may feel an unpleasant sensation.

Technical Solution

[0005]

A first aspect of the present disclosure relates to a blower provided on a side wall and having a wide mode. The blower includes: a casing ~~(11)~~ in which a suction port ~~(14)~~ and a blow-out port ~~(15)~~ are formed; a fan ~~(12)~~ provided in the casing ~~(11)~~; and an airflow adjusting mechanism ~~(20)~~ configured to adjust a blow-out airflow that is a flow of air blown out from the blow-out port ~~(15)~~, by controlling a pair of blades, the pair of blades including a first airflow-direction adjusting blade provided near a back of the blow-out port and a second airflow-direction adjusting blade provided near a front of the blow-out port, wherein when in the wide mode, the blow-out airflow is divided into a first airflow along the first airflow-direction adjusting blade and a second airflow along the second airflow-direction adjusting blade. The blow-out port ~~(15)~~ ~~extends~~and the pair of blades extend in a left-right direction of the blower. A length ~~(L15)~~ of the blow-out port ~~(15)~~ in a width direction perpendicular to an extension direction of the blow-out port ~~(15)~~ is less than or equal to 300 mm. A reference point ~~(P0)~~ is defined as at least one point that is positioned in a range, in a front-back direction, starting at a first point ~~(P1)~~ that is separated by 1000 mm ahead of the blower from the blow-out port ~~(15)~~ and ending at a second point ~~(P2)~~ that is separated by 2000 mm ahead of the blower from the blow-out port ~~(15)~~. A reference height range ~~(R10)~~ is defined as a range, in an up-down direction, starting at the reference point ~~(P0)~~ and ending at a position that is separated by 1600 mm upward from the reference point ~~(P0)~~. Among three ranges obtained by trisecting the reference height range ~~(R10)~~ in the up-down direction, a first range ~~(R11)~~ is defined as a range positioned on an upper side, a second range ~~(R12)~~ is defined as a range positioned on a lower side, and a third range ~~(R13)~~ is defined as a range positioned at a center. Under a test condition that the blower is provided in such a way that a reference position ~~(Q)~~ of the blow-out port ~~(15)~~ is a position that is separated by 2000 mm upward from a floor, the airflow adjusting mechanism ~~(20)~~ adjusts, in the wide mode, the blow-out airflow so that an average airflow speed in the first range ~~(R11)~~

and an average airflow speed in the second range ~~(R12)~~ are approximately equal to each other and so that a ratio of an average airflow speed in the third range ~~(R13)~~ to the average airflow speed in the first range ~~(R11)~~ is less than 1.5.

[0006]

With the ~~first~~above aspect, it is possible to make the difference between the average airflow speed in the first range ~~(R11)~~ and the average airflow speed in the second range ~~(R12)~~ approximately zero. It is possible to make the difference between the average airflow speed in the first range ~~(R11)~~ and the average airflow speed in the third range ~~(R13)~~ less than 0.5 times the average airflow speed in the third range ~~(R13)~~. It is possible to make the difference between the average airflow speed in the second range ~~(R12)~~ and the average airflow speed in the third range ~~(R13)~~ less than approximately 0.5 times the average airflow speed in the third range ~~(R13)~~. In this way, because it is possible to reduce variation in the airflow speed of the blow-out airflow in the reference height range ~~(R10)~~, it is possible to blow the blow-out airflow, in which variation in airflow speed in the up-down direction is reduced, toward the whole body of a user. Thus, it is possible to reduce discomfort due to hitting of the blow-out airflow on a local part of the body.

[0007]

~~A second aspect of the present disclosure is the blower according to the first aspect, in which~~In an embodiment of the first aspect, the airflow adjusting mechanism ~~(20)~~ adjusts, in the wide mode under the test condition, the blow-out airflow so that the average airflow speed in the first range ~~(R11)~~ and the average airflow speed in the second range ~~(R12)~~ are approximately equal to each other and so that the ratio of the average airflow speed in the third range ~~(R13)~~ to the average airflow speed in the first range ~~(R11)~~ is less than 1.1 and greater than or equal to 0.5.

[0008]

With the ~~second aspect~~above embodiment, it is possible to make the difference between the average airflow speed in the first range ~~(R11)~~ and the average airflow speed in the second range ~~(R12)~~ approximately zero. It is possible to make the difference between the average

airflow speed in the first range ~~(R11)~~ and the average airflow speed in the third range ~~(R13)~~ less than 0.1 to 0.5 times the average airflow speed in the third range ~~(R13)~~. It is possible to make the difference between the average airflow speed in the second range ~~(R12)~~ and the average airflow speed in the third range ~~(R13)~~ less than approximately 0.1 to 0.5 times the average airflow speed in the third range ~~(R13)~~. In this way, because it is possible to reduce variation in the airflow speed of the blow-out airflow in the reference height range ~~(R10)~~, it is possible to blow the blow-out airflow, in which variation in airflow speed in the up-down direction is reduced, toward the whole body of a user. Thus, it is possible to reduce discomfort due to hitting of the blow-out airflow on a local part of the body.

