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United States Patent [19]
Goodman

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[54] **METHOD AND APPARATUS FOR A PERSONAL HEALTH NETWORK**

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Related U.S. Application Data

[63] Continuation of Ser. No. 518,783, Aug. 24, 1995, abandoned, which is a continuation-in-part of Ser. No. 334,936, Nov. 7, 1994, abandoned.

[51] **Int. Cl.⁶** **A61N 5/04**

[52] **U.S. Cl.** **600/300**

[58] **Field of Search** **600/300, 301, 600/529; 128/920-925**

[56] **References Cited**

U.S. PATENT DOCUMENTS

- 3,968,900 7/1976 Stambuk .
- 3,991,908 11/1976 Thomas et al. .
- 4,018,358 4/1977 Johnson et al. .
- 4,034,757 7/1977 Glover .
- 4,047,635 9/1977 Bennett, Jr. .
- 4,054,343 10/1977 Heyland .
- 4,057,145 11/1977 Wray et al. .
- 4,155,003 5/1979 Grassme .
- 4,223,801 9/1980 Carlson .
- 4,254,871 3/1981 Poore .
- 4,261,468 4/1981 Krebs .
- 4,293,845 10/1981 Villa-Real .
- 4,295,664 10/1981 Cutting .
- 4,310,103 1/1982 Reilly, Jr. et al. .
- 4,318,477 3/1982 Kerpe .
- 4,340,141 7/1982 Fischer .
- 4,361,408 11/1982 Wirtschafter .
- 4,382,688 5/1983 Machamer .
- 4,405,045 9/1983 Villa-Real .
- 4,412,631 11/1983 Haker .
- 4,448,541 5/1984 Wirtschafter .
- 4,473,156 9/1984 Martin .

- 4,473,884 9/1984 Behl .
- 4,490,711 12/1984 Johnston .
- 4,504,153 3/1985 Schollmeyer et al. .
- 4,526,474 7/1985 Simon .
- 4,533,346 8/1985 Cosgrove, Jr. et al. .
- 4,573,606 3/1986 Lewis et al. .
- 4,588,303 5/1986 Wirtschafter et al. .
- 4,596,558 6/1986 Smith et al. .
- 4,616,316 10/1986 Hanpeter et al. .

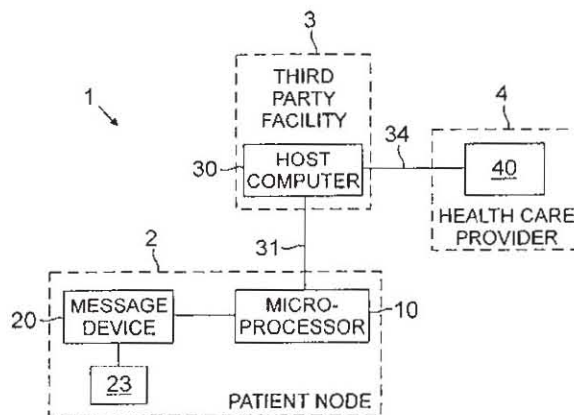
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[57] **ABSTRACT**

A method and system for a health network comprising a facility, operated by a party other than the patient or health care provider, for collecting and routing information pertaining to the health care of a patient to the patient and the health care provider. The health network utilizes two-way communication between the patient and the facility, and the health care provider and the facility. In one embodiment, the facility receives treatment instructions from the health care provider that are specifically developed for each patient. Algorithms are developed based on such instructions. The algorithms are then programmed into an appropriately configured message device in the possession of the patient. The patient is prompted by the message device to measure and enter relevant physiological data, e.g., peak flow, etc., as dictated by the treatment instructions. Based on the measured physiological data and the algorithm, messages are displayed on the message device advising the patient of a specific course of treatment, e.g., to administer medicine, to call the health care provider, to go to the emergency room, etc., or, alternatively, such messages can provide more general information related to the patient's current health status. These results can be transmitted to the facility and the health care provider. The algorithm can be modified, as appropriate, to reflect changes in the treatment plan.

