

PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT3635650

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	RELEASE OF SECURITY INTEREST	
CONVEYING PARTY DATA		
Name		Execution Date
DEUTSCHE BANK AG NEW YORK BRANCH, AS COLLATERAL AGENT		11/27/2015
RECEIVING PARTY DATA		
Name:	LIEBEL-FLARSHEIM COMPANY LLC	
Street Address:	2111 E GALBRAITH RD	
City:	CINCINNATI	
State/Country:	OHIO	
Postal Code:	45237	
PROPERTY NUMBERS Total: 146		
Property Type	Number	
Patent Number:	5883615	
Patent Number:	5665074	
Patent Number:	5743872	
Patent Number:	5902276	
Patent Number:	5855568	
Patent Number:	5925022	
Patent Number:	6004292	
Patent Number:	6254572	
Patent Number:	6569127	
Application Number:	11458463	
Application Number:	11677946	
Application Number:	11677926	
Application Number:	12035293	
Patent Number:	8597246	
Patent Number:	8012125	
Patent Number:	5913844	
Patent Number:	6929619	
Patent Number:	7632246	
Patent Number:	7854726	
Application Number:	12247601	

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Property Type	Number
Application Number:	13080499
Patent Number:	6196999
Patent Number:	7300417
Patent Number:	8353879
Patent Number:	5928197
Patent Number:	7824374
Patent Number:	7794429
Patent Number:	6368307
Patent Number:	6355024
Patent Number:	6468261
Patent Number:	6623455
Patent Number:	6511459
Patent Number:	6635030
Patent Number:	8630694
Application Number:	13722500
Patent Number:	8343101
Patent Number:	8343102
Patent Number:	8308698
Patent Number:	7991451
Patent Number:	7772848
Patent Number:	7621892
Patent Number:	8141598
Patent Number:	6780170
Patent Number:	8118780
Application Number:	13369407
Patent Number:	8035517
Patent Number:	7963936
Patent Number:	7859473
Application Number:	11618023
Patent Number:	7588189
Patent Number:	8317099
Patent Number:	8446280
Patent Number:	8262644
Patent Number:	7998133
Application Number:	10780269
Application Number:	14149616
Application Number:	11073892
Patent Number:	8523813

Property Type	Number
Patent Number:	7507221
Patent Number:	8366671
Patent Number:	8366670
Patent Number:	7727196
Application Number:	29227140
Application Number:	29227127
Application Number:	29227139
Patent Number:	8663164
Patent Number:	8277416
Patent Number:	8180434
Patent Number:	8282595
Application Number:	13549066
Patent Number:	7725168
Patent Number:	8251071
Application Number:	11073910
Patent Number:	8663166
Patent Number:	8439863
Application Number:	12615534
Patent Number:	8133198
Patent Number:	8486008
Application Number:	12679362
Application Number:	12742928
Patent Number:	8657787
Application Number:	12179129
Application Number:	12296142
Patent Number:	8141417
Application Number:	11551804
Patent Number:	8308689
Application Number:	13646848
Patent Number:	8038182
Patent Number:	8454560
Application Number:	13890815
Application Number:	12921785
Application Number:	13146299
Application Number:	12921839
Application Number:	12746192
Application Number:	12676968
Patent Number:	8348896

Property Type	Number
Patent Number:	8377003
Application Number:	13670506
Patent Number:	8500677
Application Number:	13869822
Application Number:	12742930
Patent Number:	8409134
Application Number:	12921787
Patent Number:	8562563
Application Number:	13260578
Application Number:	14173190
Application Number:	13260575
Patent Number:	8417320
Application Number:	13794141
Application Number:	12810149
Application Number:	12996989
Patent Number:	8628514
Application Number:	14092483
Application Number:	13263087
Application Number:	14232305
Application Number:	12811104
Application Number:	14003893
Patent Number:	8431074
Application Number:	13201632
Application Number:	14131764
Application Number:	13876040
Application Number:	13520202
Application Number:	13988800
Application Number:	14115363
Application Number:	10186764
Application Number:	90007967
Patent Number:	6245318
Patent Number:	7374745
Patent Number:	7087212
Patent Number:	7713514
Patent Number:	8257683
Patent Number:	8246930
Patent Number:	8303932
Patent Number:	8303933

