FORM PTO-1584

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SHEET

U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office 1 - 31 - 92P10871.00 102284339 and an analied original documents or copy thereof. To the Honorable Commissioner of 1 1. Name of conveying party(ies): 2. Name and address of receiving party(ies): Cynthia T. Clague Matthew D. Bonner Name: MEDTRONIC, INC. Scott E. Jahns James R. Keogh Internal Address: M.S.: LC-340 Additional name(s) of conveying party(ies) attached? []Yes [X]No Street Address: 710 MEDTRONIC PARKWAY 3. Nature of conveyance: City: MINNEAPOLIS State: MN Zip: 55432 [X] Assignment [] Merger Security Agreement [] Change of Name Execution Date: October 22, 2002 Additional name(s) & address(es) attached? []Yes [X]No Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: October 23, 2002 A. Patent Application No.(s) Additional numbers attached? []Yes [X]No 5. Name and address of party to whom correspondence Total number of applications and concerning document should be mailed: patents involved: 1 Daniel W. Latham Total fee (37 CFR 3.41): \$40.00 Name Address: MEDTRONIC, INC. 710 Medtronic Parkway [X] Authorized to be charged to deposit account Minneapolis, Minnesota 55432 Deposit Account Number: 13-2546

DO NOT USE THIS SPACE

Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Daniel W. Latham Name of Person Signing

Signature

(Attach duplicate copy of this page)

10/23/1002 Date

OMB No. 0651-0011 (exp. 4/94)

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PATENT REEL: 013485 FRAME: 0229 ATTORNEY DOCKET: P- 10871.00

ASSIGNMENT

WHEREAS, WE, Matthew D. Bonner, Cynthia T. Clague, Scott E. Jahns and James R. Keogh, are the inventors of METHODS AND APPARATUS FOR LOCATING BODY VESSELS AND OCCLUSIONS IN BODY VESSELS 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 October 23, 2002; therefor; 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 are hereby acknowledged, I 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 my 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, I materially represent to Corporation, its successors and assigns, that at the time of the execution and delivery of these presents, I am 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 I have good right and lawful authority to sell and convey the same in the manner herein set forth;

AND, for the consideration aforesaid, I 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 of extension of said Letters Patent is lawful and desirable, I, or my 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.

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PATENT REEL: 013485 FRAME: 0230

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 October, 2002.

STATE OF MINNESOTA

SS.

COUNTY OF ANOKA

On this 22 day of October, 2002, before me personally appeared Matthew D. Bonner, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his 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.

BARBARO J. LAKANEN NOTARY PUBLIC - MINNESOTA MY COMMISSION EXPIRES JAN. 31, 2005

Bawar Lahanen Notary Public / Lahanen

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 22 day of October, 2002.

Cyrthia T. Clague Cynthia T. Clague

STATE OF MINNESOTA

BARBARA A LAKANEN NOTARY PUBLIS MINNESOTA MY COMMISSION **EXPIRES JAN. 31, 2005**

SS.

COUNTY OF ANOKA

On this _____ day of October, 2002, before me personally appeared Cynthia T. Clague, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his 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.

Barbara Falanen Notary Public

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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 22 day of October, 2002.

Scott E. Jahns

STATE OF MINNESOTA

SS.

COUNTY OF ANOKA

On this 22 day of October, 2002, before me personally appeared Scott E. Jahns, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his 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.

BARBARA J. LAKANEN NOTAFY PUBLIC - MINNESOTA MY COMMISSION EXPIRES JAN. 31, 2005 Barbar & Lahanen Notary Public 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 _

22 __ day of October, 2002.

James R. Keogh

STATE OF MINNESOTA

SS.

COUNTY OF ANOKA

On this 22 day of October, 2002, before me personally appeared James R. Keogh, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his 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.

EAST COMMISSION
EXPERS JAN. 31, 2005

RECORDED: 10/23/2002

Barbar & Falconn Notary Public