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(54) Total skin management system and method using the same

Ganzheitliches Hautmanagementsystem und Verfahren mit dessen Verwendung

Système et procédé pour soins totaux de la peau

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Description

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001] The present invention relates to a skin management system, and in particular to a total skin management system and a total skin management method using the same which are capable of checking a state of skin and comprehensively managing a skin based on a type of skin, and further relates to a total skin management system and a total skin management method using the same which are capable of checking a state of skin and classifying the skin into numerous types by integrating and controlling the functions of a skin check, far infrared ray massage, ozone massage, low frequency massage, low frequency vibration massage and ultrasonic wave massage and comprehensively managing the functions of a skin cleansing, skin management, skin nutrition and skin elastic force increase through a certain skin exercise corresponding to a structure of skin based on a skin cell activity and metabolism in a proper combination with the functions of an infrared ray massage, ozone massage, low frequency wave massage, low frequency vibration massage and ultrasonic wave massage based on the checked type of skin.

2. Description of the Background Art

[0002] Since the history of human begins, the pursuit concerning beauty has been continued together with the dignity of human without stops as the most acutely natural desire of human.

[0003] The above desire for the beauty begins based on an effort for implementing a healthier and clean skin. Since the skin is directly affected by an external stress, in order to obtain a beautiful skin, the skin must be intensively cared, and the skin must be often checked.

[0004] However, a certain skin management method may damage the skin without a professional knowledge concerning the skin. The skin is delicate and sensitive, so that the skin is deemed as a barometer by which it is possible to directly check the state of health and trace of aging.

[0005] Therefore, the states of the delicate and sensitive skin must be often checked, and a proper skin management must be performed based on the state of skin. In order to effectively implement the above management, a certain skin management instrument is needed so that the damaged skin is improved.

[0006] In the conventional arts, as a beauty instrument capable of performing a massage with respect to a skin of face, there are known a far infrared ray jig capable of performing a blood way improvement function, an ozone jig capable of providing a tooth whitening function, an ion jig capable of providing a cleansing function and a vibration jig capable of providing a wrinkle prevention function.

[0007] Examples of this background art are the patent documents US-A-3 866 600, US-A-5 938 593, US-A-6 026 329, US-A-5 931 859, and US-A-5 086 788.

[0008] US-A-3 866 600 discloses a method and an apparatus for aiding in the cosmetic and hygienic treatment of human skin-particularly skin of the face and scalp. The apparatus disclosed therein comprises a resistance measuring circuitry for measuring the electrical resistivity of areas of the skin and a.micro-massage unit for applying to the skin a low frequency, low voltage electrical massage. The micro-massage unit stimulates the underlying muscular tissues, thereby inducing more rapid penetration of cosmetic or therapeutic preparations into the skin.

[0009] US-A-5 938 593 concerns a skin condition analyzer with selectable modes of operation including a probe apparatus for generating a skin condition signal representative of the moisture content of the skin and a processor that adjusts the skin condition signal in accordance with environmental components, such as temperature and humidity, to arrive at an overall skin condition signal.

[0010] US-A-6 026 329 describes a skin care machine having a constant current generating function which gives a skin bounce by applying a micro constant current to the skin. The machine can give skin its bounce and soft by transmitting a very small current having a size similar to a biological current through an electric conductive material to the skin of a body in a uniform size to stretch or relax the skin muscle.

[0011] US-A-5 931 859 discloses a three phase facial toning system including an applicator having an applicator electrode and a ground electrode. In the first phase, a cleanser is applied to facial skin. The applicator electrode is in' communication with a positive voltage so that electrons flow from the user's skin to the applicator electrode to help the cleansing action of the cleanser. In the second phase, a vitalizing gel is applied to the face. A voltage oscillates between the applicator electrode and the ground electrode at a predetermined rate of oscillation so that electrons alternately flow into and out of the user's skin to assist the action of the vitalizer. In the third phase, a moisturizer is applied to the skin. Electrons then flow from the applicator electrode into the skin to enhance the effectiveness of the moisturizer.

[0012] Finally, US-A-5 086 788 concerns a hand-held physiological stimulation and treatment signal applicator. Different types of physiological treatments signals may be provided separately or in combination from the associated power

sources. The applicator head provided for facial engagement with the subject's tissue is swivelly mounted to the end of the applicator housing for facilitated adjustment of the head to insure desired facial engagement between the head and subject's tissue.

[0013] However, the above far infrared ray massage or ozone and ion massage are separately implemented, so that only a simple impact is applied to the skin. In addition, since there is not provided an accurate skin checking unit by which it is possible to easily check the state of skin by a common user, it is impossible to accurately check the type of her/his skin, so that a proper skin management is not performed.

[0014] Furthermore, since the skin checking unit and the far infrared ray massage or ozone and ion massage are not comprehensively cooperated, even when her/his skin type is known, it is impossible to implement an efficient and comprehensive skin management based on the checked skin state.

SUMMARY OF THE INVENTION

[0015] Accordingly, it is an object of the present invention to provide a total skin management system and a total skin management method using the same which are capable of easily checking a state of skin by a user and providing a proper skin management method based on various modes corresponding to her/his skin type.

[0016] It is another object of the present invention to provide a total skin management system and a total skin management method using the same which are capable of comprehensively managing a skin based on her/his skin type by easily adjusting various skin management functions for managing her/his skin and properly combining the above functions.

[0017] It is still another object of the present invention to provide a total skin management system and a total skin management method using the same which are capable of implementing one combined system in which various beauty instruments are provided for thereby implementing a simple portability, so that it is possible to comprehensively perform a skin management based on a skin type by integrating and controlling the functions of a skin check, far infrared ray massage, ozone massage, low frequency wave massage, low frequency wave vibration massage, and ultrasonic wave massage.

[0018] In order to achieve the above objects, a total skin management system according to claim 1 comprises:

a low frequency wave jig which is arranged to output a charge pulse for a skin check and a low frequency wave pulse for a low frequency wave massage;
a far infrared ray jig which is arranged to output a far infrared ray by providing a far infrared ray lamp which is capable of outputting a far infrared ray;
a low frequency wave vibration jig which is formed of a vibration device for performing a low frequency wave vibration operation, and a vibration member which is arranged to vibrate when the vibration device is driven based on an input voltage, and is symmetrically formed in parallel and is arranged to operate as an auxiliary switch;
a purification jig which includes an ozone lamp for generating an ozone based on light and is capable of transferring a high voltage impulse to the ozone lamp and generating an ozone based on a ultraviolet rat of a certain wavelength;
a ultrasonic wave jig which includes a piezo-electric ceramic member for generating a vibration based on an input voltage and is arranged to output a ultrasonic wave vibration;
a skin check driving unit which is arranged to output a charge pulse for a reference resistance value through the low frequency wave jig for obtaining a reference resistance value and skin resistance value which are a basis to determine the type of skin;
a low frequency wave driving unit which is connected with a control unit through a connection terminal and includes an output terminal connected with the low frequency wave jig for thereby supplying a rated power to the low frequency wave jig;
a far infrared ray driving unit which is connected with the control unit through a connection terminal and is connected with the far infrared ray jig for thereby supplying a rated power to the far infrared ray jig;
a low frequency wave vibration driving unit which is connected with the control unit through a connection terminal and is connected with the low frequency wave vibration jig for thereby supplying a rated power to the jig;
an ozone driving unit which is connected with the control unit through a connection terminal and has an output terminal connected with the purification jig for thereby receiving a rated power and supplies a high voltage impulse for generating an ozone to the purification jig;
a ultrasonic wave driving unit which is connected with the control unit through an external connection terminal and has an output terminal connected with the ultrasonic wave jig for thereby supplying a rated power to the ultrasonic wave jig;
a key operation unit which includes various control keys and is arranged to receive a user's key input signal;
a display unit which is arranged to display a corresponding operation corresponding to a key input of the key operation unit;

a memory which is arranged to store a program and data for a total skin management ;
a control unit which is formed of one chip microprocessor having a plurality of input/output terminals and is arranged to perform a control operation in response to a key input from the key operation unit and is arranged to display a key input and a state and operation of the system based on the key input on the display unit and is arranged to comprehensively control the system; and
a power supply unit which is arranged to receive an alternating current power and is arranged to supply a rated direct current to the system and is arranged to supply a rated direct power for driving each element in accordance with a control of the control unit.

[0019] In order to achieve the above objects, in a method for comprehensively a total skin management method for obtaining a beautiful skin using a total skin management system according to claim 1 comprises:

a skin state check step in which a face is cleanly washed, water is wiped away from the face, a skin check key is pressed, the type of the skin is classified into a dry type, neutral type, oily type using the low frequency wave jig, and a data is obtained for setting an operation tome and operation intensity and function-based course of each mode;
a skin cleansing step in which a massage cream is uniformly applied over a face, a far infrared key is pressed, an operation time and operation intensity are adjusted based on the type of skin, the massage is smoothly performed from an inner portion to an outer portion, forming a circle, and when a selected operation time is passed, and an alarming sound is output, the cream is wiped out, and then the massage cream is uniformly applied over the face again, the purification key is pressed, the operation time and operation intensity are adjusted based on the type of skin, the massage is smoothly performed from an inner portion to an outer portion, forming a circle, and when a selected time is passed, and an alarming sound is output, the cream is wiped away using a water towel, and then the massage cream is uniformly applied over a whole portion of the face again, the low frequency wave key is pressed, the operation time and operation intensity are adjusted based on the type of skin, the massage is performed from a lower portion to an upper portion and from an inner portion to an outer portion along a skin pattern, and when the operation time is passed, and an alarming sound is output, the cream is wiped away using a steam towel;
a skin beauty step in which a gel cream is uniformly applied over the face, a low frequency wave(±) key is pressed, an operation time and operation intensity are adjusted based on the type of skin, the massage is performed from a lower portion to an upper portion and from an inner portion to an outer portion along a skin pattern, and when the operation time is passed and an alarming sound is outputted, the cream is wiped away using a water towel;
a skin beauty nutrition supply step in which a nutrition cream is uniformly applied over the face, a low frequency wave(+) key is pressed, an operation time and operation intensity are adjusted based on the type of skin, the massage is performed from a lower portion to an upper portion and from an inner portion to an outer portion along a skin pattern, and when the operation time is passed and an alarming sound is outputted, the cream is wiped away using a tissue; and
a skin special management step in which a gel cream is uniformly applied over the face, a low frequency wave vibration key is pressed, an operation time and operation intensity are adjusted based on the type of skin, the massage is performed from a lower portion to an upper portion and from an inner portion to an outer portion along a skin pattern, and when the operation time is passed and an alarming sound is outputted, the cream is wiped away using a towel containing a warm water.

BRIEF DESCRIPTION OF THE DRAWING

[0020] The present invention will become better understood with reference to the accompanying drawings which are given only by way of illustration and thus are not limitative of the present invention, wherein;

Figure 1 is a view illustrating the functions implemented by a total skin management system according to the present invention;
Figure 2 is a view illustrating a state of use of a total skin management system according to a preferred embodiment of the present invention;
Figure 3 is a block diagram illustrating each function unit of a total skin management system according to a preferred embodiment of the present invention;
Figure 4A is a view illustrating a far infrared ray of a total skin management system according to a preferred embodiment of the present invention;
Figure 4B is a view illustrating a low frequency wave jig of a total skin management system according to a preferred embodiment of the present invention;
Figure 4C is a view illustrating a low frequency vibration jig of a total skin management system according to a preferred embodiment of the present invention;

Figure 4D is a view illustrating an ozone jig of a total skin management system according to a preferred embodiment of the present invention

Figure 4E is a view illustrating an ultrasonic wave jig of a total skin management system according to a preferred embodiment of the present invention;

Figure 5 is a view illustrating a control/display panel unit of a total skin management system according to a preferred embodiment of the present invention;

Figure 6 is a flow chart illustrating a method for performing a total skin management in a manual mode using a total skin management system according to a preferred embodiment of the present invention;

Figure 7 is a flow chart of a method for performing an automatic mode using a total skin management system according to a preferred embodiment of the present invention;

Figure 8 is a flow chart of a method for performing a total skin management in a fuzzy mode using a total skin management system according to a preferred embodiment of the present invention; and

Figure 9 is a view illustrating a method for performing a ultrasonic wave massage of a total skin management system according to a preferred embodiment of the present invention.

* Descriptions of major elements of the drawings *

[0021]

10: total skin management system controller	
20: key operation unit	30: display unit
40: alarm unit	50: timer
60: memory	100: total skin management system body
110: skin check driving unit	120: low frequency wave driving unit
130: far infrared ray driving unit	
140: low frequency wave vibration driving unit	
150: ozone driving unit	160: ultrasonic wave driving unit
200: control/display panel unit	201: skin check key
203: far infrared ray key	205: purification key
207: low frequency wave(-) key	209: low frequency wave(±) key
211: low frequency wave(+) key	213: low frequency vibration key
215: start key	217: ultrasonic wave key
219: automatic key	221: fuzzy key
223: intensity adjusting key	225: time adjusting key
227: temporary stop/cancel key	300: far infrared ray jig
400: low frequency wave jig	500: low frequency wave vibration jig
600: purification jig	700: ultrasonic wave jig
800: exclusive cosmetics	900: power supply unit
1000: total skin management system	

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0022] The preferred embodiments of the present invention will be described in detail with reference to the accompanying drawings. The same elements in the present invention will be given the same numeral references even when the elements appear in other drawings. In addition, the known functions and constructions which are not helpful for clarifying the gist of the present invention will be omitted.

[0023] The total skin management system according to the present invention is basically directed to a system implemented based on a mechanism in which a skin type is accurately checked, and a skin management corresponding to the checked skin type is comprehensively performed based on various functions such as a far infrared ray function, ozone function, low frequency wave function and low frequency vibration function.

[0024] In addition, the total skin management system according to the present invention is basically directed to performing the functions of a skin cleansing(deep cleansing), skin beauty(toning & firming), skin nutrition(suction nutrition) and skin elastic force increase.

[0025] The functions of the total skin management system according to the present invention are shown in Figure 1.

[0026] Figure 1 is a view illustrating the functions implemented in a total skin management system according to the

present invention.

[0027] As shown in Figure 1, the skin cleansing function is capable of dissolving, decomposing and eliminating waste materials from an outer skin and skin pores based on a far infrared ray, low frequency wave(-) and ozone purification effects. Therefore, the above skin cleansing function is capable of implementing a smooth and clean skin based on a skin peeling, cell exfoliation operation and purification function.

[0028] The above skin beauty function is capable of improving the skin to an elastic skin based on an exercise effect. In addition, the above skin beauty function is capable of improving the skin to a healthier skin based on a nutrition supply and making the skin elastic.

[0029] The above skin nutrition function is capable of basically increasing the elastic force of a skin structure and maintaining a young and beautiful skin. In addition, a metabolism is increased based on an increased fine circulation function, so that it is possible to implement a moisture skin.

[0030] The skin elastic force increasing function is classified into a lifting exercise and a ultrasonic function. The above skin exercise is capable of providing a skin damaged and aged by a polluted environment with a freshness and making the skin healthier. The above skin exercise function is capable of fully providing a skin with nutrition and increasing a skin elastic force based on a skin exercise effect.

[0031] In addition, the ultrasonic wave function is capable of increasing a metabolism based on an energy vibration of about 1 million times per second for thereby implementing a good skin beauty and health.

[0032] Therefore, the total skin management system according to the present invention is directed to providing a skin with a cleansing effect and elastic force and nutrition and moisture effect based on a metabolism increase and blood circulation promotion by stimulating to a deep portion of skin by a far infrared ray, low frequency wave, ozone, low frequency vibration and ultrasonic wave for thereby making a skin young and healthier.

[0033] The constructions of the total skin management system according to the present invention in order to implement the above functions are shown in Figures 2 through 4.

[0034] Figure 2 is a view illustrating a state of user of a total skin management system according to a preferred embodiment of the present invention. In addition, Figure 3 is a block diagram illustrating each function unit of a total skin management system according to a preferred embodiment of the present invention. Figures 4A through 4E are views illustrating various jigs for performing various functions of a total skin management system according to a preferred embodiment of the present invention.

[0035] As shown in Figure 2, the total skin management system 1000 includes a control/display panel unit 200, various jigs, exclusive cosmetics containers and various jigs 300, 400, 500, 600 and 700 and a power supply unit 900. The total skin management system according to the present invention is capable of receiving a direct current power through the power supply unit 900 and drives various jigs connected to a corresponding connection terminal in response to a control of the control/display panel unit.

[0036] The constructions of the total skin management system according to the present invention will be described with reference to Figure 3.

[0037] As shown in Figure 3, the total skin management system according to the present invention includes a low frequency wave jig 400, a far infrared way jig 300, a low frequency wave vibration jig 400, a purification jig 600 and a ultrasonic wave jig 700 which are respectively connected with a control unit,10 which controls the whole elements of the system through a skin check driving unit 110, a low frequency wave driving unit 120, a far infrared ray driving unit 130, a low frequency wave vibration driving unit 140, an ozone driving unit 150 and a ultrasonic wave driving unit 160. There is further provided a power supply unit 900 which is connected with the control unit 10 for supplying a power to a display unit 30 which displays a corresponding operation, a key operation unit 20 in which various key are installed, an alarm unit 40 which generates an alarming sound, a timer 50 which counts an operation time, a memory 60 which stores a program for comprehensively managing a skin and various data for thereby supplying the power to the system.

[0038] As shown therein, the low frequency wave jig 400 is commonly connected with the skin check driving unit 110 and the low frequency wave driving unit 120 and performs a corresponding function in accordance with a control of the control unit 10. In addition, the low frequency wave driving unit 120 is controlled by the control unit 10 in response to a key input of the key operation unit 20 in order for the low frequency wave jig 400 to perform a low frequency wave(-), low frequency wave(±) and low frequency wave(+).

