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Lemelson et al.

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[54] **PERSONAL EMERGENCY, SAFETY WARNING SYSTEM AND METHOD**

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[51] **Int. Cl.**[7] **G08B 1/08**; G08B 5/22

[52] **U.S. Cl.** **340/539**; 340/573.1; 340/825.36; 340/825.49; 128/903; 600/300; 342/357; 379/38

[58] **Field of Search** 340/539, 531, 340/825.36, 825.49, 573.1; 128/903, 904; 600/300; 342/357, 457; 379/37, 38; 702/19

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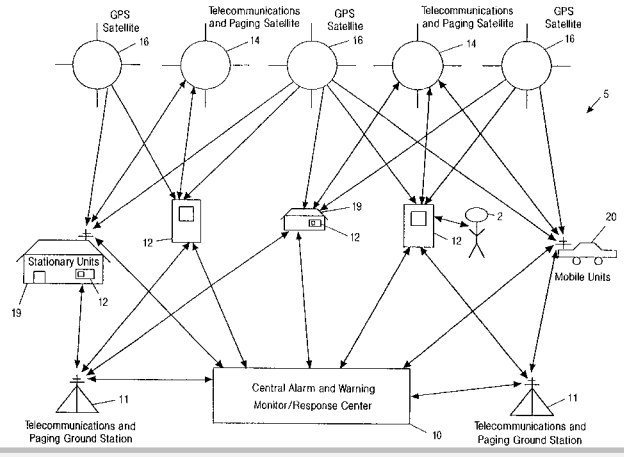
[57] **ABSTRACT**

A comprehensive system and method for monitoring a geographic person location, periodically warning a person of emergency situations in the geographic location, and transmitting requests for assistance in emergency situations. The system comprises a warning unit **12** that is carried by the person or that is located in mobile units **20** or in buildings or houses **19**. The warning unit **12** includes a geographic satellite receiver **38**, a receiver circuit that receives broadcast warning signals defining dangerous situations and geographic locations of the situations, a computer controller including a processor **42** and a memory **44**, an alarm indicator **64** or **66** that indicates when the person is in danger, and a transmission circuit that generates and transmits signals requesting assistance and signals warning of the dangerous situations in a vicinity of the person carrying the portable warning unit **12** along with the current geographic location of the person. The system further comprises a command center **10**. The command center **10** includes a database computer **102** having a database storage unit **104**, a transmitter for broadcasting signals to the unit(s) **12**, a receiver for receiving signals, a transmitter for transmitting signals to emergency response units and centers, and other such communication devices. The system uses the unit(s) **12** to monitor and communicate with the person using it. The unit(s) **12** interfacingly communicate with the command center **10**. Signals indicative of a dangerous situation and a geographic situation location are transmitted from the command center **10** to the unit(s) **12**. The geographic person location is compared with the geographic situation location indicated in the received signal from the command center **10**. Expert system rules are used to determine the dangerous situation and a degree(s) of danger index for the person(s) near or at the geographic situation location.