Property Type	Number
Application Number:	10588674
Patent Number:	8445725
Application Number:	13772572
Application Number:	12675130
Application Number:	14149027
Patent Number:	6596904
Application Number:	08753288
Application Number:	90009455
Application Number:	09437410
Application Number:	90009536
Application Number:	09851462
Application Number:	90009653

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	132773.241704
NAME OF SUBMITTER:	SERVILLANO R. ABELLA
SIGNATURE:	/s/ Servillano R. Abella
DATE SIGNED:	11/30/2015

Total Attachments: 18

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RELEASE OF SECURITY INTEREST IN PATENT COLLATERAL

This RELEASE, dated as of November 27, 2015, is made by Deutsche Bank AG New York Branch, as Collateral Agent (the "Agent"), in favor of Liebel-Flarsheim Company LLC, a Delaware limited liability company, and Mallinckrodt LLC, a Delaware limited liability company, (collectively, the "Grantors") as follows:

W I T N E S S E T H

WHEREAS, pursuant to the U.S. Collateral Agreement, dated as of March 19, 2014 (as such agreement may be amended, restated, supplemented or otherwise modified from time to time, the "Collateral Agreement") and the Notice of Grant of Security Interest in Patents, dated as of March 19, 2014 (as such agreement may be amended, restated, supplemented or otherwise modified from time to time, the "Patent Security Agreement"), the Grantors granted the Agent a security interest in all of its right, title and interest in, to and under the "IP Collateral" (as defined in the Patent Security Agreement) including, without limitation, the Patents set forth on Schedule A attached hereto;

WHEREAS, the Patent Security Agreement was recorded with the U.S. Patent and Trademark Office on March 19, 2014 at Reel/Frame No. 032480/0001;

WHEREAS, in accordance with the Collateral Agreement, the Grantors have requested that the Agent release its Liens on and security interest in all right, title and interest in, to and under the IP Collateral.

NOW, THEREFORE, the Agent, without recourse to it or representation or warranty by it and at the Grantors' sole cost and expense, hereby terminates, cancels and releases its Liens on and security interest in the IP Collateral and any and all right, title and interest of the Agent in the IP Collateral shall hereby terminate, cease and become void.

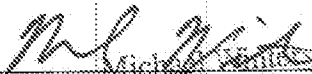
The Agent agrees to provide Grantors with any information and additional authorization and documentation necessary to effect the release of the Agent's security interest in the IP Collateral (without recourse to it or representation or warranty by it, and at Grantors' sole cost and expense and otherwise in accordance with Section 9.18 of the Credit Agreement and Section 5.15 of the Collateral Agreement).

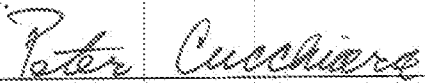
Capitalized terms used herein without definition are used as defined in the Collateral Agreement or Patent Security Agreement, as applicable.

[Signature Page Follows]

IN WITNESS WHEREOF, the Agent has caused this Release to be duly executed and delivered by its duly authorized officer as of the date first written above.

DEUTSCHE BANK AG NEW YORK
BRANCH, as Collateral Agent

By: 
Name: Michael Santas
Title: Vice President

By: 
Name: Peter Cucchiara
Title: Vice President

[Signature Page to Release of Security Interest in Patent Collateral]

SCHEDULE A

PATENTS AND PATENT APPLICATIONS

(See Attached)

