503817949 05/09/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3864598

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------------|----------------|
| SARAH A AUDET | 10/30/2008 |
| JAMES K CARNEY | 02/10/2009 |
| WILLIAM J COMBS | 01/20/2009 |
| TOMMY D BENNETT | 10/30/2008 |
| BARBRO M.L. KJELLSTROM | 02/02/2009 |

RECEIVING PARTY DATA

| Name: | Medtronic, Inc. |
|-------------------|-----------------------|
| Street Address: | 710 Medtronic Parkway |
| Internal Address: | Mail Stop LC340 |
| City: | Minneapolis |
| State/Country: | MINNESOTA |
| Postal Code: | 55432 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15090105 |

CORRESPONDENCE DATA

Fax Number: (763)505-2530

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: (763) 526-0932

Email: susan.m.nienaber@medtronic.com

CAROL F. BARRY **Correspondent Name:**

Address Line 1: 710 MEDTRONIC PARKWAY

Address Line 2: MAIL STOP LC340

Address Line 4: MINNEAPOLIS, MINNESOTA 55432

| ATTORNEY DOCKET NUMBER: | P0025573.USC2 |
|-------------------------|---------------------|
| NAME OF SUBMITTER: | SUSAN M. NIENABER |
| SIGNATURE: | /Susan M. Nienaber/ |
| DATE SIGNED: | 05/09/2016 |

Total Attachments: 31 source=EFS_executed_assignment#page1.tif source=EFS executed assignment#page2.tif source=EFS executed assignment#page3.tif source=EFS executed assignment#page4.tif source=EFS executed assignment#page5.tif source=EFS executed assignment#page6.tif source=EFS executed assignment#page7.tif source=EFS_executed_assignment#page8.tif source=EFS executed assignment#page9.tif source=EFS executed assignment#page10.tif source=EFS_executed_assignment#page11.tif source=EFS executed assignment#page12.tif source=EFS_executed_assignment#page13.tif source=EFS_executed_assignment#page14.tif source=EFS_executed_assignment#page15.tif source=EFS_executed_assignment#page16.tif source=EFS executed assignment#page17.tif source=EFS_executed_assignment#page18.tif source=EFS executed assignment#page19.tif source=EFS executed assignment#page20.tif source=EFS executed assignment#page21.tif source=EFS executed assignment#page22.tif source=EFS executed assignment#page23.tif source=EFS executed assignment#page24.tif source=EFS_executed_assignment#page25.tif source=EFS executed assignment#page26.tif source=EFS executed assignment#page27.tif source=EFS executed assignment#page28.tif source=EFS executed assignment#page29.tif source=EFS executed assignment#page30.tif source=EFS executed assignment#page31.tif

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ASSIGNMENT

WHEREAS, We, SARAH A. AUDET, JAMES K. CARNEY, WILLIAM J. COMBS, TOMMY D. BENNET, and BARBRO M. L. KJELLSTROM, are the inventors with residence and citizenship as indicated below, have made an invention entitled **METHOD AND APPARATUS TO DETECT ISCHEMIA WITH A PRESSURE SENSOR** that is the subject of United States Utility Application Serial Number (12/263,423), filed (Oct. 31, 2008), [We hereby authorize the application serial number and filing date of said utility application to be inserted above in the parentheses when known];

WHEREAS, <u>MEDTRONIC</u>, INC., a corporation organized and existing under the laws of the <u>State of Minnesota</u> and having a principal place of business at <u>710 Medtronic Parkway N.E.</u>, <u>Minneapolis</u>, <u>Minnesota 55432-5640</u>, 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 also hereby authorize Corporation and its employees to fill in the serial number and filing date above after this document has been executed;

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 hereby grant Corporation the right to fill in the serial number and filling date in this document upon their receipt;

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

ASSIGNMENT Page 1 of 6 P0025573.00

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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.

I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Corporation in accordance with this instrument.

Oc tob ₩ 2008.

SARAH A. AUDET

STATE OF MINNESOTA

COUNTY OF RAMSKY

On this 30th day of 0708ER, 2008, before me personally appeared Sarah A. Audet, 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

IN WITNESS WHEREOF, I have hereunto affixed my official signature with the seal of my office, the day and year above written.

