505879907 01/23/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5926732

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JOHN B. STETSON	07/09/2018
ARUL MANICKAM	05/03/2018
PETER G. KAUP	04/18/2018
GREGORY SCOTT BRUCE	04/03/2018
WILBUR LEW	04/13/2018
JOSEPH W. HAHN	04/16/2018
NICHOLAS MAURIELLO LUZOD	04/24/2018
KENNETH MICHAEL JACKSON	04/13/2018
JACOB LOUIS SWETT	04/16/2018
PETER V. BEDWORTH	04/24/2018
STEVEN W. SINTON	04/12/2018
DUC HUYNH	04/13/2018
MICHAEL JOHN DIMARIO	04/13/2018
JAY T. HANSEN	04/13/2018
ANDREW RAYMOND MANDEVILLE	05/09/2018
BRYAN NEAL FISK	04/24/2018
JOSEPH A. VILLANI	04/24/2018
JON C. RUSSO	04/12/2018
DAVID NELSON COAR	04/18/2018
JULIE LYNNE MILLER	06/16/2018
ANJANEY PRAMOD KOTTAPALLI	04/24/2018
GARY EDWARD MONTGOMERY	04/12/2018
MARGARET MILLER SHAW	04/17/2018
STEPHEN SEKELSKY	04/17/2018
JAMES MICHAEL KRAUSE	04/13/2018
THOMAS J. MEYER	04/13/2018

RECEIVING PARTY DATA

Name:	LOCKHEED MARTIN CORPORATION	
Street Address: 6801 ROCKLEDGE DRIVE		
City:	BETHESDA	

PATENT REEL: 051691 FRAME: 0275

505879907

State/Country:	MARYLAND
Postal Code:	20817

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15610526

CORRESPONDENCE DATA

Fax Number: (202)672-5399

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 202-672-5300

Email: gbenoy@foley.com, ipdocketing@foley.com

Correspondent Name: FOLEY & LARDNER LLP
Address Line 1: 3000 K STREET NW

Address Line 2: SUITE 600

Address Line 4: WASHINGTON, D.C. 20007

ATTORNEY DOCKET NUMBER:	111423-1607
NAME OF SUBMITTER:	GWEN M. BENOY
SIGNATURE:	/Gwen M. Benoy/
DATE SIGNED:	01/23/2020

Total Attachments: 27

source=111423-1607 Assignment#page1.tif source=111423-1607 Assignment#page2.tif source=111423-1607 Assignment#page3.tif source=111423-1607 Assignment#page4.tif source=111423-1607_Assignment#page5.tif source=111423-1607_Assignment#page6.tif source=111423-1607 Assignment#page7.tif source=111423-1607 Assignment#page8.tif source=111423-1607_Assignment#page9.tif source=111423-1607_Assignment#page10.tif source=111423-1607 Assignment#page11.tif source=111423-1607 Assignment#page12.tif source=111423-1607 Assignment#page13.tif source=111423-1607_Assignment#page14.tif source=111423-1607 Assignment#page15.tif source=111423-1607 Assignment#page16.tif source=111423-1607 Assignment#page17.tif source=111423-1607_Assignment#page18.tif source=111423-1607 Assignment#page19.tif source=111423-1607 Assignment#page20.tif

source=111423-1607_Assignment#page21.tif source=111423-1607_Assignment#page22.tif

PATENT REEL: 051691 FRAME: 0276 source=111423-1607_Assignment#page23.tif
source=111423-1607_Assignment#page24.tif
source=111423-1607_Assignment#page25.tif
source=111423-1607_Assignment#page26.tif
source=111423-1607_Assignment#page27.tif

PATENT REEL: 051691 FRAME: 0277

ASSIGNMENT - WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor (hereinafter referred to singly and collectively as "ASSIGNOR") has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto

LOCKHEED MARTIN CORPORATION 6801 ROCKLEDGE DRIVE BETHESDA, MD 20817

(hereinafter referred to as "ASSIGNEE") its successors and assigns, the full and exclusive right, title and interest for the United States, its territories and possessions, and all foreign countries in and to this invention relating to

Magneto-Optical Detecting Apparatus and Methods

check one		executed concurrently herewith,
	[]	executed on
	[X]	Serial No. 15/610,526 Filed 5/31/2017

as set forth in this United States Patent Application

as well as in and to (a) all improvements and modifications of the above-identified invention or inventions, (b) the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto for above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States and countries foreign thereto, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the Patent Cooperation Treaty, the Paris Convention and any other international agreement; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES ASSIGNEE to file patent applications in any or all countries on the above-identified invention or inventions in the name of the undersigned or in the name of ASSIGNEE or otherwise as ASSIGNEE may deem advisable under the International Convention or otherwise.