Case Number	Sub Case	Country	Owner Name	Application Status	App Number	Filing Date	Patent	Issue Date	Title
1092:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	08/536272	9/29/1995	5883615	3/16/1999	Foot-Operated Control System for a Multi-Function
1094:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	08/535771	9/28/1995	5665074	9/9/1997	Limited Backflow Reflux Valve And Method
1094:H	B	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	08/841287	4/29/1997	5743872	4/28/1998	Limited Backflow Reflux Valve And Method
1172:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	08/756803	11/26/1996	5902276	5/11/1999	Two-Shot Molded Plunger
1173:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	08/753283	11/22/1996	5855568	1/5/1999	Angiographic Syringe and Luer Connector
1174:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	08/753288	11/22/1996	5868710	2/9/1999	Medical Fluid Injector
1174:H	1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	09/189337	11/10/1998	5925022	7/20/1999	Medical Fluid Injector
1174:H	2	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	09/189470	11/10/1998	6004292	12/21/1999	Medical Fluid Injector
1174:H	3	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	09/437410	11/10/1999	6159183	12/12/2000	Medical Fluid Injector
1174:H	4	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	09/447101	11/22/1999	6254572	7/3/2001	Medical Fluid Injector
1174:H	X0	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	90/009455	7/22/2009	5868710	3/22/2011	Medical Fluid Injector
1174:H	X3	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	90/009536	8/28/2009	6159183	3/16/2010	Medical Fluid Injector
1182:H	1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	09/665374	9/20/2000	6569127	5/27/2003	Adapter and Syringe for Front Loading Medical Fluid Injector

Case Number	Sub Case	Country	Owner Name	Application Status	App Number	Filing Date	Patent	Issue Date	Title
1182:H	4	US	LIEBEL-FLARSHEIM COMPANY LLC	Pending	11/458463	7/19/2006			Adapter and Syringe for Front Loading Medical Fluid Injector
1182:H	5	US	LIEBEL-FLARSHEIM COMPANY LLC	Pending	11/677946	2/22/2007			METHODS FOR USING FRONT-LOADING MEDICAL FLUID INJECTOR
1182:H	6	US	LIEBEL-FLARSHEIM COMPANY LLC	Pending	11/677926	2/22/2007			SPRING LOADED MEDICAL FLUID INJECTOR ASSEMBLY
1182:H	7	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/035293	2/21/2008	8012124	9/6/2011	SPRING LOADED MEDICAL FLUID INJECTOR ASSEMBLY
1182:H	8	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	11/738925	4/23/2007	8597246	12/3/2013	SPRING LOADED MEDICAL FLUID INJECTOR ASSEMBLY
1182:H	9	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/035304	2/21/2008	8012125	9/6/2011	FRONT LOADED MEDICAL FLUID SYRINGE MOUNTING
1254:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	08/877083	6/17/1997	5913844	6/22/1999	Power Injector and Method Providing Removal of Used Disposable Syringe
1342:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	10/211726	8/2/2002	6929619	8/16/2005	ELPH Injector
1342:H	3	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	10/949137	9/24/2004	7632246	12/15/2009	ELPH Injector
1342:H	4	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	11/738885	4/23/2007	7854726	12/21/2010	Injector
1342:H	5	US	LIEBEL-FLARSHEIM COMPANY LLC	Published	12/247601	10/8/2008			INJECTOR
1342:H	6	US	LIEBEL-FLARSHEIM COMPANY LLC	Published	13/080499	4/5/2011			INJECTOR
1384:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	09/245229	2/5/1999	6196999	3/6/2001	IMPROVED SYRINGE/PLUNGER COUPLING
1384:H	1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	09/764630	1/18/2001	7300417	11/27/2007	IMPROVED SYRINGE/PLUNGER COUPLING

