

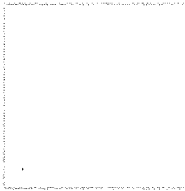


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**HOME > 723930 - COMPLETE PATENT - APPARATUS FOR CONTROLLING FLUID FLOW****Case Data**

Patent Number	723930	Submission Date	09 Sep 2016
Status	Accepted	Acceptance Date	15 Nov 2016
		Published Date	25 Nov 2016
		Request to be Granted as Patent of Addition	No

Related Application(s)

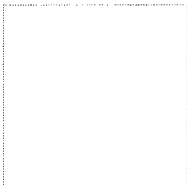
Divisional	☒ Divisional application You have requested that the date of filing of this application be antedated to the date of filing of the parent application.							
	Case Number	Title of Invention	Abstract Drawing	Priority Date	Case Status	Owner	Abstract	Specification
Parent Application	<u>715098</u>	APPARATUS FOR CONTROLLING FLUID FLOW		21 Dec 2011	Granted	DEKA PRODUCTS LIMITED PARTNERSHIP	An apparatus (1), system and method for monitoring fluid flow in an intravenous drip are disclosed. The apparatus holds a drip chamber (4) in relation to an imaging device or processor (11, 19, 18, 20). Distortion of a background image or pattern due to refraction of light through the flowing, dripp (...)	Specification
Child Application	<u>725469</u>	APPARATUS FOR CONTROLLING FLUID FLOW		21 Dec 2011	Under Examination	DEKA PRODUCTS LIMITED PARTNERSHIP		

Contact

Agent	Id	Name	Close
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Applicant(s)	600330 HENRY HUGHES IP LIMITED						
	Id	Name	Address(es)				
	3140005	DEKA PRODUCTS LIMITED PARTNERSHIP	Physical : 340 Commercial Street Manchester NH 03101 (US)				
Case Contact	Id	Name	Address	Town	Post Code	Country	Address Type
	600330	HENRY HUGHES IP LIMITED	PO Box 356	Wellington	6140	NZ	Postal

Patent Information

Filing Date	21 Dec 2012																						
Complete Specification Filing Date	21 Dec 2012																						
Expedited examination requested																							
Technology Group	Mechanical																						
Inventor(s)	<table><tr><td>Id</td><td>Name</td></tr><tr><td>3140015</td><td>BRYANT, Jr., Robert, J.</td></tr><tr><td>3140020</td><td>CLARKE, Kaitlyn, S.</td></tr><tr><td>3140011</td><td>JOHNSON, Matthew, J.</td></tr><tr><td>3140006</td><td>KAMEN, Dean</td></tr><tr><td>3140008</td><td>KANE, Derek, G.</td></tr><tr><td>3140017</td><td>KERWIN, John, M.</td></tr><tr><td>3140013</td><td>LANGENFELD, Christopher, C.</td></tr><tr><td>3140014</td><td>LANIGAN, Richard, J.</td></tr><tr><td>3140016</td><td>MURPHY, Colin, H.</td></tr><tr><td>3140007</td><td>PERET, Bob, D.</td></tr></table>	Id	Name	3140015	BRYANT, Jr., Robert, J.	3140020	CLARKE, Kaitlyn, S.	3140011	JOHNSON, Matthew, J.	3140006	KAMEN, Dean	3140008	KANE, Derek, G.	3140017	KERWIN, John, M.	3140013	LANGENFELD, Christopher, C.	3140014	LANIGAN, Richard, J.	3140016	MURPHY, Colin, H.	3140007	PERET, Bob, D.
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12Items per page : 10																							
☒ We declare the first and true inventor(s) of the invention disclosed in the complete specification filed with the present application are as listed. If you do not make this declaration you will have to submit a Declaration of Inventorship in the future before your application can be accepted.																							
An apparatus (1), system and method for monitoring fluid flow in an intravenous drip are disclosed. The apparatus holds a drip chamber (4) in relation to an imaging device or processor (11, 19, 18, 20). Distortion of a background image or pattern due to refraction of light through the flowing, dripping liquid is detected by the processor. The estimated flow rate into the drip chamber (4) is then used to generate an error signal to control a valve actuator (6) with a closed loop control system (14).																							
Abstract																							
Abstract Drawing																							
Application Type	National Complete																						
Title of Invention	APPARATUS FOR CONTROLLING FLUID FLOW																						
Office Title	Apparatus for detecting, monitoring fluid flow in a gravity fed intravenous drip by generating a difference image due to refraction of light through flowing, dripping liquid																						
Act	1953 Act																						
	We declare, to the best of our knowledge and belief that there is no lawful ground of objection to the grant of a patent on this application and we pray that a patent may be granted with priority founded on the above-mentioned application(s) in a convention country or countries for the invention described in the accompanying complete specification. We also request that a patent may be sealed on our application when granted.																						
Priority	Close																						

