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United States Patent [19]

Swedlow et al.

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[54] **MEDICAL DIAGNOSTIC APPARATUS WITH SLEEP MODE**

[75] Inventors: **David B. Swedlow**, Danville; **Michael J. Bernstein**, San Ramon; **Charles E. Porges**, Orinda; **James E. Luecke**, Dublin; **Michael W. Nootbaar**, Benicia, all of Calif.

[73] Assignee: **Nellcor Puritan Bennett Incorporated**, Pleasanton, Calif.

[*] Notice: This patent is subject to a terminal disclaimer.

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Related U.S. Application Data

[63] Continuation-in-part of application No. 08/599,255, Feb. 9, 1996, Pat. No. 5,746,697.

[51] **Int. Cl.⁶** **A61B 5/00**

[52] **U.S. Cl.** **600/300**; 600/310; 600/323

[58] **Field of Search** 600/300, 310, 600/322, 323, 324, 326, 333, 336, 483; 607/16

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Primary Examiner—Cary O'Connor
Assistant Examiner—Eric F. Winakur
Attorney, Agent, or Firm—Townsend and Townsend and Crew LLP

[57] **ABSTRACT**

A method and apparatus for conserving power in a medical diagnostic apparatus by using a sleep mode during a monitoring state. The sleep mode allows not only the processor to be put to sleep, but other detection circuitry as well. This is accomplished by not relying on detecting events to awaken the sleeping circuitry, but rather establishing the stability of a physiological parameter