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

Page 1 of 6

ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representative or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, and declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of Foley & Lardner LLP the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of Foley & Lardner LLP do not personally represent ASSIGNOR OR ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

NAME	AND SIGNATURE OF INVE	<u>VTOR</u>	to pull of
Name:	JOHN B. STETSON	SIGNATURE	ion of plant
		DATE	7/9/2018
NAME	AND SIGNATURE OF INVE	<u>vtor</u>	
Name:	ARUL MANICKAM	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVE	YTOR	
Name:	PETER G. KAUP	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVE	YTOR	
Name:	GREGORY SCOTT BRUCE	SIGNATURE	
	BRUCE	DATE	
NAME	AND SIGNATURE OF INVE	<u>NTOR</u>	
Name:	WILBUR LEW	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVE	<u>NTOR</u>	
Name:	JOSEPH W. HAHN	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVE	YTOR	
Name:	NICHOLAS MAURIELLO LUZOD	SIGNATURE	
A 100808 W 0			
	DATE		

NAME	AND SIGNATURE OF INVEN	TOR	
Name:	JOHN B. STETSON	SIGNATURE DATE	
NAME	AND SIGNATURE OF INVEN	TOR	1 1 11 0
Name:	ARUL MANICKAM	SIGNATURE DATE	Aul Manul
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	PETER G. KAUP	SIGNATURE DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	GREGORY SCOTT BRUCE	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	WILBUR LEW	SIGNATURE	
NAME_	AND SIGNATURE OF INVEN	<u>TOR</u>	
Name:	JOSEPH W. HAHN	SIGNATURE DATE	
NAME.	AND SIGNATURE OF INVEN	TOR	
Name:	NICHOLAS MAURIELLO LUZOD	SIGNATURE	
		DATE	

4840-5889-5948.1

PATENT REEL: 051691 FRAME: 0281

NAME	AND SIGNATURE OF INVE	NTOR	
Name:	JOHN B. STETSON	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVE	<u>NTOR</u>	
Name:	ARUL MANICKAM	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVE	NTOR	
Name:	PETER G. KAUP	SIGNATURE	De g D
		DATE	4/18/2018
NAME	AND SIGNATURE OF INVE	NTOR	
Name:	GREGORY SCOTT BRUCE	SIGNATURE	
	DROCE	DATE	
NAME	AND SIGNATURE OF INVE	NTOR	
Name:	WILBUR LEW	SIGNATURE	
elmääääääääääääääääääääääääääääääääääää		DATE	
NAME	AND SIGNATURE OF INVE	NTOR	
Name:	JOSEPH W. HAHN	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVE	<u>NTOR</u>	
Name:	NICHOLAS MAURIELLO LUZOD	SIGNATURE	

NAME	AND SIGNATURE OF INVE	NTOR	
Name:	JOHN B. STETSON	SIGNATURE DATE	
NAME	AND SIGNATURE OF INVE	NTOR .	
Name:	ARUL MANICKAM	SIGNATURE DATE	
NAME	AND SIGNATURE OF INVE	NTOR	
Name:	PETER G. KAUP	SIGNATURE DATE	
NAME	AND SIGNATURE OF INVE	NTOR	
Name:	GREGORY SCOTT BRUCE	SIGNATURE DATE	Aregy Scut Pau 4/ 3/2018
NAME	AND SIGNATURE OF INVE	NTOR	
Name:	WILBUR LEW	SIGNATURE DATE	
NAME	AND SIGNATURE OF INVE	NTOR	
Name:	JOSEPH W. HAHN	SIGNATURE DATE	
NAME.	AND SIGNATURE OF INVE	NTOR	
Name:	NICHOLAS MAURIELLO LUZOD	SIGNATURE	
		DATE	

