504924126 05/21/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4970872

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BILLIE J MILLWEE	09/10/2009
MARK J CAPPS	09/10/2009
JANICE L SHAY	09/10/2009
DEBRA A TAITAGUE	09/10/2009
MARK J DOLAN	08/17/2009
CAROL E EBERHARDT	09/10/2009

RECEIVING PARTY DATA

Name:	MEDTRONIC, INC.	
Street Address:	710 MEDTRONIC PARKWAY	
City:	MINNEAPOLIS	
State/Country:	MINNESOTA	
Postal Code:	55432	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15979731

CORRESPONDENCE DATA

Fax Number:

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: 707 525 0111

Email: kim.grigg@medtronic.com

Correspondent Name: KIM S GRIGG

Address Line 1: 3576 UNOCAL PLACE

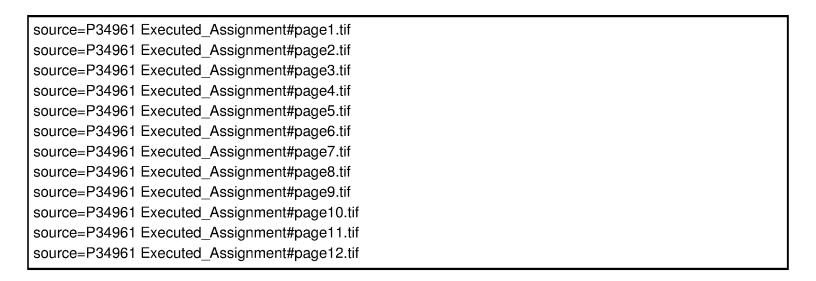
Address Line 4: SANTA ROSA, CALIFORNIA 95403

NAME OF SUBMITTER:	WILLIAM L HAYNES	
SIGNATURE:	/William L. Haynes Reg. No. 48151/	
DATE SIGNED:	05/21/2018	

Total Attachments: 12

PATENT REEL: 045864 FRAME: 0200

504924126



ATTORNEY DOCKET: P0034961.00

ASSIGNMENT

WHEREAS, WE, Billie J. Millwee, Mark J. Capps, Janice L. Shay, Debra A. Taitague, Mark J. Dolan, and Carol E. Eberhardt, are the inventors of STENTED PROSTHETIC HEART VALVES for which we executed and filed as U.S. Patent application Serial No. 12/476,702 a utility patent application in the United States Patent and Trademark Office on June 2, 2009 preparatory to obtaining Letters Patent of the United States, and

WHEREAS, MEDTRONIC, INC. a corporation organized and existing under the laws of the State of Minnesota and having a principal place of business at 710 Medtronic Parkway, Minneapolis, Minnesota 55432, hereinafter referred to as "Corporation," is desirous of acquiring the entire right, title and interest in and to said invention for the United States and for all foreign countries and in and to any and all foreign and domestic Letters Patent which may be granted therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which we hereby acknowledge, we have assigned, transferred and set over and by these presents do assign, transfer and set over unto Corporation, its successors and assigns, the entire right, title and interest in and to said invention and the entire right, title and interest in and to any and all Letters Patent of the United States and any foreign countries which may be granted therefor including any and all rights under the International Convention for the Protection of Industrial Property, and in and to any and all extensions, divisions, continuations, continuations-in-part, reissues and reexaminations of said Letters Patent that may be granted, the same to be held and enjoyed by Corporation for its own use and behoof and use and behoof of its successors and assigns to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by us had this assignment and sale not been made;

AND, for the consideration aforesaid, we materially represent to Corporation, its successors and assigns, that at the time of the execution and delivery of these presents, we are the sole lawful inventors of the entire right, title and interest in and to the invention;

AND, for the consideration aforesaid, we hereby individually covenant and agree to and with Corporation, its successors and assigns, that whenever its counsel or the counsel of its successors or assigns, learned in the law, shall advise that an amendment or division of, or continuation or any continuation-in-part thereof, or any other proceeding in connection with the filing or prosecution of said domestic or foreign patent applications, including interference proceedings, is lawful and desirable, or that a reissue, reexamination or extension of said Letters Patent is lawful and desirable, we, or our individual executor(s), administrator(s) or assign(s) will sign all papers and drawings, take all rightful oaths, and do all acts necessary or required to be done for the procurement of valid Letters Patent for said invention, or for the reissue or extension of the same, without charge to Corporation, its successors or assigns, but at Corporation's expense.

