

### US006198394B1

## (12) United States Patent

Jacobsen et al.

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### (54) SYSTEM FOR REMOTE MONITORING OF **PERSONNEL**

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**U.S. Cl.** ...... **340/573.1**; 340/539; 340/825.15; (52)340/825.36; 340/825.54; 364/551.01

(58)340/825.06, 825.15, 825.36, 825.49, 825.54,

573.1; 364/551.01

#### (56)References Cited

### U.S. PATENT DOCUMENTS

3,572,316	*	3/1971	Vogelman et al	180/437
3,646,606	o <b>j</b> e	2/1972	Buxton et al	600/483
3,846,704	*	11/1974	Bessette 34	0/870.28
3,972,320	*	8/1976	Kalman	600/519
4,129,125	*	12/1978	Lester et al	600/484
4,270,547		6/1981	Steffen et al	600/484
4,312,358	*	1/1982	Barney	128/670
4,331,154	*	5/1982	Broadwater et al	128/677
4,494,553	*	1/1985	Sciarra et al	128/721
4,531,527		7/1985	Reinhold, Jr. et al	600/509
4,608,994	*	9/1986	Ozawa et al	128/670
4,867,170	*	9/1989	Takahashi	128/677
4,867,442	*	9/1989	Matthews	482/8
4,909,260	*	3/1990	Salem et al	128/721
4,966,154	*	10/1990	Cooper et al	128/671
5,022,402	*	6/1991	Schieberl et al	128/671
5,027,824		7/1991	Dougherty et al	600/515

5,148,002		9/1992	Kuo et al
5,153,584	*	10/1992	Engira 340/573
5,204,670	*	4/1993	Stinton
5,228,449	*	7/1993	Christ et al 128/691
5,263,491	*	11/1993	Thornton
5,335,664	*	8/1994	Nagashima 128/696
5,416,468	*	5/1995	Baumann 340/573
5,515,858		5/1996	Myllymäki 600/301
5,544,651		8/1996	Wilk 600/310
5,724,025	*	3/1998	Tavori 340/573.1
5,771,001	*	6/1998	Cobb
5,778,882		7/1998	Raymond et al 600/513

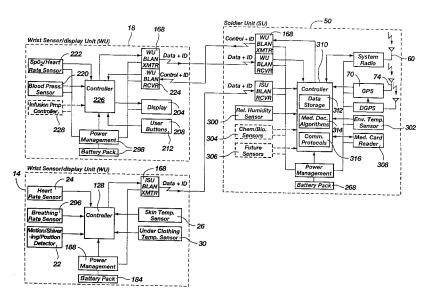
<sup>\*</sup> cited by examiner

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#### **ABSTRACT** (57)

A system for remotely monitoring personnel status includes a plurality of sensors disposable on a soldier or other person for developing signals which may be used to determine the physiologicalal status. The sensors communicate with a soldier unit which can process the information to ensure that the sensor data falls within acceptable ranges and communicate with remote monitors. The soldier unit also includes a global positioning system. By using the sensor data and the global positioning system, leaders and medics can quickly and accurately track and treat casualties in battle. The system enables more rapid location of the casualty, as well as remote triage/initial diagnosis, thereby assuring that those who are most in need of treatment are attended to first. Typically, the system monitors both body surface and ambient temperature, heart rate, shivering, motion status and body condition. Additional sensors can be provided to supply information on other physiologicalal parameter which may be desired for more thorough diagnosis. The physiologicalal information may be stored and kept with the soldier to enable improved care as the soldier is moved to higher levels of care.