[0039] The construction of each element of the system will be described. The control unit 10 is formed of one chip micro-processor having a plurality of input/output terminals.

[0040] The control unit 10 performs a control operation in response to a key input from the key operation unit 20 provided in the control/display panel unit 200 provided in the body 100 of the total skin management system 1000 according to the present invention. In addition, the control unit 10 displays a key input state and a state and operation of the system in response to the key input.

[0041] The skin check driving unit 110 outputs a charge pulse for obtaining time charged up to a reference resistance value in accordance with a control of the control unit 10 in order for the control unit 10 to determine a skin type based on a reference resistance value and a skin resistance value.

[0042] The control unit 10 checks a charge voltage in accordance with a charge pulse of the skin check driving unit 100. In addition, a reference resistance is computed based on the obtained time and is stored in the memory 60. The control unit 10 checks and computes the time required until the voltage becomes a set reference voltage, through the low frequency wave jig 400.

[0043] Since the resistance value is determined based on the amount of moisture contained in skin in a state that an electrode of the low frequency wave jig 400 contacts with a skin, it is possible to measure a skin resistance based on the above manner. The control unit 10 computes the reference resistance value and skin resistance value and divides a skin type into a dry type(high, mid, low), a neutral type(high, mid, low), and an oily type(high, mid, low).

[0044] The low frequency wave driving unit 120 is connected with the control unit 10 through a connection terminal, and an output of the same is connected with the low frequency wave jig 400. The low frequency wave driving unit 120 supplies a rated power to the low frequency wave jig 400 in accordance with a control of the control unit 10.

[0045] The low frequency wave jig 400 generates a low frequency wave(-), low frequency wave(±) and a low frequency wave(+) in accordance with a control of the control unit 10.

[0046] Since the current flows from the pole(+) to the pole(-), when a low frequency wave(-) pulse voltage is applied to the skin in order for the current to flow from the inner side of the skin to the outer side of the skin, a waste material and certain toxic are discharged from the skin to the outer side of the same. Therefore, when the low frequency wave (-) function is selected, the signal(-) is applied to the pole of the low frequency wave jig 400, and the current flows to the outer side of the skin through the outer skin for thereby discharging a waste material to the outside of the skin.

[0047] On the contrary, the low frequency wave(+) function is capable of applying a signal(+) to the low frequency wave jig 400 and injecting a useful skin nutrition agent such as a bio material included in a nutrition cream from an outer skin into an inner skin, so that the skin nutrition agent is absorbed therein.

[0048] The low frequency wave(-) function is capable of alternately outputting a low frequency wave pulse every 1.5 seconds, so that the signals which affect the skin are alternately implemented. Therefore, it is possible to concurrently perform a nutrition supply function and waste material discharging function. In addition, it is possible to perform a skin massage operation without any stimulus by a weak current.

[0049] The far infrared ray driving unit 110 is connected with the control unit 10 through a connection terminal, and an output side is connected with the far infrared ray jig 300. The far infrared ray driving unit 110 is adapted to supply a rated power to the far infrared ray jig 300 in accordance with a control of the control unit 10.

[0050] A far infrared ray massage by the far infrared ray jig 300 is implemented by radiating a far infrared ray within a wavelength range of 3~50micron, and preferably within a wavelength range of 8~14micron, and most preferably within a microwave length range of 8~9micron, so that the far infrared ray is penetrated into a portion under the skin by 40mm, whereby it is possible to eliminate a waste material inside and outside the skin and prevent a formation of the waste materials.

[0051] The far infrared ray jig 300 includes a far infrared ray lamp which generates a far infrared rat for thereby generating a far infrared ray in accordance with a control of the control unit 10.

[0052] The far infrared ray jig 300 includes a massage cap having a digital compression protrusion for implementing a digital compression effect with respect to the skin. The above massage cap may be easily exchanged.

[0053] The low frequency wave vibration driving unit 140 is connected with the control unit 10 through a connection terminal and includes an output side connected to the jig 500. The low frequency wave vibration driving unit 140 is adapted to supply a rated power to the low frequency wave vibration jig 500 in accordance with a control of the control unit 10.

[0054] The low frequency wave vibration jig 500 includes a vibration device which is capable of performing a low frequency wave vibration operation in accordance with a control of the control unit 10, and a vibration member which is vibrated when the vibration device is driven and is constituted in parallel symmetrically and is adapted to perform an auxiliary switch role.

[0055] The ozone driving unit 150 is connected with the control unit 10 through a connection terminal and includes an output side connected with the purification jig 600. The ozone driving unit 150 is adapted to receive a rated power in accordance with a control of the control unit 10 and to supply a high voltage impulse for generating an ozone to the purification jig 600.

[0056] The purification jig 600 includes an ozone lamp which is capable of generating an ozone based on a pure light and is capable of transferring a high voltage impulse inputted through the ozone driving unit 150 to the ozone lamp for thereby generating an ozone based on a ultraviolet ray of a certain wavelength of 184.9nm.

[0057] Therefore, when performing a massage operation using the purification jig 600, the generated ozone penetrates into the skin. Here, the ozone generated by the ozone lamp is adapted to implement a strong deodorization effect, skin sterilization effect, vitamin production in skin and skin whitening effect.

[0058] In addition, the sterilization by the ozone may be performed with respect to a non-scanned surface in which an ultraviolet is not scanned. As the ozone is generated by the ozone lamp, any noise does not occur in other elements, and a certain harmful element does not occur.

[0059] The ozone lamp further includes a special type ozone lamp for thereby performing a protruded portion in skin. In this case, it is possible to easily exchange the lamp.

[0060] The ultrasonic wave driving unit 160 is connected with the control unit 10 through an external connection terminal and includes an output side connected to the ultrasonic wave jig 700. The ultrasonic wave driving unit 160 is adapted to supply a rated power to the ultrasonic wave jig 700 in accordance with a control of the control unit 10.

[0061] The ultrasonic wave jig 700 includes a piezo-electric ceramic which is capable of generating a vibration about 1 million times per one second in accordance with a control of the control unit 10.

[0062] The power supply unit 900 is adapted to supply a direct current power to the total skin management system according to the present invention and is capable of supplying a rated power for driving each element in accordance with a control of the control unit 10.

[0063] The functions of each jig of the total skin management system according to the present invention will be described.

1) Low frequency wave jig

[0064] As a basic skin management method, it is very important to select a certain skin management method which is proper to her/his skin after she/he knows a skin type based on an accurate skin check. The low frequency wave jig 400 is adapted to accurately classifying the skin into a dry type, neutral type, and oily type and to efficiently implement a skin management by the type of skin. In addition, the result of the skin check is classified into detailed categories, so that it is possible to perform a skin management based on an accurate function-based course.

[0065] In addition, the low frequency wave jig 400 is adapted to perform a certain exercise proper to the skin based on the low frequency wave(-), low frequency(±) and low frequency(+), so that it is possible to efficiently perform a basic massage which is most basic to the skin management from the skin cleansing to the skin nutrition. Therefore, it is possible to increase a certain elastic force to the skin through the massage exercise and to make the skin smooth.

2) Far infrared ray jig

[0066] The far infrared ray jig 300 is adapted to make the skin fresh using a far infrared rat which has the same principle as a certain energy which has been traditionally used in the oriental medicine and to make a blood way of the skin clean and to discharge a waste material from the deep portion of the skin to the outside of the same for thereby implementing a healthier and elastic skin.

3) Cleansing jig

[0067] The purification jig 600 is adapted to supply oxygen to a skin using the ozone. It is possible to implement a sterilization and cleansing effect in the skin pores, so that it is possible to make the skin clean.

4) Low frequency wave vibration jig

[0068] The low frequency wave vibration jig 500 is adapted to make the skin which may be easily damaged by a certain harmful element under a polluted environment, fresh based on a low frequency wave vibration and to exercise a skin muscle for thereby increasing a metabolism and keeping the skin young.

5) Ultrasonic wave jig

[0069] The ultrasonic wave jig 700 is adapted to massage a deep skin by transferring a high speed energy vibration thereto by about 1 million per second, which vibration is softly transferred to a skin. The lymph well flows in a front face based on a fine ultrasonic wave massage, and a lymph is penetrated between the cells in which a blood does not well penetrate for thereby performing a good metabolism, so that a lymph circulation and blood circulation are stimulated for thereby enhancing a skin beauty.

[0070] When a ultrasonic wave skin massage is adapted to a face skin based on a ultrasonic wave jig, a lot of micro bubbles which are formed when a ultrasonic wave passes through the skin flow in a skin surface and skin pores for thereby cleansing waste materials. In addition, a ultrasonic wave increase a temperature of a body, so that a temperature of skin is increased up to 0.5~1°C or, so that a blood and lymph are stimulated, whereby a blood circulation and lymph circulation are stimulated. In addition, a skin is provided with moisture, and the skin has a certain elastic force.

[0071] In addition, when a ultrasonic wave skin massage is adapted to a body based on a ultrasonic wave jig, a fine ultrasonic wave vibration is transferred to a deep skin, so that a blood circulation is enhanced due to a slight temperature increase of a body tissue, whereby a metabolism is activated.

[0072] Since a high vibration by a ultrasonic wave is continuously transferred in a proceeding direction of a ultrasonic wave during a short period by 1 million times, in the case that a use had a surgical operation or has a heart disease, hypertension, brain infarct, skin disease and infectious disease or a user is pregnant or has a high temperature, the high vibration is not used. In addition, the high vibration is not used for eyes or teeth.

[0073] The functions and method of use and effects of a corresponding jig are shown in Table 1 for helping a understanding concerning the functions of various jigs.

[0074] In Table 1, there are shown the functions which may be performed by a manual mode among the total skin management system 1000 according to the present invention based on a certain sequence. A certain function may be performed based on the above sequence or may be selected and performed during a desired time.

[0075] The total skin management method using the total skin management system 1000 according to the present invention may be classified into a manual(selection mode) mode, an automatic mode and a fuzzy mode based on a method for performing a function-based course.

[0076] The manual mode is performed by pressing a desired function without

[0077] The manual mode is performed by pressing a desired function without using a start key 215 with respect to each function. The skin management is preferably performed based on the sequence shown in Table 1.

[0078] In the automatic mode, when a user knows a skin type, a certain function is selected among the functions S1, S2 and S3 based on a dry type, neutral type, oily type, pimple skin, and problem causing skin, so that the selected function is automatically performed based on the determined sequence.

Table 1

Order	Function	Jigs	Cosmetics	Method	Effect
1	Skin check	Low frequency wave jig	None	Washing face->water removal->pressing skin check key->softly contacting jig to a concave portion between lips and jaw->standby until beep(once a month)	Accurate check for variable skin types
2	Infrared ray massage	Far infrared ray jig	Massage cream	Uniformly applying massage cream over the face->pressing far infrared ray key->adjusting intensity->softly massaging from inner to outer portions in circular shape	Radiant heat of far infrared ray is penetrated into a portion below skin, obtaining a metabolism effect

(continued)

Order	Function	Jigs	Cosmetics	Method	Effect
3	Ozone massage	Purification jig	Massage cream	Uniformly applying massage cream over face->pressing cleansing cream->adjusting intensity-> softly massaging from inner to outer portions in circular shape(massage cream not used for pimple skin)(max 2 min, no time extension, only shortening).	Skin purification, skin cleansing, foreign substance removal from skin pores
4	Low frequency wave(-) massage wave jig	Low frequency wave jig wave jig	Massage cream	Uniformly applying massage cream over face->pressing low frequency wave(-) key->adjusting intensity->massaging along skin pattem(lower->upper, inner->outer)->wiping with steam towel after completion intensity->massaging along skin pattern(lower->upper, inner->outer)	Keeping dean skin, good for pimple skin, improving rough skin, enhancing a function of capillary and lymph skin, keeping skin glossy and elastic
6	Low frequency wave jig	Low .frequency wave jig	Nutrition cream	Uniformly applying nutrition gel cream->pressing low frequency wave(+) key->adjusting intensity->massaging along skin pattern(lower->upper, inner->outer)	Skin protection film formation. moisture evaporation prevention, skin nutrition supply such as BIO material

(continued)

Order	Function	Jigs	Cosmetics	Method	Effect
7	(special manageme nt) Low frequency wave vibration jig	Low frequency wave jig	Gel cream	Uniformly applying gel cream over face->pressing low frequency wave vibration key->adjusting intensity->massaging along skin pattem(lower->upper, inner->outer)->wiping with towel containing warm water	Skin contraction and release operation, skin activation and skin elastic force increase
8	(special manageme nt) Ultrasonic wave jig	Ultrasonic wave jig	Ultrasonic gel cream	Applying ultrasonic wave gel->pressing ultrasonic wave key(one time for face, two times for body)->massaging along skin pattem(max 5 min for face, max 10 min for body, no time extension, only shortening, no intensity adjustment)	Skin cell massage, skin activation, moisture skin based on moisture supply

[0079] In the automatic mode, when the skin type is designated after the skin is checked using the low frequency wave jig 400, the function-based course and operation time corresponding to the skin type are automatically determined. The above automatic mode may be conveniently used in the case that the user does not know the skin type-based management and when the user wishes to perform the skin type-based management more conveniently.

[0080] After a certain course corresponding the skin type is selected, when the start key is pressed, the function-based operation time are automatically set and displayed on the LCD screen as shown in Table 2, and the system becomes the standby mode.

[Table 2]

Skin type	Pressed Number of automatic key	Course	Far infrared ray massage	Ozone massage	Low frequency wave(-) massage	Low frequency wave(±) massage	Low frequency wave(+) massage
Dry	1 time	S1	4 min	1 min	Omitted		4 min
Neutral	2 times	S2	4 min	1 min 30m sec	2 min 30 sec		2 min 30 sec
Oily	3 times	S3	4 min	2 min	4 min		Omitted

[0081] The course is performed in the sequence of far infrared ray->purification->low frequency wave(-)->low frequency wave(±)->low frequency wave(+), and the face washing and jig and cosmetics which will be used are automatically designated for a corresponding sequence based on each function. The thusly designated contents are displayed on the LCD screen.

[0082] The fuzzy mode is directed to a mode that the function-based operation time and sequence are automatically performed with a program based on a result of the skin check.

[0083] The fuzzy mode is directed to a course that the function-based course and operation time are automatically performed with a fuzzy program stored in a memory of the total skin management system according to the present invention after the state of the skin is checked.

[0084] In the fuzzy mode, the skin is checked by slightly pressing the low frequency wave jig 400 at a portion between the lips and jaw. When the skin check is complemented, the jig which will be used and the function-based course and proceeding time are automatically designated based on the type of the skin.

[0085] At this time, a certain course may be omitted based on the state of the skin or the operation time may be extended or shortened. Table 3 shows the function-based course and each function-based operation time based on a result of the skin check in the fuzzy mode.

[Table 3]

Result of skin check(skin type)	Massage time				
	Far infrared ray	purification	Low frequency wave(-)	Low frequency wave(±)	Low frequency wave(+)
Dry 1	4 min	1 min	Omitted	4 min	4 min 30 sec
Dry 2	4 min	1 min	Omitted	4 min	4 min
Dry 3	4 min	1 min	Omitted	4 min	3 min 30 sec
Neutral 1	4 min	1 min 30 sec	2 min	4 min	3 min
Neutral 2	4 min	1 min 30 sec	2 min 30 sec	4 min	2 min 30 sec
Neutral 3	4 min	1 min 30 sec	3 min	4 min	2 min
Oily 1	4 min	2 min	3 min 30 sec	4 min	Omitted
Oily 2	4 min	2 min	4 min	4 min	Omitted
Oily 3	4 min	2 min	4 min	4 min	Omitted

[0086] As described above, the total skin management method according to the present invention will be described with reference to Figures 5 through 8.

[0087] Figure 1 is a view illustrating a control/display panel unit for comprehensively controlling a total skin management system according to a preferred embodiment of the present invention. As shown therein, the operation is performed in response to various key inputs by a user for a total skin management according to the present invention, and an information thereon is displayed.

[0088] As shown in Figure 5, the control/display panel unit 200 includes a key operation unit 20, and a display unit 30. The key operation unit 20 includes a skin check key 201, a far infrared ray key 203, a purification key 205, a low frequency wave(-) key 207, a low frequency wave(±) key 209, a low frequency wave(+) key 211, a low frequency wave vibration key 213, a start key 215, a ultrasonic wave key 217, an automatic key 219, a fuzzy key 221, an intensity adjusting key 223, a time adjusting key 225, and a temporary stop/cancel key 227.

[0089] The display unit 30 is implemented by a LCD(Liquid Crystal Display) panel and is formed of a manual/automatic/intelligence mode display unit, a S1/S2/S3 course selection display unit based on the type of skin, a skin check value display unit, a remaining time display unit, a weak/mid/strong operation intensity graph display unit, a skin check result graph display unit, a cosmetics-used display unit, a standby/operation mode display unit, a ultrasonic wave massage in-operation display unit, a ultrasonic wave massage portion selection display unit and jig-used display unit.

[0090] The skin check unit 201 is selected for checking skin. In this case, the low frequency wave jig 400 is displayed on the SCD screen of the display unit 30. When checking the skin through the low frequency wave jig 400, the skin check value and skin type are displayed in graphic.

[0091] The far infrared ray key 203 is selected for using a far infrared ray function. When the far infrared ray key 203 is selected, the far infrared ray jig 300 is displayed on the SCD screen of the display unit 30. When the far infrared ray function is performed through the far infrared ray jig 300, the function-based operation time, operation intensity and cosmetics which will be used, are displayed.

[0092] The purification key 205, the low frequency wave(-) key 207, the low frequency wave(±) key 209, the low frequency wave(+) key, and the low frequency vibration key 213 are performed for a purification function, low frequency wave(-) function, low frequency wave(±) function, low frequency wave(+) function and low frequency wave vibration

function, respectively.

