505131017 10/08/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5177779

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JEFFREY D. MESSERLY	10/09/2017
BRIAN D. BLACK	10/05/2017
WILLIAM A. OLSON	10/10/2017
FREDERICK ESTERA	10/05/2017
JEROME R. MORGAN	10/03/2017
JEFFREY L. ALDRIDGE	10/04/2017
STEPHEN M. LEUCK	10/04/2017

RECEIVING PARTY DATA

Name:	ETHICON LLC
Street Address:	#475 STREET C, SUITE 401
Internal Address:	LOS FRAILES INDUSTRIAL PARK
City:	GUAYNABO
State/Country:	PUERTO RICO
Postal Code:	00969

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15679940

CORRESPONDENCE DATA

Fax Number: (412)355-6501

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: 412-355-8276

Email: piuspatents@klgates.com

Correspondent Name: CARA M. PINTO
Address Line 1: 210 SIXTH AVENUE
K&L GATES CENTER

Address Line 4: PITTSBURGH, PENNSYLVANIA 15222-2613

ATTORNEY DOCKET NUMBER:	END7917USNP/160045M
NAME OF SUBMITTER:	CARA M. PINTO
SIGNATURE:	/Cara M. Pinto/

505131017 REEL: 047094 FRAME: 0851

DATE SIGNED:	10/08/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 14	·
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Attorney Docket No.: END7917USNP/160045M US Application No.: 15/679,940

COMBINED DECLARATION AND ASSIGNMENT
Title of Invention: <u>ULTRASONIC TRANSDUCER TECHNIQUES FOR ULTRASONIC SURGICAL INSTRUMENT</u>
This declaration and assignment is directed to:
The attached or filed herewith application of (list of named inventors),
or
The United States application or PCT international application number 15/679,940 filed on August 17, 2017.
Declaration
As the below named inventor, I hereby declare that:
The above-identified application ("Application") was made or authorized by me.
I believe that I am the original inventor or an original inventor of a claimed invention or discovery in the Application.
I have reviewed and understood the contents of the Application, including the claims, and I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, the United States Code of Federal Regulations, §1.56 for filings of this Application in the United States of America.
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both for filings of this Application in the United States of America.
Assignment
Ethicon LLC #475 Street C, Suite 401 Los Frailes Industrial Park Guaynabo, Puerto Rico 00969
a Limited Liability Company of Delaware.
(hereinafter designated as the "Assignee"),
I hereby acknowledge that I have assigned the above-identified invention by previous assignment (attached hereto) to Assignee which is hereby conformed for recordation in the US Patent Office and I confirm I have and do assign and transfer:
or
For good and valuable consideration, the sufficiency of which is acknowledged, I hereby assign and transfer and/or have assigned and transferred to Assignee:
my entire right, title, and interest in, to, and under the Application, including all priority rights for other countries arising therefrom and the right to claim priority to the Application, all inventions or discoveries therein disclosed, and any and all Letters Patent of the United States, European Patent Office and of all other countries, which may be granted for such inventions or discoveries, or any of them, all such inventions or discoveries and all rights in such Application including any and all provisionals, substitutions, divisions, and continuations thereof, and to all Letters Patent that may be granted for said inventions and discoveries, and in and to all extensions, supplementary protection certificates, reexaminations, renewals, and reissues thereof, to be held and enjoyed by Assignee for its own use and enjoyment to the full end of the term or terms for which such Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.
Page 1 of 2

US Application No.: 15/679,940

I shall execute all papers necessary in connection with the Application in the United States Patent and Trademark Office, European Patent Office, any other patent offices, and under the Patent Cooperation Treaty, and any continuing, divisional, or reissue applications thereof, any reexamination of any of such applications, and any patent term extensions or supplementary protection certificates of any such applications and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

I shall execute all papers necessary in connection with any litigation or any other judicial proceeding in the United States or other country, or any administrative proceeding in the United States Patent and Trademark Office, European Patent Office, any other patent office, or under the Patent Cooperation Treaty concerning the Application(s) or any continuation, divisional, or reissue applications thereof, or any reexamination of any such applications, or any Letters Patent issued therefrom or any patent term extensions or supplementary protection certificates of any such applications and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such litigation or proceeding.