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Case Number	Sub Case	Country	Owner Name	Application Status	App Number	Filing Date	Patent	Issue Date	Title
1384:H	D2	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	11/872484	10/15/2007	8353879	1/15/2013	IMPROVED SYRINGE/PLUNGER COUPLING
1396:H	B	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	08/919610	8/28/1997	5928197	7/27/1999	CONTROLLING PLUNGER DRIVES FOR FLUID INJECTIONS IN ANIMALS
1396:H	D	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/020521	1/26/2008	7824374	11/2/2010	CONTROLLING PLUNGER DRIVES FOR FLUID INJECTIONS IN ANIMALS
1396:H	E	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/052494	3/20/2008	7794429	9/14/2010	CONTROLLING PLUNGER DRIVES FOR FLUID INJECTIONS IN ANIMALS
1402:H	2	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	09/697204	10/26/2000	6368307	4/9/2002	FRONT LOADING POWER INJECTOR AND METHOD OF LOADING FLANGED SYRINGE THEREIN
1419:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	09/353521	7/14/1999	6355024	3/12/2002	MEDICAL FLUID DELIVERY SYSTEM
1420:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	09/353217	7/14/1999	6468261	10/22/2002	MEDICAL FLUID DELIVERY SYSTEM
1421:H	1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	09/788791	2/20/2001	6623455	9/23/2003	MEDICAL FLUID DELIVERY SYSTEM
1438:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	09/676143	9/29/2000	6511459	1/28/2003	SYRINGE PLUNGER HAVING AN IMPROVED SEALING ABILITY
1450:H		US	B.H.B., LC/LIEBEL FLARSHEIM LLC (JOINTLY OWNED)	Granted NR	09/289289	4/9/1999	6635030	10/21/2003	CONTRAST INJECTOR FOR INJECTING A CONTRAST MEDIUM TO GENERATE PROLONGED UNIFORM VASCULAR ENHANCEMENT
1453:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/665741	12/21/2009	8630694	1/14/2014	FLUID DRIVEN MEDICAL INJECTORS
1453:H	C1	US	LIEBEL-FLARSHEIM COMPANY LLC	Pending	13/722500	12/20/2012			FLUID DRIVEN MEDICAL INJECTORS

Case Number	Sub Case	Country	Owner Name	Application Status	App Number	Filing Date	Patent	Issue Date	Title
1453:H	D1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/830542	7/6/2010	8343101	1/1/2013	FLUID DRIVEN MEDICAL INJECTORS
1453:H	D2	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/830546	7/6/2010	8343102	1/1/2013	FLUID DRIVEN MEDICAL INJECTORS
1453:H	D3	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/830559	7/6/2010	8308698	11/13/2012	FLUID DRIVEN MEDICAL INJECTORS
1562:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	09/851462	5/8/2001	7512434	3/31/2009	REMOTELY POWERED MR INJECTOR
1562:H	C1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	11/938553	11/12/2007	7991451	8/2/2011	METHOD OF OPERATION FOR A MAGNETIC RESONANCE IMAGING SUITE
1562:H	C2	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/255282	10/21/2008	7772848	8/10/2010	METHOD OF OPERATION FOR A MAGNETIC RESONANCE IMAGING SUITE
1562:H	X0	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	90/009653	5/8/2001	7512434	9/14/2010	REMOTELY POWERED MR INJECTOR
1617:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	10/750427	12/31/2003	7621892	11/24/2009	CONTRAST CONTAINER HOLDER AND METHOD TO FILL SYRINGES
1617:H	D1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/617558	12/31/2003	8141598	3/27/2012	CONTRAST CONTAINER HOLDER AND METHOD TO FILL SYRINGES
1620:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	10/146696	5/15/2002	6780170	8/24/2004	HYDRAULIC REMOTE FOR A MEDICAL FLUID INJECTOR
1620:H	DV1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	10/924302	8/23/2004	8118780	2/21/2012	HYDRAULIC REMOTE FOR A MEDICAL FLUID INJECTOR
1620:H	DV2	US	LIEBEL-FLARSHEIM COMPANY LLC	Published	13/369407	2/9/2012			HYDRAULIC REMOTE FOR A MEDICAL FLUID INJECTOR

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Case Number	Sub Case	Country	Owner Name	Application Status	App Number	Filing Date	Patent	Issue Date	Title
1624:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	11/571464	9/11/2007	8035517	10/11/2011	SYSTEMS AND METHODS FOR MANAGING INFORMATION RELATING TO MEDICAL FLUIDS AND CONTAINERS THEREFOR
1624:H	D14	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/049482	3/17/2008	7963936	6/21/2011	SYSTEMS AND METHODS FOR MANAGING INFORMATION RELATING TO MEDICAL FLUIDS AND CONTAINERS THEREFOR
1624:H	D3	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	11/617987	12/29/2006	7859473	12/28/2010	SYSTEMS AND METHODS FOR MANAGING INFORMATION RELATING TO MEDICAL FLUIDS AND CONTAINERS THEREFOR
1624:H	D4	US	LIEBEL-FLARSHEIM COMPANY LLC	Published	11/618023	12/29/2006			SYSTEMS AND METHODS FOR MANAGING INFORMATION RELATING TO MEDICAL FLUIDS AND CONTAINERS THEREFOR
1624:H	D6	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	11/618145	12/29/2006	7588189	9/15/2009	SYSTEMS AND METHODS FOR MANAGING INFORMATION RELATING TO MEDICAL FLUIDS AND CONTAINERS THEREFOR
1624:H	T1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	11/618298	12/29/2006	8317099	11/27/2012	SYSTEMS AND METHODS FOR MANAGING INFORMATION RELATING TO MEDICAL FLUIDS AND CONTAINERS THEREFOR