	Notary Public
office, the day and year above written.	
IN WITNESS WHEREOF, I have hereur	nto affixed my official signature with the seal of my
acknowledged that (s)he executed the same as his	ther free act and deed.
Millwee, to me known to be the person described	in and who executed the foregoing instrument and
On this day of	, 2009, before me personally appeared Billie J.
COUNTY OF	See madics
STAGE OFss.	see attached
SAMPLE VE	<i>√</i> , <i>i</i>
	Billie J. Millwee
	RATE ARA
of Sprender, 2009.	O society among on their re-
IN WITNESS WHEREOF, I have hereunt	o set my hand on this IOTA day
Patent to Corporation in accordance with this instr	
I bereby request the Honorable Commissi	oner of Patents and Trademarks to issue the Letters

State of California	•	
**		
County of Orange		
On September 10, 2009 before me, Kal	PROGRESS NAMES SOOT THE CONTROL	
personally appeared Billie Milwes		
becomen appeared #41414 Figure 1	Name(s) of Signer(s)	
	who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that be/she/tbefy executed the same in his/her/theff authorized capacity(jes), and that by his/her/theff signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.	
KARRE RODRIGUEZ	I certify under PENALTY OF PERJURY under the laws	
Commission # 1696782 Notary Public - California	of the State of California that the foregoing paragraph is	
Orange County	true and correct.	
My Comm. Expires Sep 30, 2010	WITNESS my hand and afficial seal.	
**************************************	Von Plata	
Place Notary Seal Above	Signature / COULT COUNTY	
Place Notary Seal Above OPTIONAL		
Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.		
Description of Attached Document		
Title or Type of Document: P034961.	00	
Document Date: NA	Number of Pages:	
Signer(s) Other Than Named Above: NA	3	
Capacity(ies) Claimed by Signer(s)		
Signer's Name:	Signer's Name:	
☐ intividual	☐ Individual	
☐ Corporate Officer — Title(s):	☐ Corporate Officer Title(s):	
☐ Partner — Climited ☐ General	☐ Partner — ☐ Limited NGeneral	
☐ Attorney in Fact	☐ Attorney in Fact	
☐ Trustee Top of thumb here	□ lunatee	
☐ Guardian or Conservator	☐ Guardian or Conservator	
Other:	□ Other:	
Signer Is Representing:	Cinnar la Danyagantina	
organic is representing.	Signer Is Representing:	
© 2007 National Notary Association • 9850 De Soto Ave., P.O. Box 2402 • Chatswo	rth, CA 91313-2402 • www.NationalNotary.org Item #5907 Reorder; Call Toll-Free 1-800-876-6827	

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

I hereby request the Honorable Commission Patent to Corporation in accordance with this instrument.	er of Patents and Trademarks to issue the Letters ment.
IN WITNESS WHEREOF, I have hereunto _SEPTEMBER_, 2009.	set my hand on this <u>JO TH</u> day of
	Mark J. Capps
STATE OF	
COUNTY OF	LL Attached
. A	ll William
On thisday of	, 2009, before me personally appeared Mark
J. Capps, to me known to be the person described in	and who executed the foregoing instrument and
acknowledged that (s)he executed the same is his/h	er nee act and deed.
IN WITNESS WHEREOF, I have hereunto	o alliged my official signature with the seal of my
office, the day and year above written.	
	Notary Public