[0009]

~~A third aspect of the present disclosure is the blower according to the first or second aspect, in which~~In an embodiment of the first aspect, the airflow adjusting mechanism ~~(20)~~ adjusts, in the wide mode under the test condition, the blow-out airflow so that an average airflow speed in the reference height range ~~(R10)~~ is greater than or equal to 0.5 m/s.

[0010]

With the ~~third aspect~~above embodiment, it is possible to prevent the average airflow speed of the blow-out airflow in the reference height range ~~(R10)~~ from becoming too low. Thus, it is possible to effectively blow the blow-out airflow, in which variation in airflow speed in the up-down direction is reduced, toward the whole body of a user.

[0011]

~~A fourth aspect of the present disclosure is the blower according to any one of the first to third aspects, in which~~In an embodiment of the first aspect, the length ~~(L15)~~ of the blow-out port ~~(15)~~ in the width direction is less than or equal to 150 mm.

[0012]

~~A fifth aspect of the present disclosure is the blower according to the first aspect, in which~~In an embodiment of the first aspect, the airflow adjusting mechanism ~~(20)~~ adjusts, in the wide mode under the test condition, the blow-out airflow so that an airflow-speed distribution condition that the average airflow speed in the first range ~~(R11)~~ and the average airflow speed

in the second range ~~(R12)~~ are approximately equal to each other and that the ratio of the average airflow speed in the third range ~~(R13)~~ to the average airflow speed in the first range ~~(R11)~~ is less than 1.5 is satisfied in a range ~~(R20)~~, in the left-right direction, that is centered at a center position ~~(Qc)~~ of the blow-out port ~~(15)~~ in the left-right direction and that has a length in the left-right direction greater than or equal to 1000 mm.

[0013]

With the ~~fifth aspect~~above embodiment, in the range in the left-right direction of greater than or equal to 1000 mm, it is possible to satisfy an airflow-speed distribution condition that can reduce variation in the airflow speed of the blow-out airflow in the reference height range ~~(R10)~~. Thus, in the range in the left-right direction of greater than or equal to 1000 mm, it is possible to reduce discomfort due to hitting of the blow-out airflow on a local part of the body.

[0014]

~~A sixth aspect of the present disclosure is the blower according to any one of the first to fifth aspects, in which~~In an embodiment of the first aspect, ~~the airflow-adjusting mechanism (20) includes a first airflow-direction adjusting blade (31) provided near a back of the blow-out port (15) and a second airflow-direction adjusting blade (32) provided near a front of the blow-out port (15);~~ the first airflow-direction adjusting blade ~~(31)~~ is configured to spread the blow-out airflow downward in the wide mode; and the second airflow-direction adjusting blade ~~(32)~~ is configured to spread the blow-out airflow upward in the wide mode.

[0015]

With the ~~sixth aspect~~above embodiment, it is possible to spread the blow-out airflow in the up-down direction by using the first airflow-direction adjusting blade ~~(31)~~ and the second airflow-direction adjusting blade ~~(32)~~. Thus, it is possible to reduce variation in the airflow speed of the blow-out airflow in the reference height range ~~(R10)~~, and it is possible to blow the blow-out airflow, in which variation in airflow speed in the up-down direction is reduced, toward the whole body of a user. Thus, it is possible to reduce discomfort due to hitting of the blow-out airflow on a local part of the body.

[0016]

~~A seventh aspect of the present disclosure is the blower according to the sixth aspect, in which~~In an embodiment of the first aspect, the first airflow-direction adjusting blade ~~(31)~~ and the second airflow-direction adjusting blade ~~(32)~~ are configured to divide the blow-out airflow in the up-down direction in the wide mode due to a Coanda effect.

[0017]

With the ~~seventh aspect~~above embodiment, it is possible to guide blow-out airflow downward along the first airflow-direction adjusting blade ~~(31)~~ due to the Coanda effect of the first airflow-direction adjusting blade ~~(31)~~. Moreover, it is possible to guide the blow-out airflow upward along the second airflow-direction adjusting blade ~~(32)~~ due to the Coanda effect of the second airflow-direction adjusting blade ~~(32)~~. By dividing the blow-out airflow in the up-down direction by using these Coanda effects, it is possible to easily spread the blow-out airflow in the up-down direction.

[0018]

~~An eighth aspect of the present disclosure is the blower according to the sixth aspect, in which:~~In an embodiment of the first aspect, the airflow adjusting mechanism ~~(20)~~ includes at least one third airflow-direction adjusting blade ~~(33)~~ provided between the first airflow-direction adjusting blade ~~(31)~~ and the second airflow-direction adjusting blade ~~(32)~~; and the third airflow-direction adjusting blade ~~(33)~~ is configured to divide the blow-out airflow in the up-down direction in the wide mode.