NAME	AND SIGNATURE OF INV	ENTOR	
Name:	JOHN B. STETSON	SIGNATURE	
		DATE	***************************************
78. Y A 78. 30° 80°	A SATEN AND AND A CHARLEST AND ENGINEERS	·	
MAIVIE	AND SIGNATURE OF INV	ENIUK	
Name:	ARUL MANICKAM	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	PETER G. KAUP	SIGNATURE	
		DATE	THE PROPERTY OF THE PROPERTY O
NAME	AND SIGNATURE OF INV	ENTOR	
	***************************************	·	
Name:	GREGORY SCOTT BRUCE	SIGNATURE	
		DATE	
NAME.	AND SIGNATURE OF INV	ENTOR	
	WILBUR LEW	SIGNATURE	1501
i talito.	9 10 3,3,423,40 °C,4 C.C., Sud Sud - 9 7 .	DATE	Wung.
			4-13-2018
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	JOSEPH W. HAHN	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	NICHOLAS MAURIELLO	NAV-PROGRAGOROGRAGORA	
E TELIALO,	LUZOD	OIONALUND	
		DATE	

NAME	AND SIGNATURE OF INVEN	TOR	
Name:	JOHN B. STETSON	SIGNATURE	
		DATE	
TAT A TA MITTE	ል ኤርምኤ <i>ድኒዊ ድ</i> ኒዬን ሊያያነዣ የውጭን ልጭ ውን ሃ ኤርና የድር ኤር	(EC)	
NAME	AND SIGNATURE OF INVEN	TOK	
Name:	ARUL MANICKAM	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	PETER G. KAUP	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	GREGORY SCOTT BRUCE	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	WILBUR LEW	SIGNATURE	
		DATE	
NAME	<u>AND SIGNATURE OF INVEN</u>	TOR	
Name:	JOSEPH W. HAHN	SIGNATURE	Deszeph W. Kahn
		DATE	4/16/2018
NAME	AND SIGNATURE OF INVEN	TOR	
***************************************		•••••	
Name:	NICHOLAS MAURIELLO LUZOD	SIGNATURE	
		DATE	

NAME	AND SIGNATURE OF INVE	NTOR	
Name:	JOHN B. STETSON	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVE	NTOR	
Name:	ARUL MANICKAM	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVE	INTOR	
Name:	PETER G. KAUP	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVE	NTOR	
Name:	GREGORY SCOTT BRUCE	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVE	NTOR	
Name:	WILBUR LEW	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVE	NTOR	
Name:	JOSEPH W. HAHN	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVE	NTOR	
Name:	NICHOLAS MAURIELLO	SIGNATURE	ALL M
	LUZOD	EN 4 12751	
		DATE	4/24/18



Atty. Dkt. No. 111423-1607

NAME	AND SIGNATURE OF INV	ENTOR	
Name:	KENNETH MICHAEL JACKSON	SIGNATURE	fred Jula
		DATE	4/13/208
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	JACOB LOUIS SWETT	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	PETER V. BEDWORTH	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVI	ENTOR	
Name:	STEVEN W. SINTON	SIGNATURE	
		DATE	747-6-144-3
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	DUC HYUNH	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	MICHAEL JOHN DIMARIO	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVI	ENTOR	
Name:	JAY T. HANSEN	SIGNATURE	
		DATE	

NAME	AND SIGNATURE OF INVEN	TOR	
Name:	KENNETH MICHAEL JACKSON	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	11111
Name:	JACOB LOUIS SWETT	SIGNATURE	In LIN
		DATE	April 16 2018
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	PETER V. BEDWORTH	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	STEVEN W. SINTON	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	DUC HYUNH	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	MICHAEL JOHN DIMARIO	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	JAY T. HANSEN	SIGNATURE	
		DATE	