before going to sleep. The invention monitors a physiological parameter of the patient and enters a sleep mode only after it has been stable for a predetermined period of time. The apparatus is periodically awakened from the sleep mode to take additional measurements and to ascertain that the stability of the physiological parameter has not changed. In one embodiment, the sleep period is chosen to be consistent with the period in which an alarm condition would need to be generated if a patient's condition started to quickly change.
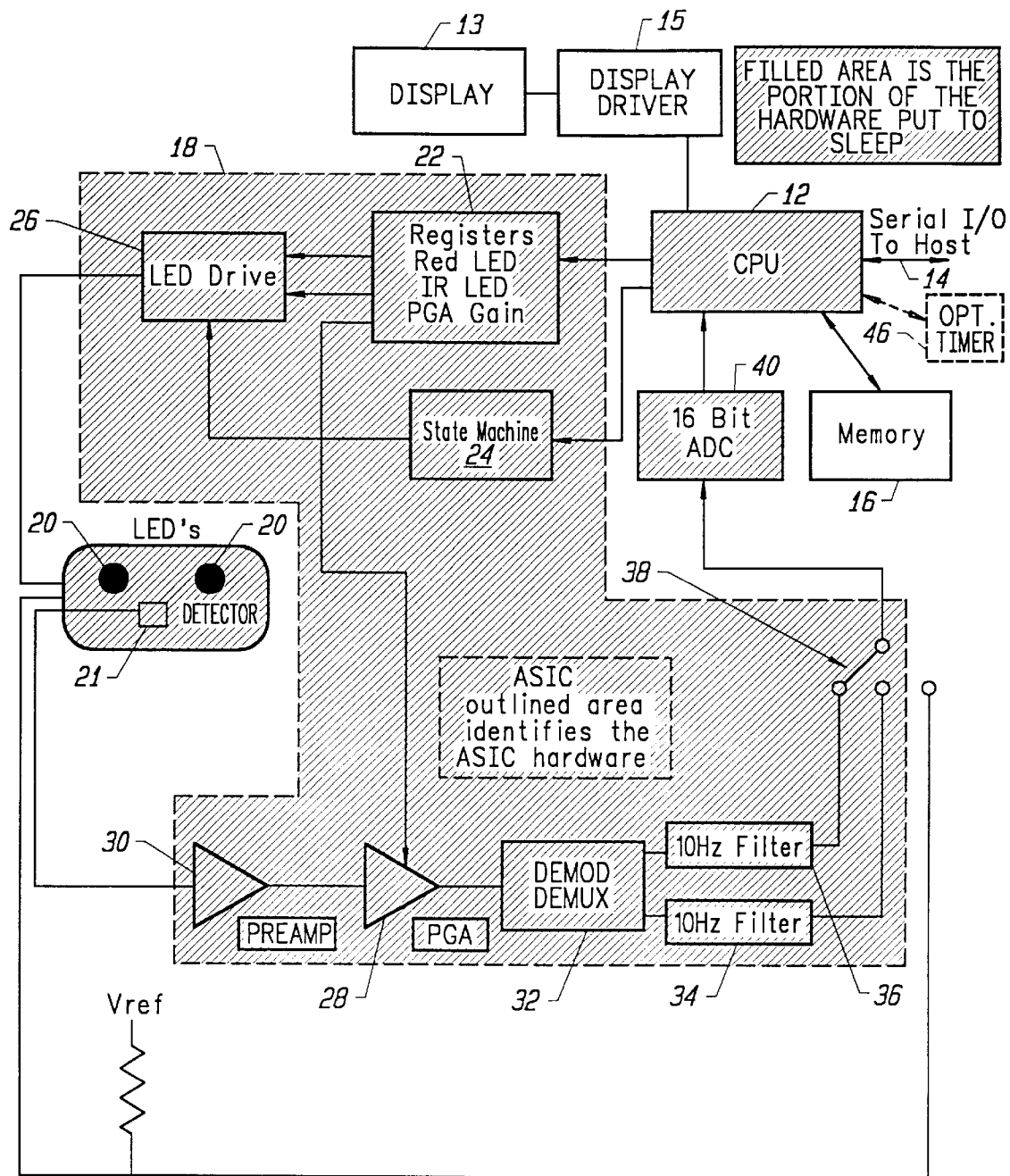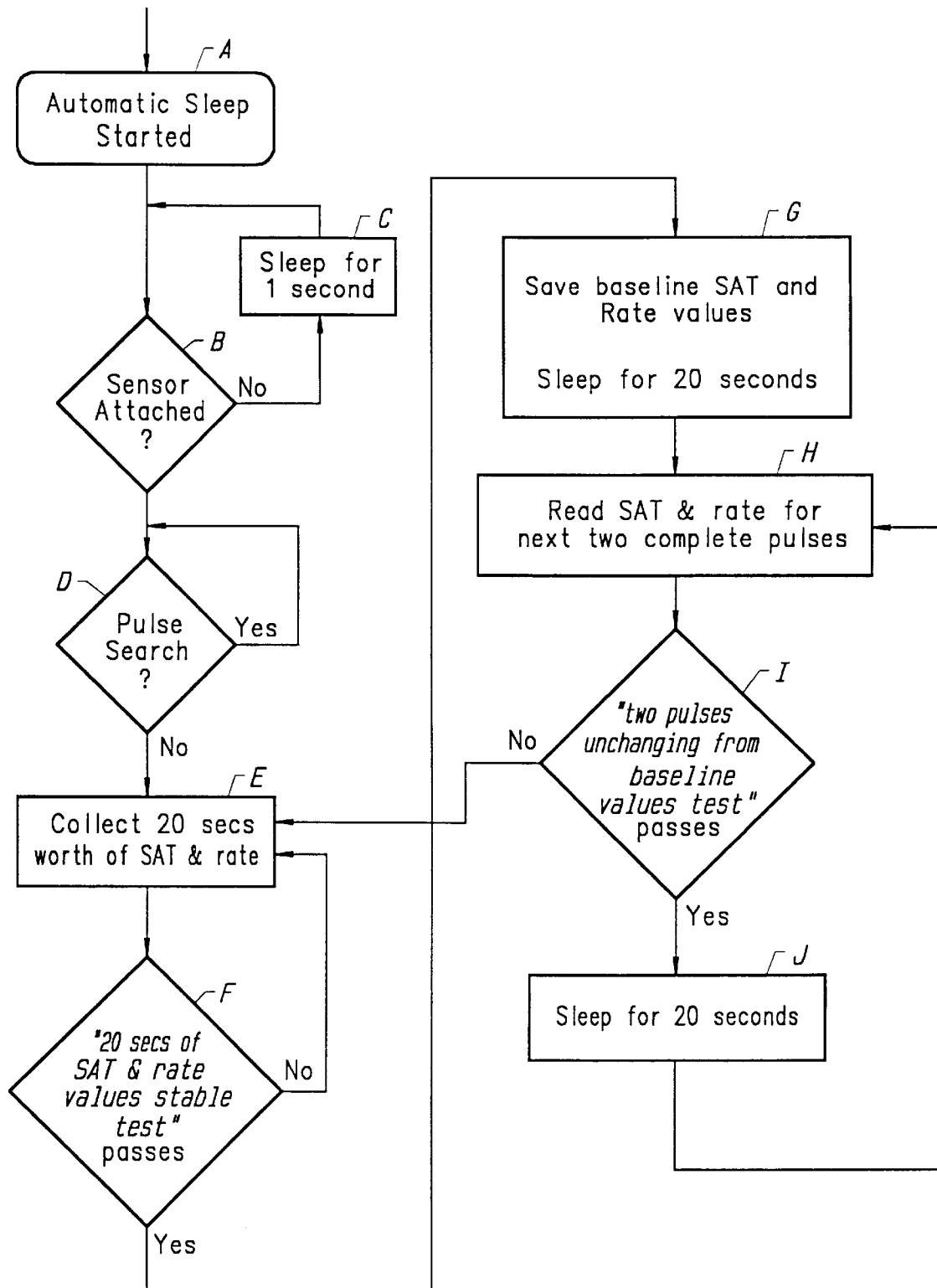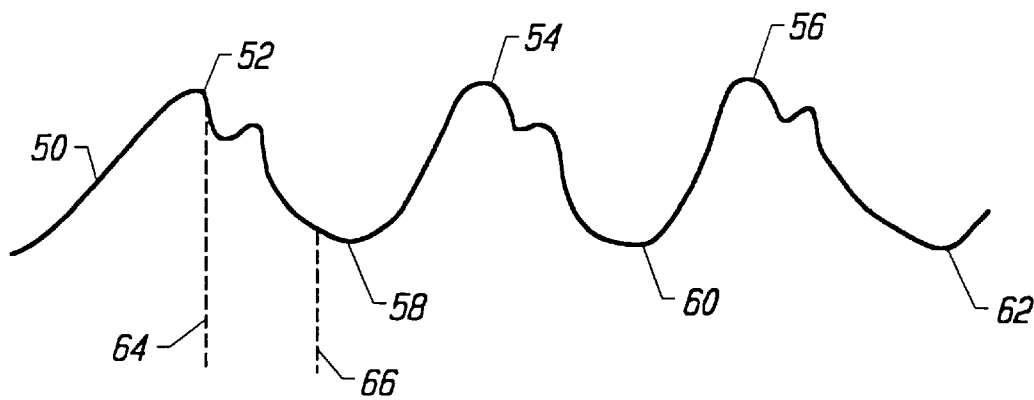
17 Claims, 4 Drawing Sheets
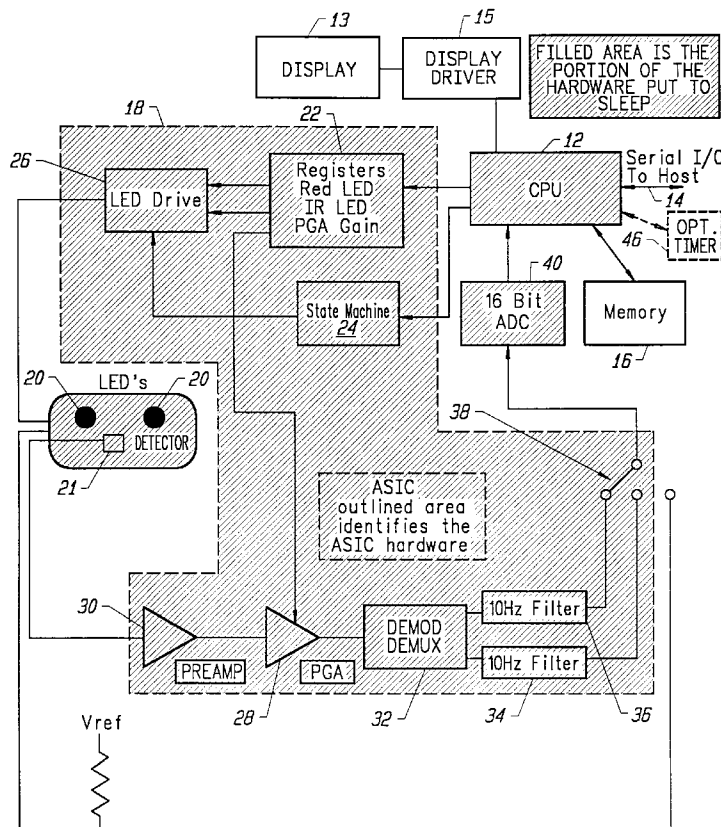
FIG. 1

