6196581 BA	20080827	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6196581 BA	20120808	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6196581 BA	20181230	PEXP		Calculated Patent Term Expiry	

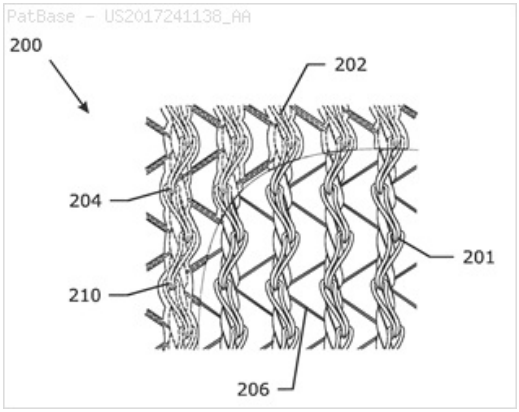
US6234521 BA	20010522	LSGT	+	granted / extensions (spc, cpc, pte)	
US6234521 BA	19971030	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : DAICEL CHEMICAL INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KATSUDA, NOBUYUKI; ODA, SHINGO; UEDA, MASAYUKI; REEL/FRAME:008775/0758 EFFECTIVE DATE : 19970926
US6234521 BA	20010503	LSGT	PAT1	Patented Case	
US6234521 BA	20010503	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6234521 BA	20041020	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6234521 BA	20081023	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6234521 BA	20120928	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6234521 BA	20170331	PEXP		Calculated Patent Term Expiry	
US6409214 BB	20020625	LSGT	+	granted / extensions (spc, cpc, pte)	
US6409214 BB	20020606	LSGT	PAT1	Patented Case	
US6409214 BB	20051202	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6409214 BB	20091125	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6409214 BB	20131127	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6409214 BB	20181231	PEXP		Calculated Patent Term Expiry	
US6695345 BB	20040224	LSGT	+	granted / extensions (spc, cpc, pte)	
US6695345 BB	20040205	LSGT	PAT1	Patented Case	
US6695345 BB	20070727	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6695345 BB	20110727	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6695345 BB	20150812	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6695345 BB	20181231	PEXP		Calculated Patent Term Expiry	

35) Family number: 62064698 (US2017241138A)

Title: A MASONRY REINFORCEMENT STRUCTURE COMPRISING PARALLEL ASSEMBLIES OF GROUPED METAL FILAMENTS AND A POLYMER COATING

Abstract: The invention relates to a masonry reinforcement structure (**100**) comprising at least two assemblies (**102**) of grouped metal filaments, at least one positioning element (**104**) for positioning the assemblies (**102**) of grouped metal filaments in a predetermined position and a polymer coating (**110**) for securing the assemblies (**102**) of grouped metal filaments in this predetermined position. The invention also relates to a method of manufacturing such masonry reinforcement structure (**100**) and to a roll comprising such a masonry reinforcement structure(**100**). The invention further relates to masonry reinforced with such masonry reinforcement structure (**100**) and to a method to apply such masonry reinforcement structure(**100**).

Classifications:
International (IPC 8-9): B21F27/00 B21F27/02 D02G3/12 D03D1/00 D03D15/00 D03D15/02 D03D19/00 D03D9/00 D04B21/14 E04B2/02 E04C5/01 E04C5/02 E04G21/18 E04G23/02 (Advanced/Invention); D03D19/00 (Core/Invention)
International (IPC 1-7): D03D15/02 D03D19/00 D04B21/14 E04B2/02 E04G21/18 E04G23/02
CPC: B21F27/005 B21F27/02 D02G3/12 D03D1/00 D03D9/00 D03D15/00 D03D15/02 D04B21/14 D10B2101/20 D10B2403/02411 D10B2505/20 E04B2/02 E04B2002/0282 E04C5/012 E04C5/017 E04C5/02 E04G21/1841 E04G23/0218
US: 1/1 139/425R



Family:

Publication number	Publication date	Application number	Application date
BR112017005616 A2	20171212	BR20171105616	20150825
CL2017000803 A1	20171006	CL20170000803	20170403
CN106795720 A	20170531	CN201580053925	20150825
CN106795720 B	20191018	CN201580053925	20150825
DE602015018735 D1	20181129	DE201560018735T	20150825
DK3201381 T3	20190218	DK20150753697T	20150825
EA032901 B1	20190731	EA20170090728	20150825
EA201790728 A1	20170831	EA20170090728	20150825
EP3201381 A1	20170809	EP20150753697	20150825
EP3201381 B1	20181024	EP20150753697	20150825
ES2712406 T3	20190513	ES20150753697T	20150825
IN201717007567 A	20170707	IN201717007567	20170303
MX2017004013 A1	20170612	MX20170004013	20150825
PL3201381 T3	20190430	PL20150753697T	20150825
PL3201381 T4	20190430	PL20150753697T	20150825
PT3201381 T	20190201	PT20150753697T	20150825
TR201901084 T4	20190221	TR20190001084T	20150825
US2017241138 AA	20170824	US20150514063	20150825
US10544588 BB	20200128	US20150514063	20150825
WO16050421 A1	20160407	WO2015EP69389	20150825

Priority:
EP20140187600 20141003 EP20150753697 20150825 WO2015EP69389 20150825

Probable Assignee: BEKAERT NV SA

Assignee(s): (std): BEKAERT NV SA

Inventor(s): (std): VAN DE VELDE NADINE ; CORNELUS HENK ; VERVAECKE FREDERIK ; SIX DAVID ; HENK CORNELUS ; FREDERIK VERVAECKE ; NADINE VAN DE VELDE ; DAVID SIX

Agent(s): SARGENT AND KRAHN; MESSELY MARC; ISERN JORGE; TOLGA CAYLAK; WENDEROTH LIND AND PONACK 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 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
CL2017000803 A1	20171006	LSPB	+	published / reissued	
CN106795720 A	20170531	LSPB	+	published / reissued	
CN106795720 A	20170531	LSPB	PB01	PUBLICATION	
CN106795720 B	20191018	LSGT	+	granted / extensions (spc, cpc, pte)	

CN106795720 B	20191018	LSGT	+GR01	PATENT GRANT	
CN106795720 B	20350825	PEXP		Calculated Patent Term Expiry	
DK3201381 T3	20190218	LSGT	+	granted / extensions (spc, cpc, pte)	
DK3201381 T3	20350825	PEXP		Calculated Patent Term Expiry	
EA032901 B1	20190731	LSGT	+	granted / extensions (spc, cpc, pte)	
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EA201790728 A1	20170831	LSPB	+	published / reissued	
EP3201381 A1	20170809	LSPB	+	published / reissued	
EP3201381 A1	20170809	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20170223
EP3201381 A1	20180704	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20180606
EP3201381 B1	20181024	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP3201381 B1	20181114	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
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EP3201381 B1	20190513	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2712406 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20190513
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EP3201381 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190924 YEAR OF FEE PAYMENT : 5
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EP3201381 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190821 YEAR OF FEE PAYMENT : 5
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IN201717007567 A	20170707	LSPB	+	published / reissued	
MX2017004013 A1	20170612	LSPB	+	published / reissued	
PL3201381 T3	20190430	LSGT	+	granted / extensions (spc, cpc, pte)	
PL3201381 T4	20190430	LSGT	+	granted / extensions (spc, cpc, pte)	
PT3201381 T	20190201	LSGT	+	granted / extensions (spc, cpc, pte)	
PT3201381 T	20350825	PEXP		Calculated Patent Term Expiry	
TR201901084 T4	20190221	LSGT	+	granted / extensions (spc, cpc, pte)	
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US2017241138 AA	20170324	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NV BEKAERT SA,

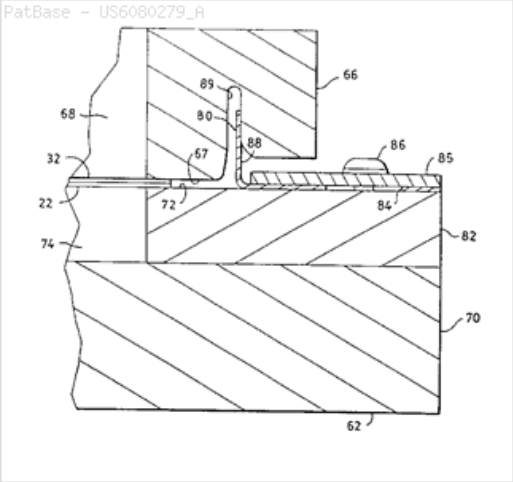
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US2017241138 AA	20190530	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2017241138 AA	20190603	LSES	NFA1	Non Final Action Mailed	
US2017241138 AA	20191114	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017241138 AA	20191210	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2017241138 AA	20200108	LSGT	PAT1	Patented Case	
US2017241138 AA	20200108	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
WO16050421 A1	20160407	LSPB	+	published / reissued	
WO16050421 A1	20170223	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2015753697 COUNTRY OF REF DOCUMENT : EP
WO16050421 A1	20170324	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 15514063 COUNTRY OF REF DOCUMENT : US
WO16050421 A1	20170327	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2017/004013 COUNTRY OF REF DOCUMENT : MX
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36) Family number: 12533794 (US6080279A)

Title: Air press for dewatering a wet web

Abstract: An air press for noncompressively dewatering a wet web to consistency levels not previously thought possible at industrially useful speeds without thermal dewatering. Side seal members are positioned beyond the lateral edges of the wet web and support fabrics. These seals flex into sealing contact with the opposite sealing contact surfaces upon exposure to the presurized fluid of the air press.

Classifications:
International (IPC 8-9): D03D23/00 D21C9/18 D21F1/48 D21F1/52 D21F1/76 D21F11/00 D21F11/10 D21F11/14 D21F3/10 D21F5/02 D21F5/14 D21F5/18 D21H27/00 F26B13/00 (Advanced/Invention); D21F11/00 D21F11/14 D21F5/14 D21F5/18 D21H27/00 (Advanced/Non-invention); D21C9/00 D21F1/48 D21F11/00 D21F5/00 (Core/Invention)
International (IPC 1-7): B21F11/00 B31D D03D23/00 D21C9/18 D21F1/48 D21F1/76 D21F11/00 D21F11/10 D21F11/14 D21F3/10 D21F5/14 D21F5/18 D21H27/00
CPC: D21F1/48 D21F1/52 D21F11/006 D21F11/14 D21F11/145
European: D21F1/48 D21F1/52 D21F11/00E D21F11/14 D21F11/14B
US: 162/115 162/203 162/205 162/207 162/208 162/290 162/297 162/301 162/308 162/310 162/353 162/359.1 34/452 34/634



Family:

Publication number	Publication date	Application number	Application date
AR007080 AA	19991013	AR1997P101957	19970905
AR012662 AB	20001108	AR1998P102093	19980505
AR013993 AA	20010131	AR1998P105443	19981029
AR017531 AA	20010912	AR1998P105440	19981029
AR017541 AA	20010912	AR1998P105487	19981031
AR020826 AA	20020529	AR1999P105222	19991014
AR020827 AB	20020529	AR1999P105223	19991014
AU199729919 A1	19971205	AU19970029919	19970425
AU199912901 A1	19990524	AU19990012901	19981030
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AU737366 B2	20010816	AU19990012924	19981030
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CA2252695 AA	19981022	CA19972252695	19970425
CA2306962 AA	20000412	CA19982306962	19981030
CA2307675 AA	20000427	CA19982307675	19981030
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Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; BORDEN LADNER GERVAIS LLP; RAMIRO CASTRO DUQUE

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Legal status (INPADOC)

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EP1027495 A1	20020724	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20020611
EP1027495 A1	20031029	LSRE	RTI1	TITLE (CORRECTION)	TEXT : METHOD FOR MAKING TISSUE SHEETS ON A MODIFIED CONVENTIONAL WET-PRESSED MACHINE
EP1027495 B1	20040407	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1027495 B1	20040407	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

				INFORMATION FROM NATIONAL OFFICE TO EPO]	PRESCRIBED TIME-LIMIT LAPSED DATE : 20040407
EP1027495 B1	20040407	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 : 20040407
EP1027495 B1	20040407	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1027495 B1	20040707	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 : 20040707
EP1027495 B1	20041001	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
EP1027495 B1	20041016	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2216326 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1027495 B1	20050330	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20050110
EP1027495 B1	20061024	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20061024 YEAR OF FEE PAYMENT : 9
EP1027495 B1	20090116	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20071031
EP1027495 B1	20090430	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 : 20071031
EP1027495 B1	20100129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20091028 YEAR OF FEE PAYMENT : 12
EP1027495 B1	20100430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20091029 YEAR OF FEE PAYMENT : 12
EP1027495 B1	20100430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20091026 YEAR OF FEE PAYMENT : 12

EP1027495 B1	20100430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20091027 YEAR OF FEE PAYMENT : 12
EP1027495 B1	20110629	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20101030
EP1027495 B1	20110729	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 : 20101102
EP1027495 B1	20110729	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20110630
EP1027495 B1	20110831	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 : 20101030
EP1027495 B1	20110908	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 69823052 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20110502
EP1027495 B1	20111230	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 : 20101030
EP1027495 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 : 20110502
EP1027495 B1	20181030	PEXP		Calculated Patent Term Expiry	
EP1027496 A1	20000816	LSPB	+	published / reissued	
EP1027496 A1	20000816	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20000519
EP1027496 A1	20020731	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20020613
EP1027496 A1	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 : 18
EP1027496 B1	20040225	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1027496 B1	20040225	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION	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

				FROM NATIONAL OFFICE TO EPO]	LAPSED DATE : 20040225
EP1027496 B1	20040225	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 : 20040225
EP1027496 B1	20040225	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1027496 B1	20040525	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 : 20040525
EP1027496 B1	20040802	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
EP1027496 B1	20041101	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2217600 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1027496 B1	20050216	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20041126
EP1027496 B1	20061024	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20061024 YEAR OF FEE PAYMENT : 9
EP1027496 B1	20090116	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20071031
EP1027496 B1	20090430	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 : 20071031
EP1027496 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 : 18
EP1027496 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
EP1027496 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20161027 YEAR OF FEE PAYMENT : 19
EP1027496 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161025 YEAR OF FEE PAYMENT : 19

