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## (12) United States Patent Brown

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## (54) OPTICAL HEADSET USER INTERFACE

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(US)

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(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 103 days.

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(22) Filed: Oct. 4, 2007

(51) Int. Cl. *G06K 7/14* 

(2006.01)

(52) **U.S. Cl.** ...... **235/454**; 379/428.02; 455/73

See application file for complete search history.

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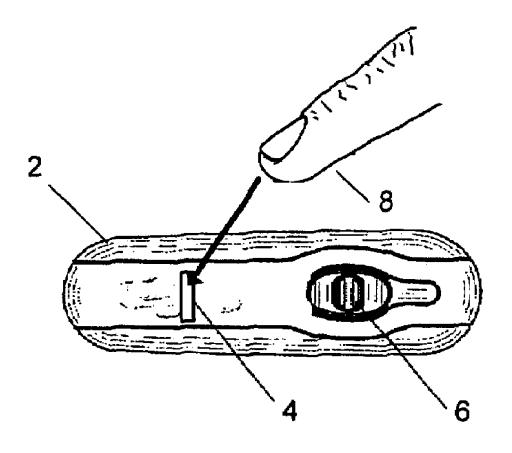
\* cited by examiner

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### (57) ABSTRACT

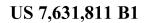
A headset includes a finger pad on an exterior of the headset on which a finger of a headset wearer is placed. The headset includes an optical line scanner which scans the finger pad and outputs a series of successive images of the finger placed on the finger pad. A headset processor processes the output of the optical line scanner to detect relative motion of the finger on the finger pad or detect tapping of the finger on the finger pad.

### 20 Claims, 5 Drawing Sheets





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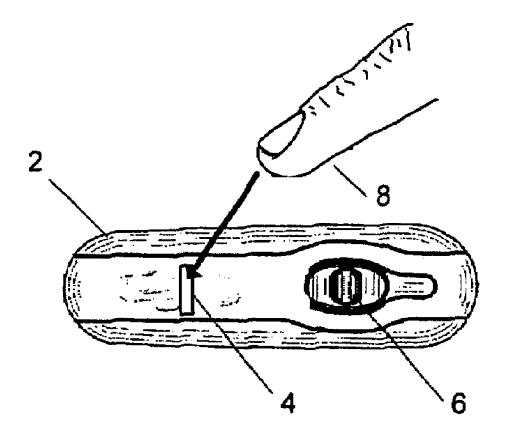


FIG. 1



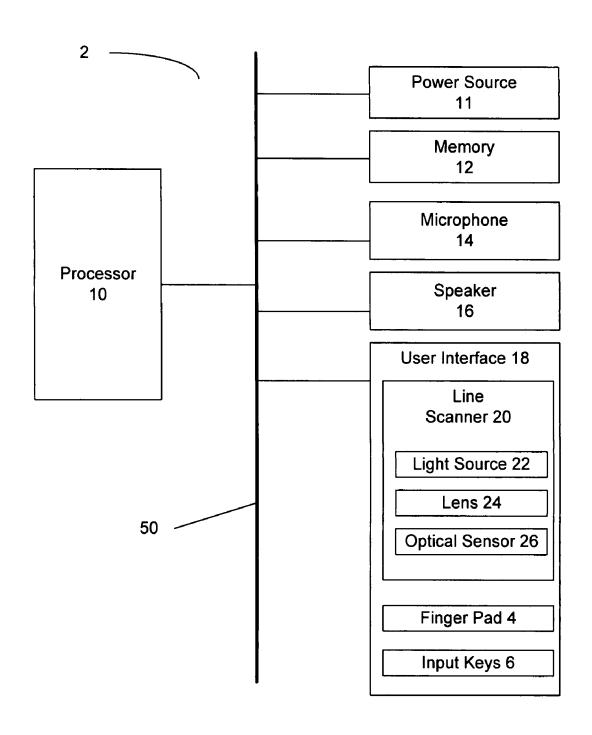


FIG. 2



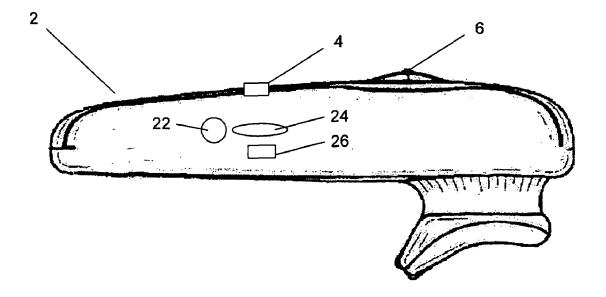


FIG. 3

## Line Scanner for Scrolling

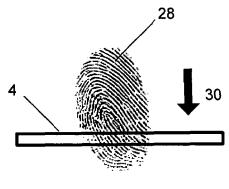


FIG. 4A

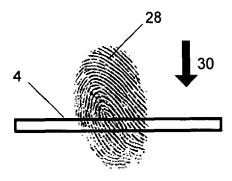


FIG. 4B



FIG. 4C



FIG. 4D

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