25 Claims, 7 Drawing Sheets



U.S. PATENT DOCUMENTS

4,617,557	10/1986	Gordon .	4,953,745	9/1990	Rowlett, Jr. .	
4,627,225	12/1986	Faller et al. .	4,955,371	9/1990	Zamba et al. .	
4,655,026	4/1987	Wigoda .	4,971,221	11/1990	Urquhart et al. .	
4,660,991	4/1987	Simon .	4,975,842	12/1990	Darrow et al. .	
4,662,537	5/1987	Wolf et al. .	4,978,335	12/1990	Arthur, III .	
4,664,289	5/1987	Shimizu et al. .	4,998,623	3/1991	Doull .	
4,667,845	5/1987	Frazier et al. .	5,014,851	5/1991	Wick .	
4,685,271	8/1987	Ringer et al. .	5,014,875	5/1991	McLaughlin et al. .	
4,693,057	9/1987	Rittinger et al. .	5,016,230	5/1991	Seifers et al. .	
4,693,371	9/1987	Malpass .	5,020,527	6/1991	Dessertine .	
4,695,954	9/1987	Rose et al. .	5,053,032	10/1991	Barclay et al. .	
4,717,042	1/1988	McLaughlin .	5,064,071	11/1991	Kerfoot, Jr. .	
4,725,997	2/1988	Urquhart et al. .	5,082,113	1/1992	Romick .	
4,730,846	3/1988	Sheehan et al. .	5,082,114	1/1992	Bunin .	
4,736,849	4/1988	Leonard et al. .	5,099,463	3/1992	Lloyd et al. .	
4,747,514	5/1988	Stone .	5,142,484	8/1992	Kaufman et al.	364/413.02 X
4,748,600	5/1988	Urquhart .	5,152,422	10/1992	Springer .	
4,763,810	8/1988	Christiansen .	5,154,296	10/1992	Cutler .	
4,766,542	8/1988	Pilarczyk .	5,157,640	10/1992	Backner .	
4,779,759	10/1988	Seavey .	5,163,559	11/1992	Bunin .	
4,781,696	11/1988	Moulding, Jr. et al. .	5,176,285	1/1993	Shaw .	
4,785,969	11/1988	McLaughlin .	5,181,189	1/1993	Hafner .	
4,790,118	12/1988	Chilcoate .	5,215,079	6/1993	Fine et al. .	
4,792,333	12/1988	Kidder .	5,219,095	6/1993	Shimizu et al. .	
4,805,811	2/1989	Wetterlin .	5,221,024	6/1993	Campbell .	
4,807,757	2/1989	Rappaport et al. .	5,251,757	10/1993	Relyea et al. .	
4,815,767	3/1989	Lambert .	5,259,531	11/1993	Bennett .	
4,819,352	4/1989	Maunand .	5,263,596	11/1993	Williams .	
4,834,264	5/1989	Siegal et al. .	5,284,133	2/1994	Burns et al. .	
4,838,453	6/1989	Luckstead .	5,286,258	2/1994	Iaber et al. .	
4,869,392	9/1989	Moulding .	5,307,263	4/1994	Brown	364/413.04 X
4,905,866	3/1990	Bartell et al. .	5,310,060	5/1994	Bitner et al. .	
4,915,256	4/1990	Tump .	5,339,821	8/1994	Fujimoto	128/903
4,939,705	7/1990	Hamilton et al. .	5,390,238	2/1995	Kirk et al.	364/413.04
4,942,544	7/1990	McIntosh et al.	5,542,420	8/1996	Goldman et al.	128/630

