

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

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(58) **Field of Search** **340/573, 539, 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	*	2/1972	Buxton et al.	600/483
3,846,704	*	11/1974	Bessette 340/870.28	
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.	219/211
5,153,584	*	10/1992	Engira 340/573	
5,204,670	*	4/1993	Stinton 340/825.54	
5,228,449	*	7/1993	Christ et al.	128/691
5,263,491	*	11/1993	Thornton 128/774	
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 340/539	
5,778,882		7/1998	Raymond et al.	600/513

* cited by examiner

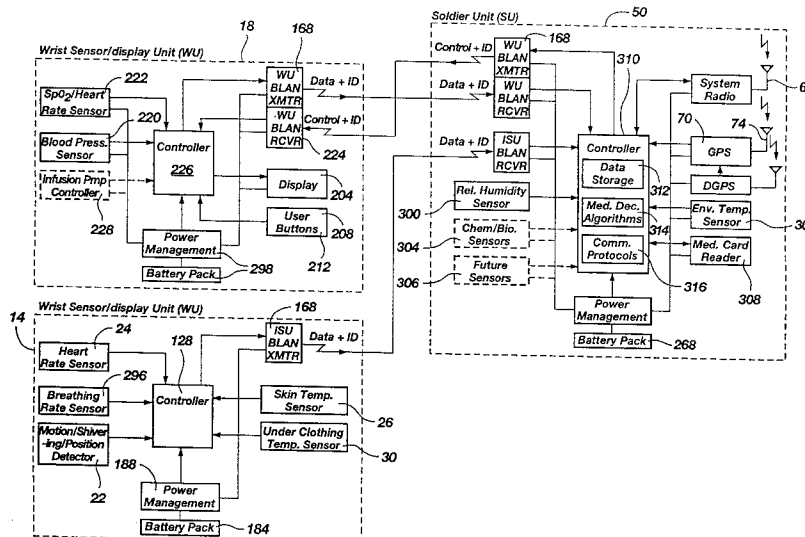
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(57) **ABSTRACT**

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 physiological 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 physiological parameter which may be desired for more thorough diagnosis. The physiological 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