[0093] In addition, a function corresponding to a key detected when a key is selected is performed, and the function-based operation time, operation intensity, and jig and cosmetics which will be used, are displayed.

[0094] The start key 215 is selected when the fuzzy function is started.

[0095] The ultrasonic wave key 217 is selected when the ultrasonic wave function is started in the case that it is needed an effect for increasing a skin activity based on a blood circulation increase.

[0096] The automatic key 219 is selected for selecting her/his own skin type and automatically setting a function corresponding to the selected skin type.

[0097] The fuzzy key 221 is selected for automatically recognizing a result obtained based on a user's skin check and type and automatically setting a function proper thereto.

[0098] The intensity adjusting key 223 is selected for adjusting the intensity of each function based on weak/mid/strong, namely, step 1, step 2, and step 3.

[0099] The time adjusting key 225 is selected for shortening or extending a corresponding function operation time by 30 seconds for one time input.

[0100] When the temporary stop/cancel key 227 is pressed one time, the system stops, and when the same is pressed two times, the current operation is ended.

[0101] Figures 6 through 8 are flow charts illustrating a method for performing a total skin management based on the manual mode, automatic mode and fuzzy mode using the total skin management system according to a preferred embodiment of the present invention.

[0102] The manual mode performing method according to a preferred embodiment of the present invention will be described with reference to Figure 6.

[0103] As shown in Figure 6, when the control unit 10 of Figure 3 detects an input of the skin check key 201 which is input externally in Step 601, the current routine goes to Step 603. In Step 603, the jig which will be used for checking the skin is displayed on the LCD panel of the display unit 30. Therefore, when a user checks the skin using the displayed jig(lower frequency wave jig when checking skin), the control unit 10 receives a skin check data from the low frequency wave jig 400 and computes a result of the skin check.

[0104] In addition, the control unit 10 performs Step 607 and displays a skin check value and graph obtained as a result of the skin check at a certain portion of the LCD panel of the display unit 30.

[0105] When the user inputs a certain key among the far infrared ray key 203, the purification key 205, the low frequency wave(-) key 207, the low frequency wave(±) key 209, the low frequency wave(+) key 211, the low frequency wave vibration key 213 and the ultrasonic wave key 217 based on the checked type of the skin, in Step S609, the inputted information is detected, and the routine goes to Step S611. In Step S611, a corresponding function is performed based on the inputted key.

[0106] The control unit 10 performs a corresponding function based on an input key without an input of the start key 215 and displays a function-based operation time, operation intensity, and jig and cosmetics which will be used, are display at a certain portion of the LCD panel of the display unit 30 in character and graphic. Table 1 shows the function-based jigs which will be used, the cosmetics used, the method of use and the effects.

[0107] At this time, when The inputs of the time adjusting key 225 and intensity adjusting key 223 are detected, the control unit 10 adjusts the operation time and operation intensity of a function which is currently performed. In addition, when there is an input of the operation stop/cancel key 227, the control unit 10 temporarily stops and cancels a function which is currently performed, and the stopped function is restarted based on an input of the start key 215.

[0108] In addition, even when an input of the time adjusting key 225 by the user is inputted while the purification function among various functions is being performed, in the case that the purification function is over used, the control unit 10 controls in order for the massage time not to exceed 2 minutes in maximum because the over use of the same may damage the skin.

[0109] Next, the automatic mode performing method according to a preferred embodiment of the present invention will be described with reference to Figure 7.

[0110] In Step S701 of Figure 7, when the control unit 10 of Figure 3 detects an input of the skin check key 201 which is input externally, the routine goes to Step S703, and the control unit 10 displays the jig which will be used for checking the skin, on the LCD panel. When a user checks the skin using the displayed jig(low frequency wave jig when checking skin), the control unit 10 receives a skin check data from the low frequency wave jig 400 and computes a result of the skin check in Step S705.

[0111] In addition, the routine goes to Step S707, and the control unit 10 displays a skin check value and graph obtained based on a result of the skin check, at a certain portion of the LCD panel of the display unit 30.

[0112] When the control unit 10 detects an input of the automatic key 219 of the user in Step S709, the routine goes to Step S711, and the automatic mode is performed.

[0113] In Step S713, the control unit 10 detects an input of the automatic key 219 input by the user and automatically designates the function-based course corresponding to the type of the skin based on the number of inputs. Table 2

shows the skin types and function-based courses based on the number of the key inputs. When the automatic key 219 is inputted one time, the dry type of skin is designated, and when the same is input two times, the neutral type of skin is designated, and when the oily type of skin is inputted three times, the function-based course corresponding to the oily skin is designated.

[0114] Thereafter, the control unit 10 sequentially displays the function-based courses which are automatically designated and displays the function-based operation time, operation intensity and jig and cosmetics which will be used, at a certain portion of the LCD panel of the display unit 30.

[0115] In Step S717, the control unit 10 flickers the portions of the jig and cosmetics which will be used for the functions of the operation steps based on the automatically designated function-based courses for thereby indicating the currently standby functions.

[0116] In Step S719, the control unit 10 controls the constructions for thereby detecting an input of the start key 215, and the routine goes to Step S721 for thereby controlling the constructions so that a corresponding function is performed.

[0117] A this time, when an input of the time adjusting key 225 or the intensity adjusting key 223 of the user is input, the control unit 10 adjusts the operation time or operation intensity of the function which is currently performed. In addition, when there is an input of the operation stop/cancel key 227, the control unit 10 temporarily stops and cancels the function which is currently performed, and the temporarily stopped function is restarted based on an input of the start key 215.

[0118] Finally, the fuzzy mode performing method according to a preferred embodiment of the present invention will be described with reference to Figure 8.

[0119] In Step S801 of Figure 8, in the control unit 10, when an input of the user's fuzzy key 221 is detected, the routine goes to Step S803, and the intelligence mode is started.

[0120] As the user's fuzzy key 221 is inputted, the control unit 10 displays the fuzzy mode and the jig which will be used for checking the skin in Step S803.

[0121] When the fuzzy mode is set, the routine goes to Step S805, and the control unit 10 displays the jig which will be used for checking the skin, on the LCD panel of the display unit 30. When the user checks the skin using the jig(low frequency wave jig when checking the skin) displayed, the control unit 10 receives a skin check data from the low frequency wave jig 400 and computes a result of the skin check.

[0122] In addition, in Step S807, the control unit 10 displays a skin check value and graph which are obtained as a result of the skin check, at a certain portion of the LCD panel of the display unit 30. In Step S809, the control unit 10 automatically designates the function-based course based on the determined skin type, and in Step S811, the control unit 10 sequentially displays the automatically designated function-based course, and the user is informed by displaying the function-based operation time, operation intensity, and the jig and cosmetics which will be used, at a certain portion of the LCD panel of the display unit 30 in character and graphic.

[0123] Table 3 shows the function-based courses and function-based operation time which are automatically designated in accordance with the skin type in the fuzzy mode.

[0124] In Step S813, the control unit flickers the portions corresponding to the jig and cosmetics which will be used for a corresponding function in the operation step in accordance with the automatically designated function-based course for thereby indicating the function which is in the standby mode.

[0125] Thereafter, in Step S815, the control unit 10 detects an input of the start key 215, and the routine goes to Step S817, and the control unit 10 controls the constructions for thereby performing a corresponding function.

[0126] At this time, when an input of the user's time adjusting key 225 or intensity adjusting key 223 is detected, the control unit 10 adjusts the operation time or operation intensity of the current function. In addition, when there is an input of the operation stop/cancel key 227, the control unit 10 temporarily stops and cancels the current function and restarts the temporarily stopped function in accordance with an input of the start key 215.

[0127] Figure 9 is a flow chart of a method for performing a ultrasonic wave massage of a total skin management system according to a preferred embodiment of the present invention. As shown therein, the control unit 10 of Figure 3 detects a connection state of the ultrasonic wave jig 700.

[0128] When the ultrasonic wave jig 700 is connected, the control unit 10 selects a massage portion based on the number of inputs of the user's ultrasonic wave key 217 in Step S903 and displays the selected portion at a certain portion of the LCD panel of the display unit 30.

[0129] When the ultrasonic wave key 217 is input one time, the control unit 10 displays the massage portion, operation time and cosmetics which will be used, so that the routine goes to Step S905, and a face portion is massaged, and a corresponding ultrasonic wave massage is performed. In addition, When the ultrasonic wave key 217 is input two times, the control unit 10 displays the massage portion, operation time and cosmetics which will be used, so that a corresponding ultrasonic wave massage is performed, and the body portion is performed based on the ultrasonic wave massage in Step S905.

[0130] At this time, when an input of the user's time adjusting key 225 or intensity adjusting key 223 is detected, the control unit 10 adjusts the operation time or operation intensity of the current function. In addition, in the case that the ultrasonic wave massage function is over used, since the skin may be damaged, the control unit 10 controls in order for

the massage time not to exceed max 5 minutes for the face and not to exceed max 10 for the body in the case that the user's time adjusting key 225 and intensity adjusting key 223 are input for thereby adjusting the time and intensity. In addition, the control unit 10 controls in order for the operation intensity not to exceed a set intensity.

[0131] In addition, when there is an input of the operation stop/cancel key 227, the control unit 10 temporarily stops and cancels the current function and restarts the temporarily stopped function in accordance with an input of the start key 215.

[0132] The total skin management method which is implemented based on the manual mode, automatic mode and fuzzy mode of the total skin management system according to the present invention will be described by dividing the functions into implementation possible functions.

1) Skin state check step

[0133] A user's face is cleanly washed, and water is fully eliminated, and then the skin check key is pressed. The state of the skin is accurately checked using the low frequency wave jig for thereby classifying the state of the skin into the dry type, neutral type and oily type, so that the data are obtained for setting the operation time, operation intensity and function-based course of each mode.

2) Skin cleansing step

[0134] A massage cream is uniformly applied over a face, and then the far infrared ray key is pressed. The operation time and operation intensity are adjusted in accordance with the type of skin. The skin is massaged from an inner portion to an outer portion in a circle shape.

[0135] When the selected operation time(for example, 4 minutes) is passed, and an alarming sound is generated, the massage cream is cleanly wiped away using a water towel. Thereafter, the massage cream is uniformly applied over the face, and then the purification key is pressed. The operation time and operation intensity are adjusted based on the type of skin. The massage is smoothly performed from an inner portion to an outer portion in a circle shape.

[0136] When the selected operation time(for example, 2 minutes) is passed, if an alarm is generated, the cream is wiped away using a water towel. Thereafter, the massage cream is uniformly applied over the face again, and the low frequency wave(-) key is pressed. The operation time and operation intensity are adjusted based on the type of skin. The massage is performed from a lower portion to an upper portion and from an inner portion to an outer portion, forming a circle. As the operation time is passed, when the alarm sound is output, the cream is wiped away by a steam towel.

(3) Skin beauty step

[0137] A gel cream is uniformly applied over the face, and the low frequency wave(±) key is pressed. The operation time and operation intensity are adjusted based on the type of skin. The massage is performed from a lower portion to an upper portion and from an inner potion to an outer portion, forming a circle along a skin pattern. As the operation time is passed, when an alarming sound is output the cream is wiped away using a water towel.

(4) Skin nutrition supply step

[0138] The nutrition cream is uniformly applied over the face again, and the low frequency wave(+) key is pressed. The operation time and operation intensity are adjusted based on the type of skin. The massage is performed from a lower portion to an upper portion and from an inner portion to an outer portion along a skin pattern. As the operation time is passed, when an alarming sound is output, the face is just touched by a tissue or the face remains as it is.

(5) Special skin management step

[0139] A gel cream is uniformly applied over the face. The low frequency wave vibration key is pressed. The operation time and operation intensity are adjusted based on the type of the skin. The massage is performed from a lower portion to an upper portion and from an inner portion to an outer portion. As the operation time is passed, when an alarming sound is output, the cream is wiped away using a towel containing warm water.

[0140] A ultrasonic wave gel is uniformly applied over the face. The ultrasonic wave key is pressed. Thereafter, the massage is performed along a skin pattern.

[0141] According to the management of the skin using the total skin management system according to the present invention, it is possible for the user to easily check the type of skin based on the check of the skin. Therefore, the operation time and operation intensity are properly adjusted in the skin management steps using the skin cleansing, skin beauty, skin nutrition, low frequency wave vibration and ultrasonic wave based on the checked type of skin, so that it is possible

to comprehensively perform a skin management at home.

[0142] In the total skin management system and the total skin management method using the same according to the present invention, the type of skin is known by checking the skin, and the function-based courses are manually or automatically performed for a total skin management based on the checked type of skin. In addition, a person who is not skilled in the field of skin beauty is capable of easily performing the total skin management based on the check of the skin. Various functions for totally managing the skin are integrated in one chip processor, so that it is possible to totally manage the skin based on a controllable portable system, whereby a professional skin management is implemented at a lower cost at any time.

[0143] As described above, in the present invention, it is possible to accurately check the type of skin, and the total skin management method is prepared based on the checked type of skin, so that a certain person can accurately check the type of skin and implement a total skin management based on her/his own skin type. In the present invention, a certain person can easily adjust a desired skin management function based on various modes with respect to her/his own skin type, and it is possible to properly combine the total skin management functions.

[0144] Furthermore, the present invention is basically directed to implement a portable combined system which is capable of integrating and controlling various total skin management functions such as a skin check, far infrared ray massage, ozone massage, low frequency wave massage, low frequency wave vibration massage and ultrasonic wave massage, so that it is possible to totally manage the skin based on her/his own skin type at any time.

[0145] The present invention may be embodied in several forms without departing from essential characteristics thereof, as defined in the appended claims.

Claims

1. A total skin management system (100) for comprehensively managing a skin, comprising:

a low frequency wave jig (400) which is arranged to output a charge pulse for a skin check and a low frequency wave pulse for a low frequency wave massage;
a far infrared ray jig (300) which is arranged to output a far infrared ray by providing a far infrared ray lamp which is capable of outputting a far infrared ray;
a low frequency wave vibration jig (500) which is formed of a vibration device for performing a low frequency wave vibration operation, and a vibration member which is arranged to vibrate when the vibration device is driven based on an input voltage ; and is symmetrically formed in parallel and is arranged to operate as an auxiliary switch;
a purification jig (600) which includes an ozone lamp for generating an ozone based on light and is capable of transferring a high voltage impulse to the ozone lamp and generating an ozone based on a ultraviolet ray of a certain wavelength;
a ultrasonic wave jig (700) which includes a piezo-electric ceramic member for generating a vibration based on an input voltage and is arranged to output a ultrasonic wave vibration;
a skin check driving unit (110) which is arranged to output a charge pulse for a reference resistance value through the low frequency wave jig (400) for obtaining a reference resistance value and skin resistance value which are a basis to determine the type of skin;
a low frequency wave driving unit (120) which is connected with a control unit (10) through a connection terminal and includes an output terminal connected with the low frequency wave jig (400) for thereby supplying a rated power to the low frequency wave jig (400),
a far infrared ray driving unit (130) which is connected with the control unit (10) through a connection terminal and is connected with the far infrared ray jig (300) for thereby supplying a rated power to the far infrared ray jig (300),
a low frequency wave vibration driving unit (140) which is connected with the control unit (10) through a connection terminal and is connected with the low frequency wave vibration jig (400) for thereby supplying a rated power to the jig (500);
an ozone driving unit (150) which is connected with the control unit (10) through a connection terminal and has an output terminal connected with the purification jig (600) for thereby receiving a rated power and supplies a high voltage impulse for generating an ozone to the purification jig (600);
an ultrasonic wave driving unit (160) which is connected with the control unit (10) through an external connection terminal and has an output terminal connected with the ultrasonic wave jig (700) for thereby supplying a rated power to the ultrasonic wave jig (700);
a key operation unit (20) which includes various control keys and is arranged to receive a user's key input signal;
a display unit (30) which is arranged to display a corresponding operation corresponding to a key input of the

key operation unit (20),
a memory (60) which is arranged to store a program and data for a total skin management ;
a control unit (10) which is formed of one chip microprocessor having a plurality of input/output terminals and is arranged to perfom a control operation in response to a key input from the key operation unit (20) and is arranged to display a key input and a state and operation of the system (1000) based on the key input on the display unit (30) and is arranged to comprehensively control the system (1000); and
a power supply unit (900) which is arranged to receive an alternating current power and is arranged to supply a rated direct current to the system (1000) and is arranged to supply a rated direct power for driving each element in accordance with a control of the control unit (10).

2. The system of claim 1, wherein said key operation unit (20) includes a skin check key (201), infrared ray key (203), purification key (205), low frequency wave (-) key (207), low frequency wave(±) key (209), low frequency wave(+) key (211), low frequency wave vibration key (213), start key (215), ultrasonic wave key (217), automatic key (219), fuzzy key (221), time adjusting key (225) and temporary stop/cancel key (227).

3. The system of claim 1, wherein said display unit (30) includes a LCD panel which is formed of an automatic/manual/fuzzy mode display unit, S1/S2/S3 course selection display unit based on a skin type, skin check value display unit, remaining time display unit, weak/mid/strong operation intensity graph display unit, skin check result graph display unit, cosmetics display unit, standby/operation mode display unit, ultrasonic wave massage in-operation display unit, ultrasonic wave massage portion selection display unit and jig-used display unit.

4. The system of claim 1, wherein said low frequency wave driving unit (120) includes a plurality of operations capable of outputting a low frequency wave(-), low frequency wave(±) and low frequency wave(+) to the low frequency wave jig, respectively, in accordance with a control of the control unit with respect to a key input of the key operation unit.

5. The system of claim 1, wherein said control unit (10) is adapted to compute a reference resistance value of the low frequency wave jig (400) and a skin resistance value determined based on the amount of moisture in a state that a pole of the low frequency wave jig (400) is contacted with the skin and classify the type of skin into nine classes formed of a dry type(low, mid, high), neutral type(low, mid, high), and oily type(low, mid, high).