				EPO]	
EP1027496 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161027 YEAR OF FEE PAYMENT : 19
EP1027496 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20161024 YEAR OF FEE PAYMENT : 19
EP1027496 B1	20171025	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 20
EP1027496 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 : 20
EP1027496 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171027 YEAR OF FEE PAYMENT : 20
EP1027496 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20171024 YEAR OF FEE PAYMENT : 20
EP1027496 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20171027 YEAR OF FEE PAYMENT : 20
EP1027496 B1	20181030	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69821967 COUNTRY OF REF DOCUMENT : DE
EP1027496 B1	20181121	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20181029
EP1027496 B1	20190228	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 : 20181029
EP1027496 B1	20181029	PEXP		Calculated Patent Term Expiry	
EP1027496 B1	20181030	PEXP		Calculated Patent Term Expiry	
EP1027497 A1	20000816	LSPB	+	published / reissued	
EP1027497 A1	20000816	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20000522
EP1027497 A1	20020724	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20020611

EP1027497 B1	20031203	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1027497 B1	20031203	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 : 20031203
EP1027497 B1	20031203	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 : 20031203
EP1027497 B1	20031203	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1027497 B1	20040303	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 : 20040303
EP1027497 B1	20040503	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
EP1027497 B1	20040701	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2210841 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1027497 B1	20041124	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20040906
EP1027497 B1	20061024	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20061024 YEAR OF FEE PAYMENT : 9
EP1027497 B1	20090116	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20071031
EP1027497 B1	20090430	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 : 20071031
EP1027497 B1	20100129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20091028 YEAR OF FEE PAYMENT : 12
EP1027497 B1	20100430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20091029 YEAR OF FEE PAYMENT : 12

EP1027497 B1	20100430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20091026 YEAR OF FEE PAYMENT : 12
EP1027497 B1	20100430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20091027 YEAR OF FEE PAYMENT : 12
EP1027497 B1	20110629	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20101030
EP1027497 B1	20110729	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 : 20101102
EP1027497 B1	20110729	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20110630
EP1027497 B1	20110831	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 : 20101030
EP1027497 B1	20110901	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 69820290 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20110502
EP1027497 B1	20111230	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 : 20101030
EP1027497 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 : 20110502
EP1027497 B1	20181030	PEXP		Calculated Patent Term Expiry	
EP1295986 A1	20030326	LSPB	+	published / reissued	
EP1295986 A1	20030514	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20030319
EP1295986 A1	20031022	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC.
EP1295986 A1	20031029	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20030915
EP1295986 A1	20031217	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : BE COUNTRY OF REF DOCUMENT : DE COUNTRY OF REF DOCUMENT : ES COUNTRY OF REF DOCUMENT : FR COUNTRY OF REF DOCUMENT : GB COUNTRY OF REF DOCUMENT : IT

					COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : SE
EP1295986 B1	20040804	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1295986 B1	20040804	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 : 20040804
EP1295986 B1	20040804	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 : 20040804
EP1295986 B1	20040804	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1295986 B1	20041104	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 : 20041104
EP1295986 B1	20041216	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2220868 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1295986 B1	20050103	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
EP1295986 B1	20050727	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20050506
EP1295986 B1	20061024	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20061024 YEAR OF FEE PAYMENT : 9
EP1295986 B1	20090116	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20071031
EP1295986 B1	20090430	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 : 20071031
EP1295986 B1	20100129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20091028 YEAR OF FEE PAYMENT : 12
EP1295986 B1	20100430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20091029 YEAR OF FEE PAYMENT : 12

				NATIONAL OFFICE TO EPO]	
EP1295986 B1	20100430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20091026 YEAR OF FEE PAYMENT : 12
EP1295986 B1	20100430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20091027 YEAR OF FEE PAYMENT : 12
EP1295986 B1	20110629	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20101030
EP1295986 B1	20110729	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 : 20101102
EP1295986 B1	20110729	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20110630
EP1295986 B1	20110831	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 : 20101030
EP1295986 B1	20110901	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 69825499 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20110502
EP1295986 B1	20111230	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 : 20101030
EP1295986 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 : 20110502
EP1295986 B1	20181030	PEXP		Calculated Patent Term Expiry	
ES2210841 T3	20040701	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2210841 T3	20181030	PEXP		Calculated Patent Term Expiry	
ES2216326 T3	20041016	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2216326 T3	20181030	PEXP		Calculated Patent Term Expiry	
ES2217600 T3	20041101	LSGT	+	granted / extensions (spc, cpc, pte)	

ES2217600 T3	20181030	PEXP		Calculated Patent Term Expiry
ES2220868 T3	20041216	LSGT	+	granted / extensions (spc, cpc, pte)
ES2220868 T3	20181030	PEXP		Calculated Patent Term Expiry
ID25451 A	20001005	LSPB	+	published / reissued
ID28749 A	20010628	LSPB	+	published / reissued
IN02445MA1998 A	20090206	LSPB	+	published / reissued
KR100481105 B1	20050516	LSGT	+	granted / extensions (spc, cpc, pte)
KR100481105 B1	20011218	LSES	A201	REQUEST FOR EXAMINATION
KR100481105 B1	20040528	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR100481105 B1	20050131	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR100481105 B1	20050325	LSGT	+GRNT	WRITTEN DECISION TO GRANT
KR100481105 B1	20080326	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE
KR100481105 B1	20181113	PEXP		Calculated Patent Term Expiry
KR100530292 B1	20051122	LSGT	+	granted / extensions (spc, cpc, pte)
KR100530292 B1	20031030	LSES	A201	REQUEST FOR EXAMINATION
KR100530292 B1	20050629	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR100530292 B1	20050929	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR100530292 B1	20051115	LSGT	+GRNT	WRITTEN DECISION TO GRANT
KR100530292 B1	20081116	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE
KR100530292 B1	20200429	PEXP		Calculated Patent Term Expiry
KR20000011024 A	20000225	LSPB	+	published / reissued
KR20010031624 A	20010416	LSPB	+	published / reissued
KR20010031626 A	20010416	LSPB	+	published / reissued
KR20010031626 A	20031031	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION
KR20010031627 A	20010416	LSPB	+	published / reissued
KR20010031627 A	20031031	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION
SV1997000039 A	19980420	LSPB	+	published / reissued
TH29469 A	19980730	LSPB	+	published / reissued
TH37893 A	20000327	LSPB	+	published /

				reissued	
TH38010 A	20000404	LSPB	+	published / reissued	
TH39881 A	20000825	LSPB	+	published / reissued	
TW403802 B	20000901	LSGT	+	granted / extensions (spc, cpc, pte)	
TW403802 B	20010215	LSGT	+GD4A	ISSUE OF PATENT CERTIFICATE FOR GRANTED INVENTION PATENT	
TW403802 B	20060711	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TW403802 B	20170602	PEXP		Calculated Patent Term Expiry	
TW436555 B	20010528	LSGT	+	granted / extensions (spc, cpc, pte)	
TW436555 B	20011102	LSGT	+GD4A	ISSUE OF PATENT CERTIFICATE FOR GRANTED INVENTION PATENT	
TW436555 B	20060501	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TW436555 B	20181028	PEXP		Calculated Patent Term Expiry	
TW438929 B	20010607	LSGT	+	granted / extensions (spc, cpc, pte)	
TW438929 B	20011107	LSGT	+GD4A	ISSUE OF PATENT CERTIFICATE FOR GRANTED INVENTION PATENT	
TW438929 B	20040801	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TW438929 B	20181028	PEXP		Calculated Patent Term Expiry	
TW527482 B	20030411	LSGT	+	granted / extensions (spc, cpc, pte)	
TW527482 B	20030827	LSGT	+GD4A	ISSUE OF PATENT CERTIFICATE FOR GRANTED INVENTION PATENT	
TW527482 B	20060411	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TW527482 B	20181023	PEXP		Calculated Patent Term Expiry	
US6080279 A	20000627	LSGT	+	granted / extensions (spc, cpc, pte)	
US6080279 A	20000609	LSGT	PAT1	Patented Case	
US6080279 A	20000609	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6080279 A	20030926	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6080279 A	20070914	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6080279 A	20110923	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12

US6080279 A	20150203	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0742 EFFECTIVE DATE : 20150101
US6080279 A	20190423	PEXP		Calculated Patent Term Expiry	
US6083346 A	20000704	LSGT	+	granted / extensions (spc, cpc, pte)	
US6083346 A	19980202	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HERMANS, MICHAEL ALAN; LIANG-CHEN, SHAN; CHEN, FUNG-JOU; AND OTHERS; REEL/FRAME:008953/0698; SIGNING DATES FROM 19971107 TO 19971120
US6083346 A	20000615	LSGT	PAT1	Patented Case	
US6083346 A	20000615	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6083346 A	20031223	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6083346 A	20071219	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6083346 A	20110923	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6083346 A	20150203	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0742 EFFECTIVE DATE : 20150101
US6083346 A	20171031	PEXP		Calculated Patent Term Expiry	
US6093284 A	20000725	LSGT	+	granted / extensions (spc, cpc, pte)	
US6093284 A	20000714	LSGT	PAT1	Patented Case	
US6093284 A	20000714	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6093284 A	20031223	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6093284 A	20080104	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6093284 A	20110923	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6093284 A	20150203	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0742 EFFECTIVE DATE : 20150101
US6093284 A	20190423	PEXP		Calculated Patent Term Expiry	
US6096169 A	20000801	LSGT	+	granted / extensions (spc, cpc, pte)	
US6096169 A	19980202	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HERMANS, MICHAEL ALAN; BEHNKE, SHERRY LYNN; GUSKY, ROBERT IRVING; AND OTHERS; REEL/FRAME:008953/0702; SIGNING DATES FROM 19971110 TO

					19971112
US6096169 A	20000713	LSGT	PAT1	Patented Case	
US6096169 A	20000713	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6096169 A	20031223	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6096169 A	20080107	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6096169 A	20110923	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6096169 A	20150203	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0742 EFFECTIVE DATE : 20150101
US6096169 A	20171031	PEXP		Calculated Patent Term Expiry	
US6143135 A	20001107	LSGT	+	granted / extensions (spc, cpc, pte)	
US6143135 A	19980904	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HADA, FRANK S.; HERMANS, MICHAEL A.; TOMSOVIC, CHARLES R.; AND OTHERS; REEL/FRAME:009464/0499; SIGNING DATES FROM 19980714 TO 19980818
US6143135 A	19991220	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : RE-RECORD TO ADD OMITTED RECEIVING PARTY, PREVIOUSLY RECORDED AT REEL 009464, FRAME 0499.; ASSIGNORS:HADA, FRANK S.; HERMANS, MICHAEL A.; TOMSOVIC, CHARLES R.; AND OTHERS; REEL/FRAME:010463/0670; SIGNING DATES FROM 19980714 TO 19980818
US6143135 A	19991220	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BELOIT TECHNOLOGIES, DELAWARE OLDPARTY : RE-RECORD TO ADD OMITTED RECEIVING PARTY, PREVIOUSLY RECORDED AT REEL 009464, FRAME 0499.; ASSIGNORS:HADA, FRANK S.; HERMANS, MICHAEL A.; TOMSOVIC, CHARLES R.; AND OTHERS; REEL/FRAME:010463/0670; SIGNING DATES FROM 19980714 TO 19980818
US6143135 A	20001020	LSGT	PAT1	Patented Case	
US6143135 A	20001020	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6143135 A	20010515	LSRE	CC	CERTIFICATE OF CORRECTION	
US6143135 A	20010521	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : METSO PAPER, INC., FINLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BELOIT TECHNOLOGIES, INC.; REEL/FRAME:011812/0666 EFFECTIVE DATE : 20010516
US6143135 A	20010521	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BELOIT TECHNOLOGIES, INC.; REEL/FRAME:011812/0666 EFFECTIVE DATE : 20010516

US6143135 A	20040329	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6143135 A	20080505	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6143135 A	20091008	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : METSO PAPER, INC., FINLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MITSUBISHI HEAVY INDUSTRIES, LTD.; REEL/FRAME:023348/0221 EFFECTIVE DATE : 20080623
US6143135 A	20120503	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6143135 A	20140327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VALMET TECHNOLOGIES, INC., FINLAND OLDPARTY : CHANGE OF NAME; ASSIGNOR:METSO PAPER, INC.; REEL/FRAME:032551/0426 EFFECTIVE DATE : 20131212
US6143135 A	20150203	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0742 EFFECTIVE DATE : 20150101
US6143135 A	20180617	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US6228220 BA	20010508	LSGT	+	granted / extensions (spc, cpc, pte)	
US6228220 BA	20010420	LSGT	PAT1	Patented Case	
US6228220 BA	20010420	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6228220 BA	20040929	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6228220 BA	20081110	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6228220 BA	20121108	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6228220 BA	20150203	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0742 EFFECTIVE DATE : 20150101
US6228220 BA	20200424	PEXP		Calculated Patent Term Expiry	
US6306257 BA	20011023	LSGT	+	granted / extensions (spc, cpc, pte)	
US6306257 BA	20010108	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HADA, FRANK STEPHEN; HERMANS, MICHAEL ALAN; TOMSOVIC, CHARLES ROBERT; AND OTHERS; REEL/FRAME:011422/0412; SIGNING DATES FROM 20001007 TO 20010103
US6306257 BA	20010108	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BELOIT TECHNOLOGIES, INC., DELAWARE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HADA, FRANK STEPHEN; HERMANS, MICHAEL ALAN; TOMSOVIC, CHARLES ROBERT; AND OTHERS; REEL/FRAME:011422/0412; SIGNING DATES FROM 20001007 TO 20010103

