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(54) **METHOD AND APPARATUS FOR MONITORING THE AUTONOMIC NERVOUS SYSTEM**

**Publication Classification**

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(57) **ABSTRACT**

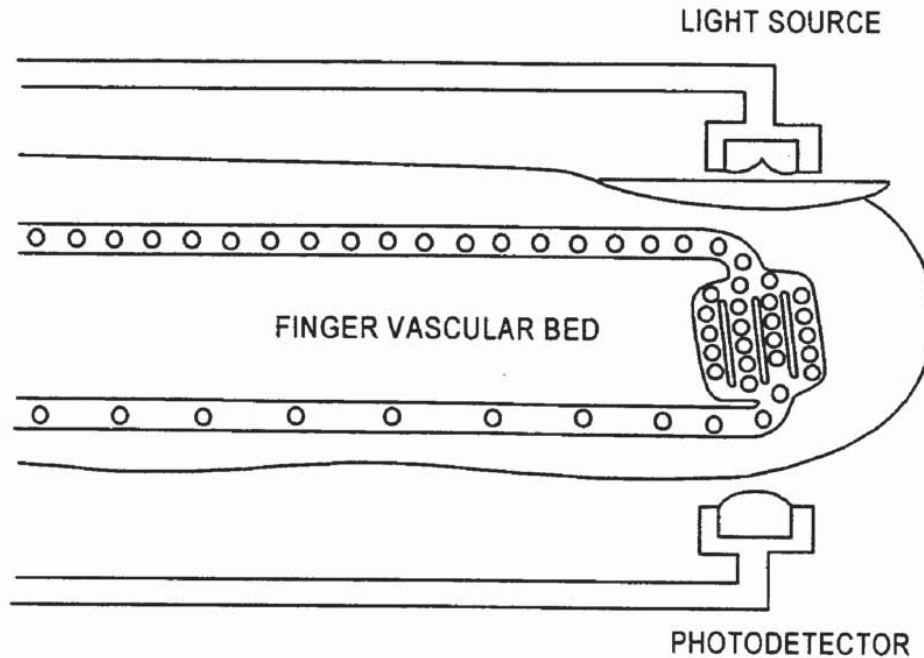
An apparatus and method for detection and monitoring of autonomic nervous system (ANS) activity in humans, primarily in the field of sleep research. The present invention discloses a portable, simple, and cost-effective electronic device containing hardware and software that permits real-time monitoring of a pulsatile blood volume waveform obtained through use of a photoplethysmographic (optical volume detecting) probe, thereby allowing signal conditioning, waveform slope analysis, display, recording, and output of pulse transitional slope data representative of activity in the ANS.

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(22) Filed: **Sep. 19, 2003**

**Related U.S. Application Data**

(60) Provisional application No. 60/412,310, filed on Sep. 20, 2002.