6. The system of claim 1, wherein said far infrared ray jig (300) further includes a massage cap having a digital compression protrusion for thereby implementing a digital compression effect with respect to the skin.

7. The system of claim 1, further comprising:

an alarming unit (40) which is arranged to output an alarming sound when a corresponding operation is changed or a certain operation of the system (1000) is ended.

8. The system of claim 1, further comprising:

a timer (50) which is capable of counting an operation time of a corresponding operation.

9. A total skin management method for obtaining a beautiful skin using a total skin management system (1000), according to anyone of claims 1-8, comprising:

a skin state check step in which a face is cleanly washed, water is wiped away from the face, a skin check key is pressed, the type of the skin is classified into a dry type, neutral type, oily type using the low frequency wave jig (400), and a data is obtained for setting an operation time and operation intensity and function-based course of each mode;
a skin cleansing step in which a massage cream is uniformly applied over a face, a far infrared key (203) is pressed, an operation time and operation intensity are adjusted based on the type of skin, the massage is smoothly performed from an inner portion to an outer portion, forming a circle, and when a selected operation time is passed, and an alarming sound is output, the cream is wiped out, and then the massage cream is uniformly applied over the face again, the purification key (205) is pressed, the operation time and operation intensity are adjusted based on the type of skin, the massage is smoothly performed from an inner portion to an outer portion, forming a circle, and when a selected time is passed, and an alarming sound is outputt, the cream is wiped away using a water towel, and then the massage cream is uniformly applied over a whole portion of the face again, the low frequency wave key (207) is pressed, the operation time and operation intensity are

adjusted based on the type of skin, the massage is performed from a lower portion to an upper portion and from an inner portion to an outer portion along a skin pattern, and when the operation time is passed, and an alarming sound is outputted, the cream is wiped away using a steam towel;

a skin beauty step in which a gel cream is uniformly applied over the face, a low frequency wave(±) key (209) is pressed, an operation time and operation intensity are adjusted based on the type of skin, the massage is performed from a lower portion to an upper portion and from an inner portion to an outer portion along a skin pattern, and when the operation time is passed and an alarming sound is output, the cream is wiped away using a water towel;

a skin beauty nutrition supply step in which a nutrition cream is uniformly applied over the face, a low frequency wave(+) key (211) is pressed, an operation time and operation intensity are adjusted based on the type of skin, the massage is performed from a lower portion to an upper portion and from an inner portion to an outer portion along a skin pattern, and when the operation time is passed and an alarming sound is outputted, the cream is wiped away using a tissue; and

a skin special management step in which a gel cream is uniformly applied over the face, a low frequency wave vibration key (213) is pressed, an operation time and operation intensity are adjusted based on the type of skin, the massage is performed from a lower portion to an upper portion and from an inner portion to an outer portion along a skin pattern, and when the operation time is passed and an alarming sound is output, the cream is wiped away using a towel containing a warm water.

10. The method of claim 9, wherein said skin special management step includes a step in which an ultrasonic wave gel is uniformly applied over a face, and the ultrasonic wave key (217) is pressed, and the massage is performed along a skin pattern.

11. The method of claim 9, wherein said each step is performed based on the mode selected in accordance with an input of the user's mode key among the following modes of:

a manual selection mode in which as soon as a desired function is pressed without using a start key for performing a function of each step, a corresponding function is started;

an automatic mode in which when the type of skin is determined in the skin state check step and a certain course is determined based on the type of the skin, each function is automatically performed based on the selected course; and

a fuzzy mode in which a function-based operation time and operation sequence are automatically performed based on a stored program based on a result of the skin checked in the skin state check step.

12. The method of claim 11, wherein said manual selection mode includes:

a step in which when an external input of a skin check key (201) is detected (601), a certain jig which will be used for a skin check is displayed (603) on a LCD(Liquid Crystal Display) panel of the display unit (30);

a step in which when a user starts to check a skin (605) using the displayed jig, a skin check data is received from the jig which is adapted for checking the skin, and a result of the skin check is computed;

a step in which a skin type, skin check value and graph which are obtained based on a result of the skin check are displayed (607) at a certain portion of the LCD panel of the display unit (30);

a step in which when a user inputs a certain key among the far infrared ray key (203), purification key (205), low frequency wave(-) key (207), low frequency wave(±) key (209), low frequency wave vibration key (213) and ultrasonic wave key (217) based on the type of the skin, the input key is detected, and a corresponding function corresponding to the input key is performed (609), so that the manual mode is implemented (611); and

a step in which a corresponding function is performed (613), and the function-based operation time, operation intensity, and the selected jig and cosmetics which will be used, are displayed at a certain portion of the LCD panel of the display unit (30) in character and graphic.

13. The method of claim 11, wherein said automatic mode includes:

a step in which when an external input of a skin check key (201) is detected (701), a jig which will be used for a skin check is displayed (703) on a screen of a LCD panel of the display unit (30);

a step in which when a user starts to check a skin (705) using the displayed jig, a skin check data is received from the jig which performs a skin check, and a result of a skin check is computed;

a step in which a skin type, skin check value and graph obtained based on a result of the skin check are displayed (707) at a certain portion of the LCD panel of the display unit (30),

a step in which when a user's automatic key input is detected (709), the automatic mode is activated (711), and the number of the user's automatic key inputs is detected;
a step in which when the automatic key is input one time, a function-based course corresponding to a dry skin is automatically designated, and when the automatic key is input two times, a function-based course corresponding to a neutral skin is automatically designated, and the automatic key is input three times, a function-based course corresponding to an oily skin is automatically designated (713),
a step in which the jig and cosmetics which will be used (715) for a function in the operation step in accordance with an automatically designated function-based course are flickered for thereby displaying a function which is in the current standby mode (717), and
a step in which a start key input is detected (719) and a construction unit is controlled for thereby performing a corresponding function (721).

14. The method of claim 11, wherein said fuzzy mode includes:

a step in which when an input of a user's fuzzy key is detected (801), the fuzzy mode is activated, and the fuzzy mode and a jig which will be used for a skin check are displayed (803) on a LCD panel of the display unit (30) in accordance with an input of the user's fuzzy key;
a step in which when a user starts a skin check (805) using the displayed jig, a skin check data is received from the jig which performs the skin check, and a result of the skin check is computed;
a step in which a skin type, skin check value and graph obtained based on a result of the skin check are displayed (807) at a certain portion of the LCD panel of the display unit (30);
a step in which a function-based course is automatically designated (809) based on the determined skin type, and the automatically designated function-based courses are sequentially displayed, and a function-based operation time, operation intensity and jig and cosmetics which will be used, are displayed (811) at a certain portion of the LCD panel of the display unit (30) in character and graphic;
a step in which the jig and cosmetics which will be used for a function in the operations step flickered based on the automatically designated function-based course for thereby displaying a function which is in the current standby mode (813), and
a step in which an input of the start key is detected (815), and a construction unit is controlled for thereby performing a corresponding function (817).

15. The method of claim 11, wherein said each mode includes:

a step in which an input of a user's time adjusting key (225) and intensity adjusting key (223) is detected, an operation time and operation intensity of the current operating function are adjusted;
a step in which when there is an input of an operation stop/cancel key (227), the current operating function is temporarily stopped and cancelled; and
a step in which the temporarily stopped function is restarted in accordance with an input of the start key (215).

16. The method of claim 12, further comprising:

a step in which a connection state of the ultrasonic wave jig is detected (901), and when the ultrasonic wave jig is connected as a result of the detection, a massage portion is selected in with the number of inputs of a user's ultrasonic wave key and is displayed (903) at a certain portion of the LCD panel of the display unit (30); and
a step in which when the ultrasonic wave key is inputted one time, a massage portion, operation time and cosmetics which will be used, are displayed (905) so that a corresponding ultrasonic wave massage is performed for thereby massaging a face, and when the ultrasonic wave key is inputted two times, a massage portion, operation time and cosmetics which will be used, are displayed, so that a corresponding ultrasonic wave massage is performed for thereby massaging a body portion.

Patentansprüche

1. Ganzheitliches Hautmanagementsystem (1000) zum umfassenden Managen einer Haut, umfassend:

eine Niederfrequenzwellenvorrichtung (400), die eingerichtet ist zum Ausgeben eines Ladungspulses für eine Hautprüfung und eines Niederfrequenzwellenpulses für eine Niederfrequenzwellenmassage;
eine Ferninfrarotstrahlvorrichtung (300), die eingerichtet ist zum Ausgeben eines Ferninfrarotstrahls durch Be-

reitstellen einer Ferninfrarotstrahllampe, die in der Lage ist, einen Ferninfrarotstrahl ausgzugeben;
eine Niederfrequenzwellenvibrationsvorrichtung (500), die aus einem Vibrationsgerät gebildet ist, zum Durchführen einer Niederfrequenzwellenvibrationsoperation, und ein Vibrationselement, das eingerichtet ist zum Vibrieren, wenn das Vibrationsgerät angetrieben wird basierend auf einer Eingangsspannung, und welches symmetrisch parallel dazu gebildet ist und eingerichtet ist, um als ein Hilfsschalter zu operieren;
eine Entschlackungsvorrichtung (600), die eine Ozonlampe einschließt zum Erzeugen eines Ozons basierend auf Licht und welche in der Lage ist, einen Hochspannungsimpuls zu der Ozonlampe zu transferieren und ein Ozon zu erzeugen basierend auf einem ultravioletten Strahl einer bestimmten Wellenlänge;
eine Ultraschallwellenvorrichtung (700), die ein pieozoelektrisches keramisches Element einschließt zum Erzeugen einer Vibration basierend auf einer Eingangsspannung und die eingerichtet ist zum Ausgeben einer Ultraschallwellenvibration;
eine Hautprüfantriebseinheit (110), die eingerichtet ist zum Ausgeben eines Ladungspulses für einen Referenzwiderstandswert durch die Niederfrequenzwellenvorrichtung (400) zum Erhalten eines Referenzwiderstandswerts und Hautwiderstandswerts, welche eine Basis sind zum Bestimmen des Typs von Haut;
eine Niederfrequenzwellenantriebseinheit (120), die verbunden ist mit einer Steuereinheit (10) durch einen Verbindungsanschluss und welche einen Ausgangsanschluss aufweist, der verbunden ist mit der Niederfrequenzwellenvorrichtung (400), um **dadurch** eine Nennleistung zu der Niederfrequenzwellenvorrichtung (400) zu liefern;
eine Ferninfrarotstrahlantriebseinheit (130), die verbunden ist mit der Steuereinheit (10) durch einen Verbindungsanschluss und die verbunden ist mit der Ferninfrarotstrahlvorrichtung (300), um **dadurch** eine Nennleistung zu der Ferninfrarotstrahlvorrichtung (300) zu liefern;
eine Niederfrequenzwellenvibrationsantriebseinheit (140), die verbunden ist mit der Steuereinheit (10) durch einen Verbindungsanschluss und die verbunden ist mit der Niederfrequenzwellenvibrationsvorrichtung (400), um **dadurch** eine Nennleistung zu der Vorrichtung (500) zu liefern;
eine Ozonantriebseinheit (150), die verbunden ist mit der Steuereinheit (10) durch einen Verbindungsanschluss und die einen Ausgangsanschluss aufweist, der verbunden ist mit der Entschlackungsvorrichtung (600), um **dadurch** eine Nennleistung zu empfangen, und einen Hochspannungsimpuls zum Erzeugen eines Ozons an die Entschlackungsvorrichtung (600) liefert;
eine Ultraschallwellenantriebseinheit (160), die verbunden ist mit der Steuereinheit (10) durch einen externen Verbindungsanschluss und die einen Ausgangsanschluss aufweist, der verbunden ist mit der Ultraschallwellenvorrichtung (700), um **dadurch** eine Nennleistung an die Ultraschallwellenvorrichtung (700) zu liefern;
eine Tastenbedieneinheit (20), die verschiedene Steuertasten einschließt und die eingerichtet ist zum Empfangen eines Tasteneingangssignals eines Benutzers;
eine Anzeigeeinheit (30), die eingerichtet ist zum Anzeigen einer entsprechenden Operation entsprechend zu einer Tasteneingabe der Tastenbedieneinheit (20);
einen Speicher (60), der eingerichtet ist zum Speichern eines Programms und von Daten für ein ganzheitliches Hautmanagement;
eine Steuereinheit (10), die gebildet ist aus einem Mikroprozessorchip, der eine Mehrzahl von Eingangs-/Ausgangsanschlüssen aufweist und der eingerichtet ist zum Durchführen einer Steueroperation in Reaktion auf eine Tasteneingabe von der Tastenbedieneinheit (20) und der eingerichtet ist zum Anzeigen einer Tasteneingabe und eines Zustands und Operation des Systems (1000) basierend auf der Tasteneingabe auf der Anzeigeeinheit (30) und der eingerichtet ist zum umfassenden Steuern des Systems (1000); und
eine Leistungsversorgungseinheit (900), die eingerichtet ist zum Empfangen einer Wechselstromleistung und die eingerichtet ist zum Liefern eines Nenngleichstroms an das System (1000) und die eingerichtet ist zum Liefern einer Nenngleichstromleistung zum Antreiben jedes Elements in Übereinstimmung mit einer Steuerung der Steuereinheit (10).

2. System nach Anspruch 1, wobei die Tastenbedieneinheit (20) eine Hautprüftaste (201), Ferninfrarotstrahltaste (203), Entschlackungstaste (205), Niederfrequenzwellen-(-)-Taste (207), Niederfrequenzwellen-(±)-Taste (209), Niederfrequenzwellen-(+)-Taste (211), Niederfrequenzwellenvibrationstaste (213), Starttaste (215), Ultraschallwellentaste (217), Automatiktaste (219), Fuzzy-Taste (221), Zeitanpassungstaste (225) und einstweilige Stopp-/Abbruchtaste (227) einschließt.

3. System nach Anspruch 1, wobei die Anzeigeeinheit (30) ein LCD-Feld einschließt, das gebildet ist aus einer Automatik-/Manuell-/Fuzzy-Mode-Anzeigeeinheit, S1/S2/S3-Grobauswahlanzeigeeinheit basierend auf einem Hauttyp, Hautprüfwertanzeigeeinheit, Verbleibende-Zeit-Anzeigeeinheit, Schwach-/Mittel-/Stark-Bedienintensitätsgraphanzeigeeinheit, Hautprüfungsergebnisgraphanzeigeeinheit, Kosmetikanzeigeeinheit, Standby-Betriebs-Mode-Anzeigeeinheit, Ultraschallwellenmassage-in-Betrieb-Anzeigeeinheit, Ultraschallwellenmassageteilauswahlanzeigeein-

heit und Vorrichtung-verwendet-Anzeigeeinheit.

4. System nach Anspruch 1, worin die Niederfrequenzwellenantriebseinheit (120) eine Mehrzahl von Operationen einschließt, die in der Lage sind, eine Niederfrequenzwelle (-), Niederfrequenzwelle (±) und Niederfrequenzwelle (+) auszugeben jeweils an die Niederfrequenzwellenvorrichtung in Übereinstimmung mit einer Steuerung der Steuereinheit mit Bezug auf eine Tasteneingabe von der Tastenbedieneinheit.

5. System nach Anspruch 1, worin die Steuereinheit (10) eingerichtet ist zum Berechnen eines Referenzwiderstandswerts der Niederfrequenzwellenvorrichtung (400) und eines Hautwiderstandswerts basierend auf der Menge von Feuchtigkeit in einem Zustand, bei dem ein Pol der Niederfrequenzwellenvorrichtung (400) verbunden ist mit der Haut, und zum Klassifizieren des Typs von Haut in neun Klassen, die gebildet sind aus einem Trockentyp (niedrig, mittel, hoch), Neutraltyp (niedrig, mittel, hoch) und öligen Typ (niedrig, mittel, hoch).

6. System nach Anspruch 1, worin die Ferninfrarotstrahlvorrichtung (300) weiterhin einen Massageaufsatz einschließt, der einen digitalen Kompressionsvorsprung aufweist, um **dadurch** einen digitalen Kompressionseffekt mit Bezug auf die Haut zu implementieren.

7. System nach Anspruch 1, weiter umfassend:

eine Alarmierungseinheit (40), die eingerichtet ist zum Ausgeben eines Alarmierungsgeräusches, wenn eine entsprechende Operation geändert wird oder eine bestimmte Operation des Systems (1000) beendet ist.

8. System nach Anspruch 1, weiter umfassend:

einen Timer (50), der in der Lage ist, eine Operationszeit einer entsprechenden Operation zu zählen.

