US005818437A

United States Patent [19]

Grover et al.

[11] Patent Number: 5,818,437

[45] Date of Patent: Oct. 6, 1998

[54] **REDUCED KEYBOARD DISAMBIGUATING COMPUTER**

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[73] Assignee: **Tegic Communications, Inc.**, Seattle, Wash.

[21] Appl. No.: **507,756**

[22] Filed: **Jul. 26, 1995**

[51] **Int. Cl.**[6] **G06F 15/00**

[52] **U.S. Cl.** **345/326**; 345/352; 345/353; 364/728; 364/728.1

[58] **Field of Search** 395/326; 364/928, 364/928.1, 928.2, 928.3, 928.4, 928.5, 928.6; 345/326, 352, 353

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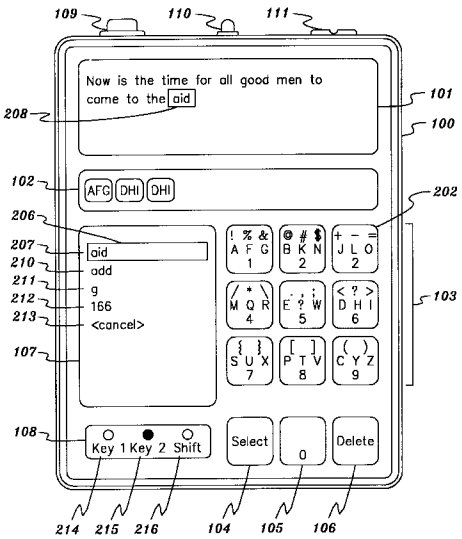
[57] **ABSTRACT**

A reduced keyboard disambiguating computer. The keyboard has twelve keys, nine of them labeled with numerous letters and other symbols, and those nine plus one more are labeled each with one of the ten digits. Textual entry keystrokes are ambiguous. The user strikes a delimiting "select" key at the end of each word, delimiting a keystroke sequence which could match any of many words with the same number of letters. The keystroke sequence is processed with a complete dictionary, and words which match the sequence of keystrokes are presented to the user in order of decreasing frequency of use. The user selects the desired word. The letters are assigned to the keys in a non-sequential order which reduces chances of ambiguities. The same "select" key is pressed to select the desired word, and spacing between words and punctuation is automatically computed. For words which are not in the dictionary, two keystrokes are entered to specify each letter. The system simultaneously interprets all keystroke sequences as both one stroke per letter and as two strokes per letter. The user selects the desired interpretation. The system also presents to the user the number which is represented by the sequence of keystrokes for possible selection by the user.

32 Claims, 24 Drawing Sheets



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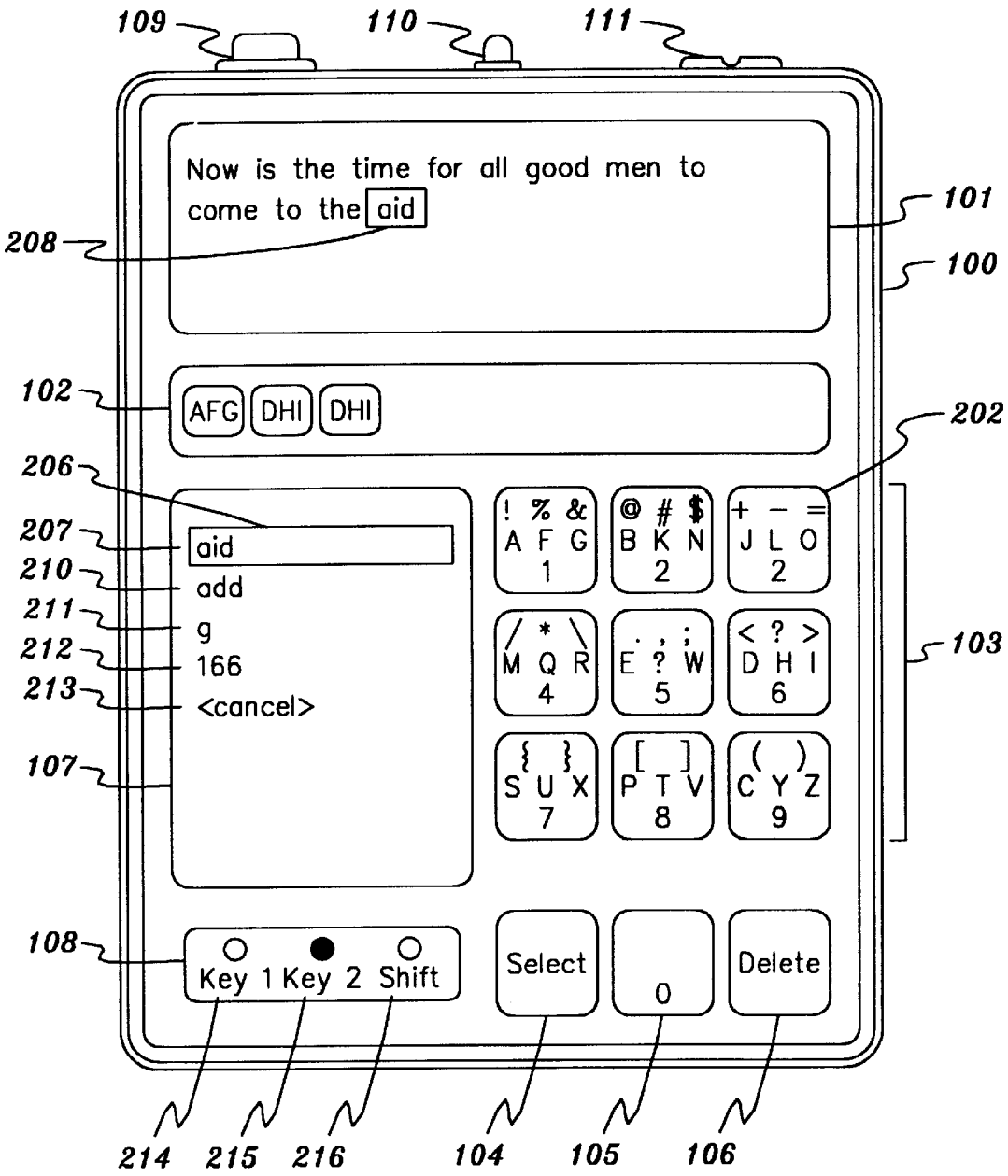