Apple Inc.  
APL1034

FIG. 1

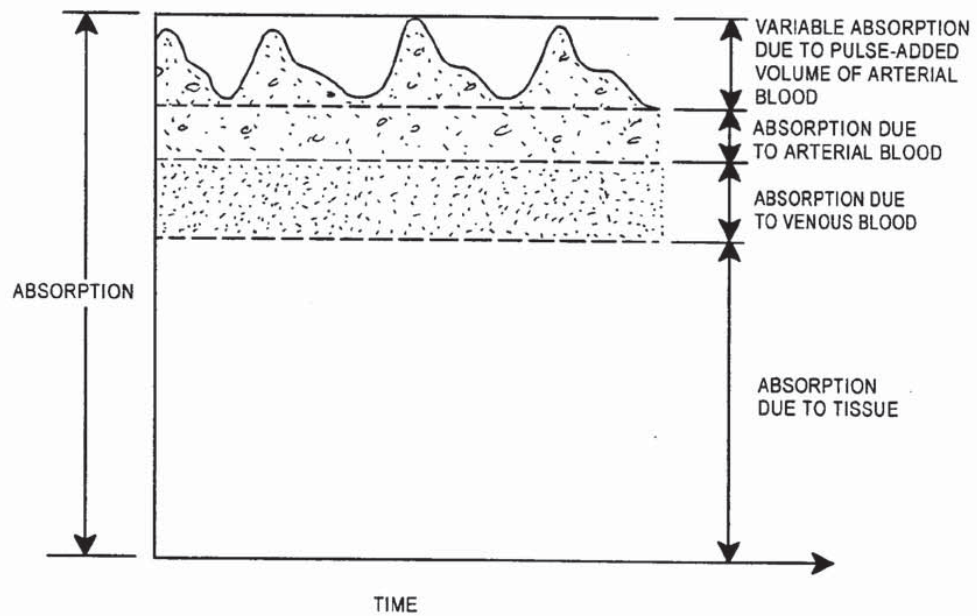
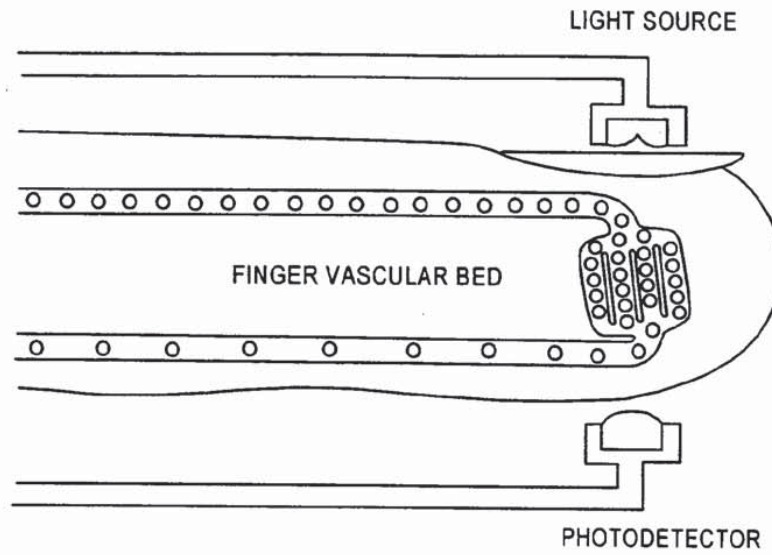
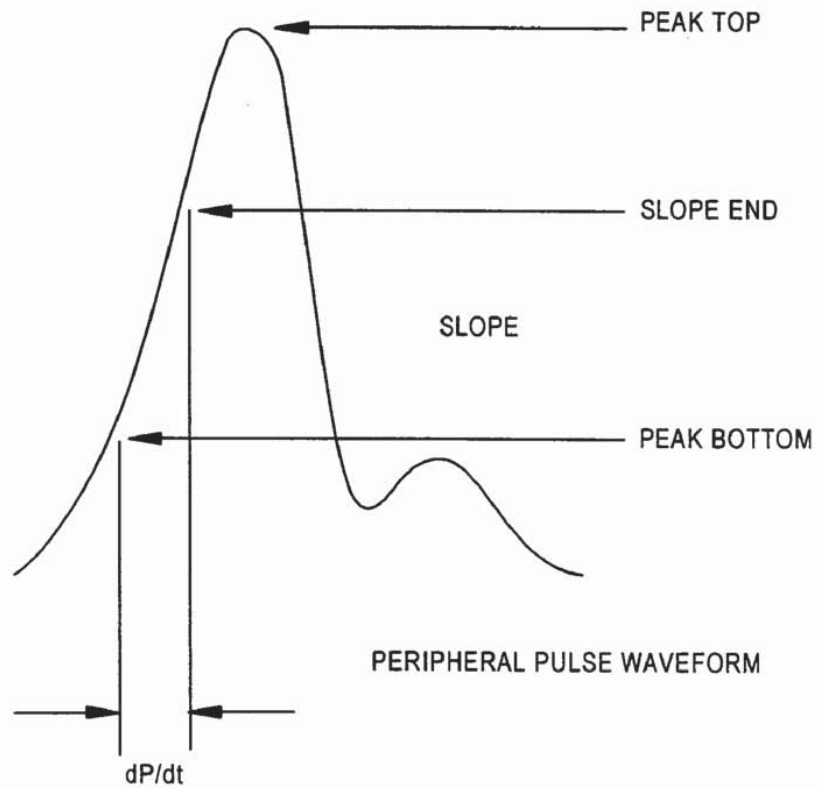
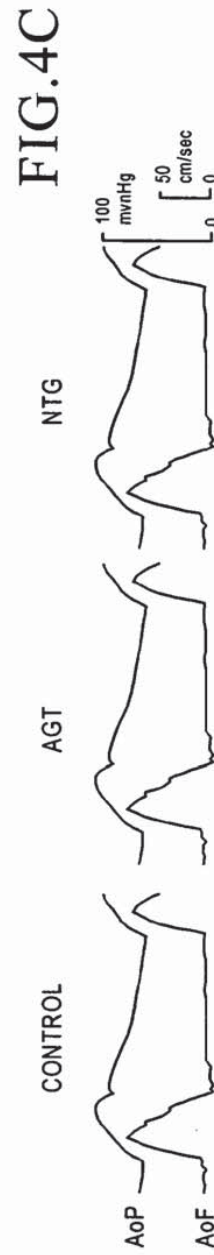
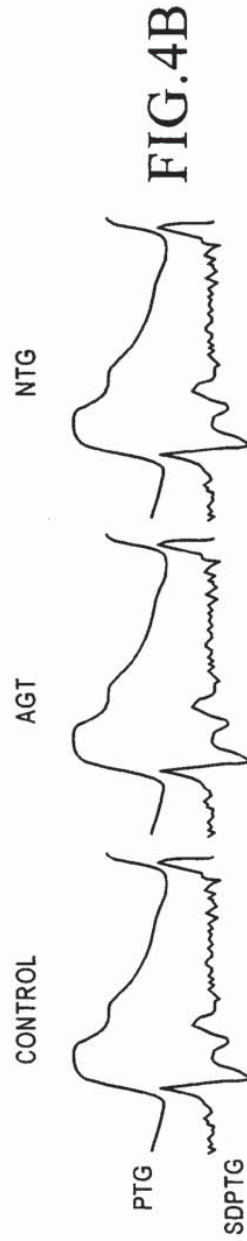
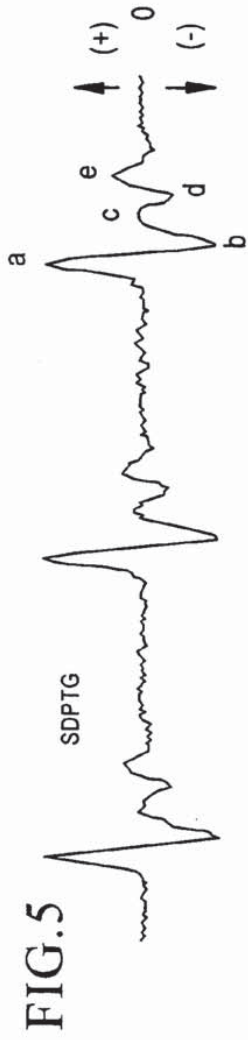


