

forces changed in response to the selected haptic information through the image unit.

**24.** The apparatus of claim 23, comprising a haptic information generating unit which receives an image to be displayed, generates the haptic information, the haptic information corresponding to an input image, and outputs the generated haptic information to the magnetic force changing unit.

**25.** The apparatus of claim 23, wherein the magnetic force changing unit includes:

- an upper magnetic force unit embedded in the image unit and including at least one electromagnetic cell changing its magnetic force in response to an upper magnetic force control signal;

- a lower magnetic force unit embedded in the image unit under the upper magnetic force unit, and including a plurality of electromagnetic cells their changing magnetic forces in response to a lower magnetic force control signal; and

- a control signal generating unit searching for haptic information corresponding to the desired position, analyzing the located haptic information, generating the upper and lower magnetic force control signals using analyzed results.

**26.** The apparatus of claim 25, wherein a number of electromagnetic cells in the upper magnetic force unit is less than a number of electromagnetic cells in the lower magnetic force unit.

**27.** An image unit comprising:

- a display module displaying an image;

- an upper magnetic force unit above the display module and including a plurality of electromagnetic cells changing magnetic forces in response to an upper magnetic force control signal;

- a lower magnetic force unit under the upper magnetic force unit and including a plurality of electromagnetic cells changing magnetic forces in response to a lower magnetic force control signal;

- a touch unit determining whether a user has touched a portion of a displayed image and searching for a position of the touched portion; and

- a magnetic force changing unit selecting haptic information corresponding to the position and generating the upper and lower magnetic force control signals using analyzed results to communicate the haptic information.

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