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United States Patent [19]

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Arcelus

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[54] **USER-WORN ELECTROCARDIOGRAM VIEWER DEVICE**

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[*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

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[21] Appl. No.: **08/825,828**

[57] **ABSTRACT**

[22] Filed: **Mar. 29, 1997**

A user-worn electrocardiogram viewer acquires data relating to a user's electrocardiogram signal. The viewer receives the electrocardiogram signal (by wired or wireless link) and displays it on a self-contained display screen (10). The viewer provides switches (12, 14, 16) operated by the user to adjust the display and processing of the electrocardiogram signal through the selection of parameters such as size of the electrocardiogram signal to be displayed, bandwidth of the electrocardiogram signal to be processed, and speed of the electrocardiogram signal when displayed through the screen. The viewer also includes a storage capability to store the electrocardiogram signal for later recall and analysis. The viewer also includes an infrared port (50) to communicate with the serial port of other devices. The viewer provides other support functions to the user such as display of heart rate, visual display of QRS-detection, and time and date information. The viewer also provides the user with the capability to set a heart rate target zone and heart rate trend. The viewer is easy to operate by the user and suitable for attachment (38, 40) to the user's upper limb, preferably the wrist.

Related U.S. Application Data

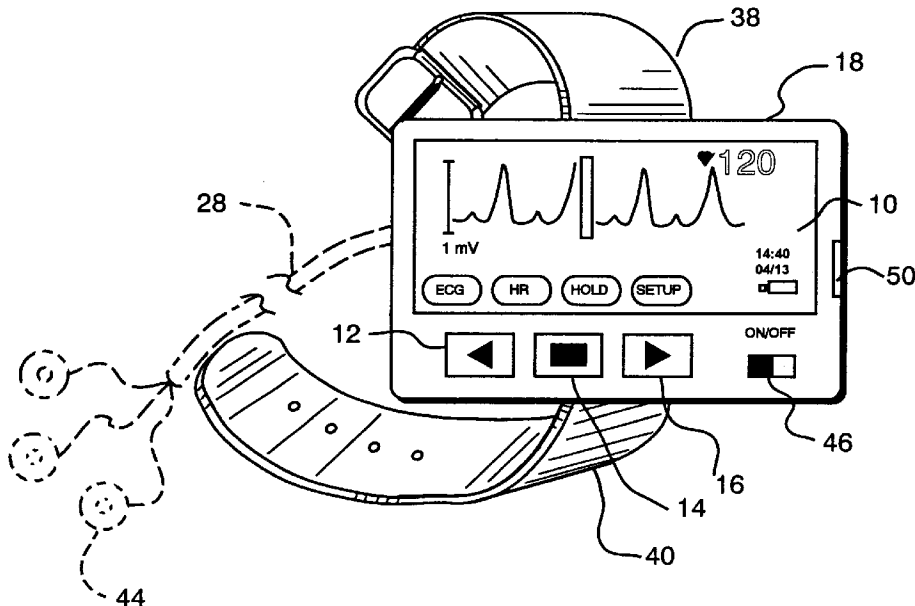
[60]	Provisional application No. 60/024,788, Sep. 10, 1996.
[51]	Int. Cl. ⁷ A61B 5/0432
[52]	U.S. Cl. 600/523; 600/509
[58]	Field of Search 600/509, 520, 600/523; 607/32

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20 Claims, 11 Drawing Sheets