US6306257 BA	20010521	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : METSO PAPER, INC., FINLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BELOIT TECHNOLOGIES, INC.; REEL/FRAME:011812/0666 EFFECTIVE DATE : 20010516
US6306257 BA	20010521	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MITSUBISHI HEAVY INDUSTRIES, LTD., JAPAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BELOIT TECHNOLOGIES, INC.; REEL/FRAME:011812/0666 EFFECTIVE DATE : 20010516
US6306257 BA	20011004	LSGT	PAT1	Patented Case	
US6306257 BA	20011004	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6306257 BA	20021112	LSRE	CC	CERTIFICATE OF CORRECTION	
US6306257 BA	20050329	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6306257 BA	20090423	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6306257 BA	20130314	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6306257 BA	20140327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VALMET TECHNOLOGIES, INC., FINLAND OLDPARTY : CHANGE OF NAME; ASSIGNOR:METSO PAPER, INC.; REEL/FRAME:032551/0426 EFFECTIVE DATE : 20131212
US6306257 BA	20150203	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0742 EFFECTIVE DATE : 20150101
US6306257 BA	20190423	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
WO9743484 A1	19971120	LSPB	+	published / reissued	
WO9743484 A1	19970425	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 97196120.4 COUNTRY OF REF DOCUMENT : CN
WO9743484 A1	19981022	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2252695 COUNTRY OF REF DOCUMENT : CA
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WO9743484 A1	19981027	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1997924516 COUNTRY OF REF DOCUMENT : EP
WO9743484 A1	19981028	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/1998/008930 COUNTRY OF REF DOCUMENT : MX
WO9743484 A1	19981113	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1019980709174 COUNTRY OF REF DOCUMENT : KR
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WO9743484 A1	20000225	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019980709174 COUNTRY OF REF DOCUMENT : KR
WO9743484 A1	20050131	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1019980709174 COUNTRY OF REF DOCUMENT : KR
WO9743484 A1	20051228	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1997924516 COUNTRY OF REF DOCUMENT : EP
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WO9923300 A1	19981030	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 98812354.1 COUNTRY OF REF DOCUMENT : CN
WO9923300 A1	20000412	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2306962 COUNTRY OF REF DOCUMENT : CA
WO9923300 A1	20000412	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2306962 COUNTRY OF REF DOCUMENT : CA KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO9923300 A1	20000414	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12901/99 COUNTRY OF REF DOCUMENT : AU
WO9923300 A1	20000419	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2000/003905 COUNTRY OF REF DOCUMENT : MX
WO9923300 A1	20000429	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020007004676 COUNTRY OF REF DOCUMENT : KR
WO9923300 A1	20000501	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2000 519146 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
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WO9923300 A1	20040407	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998956362 COUNTRY OF REF DOCUMENT : EP
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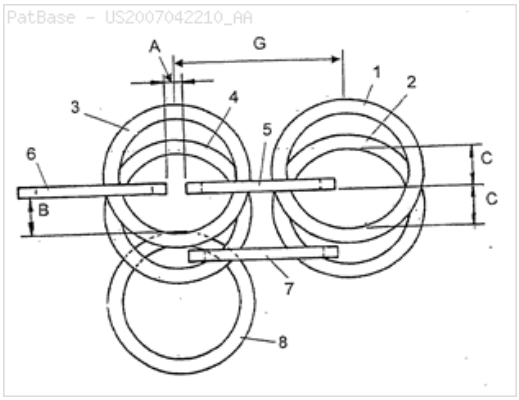
WO9923301 A1	19990514	LSPB	+	OFFICE published / reissued	
WO9923301 A1	19981030	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 98812388.6 COUNTRY OF REF DOCUMENT : CN
WO9923301 A1	20000428	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2000/004191 COUNTRY OF REF DOCUMENT : MX
WO9923301 A1	20000429	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020007004679 COUNTRY OF REF DOCUMENT : KR
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WO9923301 A1	20031031	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1020007004679 COUNTRY OF REF DOCUMENT : KR
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WO9923302 A1	20000420	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12924/99 COUNTRY OF REF DOCUMENT : AU
WO9923302 A1	20000425	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2000/004004 COUNTRY OF REF DOCUMENT : MX
WO9923302 A1	20000427	LSNP	ENP	ENTRY INTO THE NATIONAL	REF DOCUMENT NUMBER : 2307675 COUNTRY OF REF DOCUMENT : CA

WO9923302 A1	20000427	LSNP	ENP	PHASE IN: ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2307675 COUNTRY OF REF DOCUMENT : CA KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO9923302 A1	20000429	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020007004678 COUNTRY OF REF DOCUMENT : KR
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WO9923302 A1	20000519	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1998956389 COUNTRY OF REF DOCUMENT : EP
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WO9923302 A1	20000831	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO9923302 A1	20010416	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1020007004678 COUNTRY OF REF DOCUMENT : KR
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WO9923302 A1	20040225	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998956389 COUNTRY OF REF DOCUMENT : EP
ZA9704113 A	19971209	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA9704113 A	20170512	PEXP		Calculated Patent Term Expiry	
ZA9809273 A	19990416	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA9809273 A	20181011	PEXP		Calculated Patent Term Expiry	
ZA9809730 A	19990517	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA9809730 A	20181025	PEXP		Calculated Patent Term Expiry	
ZA9809733 A	19990504	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA9809733 A	20181025	PEXP		Calculated Patent Term Expiry	

37) Family number: 30970844 (US2007042210A)

Title: **MESH** AND METHODS AND APPARATUS FOR FORMING AND USING **MESH**

Abstract: A method of forming a **mesh** by a moulding a link element around other link elements to form a **mesh** in which the interlinking link elements are formed as continuous unjoined loops by a moulding process. An apparatus for forming a **mesh** including a plurality of first cavities for accommodating first link elements and a plurality of second cavities for forming interlinking link elements. The method and apparatus allow the continuous production of **mesh** formed of a range of materials including plastics materials.



Classifications:
International (IPC 8-9): A41D31/00 B21B1/46 B21F31/00 B21L B21L19/00 B21L5/00 B21L5/02 B22D B22D19/00 B22D19/04 B22D25/00 B22D25/02 B22D7/00 B27N3/08 B28B3/00 B28B3/06 B29C45/00 B29C45/14 B32B3/10 D03D19/00 (Advanced/Invention); B21L5/00 B21L5/02 B22D19/04 B22D25/02 B29C45/14 (Advanced/Non-invention); A41D31/00 B21F31/00 B21L19/00 B21L5/00 B22D19/00 B22D19/04 B22D25/00 B22D7/00 B27N3/08 B29C45/00 (Core/Invention); B29C45/14 (Core/Non-invention); B21L B22D (Subclass/Invention)
International (IPC 1-7): A41D19/00 A41D19/015 B21F31/00 B21L11/00 B21L19/00 B21L5/00 B21L5/02 B22D19/00 B22D19/04 B22D25/00 B22D25/02 B29C45/14 B63C11/04 F41H1/02
CPC: A41D31/24 Y10T442/184 Y10T442/188 Y10T442/191 Y10T442/195 B21L5/02 B22D19/04 B22D25/02 B29C45/0003 B29C45/14065 B29C45/14467 B29C45/14754 B29C45/2616 B29K2105/206 Y10T29/4998 B21F31/00 B22D25/023 Y10T428/12 Y10T428/17 Y10T428/24273 Y10T428/2481
European: A41D31/00C10 B21F31/00 B22D25/02C B29C45/00C B29C45/14C B29C45/14G B29C45/14P B29C45/26E L29K105/20C
US: 249/57 249/59 264/239 264/239P 264/242 264/297.1 264/297.2 264/297.8 264/297.9 29/527.1 425/112 425/121 425/126.1 425/441 425/520 425/520S 425/572 425/588 428/131 428/131P 428/196 428/196S 428/53 428/544 428/544P 442/50 442/50S 442/52 442/52S 442/54 442/54S 442/56 442/56S 712/15 712/15S

Family:

Publication number	Publication date	Application number	Application date
AU2004320108 AA	20051208	AU20040320108	20040527
AU2004320108 BB	20110324	AU20040320108	20040527
CA2564495 AA	20061023	CA20042564495	20040527
CA2564495 C	20130702	CA20042564495	20040527
CN100488663 C	20090520	CN200480043123	20040527
CN1956811 A	20070502	CN200480043123	20040527
DE602004039861 D1	20121227	DE200460039861T	20040527
EP1750870 A1	20070214	EP20040735145	20040527
EP1750870 A4	20090311	EP20040735145	20040527
EP1750870 B1	20121031	EP20040735145	20040527
ES2394491 T3	20130201	ES20040735145T	20040527
HK1097219 A1	20130201	HK20070102137	20070226
HK1097219 A1	20070622	HK20070102137	20070226
HK1097219 A3	20070622	HK20070102137	20070226
HK1097219 B	20130201	HK20070102137	20070226
IN06246DN2006 A	20070831	IN2006DN06246	20061025
IN264594 B	20150109	IN2006DN06246	20061025
JP2008500183 T2	20080110	JP20070514964T	20040527
JP4823220 B2	20111124	JP20070514964T	20040527
KR101127295 B1	20120329	KR20067024672	20040527
KR20070018080 A	20070213	KR20067024672	20040527
NZ523971 A	20040528	NZ20030523971	20030312
NZ550354 A	20090626	NZ20040550354	20040527
US2007042210 AA	20070222	US20060508329	20060823
US2007170615 AA	20070726	US20070723741	20070321
US2012064289 AA	20120315	US20110229000	20110909
US8020279 BB	20110920	US20070723741	20070321
US8043546 BB	20111025	US20060508329	20060823
US8944796 BB	20150203	US20110229000	20110909
WO04080687 A1	20040923	WO2004NZ00033	20040223
WO05115659 A1	20051208	WO2004NZ00104	20040527

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NZ20030523971 20030312
KR20067024672 20040527
US20060508329 20060823
WO2004NZ00033 20040223
NZ20040550354 20040527
US20070723741 20070321
EP20040735145 20040527
WO2004NZ00104 20040527
US20110229000 20110909

Probable Assignee: KAYNEMAILE TRADING LTD

Assignee(s): (std): HAMMOCK IP LTD ; HORSHAM KAYNE ; HORSHAM KAYNE BRUCE ; KAYNE BRUCE HORSHAM ; KAYNEMAILE LTD

Assignee(s): KAYNEMAILE TRADING LTD ; KAYNEMAILE LIMITED

Inventor(s): (std): HORSHAM KAYNE ; BRUCE HORSHAM KAYNE ; HORSHAM KAYNE B ; HORSHAM KAYNE BRUCE

Inventor(s): KAYNE BRUCE HORSHAM

Agent(s): ELLIS TERRY; HILL AND SCHUMACHER; RIBEIRO JAMES MICHAEL; VALLEJO JUAN PEDRO; LLOYD WISE AND CO; MARKS AND CLERK; NIXON AND VANDERHYE PC

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2004320108 AA	20051208	LSPB	+	published / reissued	
AU2004320108 BB	20110324	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2004320108 BB	20110721	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2004320108 BB	20161117	LSAS	HB	ALTERATION OF NAME IN REGISTER	PARTYTYPE : OWNER OWNER : HAMMOCK IP LIMITED OLDPARTY : FORMER NAME(S): KAYNEMAILE LIMITED
AU2004320108 BB	20240527	PEXP		Calculated Patent Term Expiry	
CA2564495 AA	20061023	LSPB	+	published / reissued	
CA2564495 AA	20090310	LSES	+EEER	EXAMINATION REQUEST	
CA2564495 C	20130702	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2564495 C	20240527	PEXP		Calculated Patent Term Expiry	
CN100488663 C	20090520	LSGT	+	granted / extensions (spc, cpc, pte)	
CN100488663 C	20090520	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN100488663 C	20171013	LSAS	CP01	CHANGE IN THE NAME OR TITLE OF A PATENT HOLDER	
CN100488663 C	20171013	LSAS	TR01	TRANSFER OF PATENT RIGHT	
CN100488663 C	20240527	PEXP		Calculated Patent Term Expiry	
CN1956811 A	20070502	LSPB	+	published / reissued	
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EP1750870 A1	20070214	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20061208
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EP1750870 A4	20090819	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20090715
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EP1750870 B1	20121212	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
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EP1750870 B1	20130201	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2394491 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20130201
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EP1750870 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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121031
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EP1750870 B1	20170223	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : HAMMOCK IP LTD., NZ REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602004039861 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: KAYNEMAILE TRADING LTD., WELLINGTON, NZ
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EP1750870 B1	20171124	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : FR OWNER : HAMMOCK IP LIMITED, NZ REF LEGAL EVENT CODE : CD EFFECTIVE DATE : 20171025
EP1750870 B1	20171124	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : FR OWNER : HAMMOCK IP LIMITED, NZ REF LEGAL EVENT CODE : TP EFFECTIVE DATE : 20171025
EP1750870 B1	20180522	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 15
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EP1750870 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 : 15
EP1750870 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20180518 YEAR OF FEE PAYMENT : 15
EP1750870 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 : 15
EP1750870 B1	20190628	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20190521 YEAR OF FEE PAYMENT : 16
EP1750870 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190620 YEAR OF FEE PAYMENT : 16
EP1750870 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190521 YEAR OF FEE PAYMENT : 16
EP1750870 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190527 YEAR OF FEE PAYMENT : 16

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EP1750870 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 : 16
EP1750870 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 : 16
EP1750870 B1	20240527	PEXP		Calculated Patent Term Expiry	
ES2394491 T3	20130201	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2394491 T3	20240527	PEXP		Calculated Patent Term Expiry	
HK1097219 A1	20070622	LSPB	+	published / reissued	
HK1097219 A1	20130201	LSPB	+	published / reissued	
HK1097219 A1	20270226	PEXP		Calculated Patent Term Expiry	
HK1097219 A1	20270226	PEXP		Calculated Patent Term Expiry	
HK1097219 A3	20070622	LSPB	+	published / reissued	
HK1097219 B	20130201	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1097219 B	20270226	PEXP		Calculated Patent Term Expiry	
IN06246DN2006 A	20070831	LSPB	+	published / reissued	
IN264594 B	20150109	LSGT	+	granted / extensions (spc, cpc, pte)	
IN264594 B	20261025	PEXP		Calculated Patent Term Expiry	
JP2008500183 T2	20100630	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20100629
JP2008500183 T2	20101225	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20101224
JP2008500183 T2	20110216	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110215
JP2008500183 T2	20110715	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110714
JP2008500183 T2	20110803	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2008500183 T2	20110810	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20110809
JP2008500183 T2	20110811	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP2008500183 T2	20110915	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20110906
JP2008500183 T2	20110916	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2008500183 T2	20110916	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 4823220 COUNTRY OF REF DOCUMENT : JP
JP2008500183 T2	20110922	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4823220 B2	20111124	LSGT	+	granted / extensions	

				(spc, cpc, pte)	
JP4823220 B2	20110913	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4823220 B2	20140911	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4823220 B2	20140916	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4823220 B2	20150910	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4823220 B2	20150915	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4823220 B2	20160908	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4823220 B2	20160913	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4823220 B2	20170609	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	TEXT : JAPANESE INTERMEDIATE CODE: R313113
JP4823220 B2	20170619	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP4823220 B2	20170907	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4823220 B2	20170919	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4823220 B2	20180906	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4823220 B2	20180919	LSLE	R280	納付書補充指令書 (Payment refilling order form)	
JP4823220 B2	20180920	LSFE	R21	特許料納付書 (補充) (Patent fee payment form (replenishment))	
JP4823220 B2	20181002	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4823220 B2	20190912	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4823220 B2	20190924	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4823220 B2	20240527	PEXP		Calculated Patent Term Expiry	
KR101127295 B1	20120329	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101127295 B1	20150226	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20150226 YEAR OF FEE PAYMENT : 4
KR101127295 B1	20160225	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20160225 YEAR OF FEE PAYMENT : 5
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KR101127295 B1	20240527	PEXP		Calculated Patent Term Expiry	
KR20070018080 A	20070213	LSPB	+	published / reissued	
KR20070018080 A	20090527	LSES	A201	REQUEST FOR EXAMINATION	
KR20070018080 A	20101108	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20070018080 A	20110720	LSRV	-E90F	NOTIFICATION OF REASON FOR FINAL REFUSAL	
KR20070018080 A	20111215	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20070018080 A	20120308	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
NZ523971 A	20040528	LSPB	+	published / reissued	