Case Number	Sub Case	Country	Owner Name	Application Status	App Number	Filing Date	Patent	Issue Date	Title
1624:H	T2	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/016583	1/18/2008	8446280	5/21/2013	SYSTEMS AND METHODS FOR MANAGING INFORMATION RELATING TO MEDICAL FLUIDS AND CONTAINERS THEREFOR
1634:H	D1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/108007	4/23/2008	8262644	9/11/2012	DISPOSABLE FRONT LOADABLE SYRINGE AND INJECTOR
1634:H	T1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/107988	4/23/2008	7998133	8/16/2011	DISPOSABLE FRONT LOADABLE SYRINGE AND INJECTOR
1672:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	10/780269	2/17/2004			INJECTOR AUTO PURGE
1672:H	C1	US	LIEBEL-FLARSHEIM COMPANY LLC	Pending	14/149616	1/7/2014			INJECTOR AUTO PURGE
1672:H	CP	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	11/073892	3/7/2005	7771389	8/10/2010	INJECTOR AUTO PURGE
1672:H	T2	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/762588	4/19/2010	8523813	9/3/2013	INJECTOR AUTO PURGE
1707:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	10/964003	10/13/2004	7507221	3/24/2009	IMPROVEMENTS TO POWERHEAD OF A POWER INJECTION SYSTEM
1707:H	C1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/396596	3/3/2009	8366671	2/5/2013	POWERHEAD OF A POWER INJECTION SYSTEM
1707:H	D5	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/013656	1/14/2008	8366670	2/5/2013	POWERHEAD OF A POWER INJECTION SYSTEM
1707:H	D6	US	LIEBEL-FLARSHEIM	Granted	12/013628	1/14/2008	7727196	6/1/2010	POWERHEAD OF A POWER INJECTION SYSTEM

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Case Number	Sub Case	Country	Owner Name	Application Status	App Number	Filing Date	Patent	Issue Date	Title
			COMPANY LLC						
1707:H	DN1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	29/227140	4/7/2005	D547447	7/24/2007	POWER INJECTION SYSTEM FACE PLATE
1707:H	DN2	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	29/227127	4/7/2005	D550838	9/11/2007	IMPROVEMENTS TO POWERHEAD OF A POWER INJECTION SYSTEM
1707:H	DN3	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	29/227139	4/7/2005	D572818	7/8/2008	POWER INJECTION SYSTEM FACE PLATE
1707:H	DV1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	11/073883	3/7/2005	8663164	3/4/2014	POWERHEAD OF A POWER INJECTION SYSTEM
1707:H	DV2	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	11/073902	3/7/2005	8277416	10/2/2012	POWERHEAD OF A POWER INJECTION SYSTEM
1707:H	DV3	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/013647	1/14/2008	8180434	5/15/2012	POWERHEAD OF A POWER INJECTION SYSTEM
1707:H	DV4	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/013644	1/14/2008	8282595	10/9/2012	POWERHEAD OF A POWER INJECTION SYSTEM
1707:H	DV5	US	LIEBEL-FLARSHEIM COMPANY LLC	Published	13/549066	7/13/2012			POWERHEAD OF A POWER INJECTION SYSTEM
1707:H	T1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	11/551792	10/23/2006	7725168	5/25/2010	POWERHEAD OF A POWER INJECTION SYSTEM
1707:H	T2	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/759805	10/23/2006	8251071	8/28/2012	POWERHEAD OF A POWER INJECTION SYSTEM