NAME	AND SIGNATURE OF INVEN	TOR	
Name:	KENNETH MICHAEL JACKSON	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	JACOB LOUIS SWETT	SIGNATURE	
TASHIC.	JACOD LOUIS 5 WEI I		7.000.000.000.000.000.000.000.000.000.0
		DATE	The state of the s
NAME	AND SIGNATURE OF INVEN	TOR	$\rightarrow \lambda$
Name:	PETER V. BEDWORTH	SIGNATURE !	XQ
		DATE	27A, 1016
		The same of the sa	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	STEVEN W. SINTON	SIGNATURE	
		DATE	
NI A BATT	AND SIGNATURE OF INVEN	TAB	With the state of
adanábahanananananá	<u>grapininghhinnarinnarhannaraananaraanarinahhinnadaahhihhinnadaahhidaaniidisciidisciidisciinniididi</u>	ALCOGNIANODOUCK	
Name:	DUC HYUNH	SIGNATURE	Night Angel Market and the second an
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	MICHAEL JOHN	SIGNATURE	
a vareasse.	DIMARIO	OLOI TITL OLG	
	·	DATE	
NAME	AND SIGNATURE OF INVEN	TOR	,
Name:	JAYT. HANSEN	SIGNATURE	
		DATE	

NAME	AND SIGNATURE OF INVI	ENTOR	
Name:	KENNETH MICHAEL JACKSON	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVI	ENTOR	
Name:	JACOB LOUIS SWETT	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVI	ENTOR	
Name:	PETER V. BEDWORTH	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVI	ENTOR	2 12 15
Name:	STEVEN W. SINTON	SIGNATURE_	2 Store
		DATE	April 12, 2018
NAME	AND SIGNATURE OF INVI	ENTOR	,
Name:	DUC HYUNH	SIGNATURE	
		DATE	****
NAME.	AND SIGNATURE OF INVE	INTOR	
Name:	MICHAEL JOHN DIMARIO	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVE	NTOR	
Name:	JAY T. HANSEN	SIGNATURE	
		DATE	

NAME	AND SIGNATURE OF INVEN	TOR	
Name:	KENNETH MICHAEL JACKSON	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	JACOB LOUIS SWETT	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	PETER V. BEDWORTH	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	STEVEN W. SINTON	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	···
Name:	DUC HYUNH DH	SIGNATURE	Quelly 2
	HUYNH	DATE	4/13/2018
NAME	AND SIGNATURE OF INVEN	TOR	,
Name:	MICHAEL JOHN DIMARIO	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	JAY T. HANSEN	SIGNATURE	
		DATE	

NAME	AND SIGNATURE OF INV	ENTOR	
Name:	KENNETH MICHAEL JACKSON	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	JACOB LOUIS SWETT	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	PETER V. BEDWORTH	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	STEVEN W. SINTON	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	DUC HYUNH	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	MICHAEL JOHN	SIGNATURE	
	DIMARIO	DATE	July John D Jain
		DAIL	4/13/18
NAME	AND SIGNATURE OF INV	ENTOR	A
Name:	JAY T. HANSEN	SIGNATURE	D. Thu
		DATE	0 4/12/10

NAME	AND SIGNATURE OF INVEN	TOR	_
Name:	ANDREW RAYMOND MANDEVILLE	SIGNATURE	CRA
		DATE	05/09/18
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	BRYAN NEAL FISK	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	JOSEPH A. VILLANI	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	JON C. RUSSO	SIGNATURE	
reamo.	VOIT CROBGO	DATE	
NAME	AND SIGNATURE OF INVEN	<u>TOR</u>	
Name:	DAVID NELSON COAR	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	<u>TOR</u>	
Name:	JULIE LYNNE MILLER	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	ANJANEY PRAMOD	SIGNATURE	
KAURITE.	KOTTAPALLI	DIONATORE	
		DATE	

Page 5 of 6

NAME	AND SIGNATURE OF INVI	ENTOR	
Name:	ANDREW RAYMOND MANDEVILLE	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVI	ENTOR	a. Ca
Name:	BRYAN NEAL FISK	SIGNATURE	Alfa Me
		DATE	4/24/2018
NAME	AND SIGNATURE OF INVI	ENTOR	
Name:	JOSEPH A. VILLANI	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVI	ENTOR	
Name:	JON C. RUSSO	SIGNATURE	
		DATE	N
NAME	AND SIGNATURE OF INVI	ENTOR	
Name:	DAVID NELSON COAR	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVI	ENTOR	
Name:	JULIE LYNNE MILLER	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVI	ENTOR	
Name:		SIGNATURE	
1 4001101	KOTTAPALLI		
		DATE	