CALIFORNIA ALL-PURPOSE A	CKNOWLEDGMENT	
State of California		
County of <u>Orange</u>		
On September 10/2009 before me,	Organ Radiano Matri Riplia	
L)GE9	Age a research and the on the practice.	
personally appeared <u>NOYK J. C</u>	APPS Name (et el Signate)	
The second secon	naannamanninaanaanan ka	
	who proved to me on the basis of satisfactory evidence to be the person(x) whose name(x) is/gx subscribed to the	
:	within instrument and acknowledged to me that he/she/bey executed the same in his/ben/ben/authorized	
	capacity(jee), and that by his/ber/their signature(s) on the	
	instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.	
	which the personner acieu, executed the institutions.	
KARRIE RODRIGUEZ Commission # 1696782	I certify under PENALTY OF PERJURY under the laws	
Notary Public - California	of the State of California that the foregoing paragraph is true and correct.	
Orange County My Comm. Expires Sep 30, 2010		
	WITNESS my hand and official seal.	
Disco Malaya Good Abour	Signature XIVVII (pdupa)	
Place Notary Seal Above	PTIONAL Signature of governmental bases	
Though the information below is not required by la	w, if may prove valuable to persons relying on the document and reattachment of this form to another document.	
Description of Attached Document		
Title or Type of Document: 7003496	1,00	
Document Date: N/A Number of Pages:		
Signer(s) Other Than Named Above:		
*		
Capacity(les) Claimed by Signer(s)		
Signer starne:		
☐ Individual ☐ Corporate Officer — Title(s):	☐ Individua ☐ Corporate Officer — Title(s):	
☐ Partner — ☐ Limited ☐ General	□ Corporate One a — Hue(s): □ Partner — □ Limited □ General	
Attorney in Fact	Attorney in Fact N	
☐ Trustee ☐ Guardian or Conservator	Unustee	
Other:	☐ Guardian or Conservator ☐ Other:	
Signer Is Representing:	Signer Is Representing:	
**************************************	itsworth, CA 91313-2402 • www.NationalNotary.org Item #5907 Reorder: Call Toll-Free 1-800-876-6827	

I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT	
State of California	
County of <u>Orange</u>	
on September 10, 2009 before me, Karr	ie Rodriauez, Notani Ruldic
personally appeared Janice Shau	
	who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/the/ executed the same in his/her/the/ authorized capacity(jes), and that by his/her/the/ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
Commission # 1696782 Notary Public - Cattornia	certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
,	WITNESS my hand and efficial seal.
Place Notary Seal Above	Signature A W Signature of Notally Public
Though the information below is not required by law, it re and could prevent fraudulent removal and rea	
Description of Attached Document	addition of the ferm to enough december.
Title or Type of Document: P034961	0
Document Date: NA	Number of Pages;
Signer(s) Other Than Named Above: NA	
Capacity(ies) Claimed by Signer(s)	₩.
Wemar's Mama	Ciaglia Mana
Signer's Name:	Signitivis Name:
☐ Corporate Officer — Title(s):	☐ Corporate Carcer — Title(s):
☐ Partner ☐ Limited ☐ General	□ Partner — □ Lingled □ General
Attorney in Fax Top of thumb here	☐ Attorney in Fact
C nusice	☐ Trustee Top of thumb here
☐ Guardian or Conservator ☐ Other:	☐ Guardian or Conservator
	☐ Other:
Signer Is Representing:	Signer Is Representing:

© 2007 National Notary Association • 9350 De Soto Ave., P.O. Box 2402 • Chatsworth, CA 91313-2402 • www.NationalNotary.org | Item #5907 | Reorder: Call Toll-Free 1-500-876-6827

I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Corporation in accordance with this instrument.
IN WITNESS WHEREOF, I have hereunto set my hand on this
Ocho A Tastague Debra A. Taitague
COUNTY OF SS. ALL attached
On this
IN WITNESS WHEREOF, I have hereunto stixed my official signature with the seal of m office, the day and year above written.
Notary Public