NZ523971 A	20040924	LSGT	+PSEA	PATENT SEALED	
NZ523971 A	20050324	LSAS	ASS	CHANGE OF OWNERSHIP	PARTYTYPE : OWNER OWNER : KAYNEMAILE LIMITED, NZ OLDPARTY : OLD OWNER(S): KAYNE BRUCE HORSHAM
NZ523971 A	20080229	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ523971 A	20110331	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ523971 A	20140131	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 3 YEARS UNTIL 23 FEB 2017 BY PATENT + TRADE MARK RENEWAL SERVICES LTD EFFECTIVE DATE : 20131231
NZ523971 A	20161125	LSAS	ASS	CHANGE OF OWNERSHIP	PARTYTYPE : OWNER OWNER : HAMMOCK IP LIMITED, NZ EFFECTIVE DATE : 20161110
NZ523971 A	20161223	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 23 FEB 2018 BY PATENT + TRADE MARK RENEWAL SERVICES LTD EFFECTIVE DATE : 20161209
NZ523971 A	20180126	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 23 FEB 2019 BY ELLIS TERRY EFFECTIVE DATE : 20180123
NZ523971 A	20190125	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 23 FEB 2020 BY ELLIS TERRY EFFECTIVE DATE : 20190124
NZ523971 A	20200228	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 23 FEB 2021 BY ELLIS TERRY EFFECTIVE DATE : 20200204
NZ550354 A	20090626	LSPB	+	published / reissued	
NZ550354 A	20091030	LSGT	+PSEA	PATENT SEALED	
NZ550354 A	20100226	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ550354 A	20110630	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ550354 A	20140430	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 3 YEARS UNTIL 27 MAY 2017 BY PATENT + TRADE MARK RENEWAL SERVICES LTD EFFECTIVE DATE : 20140429
NZ550354 A	20161125	LSAS	ASS	CHANGE OF OWNERSHIP	PARTYTYPE : OWNER OWNER : HAMMOCK IP LIMITED, NZ EFFECTIVE DATE : 20161110
NZ550354 A	20170428	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 27 MAY 2018 BY ELLIS TERRY EFFECTIVE DATE : 20170411
NZ550354 A	20180427	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 27 MAY 2019 BY ELLIS TERRY EFFECTIVE DATE : 20180417
NZ550354 A	20190426	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 27 MAY 2020 BY ELLIS TERRY EFFECTIVE DATE : 20190408
US2007042210 AA	20070222	LSPB	+	published / reissued	
US2007042210 AA	20111005	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2007170615 AA	20070726	LSPB	+	published / reissued	
US2007170615 AA	20110831	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE

US2012064289 AA	20120315	LSPB	+	published / reissued	
US2012064289 AA	20150114	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8020279 BB	20110920	LSGT	+	granted / extensions (spc, cpc, pte)	
US8020279 BB	20110831	LSGT	PAT1	Patented Case	
US8020279 BB	20150312	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8020279 BB	20170602	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KAYNEMAILE TRADING LIMITED, NEW ZEALAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:KAYNEMAILE LIMITED; REEL/FRAME:042571/0067 EFFECTIVE DATE : 20170330
US8020279 BB	20170606	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HAMMOCK IP LIMITED, NEW ZEALAND OLDPARTY : CHANGE OF NAME; ASSIGNOR:KAYNEMAILE TRADING LIMITED; REEL/FRAME:042698/0145 EFFECTIVE DATE : 20161020
US8020279 BB	20190311	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8020279 BB	20300618	PEXP		Calculated Patent Term Expiry (PTA 1185 days)	
US8043546 BB	20111025	LSGT	+	granted / extensions (spc, cpc, pte)	
US8043546 BB	20061101	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KAYNEMAILE LIMITED, NEW ZEALAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:HORSHAM, KAYNE BRUCE; REEL/FRAME:018487/0637 EFFECTIVE DATE : 20061019
US8043546 BB	20111005	LSGT	PAT1	Patented Case	
US8043546 BB	20150416	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8043546 BB	20170602	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KAYNEMAILE TRADING LIMITED, NEW ZEALAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:KAYNEMAILE LIMITED; REEL/FRAME:042571/0067 EFFECTIVE DATE : 20170330
US8043546 BB	20170606	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HAMMOCK IP LIMITED, NEW ZEALAND OLDPARTY : CHANGE OF NAME; ASSIGNOR:KAYNEMAILE TRADING LIMITED; REEL/FRAME:042698/0145 EFFECTIVE DATE : 20161020
US8043546 BB	20190415	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US8043546 BB	20300306	PEXP		Calculated Patent Term Expiry (PTA 1291 days)	
US8944796 BB	20150203	LSGT	+	granted / extensions (spc, cpc, pte)	
US8944796 BB	20150114	LSGT	PAT1	Patented Case	
US8944796 BB	20170602	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KAYNEMAILE TRADING LIMITED, NEW ZEALAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:KAYNEMAILE LIMITED; REEL/FRAME:042571/0067 EFFECTIVE DATE : 20170330

US8944796 BB	20170606	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HAMMOCK IP LIMITED, NEW ZEALAND OLDPARTY : CHANGE OF NAME; ASSIGNOR:KAYNEMAILE TRADING LIMITED; REEL/FRAME:042698/0145 EFFECTIVE DATE : 20161020
US8944796 BB	20180723	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8944796 BB	20310909	PEXP		Calculated Patent Term Expiry	
WO04080687 A1	20040923	LSPB	+	published / reissued	
WO04080687 A1	20060823	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 11508329 COUNTRY OF REF DOCUMENT : US
WO04080687 A1	20070222	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 11508329 COUNTRY OF REF DOCUMENT : US
WO04080687 A1	20070321	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF COUNTRY CODE : WO
WO05115659 A1	20051208	LSPB	+	published / reissued	
WO05115659 A1	20040527	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200480043123.8 COUNTRY OF REF DOCUMENT : CN
WO05115659 A1	20060823	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 11508329 COUNTRY OF REF DOCUMENT : US
WO05115659 A1	20061006	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 550354 COUNTRY OF REF DOCUMENT : NZ
WO05115659 A1	20061013	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2004320108 COUNTRY OF REF DOCUMENT : AU
WO05115659 A1	20061023	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2564495 COUNTRY OF REF DOCUMENT : CA
WO05115659 A1	20061025	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 6246/DELNP/2006 COUNTRY OF REF DOCUMENT : IN
WO05115659 A1	20061109	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2004320108 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20040527 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO05115659 A1	20061122	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007514964 COUNTRY OF REF DOCUMENT : JP
WO05115659 A1	20061124	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020067024672 COUNTRY OF REF DOCUMENT : KR
WO05115659 A1	20061128	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO05115659 A1	20061128	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	TEXT : DE
WO05115659 A1	20061206	LSNP	+WWE	WIPO	REF DOCUMENT NUMBER :

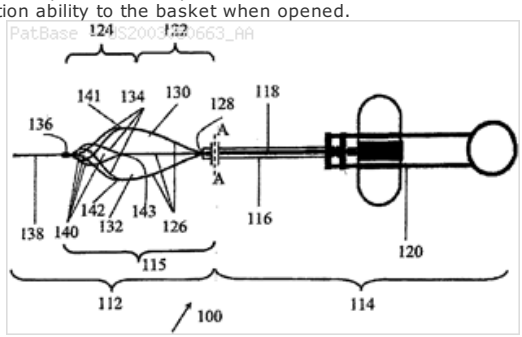
				INFORMATION: ENTRY INTO NATIONAL PHASE	2004735145 COUNTRY OF REF DOCUMENT : EP
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WO05115659 A1	20070222	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 11508329 COUNTRY OF REF DOCUMENT : US

38) Family number: 32534902 (US2003050663A)

Title: SURGICAL DEVICE FOR RETRIEVAL OF FOREIGN OBJECTS FROM A BODY

Abstract: A surgical device for removing a foreign object from a body is described. The device includes a retrieval basket for entrapping and retaining the object located in the body, a basket control assembly comprising a tubular sheath adapted to penetrate into the body for reaching the object, and a manipulator for manipulating the basket for extraction the object from the body. The basket comprises a structure having a proximal end and a distal end. The structure is formed by a plurality of filaments fabricated from a single or several **wires**. The filaments extend from the proximal end towards the distal end. At least a part of the filaments are configured in the form of loops. At least a part of the loops are interlaced so as to define a net at the distal end, and thereby impart structural rigidity and dilatation ability to the basket when opened.

Classifications:
International (IPC 8-9): A61B17/22 A61M29/00 B21F27/02 (Advanced/Invention); A61M29/00 B21F27/00 (Core/Invention)
International (IPC 1-7): A61B17/22 A61M29/00
CPC: A61B17/221 A61B2017/00526 A61B2017/2212
European: A61B17/221 K61B17/00M K61B17/221C
US: 140/17 140/5 606/127 606/127P 606/200 606/200P



Family:

Publication number	Publication date	Application number	Application date
AT372729 E	20070915	AT20010945597T	20010628
AU2001267808 AA	20030303	AU20010267808	20010628
AU2001267808 BB	20070419	AU20010267808	20010628
CA2452024 AA	20031224	CA20012452024	20010628
CA2452024 C	20100914	CA20012452024	20010628
DE60130497 D1	20071025	DE20016030497T	20010628
DE60130497 D1	20071025	DE20016030497	20010628
DE60130497 T2	20080529	DE20016030497T	20010628
EP1404237 A1	20040407	EP20010945597	20010628
EP1404237 B1	20070912	EP20010945597	20010628
ES2294002 T3	20080401	ES20010945597T	20010628
IL159572 A0	20040601	IL20010159572	20010628
IL159572 A1	20080807	IL20010159572	20010628
US2003050663 AA	20030313	US20020216672	20020812
US2006004404 AA	20060105	US20050159396	20050623
US2006264974 AA	20061123	US20060493745	20060727
US7101380 BB	20060905	US20020216672	20020812
US7101380 C1	20180808	US20020216672	20020812
US7553314 BB	20090630	US20060493745	20060727
US7640952 BB	20100105	US20050159396	20050623
WO03002006 A1	20030109	WO2001IL00591	20010628

Priority:

EP20010945597 20010628 WO2001IL00591 20010628 US20020216672 20020812
IL20030159572 20031225 US20050159396 20050623 US20060493745 20060727

Probable Assignee: NORDSON CORP

Assignee(s): (std): KHACHIN STEPAN ; KHACHIN VLADIMIR ; LITHOTECH MEDICAL LTD

Assignee(s): NORDSON CORP ; NORDSON COPORATION

Inventor(s): (std): KHACHIN VLADIMIR ; KHACHIN STEPAN ; DIAMANT VALERY

Agent(s): COLLISON AND CO; MBM INTELLECTUAL PROPERTY LAW LLP; REINHOLD COHN AND PARTNERS; BROWDY AND NEIMARK PLLC 624 NINTH STREET NW; BROWDY AND NEIMARK PLLC

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 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
AT372729 E	20070915	LSGT	+	granted / extensions (spc, cpc, pte)	
AT372729 E	20080315	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT372729 E	20210628	PEXP		Calculated Patent Term Expiry	
AU2001267808 AA	20030303	LSPB	+	published / reissued	
AU2001267808 BB	20070419	LSGT	+	granted / extensions (spc, cpc, pte)	

AU2001267808 BB	20210628	PEXP		Calculated Patent Term Expiry	
CA2452024 AA	20031224	LSPB	+	published / reissued	
CA2452024 AA	20051221	LSES	+EEER	EXAMINATION REQUEST	
CA2452024 C	20100914	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2452024 C	20210628	PEXP		Calculated Patent Term Expiry	
DE60130497 D1	20081002	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE60130497 D1	20081002	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE60130497 D1	20180403	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : NORDSON CORP., WESTLAKE, OHIO, US OLDPARTY : LITHOTECH MEDICAL LTD., KATZRIN, IL
DE60130497 D1	20180403	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	PARTYTYPE : OWNER OWNER : NORDSON CORP., WESTLAKE, OHIO, US OLDPARTY : LITHOTECH MEDICAL LTD., KATZRIN, IL
DE60130497 T2	20080529	LSGT	+	granted / extensions (spc, cpc, pte)	
DE60130497 T2	20081002	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE60130497 T2	20210628	PEXP		Calculated Patent Term Expiry	
EP1404237 A1	20040407	LSPB	+	published / reissued	
EP1404237 A1	20040407	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20040128
EP1404237 A1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160622 YEAR OF FEE PAYMENT : 16
EP1404237 A1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20160609 YEAR OF FEE PAYMENT : 16
EP1404237 A1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160622 YEAR OF FEE PAYMENT : 16
EP1404237 A1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160527 YEAR OF FEE PAYMENT : 16
EP1404237 A1	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160526 YEAR OF FEE PAYMENT : 16
EP1404237 B1	20070912	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1404237 B1	20070912	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1404237 B1	20070928	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1404237 B1	20071031	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1404237 B1	20080131	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 : 20070912
EP1404237 B1	20080229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : CH

				[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 : 20070912
EP1404237 B1	20080229	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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20070912
EP1404237 B1	20080229	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 : 20070912
EP1404237 B1	20080303	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
EP1404237 B1	20080331	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 : 20070912
EP1404237 B1	20080331	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1404237 B1	20080401	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2294002 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1404237 B1	20080430	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 : 20071213
EP1404237 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 : 20070912
EP1404237 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 : 20080212
EP1404237 B1	20080630	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 : 20071212