9. Ganzheitliches Hautmanagementsystem zum Erzielen einer schönen Haut unter Verwendung eines ganzheitliches Hautmanagementsystems (1000) gemäß irgendeinem der Ansprüche 1 bis 8, umfassend:

einen Hautzustandsprüfschritt, in dem ein Gesicht sauber gewaschen wird, Wasser von dem Gesicht weggewischt wird, eine Hautprüftaste gedrückt wird, der Typ der Haut klassifiziert wird in einen trockenen Typ, neutralen Typ, öligen Typ unter Verwendung der Niederfrequenzwellenvorrichtung (400) und Daten erhalten werden zum Setzen einer Operationszeit und Operationsintensität und eines funktionsbasierten Verlaufs für jeden Modus;
einen Hautreinigungsschritt, in dem eine Massagecreme gleichmäßig auf gebracht wird über das Gesicht, eine Ferninfrarottaste (203) gedrückt wird, eine Operationszeit und Operationsintensität angepasst werden basierend auf dem Hauttyp, die Massage sanft durchgeführt wird von einem inneren Teil zu einem äußeren Teil, wobei ein Kreis gebildet wird, und wenn eine ausgewählte Operationszeit verstrichen ist und ein Alarmierungsgeräusch ausgegeben wird, wird die Creme abgewischt, und dann wird die Massagecreme wiederum gleichmäßig über das Gesicht aufgebracht, die Entschlackungstaste (205) wird gedrückt, die Operationszeit und Operationsintensität werden angepasst basierend auf dem Hauttyp, die Massage wird sanft durchgeführt von einem inneren Teil zu einem äußeren Teil, wobei ein Kreis gebildet wird, und wenn eine ausgewählte Zeit verstrichen ist und ein Alarmierungsgeräusch ausgegeben wird, wird die Creme weggewischt unter Verwendung eines wässrigen Handtuchs, und dann wird die Massagecreme wiederum gleichmäßig aufgebracht über einen Gesamtteil des Gesichts, die Niederfrequenzwellentaste (207) wird gedrückt, die Operationszeit und Operationsintensität werden angepasst basierend auf dem Typ der Haut, die Massage wird durchgeführt von einem unteren Teil zu einem oberen Teil und von einem inneren Teil zu einem äußeren Teil entlang eines Hautmusters, und wenn die Operationszeit verstrichen ist und
ein Alarmierungssignal ausgegeben ist, wird die Creme weggewischt unter Verwendung eines Dampfhandtuchs;
einen Hautschönheitsschritt, in dem eine Gelcreme gleichmäßig über das Gesicht aufgebracht wird, eine Niederfrequenzwellen-(±)-Taste (209) gedrückt wird, eine Operationszeit und Operationsintensität angepasst werden basierend auf dem Typ der Haut, die Massage von einem unteren Teil zu einem oberen Teil und von einem inneren Teil zu einem äußeren Teil entlang eines Hautmusters durchgeführt wird und, wenn die Operationszeit verstrichen ist und ein Alarmierungsgeräusch ausgegeben wird, die Creme unter Verwendung eines wässrigen Handtuchs weggewischt wird;
einen Hautschönheitsnahrungsversorgungsschritt, in dem eine Nahrungscreme gleichmäßig über das Gesicht aufgebracht wird, eine Niederfrequenzwellen-(+)-Taste (211) gedrückt wird, eine Operationszeit und Operationsintensität angepasst werden basierend auf dem Typ der Haut, die Massage durchgeführt wird von einem unteren Teil zu einem oberen Teil und von einem inneren Teil zu einem äußeren Teil entlang eines Hautmusters

und, wenn die Operationszeit verstrichen ist und ein Alarmierungsgeräusch ausgegeben ist, die Creme unter Verwendung eines Handtuchs weggewischt wird; und
einen Hautspezialmanagementschritt, in dem eine Gelcreme gleichmäßig über das Gesicht aufgebracht wird, eine Niederfrequenzwellenvibrationstaste (213) gedrückt wird, eine Operationszeit und Operationsintensität angepasst werden basierend auf dem Typ der Haut, die Massage durchgeführt wird von einem unteren Teil zu einem oberen Teil und von einem inneren Teil zu einem äußeren Teil entlang eines Hautmusters und, wenn die Operationszeit verstrichen ist und ein Alarmierungsgeräusch ausgegeben wird, die Creme unter Verwendung eines Handtuchs weggewischt wird, das warmes Wasser enthält.

10. Verfahren nach Anspruch 9, worin der Hautspezialmanagementschritt einen Schritt einschließt, in dem ein Ultraschallwellengel gleichmäßig über ein Gesicht aufgebracht wird und die Ultraschallwellentaste (217) gedrückt wird und die Massage durchgeführt wird entlang eines Hautmusters.

11. Verfahren nach Anspruch 9, worin jeder Schritt durchgeführt wird basierend auf dem ausgewählten Modus in Übereinstimmung mit einer Eingabe der Modustaste des Benutzers unter den folgenden Modi:

einem manuellen Auswahlmodus, in dem, sobald eine gewünschte Funktion gedrückt wird, eine entsprechende Funktion gestartet wird ohne Verwendung einer Starttaste zum Durchführen einer Funktion jedes Schrittes;
einem automatischen Modus, in dem, wenn der Typ der Haut in dem Hautzustandsprüfschritt bestimmt ist und ein bestimmter Verlauf bestimmt ist basierend auf dem Typ der Haut, jede Funktion automatisch durchgeführt wird basierend auf dem ausgewählten Verlauf; und
einem Fuzzy-Modus, in dem eine funktionsbasierte Operationszeit und Operationssequenz automatisch durchgeführt werden basierend auf einem gespeicherten Programm basierend auf einem Ergebnis der Haut, die geprüft wurde in dem Hautzustandsprüfschritt.

12. Verfahren nach Anspruch 11, wobei der manuelle Auswahlmodus einschließt:

einen Schritt, in dem, wenn eine externe Eingabe einer Hautprüftaste (201) erkannt wird (601), eine bestimmte Vorrichtung, die für eine Hautprüfung verwendet werden wird, angezeigt wird (603) auf einem LCD (Flüssigkristallanzeige)-Feld der Anzeigeeinheit (30);
einen Schritt, in dem, wenn ein Benutzer startet, eine Haut zu prüfen (605) unter Verwendung der angezeigten Vorrichtung, Hautprüfdaten empfangen werden von der Vorrichtung, die zum Prüfen der Haut angepasst ist, und ein Ergebnis der Hautprüfung berechnet wird;
einen Schritt, in dem ein Hauttyp, Hautprüfwert und Graph, welche erhalten werden basierend auf einem Ergebnis der Hautprüfung, angezeigt werden (607) bei einem bestimmten Teil des LCD-Feldes der Anzeigeeinheit (30);
einen Schritt, in dem, wenn ein Benutzer eine bestimmte Taste eingibt, darunter die Ferninfrarotstrahltaste (203), Entschlackungstaste (205), Niederfrequenzwellen-(-)-Taste (207), Niederfrequenzwellen-(±)-Taste (209), Niederfrequenzwellenvibrationstaste (213) und Ultraschallwellentaste (217) basierend auf dem Typ der Haut, die Eingabetaste erkannt wird und eine entsprechende Funktion entsprechend zu der Eingabetaste durchgeführt wird (609), so dass der manuelle Modus implementiert ist (611); und einen Schritt, in dem eine entsprechende Funktion ausgeführt wird (613) und die funktionsbasierte Operationszeit, Operationsintensität und die gewählte Vorrichtung und Kosmetik, die benutzt werden wird, angezeigt werden an einem bestimmten Teil des LCD-Feldes der Anzeigeeinheit (30) durch Schriftzeichen oder Graphik.

13. Verfahren nach Anspruch 11, wobei der automatische Modus einschließt:

einen Schritt, in dem, wenn eine externe Eingabe einer Hautprüftaste (201) erkannt wird (701), eine Vorrichtung, die verwendet werden wird für eine Hautprüfung, angezeigt wird (703) auf einer Anzeige eines LCD-Feldes der Anzeigeeinheit (30);
einen Schritt, in dem, wenn ein Benutzer startet, eine Haut zu prüfen (705) unter Verwendung der angezeigten Vorrichtung, Hautprüfdaten empfangen werden von der Vorrichtung, die eine Hautprüfung durchführt, und ein Ergebnis einer Hauptprüfung berechnet wird;
einen Schritt, in dem ein Hauttyp, Hautprüfwert und Graph, die basierend auf einem Ergebnis der Hautprüfung erhalten werden, angezeigt werden (707) an einem bestimmten Teil des LCD-Feldes der Anzeigeeinheit (30);
einen Schritt, in dem, wenn eine Automatiktasteneingabe des Benutzers erkannt wird (709), der automatische Modus aktiviert wird (711) und die Anzahl der Automatiktasteneingaben des Benutzers erkannt wird;
einen Schritt, in dem, wenn die Automatiktaste einmal eingegeben wird, ein funktionsbasierter Verlauf entspre-

chend zu einer trockenen Haut automatisch bestimmt wird und, wenn die Automatiktaste zweimal eingegeben wird, ein funktionsbasierter Verlauf entsprechend zu einer neutralen Haut automatisch bestimmt wird, und die Automatiktaste dreimal eingegeben wird, ein funktionsbasierter Verlauf entsprechend zu einer öligen Haut automatisch bestimmt wird (713);

einen Schritt, in dem die Vorrichtung und Kosmetik, die verwendet werden (715) für eine Funktion in dem Operationsschritt in Übereinstimmung mit einem automatisch bestimmten funktionsbasierten Verlauf, geflackert werden, um **dadurch** eine Funktion anzuzeigen, die in dem gegenwärtigen Standby-Modus (717) ist; und

einen Schritt, in dem eine Starttasteneingabe erkannt wird (719) und eine Konstruktionseinheit gesteuert wird, um **dadurch** eine entsprechende Funktion auszuführen (721).

14. Verfahren nach Anspruch 11, wobei der Fuzzy-Modus einschließt:

einen Schritt, in dem, wenn eine Eingabe einer Fuzzy-Taste des Benutzers erkannt wird (801), der Fuzzy-Modus aktiviert wird und der Fuzzy-Modus und eine Vorrichtung, die verwendet werden wird für eine Hautprüfung, angezeigt werden (803) auf einem LCD-Feld der Anzeigeeinheit (30) in Übereinstimmung mit einer Eingabe der Fuzzy-Taste des Benuzters;

einen Schritt, in dem, wenn ein Benutzer eine Hautprüfung (805) startet unter Verwendung der angezeigten Vorrichtung, Hautprüfdaten empfangen werden von der Vorrichtung, die die Hautprüfung durchführt, und ein Ergebnis der Hautprüfung berechnet wird;

einen Schritt, in dem ein Hauttyp, Hautprüfwert und Graph, die erhalten werden basierend auf einem Ergebnis der Hautprüfung, angezeigt werden (807) bei einem bestimmten Teil des LCD-Feldes der Anzeigeeinheit (30);

einen Schritt, in dem ein funktionsbasierter Verlauf automatisch bestimmt wird (809) basierend auf dem bestimmten Hauttyp und der automatisch bestimmte funktionsbasierte Verlauf sequentiell angezeigt wird und eine funktionsbasierte Operationszeit, Operationsintensität und Vorrichtung und Kosmetik, die verwendet werden, angezeigt werden (811) bei einem bestimmten Teil des LCD-Feldes der Anzeigeeinheit (30) durch Schriftzeichen und Graphik;

einen Schritt, in dem die Vorrichtung und Kosmetik, die verwendet werden werden für eine Funktion in den Operationsschritten, geflackert werden basierend auf dem automatisch bestimmten funktionsbasierten Verlauf, um **dadurch** eine Funktion zu zeigen, die in dem gegenwärtigen Standby-Modus (813) ist; und

einen Schritt, in dem eine Eingabe der Starttaste erkannt wird (815) und eine Konstruktionseinheit gesteuert wird, um **dadurch** eine entsprechende Funktion (817) durchzuführen.

15. Verfahren nach Anspruch 11, wobei jeder Modus einschließt:

einen Schritt, in dem eine Eingabe einer Zeitanpasstaste des Benutzers (225) und Intensitätsanpasstaste (223) erkannt wird, eine Operationszeit und Operationsintensität der gegenwärtig operierenden Funktion angepasst werden;

einen Schritt, in dem, wenn dort eine Eingabe einer Operationsstopp-/abbruchtaste (227) ist, die gegenwärtig operierende Funktion zeitweise gestoppt und abgebrochen wird; und

einen Schritt, in dem die einstweilig gestoppte Funktion erneut gestartet wird in Übereinstimmung mit einer Eingabe der Starttaste (215).

16. Verfahren nach Anspruch 12, weiter umfassend:

einen Schritt, in dem ein Verbindungszustand der Ultraschallwellenvorrichtung erkannt wird (901) und, wenn die Ultraschallwellenvorrichtung verbunden ist als ein Ergebnis der Erkennung, ein Massageteil ausgewählt wird in Übereinstimmung mit der Anzahl von Eingaben einer Ultraschallwellentaste des Benutzers und angezeigt wird (903) bei einem bestimmten Teil des LCD-Feldes der Anzeigeeinheit (30); und

einen Schritt, in dem, wenn die Ultraschallwellentaste einmal eingegeben wird, ein Massageteil, Operationszeit und Kosmetik, die verwendet werden, angezeigt werden (905), so dass eine entsprechende Ultraschallwellenmassage durchgeführt wird, um **dadurch** ein Gesicht zu massieren, und, wenn die Ultraschallwellentaste zweimal eingegeben wird, ein Massageteil, Operationszeit und Kosmetik, die verwendet werden werden, angezeigt werden, so dass eine entsprechende Ultraschallwellenmassage durchgeführt wird, um **dadurch** einen Körperteil zu massieren.

Revendications

1. Système de soin total pour la peau (1000) pour effectuer un soin complet de la peau, comprenant :

un dispositif à ondes basse fréquence (400) qui est conçu pour produire une impulsion de charge pour un contrôle de la peau et une impulsion d'ondes basse fréquence pour un massage par ondes basse fréquence ;
un dispositif à rayonnement infrarouge lointain (300) qui est conçu pour produire un rayon infrarouge lointain grâce à la présence d'une lampe à rayonnement infrarouge lointain qui est capable de produire un rayon infrarouge lointain ;
un dispositif de vibration à ondes basse fréquence (500) qui est formé d'un dispositif de vibration pour effectuer une opération de vibration à ondes basse fréquence, et d'un élément de vibration qui est conçu pour vibrer lorsque le dispositif de vibration est piloté en se basant sur une tension d'entrée ; et est formé de façon symétrique en parallèle et est conçu pour fonctionner comme un bouton auxiliaire
un dispositif de purification (600) qui inclut une lampe à ozone pour générer une ozone basée sur la lumière et est capable de transférer une impulsion haute tension à la lampe à ozone et de générer une ozone basée sur un rayon ultraviolet d'une certaine longueur d'onde ;
un dispositif à ondes ultrasonores (700) qui comprend un élément céramique piézo-électrique pour générer une vibration basée sur une tension d'entrée et qui est conçu pour produire une vibration à ondes ultrasonores ;
une unité de commande de contrôle de la peau (110) qui est conçue pour produire une impulsion de charge pour une valeur de résistance de référence par le biais du dispositif à ondes basse fréquence (400) pour obtenir une valeur de résistance de référence et une valeur de résistance de la peau qui servent de base pour déterminer le type de peau ;
une unité de commande à ondes basse fréquence (120) qui est connectée à une unité de commande (10) par le biais d'une borne de connexion et comprend une borne de sortie connectée au dispositif à ondes basse fréquence (400) pour fournir ainsi une puissance nominale au dispositif à ondes basse fréquence (400) ;
une unité de commande à rayonnement infrarouge lointain (130) qui est connectée à l'unité de commande (10) par le biais d'une borne de connexion et est connectée au dispositif à rayonnement infrarouge lointain (300) pour fournir ainsi une puissance nominale au dispositif à rayonnement infrarouge lointain (300) :
une unité de commande de vibration à ondes basse fréquence (140) qui est connectée à l'unité de commande (10) par le biais d'une borne de connexion et est connectée au dispositif de vibration à ondes basse fréquence (400) pour fournir ainsi une puissance nominale au dispositif (500) ;
une unité de commande d'ozone (150) qui est connectée à l'unité de commande (10) par le biais d'une borne de connexion et a une borne de sortie connectée au dispositif de purification (600) pour recevoir ainsi une puissance nominale et fournir une impulsion haute tension pour générer une ozone vers le dispositif de purification (600) ;
une unité de commande à ondes ultrasonores (160) qui est connectée à l'unité de commande (10) par le biais d'une borne de connexion externe et a une borne de sortie connectée au dispositif à ondes ultrasonores (700) pour fournir ainsi une puissance nominale au dispositif à ondes ultrasonores (700) ;
une unité de fonctionnement de touches (20) qui comprend diverses touches de commande et est conçue pour recevoir un signal d'entrée de touche par l'utilisateur ;
une unité d'affichage (30) qui est conçue pour afficher une opération correspondante correspondant à une entrée de touche de l'unité de fonctionnement de touches (20) ;
une mémoire (60) qui est agencée pour stocker un programme et des données pour un soin total de la peau ;
une unité de commande (10) qui est formée d'un microprocesseur à puce ayant une pluralité de bornes d'entrée/sortie et est conçue pour effectuer une opération de commande en réponse à une entrée de touche à partir de l'unité de fonctionnement de touches (20) et est conçue pour afficher une entrée de touche et un état et un fonctionnement du système (1000) en se basant sur l'entrée de touche sur l'unité d'affichage (30) et est conçue pour contrôler complètement le système (1000) ; et
une unité d'alimentation (900) qui est conçue pour recevoir une alimentation en courant alternatif et est conçue pour fournir un courant direct nominal au système (1000) et est conçue pour fournir une puissance directe nominale pour piloter chaque élément selon une commande de l'unité de commande (10).

2. Système selon la revendication 1, dans lequel ladite unité de fonctionnement de touches (20) comprend une touche de contrôle de la peau (201), une touche de rayonnement infrarouge lointain (203), une touche de purification (205), une touche ondes basse fréquence (-) (207), une touche ondes basse fréquence (±) (209), une touche ondes basse fréquence (+) (211), une touche de vibration à ondes basse fréquence (213) ; une touche de démarrage (215) ; une touche ondes ultrasonores (297) ; une touche automatique (219), une touche floue (221), une touche de réglage de l'heure (225) et une touche d'arrêt/annulation provisoire (227).

3. Système selon la revendication 1, dans lequel ladite unité d'affichage (30) comprend un panneau LCD qui est formé d'une unité d'affichage en mode automatique/manuel/flou, une unité d'affichage de sélection en cours S1/S2/S3 basée sur un type de peau, une unité d'affichage de valeurs de contrôle de la peau, une unité d'affichage du temps restant, une unité d'affichage de graphique d'intensité de fonctionnement faible/intermédiaire/forte, une unité d'affichage de graphique des résultats du contrôle de la peau, une unité d'affichage cosmétique, une unité d'affichage de mode de fonctionnement/veille, une unité d'affichage de massage par ondes ultrasonores en cours, une unité d'affichage de sélection de partie de massage par ondes ultrasonores et une unité d'affichage du dispositif utilisé.