FIG. 2

FIG. 3

FIG. 4.

DOCKET ALARM
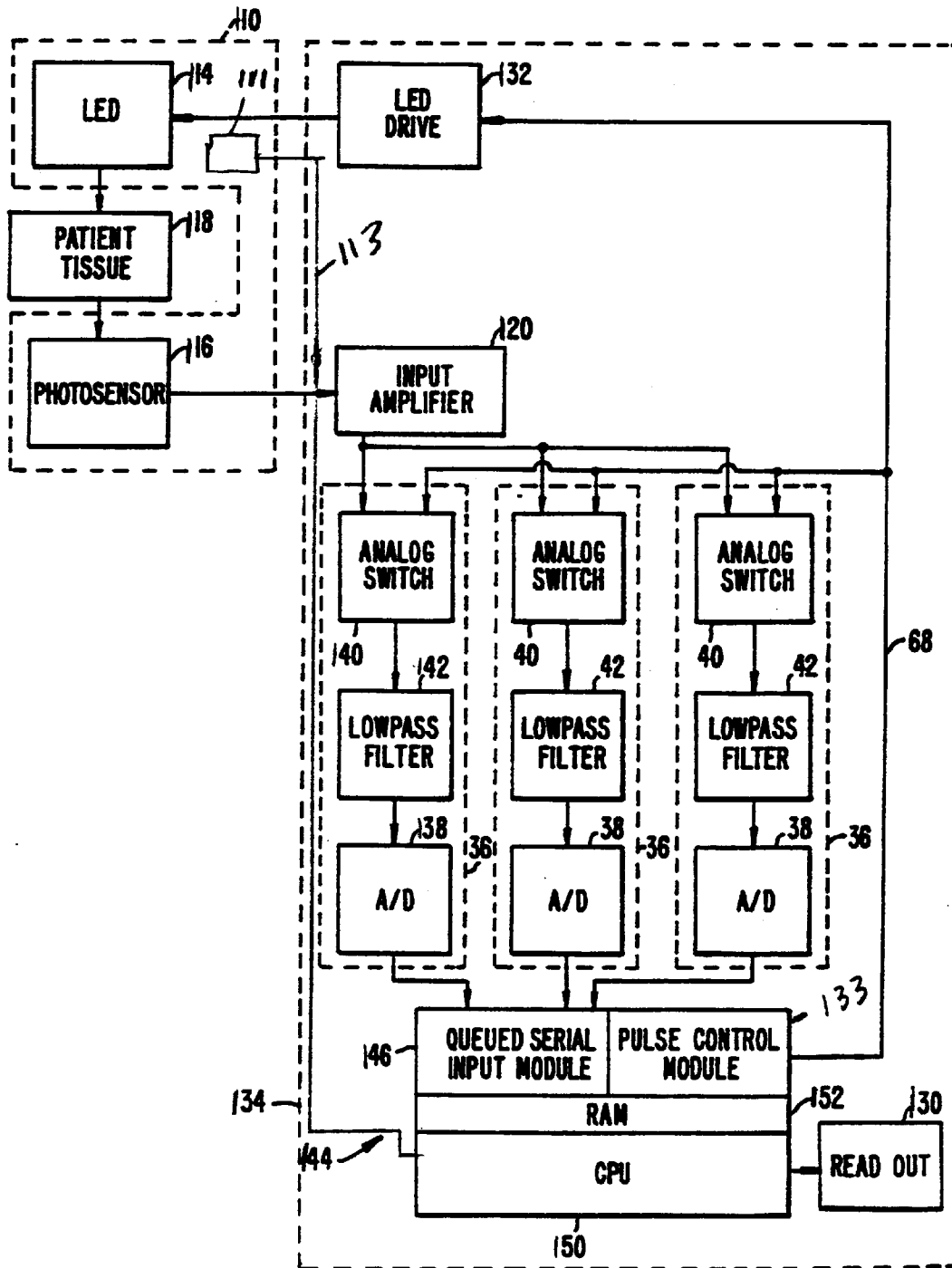
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