Convention Priority	Country	Priority Date	Convention Priority Number	Retrieved from WIPO DAS
	United States of America	21 Dec 2011	61/578,649	No
	United States of America	21 Dec 2011	61/578,658	No
	United States of America	21 Dec 2011	61/578,674	No
	United States of America	24 May 2012	61/651,322	No
	United States of America	03 Aug 2012	61/679,117	No
	United States of America	21 Dec 2011	13/333,574	No
	United States of America	21 Dec 2011	PCT/US11/66588	No
We declare that one or more applications for protection for an invention have been made in the specified country or countries on the specified official dates . Each of these applications was the first application in a convention country in respect of the relevant invention by the applicant(s) or by any person from whom they derive title.				
☐ We are the original applicant				
☒ We are the assignee of the original applicant				

Patent Specification

Patent Specification	Title	Type	Received Date	Publication Date	Status
	APPARATUS FOR CONTROLLING FLUID FLOW	<u>A Specification</u>	28 Oct 2016	25 Nov 2016	Accepted

International Patent Classification

International Patent Classification	Class	Label	Version	Creation date
	A61M 5/168	Means for controlling media flow to the body or for metering media to the body, e.g. drip meters, counters	2014.01	5/09/2016 9:28:00 a.m.

2 Linked case(s)

Case Number	Case Type	Link Type	Case Title	Submission Date	Case Status	Owner
<u>715098</u>	Complete Patent	Parent	APPARATUS FOR CONTROLLING FLUID FLOW	14 Dec 2015	Granted	DEKA PRODUCTS LIMITED PARTNERSHIP
<u>725469</u>	Complete Patent	Divisional	APPARATUS FOR CONTROLLING FLUID FLOW	27 Oct 2016	Under Examination	DEKA PRODUCTS LIMITED PARTNERSHIP

2 History(s)

History Type	Description	Creation date	Journal	Published
Patent accepted	Application for Patent Accepted Patent Number (11): 723930 Title (54): APPARATUS FOR CONTROLLING FLUID FLOW Filing Date (22): 21 Dec 2012 Complete Specification Date (23): 21 Dec 2012 Postponement Period: 0 Applicant (71): DEKA PRODUCTS LIMITED PARTNERSHIP, 340 Commercial Street, Manchester NH 03101, US Contact (74): HENRY HUGHES IP LIMITED, PO Box 356, Wellington 6140, NZ Inventor(s) (72): KAMEN, Dean, 15 Westwind Drive Bedford, NH 03110, US PERET, Bob, D., 34 Birchwood Circle Bedford, NH 03110, US KANE, Derek, G., 174 N. Adams Street Manchester, NH 03104, US YOO, Brian, H., 21 Regent Street Cambridge, MA 02140, US TRACEY, Brian, D., 151 Talent Road Litchfield, NH 03052, US JOHNSON, Matthew, J., 76 Stinson Drive Dunbarton, NH 03046, US	16 Nov 2016	1649	25 Nov 2016

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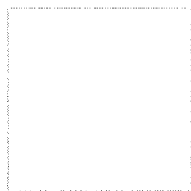
International Patent
Classification (51):

A61M 5/168

Priority (30):

(31)61/578,649 (32)21 Dec 2011 (33)United States
of America
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of America
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of America
(31)61/651,322 (32)24 May 2012 (33)United States
of America
(31)61/679,117 (32)03 Aug 2012 (33)United States
of America
(31)13/333,574 (32)21 Dec 2011 (33)United States
of America
(31)PCT/US11/66588 (32)21 Dec 2011 (33)United
States of America

Abstract Drawing:



Abstract (57):

An apparatus (1), system and method for monitoring fluid flow in an intravenous drip are disclosed. The apparatus holds a drip chamber (4) in relation to an imaging device or processor (11, 19, 18, 20). Distortion of a background image or pattern due to refraction of light through the flowing, dripping liquid is detected by the processor. The estimated flow rate into the drip chamber (4) is then used to generate an error signal to control a valve actuator (6) with a closed loop control system (14).

(62):

Divided out of 715098

Application
for
Complete
Patent

Application for Patent Submitted

09 Sep 2016 1647

30 Sep 2016

Patent Number (11):

723930

Title (54):

APPARATUS FOR CONTROLLING FLUID FLOW

Filing Date (22):

21 Dec 2012

Complete Specification
Date (23):

21 Dec 2012

Postponement Period:

12

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YOO, Brian, H., 21 Regent Street Cambridge, MA
02140, US

International Patent
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Priority (30):

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