CLAIMS

1. An oxygen concentrator which allows the flow rate setting value of the oxygen-enriched gas to be changed by remote control operation, comprising an oxygen concentrator main body provided with a flow rate setting means to separate oxygen in air and supply the oxygen-enriched gas generated at a predetermined flow rate and a remote control device to control the oxygen concentrator main body from a distance,

the oxygen concentrator main body comprising a communication means to transmit and receive the information on the flow rate setting value to and from the remote control device and a control means A to confirm the information and control the flow rate setting,

the remote control device comprising a confirmation button to confirm the flow rate setting value of the oxygen-enriched gas currently supplied by the oxygen concentrator main body, a flow rate setting change button to change the flow rate setting value of the oxygen-enriched gas supplied by the oxygen concentrator main body, a display to indicate the flow rate setting value, and a communication means to transmit and receive the information on the flow rate setting value to and from the oxygen concentrator main body, and the remote control device further comprising a control means B which does not allow the operation of the flow rate setting change button unless the remote control device receives the information on the flow rate setting value of the oxygen-enriched gas supplied by the current oxygen concentrator main body.

2. The oxygen concentrator according to claim 1, wherein the flow rate setting change button of the remote control device is a button to change the flow rate setting value in a stepwise fashion and the control means B is a means to transmit the flow

~~rate setting information after a change of the first stage to the oxygen concentrator~~ main body and to control so that the operation of the flow rate setting change button to change the flow rate to the next stage is not allowed unless the remote control device receives the information on the flow rate setting value of the oxygen-enriched gas supplied by the oxygen concentrator main body after the change.

~~3. The oxygen concentrator according to claim 1 or 2, wherein the oxygen~~ concentrator main body and the remote control device are each provided with individual ID, the remote control device transmitting its ID to the oxygen concentrator main body when the confirmation button is pressed, the oxygen concentrator main body returning the information on the flow rate setting value of the oxygen-enriched gas supplied by the current oxygen concentrator main body if the ID information received and the ID of the oxygen concentrator main body coincide and transmitting an error message if the IDs do not coincide.

4. The oxygen concentrator according to any of claims 1 to 3, wherein the remote control device has a display function to indicate the error message at the display and a buzzer to sound an alarm when an error has occurred in the communication between the remote control device and the oxygen concentrator main body.

5. The oxygen concentrator according to any of claims 1 to 4, wherein the communication means between the remote control device and the oxygen concentrator main body is an infrared data communication means.

6. The oxygen concentrator according to any of claims 1 to 5, wherein the flow rate setting change button of the remote control device is disposed on a surface lower than the housing surface of the remote control device, so that the button surface is located lower than the housing surface.

The invention claimed is:

1. An oxygen concentrator which allows the flow rate setting value of the oxygen-enriched gas to be changed by remote control operation, comprising an oxygen concentrator main body provided with a flow rate setting means to separate oxygen in air and supply the oxygen-enriched gas generated at a predetermined flow rate and a remote control device to control the oxygen concentrator main body from a distance,

the oxygen concentrator main body comprising a communication means to transmit and receive the information on the flow rate setting value to and from the remote control device and a control means A to confirm the information and control the flow rate setting,

the remote control device comprising a confirmation button to confirm the flow rate setting value of the oxygen-enriched gas currently supplied by the oxygen concentrator main body, a flow rate setting change button to change the flow rate setting value of the oxygen-enriched gas supplied by the oxygen concentrator main body, a display to indicate the flow rate setting value, and a communication means to transmit and receive the information on the flow rate setting value to and from the oxygen concentrator main body, and the remote control device further comprising a control means B which does not allow the operation of the flow rate setting change button unless the remote control device receives the information on the flow rate setting value of the oxygen-enriched gas supplied by the current oxygen concentrator main body.

2. The oxygen concentrator according to claim 1, wherein the flow rate setting change button of the remote control device is a button to change the flow rate setting value in a stepwise fashion and the control means B is a means to transmit the flow rate setting information after a change of the first stage to the oxygen concentrator main body and to control so that the operation of the flow rate setting change button to change the flow rate to the next stage is not allowed unless the remote control device receives the information on the flow rate setting value of the oxygen-enriched gas supplied by the oxygen concentrator main body after the change.

3. The oxygen concentrator according to claim 1, wherein the oxygen concentrator main body and the remote control device are each provided with individual ID, the remote control device transmitting its ID to the oxygen concentrator main body when the confirmation button is pressed, the oxygen concentrator main body returning the information on the flow rate setting

value of the oxygen-enriched gas supplied by the current oxygen concentrator main body if the ID information received and the ID of the oxygen concentrator main body coincide and transmitting an error message if the IDs do not coincide.

4. The oxygen concentrator according to claim 1, wherein the remote control device has a display function to indicate the error message at the display and a buzzer to sound an alarm when an error has occurred in the communication between the remote control device and the oxygen concentrator main body.

5. The oxygen concentrator according to claim 1, wherein the communication means between the remote control device and the oxygen concentrator main body is an infrared data communication means.

6. The oxygen concentrator according to claim 1, wherein the flow rate setting change button of the remote control device is disposed on a surface lower than the housing surface of the remote control device, so that the button surface is located lower than the housing surface.