Notary Public

NANCY A. STRONG
Notary Public-State of Minnesota
My Commission Expires
January 31, 2011

ASSIGNMENT Page 2 of 6 P0025573.00

062032-014600 0C 286,328,634v1 10-29-08

| I hereby request the Honorable Comm Letters Patent to Corporation in accordance with | issioner of Patents and Trademarks to issue the this instrument. |
|--|---|
| IN WITNESS WHEREOF, I have hereing, 2008. | unto set my hand on this day of |
| | JAMES K. CARNEY |
| STATE OF MINNESOTA | |
| COUNTY OF | |
| On this day of appeared James K. Carney, to me known to be foregoing instrument and acknowledged that a deed. | , 2008, before me personally be the person described in and who executed the s/he executed the same as his/her free act and |
| IN WITNESS WHEREOF, I have hereur office, the day and year above written. | nto affixed my official signature with the seal of my |
| | |
| | Notary Public |

ASSIGNMENT Page 3 of 6 P0025573.00

| I hereby request the Honorable Commissioner of Patents and Trade Letters Patent to Corporation in accordance with this instrument. | marks to issue the |
|---|---------------------|
| IN WITNESS WHEREOF, I have hereunto set my hand on this, 2008. | day of |
| | |
| WILLIAM J. COME | 38 |
| | |
| STATE OF | |
| COUNTY OF | |
| | |
| On this day of, 2008, bef appeared William J. Combs, to me known to be the person described in and foregoing instrument and acknowledged that s/he executed the same as head. | d who executed the |
| IN WITNESS WHEREOF, I have hereunto affixed my official signature office, the day and year above written. | with the seal of my |
| Notary Public | |

ASSIGNMENT Page 4 of 6 P0025573.00

| 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, 2008. |
| |
| TOMMY D. BENNETT |
| STATE OF MINNESOTA |
| COUNTY OF |
| |
| On this day of, 2008, before me personally appeared Tommy D. Bennett, 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. |
| |
| Notary Public |

ASSIGNMENT Page 5 of 6 P0025573.00

062032-014600 OC 286,328,634v1 10-29-08

| I hereby request the Honorable Commiss Letters Patent to Corporation in accordance with th | ioner of Patents and Trademarks to issue the is instrument. |
|---|---|
| IN WITNESS WHEREOF, I have hereunt, 2008. | o set my hand on this day of |
| | |
| | BARBRO M. L. KJELLSTROM |
| STATE OF MINNESOTA | |
| COUNTY OF | |
| | |
| On this day ofappeared Barbro M. L. Kjellstrom, to me known to the foregoing instrument and acknowledged that sideed. | , 2008, before me personally be the person described in and who executed s/he executed the same as his/her free act and |
| IN WITNESS WHEREOF, I have hereunto office, the day and year above written. | affixed my official signature with the seal of my |
| | |
| | Notary Public |

ASSIGNMENT Page 6 of 6 P0025573.00

062032-014600 OC 286,328,634v1 10-29-08

BOST

ASSIGNMENT

WHEREAS, We, SARAH A. AUDET, JAMES K. CARNEY, WILLIAM J. COMBS, TOMMY D. BENNET, and BARBRO M. L. KJELLSTROM, are the inventors with residence and citizenship as indicated below, have made an invention entitled **METHOD AND APPARATUS TO DETECT ISCHEMIA WITH A PRESSURE SENSOR** that is the subject of United States Utility Application Serial Number (12/263,423), filed (Oct. 31, 2008), [We hereby authorize the application serial number and filing date of said utility application to be inserted above in the parentheses when known];

WHEREAS, <u>MEDTRONIC</u>, INC., a corporation organized and existing under the laws of the <u>State of Minnesota</u> and having a principal place of business at <u>710 Medtronic Parkway N.E.</u>, <u>Minneapolis</u>, <u>Minnesota 55432-5640</u>, 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 also hereby authorize Corporation and its employees to fill in the serial number and filing date above after this document has been executed;

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 hereby grant Corporation the right to fill in the serial number and filing date in this document upon their receipt;

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 of extension of said Letters Patent is lawful

ASSIGNMENT Page 1 of 6 P0025573.00

062032-014600 OC 286,328,634v1 10-29-08

| to Corporation, its succes | sors or assigns, but | at Corporation's expense. | |
|---|----------------------|--|---|
| I hereby request Letters Patent to Corpora | | missioner of Patents and Trader ith this instrument. | marks to issue the |
| IN WITNESS WH | | reunto set my hand on this | day of |
| | | | |
| wn j | | SARAH A. AUDET | REPRESENTATION PARAMARAMARAMARAMARAMARAMARAMARAMARAMARA |
| STATE OF MINNESOTA | | | |
| COUNTY OF | | | |
| | | | |
| | | , 2008, befo be the person described in and t s/he executed the same as hi | |
| IN WITNESS WH office, the day and year a | • | ounto affixed my official signature | with the seal of my |
| | | | |
| | | Notary Public | |