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REEL: 037172 FRAME: 0109

Case Number	Sub Case	Country	Owner Name	Application Status	App Number	Filing Date	Patent	Issue Date	Title
1709:H	DV1	US	LIEBEL-FLARSHEIM COMPANY LLC	Published	11/073910	3/7/2005			IMPROVEMENTS TO POWERHEAD CONTROL IN A POWER INJECTION SYSTEM
1709:H	DV3	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/796203	3/7/2005	8663166	3/4/2014	IMPROVEMENTS TO POWERHEAD CONTROL IN A POWER INJECTION SYSTEM
1721:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/445501	4/14/2009	8439863	5/14/2013	METHODS FOR CONTROLLING MEDICAL FLUID INJECTIONS
1721:H	C1	US	LIEBEL-FLARSHEIM COMPANY LLC	Published	12/615534	11/10/2009			METHODS FOR CONTROLLING MEDICAL FLUID INJECTIONS
1743:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/439212	2/27/2009	8133198	3/13/2012	MEDICAL FLUID INJECTOR HAVING A THERMO-MECHANICAL DRIVE
1743:H	D1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	13/364108	2/1/2012	8486008	7/16/2013	MEDICAL FLUID INJECTOR HAVING A THERMO-MECHANICAL DRIVE
1749:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	12/679362	3/22/2010			INJECTION MONITOR
1759:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	12/742928	5/14/2010			FLUID DELIVERY SYSTEM WITH MULTI-DOSE FLUID SOURCE
H-MI-00021		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/444162	4/3/2009	8657787	2/25/2014	INJECTOR HAVING LOW INPUT POWER
H-MI-00091		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	12/179129	7/24/2008			POWER INJECTOR WITH MOVABLE JOINT-INTEGRATED SIGNAL TRANSMISSION CONNECTOR

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REEL: 037172 FRAME: 0110

Case Number	Sub Case	Country	Owner Name	Application Status	App Number	Filing Date	Patent	Issue Date	Title
H-MI-00095		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	12/296142	10/6/2008			UNIVERSAL ADAPTER FOR A SYRINGE PLUNGER
H-MI-00096		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/439184	2/27/2009	8141417	3/27/2012	SYRINGE CONTENT DETECTION USING RF ENERGY
H-MI-00097		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	11/551804	10/25/2006			POWERHEAD CONTROL IN A POWER INJECTOR SYSTEM
H-MI-00106		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/665739	12/21/2009	8308689	11/13/2012	DRIVE RAM FOR MEDICAL INJECTORS
H-MI-00106	C1	US	LIEBEL-FLARSHEIM COMPANY LLC	Published	13/646848	10/8/2012			DRIVE RAM FOR MEDICAL INJECTORS
H-MI-00110		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/374059	1/16/2009	8038182	10/18/2011	BREAKAGE RESISTANT FITTING
H-MI-00119		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	11/567011	12/5/2006	8454560	6/4/2013	SYRINGE MOUNT FOR A MEDICAL FLUID INJECTOR
H-MI-00119	D1	US	LIEBEL-FLARSHEIM COMPANY LLC	Pending	13/890815	5/9/2013			POWER INJECTOR SYRINGE FLANGE ACUATED MOUNTING METHOD
H-MI-00135		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	12/921785	9/10/2010			MULTI-FUNCTION, FOOT-ACTIVATED CONTROLLER FOR IMAGING SYSTEM
H-MI-00155		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	13/146299	7/26/2011			HAND-ACTUATED SYRINGE WITH VACUUM CHAMBER FOR AUTO REFILL
H-MI-00159		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	12/921839	9/10/2010			FOOT-ACTIVATED CONTROLLER FOR MEDICAL SYSTEM