43 Claims, 9 Drawing Sheets



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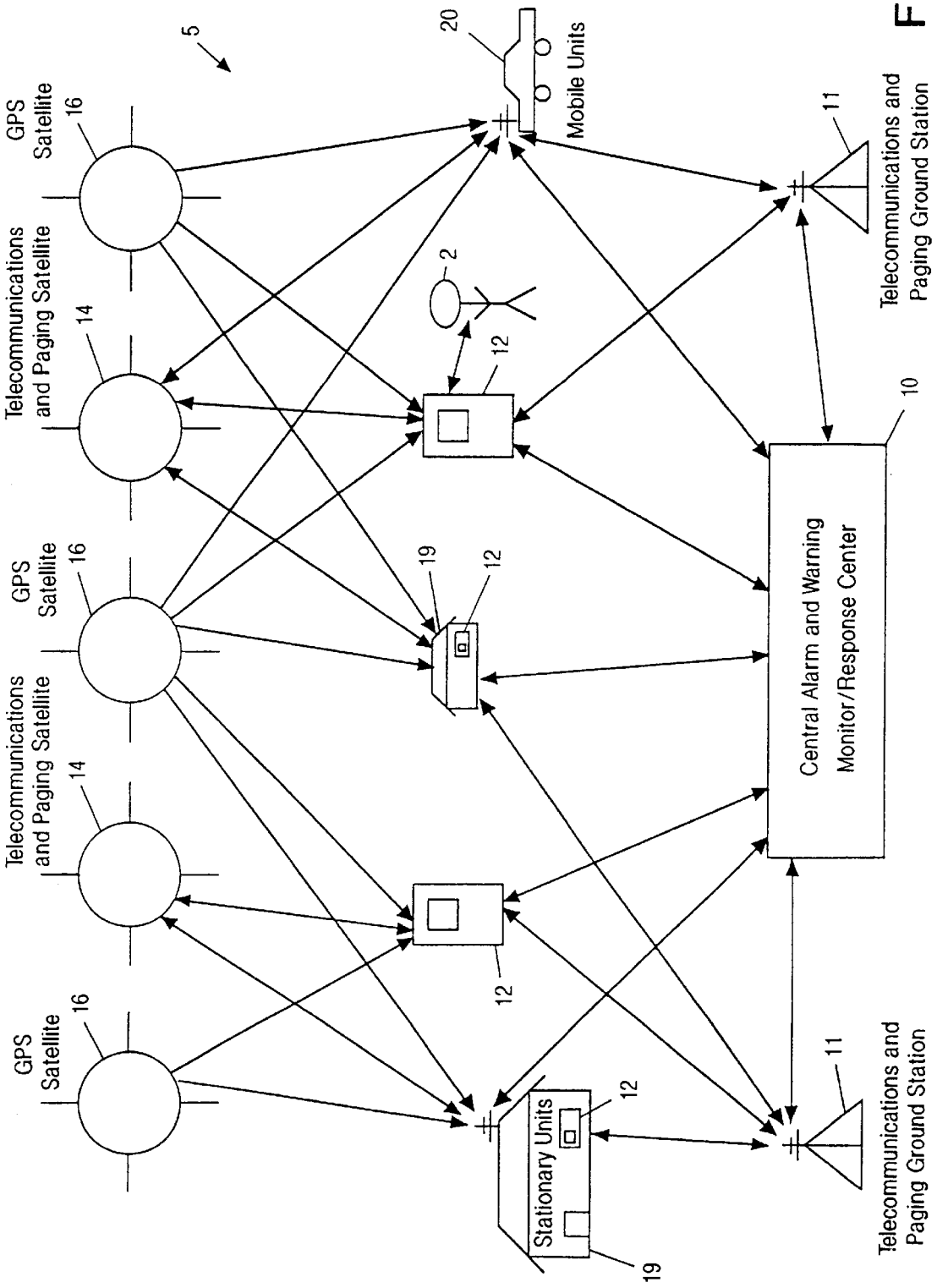