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

ASSIGNMENT Page 2 of 6 P0025573.00

| 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 |
| In KCm |
| JAMES K. CARNEY |
| STATE OF MINNESOTA |
| COUNTY OF Ramsey |
| On this 10 to day of Formula 2008, before me personally appeared James K. Carney, 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. |
| Notary Public Duff |
| TAMARA D. DUFFNEY Notary Public-State of Minnesota My Commission Expires January 31, 2011 |

ASSIGNMENT Page 3 of 6 P0025573.00

| 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, 2008. |
| |
| WILLIAM J. COMBS |
| STATE OF |
| COUNTY OF |
| |
| On this day of, 2008, before me personally appeared William J. Combs, 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. |
| Notary Public |

ASSIGNMENT Page 4 of 6 P0025573.00

| 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, 2008. |
| |
| TOMMY D. BENNETT |
| |
| STATE OF MINNESOTA |
| COUNTY OF |
| |
| On this day of, 2008, before me personally appeared Tommy D. Bennett, 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. |
| Notary Public |

ASSIGNMENT Page 5 of 6 P0025573.00

062032-014600 oc 286,328,634v1 10-29-08

| 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, 2008. |
| |
| BARBRO M. L. KJELLSTROM |
| :8 × |
| STATE OF MINNESOTA |
| COUNTY OF |
| |
| On this, 2008, before me personally appeared Barbro M. L. Kjellstrom, 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. |
| Notary Public |

ASSIGNMENT Page 6 of 6 P0025573.00

883

ASSIGNMENT

WHEREAS, We, SARAH A. AUDET, JAMES K. CARNEY, WILLIAM J. COMBS, TOMMY D. BENNE), and BARBRO M. L. KJELLSTROM, are the inventors with residence and citizenship as indicated below, have made an invention entitled **METHOD AND APPARATUS TO DETECT ISCHEMIA WITH A PRESSURE SENSOR** that is the subject of United States Utility Application Serial Number (12/263,423), filed (Oct. 31, 2008), [We hereby authorize the application serial number and filing date of said utility application to be inserted above in the parentheses when known];

WHEREAS, <u>MEDTRONIC</u>, INC., a corporation organized and existing under the laws of the <u>State of Minnesota</u> and having a principal place of business at <u>710 Medtronic Parkway N.E.</u>, <u>Minneapolis</u>, <u>Minnesota 55432-5640</u>, 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 also hereby authorize Corporation and its employees to fill in the serial number and filing date above after this document has been executed;

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 hereby grant Corporation the right to fill in the serial number and filing date in this document upon their receipt;

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 of extension of said Letters Patent is lawful

ASSIGNMENT Page 1 of 6 P0025573.00

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| 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 day of, 2008. |
| |
| SARAH A. AUDET |
| STATE OF MINNESOTA |
| COUNTY OF |
| |
| On this day of, 2008, before me personally appeared Sarah A. Audet, 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. |
| |
| Notary Public |

and desirable, we, or our executors, administrators or assigns will sign all papers and drawings,

ASSIGNMENT Page 2 of 6 P0025573.00

| 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, 2008. |
| JAMES K. CARNEY |
| STATE OF MINNESOTA |
| COUNTY OF |
| On this day of 2008, before me personally appeared James K. Carney, 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. |
| Notary Public |

ASSIGNMENT Page 3 of 6 P0025573.00

| I hereby request the Honorable Commissione Letters Patent to Corporation in accordance with this in | |
|--|--|
| IN WITNESS WHEREOF, I have hereunto so コロットリング 1000 1000 1000 1000 1000 1000 1000 10 | et my hand on this <u>20</u> day of |
| - Log | MILIAM J. & OMBS |
| | Aurrivia 2'solato |
| STATE OF Minnesota | |
| COUNTY OF ANOKA | |
| On this 200 day of January appeared William J. Combs, to me known to be the foregoing instrument and acknowledged that s/he e deed. | beigni described in siid wild executed me |
| IN WITNESS WHEREOF, I have hereunto affice, the day and year above written. | ixed my official signature with the seal of my |
| 1 Talifica Carlo C | |

