CLAIMS

1. A cleaning apparatus comprising an air blower for blowing air to a ceiling transport vehicle for traveling along a travel rail provided on a ceiling side in a clean room to clean the ceiling transport vehicle,

characterized by

a partition for defining closed off space which is closed off from exterior space,

wherein the partition is configured to allow the ceiling transport vehicle to enter the closed off space by traveling, and

wherein the air blower performs a cleaning operation on the ceiling transport vehicle that is stationary in the closed off space.

2. The cleaning apparatus as defined in claim 1, characterized in that

the partition is provided with a fan filter unit which includes a fan for drawing in air in the closed off space and for discharging air to outside the closed off space, and a filter for cleaning the air to be discharged.

3. The cleaning apparatus as defined in claim 2, characterized in that

the partition is provided with an entrance opening through which the ceiling transport vehicle enters the closed off space, and an exit opening through which the ceiling transport vehicle exits the closed off space,

wherein there are provided an entrance opening opening and closing device which can be switched between an open state in which the entrance opening is opened and a closed state in which the entrance opening is closed; an exit opening opening and closing device which can be switched between an open state in which the exit opening is opened and a closed state in which the exit opening is closed; a controller for controlling opening and closing operations of the entrance opening opening and closing device and the exit opening opening and closing device as well as a cleaning operation of the air blower; a dust concentration measuring device for measuring concentration of dust in the closed off space,

wherein after controlling operations of the entrance opening opening and closing device and the exit opening opening and closing device to switch the entrance opening opening and closing device and the exit opening opening and closing device to the closed state with the ceiling transport vehicle stopped in the closed off space, the controller controls an operation of the air blower to cause a cleaning operation of the air blower to be started, and

wherein, after causing a cleaning operation of the air blower to be started, the controller is configured to control operation of the air blower to end the cleaning operation of the air blower when the controller determines, based on measurement information of the dust concentration measuring device, that the concentration of dust in the closed off space has fallen to a set dust concentration.

4. The cleaning apparatus as defined in one of claims 1 - 3, characterized in that

the air blower is configured to include a plurality of nozzles for blowing air such that blow target locations can be changed.

5. The cleaning apparatus as defined in one of claims 1 - 4, characterized in that

a vertically moving device for maintenance is provided that includes a casing which the ceiling transport vehicle traveling on the travel rail can enter, and that includes, within the casing, a vertically moving mechanism for moving the ceiling transport vehicle away toward a floor,

wherein the closed off space is defined by the casing as the partition, and

wherein the air blower is provided within the casing.

CLAIMS

1. A cleaning apparatus for a ceiling transport vehicle comprising an air blower for blowing air to the ceiling transport vehicle for traveling along a travel rail provided on a ceiling side in a clean room to clean the ceiling transport vehicle,

characterized by

a partition for defining closed off space which is closed off from exterior space,

wherein the partition is configured to allow the ceiling transport vehicle to enter the closed off space by traveling,

wherein the air blower performs a cleaning operation on the ceiling transport vehicle that is stationary in the closed off space,

a vertically moving device for maintenance is provided that includes a casing which the ceiling transport vehicle traveling on the travel rail can enter, and that includes, within the casing, a vertically moving mechanism for moving the ceiling transport vehicle away toward a floor,

wherein the closed off space is defined by the casing as the partition, and

wherein the air blower is provided within the casing.

2. The cleaning apparatus as defined in claim 1, characterized in that

the partition is provided with a fan filter unit which includes a fan for drawing in air in the closed off space and for discharging air to outside the closed off space, and a filter for cleaning the air to be discharged.

3. The cleaning apparatus as defined in claim 2, characterized in that

the partition is provided with an entrance opening through which the ceiling transport vehicle enters the closed off space, and an exit opening through which the ceiling transport vehicle exits the closed off space,

wherein there are provided an entrance opening opening and closing device which can be switched between an open state in which the entrance opening is opened and a closed state in which the entrance opening is closed; an exit opening opening and closing device which can be switched between an open state in which the exit opening is opened and a closed state in which the exit opening is closed; a controller for controlling opening and closing operations of the entrance opening opening and closing device and the exit opening opening and closing device as well as a cleaning operation of the air blower; a dust concentration measuring device for measuring concentration of dust in the closed off space,

wherein after controlling operations of the entrance opening opening and closing device and the exit opening opening and closing device to switch the entrance opening opening and closing device and the exit opening opening and closing device to the closed state with the ceiling transport vehicle stopped in the closed off space, the controller controls an operation of the air blower to cause a cleaning operation of the air blower to be started, and

wherein, after causing a cleaning operation of the air blower to be started, the controller is configured to control operation of the air blower to end the cleaning operation of the air blower when the controller determines, based on measurement information of the dust concentration measuring device, that the concentration of dust in the closed off space has fallen to a set dust concentration.

4. The cleaning apparatus as defined in one of claims 1 - 3, characterized in that

the air blower is configured to include a plurality of nozzles for blowing air such that blow target locations can be changed.