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Minnesota 55448 (US). WILCOX, Jay, M. [US/US];
1743 Highland Parkway, St. Paul, Minnesota 55116 (US).

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(74) Agents: SOLDNER, Michael, et al.; MS LC340, 710
Medtronic Parkway, Minneapolis, Minnesota 55432 (US).

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(71) Applicant (for all designated States except US):
MEDTRONIC, INC. [US/US]; MS LC340, 710
Medtronic Parkway, Minneapolis, Minnesota 55432
(US).

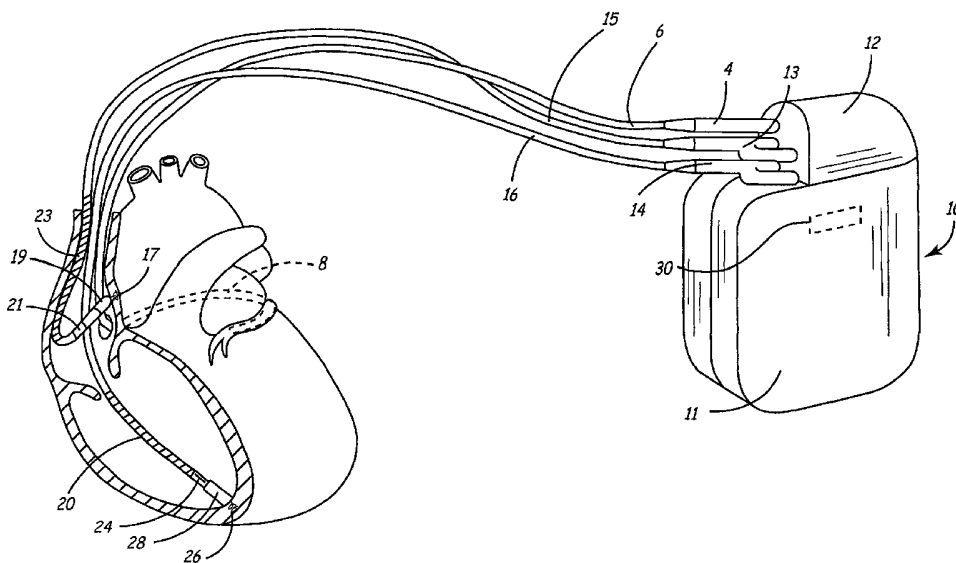
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(72) Inventors; and

(75) Inventors/Applicants (for US only): GUNDERSON,
Bruce, D. [US/US]; 4735 Pilgram Lane North, Ply-
mouth, Minnesota 55442 (US). GILLBERG, Jeffrey,
M. [US/US]; 155 107th Lane Northwest, Coon Rapids,

[Continued on next page]

(54) Title: IDENTIFICATION OF OVERSENSING USING SINUS R-WAVE TEMPLATE



(57) Abstract: A method and apparatus delivering therapy in an implantable medical device that includes sensing a first cardiac signal and detecting cardiac events via a first electrode configuration, determining the presence of an episode requiring therapy in response to the detected cardiac events, sensing a second cardiac signal via a second electrode configuration, comparing, in response to an episode being present, portions of the second cardiac signal corresponding to the detected cardiac events with a predetermined template, and determining whether to deliver therapy in response to the comparing.

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**Declarations under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/015138

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61B5/0452 A61N1/362 G06F17/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category ° | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| Y | US 5 776 168 A (GUNDERSON BRUCE D) 7 July 1998 (1998-07-07) column 5 - column 6; figure 2 | 7-12 |
| Y | US 6 393 316 B1 (KOYRAKH LEV A ET AL) 21 May 2002 (2002-05-21) column 1 - column 2 | 7-12 |
| Y | US 5 383 909 A (KEIMEL JOHN G) 24 January 1995 (1995-01-24) column 5 | 8-10 |
| A | US 5 755 739 A (PANKEN ERIC J ET AL) 26 May 1998 (1998-05-26) the whole document | 7-12 |

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
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- *P* document published prior to the international filing date but later than the priority date claimed

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- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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- * & * document member of the same patent family

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Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Edward, V

INTERNATIONAL SEARCH REPORT

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: 1-6
because they relate to subject matter not required to be searched by this Authority, namely:
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy
2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

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