ASSIGNMENT Page 4 of 6 P0025573.00

| I hereby request the Honorable Comm Letters Patent to Corporation in accordance with | nissioner of Patents and Trademarks to issue the h this instrument. |
|---|--|
| IN WITNESS WHEREOF, I have here, 2008. | unto set my hand on this day of |
| | ~~~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ |
| | TOMMY D. BENNETT |
| STATE OF MINNESOTA | |
| COUNTY OF | |
| | |
| appeared Tommy D. Bennett, to me known to | be the person described in and who executed the s/he executed the same as his/her free act and |
| | unto affixed my official signature with the seal of my |
| office, the day and year above written. | |
| | |
| | Notary Public |

ASSIGNMENT Page 5 of 6 P0025573.00

| 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, 2008. |
| |
| BARBRO M. L. KJELLSTROM |
| STATE OF MINNESOTA |
| COUNTY OF |
| |
| On this day of, 2008, before me personally appeared Barbro M. L. Kjellstrom, 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. |
| Notary Public |

ASSIGNMENT Page 6 of 6 P0025573.00

BAR

ASSIGNMENT

WHEREAS, We, SARAH A. AUDET, JAMES K. CARNEY, WILLIAM J. COMBS, TOMMY D. BENNET, and BARBRO M. L. KJELLSTROM, are the inventors with residence and citizenship as indicated below, have made an invention entitled **METHOD AND APPARATUS TO DETECT ISCHEMIA WITH A PRESSURE SENSOR** that is the subject of United States Utility Application Serial Number (12/263,423), filed (Oct. 31, 2008), [We hereby authorize the application serial number and filing date of said utility application to be inserted above in the parentheses when known];

WHEREAS, <u>MEDTRONIC</u>, INC., a corporation organized and existing under the laws of the <u>State of Minnesota</u> and having a principal place of business at <u>710 Medtronic Parkway N.E.</u>, <u>Minneapolis</u>, <u>Minnesota 55432-5640</u>, 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 also hereby authorize Corporation and its employees to fill in the serial number and filing date above after this document has been executed;

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ASSIGNMENT Page 1 of 6 P0025573.00

062032-014600 OC 286,328,634v1 10-29-08

| 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 day of, 2008. |
| |
| SARAH A. AUDET |
| STATE OF MINNESOTA |
| COUNTY OF |
| On this day of, 2008, before me personally appeared Sarah A. Audet, 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. |
| |
| Notary Public |

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ASSIGNMENT Page 2 of 6 P0025573.00

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| |
| JAMES K. CARNEY |
| STATE OF MINNESOTA |
| COUNTY OF |
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| |
| Notary Public |

ASSIGNMENT Page 3 of 6 P0025573.00

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|--|
| IN WITNESS WHEREOF, I have hereunto set my hand on this day of, 2008. |
| WILLIAM J. COMBS |
| |
| STATE OF |
| COUNTY OF |
| |
| On this day of, 2008, before me personally appeared William J. Combs, 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. |
| 8 |
| Notary Public |

ASSIGNMENT Page 4 of 6 P0025573.00

062032-014600 oc 286,328,634v1 10-29-08

| I hereby request the Honorable Commiss Letters Patent to Corporation in accordance with the | sioner of Patents and Trademarks to issue the nis instrument. |
|---|--|
| IN WITNESS WHEREOF, I have hereunt <u>のみもしゃて</u> 2008. | to set my hand on this <u>30^九</u> day of |
| | John O. Butt TOMMYD. BENNETT |
| | |
| STATE OF MINNESOTA | |
| COUNTY OF RAMSEY | |
| On this <u>SOM</u> day of <u>OCTOLO</u> appeared Tommy D. Bennett, to me known to be foregoing instrument and acknowledged that s/r deed. | 2008, before me personally the person described in and who executed the ne executed the same as his/her free act and |
| IN WITNESS WHEREOF, I have hereunto office, the day and year above written. | o affixed my official signature with the seal of my |
| | Kelly Show Lynaugh Notary Public |
| | KELLY IHNS LYNAUGH NOTARY PUBLIS - MINRESOTA SEY COMMISSION EXPINES 1012200 |

ASSIGNMENT Page 5 of 6 P0025573.00

| 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, 2008. |
| |
| BARBRO M. L. KJELLSTROM |
| STATE OF MINNESOTA |
| COUNTY OF |
| |
| On this day of, 2008, before me personally appeared Barbro M. L. Kjellstrom, 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. |
| |
| Notary Public |