EP1404237 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 : 20070912
EP1404237 B1	20080820	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20080613
EP1404237 B1	20090130	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 : 20080630
EP1404237 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 : 20070912
EP1404237 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 : 20080628
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EP1404237 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 : 20080630
EP1404237 B1	20160526	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 16
EP1404237 B1	20170613	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 17
EP1404237 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20170609 YEAR OF FEE PAYMENT : 17
EP1404237 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170613 YEAR OF FEE PAYMENT : 17
EP1404237 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170628 YEAR OF FEE PAYMENT : 17
EP1404237 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170621 YEAR OF FEE PAYMENT : 17
EP1404237 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20170704 YEAR OF FEE PAYMENT : 17
EP1404237 B1	20180315	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : ES OWNER : NORDSON CORPORATION REF LEGAL EVENT CODE : PC2A EFFECTIVE DATE : 20180309
EP1404237 B1	20180403	LSAS	REG	REFERENCE TO A	PARTYTYPE : OWNER

				NATIONAL CODE	REF COUNTRY CODE : DE OWNER : NORDSON CORP., WESTLAKE, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 60130497 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: LITHOTECH MEDICAL LTD., KATZRIN, IL
EP1404237 B1	20180504	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : FR OWNER : NORDSON CORPORATION, US REF LEGAL EVENT CODE : TP EFFECTIVE DATE : 20180330
EP1404237 B1	20180620	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 18
EP1404237 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180625 YEAR OF FEE PAYMENT : 18
EP1404237 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20180621 YEAR OF FEE PAYMENT : 18
EP1404237 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180620 YEAR OF FEE PAYMENT : 18
EP1404237 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180620 YEAR OF FEE PAYMENT : 18
EP1404237 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20180723 YEAR OF FEE PAYMENT : 18
EP1404237 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20190621 YEAR OF FEE PAYMENT : 19
EP1404237 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190619 YEAR OF FEE PAYMENT : 19
EP1404237 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190619 YEAR OF FEE PAYMENT : 19
EP1404237 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20190719 YEAR OF FEE PAYMENT : 19
EP1404237 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190619 YEAR OF FEE PAYMENT : 19
EP1404237 B1	20210628	PEXP		Calculated Patent Term Expiry	
ES2294002 T3	20080401	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2294002 T3	20210628	PEXP		Calculated Patent Term Expiry	
IL159572 A0	20090615	LSGT	+FF	PATENT GRANTED	
IL159572 A0	20090615	LSFE	+KB	PATENT RENEWED	
IL159572 A1	20080807	LSPB	+	published / reissued	
IL159572 A1	20190530	LSFE	+KB	PATENT RENEWED	
US2003050663 AA	20030313	LSPB	+	published / reissued	
US2003050663 AA	20060816	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE

US2006004404 AA	20060105	LSPB	+	published / reissued	
US2006004404 AA	20060309	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LITHOTECH MEDICAL LTD., ISRAEL OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KHACHIN, VLADIMIR; KHACHIN, STEPAN; DIAMANT, VALERY; REEL/FRAME:017279/0279; SIGNING DATES FROM 20050708 TO 20050729
US2006004404 AA	20091216	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2006264974 AA	20061123	LSPB	+	published / reissued	
US2006264974 AA	20090610	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7101380 BB	20060905	LSGT	+	granted / extensions (spc, cpc, pte)	
US7101380 BB	20021213	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LITHOTECH MEDICAL LTD, ISRAEL OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KHACHIN, STEPAN; KHACHIN, VLADIMIR; REEL/FRAME:013574/0464 EFFECTIVE DATE : 20020918
US7101380 BB	20060816	LSGT	PAT1	Patented Case	
US7101380 BB	20100305	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7101380 BB	20140305	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7101380 BB	20170725	LSRX	+RR	REQUEST FOR REEXAMINATION FILED	EFFECTIVE DATE : 20170609
US7101380 BB	20170911	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.)
US7101380 BB	20171103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NORDSON CORPORATION, OHIO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LITHOTECH MEDICAL LTD.; REEL/FRAME:044029/0714 EFFECTIVE DATE : 20171102
US7101380 BB	20180226	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US7101380 BB	20180814	LSRX	LIMR	REEXAMINATION DECISION: CLAIMS CHANGED AND/OR CANCELLED	TEXT : REEXAMINATION CERTIFICATE; CLAIMS 3, 4, 17, 18 AND 30 ARE CANCELLED. CLAIMS 1, 12, 23, 27-29 AND 31-34 ARE DETERMINED TO BE PATENTABLE AS AMENDED. CLAIMS 2, 5-11, 13-16, 19-22 AND 24-26, DEPENDENT ON AN AMENDED CLAIM, ARE DETERMINED TO BE PATENTABLE. NEW CLAIMS 35-46 ARE ADDED AND DETERMINED TO BE PATENTABLE. KIND CODE OF REF DOCUMENT : C1 DESIGNATED STATE(S) : FILING DATE : 20170609 EFFECTIVE DATE : 20180808
US7101380 BB	20230516	PEXP		Calculated Patent Term Expiry (PTA 277 days)	
US7553314 BB	20090630	LSGT	+	granted / extensions (spc, cpc, pte)	
US7553314 BB	20090610	LSGT	PAT1	Patented Case	
US7553314 BB	20121231	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7553314 BB	20161230	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7553314 BB	20170626	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LITHOTECH MEDICAL LTD, ISRAEL

					OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KHACHIN, STEPAN; KHACHIN, VLADIMIR; REEL/FRAME:042817/0855 EFFECTIVE DATE : 20020918
US7553314 BB	20171103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NORDSON CORPORATION, OHIO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LITHOTECH MEDICAL LTD.; REEL/FRAME:044029/0714 EFFECTIVE DATE : 20171102
US7553314 BB	20270702	PEXP		Calculated Patent Term Expiry (PTA 340 days)	
US7640952 BB	20100105	LSGT	+	granted / extensions (spc, cpc, pte)	
US7640952 BB	20091216	LSGT	PAT1	Patented Case	
US7640952 BB	20101116	LSRE	CC	CERTIFICATE OF CORRECTION	
US7640952 BB	20130318	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7640952 BB	20170626	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7640952 BB	20171103	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NORDSON CORPORATION, OHIO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LITHOTECH MEDICAL LTD.; REEL/FRAME:044029/0714 EFFECTIVE DATE : 20171102
US7640952 BB	20280912	PEXP		Calculated Patent Term Expiry (PTA 1177 days)	
WO03002006 A1	20030109	LSPB	+	published / reissued	
WO03002006 A1	20020812	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 10216672 COUNTRY OF REF DOCUMENT : US
WO03002006 A1	20031224	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2001267808 COUNTRY OF REF DOCUMENT : AU
WO03002006 A1	20031224	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2452024 COUNTRY OF REF DOCUMENT : CA
WO03002006 A1	20031225	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 159572 COUNTRY OF REF DOCUMENT : IL
WO03002006 A1	20040107	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2001945597 COUNTRY OF REF DOCUMENT : EP
WO03002006 A1	20040407	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2001945597 COUNTRY OF REF DOCUMENT : EP
WO03002006 A1	20040506	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO03002006 A1	20050405	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : JP
WO03002006 A1	20050623	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 11159396 COUNTRY OF REF DOCUMENT : US
WO03002006 A1	20060105	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 11159396 COUNTRY OF REF DOCUMENT : US

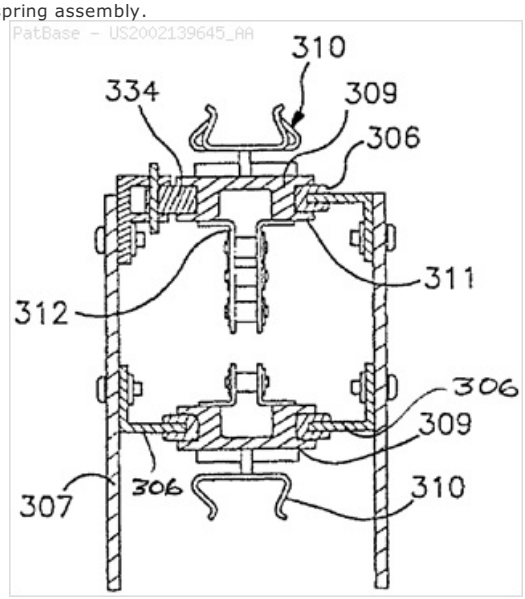
WO03002006 A1	20070802	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2001267808 COUNTRY OF REF DOCUMENT : AU
WO03002006 A1	20070912	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2001945597 COUNTRY OF REF DOCUMENT : EP

39) Family number: 29636946 (US2002139645A)

Title: CONVEYANCE SYSTEM FOR INTERFACE WITH COMPONENT PRODUCTION AND ASSEMBLY EQUIPMENT

Abstract: Machinery for automated manufacture of formed **wire** structures such as innerspring assemblies for mattresses and seating and flexible support structures includes one or more coil formation devices configurable to produce helical spring coils having a terminal convolution which extends beyond an end of the coil; a conveyor system having a plurality of flights slidably mounted upon a continuous track and connected to a chain and driven by an index driver, the flights being connected to a drive system which enables variable spacing between the flights so that the conveyor can be loaded with articles at one spacing interval and be unloaded at a different interval; a coil transfer machine which removes a row of coils from the conveyor and inserts the coils into an innerspring assembler; an innerspring assembler having first and second sets of coil-engaging dies in a parallel arrangement, each set of dies having an upper row positioned over a lower row, the dies being mounted upon carrier bars which are vertically translated within the innerspring assembler to diverge the upper and lower dies of a set to allow positioning of a row of uncompressed coils between the upper and lower dies, and to converge the upper and lower dies upon a row of coils to compress and thereby securely hold the coils in a row; a coil interconnection device for interconnecting adjacent rows of coils in the first and second sets of dies by attachment of fastening means about the adjacent coils; and an indexer assembly engageable with the carrier bars and operative to laterally translate the carrier bars, whereby the lateral position of the first and second sets of dies can be exchanged to provide continuous attachment of rows of coils to produce an interconnected array of coils as an innerspring assembly.

Classifications:
International (IPC 8-9): A47C27/00 B21F27/16 B21F3/027 B21F33/04 B21F35/00 B23P19/00 B23P19/04 B23P21/00 B65G1/00 B65G17/26 B65G17/32 B65G17/46 B68G9/00 F16F1/02 (Advanced/Invention);
B21F27/16 B23P19/00 B23P19/04 B23P21/00 B68G9/00 F16F1/02 (Advanced/Non-invention);
B21F27/00 B21F27/16 B21F33/00 B23P19/00 B23P19/04 B23P21/00 B65G17/00 B65G17/30 B68G9/00 F16F1/02 (Core/Invention);
B21F B65G (Subclass/Invention)
International (IPC 1-7): A47C27/00 B21F027/16 B21F23/00 B21F27/00 B21F27/16 B21F3/10 B21F33/04 B21F35/00 B23P19/00 B23P19/04 B23P21/00 B65G1/00 B65G15/62 B65G17/18 B65G17/26 B65G17/32 B65G17/46 B68G9/00 F16F1/02
CPC: B21F3/027 B21F27/16 B21F33/04
European: B21F27/16 B21F3/027 B21F33/04
US: 140/3.0CA 140/3CA 140/92.8 140/92.800S 198/465.1 198/465.100S 198/470.1 198/470.100S 198/803.14 198/803.8 198/841 198/841S 198/867.01 198/867.010P 72/138



Family:

Publication number	Publication date	Application number	Application date
AT340663 E	20061015	AT20010273898T	20011113
AT393747 E	20080515	AT20020775871T	20020919
AU199957913 A1	20000403	AU19990057913	19990831
AU199957913 A5	20000403	AU19990057913	19990831
AU2001297805 AA	20030428	AU20010297805	20011113
AU2001297805 BB	20060216	AU20010297805	20011113
AU2002301623 AA	20030410	AU20020301623	20021024
AU2002301623 BB	20040401	AU20020301623	20021024
AU2002301976 AA	20030313	AU20020301976	20021112
AU2002301976 BB	20050505	AU20020301976	20021112
AU2002341721 AA	20030414	AU20020341721	20020919
AU2002341721 BB	20071220	AU20020341721	20020919
AU752988 B2	20021003	AU19990057913	19990831
BRPI0115070 A	20040127	BR2001PI15070	20011113
BRPI0115070 B1	20081118	BR2001PI15070	20011113
BRPI0212939 A	20050426	BR2002PI12939	20020919
BRPI0212939 B1	20110208	BR2002PI12939	20020919
BRPI9913625 A	20011030	BR1999PI13625	19990831
CA2343225 AA	20010309	CA19992343225	19990831
CA2430330 AA	20030527	CA20012430330	20011113
CA2430330 C	20070918	CA20012430330	20011113
CA2460736 AA	20040317	CA20022460736	20020919
CA2460736 C	20101109	CA20022460736	20020919
CL2001002898 A1	20020813	CL20010002898	20011128
CN1230267 C	20051207	CN20018019332	20011113
CN1235700 C	20060111	CN19998010815	19990831
CN1316927 A	20011010	CN19998010815	19990831
CN1476360 A	20040218	CN20018019332	20011113
DE60123459 D1	20061109	DE20016023459	20011113
DE60123459 D1	20061109	DE20016023459T	20011113
DE60123459 T2	20070823	DE20016023459T	20011113
DE60226333 D1	20080612	DE20026026333T	20020919
DE60226333 D1	20080612	DE20026026333	20020919
DE60226333 T2	20090709	DE20026026333T	20020919
DE69944906 D1	20131205	DE19996044906	19990831
EP1146974 A1	20011024	EP19990945282	19990831
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IL141901 A0	20020310	IL19990141901	19990831
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KR20010082201 A	20010829	KR20017003118	19990831
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NO20011146 A	20010511	NO20010001146	20010307
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TW512085 B	20021201	TW20010129311	20011127
US2002139645 AA	20021003	US20010966284	20010928
US6155310 A	20001205	US19980151872	19980911
US6640836 BA	20031104	US20000723668	20001128
US6688457 BB	20040210	US20010966284	20010928
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Priority:

US19980151872 19980911 AU19990057913 19990831 EP19990945282 19990831
WO1999US19746 19990831 US20000723668 20001128 US20010966284 20010928
WO2001US51610 20011113 WO2002US29720 20020919 AU20020301623 20021024
AU20020301976 20021112 WO2001US51610 20030528

Probable Assignee: SEALY TECHNOLOGY LLC

Assignee(s): (std): DEMOSS LARRY ; OHIO MATTRESS CO ; OHIO MATTRESS CO LICENSING AND COMPONENTS GROUP ; OHIO MATTRESS CO LICENSING AND ; SEALY TECHNOLOGY LLC ; SCOTT K BRYAN ; SCHLUER LARRY ; ZHOU JOE ; SEALY TECHNOLY LLC ; SILY TECH CO ; THE OHIO MATTRESS COMPANY LICENSING AND COMPONENTS ; OHIO MATTRESS COMPANY LICENSING AND COMPONENTS GRO ; THE OHIO MATTRESS CO LICENSING AND COMPONENTS GROU ; SEALY TECH LLC