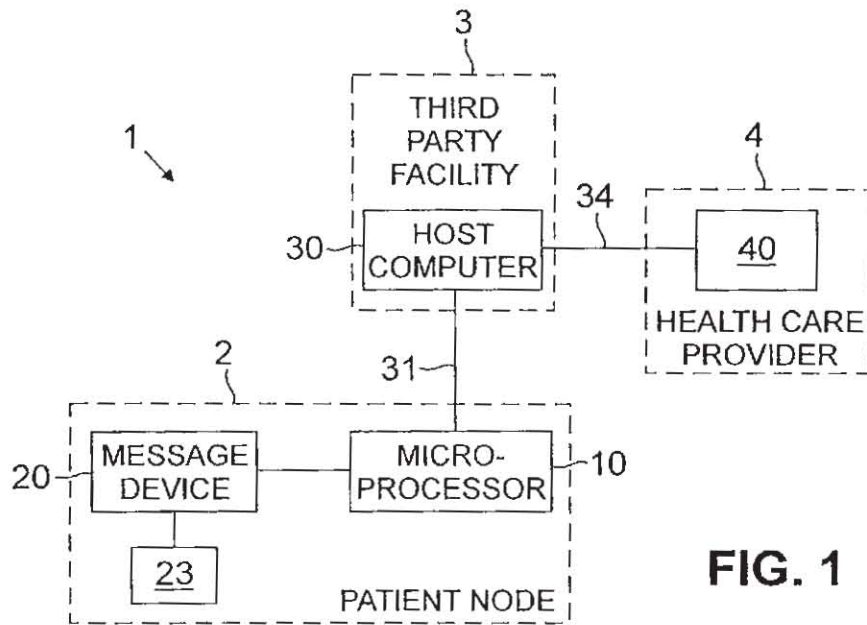


FIG. 1

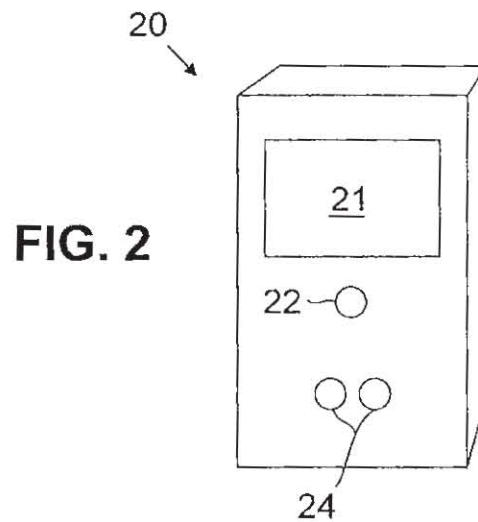


FIG. 2

FIG. 2A

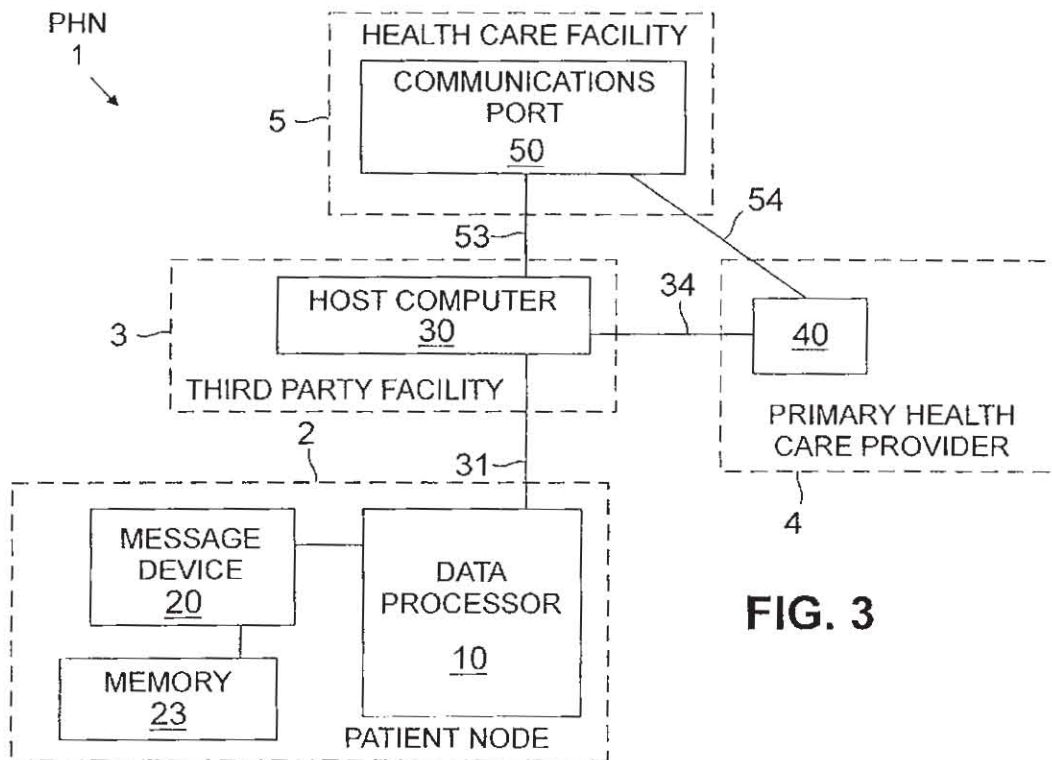
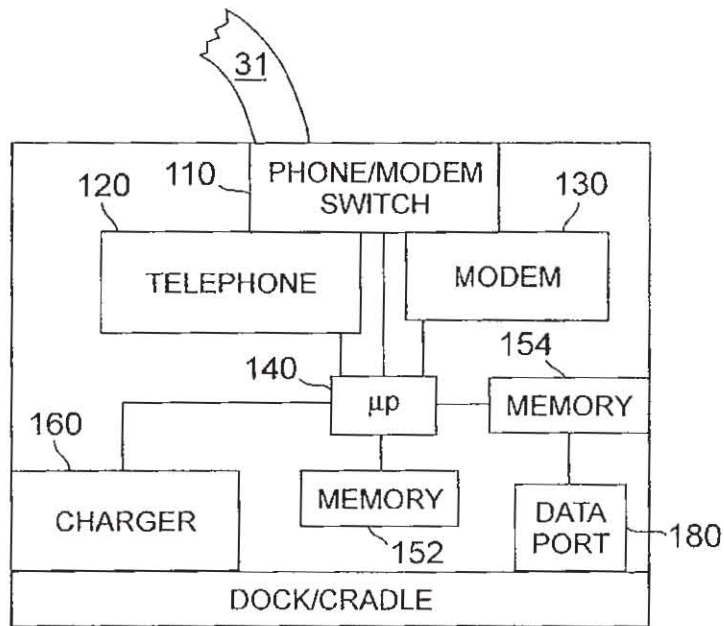