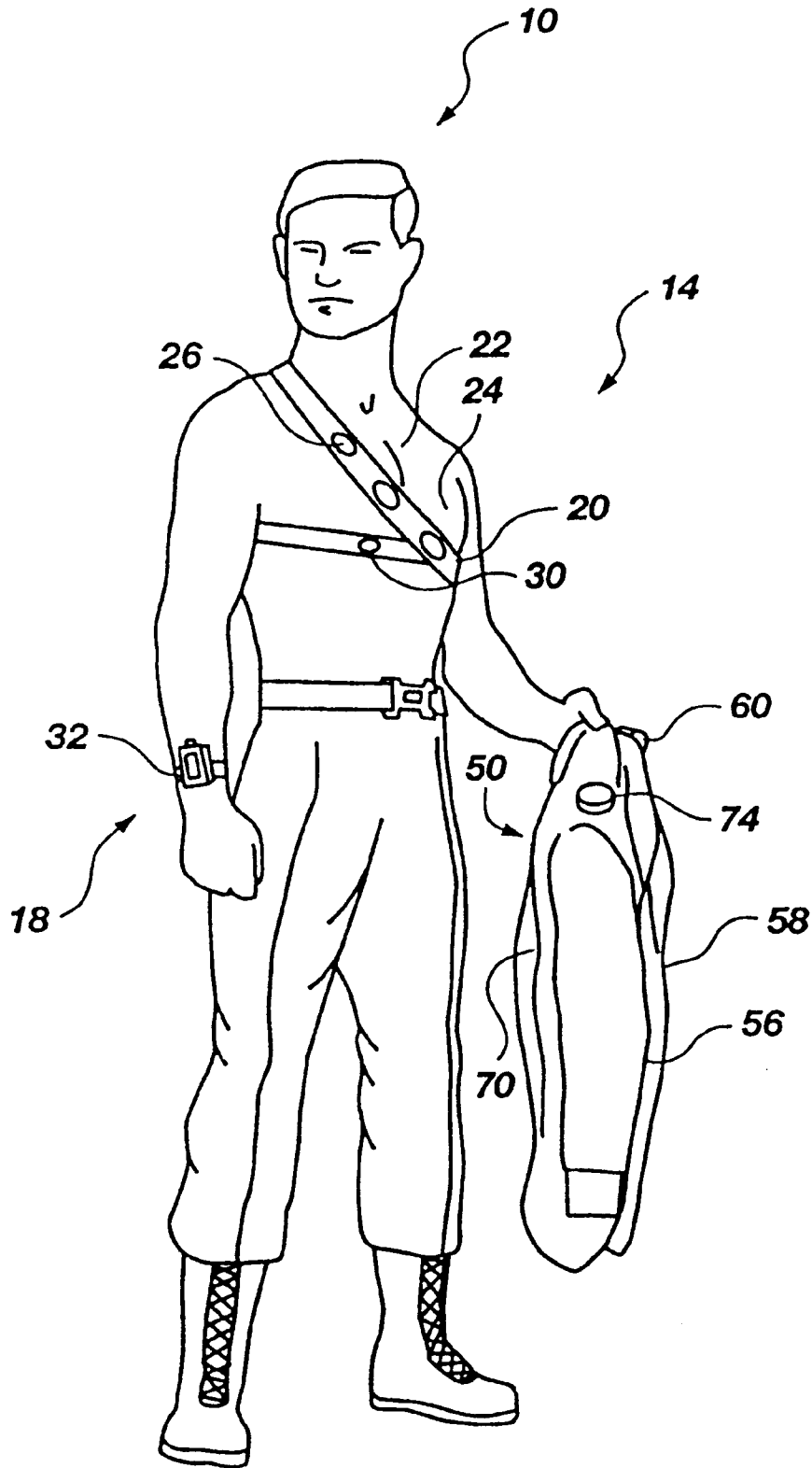


Fig. 1

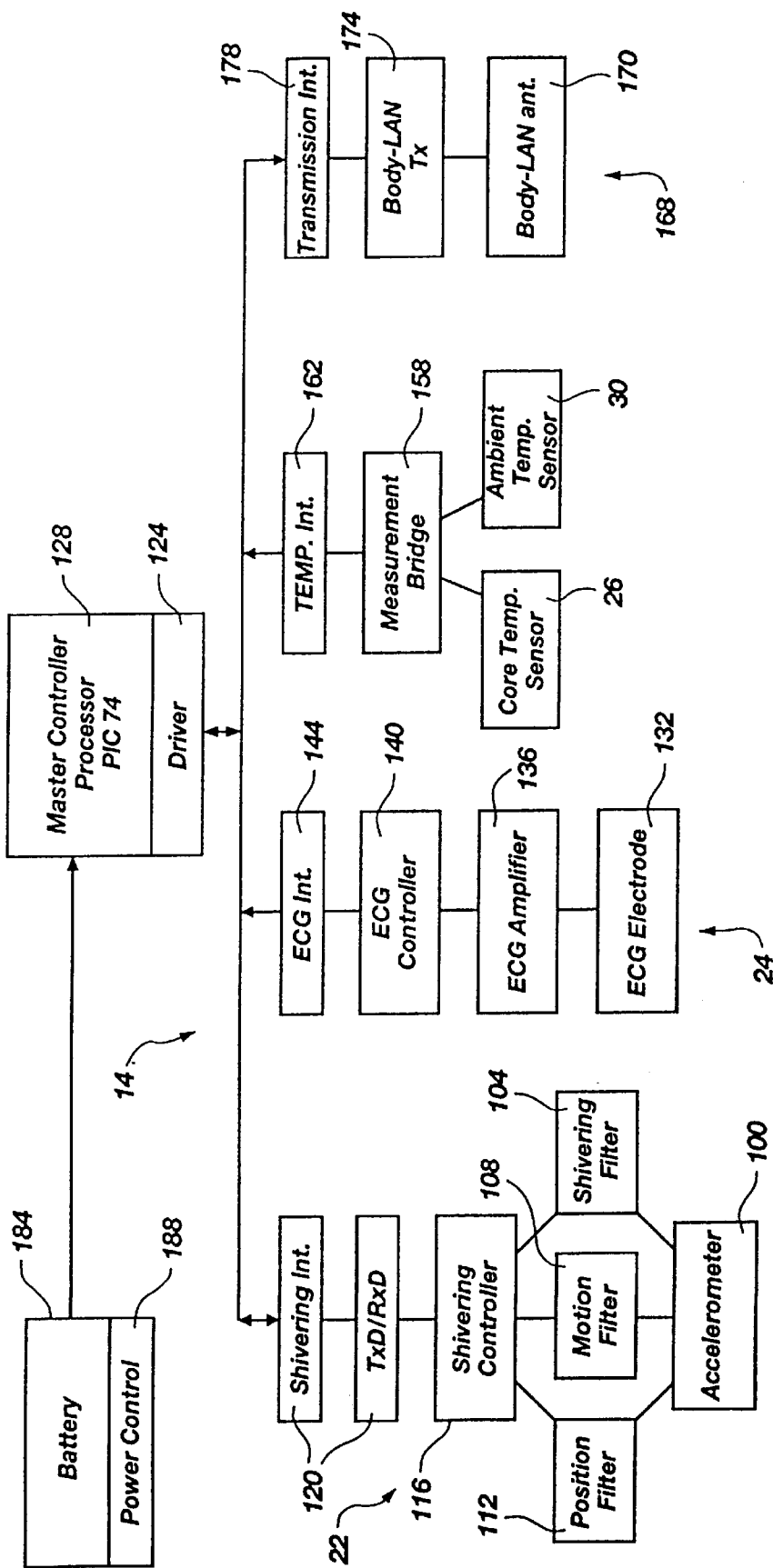


