【CLAIMS】

【Claim 1】

A heater comprising:

an acupressure section;

a horizontal driving motor for driving the acupressure section horizontally;

a vertical driving motor for driving the acupressure section vertically;

a load cell is disposed under the acupressure section to measure a load of the user; and

a control circuit for lifting or lowering the acupressure section using an electric signal of the load cell,

wherein the control circuit is configured to control acupressure power in real time, the control circuit comprising means for:

(a) setting a reference vertical height and a range of acupressure power to reference vertical height for each horizontal position of the acupressure section and setting a target acupressure power within a range of the reference vertical height (S100), and determining a specific horizontal position corresponding to an inflection point of a measured value of a driving current applied to a horizontal driving motor during forward and backward movement of the acupressure section (S110);

(b) calculating a current measured acupressure power from measured data of the load of a user applied to the load cell and calculating a new target acupressure power in a massage process by reflecting a deviation between a vertical height of the acupressure section at the specific horizontal position and the reference vertical height at the specific horizontal position stored in a database (S200); and

(c) comparing the target acupressure power with the current measured acupressure power and controlling a vertical height of the acupressure section (S300).

【Claim 2】

The heater of claim 1, wherein the control circuit further comprises means for, in step (c) of operation S300:

controlling the acupressure section to vertically descend or vertically ascend when the current measured acupressure power is higher than the target acupressure power or the current measured acupressure power is lower than the target acupressure power; and

controlling the acupressure section to stop vertical driving when the current measured acupressure power is equal to the target acupressure power.

【Claim 3】

The heater of claim 2, wherein the control circuit further comprises means for, when a current vertical height of the acupressure section is outside the range of the reference vertical height, the measured acupressure power is assigned a predetermined margin value.

【Claim 4】

The heater of claim 1, wherein the control circuit further comprises means for, within step (a) of operation S100, adopting the target acupressure power with a minimum value.

【Claim 5】

The heater of claim 4, wherein the control circuit further comprises means for identifying that the inflection point of the driving current-measured value corresponds to a specific spine position of a current user, and when a current spine position corresponding to the driving current-measured value applied to the horizontal driving motor during a horizontal movement of the acupressure section in a massage process is different from the specific spine position, correcting a position of an acupoint with an offset by a deviation between the current spine position and the specific spine position.

【Claim 6】

The heater of claim 5, wherein the control circuit further comprises means for, when a distance ratio for acupoints of previous spine positions is changed to a distance ratio for acupoints of current spine positions due to a change of the user, correcting a ratio for the acupoints.