[0019]

With the ~~eighth aspect~~above embodiment, it is easy to spread the blow-out airflow in the up-down direction by separating the blow-out airflow in the up-down direction by using the third airflow-direction adjusting blade ~~(33)~~.

[0020]

~~A ninth aspect of the present disclosure is the blower according to the eighth aspect, in which~~In an embodiment of the first aspect, the second airflow-direction adjusting blade ~~(32)~~ is configured to be continuous with a front edge portion of the blow-out port ~~(15)~~.

[0021]

With the ~~ninth aspect~~above embodiment, by configuring the second airflow-direction adjusting blade ~~(32)~~ to be continuous with the front edge portion of the blow-out port ~~(15)~~, it is possible to smooth the flow of air from the blow-out port ~~(15)~~ toward the second airflow-direction adjusting blade ~~(32)~~. Thus, it is possible to smooth the upward spreading of the blow-out airflow by the second airflow-direction adjusting blade ~~(32)~~.

[0022]

~~A tenth aspect of the present disclosure is the blower according to the eighth or ninth aspect, in which~~In an embodiment of the first aspect, each of the first airflow-direction adjusting blade ~~(31)~~, the second airflow-direction adjusting blade ~~(32)~~, and the third airflow-direction adjusting blade ~~(33)~~ extends in the extension direction of the blow-out port ~~(15)~~ without being divided in the extension direction of the blow-out port ~~(15)~~.

[0023]

With the ~~tenth aspect~~above embodiment, because each of the first airflow-direction adjusting blade ~~(31)~~, the second airflow-direction adjusting blade ~~(32)~~, and the third airflow-direction adjusting blade ~~(33)~~ is not divided in the extension direction of the blow-out port ~~(15)~~, it is possible to avoid leakage of the blow-out airflow from a gap that is formed if the airflow-direction adjusting blade is divided. Thus, it is possible to easily spread the blow-out airflow in the up-down direction by using the first airflow-direction adjusting blade ~~(31)~~, the second airflow-direction adjusting blade ~~(32)~~, and the third airflow-direction adjusting blade ~~(33)~~.

[0024]

~~An eleventh aspect of the present disclosure is the blower according to any one of the first to tenth aspects, in which:~~In an embodiment of the first aspect, the airflow adjusting mechanism ~~(20)~~ includes three or more auxiliary adjusting blades ~~(35)~~ provided at the blow-out port ~~(15)~~ to be arranged in the left-right direction; and each of the three or more auxiliary adjusting blades ~~(35)~~ is configured to divide the blow-out airflow in the left-right direction.

[0025]

With the ~~eleventh aspect~~above embodiment, by dividing the blow-out airflow in the left-right direction, it is possible to spread the blow-out airflow in the left-right direction. Thus, it

is possible to spread, in the left-right direction, the range to which the blow-out airflow, in which variation in airflow speed in the up-down direction is reduced, is blown.

[0026]

A ~~twelfth~~second aspect of the present disclosure relates to an air-conditioning indoor unit. The air-conditioning indoor unit includes the blower according to any one of the first to eleventh aspects; and a heat exchanger ~~(13)~~ accommodated in the casing ~~(11)~~. The heat exchanger ~~(13)~~ is configured to cause air sucked from the suction port ~~(14)~~ and a refrigerant to exchange heat. Air that has passed through the heat exchanger ~~(13)~~ is blown out from the blow-out port ~~(15)~~.

[0027]

With the ~~twelfth~~above aspect, it is possible to reduce discomfort due to hitting of the blow-out airflow on a local part of the body.

[0028]

A ~~thirteenth~~third aspect of the present disclosure relates to a blower. The blower includes: a casing ~~(11)~~ in which a suction port ~~(14)~~ and a blow-out port ~~(15)~~ are formed; a fan ~~(12)~~ provided in the casing ~~(11)~~; and an airflow adjusting mechanism ~~(20)~~ configured to adjust a blow-out airflow that is a flow of air blown out from the blow-out port ~~(15)~~, by controlling a pair of blades, the pair of blades including a first airflow-direction adjusting blade provided near a back of the blow-out port and a second airflow-direction adjusting blade provided near a front of the blow-out port, wherein when in a wide mode, the blow-out airflow is divided into a first airflow along the first airflow-direction adjusting blade and a second airflow along the second airflow-direction adjusting blade, the blow-out port and the pair of blades extend in a left-right direction of the blower. A shape of an opening of the blow-out port ~~(15)~~ is such that a length of a short side of a rectangle that circumscribes the opening is less than or equal to 300 mm. Under a test condition that the blower is provided in such a way that a reference position ~~(Q)~~ of the blow-out port ~~(15)~~ is a position that is separated by 2000 mm upward from a floor, a reference point ~~(P0)~~ is defined as at least one point that is positioned in a range, in a front-back direction, starting at a first point ~~(P1)~~ that is separated by 1000 mm ahead of the blower from a