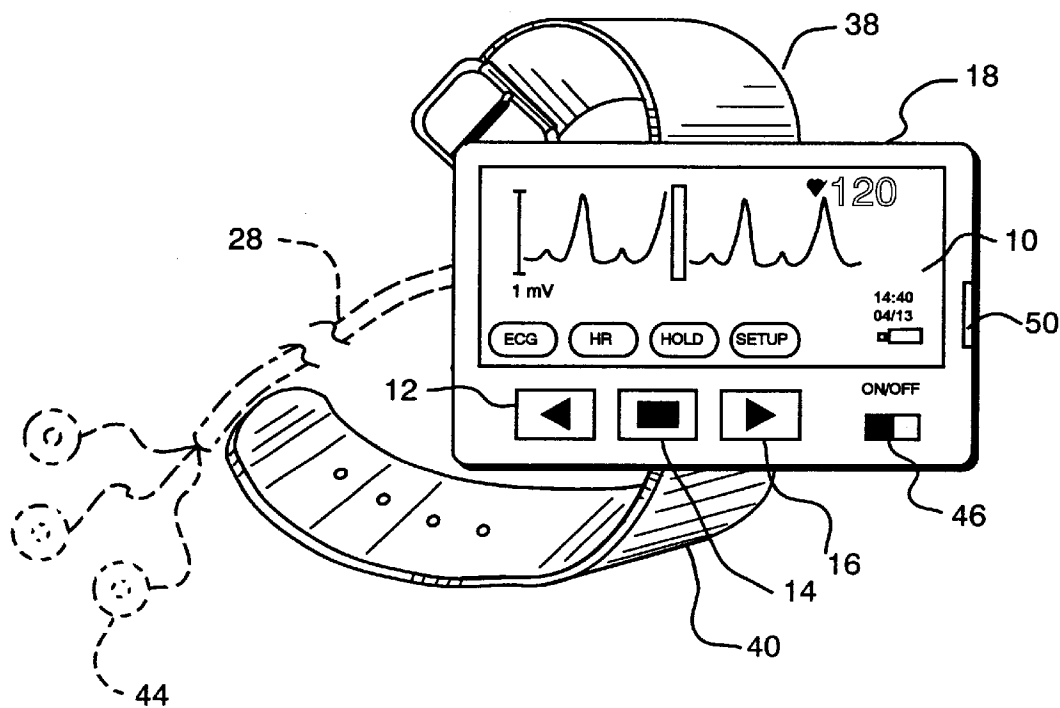
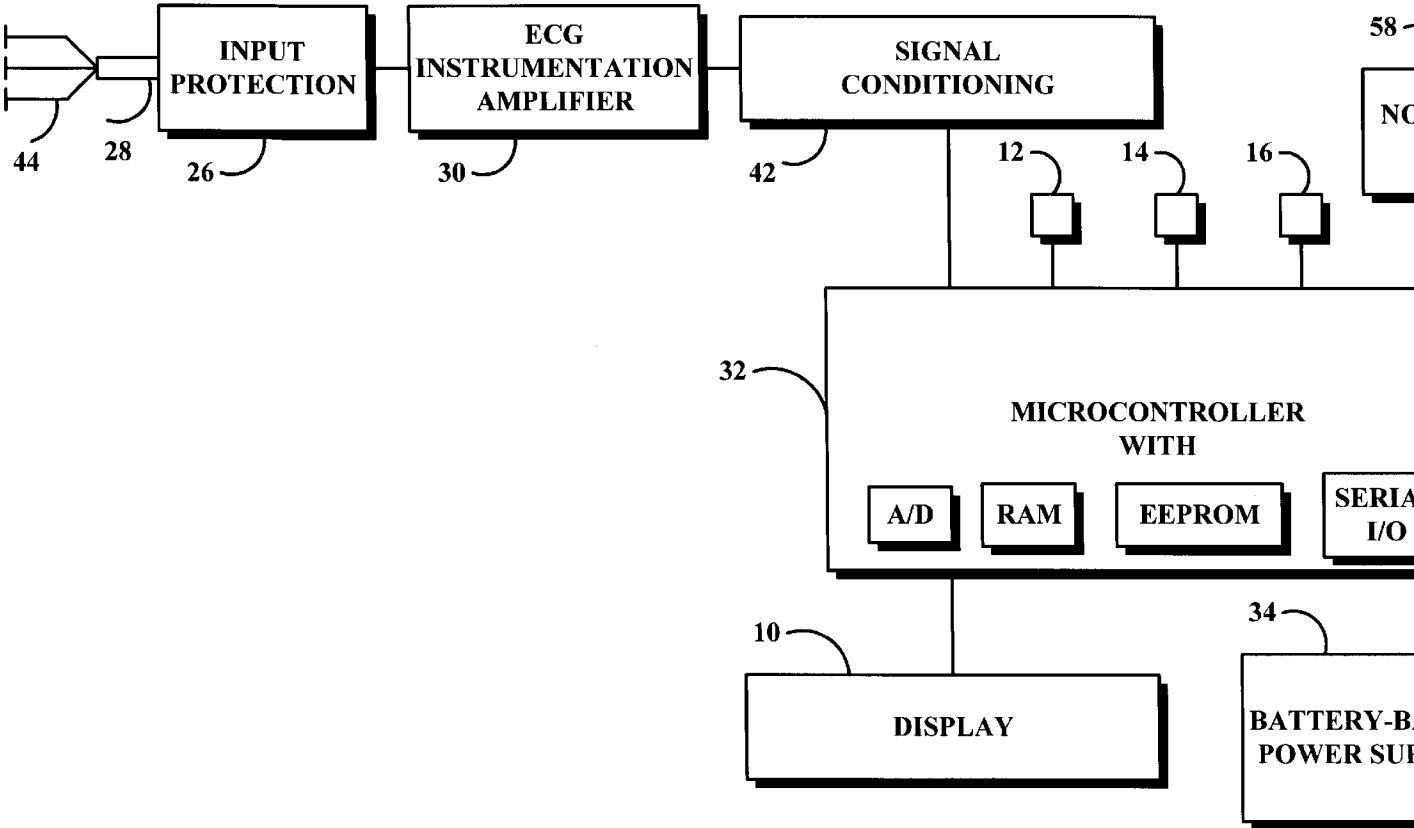