NAME	AND SIGNATURE OF INVE	NTOR .	
Name:	ANDREW RAYMOND MANDEVILLE	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	NTOR .	
Name:	BRYAN NEAL FISK	SIGNATURE	
- (0)		DATE	
NAME	AND SIGNATURE OF INVEN	NTOR	
Name:	JOSEPH A. VILLANI	SIGNATURE	
name.	JOSEPH A. VILLANI	SIGNATURE	Janofl Villoni
		DATE	4/24/2018
NAME	AND SIGNATURE OF INVEN	NTOR .	
Name:	JON C. RUSSO	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVE	NTOR .	
Name:	DAVID NELSON COAR	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	NTOR	
Name:	JULIE LYNNE MILLER	SIGNATURE	
rume.	JOERE ETTIVE MIEEER	DATE	
<u>NAME</u>	AND SIGNATURE OF INVE	NTOR	
Name:	ANJANEY PRAMOD KOTTAPALLI	SIGNATURE	
		DATE	

NAME	AND SIGNATURE OF INV	ENTOR	
Name:	ANDREW RAYMOND MANDEVILLE	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	BRYAN NEAL FISK	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	JOSEPH A. VILLANI	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVI	ENTOR	22
Name:	JON C. RUSSO	SIGNATURE	- Gral Jusso
		DATE	Apr. 12, 2018
NAME	AND SIGNATURE OF INVI	ENTOR	
Name:	DAVID NELSON COAR	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVI	ENTOR	
Name:	JULIE LYNNE MILLER	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVI	ENTOR	
Name:	ANJANEY PRAMOD KOTTAPALLI	SIGNATURE	
		DATE	

NAME	AND SIGNATURE OF INV	ENTOR	
Name:	ANDREW RAYMOND MANDEVILLE	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	BRYAN NEAL FISK	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	<u>ENTOR</u>	
Name:	JOSEPH A. VILLANI	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	JON C. RUSSO	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	DAVID NELSON COAR	SIGNATURE	
		DATE	4-14-19
NAME	AND SIGNATURE OF INV	<u>ENTOR</u>	
Name:	JULIE LYNNE MILLER	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	<u>ENTOR</u>	
Name:	ANJANEY PRAMOD KOTTAPALLI	SIGNATURE	
	ARTON A ARTON ARTHUR	DATE	

NAME	AND SIGNATURE OF INVE	NTOR
Name:	ANDREW RAYMOND MANDEVILLE	SIGNATURE
		DATE
NAME	AND SIGNATURE OF INVE	NTOR
Name:	BRYAN NEAL FISK	SIGNATURE
		DATE
NAME	AND SIGNATURE OF INVE	NTOR
Name:	JOSEPH A. VILLANI	SIGNATURE
		DATE
NAME	AND SIGNATURE OF INVE	NTOR
Name:	JON C. RUSSO	SIGNATURE
		DATE
NAME	AND SIGNATURE OF INVE	ENTOR
Name:	DAVID NELSON COAR	SIGNATURE
		DATE
NAME	AND SIGNATURE OF INVE	ENTOR
Name:	JULIE LYNNE MILLER	SIGNATURE Juli Lynn Wille
		DATE June 16, 2018
NAME	AND SIGNATURE OF INVE	ENTOR
Name:	ANJANEY PRAMOD KOTTAPALLI	SIGNATURE
	MOTOLINE	DATE

Page 5 of 6

4840-5889-5948.1

NAME	AND SIGNATURE OF INVI	ENTOR	
Name:	ANDREW RAYMOND MANDEVILLE	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVI	ENTOR	
Name:	BRYAN NEAL FISK	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVI	ENTOR	,
Name:	JOSEPH A. VILLANI	SIGNATURE	
an di sessitana ansa	and the second of the control of the second section.	DATE	
NAME	AND SIGNATURE OF INVI	ENTAD	
name:	JON C. RUSSO	SIGNATURE DATE	
		DAIE	
NAME	AND SIGNATURE OF INVI	ENTOR	
Name:	DAVID NELSON COAR	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	<u>entor</u>	
Name:	JULIE LYNNE MILLER	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	ANJANEY PRAMOD	SIGNATURE	Ä.
C. ARKS P. P. P.	KOTTAPALLI	SPAN ALE LANGUES	1-16
		DATE	24 100 2018

