FORM PTO-1584
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P-10813.00
To the Honorable Commissioner of Pate

10-14-2003

3HEET

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

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hed original documents or copy thereof.

1.	Name of conveying party(ies):		2. Name and address of receiving party(ies):					
	David A. Casavant Michael O. Sweeney Robert A. Betzold	Nam Stre City:	et Address:	MEDTRONIC, 710 Medtronic MINNEAPOLIS	Parkway	: MN .	 Zip: 55432	
	Additional name(s) of conveying party(ies) attached? []Yes [X]No							
3.	Nature of conveyance:	[]	Assignment Security Agre Other		[]	Merger Change	e of Name	
	Execution Date: 9/16/2003 Robert A. Betzold 9/22/2003 Michael O. Sweeney 9/30/2003 David A. Casavant	Addi	itional name(s	s) & address(es)	attached	l? []Yes	[X]No	
4.	Application number(s) or patent number(s): 10/458,617 If this document is being filed together with a new application, the exe	ecution	date of the a	oplication is:	OPR,			
Α.	Patent Application No.(s) Additional numbers attached? []Yes [X]No				OPR/FINAN	1	en det	
5.	Name and address of party to whom correspondence concerning document should be mailed:	6.	Total number patents invo	er of application	ns and	7		
	Name: Michael C. Soldner 7.	Tota	ıl fee (37 CFF	R 3.41):	************		00	
	Address: No. 27,581 [] Enclosed [X] Authorized to be charged to deposit account	8.	(Attach du	ccount Number				
9.	DO NOT USE THI Statement and signature.	IS SPA	CE					
	To the best of my knowledge and belief, the foregoing information original document. Michael C. Soldner Name of Person Signing Signature	on is tru		t and any attach	ed copy	is a true	copy of the	
ON	Total number of page IB No. 0651-0011 (exp. 4/94)	es inclu	ding cover sh	neet, postcard, a	ttachmer	its and d	ocument: 7	
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Mail Stop Assignment Recordation Services Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450

Fublic burden reporting for this sample cover sheet is estimated to average about 30 minutes per document to be recorded, including time for reviewing the document and gathering the data needed, and completing and reviewing the sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Office of information systems, Pt2-1000C, Washington, D.C. 20231, and to the Office of Management and Budget, Paperwork Reduction Project (0651-0011), 1Washington, D.C. 20503.

Project (pos 1-00 11), Twashington, D.C. 20503.

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PATENT

REEL: 014570 FRAME: 0845

ASSIGNMENT

WHEREAS, WE, <u>David A. Casavant</u>, <u>Michael O. Sweeney</u>, <u>and Robert A. Betzold</u>, are the inventors of <u>Method to Prevent Pacemaker Induced Non-Reentrant VA Synchrony Using Adaptive Atrial <u>Pacing Output</u> for which we have executed an application for filing in the United States Patent and Trademark Office preparatory to obtaining Letters Patent of the United States on 09/16/2003, therefor; and</u>

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 N.E., Minneapolis, Minnesota 55432-5640, 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 are hereby acknowledged, we have sold, assigned, transferred and set over and by these presents do sell, 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 our rights under the International Convention for the Protection of Industrial Property, and in and to any and all extensions, divisions, continuations, continuations-in-part or reissues 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 me 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 owners of the entire right, title and interest in and to the invention, application and Letters Patent above mentioned, and that the same are unencumbered, and that we have good right and lawful authority to sell and convey the same in the manner herein set forth;

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 filling or prosecution of said domestic or foreign patent applications, including interference proceedings, is lawful and desirable, or that a reissue of extension of said Letters Patent is lawful and desirable, we, or our executors, administrators or assigns 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.

ASSIGNMENT Page 1 of 4

PATENT REEL: 014570 FRAME: 0846

I hereby request the Honorable C Letters Patent to Corporation in accordance	Commissioner of Patents and Trademarks to issue with this instrument.	the
IN WITNESS WHEREOF, I have Scotember, 2003.	hereunto set my hand on this da	y of
•	Desa Co	<u> </u>
	David A. Casavant	
David A. Casavani, to the known to be th	1. 2003, before me personally appertue person described in and who executed the foregouted the same as his/her free act and deed.	ared oing
IN WITNESS WHEREOF, I have hoffice, the day and year above written.	nereunto affixed my official signature with the seal of	f my
	Hatelle M. Bobbu	
Public		
	My Commission Expires December 5, 2008	

ASSIGNMENT Page 2 of 4

I hereby request the Honorable Commission of the Patent to Corporation in accordance with this instru	oner of Patents and Trademarks to issue the Letters ment.
IN WITNESS WHEREOF, I have here	unto set my hand on this 22 day of
Systemba, 2003.	Mohrany
	Michael O. Sweeney
On this <u>22vd</u> day of <u>Septe</u> Michael O. Sweeney, to me known to be the penstrument and acknowledged that s/he executed the	mber , 2003, before me personally appeared erson described in and who executed the foregoing he same as his/her free act and deed.
IN WITNESS WHEREOF, I have hereunto he day and year above written.	affixed my official signature with the seal of my office, Notary Public
	DEBORAH R. SYZVESTER Notary Public Commonwealth of Massachusetts My Commission Expires July 8, 2005

ASSIGNMENT Page 3 of 4

PATENT REEL: 014570 FRAME: 0848

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
Robert A. Betzold
On this day of, 2003, before me personally appeared Robert A. Betzold, to me known to be the person described in and who executed the foregoing instrument and acknowledged that s/he executed the same as his/her free act and deed.
IN WITNESS WHEREOF, I have hereunto affixed my official signature with the seal of my office, the day and year above written.
Sugar M. McGy Notary Public

RECORDED: 10/09/2003

ASSIGNMENT Page 4 of 4

PATENT REEL: 014570 FRAME: 0849