point on the floor directly below the reference position ~~(Q)~~ of the blow-out port ~~(15)~~ and ending at a second point ~~(P2)~~ that is separated by 2000 mm ahead of the blower from the point on the floor directly below the reference position ~~(Q)~~ of the blow-out port ~~(15)~~. A reference height range ~~(R10)~~ is defined as a range in an up-down direction starting at the reference point ~~(P0)~~ and ending at a position that is separated by 1600 mm upward from the reference point ~~(P0)~~. Among three ranges obtained by trisecting the reference height range ~~(R10)~~ in the up-down direction, a first range ~~(R11)~~ is defined as a range positioned on an upper side, a second range ~~(R12)~~ is defined as a range positioned on a lower side, and a third range ~~(R13)~~ is defined as a range positioned at a center. Under the test condition, when an airflow direction of the blow-out airflow is adjusted so that an average airflow speed in the first range ~~(R11)~~ and an average airflow speed in the second range ~~(R12)~~ are approximately equal to each other, a ratio of an average airflow speed in the third range ~~(R13)~~ to the average airflow speed in the first range ~~(R11)~~ is less than 1.5.

[0029]

With the ~~thirteenth~~above aspect, because it is possible to reduce variation in the airflow speed of the blow-out airflow in a predetermined range in the up-down direction, it is possible to blow the blow-out airflow, in which variation in airflow speed in the up-down direction is reduced, toward the whole body of a user. Thus, it is possible to reduce discomfort due to hitting of the blow-out airflow on a local part of the body.

[0030]

~~A fourteenth aspect of the present disclosure is the blower according to the thirteenth aspect, in which~~In an embodiment of the third aspect, under the test condition, when the airflow direction of the blow-out airflow is adjusted so that the average airflow speed in the first range ~~(R11)~~ and the average airflow speed in the second range ~~(R12)~~ are approximately equal to each other, the ratio of the average airflow speed in the third range ~~(R13)~~ to the average airflow speed in the first range ~~(R11)~~ is less than 1.1 and greater than or equal to 0.5.

[0031]

With the ~~fourteenth aspect~~above embodiment, because it is possible to reduce variation

in the airflow speed of the blow-out airflow in a predetermined range in the up-down direction, it is possible to blow the blow-out airflow, in which variation in airflow speed in the up-down direction is reduced, toward the whole body of a user. Thus, it is possible to reduce discomfort due to hitting of the blow-out airflow on a local part of the body.

[0032]

~~A fifteenth aspect of the present disclosure is the blower according to the thirteenth or fourteenth aspect, in which~~In an embodiment of the third aspect, under the test condition, when the airflow direction of the blow-out airflow is adjusted so that the average airflow speed in the first range ~~(R11)~~ and the average airflow speed in the second range ~~(R12)~~ are approximately equal to each other, an average airflow speed in the reference height range ~~(R10)~~ is greater than or equal to 0.5 m/s.

[0033]

With the ~~fifteenth aspect~~above embodiment, it is possible to prevent the average airflow speed of the blow-out airflow in the predetermined range in the up-down direction from becoming too low. Thus, it is possible to effectively blow the blow-out airflow, in which variation in airflow speed in the up-down direction is reduced, toward the whole body of a user.

[0034]

~~A sixteenth aspect of the present disclosure is the blower according to any one of the thirteenth to fifteenth aspects, in which~~In an embodiment of the third aspect, the length of the short side of the rectangle of the blow-out port ~~(15)~~ is less than or equal to 150 mm.

[0035]

~~A seventeenth aspect of the present disclosure is the blower according to the thirteenth aspect, in which~~In an embodiment of the third aspect, under the test condition, when the airflow direction of the blow-out airflow is adjusted so that the average airflow speed in the first range ~~(R11)~~ and the average airflow speed in the second range ~~(R12)~~ are approximately equal to each other, an airflow-speed distribution condition that the ratio of the average airflow speed in the third range ~~(R13)~~ to the average airflow speed in the first range ~~(R11)~~ is less than 1.5 is satisfied in a range ~~(R20)~~, in a longitudinal direction of the rectangle, that is centered at a center position

~~(Qc)~~ of the blow-out port ~~(15)~~ in the longitudinal direction of the rectangle and that has a length in the longitudinal direction of the rectangle greater than or equal to 1000 mm.

[0036]

With the ~~seventeenth aspect~~above embodiment, in the range of greater than or equal to 1000 mm in the predetermined direction (to be specific, the longitudinal direction of the rectangle that circumscribes the opening of the blow-out port ~~(15)~~), it is possible to satisfy an airflow-speed distribution condition that can reduce variation in the airflow speed of the blow-out airflow in a predetermined range in the up-down direction. Thus, in the predetermined-direction range of greater than or equal to 1000 mm, it is possible to reduce discomfort due to hitting of the blow-out airflow on a local part of the body.