FIG. 1

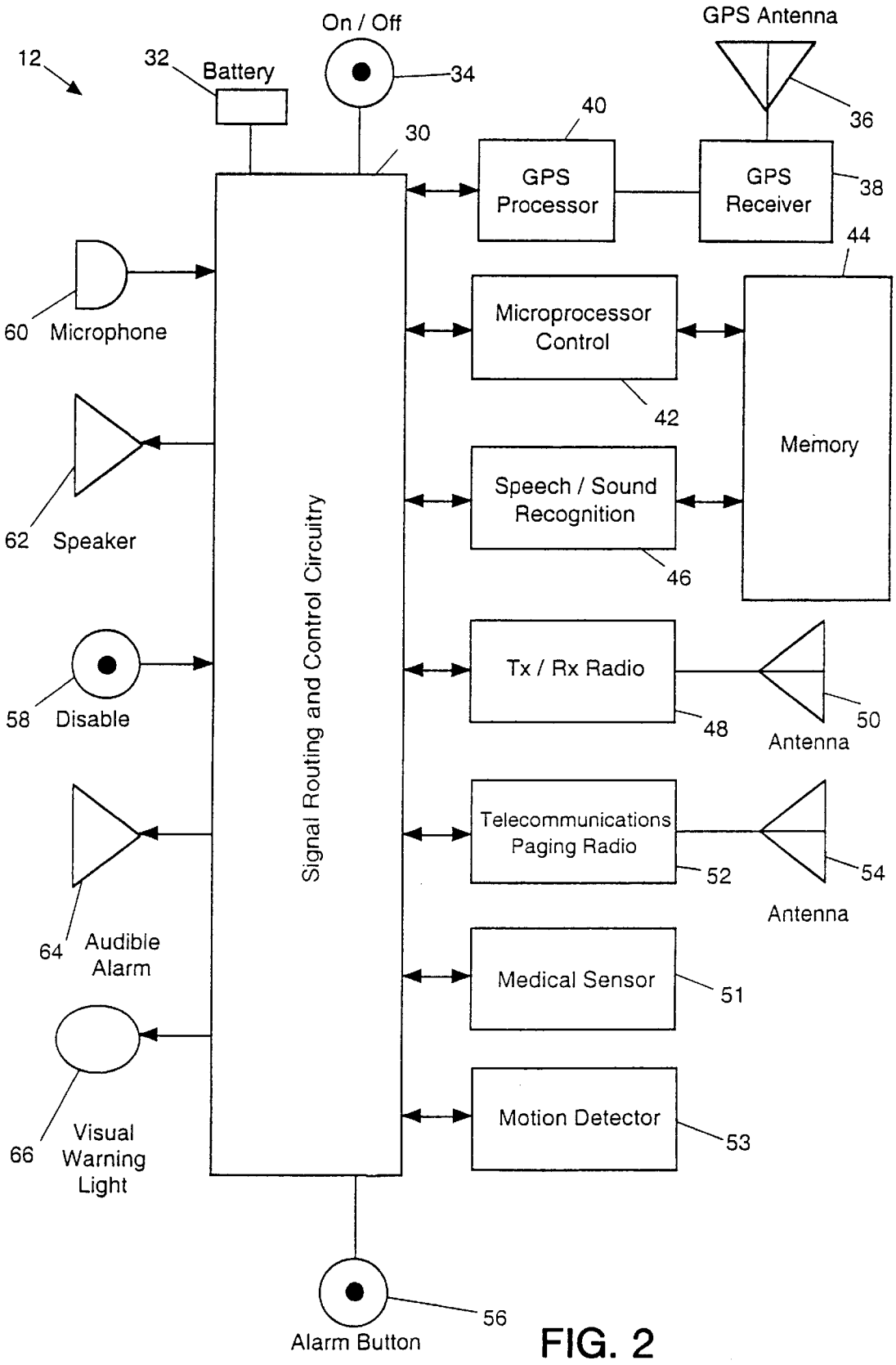
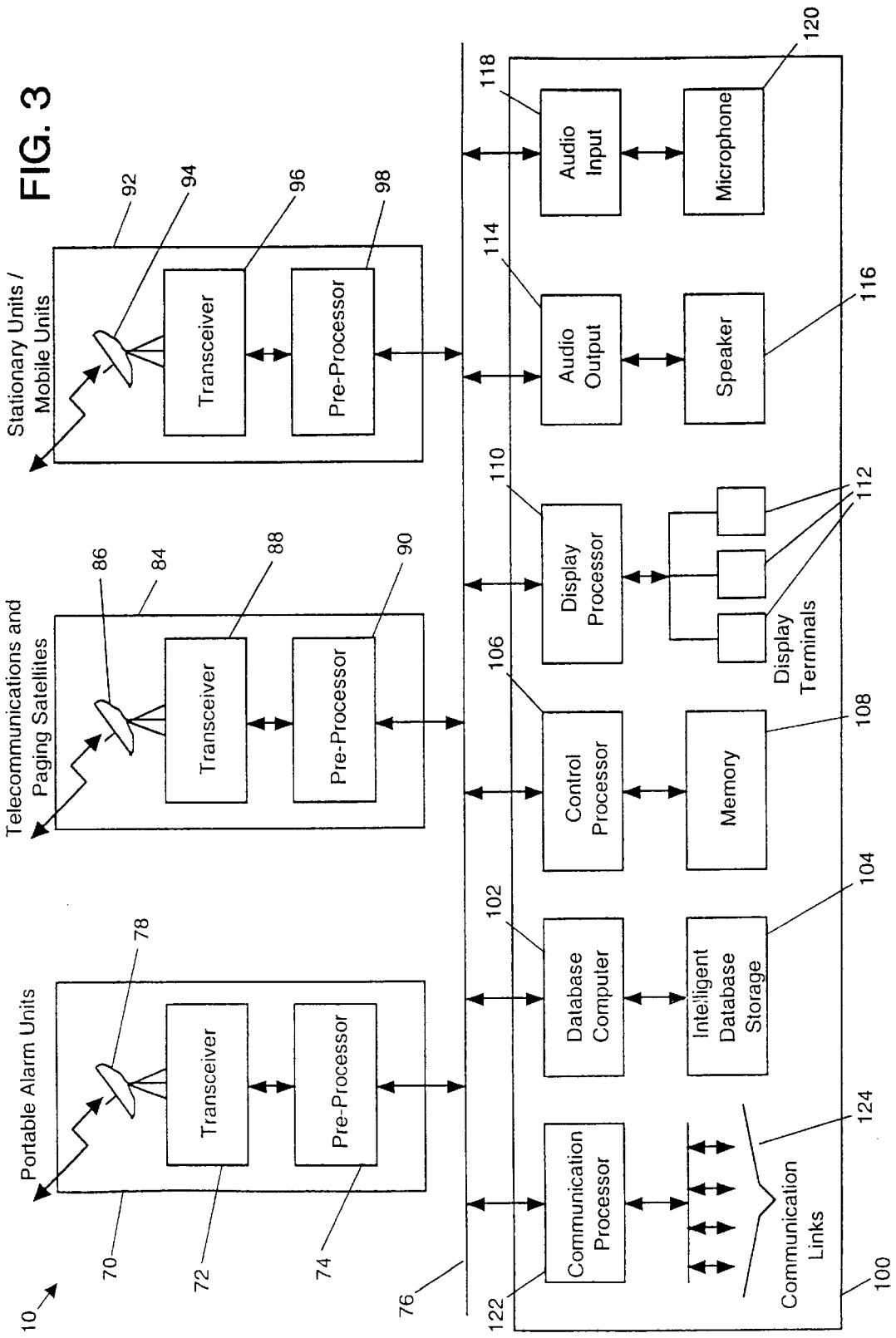


FIG. 2

FIG. 3



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