4. Système selon la revendication 1, dans lequel ladite unité de commande d'ondes basse fréquence (120) comprend une pluralité d'opérations capables de produire une onde basse fréquence (-), une onde basse fréquence (±) et une onde basse fréquence (+) vers le dispositif à ondes basse fréquence, respectivement, selon une commande de l'unité de commande par rapport à une entrée de touche de l'unité de fonctionnement de touches.

5. Système selon la revendication 1, dans lequel ladite unité de commande (10) est adaptée pour calculer une valeur de résistance de référence d'un dispositif à ondes basse fréquence (400) et une valeur de résistance de peau déterminée en se basant sur la quantité d'humidité dans une état dans lequel un pôle du dispositif à ondes basse fréquence (400) est en contact avec la peau et classer le type de peau en neuf catégories d'un type sec (faible, intermédiaire, élevé), neutre (faible, intermédiaire, élevé) et gras (faible, intermédiaire, élevé).

6. Système selon la revendication 1, dans lequel ledit dispositif à rayonnement infrarouge (300) comprend en outre un accessoire de massage ayant une saillie de compression digitale pour mettre ainsi en oeuvre un effet de compression digitale par rapport à la peau.

7. Système selon la revendication 1, comprenant en outre :

une unité d'alarme (40) qui est agencée pour produire une alarme sonore lorsqu'une opération correspondante est modifiée ou lorsqu'une certaine opération du système (1000) est terminée.

8. Système selon la revendication 1, comprenant en outre :

une minuterie (50) qui est capable de compter le temps de réalisation d'une opération correspondante.

9. Procédé de soin total de la peau pour obtenir une belle peau utilisant un système de soin total de la peau (1000) selon l'une quelconque des revendications 1 à 8, comprenant :

une étape de contrôle de l'état de la peau dans laquelle le visage est nettoyé avec soin, l'eau est essuyée sur le visage, une touche de contrôle de la peau est enfoncée, le type de la peau est classé en un type sec, un type neutre, un type gras en utilisant le dispositif à ondes basse fréquence (400) et des données sont obtenues pour définir un temps de fonctionnement et une intensité de fonctionnement et le déroulement de chaque mode basé sur les fonctions ;
une étape de nettoyage en profondeur de la peau dans laquelle une crème de massage est appliquée de façon uniforme sur un visage, une touche à rayonnement infrarouge lointain (203) est enfoncée, un temps de fonctionnement et une intensité de fonctionnement sont réglées en se basant sur le type de peau, le massage est effectué en douceur depuis une partie interne vers une partie externe, en formant un cercle, et lorsqu'un temps sélectionné s'est écoulé, et qu'une alarme sonore a retenti, la crème est essuyée, et ensuite la crème de massage est appliquée une nouvelle fois de façon uniforme sur l'ensemble du visage, la touche de purification (205) est enfoncée, le temps de fonctionnement et l'intensité de fonctionnement sont réglés en se basant sur le type de peau, le massage est effectué en douceur d'une partie interne vers une partie externe, en formant un cercle, et lorsqu'un temps sélectionné s'est écoulé, et qu'une alarme sonore a retenti, la crème est essuyée en utilisant une serviette humide, et ensuite la crème de massage est appliquée une nouvelle fois de façon uniforme sur l'ensemble de la face, la touche ondes basse fréquence (207) est enfoncée, le temps de fonctionnement et l'intensité de fonctionnement sont réglés en se basant sur le type de peau, le massage est effectué d'une partie inférieure vers une partie supérieure et d'une partie interne vers une partie externe le long du dessin de la peau, et lorsque le temps de fonctionnement s'est écoulé, et qu'une alarme sonore a retenti, la crème est essuyée en utilisant une serviette imprégnée de vapeur ;
une étape de beauté de la peau dans laquelle un gel crème est uniformément appliqué sur le visage, une touche ondes basse fréquence (±) (209) est enfoncée, un temps de fonctionnement et une intensité de fonctionnement sont ajustées en se basant sur le type de peau, le massage est effectué d'une partie inférieure vers une partie

supérieure et d'une partie interne vers une partie externe le long d'un dessin de peau, et lorsque le temps de fonctionnement s'est écoulé et qu'une alarme sonore a retenti, la crème est essuyée en utilisant une serviette humide ;

une étape de nutrition pour la beauté de la peau dans laquelle une crème nutritive est uniformément appliquée sur le visage, une touche ondes basse fréquence (+) (211) est enfoncée, un temps de fonctionnement et une intensité de fonctionnement sont ajustés en se basant sur le type de peau, le massage est effectuée d'une partie inférieure vers une partie supérieure et d'une partie interne vers une partie externe le long d'un dessin de peau, et lorsque le temps de fonctionnement s'est écoulée et qu'une alarme sonore a retenti, la crème est essuyée à l'aide d'un tissu; et

une étape de soin spécial de la peau dans laquelle un gel crème est uniformément appliqué sur le visage, une touche à vibrations à ondes basse fréquence (213) est enfoncée, un temps de fonctionnement et une intensité de fonctionnement sont réglés en se basant sur le type de peau, le massage est effectué d'une partie inférieure vers une partie supérieure et d'une partie interne vers une partie externe le long d'un dessin de peau, et lorsque le temps de fonctionnement est écoulé et qu'une alarme sonore a retenti, la crème est essuyée en utilisant une serviette imprégnée d'eau chaude.

10. Procédé selon la revendication 9, dans lequel ladite étape de soin spécial de la peau comprend une étape dans laquelle un gel à ondes ultrasonores est appliqué uniformément sur un visage, et la touche d'ondes ultrasonores (217) est enfoncée, et le massage est effectué le long d'un dessin de peau.

11. Procédé selon la revendication 9, dans lequel ladite étape est effectuée en se basant sur le mode sélectionné selon une entrée de la touche de mode par l'utilisateur parmi les modes suivants ;

un mode de sélection manuelle dans lequel dès qu'une fonction souhaitée est pressée sans utiliser une touche de départ pour effectuer une fonction de chaque étape, une fonction correspondante est lancée ;

un mode automatique dans lequel lorsque le type de peau est déterminé dans l'étape de contrôle de l'état de la peau et qu'un certain déroulement est déterminé en se basant sur le type de la peau, chaque fonction est effectuée automatiquement en se basant sur le déroulement choisi ; et

un mode flou dans lequel un temps de fonctionnement et une séquence de fonctionnement basés sur les fonctions sont effectués automatiquement en se basant sur un programme enregistré basé sur un résultat de la peau contrôlée lors de l'étape de contrôle de l'état de la peau.

12. Procédé selon la revendication 11, dans lequel ledit mode de sélection manuelle comprend :

une étape dans laquelle lorsqu'une entrée externe d'une touche de contrôle de la peau (201) est détectée (601), un certain dispositif qui sera utilisé pour un contrôle de la peau est affiché (603) sur un panneau LCD (à cristaux liquides) de l'unité d'affichage (30),

une étape dans laquelle lorsqu'un utilisateur commence à contrôler la peau (605) en utilisant le dispositif affiché, des données de contrôle de la peau sont reçues par le dispositif qui est adapté au contrôle de la peau, et un résultat du contrôle de la peau est calculé ;

une étape dans laquelle un type de peau, une valeur de contrôle de la peau et un graphique qui sont obtenus en se basant sur un résultat du contrôle de la peau sont affichés (607) au niveau d'une certaine partie du panneau LCD de l'unité d'affichage (30),

une étape dans laquelle un utilisateur entre une certaine touche parmi la touche de rayonnement infrarouge lointain (203), la touche de purification (205), la touche ondes basse fréquence (207) (-) ; la touche ondes basse fréquence (±) (209), la touche de vibration ondes basse fréquence (213) et la touche ondes ultrasonores (217), en se basant sur le type de la peau, la touche d'entrée est détectée, et une fonction correspondante correspondant à la touche d'entrée est effectuée (609) de sorte que le mode manuel est mis en oeuvre (611) ; et

une étape dans laquelle une fonction correspondante est effectuée (613) et le temps de fonctionnement basé sur les fonctions, l'intensité de fonctionnement et le dispositif sélectionné et les cosmétiques qui seront utilisés, sont affichés au niveau d'une certaine partie du panneau LCD de l'unité d'affichage (30) sous forme de caractères et graphique.

13. Procédé selon la revendication 11, dans lequel ledit mode automatique comprend :

une étape dans laquelle lorsqu'une entrée externe d'une touche de contrôle de la peau (201) est détectée (701), un dispositif qui sera utilisé pour un contrôle de la peau est affiché (703) sur un écran d'un panneau LCD de l'unité d'affichage (301) ;

une étape dans laquelle un utilisateur commence à contrôler une peau (705) en utilisant le dispositif affiché, des données de contrôle de la peau sont reçues du dispositif qui effectue un contrôle de la peau, et un résultat du contrôle de la peau est calculé ;
une étape dans laquelle un type de peau, une valeur de contrôle de la peau et un graphique obtenus en se basant sur un résultat du contrôle de la peau sont affichés (707) au niveau d'une certaine partie du panneau LCD de l'unité d'affichage (30) ;
une étape dans laquelle lorsqu'une entrée de touche automatique par l'utilisateur est détectée (709), le mode automatique est activé (711) et le nombre d'entrées de touche automatique par l'utilisateur est détecté ;
une étape dans laquelle lorsque la touche automatique est entrée une fois, un déroulement basé sur les fonctions correspondant à une peau sèche est automatiquement désigné, et lorsque la touche automatique est entrée deux fois, un déroulement basé sur les fonctions correspondant à une peau neutre est automatique désigné, et si la touche automatique est entrée trois fois, un déroulement basé sur les fonctions correspondant à une peau grasse est automatiquement désigné (713) ;
une étape dans laquelle le dispositif et les cosmétiques qui seront utilisés (715) pour une fonction dans l'étape de fonctionnement selon un déroulement basé sur les fonctions désigné automatiquement clignotent pour afficher ainsi une fonction qui est dans le mode veille courant (717), et
une étape dans laquelle une entrée de touche de démarrage est détectée (719) et une unité de construction est contrôlée pour effectuer ainsi une fonction correspondante (721).

14. Procédé selon la revendication 1 1, dans lequel ledit mode flou comprend :

une étape dans laquelle lorsqu'une entrée d'une touche floue par un utilisateur est détectée (801), le mode flou est activé, et le mode flou et un dispositif qui seront utilisé pour un contrôle de la peau sont affichés (803) sur un panneau LCD de l'unité d'affichage (30) selon une entrée de la touche flou par l'utilisateur ;
une étape dans laquelle lorsqu'un utilisateur démarre un contrôle de la peau (805) en utilisant le dispositif affiché, des données de contrôle de la peau sont reçues par le dispositif qui effectue le contrôle de la peau, et un résultat du contrôle de la peau est calculé ;
une étape dans laquelle un type de peau, une valeur de contrôle de la peau et un graphique obtenus en se basant sur un résultat du contrôle de la peau sont affichés (807) au niveau d'une certaine partie du panneau LCD de l'unité d'affichage (30) ;
une étape dans laquelle un déroulement basé sur les fonctions est désigné automatiquement (809) en se basant sur le type de peau déterminé, et les déroulements basés sur les fonctions désignés automatiquement sont affichés en séquence, et le temps de fonctionnement basé sur les fonctions, l'intensité de fonctionnement et le dispositif et les cosmétiques qui seront utilisés, sont affichés (811) au niveau d'une certaine partie du panneau LCD de l'unité d'affichage (30) sous formes de caractères et graphique ;
une étape dans laquelle le dispositif et les cosmétiques qui seront utilisés pour une fonction dans l'étape de fonctionnement clignotent en se basant sur le déroulement basé sur les fonctions désigné automatiquement pour afficher ainsi une fonction qui est dans le mode veille courant (813), et
une étape dans laquelle une entrée de la touche de démarrage est détectée (815) et une unité de construction est contrôlée pour effectuer ainsi une fonction correspondante (817).

15. Procédé selon la revendication 11, dans lequel ledit mode comprend :

une étape dans laquelle une entrée par un utilisateur d'une touche de réglage de temps (225) et une touche de réglage d'intensité (223) est détectée, un temps de fonctionnement et une intensité de fonctionnement de la fonction d'utilisation du courant sont réglés ;
une étape dans laquelle lorsqu'il existe une entrée d'une touche d'arrêt/annulation provisoire (227), la fonction d'utilisation du courant est provisoirement arrêtée et annulée ; et
une étape dans laquelle la fonction arrêtée provisoirement est redémarrée selon une entrée de la touche de démarrage (215).

16. Procédé selon la revendication 12, comprenant en outre :

une étape dans laquelle un état de connexion du dispositif à ondes ultrasonores est détecté (901) et lorsque le dispositif à ondes ultrasonores est connecté suite à la détection, une partie de massage est sélectionnée selon le nombre d'entrées par un utilisateur d'une touche ondes ultrasonores et est affichée (903) au niveau d'une certaine partie du panneau LCD de l'unité d'affichage (30) ; et
une étape dans laquelle lorsque la touche ondes ultrasonores est entrée une fois, une partie de massage, un

temps de fonctionnement et des cosmétiques qui seront utilisés, sont affichés (905), de sorte qu'un massage par ondes ultrasonores correspondant est effectué pour masser ainsi un visage, et lorsque la touche ondes ultrasonores est entrée deux fois, une partie de massage, un temps de fonctionnement et les cosmétiques qui seront utilisés, sont affichés, de sorte qu'un massage par ondes ultrasonores correspondant soit effectué pour masser ainsi une partie du corps.

FIG.1

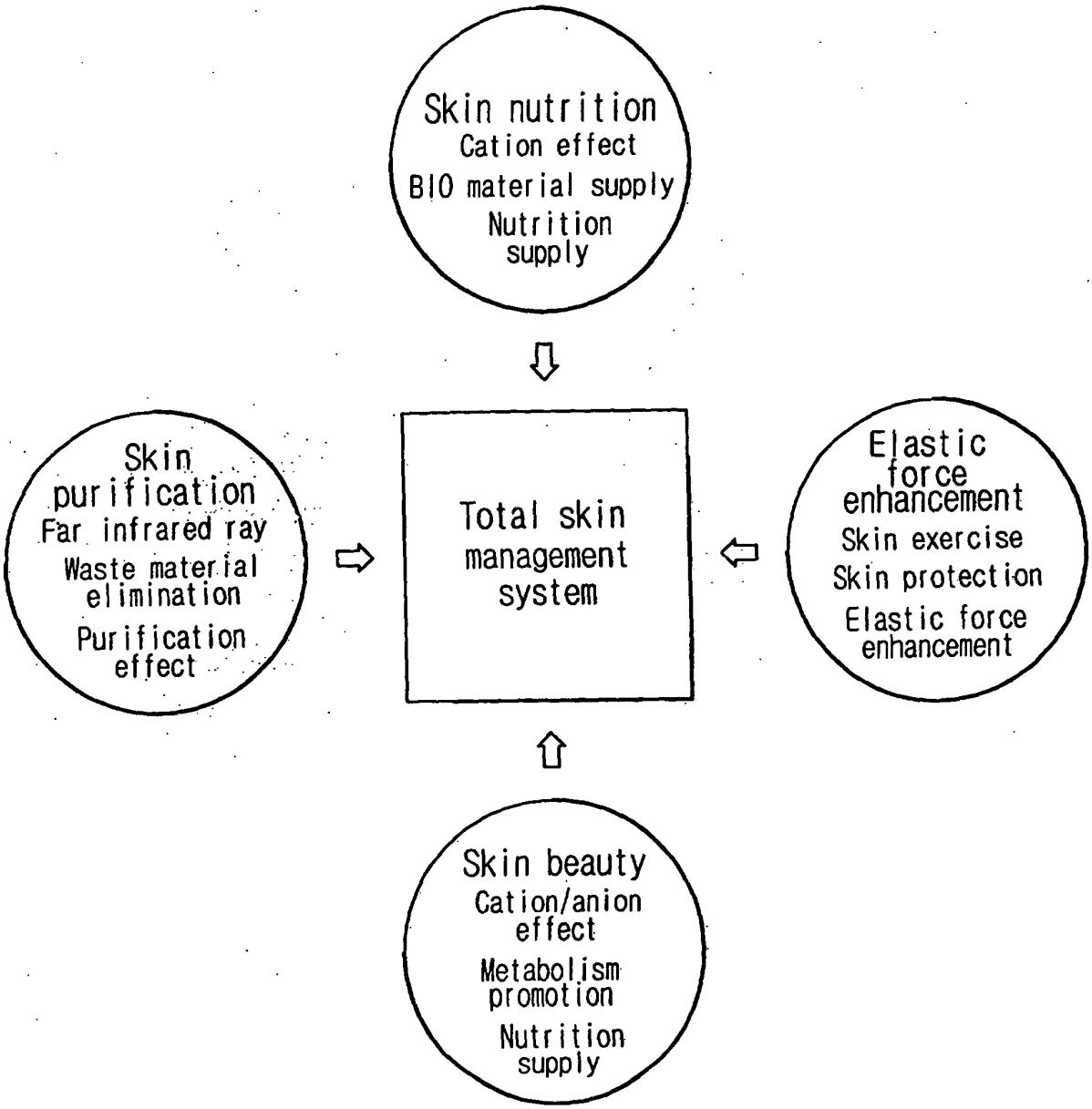

Skin nutrition
Cation effect
BIO material supply
Nutrition supply
Skin purification
Far infrared ray
Waste material elimination
Purification effect
Total skin management system
Elastic force enhancement
Skin exercise
Skin protection
Elastic force enhancement
Skin beauty
Cation/anion effect
Metabolism promotion
Nutrition supply