### 91 Claims, 11 Drawing Sheets





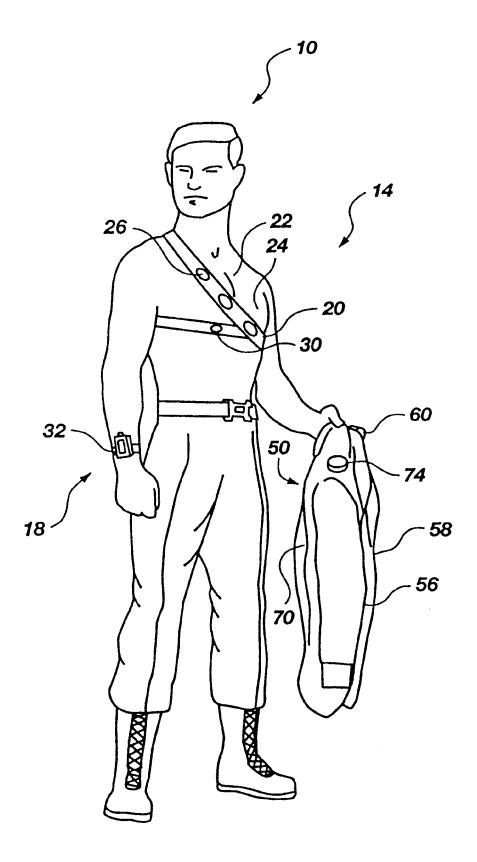
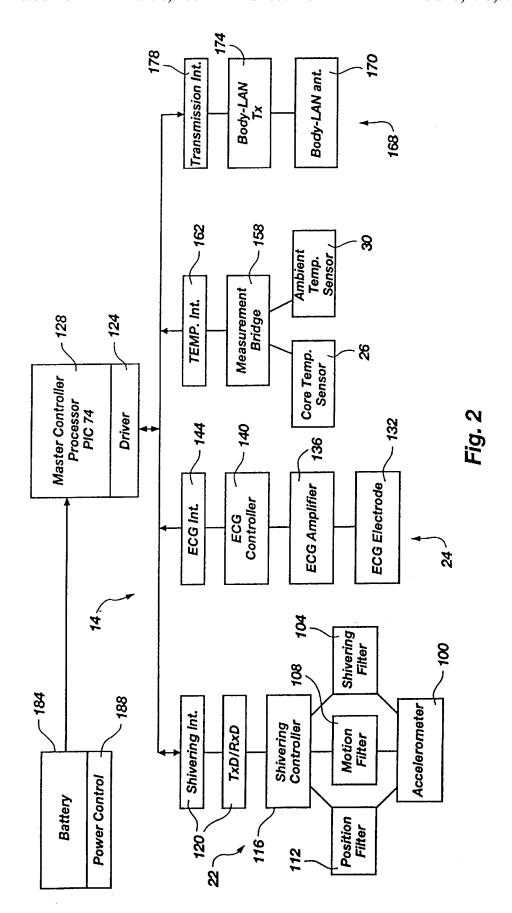


Fig. 1







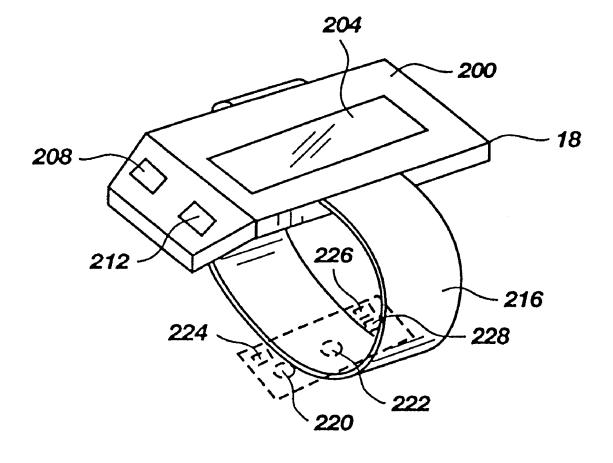


Fig. 3

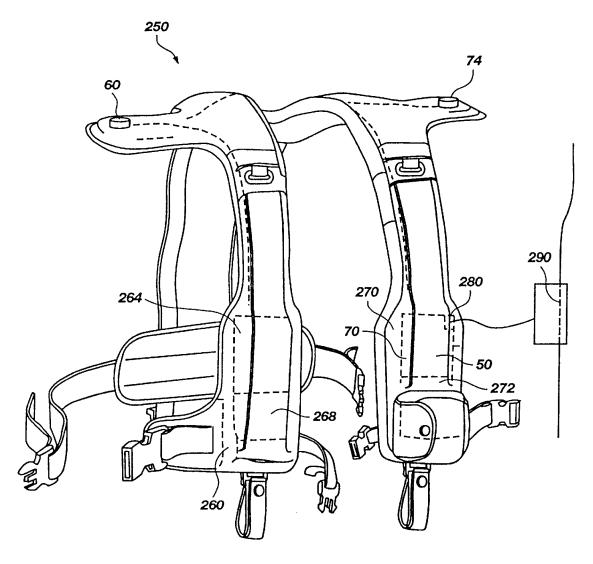


Fig. 4

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