

elastic cantilevers, each being arranged in correspondence with each of the holes of the rotational member and each having an engagement portion engageable with the annular groove of the each of the tactile pins for pressing and holding the each of the tactile pins with the rotational member,

wherein the each of the tactile pins is movable up-and-down in the each of the holes when a force exceeding a given value is applied to the each of the tactile pins in up-and-down direction;

rotation driving means coupled to the rotational member for rotating the rotational member;

a pin height reset member provided nearby the rotational member for resetting the height of the tactile pins at a reset height when the tactile pins are brought to contact with the pin height reset member during the rotation of the rotational member;

actuators provided nearby the rotational member for moving the tactile pins; and

selectively driving means coupled to the actuators for selectively driving the actuators to selectively move the tactile pins to be positioned at desired heights, respectively, relative to the tactile surface.

54. A tactile pin display apparatus comprising:

a rotational member having a tactile surface and first holes, and being provided for supporting tactile pins in the first holes, respectively, to be movable up-and-down therein relative to the tactile surface for displaying characters and/or graphics, the tactile pins being arranged in multi-row multi-column at the tactile surface and each having an annular groove;

an elastic sheet member having second holes, each being arranged in correspondence with each of the first holes of the rotational member and each being engageable with the annular groove of the each of the tactile pins for pressing and holding the each of the tactile pins with the rotational member,

wherein the each of the tactile pins is movable up-and-down in the each of the first and the second holes when a force exceeding a given value is applied to the each of the tactile pins in up-and-down direction;

rotation driving means coupled to the rotational member for rotating the rotational member;

a pin height reset member provided nearby the rotational member for resetting the height of the tactile pins at a reset height when the tactile pins are brought to contact with the pin height reset member during the rotation of the rotational member;

actuators provided nearby the rotational member for moving the tactile pins; and

selectively driving means coupled to the actuators for selectively driving the actuators to selectively move the tactile pins to be positioned at desired heights, respectively, relative to the tactile surface.

55. The tactile pin display apparatus according to claim 54, wherein the number of the actuators is equal to the number of rows of tactile pins, and the actuators are driven at timings respectively different from each other.

56. A tactile pin display apparatus comprising:

a rotational member having a tactile surface and tactile pins to be movable up-and-down relative to the tactile surface;

a moving mechanism coupled to the tactile pins for moving the tactile pins up-and-down relative to the tactile surface; and

rotation driving means coupled to the rotational member, wherein photocatalytic function is provided to at least the rotational member or the tactile pins.

57. A braille display member having photocatalytic function on a surface thereof or inside thereof.

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