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United States Patent [19]

Lueders

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[54] **KEYBOARD WITH FLEXIBLE DISPLAY AND PROMPT CAPABILITY**

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[*] Notice: This patent is subject to a terminal disclaimer.

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Related U.S. Application Data

[63] Continuation of application No. 07/852,741, Mar. 16, 1992, abandoned, which is a continuation of application No. 07/579,214, Sep. 5, 1990, abandoned, which is a continuation of application No. 07/356,912, May 23, 1989, abandoned, which is a division of application No. 07/279,240, Nov. 30, 1988, abandoned, which is a continuation of application No. 07/170,603, Mar. 14, 1988, abandoned, which is a continuation of application No. 06/900,668, Aug. 27, 1986, abandoned.

[51] **Int. Cl.**[7] **G09G 3/00**

[52] **U.S. Cl.** **345/156**; 345/157; 345/173; 345/87; 345/104

[58] **Field of Search** 345/173, 174, 345/175, 172, 168, 104, 156, 157, 87, 179, 102; 341/23; 178/18.01, 18.03, 18.05–18.08; 349/41, 122

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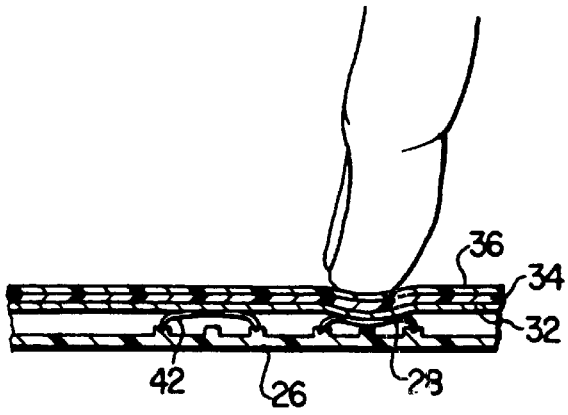
[57] **ABSTRACT**

A keyboard (**10**) is disclosed including a flexible display membrane (**36**) overlying a plurality of pressure-responsive switches (**28**). The display membrane (**36**) can be electrically addressed to display location indicia (**48**) indicating the position of an underlying switch (**46**), and functional indicia (**50**) indication the function of the key (**46**). Informational text (**58**) can also be displayed on the flexible display (**36**) indicating the choice of switches to effect a desired function. An interactive exchange of information between the keyboard user and a processing system (**14**) can be achieved to accomplish a desired function. Graphical information can be input to the processing system (**14**) by an array (**90**) of pressure-responsive elements (**91**). Graphics input by the array (**90**) can be reproduced on an overlying portion (**96**) of the flexible display membrane (**36**).

5 Claims, 2 Drawing Sheets