I shall execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

I shall do all other acts which, in the opinion of Assignee, may be necessary or desirable to secure the grant of Letters Patent to Assignee or its nominees, in the United States, by the European Patent Office and in all other countries where Assignee may desire to have such inventions or discoveries, or any of them, patented, with specifications and claims in such form as shall be approved by Assignee and to vest and confirm in Assignee or its nominees the full and complete legal and equitable title to all such Letters Patent.

I hereby (i) authorize and request the Commissioner of Patents to issue any and all Letters Patent of the United States resulting from the Application or any divisional, continuation, or reissue applications thereof, and any reexamination of any of such applications, to Assignee, and (ii) covenant that I have full right to convey the interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

I hereby grant the attorney of record the power to insert on this assignment any further identification which may be necessary or desirable in order to obtain legal recordation of this document.

Jeffrey D. Messerly
LEGAL NAME OF INVENTOR

Signature

Signature

10/9/2017

Attorney Docket No.: END7917USNP/160045M US Application No.: 15/679,940

COMBINE	D DECLARATION AND ASSIGNMENT
Title of Invention: <u>ULTRASONIC TRANS</u>	DUCER TECHNIQUES FOR ULTRASONIC SURGICAL INSTRUMENT
This declaration and assignment is directed to:	
	The attached or filed herewith application of (list of named inventors),
or	
	The United States application or PCT international application number 15/679,940 filed on August 17, 2017.
Declaration	
As the below named inventor, I hereby de	colare that:
The above-identified application ("Application)	cation") was made or authorized by me.
I believe that I am the original inventor or	an original inventor of a claimed invention or discovery in the Application.
I have reviewed and understood the coninformation which is material to patentability as on this Application in the United States of America.	tents of the Application, including the claims, and I acknowledge the duty to disclose defined in Title 37, the United States Code of Federal Regulations, §1.56 for filings of
I hereby acknowledge that any willful faimprisonment of not more than five (5) years, or be	lse statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or oth for filings of this Application in the United States of America.
Assignment	Ethicon LLC #475 Street C, Suite 401 Los Fraîles Industrial Park Guaynabo, Puerto Rico 00969
a I	imited Liability Company of Delaware.
(h	ereinafter designated as the "Assignee"),
	ed the above-identified invention by previous assignment (attached hereto) to Assignee JS Patent Office and I confirm I have and do assign and transfer:
or	
For good and valuable consideration, the assigned and transferred to Assignee:	he sufficiency of which is acknowledged, I hereby assign and transfer and/or have
the right to claim priority to the Application, all i States, European Patent Office and of all other c such inventions or discoveries and all rights in continuations thereof, and to all Letters Patent the supplementary protection certificates, reexamination	r the Application, including all priority rights for other countries arising therefrom and nventions or discoveries therein disclosed, and any and all Letters Patent of the United countries, which may be granted for such inventions or discoveries, or any of them, all a such Application including any and all provisionals, substitutions, divisions, and that may be granted for said inventions and discoveries, and in and to all extensions, ons, renewals, and reissues thereof, to be held and enjoyed by Assignee for its own use for which such Letters Patent may be granted, as fully and entirely as the same would ment and sale not been made.
	Page 1 of 2

US Application No.: 15/679,940

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I shall execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

I shall do all other acts which, in the opinion of Assignee, may be necessary or desirable to secure the grant of Letters Patent to Assignee or its nominees, in the United States, by the European Patent Office and in all other countries where Assignee may desire to have such inventions or discoveries, or any of them, patented, with specifications and claims in such form as shall be approved by Assignee and to vest and confirm in Assignee or its nominees the full and complete legal and equitable title to all such Letters Patent.

I hereby (i) authorize and request the Commissioner of Patents to issue any and all Letters Patent of the United States resulting from the Application or any divisional, continuation, or reissue applications thereof, and any reexamination of any of such applications, to Assignee, and (ii) covenant that I have full right to convey the interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

I hereby grant the attorney of record the power to insert on this assignment any further identification which may be necessary or desirable in order to obtain legal recordation of this document.