Assignee(s): SEALY TECHNOLGY LLC ; THE OHIO MATTRESS COMPANY LICENSING AND COMPONENTS GROUP ; THE OHIO MATTRESS CO LICENSING AND COMPONENTS GROUP ; OHIO MATTRESS COMPANY LICENSING AND COMPONENTS GROUP ; YATES JAN B ; SCHULER LARRY ; SCOTT BRYAN K ; TEMPUR PEDIC MANAGEMENT LLC ; SEALY TECHNOLOGY LLC TRINITY ; SEALY TECHNOLOGIES LLC ; ALTEN ALAN A ; BANK OF AMERICA NA COLLATERAL AGENT AS ; BANK OF NEW YORK MELLON TRUST CO ; BANK OF NEW YORK MELLON TRUST CO NA COLLATERAL AGE ; BANK OF NEW YORK MELLON TRUST CO NA COLLATERAL AGENT AS ; BULLEN LAWRENCE C ; JPMORGAN CHASE BANK ; JPMORGAN CHASE BANK NA ; JPMORGAN CHASE BANK NA COLLATERAL AGENT AS ; HAUBERT THOMAS D ; LARRY DEMOSS ; JOE ZHOU ; EASTER DAVID A ; HETTEBERG JOHN R ; FINGERHUTH DAVID ; HACKMAN DONALD J ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS

Inventor(s): (std): HAUBERT THOMAS D ; BULLEN LAWRENCE C ; SCOTT BRYAN K ; SCHLUER LARRY ; DEMOSS LARRY ; ZHOU JOE ; SCOTT K BRYAN ; JOE ZHOU ; ALTER ALAN A ; BULLEN LAWRENCE ; SCOTT BRYAN ; LARRY SCHULER ; JOHN R HETTEBERG ; LAWRENCE C BULLEN ; ALAN A ALTEN ; THOMAS D HAUBERT ; K BRYAN SCOTT ; JAN B YATES ; DAVID A EASTER ; DAVID FINGERHUTH ; LARRY SCHLUER ; DONALD J HACKMAN ; THOMAS D HAUBERT LARRY SCHULER LAWRENCE C BULLEN ; BRYAN K SCOTT ; LARRY DEMOSS ; DEMOS LARRY ; ALTEN ALAN A ; FINGERHUTH DAVID ; HETTEBERG JOHN R ; EASTER DAVID A ; HACKMAN DONALD J ; YATES JAN B ; SCHULER LARRY ; BRYANSCOTT K ; BULLEN THOMAS D HAUBERT LARRY ; ZHOU LARRY DEMOSS JOE

Inventor(s): LARRY DEMOSS JOE ZHOU ; SCOTT K ; ALAN A ALTER ; DEMOSS LARRY ZHOU JOE ; JOHN RHETTEBERG ; HETTEBERG JOHN R COLUMBUS ; HAUBERT THOMAS D COLUMBUS ; EASTER DAVID A WESTERVILLE ; FINGERHUTH DAVID OSTRANDER ; BULLEN LAWRENCE C CENTERBURG ; SCOTT K BRYAN WESTERVILLE ; YATES JAN B REYNOLDSBURG ; HACKMAN DONALD J UPPER ARLINGTON ; SCHULER LARRY SUGAR GROVE ; ALTEN ALAN A BALTIMORE ; K BRYANSCOTT

Agent(s): FISHER ADAMS KELLY CALLINANS; SPRUSON AND FERGUSON; CALLINANS; OGILVY RENAULT LLP SENCRL SRL; ALESSANDRI; D YOUNG AND CO LLP; PRICE PAUL ANTHONY KING; HARDING RICHARD PATRICK; ISSHIKI AND CO

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 UZ VC VN YU ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT340663 E	20061015	LSGT	+	granted / extensions (spc, cpc, pte)	
AT340663 E	20070315	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT340663 E	20211113	PEXP		Calculated Patent Term Expiry	
AT393747 E	20080515	LSGT	+	granted / extensions (spc, cpc, pte)	
AT393747 E	20081015	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT393747 E	20220919	PEXP		Calculated Patent Term Expiry	
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AU2001297805 AA	20030428	LSPB	+	published / reissued	
AU2001297805 BB	20060216	LSGT	+	granted / extensions (spc, cpc, pte)	
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AU2001297805 BB	20060615	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2001297805 BB	20211113	PEXP		Calculated Patent Term Expiry	
AU2002301623 AA	20030410	LSPB	+	published / reissued	
AU2002301623 BB	20040401	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2002301623 BB	20040729	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2002301623 BB	20150326	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2002301623 BB	20221024	PEXP		Calculated Patent Term Expiry	
AU2002301976 AA	20030313	LSPB	+	published / reissued	
AU2002301976 BB	20050505	LSGT	+	granted / extensions (spc, cpc, pte)	
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AU2002301976 BB	20050901	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED	

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AU2002301976 BB	20150326	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
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AU2002341721 BB	20150416	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
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AU752988 B2	20021003	LSGT	+	granted / extensions (spc, cpc, pte)	
AU752988 B2	20030130	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU752988 B2	20190831	PEXP		Calculated Patent Term Expiry	
BRPI0115070 A	20040127	LSPB	+	published / reissued	
BRPI0115070 A	20080401	LSGT	B09A	DECISION: INTENTION TO GRANT	
BRPI0115070 B1	20081118	LSGT	+B16A	PATENT OR CERTIFICATE OF ADDITION OF INVENTION GRANTED	TEXT : PRAZO DE VALIDADE: 20 (VINTE) ANOS CONTADOS A PARTIR DE 13/11/2001, OBSERVADAS AS CONDICOES LEGAIS.
BRPI0115070 B1	20140916	LSLE	-B21F	LAPSE ACC. ART. 78, ITEM IV - ON NON-PAYMENT OF THE ANNUAL FEES IN TIME	TEXT : REFERENTE A 13A ANUIDADE.
BRPI0115070 B1	20151124	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 2280 DE 16-09-2014 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.
BRPI0115070 B1	20211113	PEXP		Calculated Patent Term Expiry	
BRPI0212939 A	20050426	LSPB	+	published / reissued	
BRPI0212939 A	20100720	LSGT	B09A	DECISION: INTENTION TO GRANT	
BRPI0212939 B1	20110208	LSGT	+B16A	PATENT OR CERTIFICATE OF ADDITION OF INVENTION GRANTED	TEXT : PRAZO DE VALIDADE: 20 (VINTE) ANOS CONTADOS A PARTIR DE 19/09/2002, OBSERVADAS AS CONDICOES LEGAIS.
BRPI0212939 B1	20151201	LSLE	-B21F	LAPSE ACC. ART. 78, ITEM IV - ON NON-PAYMENT OF THE ANNUAL FEES IN TIME	TEXT : REFERENTE AS 12A E 13A ANUIDADES.
BRPI0212939 B1	20160329	LSLE	-B24J	LAPSE BECAUSE OF NON-PAYMENT OF	TEXT : EM VIRTUDE DA EXTINCAO PUBLICADA NA RPI 2343 DE 01-12-2015 E CONSIDERANDO AUSENCIA

				ANNUAL FEES (DEFINITIVELY: ART 78 IV LPI, RESOLUTION 113/2013 ART. 12)	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.
BRPI0212939 B1	20220919	PEXP		Calculated Patent Term Expiry	
BRPI9913625 A	20011030	LSPB	+	published / reissued	
BRPI9913625 A	20060620	LSGT	B09A	DECISION: INTENTION TO GRANT	
BRPI9913625 A	20061107	LSGT	+B16A	PATENT OR CERTIFICATE OF ADDITION OF INVENTION GRANTED	TEXT : PRAZO DE VALIDADE: 20 (VINTE) ANOS CONTADOS A PARTIR DE 31/08/1999, OBSERVADAS AS CONDICOES LEGAIS.
BRPI9913625 A	20120214	LSFE	B24C	PATENT ANNUAL FEE: REQUEST FOR FOR RESTORATION	TEXT : REFERENTE A 12A ANUIDADE(S).
BRPI9913625 A	20151201	LSLE	-B21F	LAPSE ACC. ART. 78, ITEM IV - ON NON-PAYMENT OF THE ANNUAL FEES IN TIME	TEXT : REFERENTE AS 12A, 13A, 14A, 15A E 16A ANUIDADES. PAGAR RESTAURACAO.
BRPI9913625 A	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.
CA2343225 AA	20010309	LSPB	+	published / reissued	
CA2343225 AA	20040831	LSLE	-FZDE	DEAD	
CA2430330 AA	20030527	LSPB	+	published / reissued	
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CN1316927 A	20011010	LSPB	+	published / reissued	
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CN1316927 A	20020123	LSAS	ASS	SUCCESSION OR ASSIGNMENT OF PATENT RIGHT	PARTYTYPE : OWNER OWNER : WUXI LI TECHNOLOGY CO.,LTD. OLDPARTY : FORMER OWNER: THE OHIO MATTRESS CO. LICENSING AND COMPONENTS GROUP EFFECTIVE DATE : 20011123
CN1316927 A	20020123	LSAS	C41	TRANSFER OF PATENT APPLICATION OR PATENT RIGHT OR UTILITY MODEL	
CN1476360 A	20040218	LSPB	+	published / reissued	
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EP1146974 A1	20011024	LSPB	+	published / reissued	
EP1146974 A1	20011024	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20010330
EP1146974 A1	20060719	LSES	+A4	SUPPLEMENTARY SEARCH	EFFECTIVE DATE : 20060621

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EP1146974 A1	20061206	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20061026
EP1146974 A1	20130626	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20130528
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EP1146974 A1	20131031	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
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EP1146974 A1	20140305	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20131016
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				STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20131016
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EP1146974 A1	20150331	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1146974 A1	20150429	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20140831
EP1146974 A1	20150430	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 : 20140831
EP1146974 A1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140831

				FROM NATIONAL OFFICE TO EPO]	
EP1146974 A1	20150430	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 : 20140831
EP1146974 A1	20150528	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 69944906 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20150303
EP1146974 A1	20150529	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20150430
EP1146974 A1	20150603	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1146974 A1	20150731	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 : 20140831
EP1146974 A1	20150731	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 : 20150303
EP1146974 A1	20150831	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 : 20140901
EP1146974 A1	20150831	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 : 20140831
EP1146974 A1	20160630	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 : 20140117
EP1146974 B1	20131016	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1146974 B1	20190831	PEXP		Calculated Patent Term Expiry	
EP1337357 A1	20030827	LSPB	+	published / reissued	
EP1337357 A1	20030827	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20030411
EP1337357 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 : 15
EP1337357 A1	20160129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20151124 YEAR OF FEE PAYMENT : 15

				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	
EP1337357 A1	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20151117 YEAR OF FEE PAYMENT : 15
EP1337357 A4	20050316	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20050202
EP1337357 A4	20060607	LSRE	RTI1	TITLE (CORRECTION)	TEXT : COIL HEAD FORMATION DIE FOR COILS WITH NON-CONVENTIONAL TERMINAL CONVOLUTIONS AND COIL FORMATION DEVICE
EP1337357 B1	20060927	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1337357 B1	20060927	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 : 20060927
EP1337357 B1	20060927	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 : 20060927
EP1337357 B1	20060927	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 : 20060927
EP1337357 B1	20060927	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1337357 B1	20061027	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20061027 YEAR OF FEE PAYMENT : 6
EP1337357 B1	20061031	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1337357 B1	20061101	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1337357 B1	20061113	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20061113 YEAR OF FEE PAYMENT : 6
EP1337357 B1	20061113	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20061113 YEAR OF FEE PAYMENT : 6
EP1337357 B1	20061114	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20061114 YEAR OF FEE PAYMENT : 6

EP1337357 B1	20061114	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20061114 YEAR OF FEE PAYMENT : 6
EP1337357 B1	20061227	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 : 20061227
EP1337357 B1	20070118	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20070118 YEAR OF FEE PAYMENT : 6
EP1337357 B1	20070119	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20060404508 COUNTRY OF REF DOCUMENT : GR
EP1337357 B1	20070313	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 : 20070313
EP1337357 B1	20070516	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2273778 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1337357 B1	20070905	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20070628
EP1337357 B1	20080131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20071104 YEAR OF FEE PAYMENT : 7
EP1337357 B1	20080229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20071114 YEAR OF FEE PAYMENT : 7
EP1337357 B1	20080229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI PAYMENT DATE : 20071114 YEAR OF FEE PAYMENT : 7
EP1337357 B1	20080331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20071106 YEAR OF FEE PAYMENT : 7
EP1337357 B1	20080530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20071015 YEAR OF FEE PAYMENT : 7
EP1337357 B1	20080630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20071130

				FROM NATIONAL OFFICE TO EPO]	
EP1337357 B1	20080731	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 : 20060927
EP1337357 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 NON-PAYMENT OF DUE FEES LAPSED DATE : 20071113
EP1337357 B1	20081128	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 : 20060927
EP1337357 B1	20090630	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1337357 B1	20090714	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF COUNTRY CODE : EP
EP1337357 B1	20090731	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 : 20081113
EP1337357 B1	20090731	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 : 20090601
EP1337357 B1	20090803	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20090601
EP1337357 B1	20090831	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 : 20071113
EP1337357 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 : 20081130
EP1337357 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 : 20081130
EP1337357 B1	20091130	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 : 20090603

EP1337357 B1	20100730	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 : 20081114
EP1337357 B1	20110228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20101110 YEAR OF FEE PAYMENT : 10
EP1337357 B1	20120131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20111216 YEAR OF FEE PAYMENT : 11
EP1337357 B1	20130912	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 60123459 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130601
EP1337357 B1	20131031	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 : 20130601
EP1337357 B1	20140305	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20140305
EP1337357 B1	20140530	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 : 20121114
EP1337357 B1	20151117	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
EP1337357 B1	20161123	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
EP1337357 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 16
EP1337357 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20161128 YEAR OF FEE PAYMENT : 16
EP1337357 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20161124 YEAR OF FEE PAYMENT : 16
EP1337357 B1	20171127	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 17
EP1337357 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171127 YEAR OF FEE PAYMENT : 17

				OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	
EP1337357 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20171127 YEAR OF FEE PAYMENT : 17
EP1337357 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20171123 YEAR OF FEE PAYMENT : 17
EP1337357 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20181127 YEAR OF FEE PAYMENT : 18
EP1337357 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181127 YEAR OF FEE PAYMENT : 18
EP1337357 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20181123 YEAR OF FEE PAYMENT : 18
EP1337357 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 : 19
EP1337357 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 : 19
EP1337357 B1	20211113	PEXP		Calculated Patent Term Expiry	
EP1429978 A2	20040623	LSPB	+	published / reissued	
EP1429978 A2	20040623	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20040329
EP1429978 A4	20051214	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20051031
EP1429978 A4	20060823	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20060724
EP1429978 A4	20070425	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20060724
EP1429978 B1	20080430	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1429978 B1	20080430	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1429978 B1	20080530	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP

EP1429978 B1	20080611	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : LANGUAGE OF EP DOCUMENT: FRENCH
EP1429978 B1	20080916	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2304137 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1429978 B1	20081001	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
EP1429978 B1	20081031	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 : 20080730
EP1429978 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 : 20080430
EP1429978 B1	20081031	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 : 20080430
EP1429978 B1	20081128	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 : 20080430
EP1429978 B1	20090130	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 : 20080430
EP1429978 B1	20090130	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 : 20080430
EP1429978 B1	20090130	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 : 20080731
EP1429978 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 FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080430
EP1429978 B1	20090227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION

				VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20080430
EP1429978 B1	20090408	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20090202
EP1429978 B1	20090430	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 : 20080930
EP1429978 B1	20090430	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 : 20080430
EP1429978 B1	20090430	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1429978 B1	20090624	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1429978 B1	20090731	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 : 20080919
EP1429978 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 : 20080930
EP1429978 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 : 20080930
EP1429978 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 : 20080919
EP1429978 B1	20100730	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 : 20080430
EP1429978 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 : 20080430
EP1429978 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 : 20080731
EP1429978 B1	20131031	LSFE	+PGFP	ANNUAL FEE PAID TO	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20130926

				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 12
EP1429978 B1	20131031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20130319 YEAR OF FEE PAYMENT : 12
EP1429978 B1	20131031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20130927 YEAR OF FEE PAYMENT : 12
EP1429978 B1	20131129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20130919 YEAR OF FEE PAYMENT : 12
EP1429978 B1	20131129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20130927 YEAR OF FEE PAYMENT : 12
EP1429978 B1	20131231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20130924 YEAR OF FEE PAYMENT : 12
EP1429978 B1	20150326	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 : 20150319
EP1429978 B1	20150401	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 60226333 COUNTRY OF REF DOCUMENT : DE
EP1429978 B1	20150430	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 : 20150319
EP1429978 B1	20150527	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20140919
EP1429978 B1	20150625	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 60226333 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20150401
EP1429978 B1	20150626	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20150529
EP1429978 B1	20150731	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 : 20140919
EP1429978 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	FEES LAPSED DATE : 20150401
EP1429978 B1	20150831	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 : 20140919
EP1429978 B1	20150831	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 : 20140930
EP1429978 B1	20151027	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20151027
EP1429978 B1	20160229	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 : 20140920
EP1429978 B1	20220919	PEXP		Calculated Patent Term Expiry	
ES2273778 T3	20070516	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2273778 T3	20211113	PEXP		Calculated Patent Term Expiry	
ES2304137 T3	20080916	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2304137 T3	20220919	PEXP		Calculated Patent Term Expiry	
JP2002524289 T2	20060204	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20060203
JP2002524289 T2	20060228	LSAS	A711	NOTIFICATION OF CHANGE IN APPLICANT	TEXT : JAPANESE INTERMEDIATE CODE: A711 EFFECTIVE DATE : 20060227
JP2002524289 T2	20060325	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20060227
JP2002524289 T2	20081022	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20081021
JP2002524289 T2	20090320	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090319
JP2002524289 T2	20090807	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2002524289 T2	20090812	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20090811
JP2002524289 T2	20090813	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01

JP2002524289 T2	20090917	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20090909
JP2002524289 T2	20090918	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2002524289 T2	20090928	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2004522595 T2	20041111	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20041110
JP2004522595 T2	20070829	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20070828
JP2004522595 T2	20071221	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20071220
JP2004522595 T2	20080124	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2004522595 T2	20080130	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20080129
JP2004522595 T2	20080221	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20080215
JP2004522595 T2	20080222	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2004522595 T2	20080225	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4084750 B2	20080430	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4084750 B2	20080131	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP4084750 B2	20080219	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4084750 B2	20110217	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4084750 B2	20110222	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 4
JP4084750 B2	20120126	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4084750 B2	20120131	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 5
JP4084750 B2	20130131	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 5
JP4084750 B2	20130205	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE	YEAR OF FEE PAYMENT : 6

				OF DATABASE)	
JP4084750 B2	20140213	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4084750 B2	20140218	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4084750 B2	20150222	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP4084750 B2	20211113	PEXP		Calculated Patent Term Expiry	
JP4376463 B2	20091202	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4376463 B2	20090915	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4376463 B2	20120906	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4376463 B2	20120911	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 4
JP4376463 B2	20130912	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4376463 B2	20130917	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4376463 B2	20140918	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP4376463 B2	20190831	PEXP		Calculated Patent Term Expiry	
KR100730278 B1	20070619	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100730278 B1	20130118	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20130121 YEAR OF FEE PAYMENT : 7
KR100730278 B1	20140527	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20140528 YEAR OF FEE PAYMENT : 8
KR100730278 B1	20150526	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20150527 YEAR OF FEE PAYMENT : 9
KR100730278 B1	20170530	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20170531 YEAR OF FEE PAYMENT : 11
KR100730278 B1	20180529	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20180530 YEAR OF FEE PAYMENT : 12
KR100730278 B1	20211113	PEXP		Calculated Patent Term Expiry	
KR20010082201 A	20010829	LSPB	+	published / reissued	
KR20010082201 A	20040901	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
KR20040005861 A	20040116	LSPB	+	published / reissued	
KR20040005861 A	20060529	LSES	A201	REQUEST FOR EXAMINATION	
KR20040005861 A	20070220	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20040005861 A	20070531	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	

KR20040005861 A	20070613	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
MXPA01002849 A1	20030819	LSPB	+	published / reissued	
MXPA01002849 A1	20050803	LSGT	+FG	GRANT OR REGISTRATION	
MXPA03004813 A1	20040326	LSPB	+	published / reissued	
MXPA03004813 A1	20060626	LSGT	+FG	GRANT OR REGISTRATION	
MXPA04002945 A1	20040730	LSPB	+	published / reissued	
MXPA04002945 A1	20070914	LSGT	+FG	GRANT OR REGISTRATION	
NO20011146 A	20010511	LSPB	+	published / reissued	
NO325492 B1	20080519	LSGT	+	granted / extensions (spc, cpc, pte)	
NO325492 B1	20210307	PEXP		Calculated Patent Term Expiry	
NZ510773 A	20030630	LSPB	+	published / reissued	
NZ510773 A	20031031	LSGT	+PSEA	PATENT SEALED	
NZ510773 A	20040130	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ510773 A	20060630	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ510773 A	20090626	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ510773 A	20120629	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ510773 A	20190927	LSLE	-EXPY	PATENT EXPIRED	
NZ525792 A	20041126	LSPB	+	published / reissued	
NZ525792 A	20050324	LSGT	+PSEA	PATENT SEALED	
NZ525792 A	20050826	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ525792 A	20081128	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ525792 A	20111125	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ525792 A	20141031	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 13 NOV 2015 BY COMPUTER PACKAGES INC EFFECTIVE DATE : 20141018
NZ525792 A	20151030	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 13 NOV 2016 BY COMPUTER PACKAGES INC EFFECTIVE DATE : 20151020
NZ525792 A	20161028	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 13 NOV 2017 BY COMPUTER PACKAGES INC EFFECTIVE DATE : 20161018
NZ525792 A	20171027	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 13 NOV 2018 BY COMPUTER PACKAGES INC EFFECTIVE DATE : 20171018
NZ525792 A	20181026	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 13 NOV 2019 BY COMPUTER PACKAGES INC EFFECTIVE DATE : 20181018
NZ525792 A	20191025	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 13 NOV 2020 BY COMPUTER PACKAGES INC EFFECTIVE DATE : 20191018

NZ532547 A	20070330	LSPB	+	published / reissued	
NZ532547 A	20070727	LSGT	+PSEA	PATENT SEALED	
NZ532547 A	20070831	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ532547 A	20090925	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ532547 A	20120629	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ532547 A	20150925	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 19 SEP 2016 BY COMPUTER PACKAGES INC EFFECTIVE DATE : 20150901
NZ532547 A	20160930	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 19 SEP 2017 BY COMPUTER PACKAGES INC EFFECTIVE DATE : 20160831
NZ532547 A	20170929	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	TEXT : PATENT RENEWED FOR 1 YEAR UNTIL 19 SEP 2018 BY COMPUTER PACKAGES INC EFFECTIVE DATE : 20170831
NZ532547 A	20190329	LSLE	-LAPS	PATENT LAPSED	
PT1429978 T	20080804	LSGT	+	granted / extensions (spc, cpc, pte)	
PT1429978 T	20220919	PEXP		Calculated Patent Term Expiry	
TH36701 B	20130822	LSGT	+	granted / extensions (spc, cpc, pte)	
TH36701 B	20190910	PEXP		Calculated Patent Term Expiry	
TH50887 A	20020507	LSPB	+	published / reissued	
TH53293 A	20020926	LSPB	+	published / reissued	
TW512085 B	20021201	LSGT	+	granted / extensions (spc, cpc, pte)	
TW512085 B	20030415	LSGT	+GD4A	ISSUE OF PATENT CERTIFICATE FOR GRANTED INVENTION PATENT	
TW512085 B	20110901	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TW512085 B	20211127	PEXP		Calculated Patent Term Expiry	
US2002139645 AA	20021003	LSPB	+	published / reissued	
US2002139645 AA	20040122	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6155310 A	20001205	LSGT	+	granted / extensions (spc, cpc, pte)	
US6155310 A	19990106	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OHIO MATTRESS COMPANY LICENSING AND COMPONENTS GRO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HAUBERT, THOMAS D.; SCHULER, LARRY; BULLEN, LAWRENCE C.; AND OTHERS; REEL/FRAME:009688/0515; SIGNING DATES FROM 19981217 TO 19981221
US6155310 A	19991213	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLOGIES

					LLC, NORTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OHIO MATTRESS COMPANY LICENSING & COMPONENTS GROUP; REEL/FRAME:010461/0683 EFFECTIVE DATE : 19991130
US6155310 A	20000920	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLOGY LLC, NORTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OHIO MATTRESS COMPANY LICENSING AND COMPONENTS GROUP; REEL/FRAME:010967/0137 EFFECTIVE DATE : 20000829
US6155310 A	20000920	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLOGY LLC, NORTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OHIO MATTRESS COMPANY LICENSING AND COMPONENTS GROUP; REEL/FRAME:011079/0887 EFFECTIVE DATE : 20000829
US6155310 A	20001116	LSGT	PAT1	Patented Case	
US6155310 A	20001116	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6155310 A	20021203	LSRE	CC	CERTIFICATE OF CORRECTION	
US6155310 A	20040412	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:SEALY TECHNOLOGY LLC; REEL/FRAME:015177/0148 EFFECTIVE DATE : 20040406
US6155310 A	20040525	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6155310 A	20080505	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6155310 A	20090603	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLGY LLC, NORTH CAROLINA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:JPMORGAN CHASE BANK, N.A., AS COLLATERAL AGENT; REEL/FRAME:022764/0944 EFFECTIVE DATE : 20090529
US6155310 A	20090604	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, N.A., AS COLLATERAL AGENT, NE OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:SEALY TECHNOLGY LLC; REEL/FRAME:022773/0667 EFFECTIVE DATE : 20090529
US6155310 A	20090605	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., A OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:SEALY TECHNOLGY LLC; REEL/FRAME:022783/0354 EFFECTIVE DATE : 20090529
US6155310 A	20090730	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., A OLDPARTY : SECURITY INTEREST; ASSIGNOR:SEALY TECHNOLOGY LLC; REEL/FRAME:023015/0688 EFFECTIVE DATE : 20090710
US6155310 A	20120604	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6155310 A	20130320	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLOGY LLC, NORTH CAROLINA OLDPARTY : RELEASE OF LIEN ON PATENTS; ASSIGNOR:BANK OF NEW YORK MELLON TRUST COMPANY, N.A., AS COLLATERAL AGENT, THE; REEL/FRAME:030132/0360 EFFECTIVE DATE : 20130318

US6155310 A	20130320	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLOGY LLC, NORTH CAROLINA OLDPARTY : RELEASE OF LIEN ON PATENTS; ASSIGNOR:JPMORGAN CHASE BANK, N.A., AS COLLATERAL AGENT; REEL/FRAME:030454/0321 EFFECTIVE DATE : 20130312
US6155310 A	20130320	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLOGY LLC, NORTH CAROLINA OLDPARTY : RELEASE OF LIEN ON PATENTS; ASSIGNOR:THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., AS COLLATERAL AGENT; REEL/FRAME:030132/0360 EFFECTIVE DATE : 20130318
US6155310 A	20130321	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A., AS COLLATERAL AGENT, TEXAS OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:TEMPUR-PEDIC MANAGEMENT, LLC; SEALY TECHNOLOGY LLC; REEL/FRAME:030165/0264 EFFECTIVE DATE : 20130318
US6155310 A	20160411	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TEMPUR-PEDIC MANAGEMENT, LLC, KENTUCKY OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENT RIGHTS; ASSIGNOR:BANK OF AMERICA, N.A., AS COLLATERAL AGENT; REEL/FRAME:038403/0036 EFFECTIVE DATE : 20160406
US6155310 A	20160411	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLOGY LLC, NORTH CAROLINA OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENT RIGHTS; ASSIGNOR:BANK OF AMERICA, N.A., AS COLLATERAL AGENT; REEL/FRAME:038403/0036 EFFECTIVE DATE : 20160406
US6155310 A	20160413	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, N.A., AS ADMINISTRATIVE AGENT OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:TEMPUR-PEDIC MANAGEMENT, LLC; SEALY TECHNOLOGY LLC; TEMPUR WORLD, LLC; REEL/FRAME:038426/0257 EFFECTIVE DATE : 20160406
US6155310 A	20180911	PEXP		Calculated Patent Term Expiry	
US6640836 BA	20031104	LSGT	+	granted / extensions (spc, cpc, pte)	
US6640836 BA	20031016	LSGT	PAT1	Patented Case	
US6640836 BA	20031016	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6640836 BA	20040412	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:SEALY TECHNOLOGY LLC; REEL/FRAME:015177/0148 EFFECTIVE DATE : 20040406
US6640836 BA	20050823	LSRE	CC	CERTIFICATE OF CORRECTION	
US6640836 BA	20061107	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6640836 BA	20090603	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLGY LLC, NORTH CAROLINA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:JPMORGAN CHASE BANK, N.A., AS COLLATERAL AGENT; REEL/FRAME:022764/0944 EFFECTIVE DATE : 20090529
US6640836 BA	20090604	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, N.A., AS COLLATERAL AGENT, NE

					OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:SEALY TECHNOLGY LLC; REEL/FRAME:022773/0667 EFFECTIVE DATE : 20090529
US6640836 BA	20090605	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., A OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:SEALY TECHNOLGY LLC; REEL/FRAME:022783/0354 EFFECTIVE DATE : 20090529
US6640836 BA	20090730	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., A OLDPARTY : SECURITY INTEREST; ASSIGNOR:SEALY TECHNOLOGY LLC; REEL/FRAME:023015/0688 EFFECTIVE DATE : 20090710
US6640836 BA	20110323	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6640836 BA	20130320	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLOGY LLC, NORTH CAROLINA OLDPARTY : RELEASE OF LIEN ON PATENTS; ASSIGNOR:BANK OF NEW YORK MELLON TRUST COMPANY, N.A., AS COLLATERAL AGENT, THE; REEL/FRAME:030132/0360 EFFECTIVE DATE : 20130318
US6640836 BA	20130320	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLOGY LLC, NORTH CAROLINA OLDPARTY : RELEASE OF LIEN ON PATENTS; ASSIGNOR:JPMORGAN CHASE BANK, N.A., AS COLLATERAL AGENT; REEL/FRAME:030454/0321 EFFECTIVE DATE : 20130312
US6640836 BA	20130320	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLOGY LLC, NORTH CAROLINA OLDPARTY : RELEASE OF LIEN ON PATENTS; ASSIGNOR:THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., AS COLLATERAL AGENT; REEL/FRAME:030132/0360 EFFECTIVE DATE : 20130318
US6640836 BA	20130321	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A., AS COLLATERAL AGENT, TEXAS OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:TEMPUR-PEDIC MANAGEMENT, LLC; SEALY TECHNOLOGY LLC; REEL/FRAME:030165/0264 EFFECTIVE DATE : 20130318
US6640836 BA	20150504	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6640836 BA	20160411	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLOGY LLC, NORTH CAROLINA OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENT RIGHTS; ASSIGNOR:BANK OF AMERICA, N.A., AS COLLATERAL AGENT; REEL/FRAME:038403/0036 EFFECTIVE DATE : 20160406
US6640836 BA	20160411	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TEMPUR-PEDIC MANAGEMENT, LLC, KENTUCKY OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENT RIGHTS; ASSIGNOR:BANK OF AMERICA, N.A., AS COLLATERAL AGENT; REEL/FRAME:038403/0036 EFFECTIVE DATE : 20160406
US6640836 BA	20160413	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, N.A., AS ADMINISTRATIVE AGENT OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:TEMPUR-PEDIC MANAGEMENT, LLC; SEALY TECHNOLOGY LLC; TEMPUR WORLD, LLC; REEL/FRAME:038426/0257 EFFECTIVE DATE : 20160406
US6640836 BA	20201128	PEXP		Calculated Patent Term Expiry	

US6688457 BB	20040210	LSGT	+	granted / extensions (spc, cpc, pte)	
US6688457 BB	20020211	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLOGY LLC, NORTH CAROLINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HAUBERT, THOMAS D.; BULLEN, LAWRENCE C.; SCOTT, K. BRYAN; AND OTHERS; REEL/FRAME:012615/0436; SIGNING DATES FROM 20011010 TO 20011130
US6688457 BB	20040122	LSGT	PAT1	Patented Case	
US6688457 BB	20040412	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, NEW YORK OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:SEALY TECHNOLOGY LLC; REEL/FRAME:015177/0148 EFFECTIVE DATE : 20040406
US6688457 BB	20070212	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6688457 BB	20090603	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLGY LLC, NORTH CAROLINA OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:JPMORGAN CHASE BANK, N.A., AS COLLATERAL AGENT; REEL/FRAME:022764/0944 EFFECTIVE DATE : 20090529
US6688457 BB	20090604	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, N.A., AS COLLATERAL AGENT, NE OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:SEALY TECHNOLGY LLC; REEL/FRAME:022773/0667 EFFECTIVE DATE : 20090529
US6688457 BB	20090605	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., A OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:SEALY TECHNOLGY LLC; REEL/FRAME:022783/0354 EFFECTIVE DATE : 20090529
US6688457 BB	20090730	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., A OLDPARTY : SECURITY INTEREST; ASSIGNOR:SEALY TECHNOLOGY LLC; REEL/FRAME:023015/0688 EFFECTIVE DATE : 20090710
US6688457 BB	20110726	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6688457 BB	20130320	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLOGY LLC, NORTH CAROLINA OLDPARTY : RELEASE OF LIEN ON PATENTS; ASSIGNOR:BANK OF NEW YORK MELLON TRUST COMPANY, N.A., AS COLLATERAL AGENT, THE; REEL/FRAME:030132/0360 EFFECTIVE DATE : 20130318
US6688457 BB	20130320	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLOGY LLC, NORTH CAROLINA OLDPARTY : RELEASE OF LIEN ON PATENTS; ASSIGNOR:JPMORGAN CHASE BANK, N.A., AS COLLATERAL AGENT; REEL/FRAME:030454/0321 EFFECTIVE DATE : 20130312
US6688457 BB	20130320	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLOGY LLC, NORTH CAROLINA OLDPARTY : RELEASE OF LIEN ON PATENTS; ASSIGNOR:THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., AS COLLATERAL AGENT; REEL/FRAME:030132/0360 EFFECTIVE DATE : 20130318
US6688457 BB	20130321	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BANK OF AMERICA, N.A., AS COLLATERAL AGENT, TEXAS OLDPARTY : PATENT SECURITY

					AGREEMENT; ASSIGNORS:TEMPUR-PEDIC MANAGEMENT, LLC; SEALY TECHNOLOGY LLC; REEL/FRAME:030165/0264 EFFECTIVE DATE : 20130318
US6688457 BB	20150810	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6688457 BB	20160411	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TEMPUR-PEDIC MANAGEMENT, LLC, KENTUCKY OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENT RIGHTS; ASSIGNOR:BANK OF AMERICA, N.A., AS COLLATERAL AGENT; REEL/FRAME:038403/0036 EFFECTIVE DATE : 20160406
US6688457 BB	20160411	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SEALY TECHNOLOGY LLC, NORTH CAROLINA OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENT RIGHTS; ASSIGNOR:BANK OF AMERICA, N.A., AS COLLATERAL AGENT; REEL/FRAME:038403/0036 EFFECTIVE DATE : 20160406
US6688457 BB	20160413	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, N.A., AS ADMINISTRATIVE AGENT OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:TEMPUR-PEDIC MANAGEMENT, LLC; SEALY TECHNOLOGY LLC; TEMPUR WORLD, LLC; REEL/FRAME:038426/0257 EFFECTIVE DATE : 20160406
US6688457 BB	20210928	PEXP		Calculated Patent Term Expiry	
WO0015369 A1	20000323	LSPB	+	published / reissued	
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WO0015369 C2	20010319	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2001/002849 COUNTRY OF REF DOCUMENT : MX
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WO0015369 C2	20010326	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 510773 COUNTRY OF REF DOCUMENT : NZ
WO0015369 C2	20010329	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1999945282 COUNTRY OF REF DOCUMENT : EP

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WO0015369 C2	20011024	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1999945282 COUNTRY OF REF DOCUMENT : EP
WO0015369 C2	20030116	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 57913/99 COUNTRY OF REF DOCUMENT : AU
WO0015369 C2	20040901	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1020017003118 COUNTRY OF REF DOCUMENT : KR
WO03029111 A2	20030410	LSPB	+	published / reissued	
WO03029111 A3	20040317	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2460736 COUNTRY OF REF DOCUMENT : CA
WO03029111 A3	20040319	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2002775871 COUNTRY OF REF DOCUMENT : EP
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WO03029111 A3	20040408	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2002341721 COUNTRY OF REF DOCUMENT : AU
WO03029111 A3	20040426	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 532547 COUNTRY OF REF DOCUMENT : NZ
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WO03033190 A1	20030324	LSNP	+WWE	WIPO	REF DOCUMENT NUMBER :

				INFORMATION: ENTRY INTO NATIONAL PHASE	2001273898 COUNTRY OF REF DOCUMENT : EP
WO03033190 A1	20030506	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200303457 COUNTRY OF REF DOCUMENT : ZA
WO03033190 A1	20030506	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2003/03457 COUNTRY OF REF DOCUMENT : ZA
WO03033190 A1	20030512	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 525792 COUNTRY OF REF DOCUMENT : NZ
WO03033190 A1	20030522	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 018193323 COUNTRY OF REF DOCUMENT : CN
WO03033190 A1	20030527	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2430330 COUNTRY OF REF DOCUMENT : CA
WO03033190 A1	20030528	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020037007128 COUNTRY OF REF DOCUMENT : KR
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WO03033190 A1	20030528	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2003/004813 COUNTRY OF REF DOCUMENT : MX
WO03033190 A1	20030827	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2001273898 COUNTRY OF REF DOCUMENT : EP
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WO03033190 A1	20040116	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1020037007128 COUNTRY OF REF DOCUMENT : KR
WO03033190 A1	20041126	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 525792 COUNTRY OF REF DOCUMENT : NZ
WO03033190 A1	20050310	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 525792 COUNTRY OF REF DOCUMENT : NZ
WO03033190 A1	20060927	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2001273898 COUNTRY OF REF DOCUMENT : EP
ZA200303457 A	20040506	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA200303457 A	20230505	PEXP		Calculated Patent Term Expiry	
ZA200402272 A	20050721	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA200402272 A	20240222	PEXP		Calculated Patent Term Expiry	
ZA9905801 A	20000906	LSGT	+	granted / extensions (spc, cpc, pte)	
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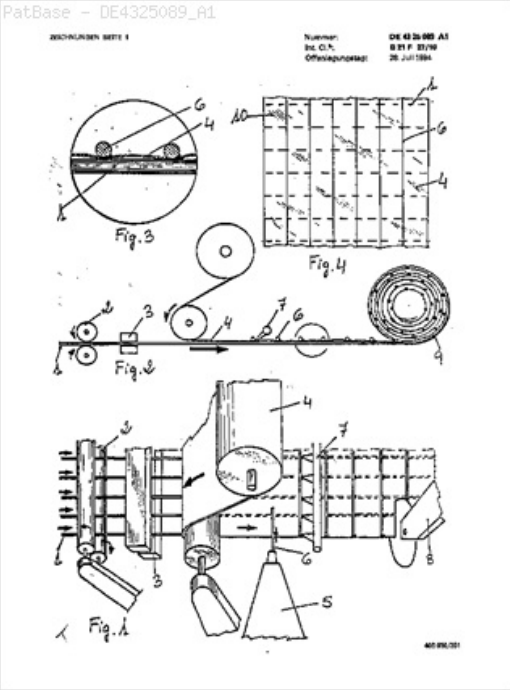
	Patent Term Expiry

40) Family number: 11157989 (DE4325089A1)

Title: Mfg. process for welded **mesh** panels with insert sheets,

Abstract: Mfg. process for welded **mesh** panels with insert sheets, whereby a number of spaced long **wires** are drawn off a group of parallel rolls and fed forward, a sheet of appropriate material drawn off a roll is laid on the long **wires** and cross **wires** are laid on the other side of the sheet.The cross **wires** are joined to the long **wires** by a welding machine, with the insert sheet between the long and cross **wires** being simultaneously joined and fixed at the weld points.

Classifications:
International (IPC 8-9): B21F27/10 (Advanced/Invention); B21F27/00 (Core/Invention)
International (IPC 1-7): B21D11/10 B21F27/10 B21F27/12 B21F27/14 B23K101/22 B23K31/02 B29C63/02 B29C65/20 B29C70/28 B29L9/00 B32B31/00 E04B1/62 E04G9/05
CPC: B21F27/10
European: B21F27/10



Family:

Publication number	Publication date	Application number	Application date
DE4325089 A1	19940728	DE19934325089	19930727
ES2066711 AB	19950301	ES19930000265	19930126
ES2066711 AC	19970901	ES19930000265	19930126
ES2066711 BA	19980416	ES19930000265	19930126

Priority:
ES19930000265 19930126

Probable Assignee: COMP APLICACIONES METALICAS
Assignee(s): (std): COMP APLICACIONES METALICAS ; COMPANIO DE APLICACIONES METAL
Assignee(s): COMPANIO DE APLICACIONES METALURGICAS PARA EDIFICA ; COMPANIO DE APLICACIONES METALURGICAS PARA EDIFICACIONES S A CASTELLBISBAL BARCELONA ES ; COMPANIA DE APLICACIONES METALURGICAS PARA EDIFICACIONES S A
Inventor(s): (std): AZAGRA MIGUEL LLUSIA D ; LLUSIA AZAGRA MIGUEL
Inventor(s): AZAGRA MIGUEL LLUSIA D CASTELLBISBAL BARCELONA ES

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
DE4325089 A1	19940728	LSPB	+	published / reissued	
DE4325089 A1	19940728	LSES	+OP8	REQUEST FOR EXAMINATION AS TO PARAGRAPH 44 PATENT LAW	
DE4325089 A1	19941201	LSWD	-8130	WITHDRAWAL	
ES2066711 AB	19950301	LSPB	+	published / reissued	
ES2066711 AC	19970901	LSES	+EC2A	SEARCH REPORT PUBLISHED	DATE OF REF DOCUMENT : 19950301 KIND CODE OF REF DOCUMENT : R DESIGNATED STATE(S) : EFFECTIVE DATE : 19950301
ES2066711 BA	19980416	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2066711 BA	20020101	LSLE	-FD1A	PATENT LAPSED	EFFECTIVE DATE : 20011110
ES2066711 BA	20130126	PEXP		Calculated Patent Term Expiry	