ASSIGNMENT Page 6 of 6 P0025573.00

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ASSIGNMENT

WHEREAS, We, SARAH A. AUDET, JAMES K. CARNEY, WILLIAM J. COMBS, TOMMY D. BENNE), and BARBRO M. L. KJELLSTROM, are the inventors with residence and citizenship as indicated below, have made an invention entitled **METHOD AND APPARATUS TO DETECT ISCHEMIA WITH A PRESSURE SENSOR** that is the subject of United States Utility Application Serial Number (12/263,423), filed (Oct. 31, 2008), [We hereby authorize the application serial number and filing date of said utility application to be inserted above in the parentheses when known];

WHEREAS, <u>MEDTRONIC</u>, INC., a corporation organized and existing under the laws of the <u>State of Minnesota</u> and having a principal place of business at <u>710 Medtronic Parkway N.E.</u>, <u>Minneapolis</u>, <u>Minnesota 55432-5640</u>, 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 also hereby authorize Corporation and its employees to fill in the serial number and filing date above after this document has been executed:

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 hereby grant Corporation the right to fill in the serial number and filing date in this document upon their receipt;

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 of extension of said Letters Patent is lawful

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| valid Letters Patent for said invention, or for the reiss to Corporation, its successors or assigns, but at Corpo | |
|---|--|
| I hereby request the Honorable Commission Letters Patent to Corporation in accordance with this i | |
| IN WITNESS WHEREOF, I have hereunto s | et my hand on this day of |
| | SARAH A. AUDET |
| STATE OF MINNESOTA | |
| COUNTY OF | |
| On this day ofappeared Sarah A. Audet, to me known to be the foregoing instrument and acknowledged that s/he edeed. | person described in and who executed the executed the same as his/her free act and |
| IN WITNESS WHEREOF, I have hereunto aff office, the day and year above written. | fixed my official signature with the seal of my |
| Ĩ | Notary Public |

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

ASSIGNMENT Page 2 of 6 P0025573.00

| 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, 2008. |
| JAMES K. CARNEY |
| JAMES N. CANTET |
| STATE OF MINNESOTA |
| COUNTY OF |
| On this day of, 2008, before me personally appeared James K. Carney, 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. |
| Notary Public |

ASSIGNMENT Page 3 of 6 P0025573.00

| I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Corporation in accordance with this instrument. |
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| IN WITNESS WHEREOF, I have hereunto set my hand on this day of, 2008. |
| |
| WILLIAM J. COMBS |
| |
| STATE OF |
| COUNTY OF |
| |
| On this day of, 2008, before me personally appeared William J. Combs, 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. |
| Notary Public |

ASSIGNMENT Page 4 of 6 P0025573.00

| I hereby request the Honorable Commissione Letters Patent to Corporation in accordance with this in | |
|--|--|
| IN WITNESS WHEREOF, I have hereunto se, 2008. | et my hand on this day of |
| | |
| | TOMMY D. BENNETT |
| STATE OF MINNESOTA COUNTY OF | |
| On this day of appeared Tommy D. Bennett, to me known to be the foregoing instrument and acknowledged that s/he e deed. IN WITNESS WHEREOF, I have hereunto aff office, the day and year above written. | person described in and who executed the xecuted the same as his/her free act and |
| | lotary Public |

ASSIGNMENT Page 5 of 6 P0025573.00

| 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 2nd day of February , 2008, 9 |
| BARBRO M. L. KJELLSTROM |
| BARBRO M. L. KJELLSTROM |
| |
| STATE OF MINNESOTA |
| COUNTY OF RAMSEY |
| On this |
| IN WITNESS WHEREOF, I have hereunto affixed my official signature with the seal of my office, the day and year above written. |
| Dancy A. Strong. Notary Public |
| NANCY A. STRONG Notary Public-State of Minnesota My Commission Expires January 31, 2011 |

ASSIGNMENT Page 6 of 6 P0025573.00

Comment 1

Inventor "Tommy D. Bennett" incorrectly listed on recordation form cover sheet and first page of assignment as "Tommy D. Bennet"

Thus, the recordation form cover sheet and first page of assignment are being hereby corrected in accordance with the proper spelling of the inventor's name.

Comment 2

assignment from "Tommy D. Bennett" to Medtronic, Inc.

PATENT REEL: 038643 FRAME: 0142

RECORDED: 05/09/2016