Brian D. Black	-
LEGAL NAME OF INVENTOR	
L. COL	10/05/2017
Signature	Date

Attorney Docket No.: END7917USNP/160045M US Application No.: 15/679,940

4	OMPINED	DECLARATION AND ASSIGNMENT
		DUCER TECHNIQUES FOR ULTRASONIC SURGICAL INSTRUMENT
This declaration and assignment is o	,	
		The attached or filed herewith application of (list of named inventors),
	or or	
		The United States application or PCT international application number 15/679,940 filed on August 17, 2017.
Declaration		
As the below named inven	tor, I hereby dec	clare that:
The above-identified application	cation ("Applica	ation") was made or authorized by me.
I believe that I am the original	inal inventor or	an original inventor of a claimed invention or discovery in the Application.
I have reviewed and unde information which is material to pa this Application in the United State	tentability as d	ents of the Application, including the claims, and I acknowledge the duty to disclose efined in Title 37, the United States Code of Federal Regulations, §1.56 for filings of
I hereby acknowledge that imprisonment of not more than five	any willful fal- (5) years, or bo	se statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or oth for filings of this Application in the United States of America.
Assignment		
K		Ethicon LLC #475 Street C, Suite 401 Los Frailes Industrial Park Guaynabo, Puerto Rico 00969
e e	a L	imited Liability Company of Delaware.
	(he	creinafter designated as the "Assignee"),
☐ I hereby acknowledge that which is hereby conformed for reco	I have assigne	d the above-identified invention by previous assignment (attached hereto) to Assignee IS Patent Office and I confirm I have and do assign and transfer:
or		
For good and valuable coassigned and transferred to Assigne		ne sufficiency of which is acknowledged, I hereby assign and transfer and/or have
the right to claim priority to the Ap States, European Patent Office and such inventions or discoveries an continuations thereof, and to all L supplementary protection certificate	oplication, all in d of all other co d all rights in etters Patent the es, reexamination term or terms	the Application, including all priority rights for other countries arising therefrom and eventions or discoveries therein disclosed, and any and all Letters Patent of the United countries, which may be granted for such inventions or discoveries, or any of them, all such Application including any and all provisionals, substitutions, divisions, and that may be granted for said inventions and discoveries, and in and to all extensions, ons, renewals, and reissues thereof, to be held and enjoyed by Assignee for its own use for which such Letters Patent may be granted, as fully and entirely as the same would ment and sale not been made.
		Page 1 of 2

US Application No.: 15/679,940

I shall execute all papers necessary in connection with the Application in the United States Patent and Trademark Office, European Patent Office, any other patent offices, and under the Patent Cooperation Treaty, and any continuing, divisional, or reissue applications thereof, any reexamination of any of such applications, and any patent term extensions or supplementary protection certificates of any such applications and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

I shall execute all papers necessary in connection with any litigation or any other judicial proceeding in the United States or other country, or any administrative proceeding in the United States Patent and Trademark Office, European Patent Office, any other patent office, or under the Patent Cooperation Treaty concerning the Application(s) or any continuation, divisional, or reissue applications thereof, or any reexamination of any such applications, or any Letters Patent issued therefrom or any patent term extensions or supplementary protection certificates of any such applications and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such litigation or proceeding.

I shall execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

I shall do all other acts which, in the opinion of Assignee, may be necessary or desirable to secure the grant of Letters Patent to Assignee or its nominees, in the United States, by the European Patent Office and in all other countries where Assignee may desire to have such inventions or discoveries, or any of them, patented, with specifications and claims in such form as shall be approved by Assignee and to vest and confirm in Assignee or its nominees the full and complete legal and equitable title to all such Letters Patent.

I hereby (i) authorize and request the Commissioner of Patents to issue any and all Letters Patent of the United States resulting from the Application or any divisional, continuation, or reissue applications thereof, and any reexamination of any of such applications, to Assignee, and (ii) covenant that I have full right to convey the interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

I hereby grant the attorney of record the power to insert on this assignment any further identification which may be necessary or desirable in order to obtain legal recordation of this document.