FIG. 2

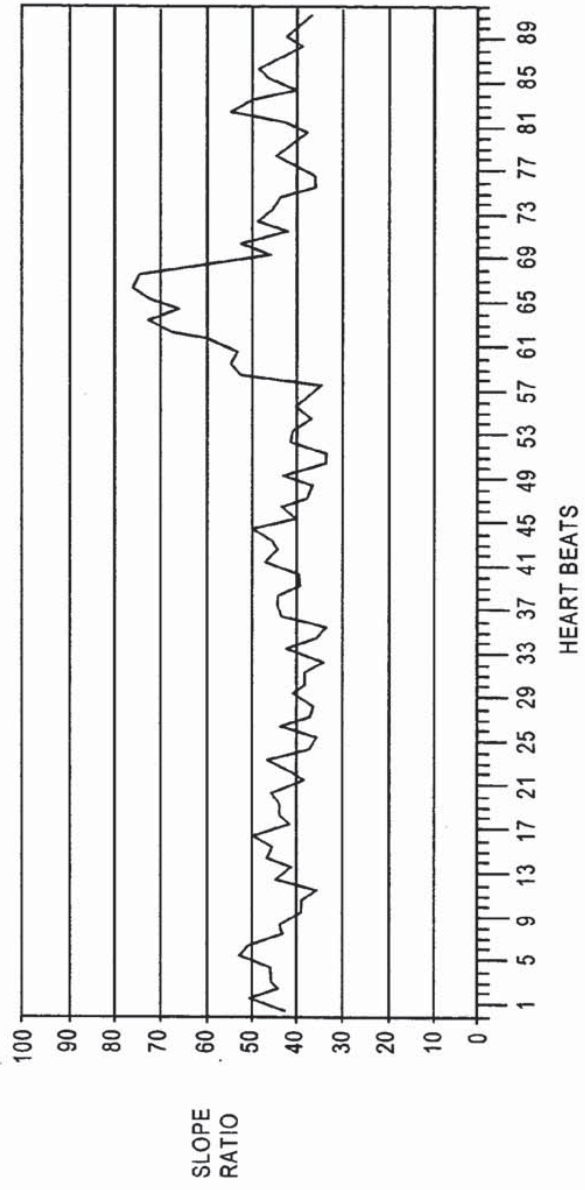
FIG.3







**FIG.6**



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