FIG. 3

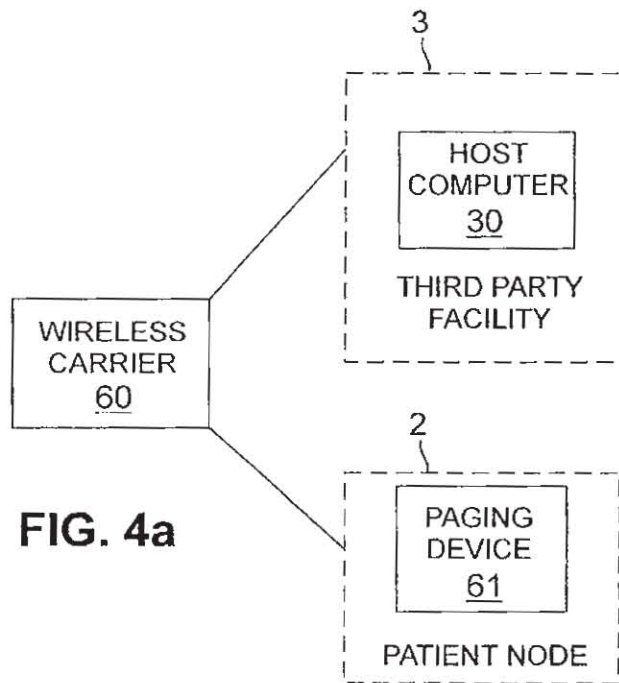


FIG. 4a

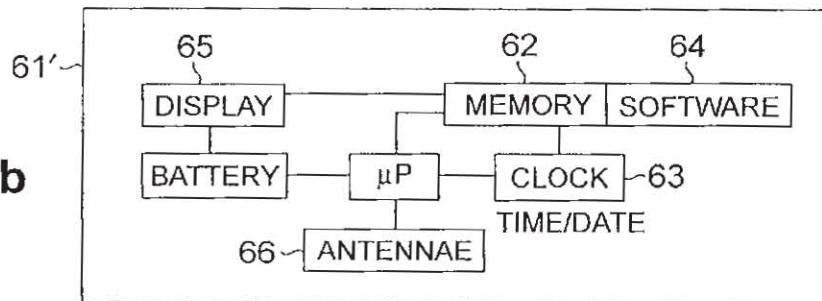


FIG. 4b

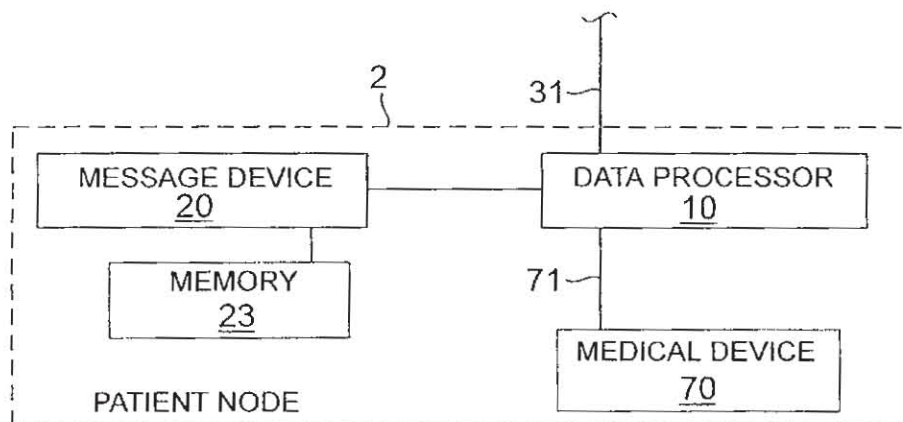


FIG. 5

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