William A. Olson	
LEGAL NAME OF INVENTOR	
William Colon Signature	Date 10/18/17

Attorney Docket No.: END7917USNP/160045M US Application No.: 15/679,940

COMBINED DECLARATION AND ASSIGNMENT	
Title of Invention: ULTRASONIC TRANSDUCER TECHNIQUES FOR ULTRASONIC SURGICAL INSTRUMENT	
This declaration and assignment is directed to:	
The attached or filed herewith application of (list of named inventors)	ر
or	
The United States application or PCT international application number 15/679,940 filed on August 17, 2017.	
Declaration	
As the below named inventor, I hereby declare that:	
The above-identified application ("Application") was made or authorized by me.	
I believe that I am the original inventor or an original inventor of a claimed invention or discovery in the Application.	
I have reviewed and understood the contents of the Application, including the claims, and I acknowledge the duty to disinformation which is material to patentability as defined in Title 37, the United States Code of Federal Regulations, §1.56 for filithis Application in the United States of America.	sclose ngs of
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by imprisonment of not more than five (5) years, or both for filings of this Application in the United States of America.	ine or
Assignment Ethicon LLC #475 Street C, Suite 401 Los Frailes Industrial Park Guaynabo, Puerto Rico 00969	
a Limited Liability Company of Delaware.	
(hereinafter designated as the "Assignee"),	
I hereby acknowledge that I have assigned the above-identified invention by previous assignment (attached hereto) to Aswhich is hereby conformed for recordation in the US Patent Office and I confirm I have and do assign and transfer:	signee
or	
For good and valuable consideration, the sufficiency of which is acknowledged, I hereby assign and transfer and/o assigned and transferred to Assignee:	r have
my entire right, title, and interest in, to, and under the Application, including all priority rights for other countries arising therefroe the right to claim priority to the Application, all inventions or discoveries therein disclosed, and any and all Letters Patent of the States, European Patent Office and of all other countries, which may be granted for such inventions or discoveries, or any of the such inventions or discoveries and all rights in such Application including any and all provisionals, substitutions, division continuations thereof, and to all Letters Patent that may be granted for said inventions and discoveries, and in and to all exte supplementary protection certificates, reexaminations, renewals, and reissues thereof, to be held and enjoyed by Assignee for its or and enjoyement to the full end of the term or terms for which such Letters Patent may be granted, as fully and entirely as the same have been held and enjoyed by me had this assignment and sale not been made.	onited em, all as, and asions, wa use
Page 1 of 2	

PATENT

REEL: 047094 FRAME: 0859

US Application No.: 15/679,940

I shall execute all papers necessary in connection with the Application in the United States Patent and Trademark Office, European Patent Office, any other patent offices, and under the Patent Cooperation Treaty, and any continuing, divisional, or reissue applications thereof, any reexamination of any of such applications, and any patent term extensions or supplementary protection certificates of any such applications and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

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I shall do all other acts which, in the opinion of Assignee, may be necessary or desirable to secure the grant of Letters Patent to Assignee or its nominees, in the United States, by the European Patent Office and in all other countries where Assignee may desire to have such inventions or discoveries, or any of them, patented, with specifications and claims in such form as shall be approved by Assignee and to vest and confirm in Assignee or its nominees the full and complete legal and equitable title to all such Letters Patent.

I hereby (i) authorize and request the Commissioner of Patents to issue any and all Letters Patent of the United States resulting from the Application or any divisional, continuation, or reissue applications thereof, and any reexamination of any of such applications, to Assignee, and (ii) covenant that I have full right to convey the interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

I hereby grant the attorney of record the power to insert on this assignment any further identification which may be necessary or desirable in order to obtain legal recordation of this document.