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REEL: 037172 FRAME: 0111

Case Number	Sub Case	Country	Owner Name	Application Status	App Number	Filing Date	Patent	Issue Date	Title
H-MI-00160		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	12/746192	6/4/2010			PUSH TO INSTALL SYRINGE MOUNT FOR POWERED INJECTOR SYSTEMS
H-MI-00163		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	12/676968	3/8/2010			POWER INJECTOR WITH HELP FUNCTIONALITY
H-MI-00166		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/742938	5/14/2010	8348896	1/8/2013	PATENCY CHECK WITH PRESSURE MONITORING
H-MI-00167		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/742934	5/14/2010	8377003	2/19/2013	POWER INJECTOR WITH RAM RETRACTION
H-MI-00167	C1	US	LIEBEL-FLARSHEIM COMPANY LLC	Published	13/670506	11/7/2012			POWER INJECTOR WITH RAM RETRACTION
H-MI-00168		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/742943	5/14/2010	8500677	8/6/2013	POWER INJECTOR WITH FLOW RATE ASSESSMENT
H-MI-00168	C1	US	LIEBEL-FLARSHEIM COMPANY LLC	Pending	13/869822	4/24/2013			POWER INJECTOR WITH FLOW RATE ASSESSMENT
H-MI-00170		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	12/742930	5/14/2010			POWER INJECTOR WITH STATUS MESSAGING
H-MI-00178		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	13/055764	1/25/2011	8409134	4/2/2013	POWER INJECTOR HAVING CALIBRATED PRESSURE MONITORING FUNCTIONALITY
H-MI-00180		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	12/921787	9/10/2010			FOOT-ACTIVATED CONTROLLER FOR IMAGING SYSTEM

Case Number	Sub Case	Country	Owner Name	Application Status	App Number	Filing Date	Patent	Issue Date	Title
H-MI-00186		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	13/056177	1/27/2011	8562563	10/22/2013	POWER INJECTOR SYRINGE CLAMP ASSEMBLY WITH RFID ANTENNA READER
H-MI-00187		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	13/260578	9/27/2011			MEDICAL FLUID DELIVERY SYSTEM WITH RFID-EQUIPPED WAND
H-MI-00187	C1	US	LIEBEL-FLARSHEIM COMPANY LLC	Pending	14/173190	2/5/2014			MEDICAL FLUID DELIVERY SYSTEM WITH RFID-EQUIPPED WAND
H-MI-00189		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	13/260575	9/27/2011			MEDICAL FLUID DELIVERY SYSTEM WITH REUSABLE RFID FIXTURE
H-MI-00204		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	13/133290	6/7/2011	8417320	4/9/2013	SYRINGE WITH VISUAL USE INDICATOR
H-MI-00204	D1	US	LIEBEL-FLARSHEIM COMPANY LLC	Pending	13/794141	3/11/2013			SYRINGE WITH VISUAL USE INDICATOR
H-MI-00210		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	12/810149	6/23/2010			POWER INJECTOR WITH DECAY CONSTANT FUNCTIONALITY
H-MI-00212		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	12/996989	12/9/2010			POWER INJECTOR WITH KEEP OPEN VEIN OPEN FUNCTIONALITY
H-MI-00214		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	13/144304	7/13/2011	8628514	1/14/2014	MULTI-DOSE MEDICAL FLUID INJECTION SYSTEM HAVING PATIENT-SPECIFIC TUBING SET WITH USE INDICATOR

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REEL: 037172 FRAME: 0113

Case Number	Sub Case	Country	Owner Name	Application Status	App Number	Filing Date	Patent	Issue Date	Title
H-MI-00214	C1	US	LIEBEL-FLARSHEIM COMPANY LLC	Pending	14/092483	11/27/2013			MULTI-DOSE MEDICAL FLUID INJECTION SYSTEM HAVING PATIENT-SPECIFIC TUBING SET WITH USE INDICATOR
H-MI-00219		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	13/263087	10/6/2011			VACUUM ASSIST SYRINGE FILLING
H-MI-00225		US	LIEBEL-FLARSHEIM COMPANY LLC	Pending	14/232305	1/13/2014			INJECTION SYSTEM WITH CAPACITIVE SENSING
H-MI-00237		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	12/811104	6/29/2010			AUTOMATIC INJECTOR RAM HOMING
H-MI-00238		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	14/003893	9/9/2013			Apparatus and Method to Determine Contrast Media Injection Parameters to Control Signal Intensity During Magnetic Resonance Angiography
H-MI-00262		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/996466	12/6/2010	8431074	4/30/2013	ULTRAVIOLET TUBING AND TIP STERILIZER
H-MI-00267		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	13/201632	8/16/2011			SYSTEMS AND METHOD FOR ASSESSING FUNCTIONALITY OF DUAL CHECK VALVE ARRANGEMENTS IN MEDICAL TUBING SETS
H-MI-00300		US	LIEBEL-FLARSHEIM COMPANY LLC	Pending	14/131764	1/9/2014			INJECTION DATA MANAGEMENT SYSTEM AND METHOD
H-MI-00304		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	13/876040	3/26/2013			CONTRAST MEDIA MANAGEMENT USING PATIENT RENAL FUNCTION