[0037]

~~An eighteenth aspect of the present disclosure is the blower according to any one of the thirteenth to seventeenth aspects, in which:~~In an embodiment of the third aspect, ~~the airflow adjusting mechanism (20) includes a first airflow-direction adjusting blade (31) provided near a back of the blow-out port (15) and a second airflow-direction adjusting blade (32) provided near a front of the blow-out port (15);~~ the first airflow-direction adjusting blade ~~(31)~~ is configured to spread the blow-out airflow downward; and the second airflow-direction adjusting blade ~~(32)~~ is configured to spread the blow-out airflow upward.

[0038]

With the ~~eighteenth aspect~~above embodiment, it is possible to spread the blow-out airflow in the up-down direction by using the first airflow-direction adjusting blade ~~(31)~~ and the second airflow-direction adjusting blade ~~(32)~~. Thus, it is possible to reduce variation in the airflow speed of the blow-out airflow in the predetermined range in the up-down direction, and it is possible to blow the blow-out airflow, in which variation in airflow speed in the up-down direction is reduced, toward the whole body of a user. Thus, it is possible to reduce discomfort due to hitting of the blow-out airflow on a local part of the body.

[0039]

~~A nineteenth aspect of the present disclosure is the blower according to the eighteenth~~

~~aspect, in which~~In an embodiment of the third aspect, the first airflow-direction adjusting blade ~~(31)~~ and the second airflow-direction adjusting blade ~~(32)~~ are configured to divide the blow-out airflow in the up-down direction due to a Coanda effect.

[0040]

With the ~~nineteenth aspect~~above embodiment, it is possible to guide blow-out airflow downward along the first airflow-direction adjusting blade ~~(31)~~ due to the Coanda effect of the first airflow-direction adjusting blade ~~(31)~~. Moreover, it is possible to guide the blow-out airflow upward along the second airflow-direction adjusting blade ~~(32)~~ due to the Coanda effect of the second airflow-direction adjusting blade ~~(32)~~. By dividing the blow-out airflow in the up-down direction by using these Coanda effects, it is possible to easily spread the blow-out airflow in the up-down direction.

[0041]

~~A twentieth aspect of the present disclosure is the blower according to the eighteenth aspect, in which:~~In an embodiment of the third aspect, the airflow adjusting mechanism ~~(20)~~ includes at least one third airflow-direction adjusting blade ~~(33)~~ provided between the first airflow-direction adjusting blade ~~(31)~~ and the second airflow-direction adjusting blade ~~(32)~~; and the third airflow-direction adjusting blade ~~(33)~~ is configured to divide the blow-out airflow in the up-down direction.

[0042]

With the ~~twentieth aspect~~above embodiment, it is easy to spread the blow-out airflow in the up-down direction by separating the blow-out airflow in the up-down direction by using the third airflow-direction adjusting blade ~~(33)~~.

[0043]

~~A twenty-first aspect of the present disclosure is the blower according to the twentieth aspect, in which~~In an embodiment of the third aspect, the second airflow-direction adjusting blade ~~(32)~~ is configured to be continuous with a front edge portion of the blow-out port ~~(15)~~.

[0044]

With the ~~twenty-first aspect~~above embodiment, by configuring the second airflow-

direction adjusting blade ~~(32)~~ to be continuous with the front edge portion of the blow-out port ~~(15)~~, it is possible to smooth the flow of air from the blow-out port ~~(15)~~ toward the second airflow-direction adjusting blade ~~(32)~~. Thus, it is possible to smooth the upward spreading of the blow-out airflow by the second airflow-direction adjusting blade ~~(32)~~.

[0045]

~~A twenty-second aspect of the present disclosure is the blower according to the twentieth or twenty-first aspect, in which~~In an embodiment of the third aspect, each of the first airflow-direction adjusting blade ~~(31)~~, the second airflow-direction adjusting blade ~~(32)~~, and the third airflow-direction adjusting blade ~~(33)~~ extends in an opening direction of the blow-out port ~~(15)~~ without being divided in the opening direction of the blow-out port ~~(15)~~.

[0046]

With the ~~twenty-second aspect~~above embodiment, because each of the first airflow-direction adjusting blade ~~(31)~~, the second airflow-direction adjusting blade ~~(32)~~, and the third airflow-direction adjusting blade ~~(33)~~ is not divided in the extension direction of the blow-out port ~~(15)~~, it is possible to avoid leakage of the blow-out airflow from a gap that is formed if the airflow-direction adjusting blade is divided. Thus, it is possible to easily spread the blow-out airflow in the up-down direction by using the first airflow-direction adjusting blade ~~(31)~~, the second airflow-direction adjusting blade ~~(32)~~, and the third airflow-direction adjusting blade ~~(33)~~.