FIG.2

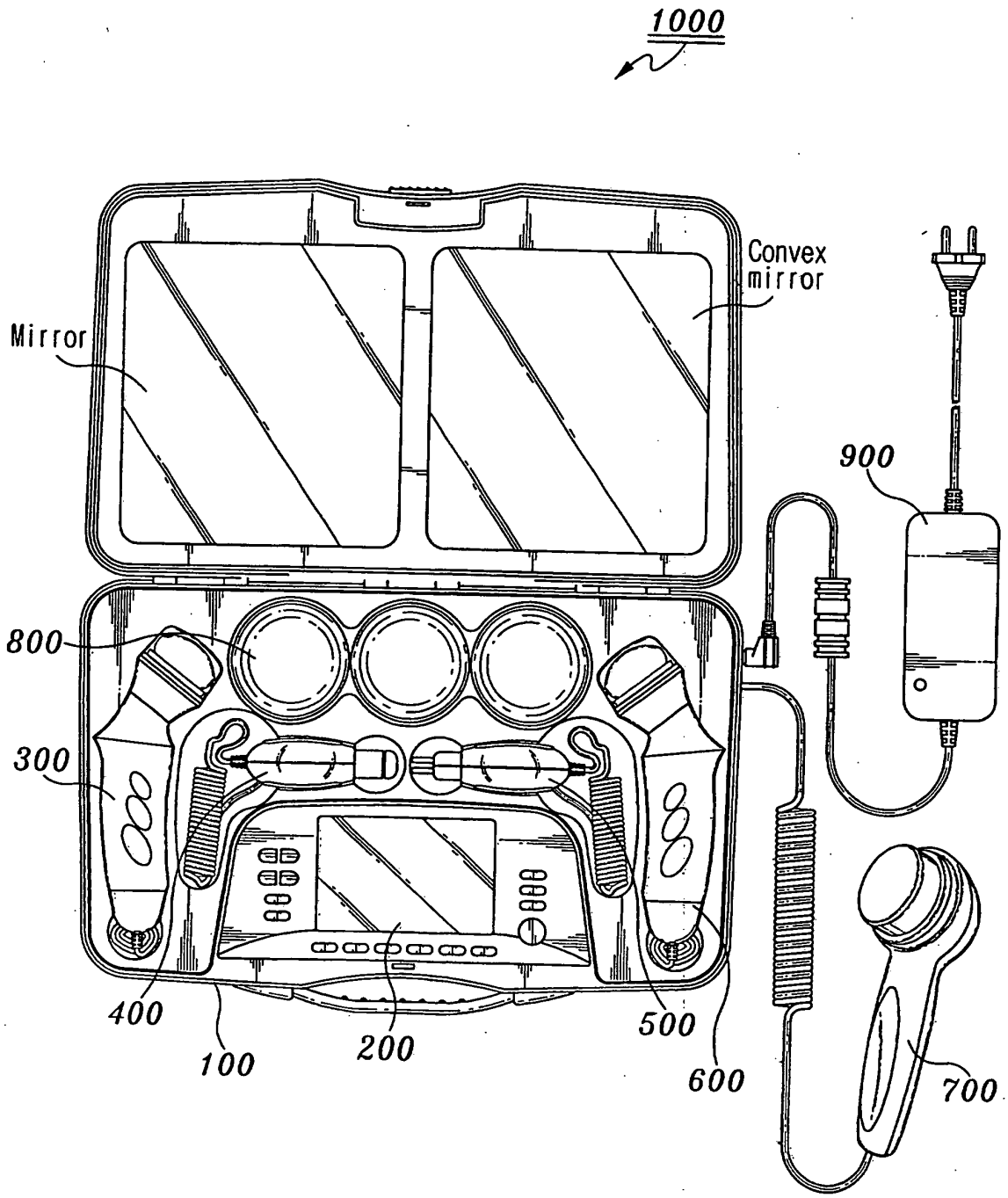


FIG.3

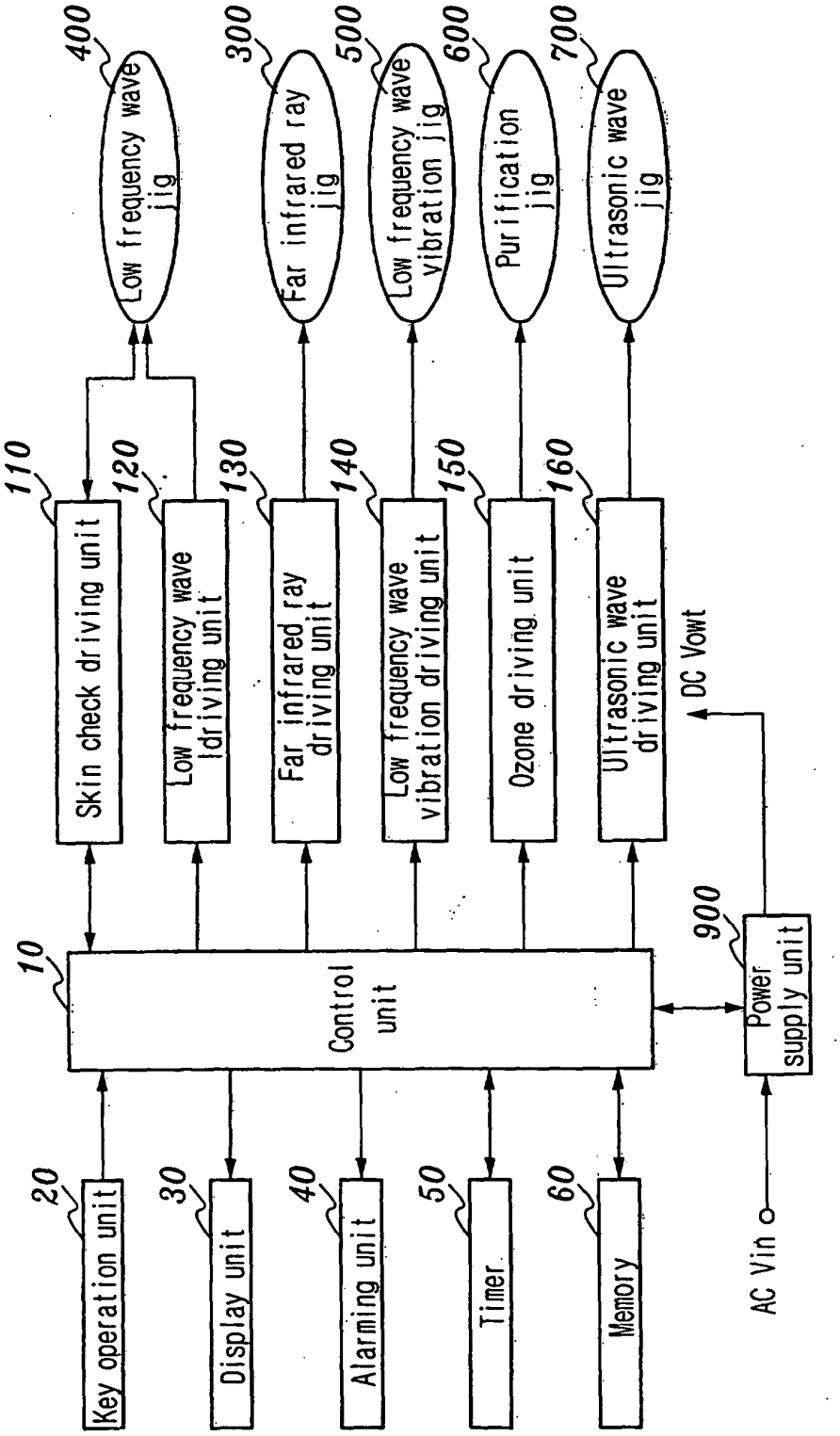

400
Low frequency wave jig
300
Far infrared ray jig
500
Low frequency wave vibration jig
600
Purification jig
700
Ultrasonic wave jig
110
Skin check driving unit
120
Low frequency wave driving unit
130
Far infrared ray driving unit
140
Low frequency wave vibration driving unit
150
Ozone driving unit
160
Ultrasonic wave driving unit
DC Vout
10
Control unit
900
Power supply unit
20
Key operation unit
30
Display unit
40
Alarming unit
50
Timer
60
Memory
AC Vin

FIG.4a

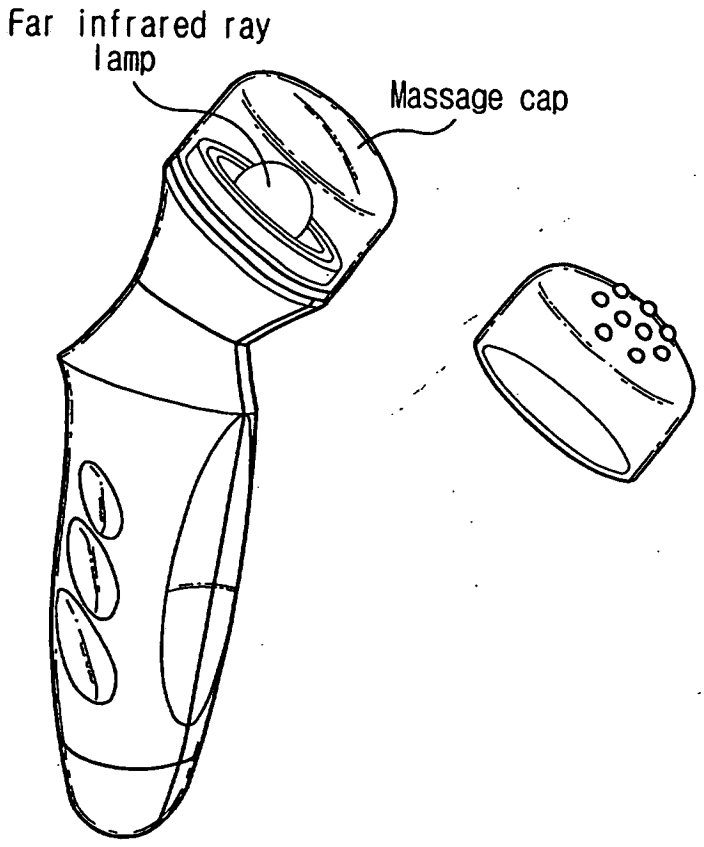
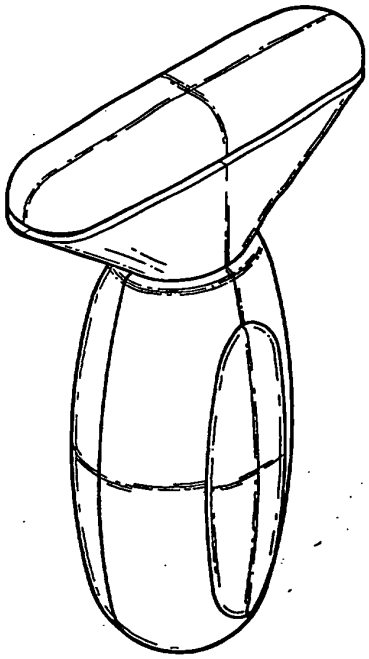
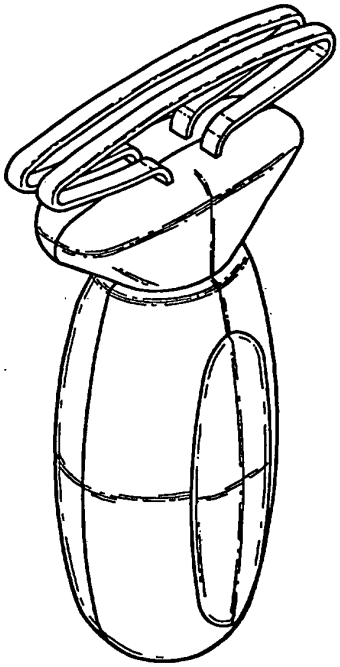


FIG.4b



400

FIG.4c



500

FIG.4d

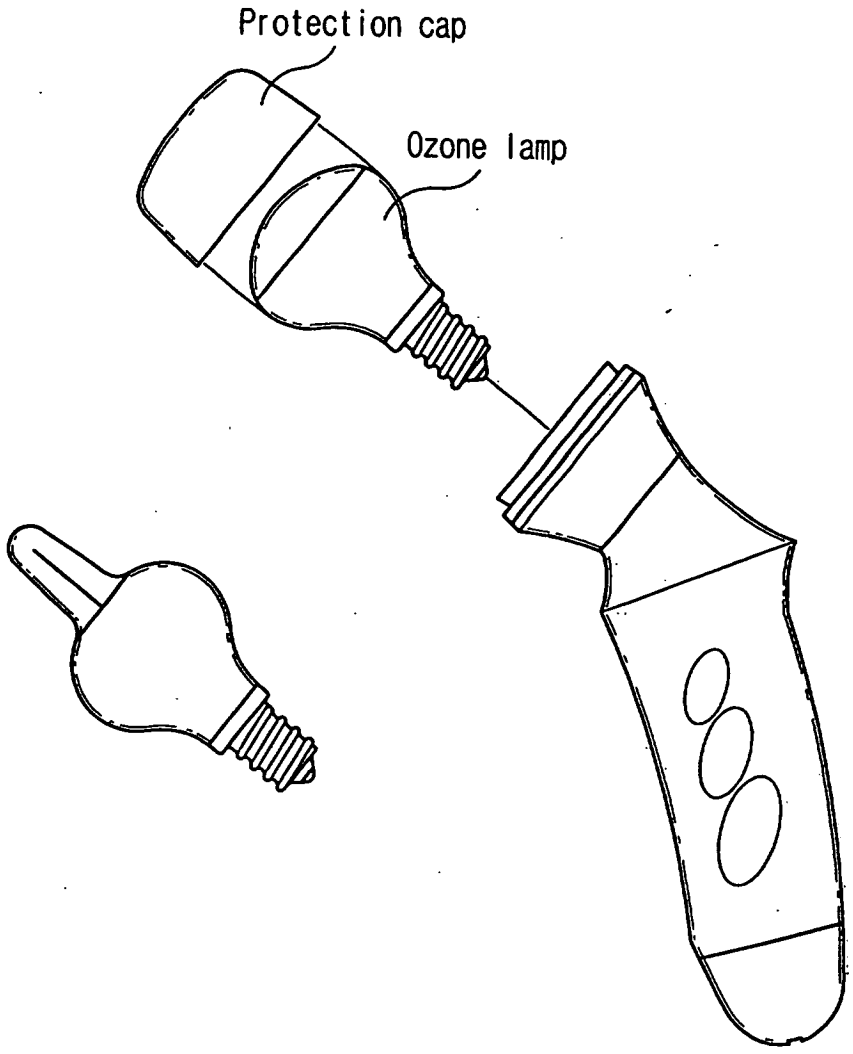
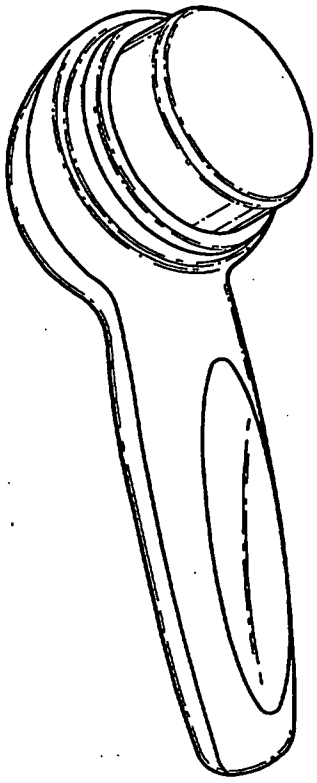


