

[54] **CARDIO-PULMONARY ACTIVITY MONITOR**

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[58] Field of Search 128/716, 721-723, 128/714, 670-671, 774, 782; 340/573, 575

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[57] **ABSTRACT**

A method and apparatus for providing an indication of a cardiopulmonary activity of a person using noninvasive monitoring means and for detecting motion in the area of the apparatus includes an electrostatic charge detector for providing an output signal including signals indicative of motion and cardiopulmonary activity of the person. A detection apparatus is connected to receive the signals and to filter the extraneous noise signals from the signals of interest to provide output signals indicative only of the motion of interest or cardiopulmonary activity of the person. Breathing signals are applied to a comparator which is tripped if breathing occurs at a rate below a predetermined value. Cardiac signals are applied to a circuit which adjusts the trip level for the breathing rate if the cardiac rate declines to a level suggestive of bradycardia without breathing rate increases. The filtering circuit for the signal supplied by the charge detector incorporates a dual integrator operating as a frequency selective charged amplifier which is effective to substantially eliminate all signals outside of the range of about 0.1 to 15 Hz.

15 Claims, 2 Drawing Sheets