[0047]

~~A twenty-third aspect of the present disclosure is the blower according to any one of the thirteenth to twenty-second aspects, in which:~~In an embodiment of the third aspect, the airflow adjusting mechanism ~~(20)~~ includes three or more auxiliary adjusting blades ~~(35)~~ provided at the blow-out port ~~(15)~~ to be arranged in a longitudinal direction of the rectangle of the blow-out port ~~(15)~~; and each of the three or more auxiliary adjusting blades ~~(35)~~ is configured to divide the blow-out airflow in the longitudinal direction of the rectangle of the blow-out port ~~(15)~~.

[0048]

With the ~~twenty-third aspect~~above embodiment, by dividing the blow-out airflow in the

longitudinal direction of the rectangle of the blow-out port ~~(15)~~, it is possible to spread the blow-out airflow in the longitudinal direction of the rectangle of the blow-out port ~~(15)~~. Thus, it is possible to spread, in the longitudinal direction of the rectangle of the blow-out port ~~(15)~~, the range to which the blow-out airflow, in which variation in airflow speed in the up-down direction is reduced, is blown.

[0049]

A ~~twenty-fourth~~fourth aspect of the present disclosure relates to an air-conditioning indoor unit. The air-conditioning indoor unit includes: the blower according to any one of the thirteenth to twenty-third aspects; and a heat exchanger ~~(13)~~ accommodated in the casing ~~(11)~~. The heat exchanger ~~(13)~~ is configured to cause air sucked from the suction port ~~(14)~~ and a refrigerant to exchange heat. Air that has passed through the heat exchanger ~~(13)~~ is blown out from the blow-out port ~~(15)~~.

[0050]

With the ~~twenty-fourth~~above aspect, it is possible to reduce discomfort due to hitting of the blow-out airflow on a local part of the body.

BRIEF DESCRIPTION OF DRAWINGS

[0051]

Fig. 1 is a sectional view illustrating an example of the configuration of an air-

~~WE CLAIM~~CLAIMS

1. A blower provided on a side wall and having a wide mode, comprising:

a casing ~~(11)~~ in which a suction port ~~(14)~~ and a blow-out port ~~(15)~~ are formed;

a fan ~~(12)~~ provided in the casing ~~(11)~~; and

an airflow adjusting mechanism ~~(20)~~ configured to adjust a blow-out airflow that is a flow of air blown out from the blow-out port ~~(15)~~ by controlling a pair of blades, the pair of blades including a first airflow-direction adjusting blade provided near a back of the blow-out port and a second airflow-direction adjusting blade provided near a front of the blow-out port, wherein

when in the wide mode, the blow-out airflow is divided into a first airflow along the first airflow-direction adjusting blade and a second airflow along the second airflow-direction adjusting blade,

the blow-out port ~~(15)~~ and the pair of blades extend~~extends~~ in a left-right direction of the blower,

a length ~~(L15)~~ of the blow-out port ~~(15)~~ in a width direction perpendicular to an extension direction of the blow-out port ~~(15)~~ is less than or equal to 300 mm,

a reference point ~~(P0)~~ is defined as at least one point that is positioned in a range, in a front-back direction, starting at a first point ~~(P1)~~ that is separated by 1000 mm ahead of the blower from the blow-out port ~~(15)~~ and ending at a second point ~~(P2)~~ that is separated by 2000 mm ahead of the blower from the blow-out port ~~(15)~~,

a reference height range ~~(R10)~~ is defined as a range, in an up-down direction, starting at the reference point ~~(P0)~~ and ending at a position that is separated by 1600 mm upward from the reference point ~~(P0)~~,

among three ranges obtained by trisecting the reference height range ~~(R10)~~ in the up-down direction, a first range ~~(R11)~~ is defined as a range positioned on an upper side, a second range ~~(R12)~~ is defined as a range positioned on a lower side, and a third range ~~(R13)~~ is defined as a range positioned at a center, and

under a test condition that the blower is provided in such a way that a

reference position ~~(Q)~~ of the blow-out port ~~(15)~~ is a position that is separated by 2000 mm upward from a floor, the airflow adjusting mechanism ~~(20)~~ adjusts, in the wide mode, the blow-out airflow so that an average airflow speed in the first range ~~(R11)~~ and an average airflow speed in the second range ~~(R12)~~ are approximately equal to each other and so that a ratio of an average airflow speed in the third range ~~(R13)~~ to the average airflow speed in the first range ~~(R11)~~ is less than 1.5.

2. The blower according to Claim 1, wherein

the airflow adjusting mechanism ~~(20)~~ adjusts, in the wide mode under the test condition, the blow-out airflow so that the average airflow speed in the first range ~~(R11)~~ and the average airflow speed in the second range ~~(R12)~~ are approximately equal to each other and so that the ratio of the average airflow speed in the third range ~~(R13)~~ to the average airflow speed in the first range ~~(R11)~~ is less than 1.1 and greater than or equal to 0.5.

3. The blower according to Claim 1 or 2, wherein

the airflow adjusting mechanism ~~(20)~~ adjusts, in the wide mode under the test condition, the blow-out airflow so that an average airflow speed in the reference height range ~~(R10)~~ is greater than or equal to 0.5 m/s.

