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(71) Applicant *(for all designated States except US)*: **SOTERA WIRELESS, INC.** [US/US]; 9444 Waples Street, Suite 280, San Diego, CA 92121 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **McCOMBIE, Devin** [US/US]; 4030 Moratalla Terrace, San Diego, CA 92130 (US). **DHILLON, Marshal** [US/US]; 10402 Camino San Thomas, San Diego, CA 92127 (US). **BANET, Matt** [US/US]; 2125 Awihi Place, Kihei, HI (US).

(74) Agents: **WHITTAKER, Michael, A.** et al.; Biotechnology Law Group, 12707 High Bluff Drive, Suite 200, San Diego, CA 92130 (US).

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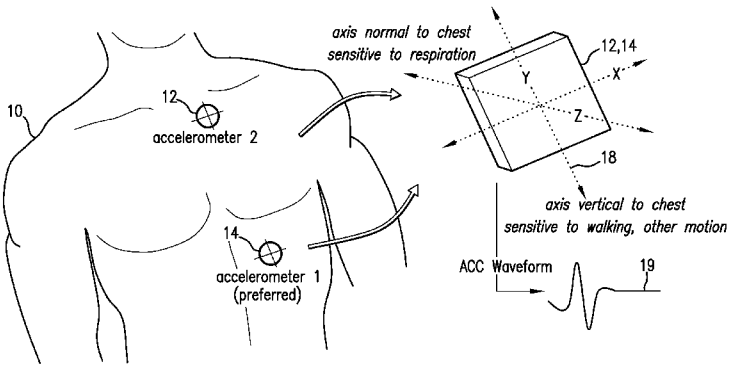


FIG.1A FIG.1B

(57) Abstract: The invention provides a multi-sensor system that uses an algorithm based on adaptive filtering to monitor a patient's respiratory rate. The system features a first sensor selected from the following group: i) an impedance pneumography sensor featuring at least two electrodes and a processing circuit configured to measure an impedance pneumography signal; ii) an ECG sensor featuring at least two electrodes and an ECG processing circuit configured to measure an ECG signal: and iii) a PPG sensor featuring a light source, photodetector, and PPG processing circuit configured to measure a PPG signal. Each of these sensors measures a time-dependent signal which is sensitive to respiratory rate and, during operation, is processed to determine an initial respiratory rate value. The system features a second sensor that attaches to the patient's torso and measures an ACC signal indicating movement of the chest or abdomen that is also sensitive to respiratory rate.

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