NAME	AND SIGNATURE OF IN	<u> VENTOR</u>	
Name:	GARY EDWARD MONTGOMERY	SIGNATURE	My Edward Nutro
		DATE	0 4/12/18
NAME	AND SIGNATURE OF INV	ENTOR	, ,
Name:	MARGARET MILLER SHAW	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	STEPHEN SEKELSKY	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	ENTOR	
Name:	JAMES MICHAEL KRAUSE	SIGNATURE	
		DATE	No.
NAME	AND SIGNATURE OF INV	ENTOR	
Name;	THOMAS I. MEYER	SIGNATURE	
		DATE	**************************************

NAME	AND SIGNATURE OF INVEN	<u>TOR</u>	
Name:	GARY EDWARD MONTGOMERY	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	MARGARET MILLER SHAW	SIGNATURE	Magn. Smo
	MA 44 % 17	DATE	Magn. 8ms 4/17/2018
NAME	AND SIGNATURE OF INVEN	TOR	÷
Name:	STEPHEN SEKELSKY	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INVEN	<u>TOR</u>	
Name:	JAMES MICHAEL KRAUSE	SIGNATURE	
	ANART KO MAN	DATE	
NAME.	AND SIGNATURE OF INVEN	TOR	
Name:	THOMAS J. MEYER	SIGNATURE	
		DATE	

Page 6 of 6

PATENT

REEL: 051691 FRAME: 0301

NAME	AND SIGNATURE OF INVEN	TOR	
Name:	GARY EDWARD MONTGOMERY	SIGNATURE	
	•	DATE	
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	MARGARET MILLER SHAW	SIGNATURE	
	₹	DATE	
NAME	AND SIGNATURE OF INVEN	<u>IOR</u>	
Name:	STEPHEN SEKELSKY	SIGNATURE	Sty hy
		DATE	4/17/18
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	JAMES MICHAEL KRAUSE	SIGNATURE	
	KICHOSE	DATE	
NAME	AND SIGNATURE OF INVEN	TOR	· · · · · · · · · · · · · · · · · · ·
Name:	THOMAS J. MEYER	SIGNATURE	
		DATE	**

<u>NAME</u>	AND SIGNATURE OF INV	ENTOR	
Name:	GARY EDWARD MONTGOMERY	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	<u>'ENTOR</u>	
Name:	MARGARET MILLER SHAW	SIGNATURE	
	D111 1 00	DATE	
NAME	AND SIGNATURE OF INV	'ENTOR	
Name:	STEPHEN SEKELSKY	SIGNATURE	
		DATE	
NAME	AND SIGNATURE OF INV	<u>'ENTOR</u>	
Name:	JAMES MICHAEL KRAUSE	SIGNATURE	I man In Kraul
	MUNUM	DATE	Jones In Kraul 4-13-18
NAME	AND SIGNATURE OF INV	<u>'ENTOR</u>	
Name:	THOMAS J. MEYER	SIGNATURE	
		DATE	

NAME AND SIGNATURE OF INVENTOR				
Name:	GARY EDWARD MONTGOMERY	SIGNATURE		
		DATE		
NAME	AND SIGNATURE OF INVEN	TOR		
Name:	MARGARET MILLER SHAW	SIGNATURE		
		DATE		
NAME	AND SIGNATURE OF INVEN	TOR		
Name:	STEPHEN SEKELSKY	SIGNATURE		
		DATE		
NAME AND SIGNATURE OF INVENTOR				
Name:	JAMES MICHAEL KRAUSE	SIGNATURE		
	ENCYCOLD -	DATE		
NAME	AND SIGNATURE OF INVEN	- verene		
Name:	THOMAS J. MEYER	SIGNATURE	7276	
		DATE	13 Apr 2018	

RECORDED: 01/23/2020