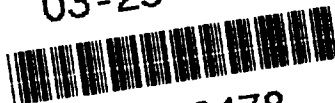


03-29-1999



OVER SHEET

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

To the Honorable Commission

100998478

Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

James H. Ericksen
Carl A. Schu
Vincent E. Splett
Paul J. Huelskamp

Additional name(s) of conveying party(ies) attached? [] Yes [X] No

3. Nature of conveyance:

- [X] Assignment [] Merger
[] Security Agreement [] Change of Name
[] Other _____

Execution Date: James H. Ericksen March 16, 1999
Carl A. Schu March 16, 1999
Vincent E. Splett March 16, 1999
Paul J. Huelskamp March 17, 1999

Additional name(s) & address(es) attached? [] Yes [X] No

4. 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:

A. Patent Application No.(s)

Additional numbers attached? [] Yes [x] No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Reed A. Duthler

Address: MEDTRONIC, INC.
7000 Central Avenue N.E.
M.S. 301
Minneapolis, Minnesota 55432

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$40.00

[] Enclosed
[X] Authorized to be charged to deposit account

8. Deposit Account Number: 13-2546
(Attach duplicate copy of this page)

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9. 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.

Reed A. Duthler
Name of Person Signing

Reed A. Duthler 3/18/99
Signature Date

Total number of pages including cover sheet, attachments and document: _____

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PATENT
REEL: 9837 FRAME: 0527

ASSIGNMENT

WHEREAS, WE, James H. Ericksen, Carl A. Schu, Vincent E. Splett and Paul J. Huelskamp, are the inventors of ERROR CODE CALCULATIONS FOR DATA STORED IN AN IMPLANTABLE MEDICAL DEVICE 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 even date herewith; 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 7000 Central Avenue N.E., 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;

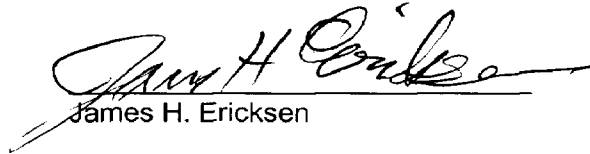
NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I have sold, assigned, transferred and set over and by these presents do sell, assign, transfer and set over unto Corporation, its successors and assigns, the entire right, title and interest 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 or 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.

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 16th day of March, 1999.


James H. Ericksen

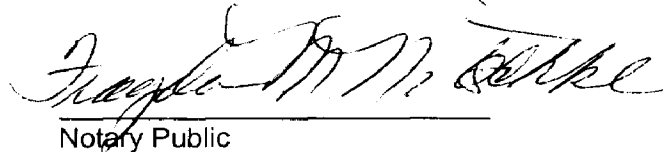
STATE OF MINNESOTA

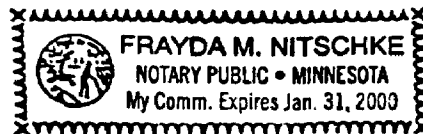
ss.

COUNTY OF ANOKA

On this 16th day of March, 1999, before me personally appeared James H. Ericksen, 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.


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 16th day of March, 1999.

Carl A. Schu
Carl A. Schu

STATE OF MINNESOTA

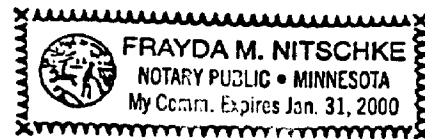
ss.

COUNTY OF ANOKA

On this 16th day of March, 1999, before me personally appeared Carl A. Schu, 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.

Frayda M. Nitschke
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 16 day of March, 1999.

Vincent E. Splett
Vincent E. Splett

STATE OF MINNESOTA

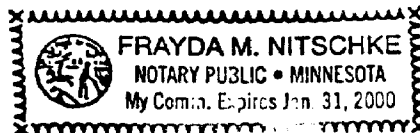
ss.

COUNTY OF ANOKA

On this 16th day of March, 1999, before me personally appeared Vincent E. Splett, 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.

Frayda M. Nitschke
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 17 day of March, 1999.


Paul J. Huelskamp

STATE OF MINNESOTA

ss.

COUNTY OF ANOKA

On this 17th day of March, 1999, before me personally appeared Paul J. Huelskamp, 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.


Notary Public

