Claims

[Claim 1] An air conditioner comprising:

an air cleaner that includes a charging unit to charge particles in air and a dust collecting unit to collect the particles charged by the charging unit by an electrostatic force;

a filter cleaning device that includes a device body to house a filter for capturing dust in the air in a movable form, a part of the device body forming a supporting part to support the air cleaner; and

an indoor unit body that houses the filter cleaning device and houses the air cleaner by supporting it by the supporting part.

[Claim 2] The air conditioner according to claim 1, further comprising:

a heat exchanger that exchanges heat between the air and a refrigerant, wherein

the supporting part extends from a front surface of the device body toward the heat exchanger and does not have contact with the heat exchanger.

[Claim 3] The air conditioner according to claim 2, wherein

the indoor unit body removably houses the air cleaner,

the air conditioner further comprising:

a restriction unit to restrict a range in which the air cleaner can enter the indoor unit body in a back side of a front-back direction in order to prevent contact between the air cleaner and the heat exchanger.

[Claim 4] The air conditioner according to claim 2, wherein

the indoor unit body removably houses the air cleaner,

the air conditioner further comprising:

a restriction unit to restrict a range in which the air cleaner can move in a horizontal direction of the indoor unit body to be the same as a range in which the filter

can move in the horizontal direction of the indoor unit body.

[Claim 5] The air conditioner according to claim 4, wherein

a size of the air cleaner in the horizontal direction is the same as that of the filter.

[Claim 6] The air conditioner according to claim 1, wherein

the filter cleaning device further includes a dust box that is removably attached to a front surface of the device body and accumulates the dust captured by the filter, and

the indoor unit body houses the air cleaner behind the dust box.

[Claim 7] The air conditioner according to claim 6, wherein

the indoor unit body removably houses the air cleaner, and

an insertion port is provided in the filter cleaning device, and both the air cleaner and the dust box are inserted into the insertion port.

[Claim 8] The air conditioner according to claim 7, wherein

the supporting part is arranged in a range from a left end or a right end of the insertion port to a position deep in the indoor unit body in a back side of a front-back direction.

[Claim 9] The air conditioner according to claim 7 or 8, wherein

the air cleaner is inserted into the insertion port in a direction in which a longitudinal direction of the air cleaner becomes horizontal.

[Claim 10] The air conditioner according to any one of claims 7 to 9, wherein

another part of the device body forms a main receiving part to support the dust box,

the supporting part includes an auxiliary receiving part next to the main receiving part to support the dust box together with the main receiving part, and

upper surfaces of the main receiving part and the auxiliary receiving part form a

wall surface of a lower side of the insertion port.

[Claim 11] The air conditioner according to claim 10, wherein

a ridge line of the upper surface of the main receiving part viewed from a side is the same in shape as that of the upper surface of the auxiliary receiving part.

[Claim 12] The air conditioner according to any one of claims 1 to 11, further comprising:

a power supply unit to apply a voltage to generate the electrostatic force to the dust collecting unit, wherein

the filter cleaning device is arranged on each of left and right sides of the indoor unit body,

the air cleaner is held at either a right end of the filter cleaning device on the left side or a left end of the filter cleaning device on the right side, and

the power supply unit is arranged at a center of the indoor unit body in a horizontal direction.

[Claim 13] The air conditioner according to any one of claims 1 to 11, further comprising:

a power supply unit to apply a voltage to generate the electrostatic force to the dust collecting unit, wherein

the filter cleaning device is arranged on each of left and right sides of the indoor unit body,

the air cleaner is held at a left end of the filter cleaning device on the left side, and

the power supply unit is arranged at a left end of the indoor unit body.

[Claim 14] The air conditioner according to any one of claims 1 to 11, further comprising:

a power supply unit to apply a voltage to generate the electrostatic force to the dust collecting unit, wherein

the filter cleaning device is arranged on each of left and right sides of the indoor unit body,

the air cleaner is held at a right end of the filter cleaning device on the right side, and

the power supply unit is arranged at a right end of the indoor unit body.