4. The blower according to any one of Claims 1 to 3, wherein

the length ~~(L15)~~ of the blow-out port ~~(15)~~ in the width direction is less than or equal to 150 mm.

5. The blower according to Claim 1, wherein

the airflow adjusting mechanism ~~(20)~~ adjusts, in the wide mode under the test condition, the blow-out airflow so that an airflow-speed distribution condition that the average airflow speed in the first range ~~(R11)~~ and the average airflow speed in the second range ~~(R12)~~ are approximately equal to each other and that the ratio of the average airflow speed in the third range ~~(R13)~~ to the average airflow speed in the first range ~~(R11)~~ is less than 1.5 is satisfied in a range ~~(R20)~~, in the left-right

direction, that is centered at a center position ~~(Qc)~~ of the blow-out port ~~(15)~~ in the left-right direction and that has a length in the left-right direction greater than or equal to 1000 mm.

6. The blower according to any one of Claims 1 to 5, wherein

~~the airflow adjusting mechanism (20) includes a first airflow-direction adjusting blade (31) provided near a back of the blow-out port (15) and a second airflow-direction adjusting blade (32) provided near a front of the blow-out port (15),~~

the first airflow-direction adjusting blade ~~(31)~~ is configured to spread the blow-out airflow downward in the wide mode, and

the second airflow-direction adjusting blade ~~(32)~~ is configured to spread the blow-out airflow upward in the wide mode.

7. The blower according to Claim 6, wherein

the first airflow-direction adjusting blade ~~(31)~~ and the second airflow-direction adjusting blade ~~(32)~~ are configured to divide the blow-out airflow in the up-down direction in the wide mode due to a Coanda effect.

8. The blower according to Claim 6, wherein

the airflow adjusting mechanism ~~(20)~~ includes at least one third airflow-direction adjusting blade ~~(33)~~ provided between the first airflow-direction adjusting blade ~~(31)~~ and the second airflow-direction adjusting blade ~~(32)~~, and

the third airflow-direction adjusting blade ~~(33)~~ is configured to divide the blow-out airflow in the up-down direction in the wide mode.

9. The blower according to Claim 8, wherein

the second airflow-direction adjusting blade ~~(32)~~ is configured to be continuous with a front edge portion of the blow-out port ~~(15)~~.

10. The blower according to Claim 8 or 9, wherein

each of the first airflow-direction adjusting blade ~~(31)~~, the second airflow-

direction adjusting blade ~~(32)~~, and the third airflow-direction adjusting blade ~~(33)~~ extends in the extension direction of the blow-out port ~~(15)~~ without being divided in the extension direction of the blow-out port ~~(15)~~.

11. The blower according to any one of Claims 1 to 10, wherein

the airflow adjusting mechanism ~~(20)~~ includes three or more auxiliary adjusting blades ~~(35)~~ provided at the blow-out port ~~(15)~~ to be arranged in the left-right direction, and

each of the three or more auxiliary adjusting blades ~~(35)~~ is configured to divide the blow-out airflow in the left-right direction.

12. An air-conditioning indoor unit comprising:

the blower according to any one of Claims 1 to 11; and

a heat exchanger ~~(13)~~ accommodated in the casing ~~(11)~~, wherein

the heat exchanger ~~(13)~~ is configured to cause air sucked from the suction port ~~(14)~~ and a refrigerant to exchange heat, and

air that has passed through the heat exchanger ~~(13)~~ is blown out from the blow-out port ~~(15)~~.

13. A blower comprising:

a casing ~~(11)~~ in which a suction port ~~(14)~~ and a blow-out port ~~(15)~~ are formed;

a fan ~~(12)~~ provided in the casing ~~(11)~~; and

an airflow adjusting mechanism ~~(20)~~ configured to adjust a blow-out airflow that is a flow of air blown out from the blow-out port ~~(15)~~ by controlling a pair of blades, the pair of blades including a first airflow-direction adjusting blade provided near a back of the blow-out port and a second airflow-direction adjusting blade provided near a front of the blow-out port, wherein

when in a wide mode, the blow-out airflow is divided into a first airflow along the first airflow-direction adjusting blade and a second airflow along the second airflow-direction adjusting blade,

the blow-out port and the pair of blades extend in a left-right direction of the blower,

a shape of an opening of the blow-out port ~~(15)~~ is such that a length of a short side of a rectangle that circumscribes the opening is less than or equal to 300 mm,

under a test condition that the blower is provided in such a way that a reference position ~~(Q)~~ of the blow-out port ~~(15)~~ is a position that is separated by 2000 mm upward from a floor, a reference point ~~(P0)~~ is defined as at least one point that is positioned in a range, in a front-back direction, starting at a first point ~~(P1)~~ that is separated by 1000 mm ahead of the blower from a point on the floor directly below the reference position ~~(Q)~~ of the blow-out port ~~(15)~~ and ending at a second point ~~(P2)~~ that is separated by 2000 mm ahead of the blower from the point on the floor directly below the reference position ~~(Q)~~ of the blow-out port ~~(15)~~,