Frederick Estera	
LEGAL NAME OF INVENTOR	
Arrell at	10/05/2017
Signature	Date

	Attorney Docket No.: END7917USNP/160045M US Application No.: 15/679,940
COMBINED	DECLARATION AND ASSIGNMENT
Title of Invention: <u>ULTRASONIC TRANSI</u>	DUCER TECHNIQUES FOR ULTRASONIC SURGICAL INSTRUMENT
This declaration and assignment is directed to:	
	The attached or filed herewith application of (list of named inventors),
or	
	The United States application or PCT international application number 15/679,940 filed on August 17, 2017.
Declaration	
As the below named inventor, I hereby dec	clare that:
The above-identified application ("Application of the control of t	ation") was made or authorized by me.
I believe that I am the original inventor or	an original inventor of a claimed invention or discovery in the Application.
I have reviewed and understood the conte information which is material to patentability as d this Application in the United States of America.	ents of the Application, including the claims, and I acknowledge the duty to disclose efined in Title 37, the United States Code of Federal Regulations, §1.56 for filings of
I hereby acknowledge that any willful fal- imprisonment of not more than five (5) years, or bo	se statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or oth for filings of this Application in the United States of America.
Assignment	Ethicon LLC #475 Street C, Suite 401 Los Frailes Industrial Park Guaynabo, Puerto Rico 00969
n.T.	imited Liability Company of <u>Delaware</u> .
	reinafter designated as the "Assignee"),
I hereby acknowledge that I have assigne	d the above-identified invention by previous assignment (attached hereto) to Assignee IS Patent Office and I confirm I have and do assign and transfer:
őr ,	
For good and valuable consideration, the assigned and transferred to Assignee:	ne sufficiency of which is acknowledged, I hereby assign and transfer and/or have
the right to claim priority to the Application, all in States, European Patent Office and of all other co- such inventions or discoveries and all rights in continuations thereof, and to all Letters Patent the supplementary protection certificates, reexamination	the Application, including all priority rights for other countries arising therefrom and eventions or discoveries therein disclosed, and any and all Letters Patent of the United countries, which may be granted for such inventions or discoveries, or any of them, all such Application including any and all provisionals, substitutions, divisions, and nat may be granted for said inventions and discoveries, and in and to all extensions, ons, renewals, and reissues thereof, to be held and enjoyed by Assignee for its own use for which such Letters Patent may be granted, as fully and entirely as the same would ment and sale not been made.

Page 1 of 2

US Application No.: 15/679,940

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I hereby grant the attorney of record the power to insert on this assignment any further identification which may be necessary or desirable in order to obtain legal recordation of this document.

Jerome R. Morgan LEGAL NAME OF INVENTOR		
	10/3/17	
Signature	Date	***************************************

Page 2 of 2

Attorney Docket No.: END7917USNP/160045M US Application No.: 15/679,940

COMBINED	DECLARATION AND ASSIGNMENT		
Title of Invention: <u>ULTRASONIC TRANSD</u>	UCER TECHNIQUES FOR ULTRASONIC SURGICAL INSTRUMENT		
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Declaration			
As the below named inventor, I hereby decl	are that:		
The above-identified application ("Application	tion") was made or authorized by me.		
I believe that I am the original inventor or a	in original inventor of a claimed invention or discovery in the Application.		
I have reviewed and understood the contention which is material to patentability as dethis Application in the United States of America.	nts of the Application, including the claims, and I acknowledge the duty to disclose fined in Title 37, the United States Code of Federal Regulations, §1.56 for filings of		
I hereby acknowledge that any willful false imprisonment of not more than five (5) years, or bot	e statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or h for filings of this Application in the United States of America.		
Assignment	Ethicon LLC #475 Street C, Suite 401 Los Frailes Industrial Park Guaynabo, Puerto Rico 00969		
a Li	mited Liability Company of <u>Delaware</u> .		
(her	einafter designated as the "Assignee"),		
I hereby acknowledge that I have assigned which is hereby conformed for recordation in the US	the above-identified invention by previous assignment (attached hereto) to Assignee S Patent Office and I confirm I have and do assign and transfer:		
or			
For good and valuable consideration, the assigned and transferred to Assignee:	sufficiency of which is acknowledged, I hereby assign and transfer and/or have		
the right to claim priority to the Application, all inv States, European Patent Office and of all other consuch inventions or discoveries and all rights in continuations thereof, and to all Letters Patent that supplementary protection certificates, reexamination	the Application, including all priority rights for other countries arising therefrom and ventions or discoveries therein disclosed, and any and all Letters Patent of the United untries, which may be granted for such inventions or discoveries, or any of them, all such Application including any and all provisionals, substitutions, divisions, and it may be granted for said inventions and discoveries, and in and to all extensions, as, renewals, and reissues thereof, to be held and enjoyed by Assignee for its own use for which such Letters Patent may be granted, as fully and entirely as the same would tent and sale not been made.		
	Page 1 of 2		

US Application No.: 15/679,940

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I shall execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

I shall do all other acts which, in the opinion of Assignee, may be necessary or desirable to secure the grant of Letters Patent to Assignee or its nominees, in the United States, by the European Patent Office and in all other countries where Assignee may desire to have such inventions or discoveries, or any of them, patented, with specifications and claims in such form as shall be approved by Assignee and to vest and confirm in Assignee or its nominees the full and complete legal and equitable title to all such Letters Patent.