	*
State of California	
County of Ovange	
on September 10,2009 before me,	Karrie Rodriouez, Notary Rublic
personally appeared Debya Ta	Have
A Property of the Control of the Con	Name(s) of Signer(s)
	who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/se subscribed to the within instrument and acknowledged to me that be/she/tbe/ executed the same in bis/her/tbe/r authorized capacity(ies), and that by his/her/tbe/r signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
KARRIE RODRIGUEZ Commission # 1696782 Notary Public - California Orange County My Comm. Expires Sep 30, 2010	I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal.
Place Notary Seal Above	Signature Signatury of Notary Pull
Though the information helpw is not required it	OPTIONAL by law, it may prove valuable to persons relying on the document
and could prevent fraudulent remova	al and reattachment of this form to another document.
Description of Attached Document Title or Type of Document: P03490	-1 00
* t [*.	<i>0</i> 1. W
Document Date: NA	Number of Pages:
Signer(s) Other Than Named Above:	
Capacity(ies) Claimed by Signer(s)	
Signer Mame: Individual Corporate Officer — Title(s):	Signer's Name: Individual Corporate Office: — Title(s):
☐ Partner — ☐ Limited ☐ General ☐ Attorney in Fact ☐ Trustee ☐ Guardian or Conservator ☐ Other:	☐ Partner — ☐ Limite ☐ General ☐ Attorney in Fact ☐ Trustee ☐ Guardian or Conservator ☐ Other:
Signer Is Representing:	Signer Is Representing:

© 2007 National Notary Association • 9350 De Soto Ave., P.O. Box 2402 • Chatsworth, CA 91313-2402 • www.NationalNotary.org | item #5907 | Reorder: Call Toll-Free 1-802-876-6827

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Corporation in accordance with this instrument. IN WITNESS WHEREOF, I have hereunto set my hand on this ______ day of State of California County of Sonoma On //w/st 17, 2001 before me, Kimberly Melvin, Notary Public, personally appeared Mark J. Dolan, who proved to me on the basis of satisfactory evidence to be the person(s) whose names(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal. MV Comm. Biplies Jon 10, 2012 (Seal)

I hereby request the Honorable Commis Patent to Corporation in accordance with this in	ssioner of Patents and Trademarks to issue the Letters astrument.
IN WITNESS WHEREOF, I have here September, 2009.	
· · · · · ·	Carol E. Eberhardt
STATE OF ss.	see attached
On this day of day of Eberhardt, to me known to be the person described acknowledged that (s)he executed the same as a	, 2009, before me personally appeared Carol E. ibed in and who executed the foregoing instrument and kis/her free act and deed.
IN WITNESS WHEREOF, I have her office, the day and year above written.	eunto affixed my official signature with the seal of my
	Notary Public

California all-purpose acknowledgment State of California County of Orange ptember 10,2009 before me, Karrie Rodriguez who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ips), and that by his/her/thefr signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. KARRIE RODRIGUEZ I certify under PENALTY OF PERJURY under the laws Commission # 1696782 of the State of California that the foregoing paragraph is Notary Public - California **Orange County** true and correct. Vily Comm. Expires Sep 30, 201 (WITNESS my hand and official seal. Place Notary Seal Above **OPTIONAL** Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document. **Description of Attached Document** Title or Type of Document: Document Date: N Signer(s) Other Than Named Above: 🛝 Capacity(ies) Claimed by Signer(s) Signer's Name: ☐ Inciwidual ☐ Corporate Office — Title(s): ☐ Corporate Officer — Title(s): ☐ Partner — ☐ Signited ☐ General ☐ Partner — ☐ Limite® ☐ General ☐ Attorney in Fact ☐ Attorney in Fact Top of thumb here □ Trustee ☐ Trustee □ Guardian or Conservator □ Guardian or Conservator Signer Is Representing: __ Signer Is Representing:

© 2007 National Notary Association 9 9350 De Soto Ave., RO, Box 2402 • Chabsworth, CA 91313-2402 • www.NationalNotary.org | Item #5907 | Reorder: Call Toll-Free 1-900-876-6827

PATENT REEL: 045864 FRAME: 0213

RECORDED: 05/21/2018