FIG. 1

FIG. 2



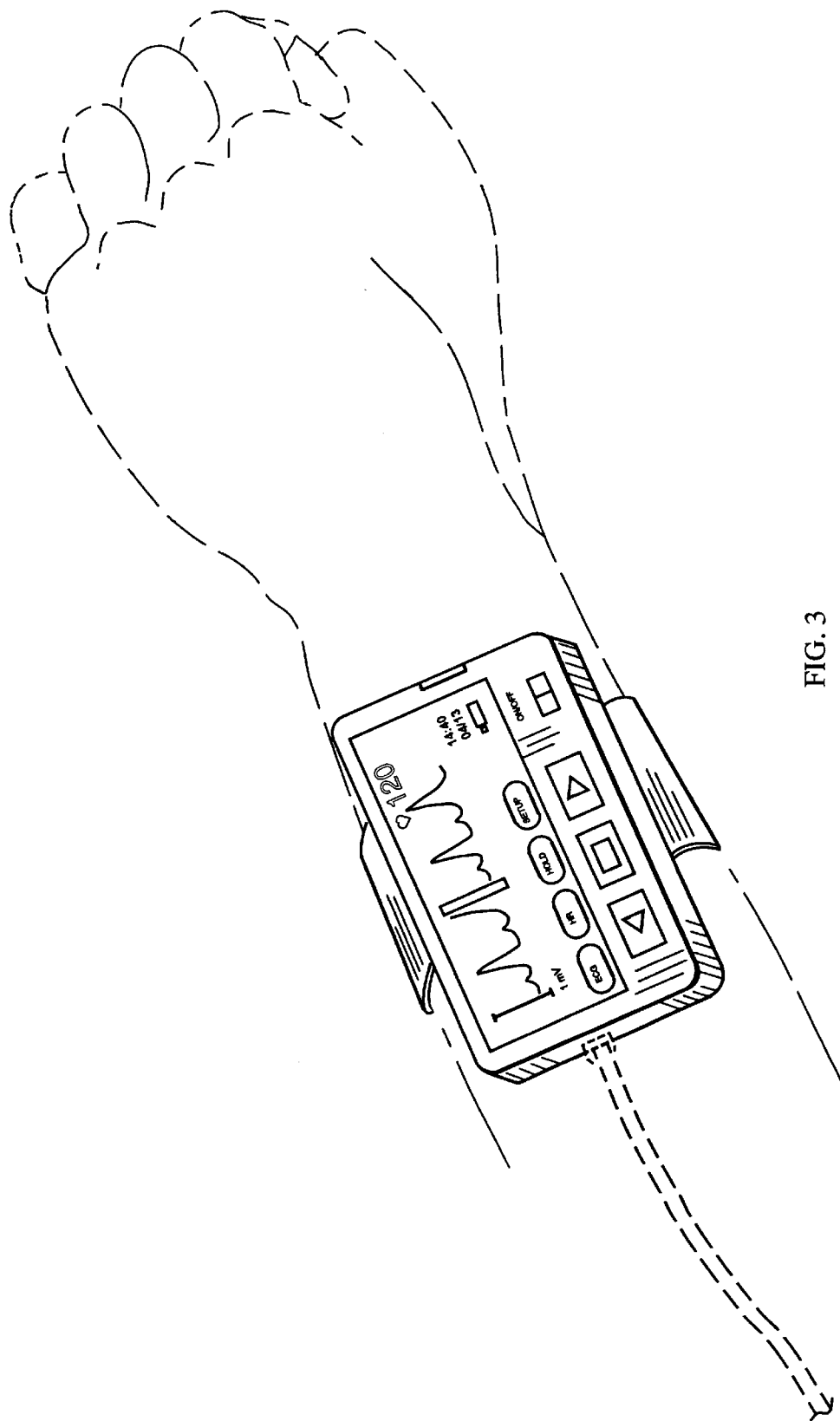


FIG. 3

