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Johnson

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[54] PROGRAMMABLE TACTILE STIMULATOR ARRAY SYSTEM AND METHOD OF OPERATION

[75] Inventor: Alfred D. Johnson, Oakland, Calif.

[73] Assignee: TiNi Alloy Company, Oakland, Calif.

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[58] Field of Search 434/112, 113, 114, 258; 128/32, 44, 67; 273/DIG. 27; 400/124; 340/407, 825.19

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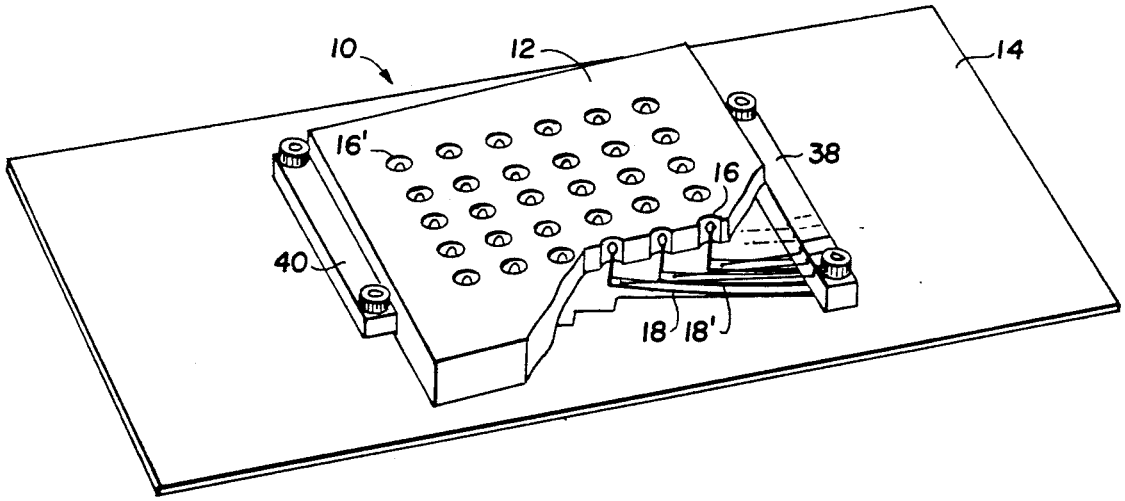
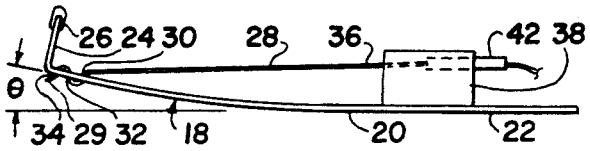
Primary Examiner—Richard J. Apley
Assistant Examiner—Joe H. Cheng
Attorney, Agent, or Firm—Flehr, Hohbach, Test, Albritton & Herbert

[57] ABSTRACT

A tactile stimulator array system and method of operational incorporating a plurality of tactile elements having touch-stimulating portions which are positioned through corresponding openings formed in a touch plate. The tactile elements are moved by actuator wires which are formed of a shape-memory alloy material. Electrical control signals from a programmed computer system heat individual wires through the materials phase change transition temperature so that the wires contract to their memory shapes and raise the elements. The touch-stimulating portions then extend above the touch plate where they can be sensed by the user.

18 Claims, 2 Drawing Sheets