(54) Title: BREATHING DISORDER DETECTION AND THERAPY DELIVERY DEVICE AND METHOD

(57) Abstract: A device and method are provided for managing the treatment of a patient with respiratory disorders or symptoms. Respiratory parameters are sensed and recorded and communicated to an external device to provide information to a patient and/or provider for further treatment or diagnosis. Also respiratory disorders such as apnea or hypoventilation may be treated by electrically stimulating the diaphragm muscle or phrenic nerve in response to a sensed respiratory parameter or characteristic.
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.
INTERNATIONAL SEARCH REPORT

INTERNATIONAL APPLICATION NO.

PCT/US04/34170

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61N 1/18
US Cl. : 607/42

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)

U.S. : 607/20, 42, 116; 600/534

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 practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category *</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>US 6,415,183 B1 (SCHEINER et al.) 02 July 2002 (02.07.2002), column 4-5, lines 61-67; column 3, 32-43; column 6, lines 53-56; column 1 and 2, lines 65-67 and 1-9; column 7, lines 55-58; column 5, lines 48-49.</td>
<td>1-6, 9-11, 16-18, 20-25, 27, 30-31, 34-38, 43-44, 46-66, 73-76</td>
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<td>Y</td>
<td>US 4,810,008 (MEER) 16 May 1989 (16.05.1989), column 4, lines 41-42; column 4 and 5, lines 65-68 and 1-2; column 5, lines 17-23; column 5, lines 17-23; column 2, lines 42-45.</td>
<td>7-8, 12-15, 19, 26, 28-29, 32-33, 39-42, 45</td>
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<tr>
<td>Y</td>
<td>US 6,480,733 B1 (TURCOTT) 12 November 2002 (12.11.2002), column, lines</td>
<td>1-5, 7-8, 11-16</td>
</tr>
<tr>
<td>Y</td>
<td>US 5,766,228 (BONNET et al.) 16 June 1998 (16.06.1998), column, lines</td>
<td>19, 39, 40-42, 67-72</td>
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<tr>
<td>Y</td>
<td>US 5,423,327 (CLAUSON et al.) 13 June 1995 (13.06.1995), column, lines</td>
<td>28-29</td>
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☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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Date of the actual completion of the international search

Date of mailing of the international search report
11 May 2005

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