Fig. 2

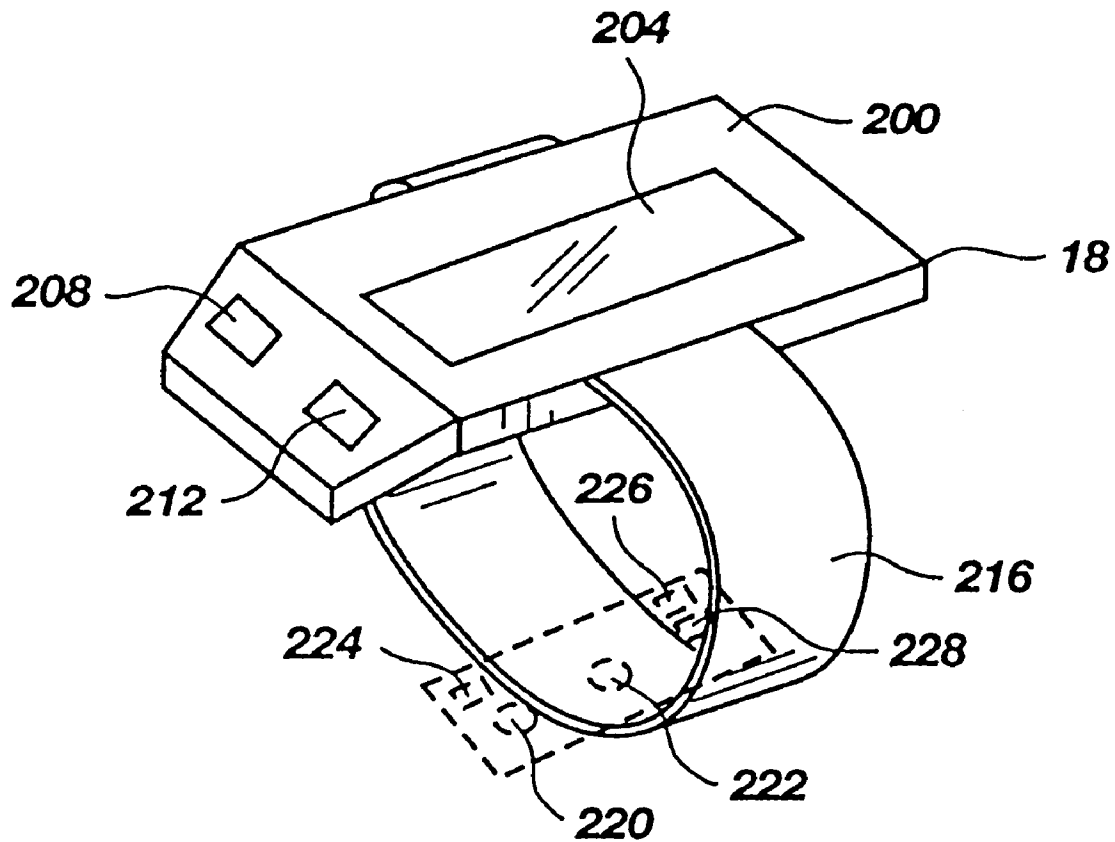


Fig. 3

