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(54) Title: APPARATUS AND METHOD FOR DETECTING A SLEEP DISORDERED BREATHING PRECURSOR

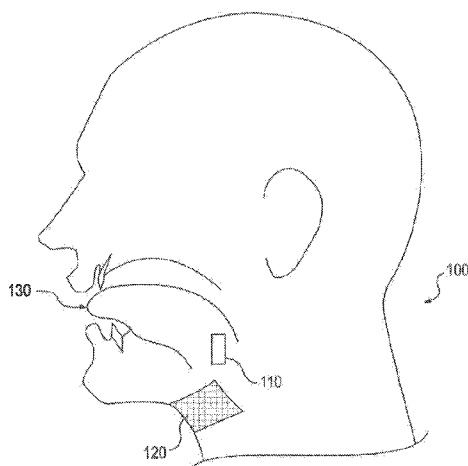


Fig. 2

(57) Abstract: A device according to some embodiments may include a primary antenna configured to be located external to a subject. The device may also include at least one processor in electrical communication with the primary antenna and configured to receive a condition signal from an implantable device, the condition signal indicative of a precursor to sleep disordered breathing, and cause transmission of a primary signal from the primary antenna to the implantable device, in response to the condition signal, to stimulate at least one nerve in response to the precursor to sleep disordered breathing.



INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC(8) - A61N 1/00 (2013.01)
 USPC - 607/60, 59, 1; 128/848, 846
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC(8): A61N 1/00 (2013.01)
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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 practicable, search terms used)
 MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); DialogPRO; PubMed/Medline; Google/Google Scholar; Search terms used: nerve*, electrical, modulat*, stimulat*, implant*, processor*, microprocessor*, sleep*, disorder*, apnea*, hypopnea*, 'OSA,' tongue*, contract*, second*, antenna*, signal, signals, modula*, current*, voltage*, amplitude*

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2008/048471 A2 (BOLEA, SL et al.) April 24, 2008; abstract; paragraphs [055], [058], [077], [083], [084], [0211], [0225], [0226], [0229], [0287], [0296], [0299], [0314], [0322], [0325], [0341], [0343]; figures 52A-52G	1-24
Y	US 7845357 B2 (BUSCEMI, PJ et al.) December 7, 2010; abstract; column 2, lines 19-27	1-24
Y	WO 2005/018737 A1 (STAHMANN, JE et al.) March 3, 2005; page 50, lines 25-33; page 53, line 26 to page 54, line 13; page 54, line 28 to page 55, line 4; page 103, lines 12-21	1-24
Y	US 2010/0108077 A1 (LINDH, DC et al.) May 6, 2010; paragraphs [0069], [0070], [0077]	5, 19
Y	US 2010/0087896 A1 (McCREERY, DB) April 8, 2010; paragraph [0044]	11

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