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(54) **APPARATUS TO REPRODUCE TACTILE SENSATIONS**

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See application file for complete search history.

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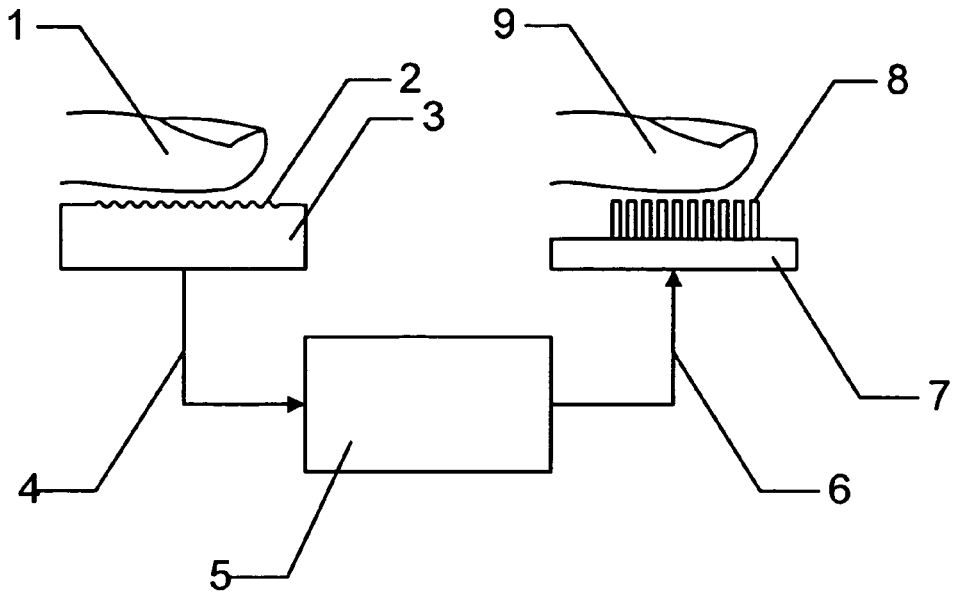
(57) **ABSTRACT**

A tactile sensing transducer provides as its output a skin deformation signal for storage or transmission to a tactile stimulation display transducer. A skin surface imaging means operating optically, acoustically or otherwise is positioned for viewing and providing an output image signal corresponding to said deformed skin surface. An electronic processing means connected to said imaging means provides an output skin deformation signal corresponding to the deformation of said skin. The display transducer may incorporate a plurality of individually actuatable, bendable cantilevered arms mounted in line on a base support, each of the arms having tip ends which are displaceable, upon actuation, to provide a tactile display.

**6 Claims, 21 Drawing Sheets**