FIG.4e



700

FIG.5

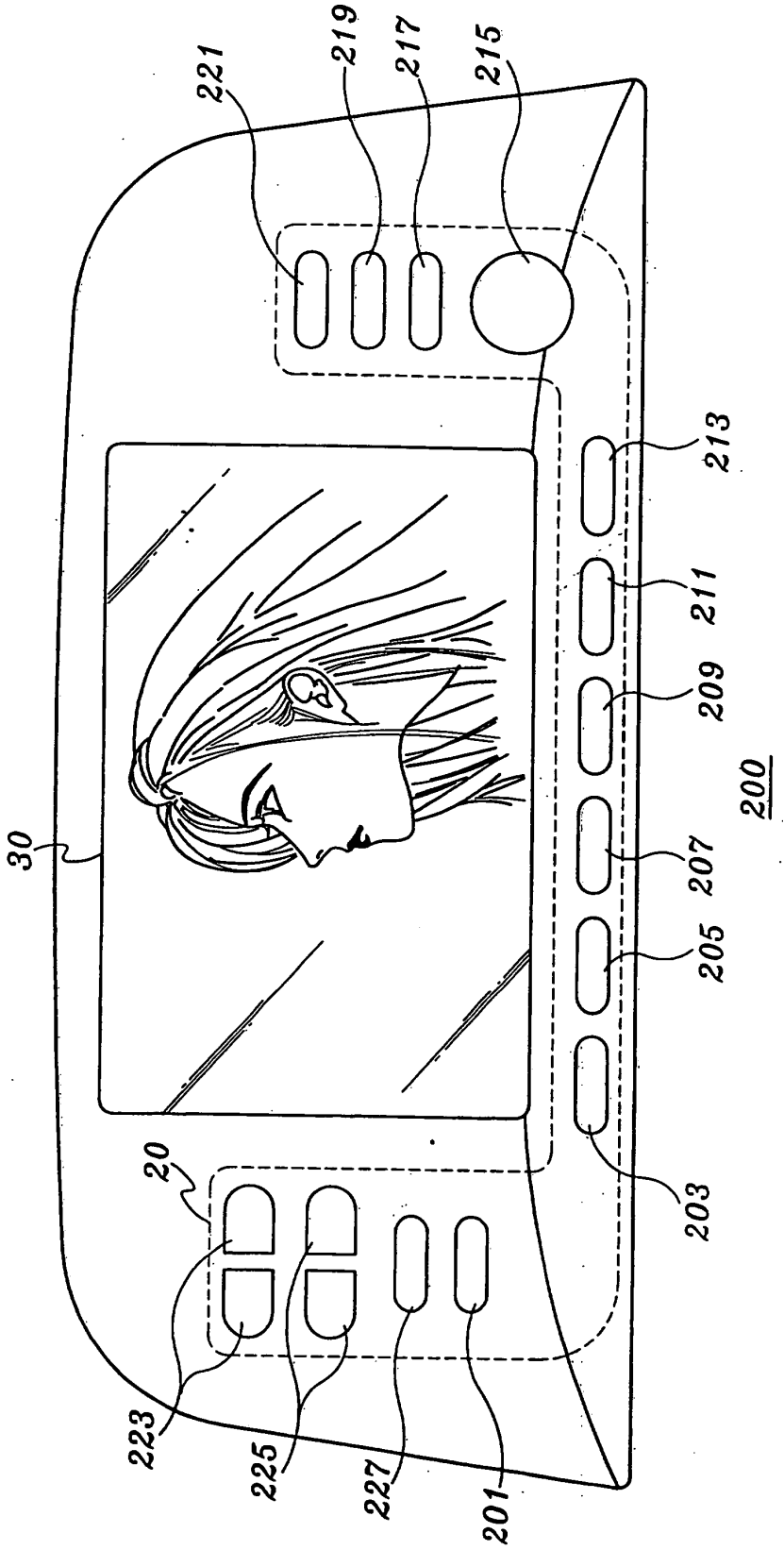


FIG.6

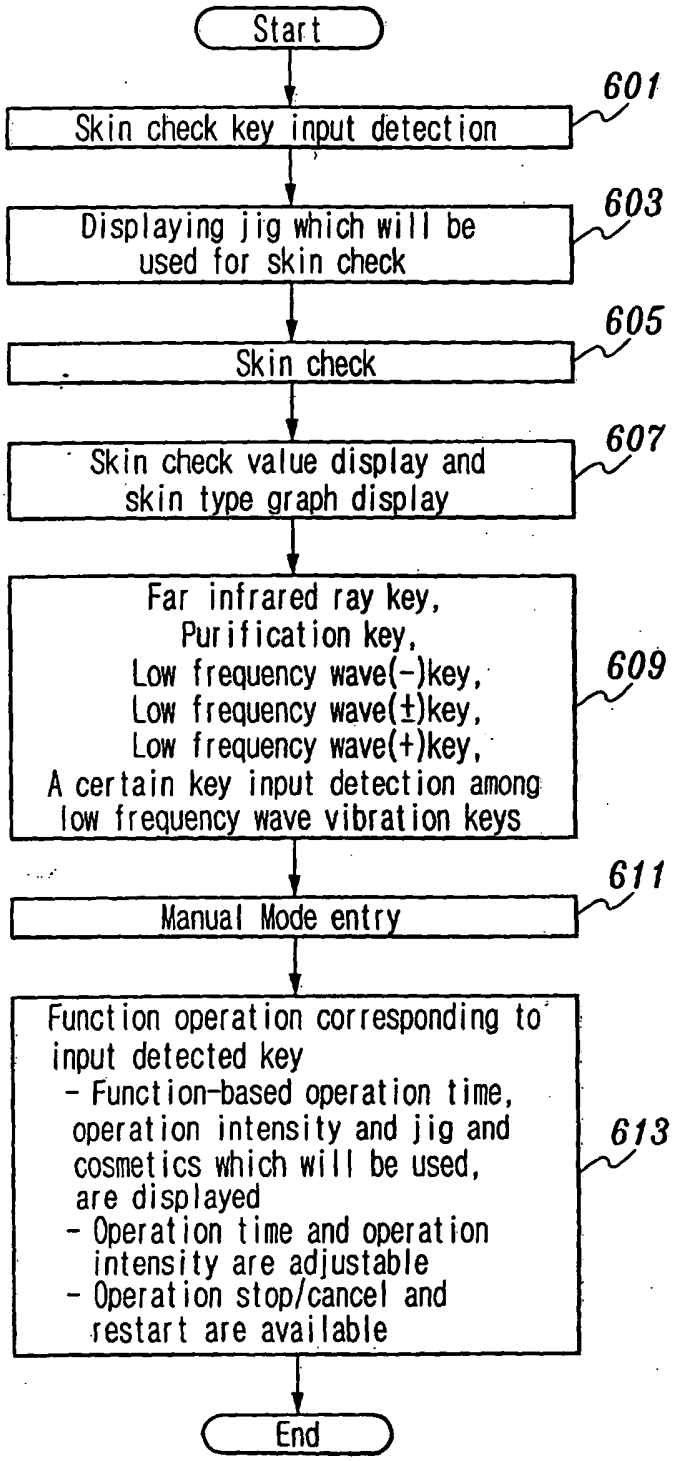

Start
601
Skin check key input detection
603
Displaying jig which will be used for skin check
605
Skin check
607
Skin check value display and skin type graph display
609
Far infrared ray key,
Purification key,
Low frequency wave(-)key,
Low frequency wave(±)key,
Low frequency wave(+)key,
A certain key input detection among low frequency wave vibration keys
611
Manual Mode entry
613
Function operation corresponding to input detected key
- Function-based operation time, operation intensity and jig and cosmetics which will be used, are displayed
- Operation time and operation intensity are adjustable
- Operation stop/cancel and restart are available
End

FIG.7

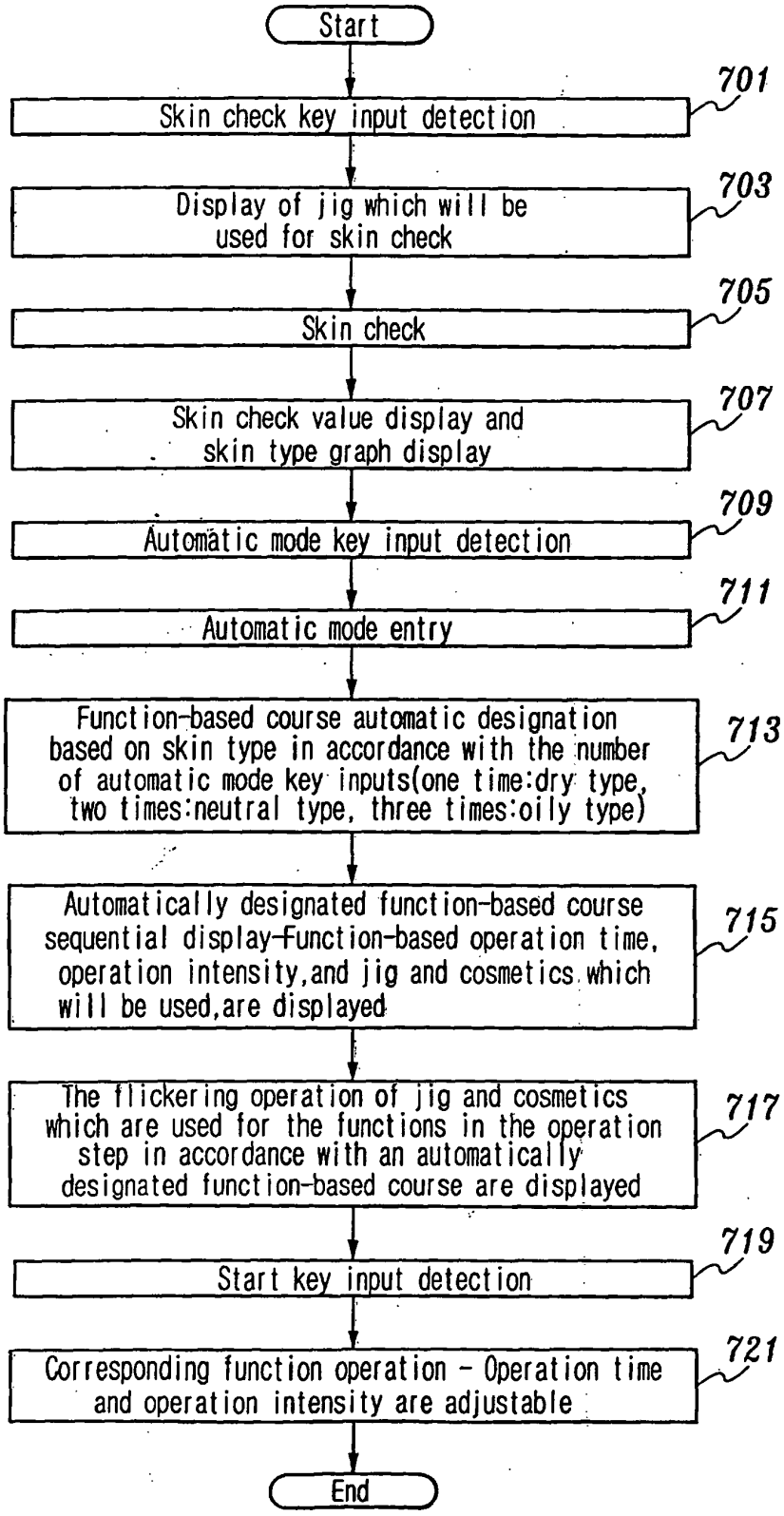

Start
701
Skin check key input detection
703
Display of jig which will be used for skin check
705
Skin check
707
Skin check value display and skin type graph display
709
Automatic mode key input detection
711
Automatic mode entry
713
Function-based course automatic designation based on skin type in accordance with the number of automatic mode key inputs(one time:dry type, two times:neutral type, three times:oily type)
715
Automatically designated function-based course sequential display-Function-based operation time, operation intensity,and jig and cosmetics which will be used,are displayed
717
The flickering operation of jig and cosmetics which are used for the functions in the operation step in accordance with an automatically designated function-based course are displayed
719
Start key input detection
721
Corresponding function operation - Operation time and operation intensity are adjustable
End

FIG.8

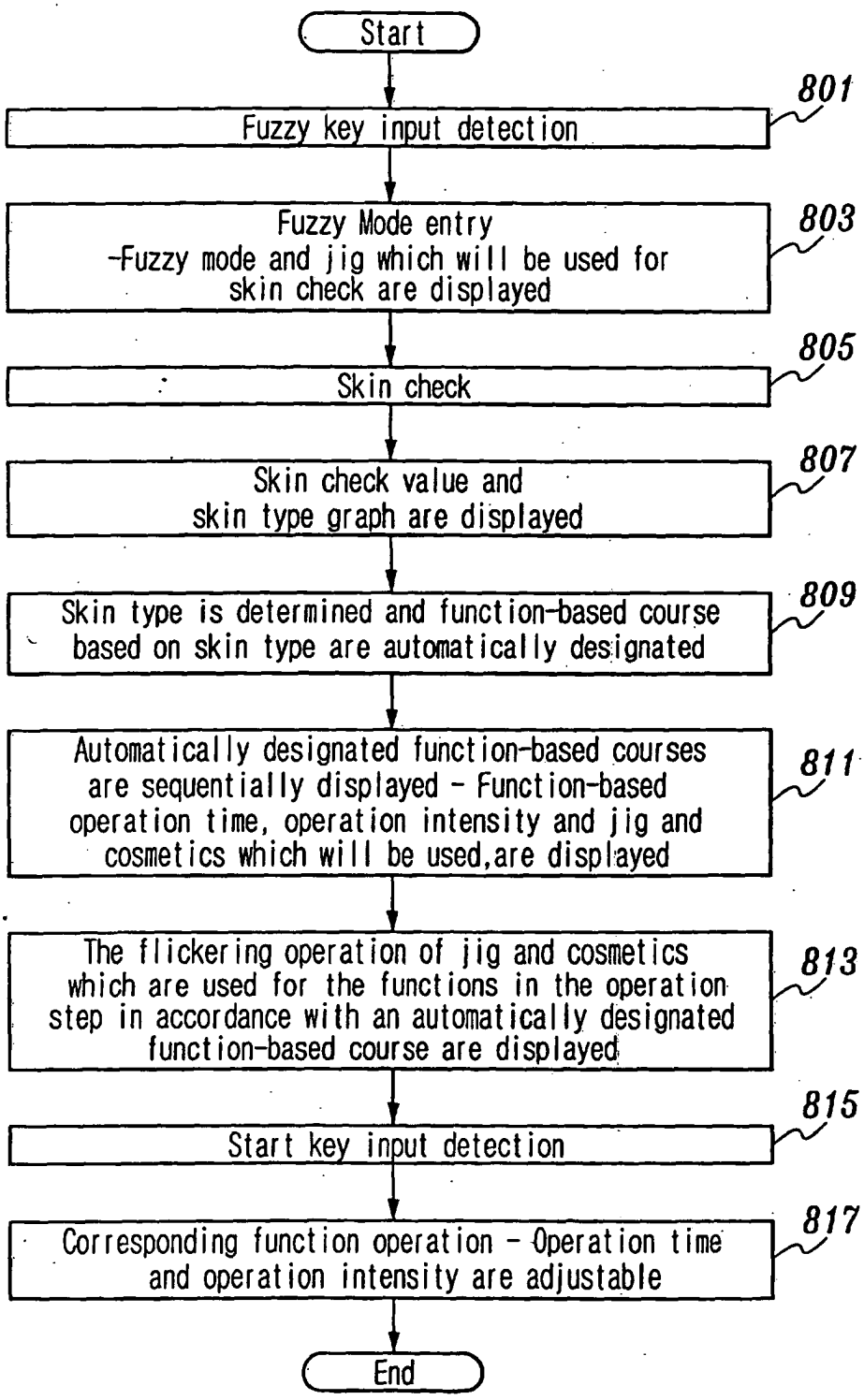
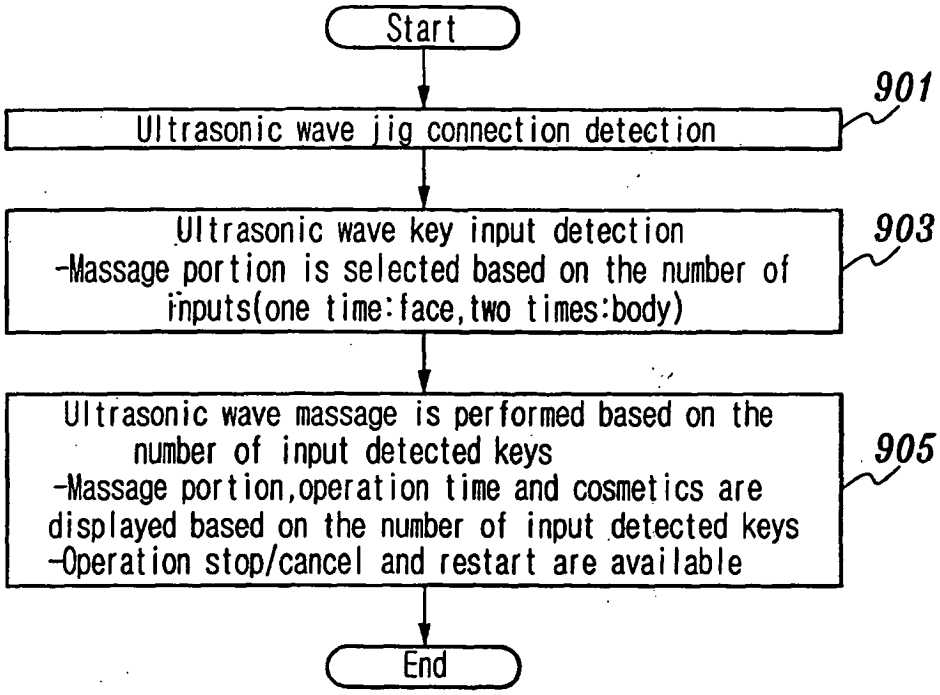

Start
801
Fuzzy key input detection
803
Fuzzy Mode entry
-Fuzzy mode and jig which will be used for skin check are displayed
805
Skin check
807
Skin check value and skin type graph are displayed
809
Skin type is determined and function-based course based on skin type are automatically designated
811
Automatically designated function-based courses are sequentially displayed - Function-based operation time, operation intensity and jig and cosmetics which will be used,are displayed
813
The flickering operation of jig and cosmetics which are used for the functions in the operation step in accordance with an automatically designated function-based course are displayed
815
Start key input detection
817
Corresponding function operation - Operation time and operation intensity are adjustable
End

FIG.9


Start
Ultrasonic wave jig connection detection
901
Ultrasonic wave key input detection
-Massage portion is selected based on the number of inputs(one time:face,two times:body)
903
Ultrasonic wave massage is performed based on the number of input detected keys
-Massage portion,operation time and cosmetics are displayed based on the number of input detected keys
-Operation stop/cancel and restart are available
905
End

专利名称(译)	全皮肤管理系统和使用该系统的方法		
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摘要(译)

皮肤管理系统技术领域本发明涉及一种皮肤管理系统，尤其涉及一种全皮肤管理系统和使用该系统的全皮肤管理方法，其能够检查皮肤状态并基于皮肤类型全面地管理皮肤。此外，本发明涉及一种全皮肤管理系统和使用该系统的全皮肤管理方法，其能够通过集成和控制皮肤检查的功能来检查皮肤的状态并将皮肤分类成多种类型。红外线按摩，臭氧按摩，低频按摩，低频振动按摩和超声波按摩，通过对应皮肤结构的一定皮肤运动，全面管理皮肤清洁，皮肤管理，皮肤营养和皮肤弹力增加的功能。基于皮肤细胞活动和新陈代谢，适当组合红外线按摩，臭氧按摩，低频波按摩，低频振动按摩和基于检查皮肤类型的超声波按摩功能。

FIG.1