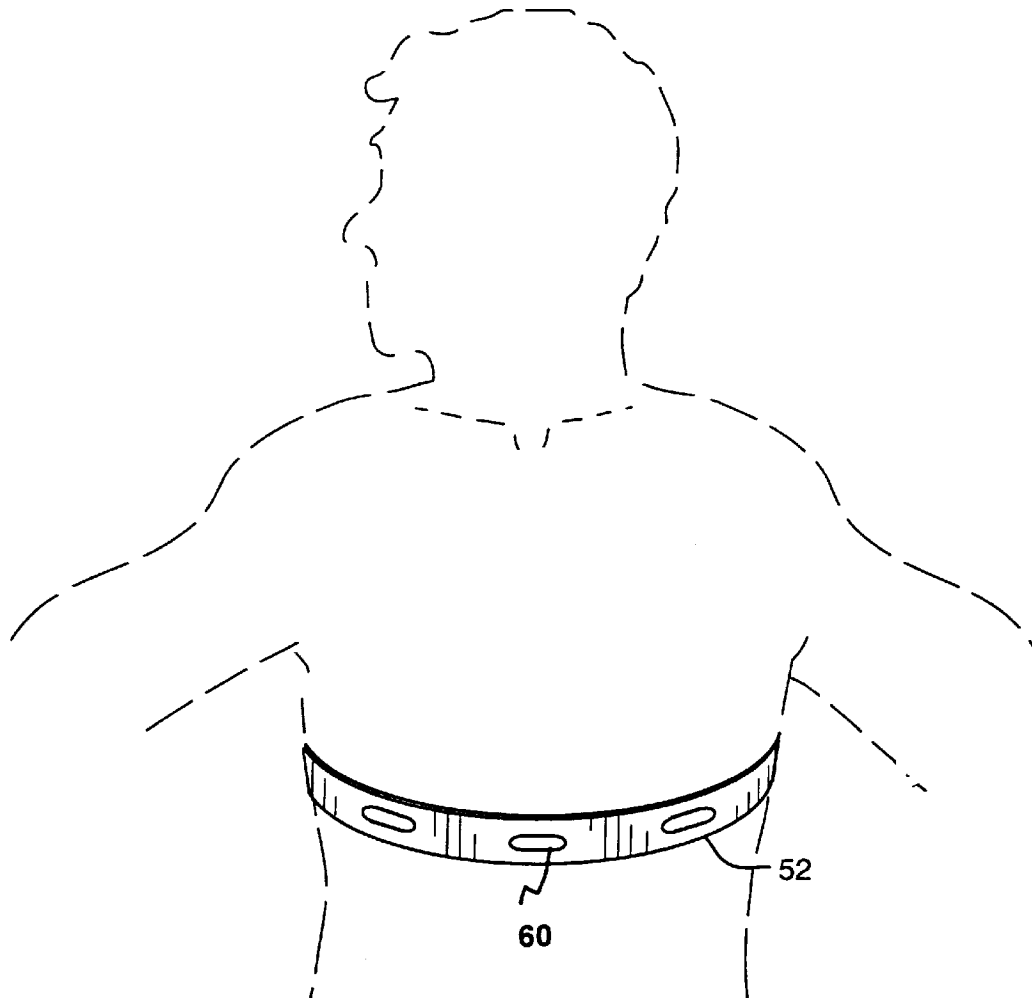


FIG. 4

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