Case Number	Sub Case	Country	Owner Name	Application Status	App Number	Filing Date	Patent	Issue Date	Title
H-MI-00310		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	13/520202	7/2/2012			SYRINGE PRODUCTS AND RELATED METHODS AND USES
H-MI-00329		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	13/988800	5/22/2013			MEDICAL FLUID INJECTOR SYSTEM
H-MI-00333		US	LIEBEL-FLARSHEIM COMPANY LLC	Pending	14/115363	11/4/2013			CONTRAST MEDIA INJECTION DATA MANAGEMENT SYSTEM
1576:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	10/186764	7/1/2002	6946060	9/20/2005	PURIFICATION OF N,N-DIMETHYL ACETAMIDE WITH ACETIC ACID PRESENT
1576:H	X1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	90/007967	3/10/2006	6946060	10/9/2007	PURIFICATION OF N,N-DIMETHYL ACETAMIDE WITH ACETIC ACID PRESENT
1008:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	08/863647	5/27/1997	6245318	6/12/2001	Selectively Binding Ultrasound Contrast Agents
1159:H	1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	10/798486	3/11/2004	7374745	5/20/2008	Acoustically efficient formulations for ultrasound contrast New Title: Novel Ultrasound Contrast Agents
1260:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	09/932291	8/17/2001	7087212	8/8/2006	Multicomponent Assemblies Having Enhanced Binding Properties For Diagnosis and Therapy
1260:H	D1	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	11/462591	8/4/2006	7713514	5/11/2010	Multicomponent Assemblies Having Enhanced Binding Properties For Diagnosis and Therapy

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REEL: 037172 FRAME: 0115

Case Number	Sub Case	Country	Owner Name	Application Status	App Number	Filing Date	Patent	Issue Date	Title
1260:H	D2	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/603402	10/21/2009	8257683	9/4/2012	Multicomponent Assemblies Having Enhanced Binding Properties For Diagnosis and Therapy
1260:H	D3	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/603438	10/21/2009	8246930	8/21/2012	Multicomponent Assemblies Having Enhanced Binding Properties For Diagnosis and Therapy
1260:H	D4	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/834463	7/12/2010	8303932	11/6/2012	Multicomponent Assemblies Having Enhanced Binding Properties For Diagnosis and Therapy
1260:H	D5	US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/834521	7/12/2010	8303933	11/6/2012	Multicomponent Assemblies Having Enhanced Binding Properties For Diagnosis and Therapy
1667:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Published	10/588674	8/8/2006			LOW OSMOLAR X-RAY CONTRAST MEDIA FORMULATIONS
1699:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/811833	7/7/2010	8445725	5/21/2013	PROCESS FOR THE PREPARATION OF IOSIMENOL
1699:H	D1	US	LIEBEL-FLARSHEIM COMPANY LLC	Published	13/772572	2/21/2013			PROCESS FOR THE PREPARATION OF IOSIMENOL
H-MI-00161		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	12/675130	2/25/2010	8420857	4/16/2013	REMOVAL OF SILICA FROM WATER SOLUBLE COMPOUNDS BY NANOFILTRATION AND REVERSE PHASE CHROMATOGRAPHY

Case Number	Sub Case	Country	Owner Name	Application Status	App Number	Filing Date	Patent	Issue Date	Title
H-MI-00341		US	LIEBEL-FLARSHEIM COMPANY LLC	Pending	14/149027	1/7/2014			AN IMPROVED SYNTHESIS OF THE CHEMICAL INTERMEDIATE N1, N3-BIS(2,3-DIHYDROXYPROPYL)-5-NITROISOPHTHALAMIDE
M0908:H		US	LIEBEL-FLARSHEIM COMPANY LLC	Granted	08/593775	1/29/1996	6596904	7/22/2003	Process for Producing Ioversol

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