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(54) **REFRESHABLE BRAILLE READER**

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(51) **Int. Cl.**⁷ **G09B 21/00**

(52) **U.S. Cl.** **434/113; 434/112; 434/114; 340/825.19**

(58) **Field of Search** 434/112-117; 340/407.1, 340/825.19; 84/13, 94.1; 984/204

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(57) **ABSTRACT**

Apparatus and method for refreshable tactile display are disclosed, the apparatus being preferably embodied as a rotating-wheel refreshable Braille reader. The reader includes a housing having a reading aperture with a rotatable wheel assembly maintained therein so that a display surface of a rotating wheel passes the reading aperture. The wheel has endless rows of openings defined therethrough to the display surface, a pin held in each opening and freely movable therein. Actuators, at least equal in number to the rows of openings but substantially fewer in number than the openings, are held at a static location relative to the wheel for selectively moving pins in the rows so that Braille characters are arrayed at the display surface after passing the static location. Braille characters are thus streamed across the reading aperture of the housing.

16 Claims, 5 Drawing Sheets