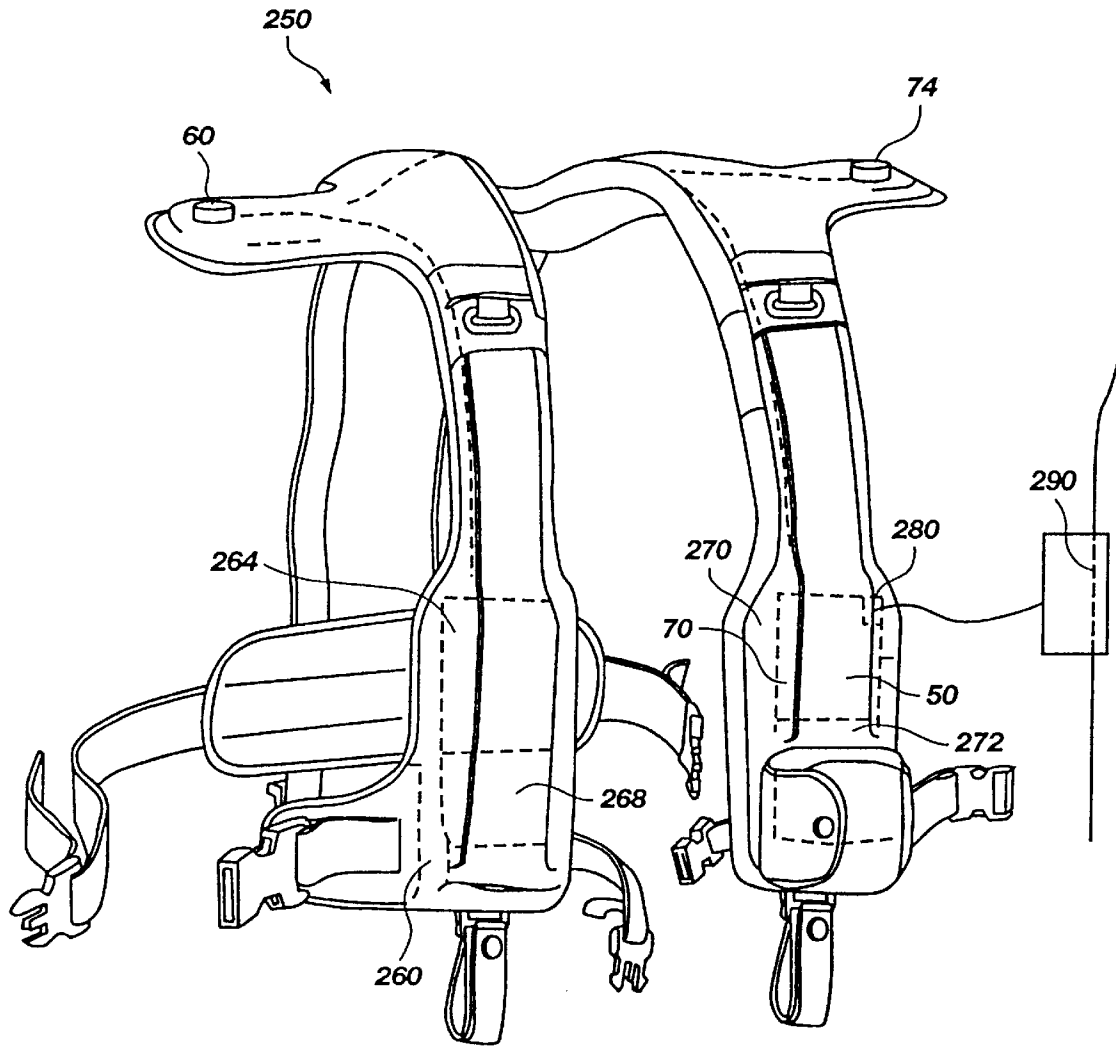


Fig. 4

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