CLAIMS

1. A handpiece for skin cosmetic treatment, the handpiece comprising:

an RF electrode cartridge comprising an RF electrode body being brought into contact with skin; and

a handpiece body casing to which the RF electrode cartridge is coupled such that the RF electrode cartridge is capable of being detached from the handpiece body casing, the handpiece body casing being connected to a control body,

wherein the RF electrode cartridge is

the RF electrode cartridge comprising:

a cartridge casing;

an RF electrode body positioned on a first surface of the cartridge casing, the RF electrode body being brought into contact with skin, and the RF electrode body being configured to apply RF energy inside the skin;

the relay mounted in the cartridge casing and electrically connected to the RF electrode body, the relay being configured to control an operation of the RF electrode body; and

a relay first connection terminal part for electrically connecting the relay to a control body,

wherein a cartridge insertion part to which the RF electrode cartridge is inserted and coupled is positioned on a tip end portion of the handpiece body casing,

a cartridge coupling block to which the RF electrode cartridge is coupled so that the cartridge coupling block electrically connects the control body and the RF electrode body to each other is positioned in the cartridge insertion part such that the cartridge coupling block is capable of being moved,

the cartridge coupling block is positioned in a state in which the cartridge coupling block is elastically supported by a spring member for a cartridge,

an electrode on/off switch configured to turn on/off electric power applied to the RF electrode body is positioned on an upper surface of a cartridge casing,

the electrode on/off switch comprises a switch button elastically supported by a switch spring, and has a structure in which the electric power applied to the RF electrode body is turned on only when the switch button is in a state in which the switch button is pressed and pushed, and the electric power is turned off when the state in which the switch button is pressed is released, and

a protrusion part for pressing a switch protrudes and is positioned inside the cartridge

insertion part, and the protrusion part is configured to press and push the electrode on/off switch when the cartridge coupling block is pushed and moved inward.

2. The handpiece of claim 1, wherein a switch mounting protrusion part having an upper portion on which the electrode on/off switch is positioned protrudes and is positioned on the upper surface of the cartridge casing, and a protrusion insertion part into which the switch mounting protrusion part is inserted is positioned inside the cartridge insertion part, and

the protrusion part for pressing the switch is positioned in the protrusion insertion part such that the protrusion part for pressing the switch faces an upper surface of the switch mounting protrusion part.

3. The handpiece of claim 1, wherein the RF electrode body comprises:

a plurality of RF electrode members spaced apart from each other and positioned on the first surface of the cartridge casing; and

an electrode insulation member positioned between the plurality of RF electrode members spaced apart from each other, the electrode insulation member insulating the plurality of RF electrode members.

4. The handpiece of claim 3, wherein a height of the electrode insulation member is formed lower than each height of the plurality of RF electrode members.

5. The handpiece of claim 1, wherein an electrode control substrate part on which the relay is mounted is positioned in the cartridge casing, and the electrode control substrate part is electrically connected to the relay first connection terminal part through a wire or a cable.

6. The handpiece of claim 1, wherein the RF electrode body comprises a plurality of RF electrode members spaced apart from each other and positioned on the first surface of the cartridge casing, and the relay is provided in a number corresponding to the number of RF electrode members so that the relay individually controls electric power applied to each of the RF electrode members.

7. The handpiece of claim 1, wherein the cartridge casing comprises:

a first casing part in which the RF electrode body is positioned on a first surface the

first casing part;

a second casing part to which the first casing part is coupled such that the first casing part is capable of being tilted;

a ball joint part connecting the first casing part and the second casing part to each other so that the first casing part is capable of being tilted freely at a 360-degree radius;

a bellows member having a first end portion connected to the first casing part and having a second end portion connected to the second casing part, the bellows member being positioned such that the bellows member surrounds the ball joint part, and the bellows member being provided with a plurality of corrugated parts; and

a bellows supporting frame member positioned at an upper end portion of the bellows member and formed in a frame structure surrounding an inner circumference of the bellows member.

8. The handpiece of claim 7, wherein a plurality of frame fixing pins protrudes on an outer side surface of the bellows supporting frame member, and a plurality of pin insertion parts into which the plurality of frame fixing pins is inserted is provided in the bellows member.

9. The handpiece of claim 1, further comprising a vibration motor unit positioned in the cartridge casing.