FIG. 1

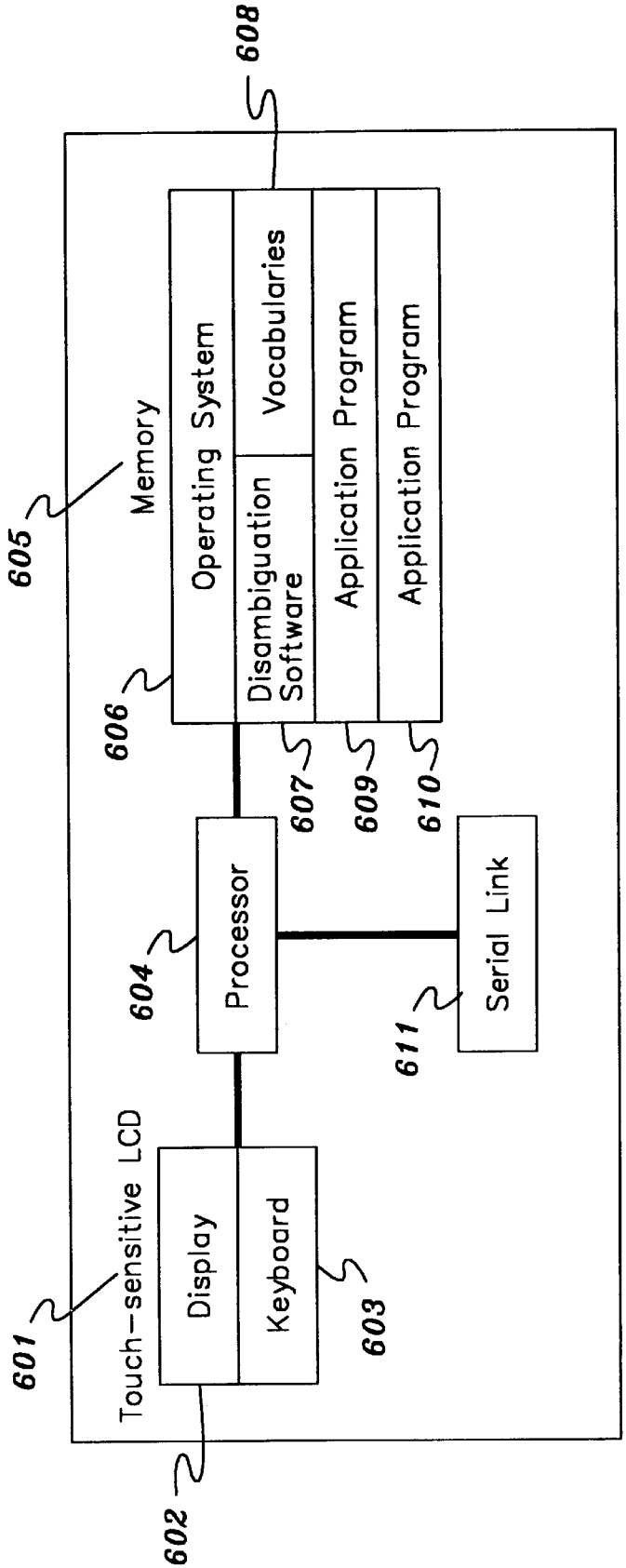

FIG. 2

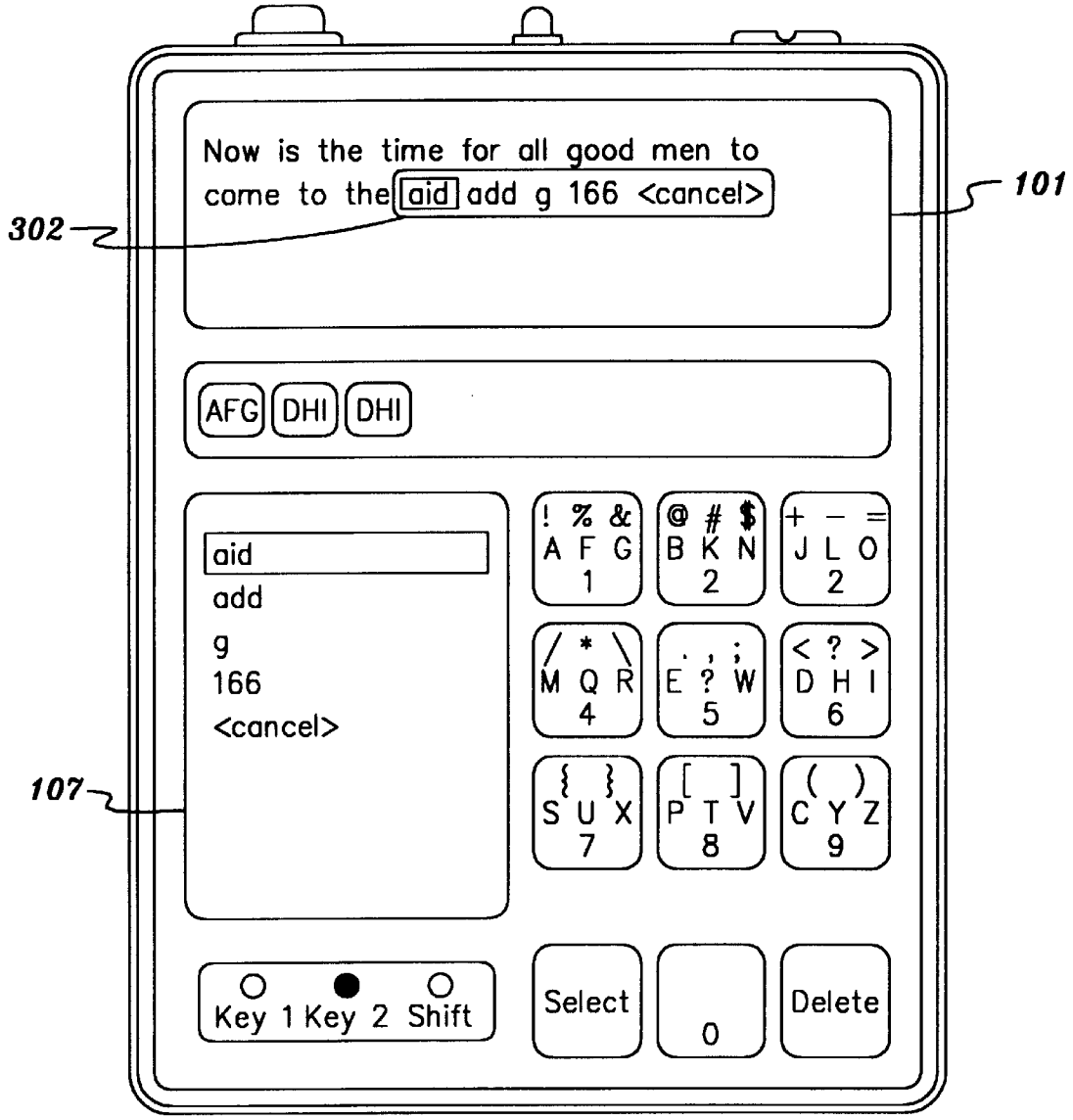

FIG. 3

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