I hereby (i) authorize and request the Commissioner of Patents to issue any and all Letters Patent of the United States resulting from the Application or any divisional, continuation, or reissue applications thereof, and any reexamination of any of such applications, to Assignee, and (ii) covenant that I have full right to convey the interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

I hereby grant the attorney of record the power to insert on this assignment any further identification which may be necessary or desirable in order to obtain legal recordation of this document.

Jeffrey L. Aldridge
LEGAL NAME OF INVENTOR

Jeffrey L. Aldridge

Jo-4-17

Date

Attorney Docket No.: <u>END7917USNP/160045M</u> US Application No.: <u>15/679,940</u>

COMBINED DECLARATION AND ASSIGNMENT	
Title of Invention: <u>ULTRASONIC TRANSDUCER TECHNIQUES FOR ULTRASONIC SURGICAL INSTRUMENT</u>	
This declaration and assignment is directed to:	
The attached or filed herewith application of (list of named inventors)	
or	
The United States application or PCT international application number <u>15/679,940</u> filed on <u>August 17, 2017</u> .	
Declaration	
As the below named inventor, I hereby declare that:	
The above-identified application ("Application") was made or authorized by me.	
I believe that I am the original inventor or an original inventor of a claimed invention or discovery in the Application.	
I have reviewed and understood the contents of the Application, including the claims, and I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, the United States Code of Federal Regulations, §1.56 for filings of this Application in the United States of America.	
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both for filings of this Application in the United States of America.	
Ethicon LLC #475 Street C, Suite 401 Los Frailes Industrial Park Guaynabo, Puerto Rico 00969	
a Limited Liability Company of Delaware.	
(hereinafter designated as the "Assignee"),	
I hereby acknowledge that I have assigned the above-identified invention by previous assignment (attached hereto) to Assignee which is hereby conformed for recordation in the US Patent Office and I confirm I have and do assign and transfer:	
or .	
For good and valuable consideration, the sufficiency of which is acknowledged, I hereby assign and transfer and/or have assigned and transferred to Assignee:	
my entire right, title, and interest in, to, and under the Application, including all priority rights for other countries arising therefrom and the right to claim priority to the Application, all inventions or discoveries therein disclosed, and any and all Letters Patent of the United States, European Patent Office and of all other countries, which may be granted for such inventions or discoveries, or any of them, all such inventions or discoveries and all rights in such Application including any and all provisionals, substitutions, divisions, and continuations thereof, and to all Letters Patent that may be granted for said inventions and discoveries, and in and to all extensions, supplementary protection certificates, reexaminations, renewals, and reissues thereof, to be held and enjoyed by Assignee for its own use and enjoyment to the full end of the term or terms for which such Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.	
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US Application No.: 15/679,940

I shall execute all papers necessary in connection with the Application in the United States Patent and Trademark Office, European Patent Office, any other patent offices, and under the Patent Cooperation Treaty, and any continuing, divisional, or reissue applications thereof, any reexamination of any of such applications, and any patent term extensions or supplementary protection certificates of any such applications and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

I shall execute all papers necessary in connection with any litigation or any other judicial proceeding in the United States or other country, or any administrative proceeding in the United States Patent and Trademark Office, European Patent Office, any other patent office, or under the Patent Cooperation Treaty concerning the Application(s) or any continuation, divisional, or reissue applications thereof, or any reexamination of any such applications, or any Letters Patent issued therefrom or any patent term extensions or supplementary protection certificates of any such applications and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such litigation or proceeding.

I shall execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

I shall do all other acts which, in the opinion of Assignee, may be necessary or desirable to secure the grant of Letters Patent to Assignee or its nominees, in the United States, by the European Patent Office and in all other countries where Assignee may desire to have such inventions or discoveries, or any of them, patented, with specifications and claims in such form as shall be approved by Assignee and to vest and confirm in Assignee or its nominees the full and complete legal and equitable title to all such Letters Patent.

I hereby (i) authorize and request the Commissioner of Patents to issue any and all Letters Patent of the United States resulting from the Application or any divisional, continuation, or reissue applications thereof, and any reexamination of any of such applications, to Assignee, and (ii) covenant that I have full right to convey the interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

I hereby grant the attorney of record the power to insert on this assignment any further identification which may be necessary or desirable in order to obtain legal recordation of this document.

Stephen Mr. Leuck		
LEGAL NAME OF INVENTOR		
Am Jun	10/4/2017	·
Signature	Date	

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Charles Mr I smale