a reference height range ~~(R10)~~ is defined as a range, in an up-down direction, starting at the reference point ~~(P0)~~ and ending at a position that is separated by 1600 mm upward from the reference point ~~(P0)~~,

among three ranges obtained by trisecting the reference height range ~~(R10)~~ in the up-down direction, a first range ~~(R11)~~ is defined as a range positioned on an upper side, a second range ~~(R12)~~ is defined as a range positioned on a lower side, and a third range ~~(R13)~~ is defined as a range positioned at a center, and

under the test condition, when an airflow direction of the blow-out airflow is adjusted so that an average airflow speed in the first range ~~(R11)~~ and an average airflow speed in the second range ~~(R12)~~ are approximately equal to each other, a ratio of an average airflow speed in the third range ~~(R13)~~ to the average airflow speed in the first range ~~(R11)~~ is less than 1.5.

14. The blower according to Claim 13, wherein

under the test condition, when the airflow direction of the blow-out airflow is adjusted so that the average airflow speed in the first range ~~(R11)~~ and the average airflow speed in the second range ~~(R12)~~ are approximately equal to each other, the ratio of the average airflow speed in the third range ~~(R13)~~ to the average airflow

speed in the first range ~~(R11)~~ is less than 1.1 and greater than or equal to 0.5.

15. The blower according to Claim 13 or 14, wherein

under the test condition, when the airflow direction of the blow-out airflow is adjusted so that the average airflow speed in the first range ~~(R11)~~ and the average airflow speed in the second range ~~(R12)~~ are approximately equal to each other, an average airflow speed in the reference height range ~~(R10)~~ is greater than or equal to 0.5 m/s.

16. The blower according to any one of Claims 13 to 15, wherein

the length of the short side of the rectangle of the blow-out port ~~(15)~~ is less than or equal to 150 mm.

17. The blower according to Claim 13, wherein

under the test condition, when the airflow direction of the blow-out airflow is adjusted so that the average airflow speed in the first range ~~(R11)~~ and the average airflow speed in the second range ~~(R12)~~ are approximately equal to each other, an airflow-speed distribution condition that the ratio of the average airflow speed in the third range ~~(R13)~~ to the average airflow speed in the first range ~~(R11)~~ is less than 1.5 is satisfied in a range ~~(R20)~~, in a longitudinal direction of the rectangle, that is centered at a center position ~~(Qc)~~ of the blow-out port ~~(15)~~ in the longitudinal direction of the rectangle and that has a length in the longitudinal direction of the rectangle greater than or equal to 1000 mm.

18. The blower according to any one of Claims 13 to 17, wherein

~~the airflow adjusting mechanism (20) includes a first airflow-direction adjusting blade (31) provided near a back of the blow-out port (15) and a second airflow-direction adjusting blade (32) provided near a front of the blow-out port (15),~~

the first airflow-direction adjusting blade ~~(31)~~ is configured to spread the blow-out airflow downward, and

the second airflow-direction adjusting blade ~~(32)~~ is configured to spread the

blow-out airflow upward.

19. The blower according to Claim 18, wherein

the first airflow-direction adjusting blade ~~(31)~~ and the second airflow-direction adjusting blade ~~(32)~~ are configured to divide the blow-out airflow in the up-down direction due to a Coanda effect.

20. The blower according to Claim 18, wherein

the airflow adjusting mechanism ~~(20)~~ includes at least one third airflow-direction adjusting blade ~~(33)~~ provided between the first airflow-direction adjusting blade ~~(31)~~ and the second airflow-direction adjusting blade ~~(32)~~, and

the third airflow-direction adjusting blade ~~(33)~~ is configured to divide the blow-out airflow in the up-down direction.

21. The blower according to Claim 20, wherein

the second airflow-direction adjusting blade ~~(32)~~ is configured to be continuous with a front edge portion of the blow-out port ~~(15)~~.

22. The blower according to Claim 20 or 21, wherein

each of the first airflow-direction adjusting blade ~~(31)~~, the second airflow-direction adjusting blade ~~(32)~~, and the third airflow-direction adjusting blade ~~(33)~~ extends in an opening direction of the blow-out port ~~(15)~~ without being divided in the opening direction of the blow-out port ~~(15)~~.

23. The blower according to any one of Claims 13 to 22, wherein

the airflow adjusting mechanism ~~(20)~~ includes three or more auxiliary adjusting blades ~~(35)~~ provided at the blow-out port ~~(15)~~ to be arranged in a longitudinal direction of the rectangle of the blow-out port ~~(15)~~, and

each of the three or more auxiliary adjusting blades ~~(35)~~ is configured to divide the blow-out airflow in the longitudinal direction of the rectangle of the blow-out port ~~(15)~~.

24. An air-conditioning indoor unit comprising:

the blower according to any one of Claims 13 to 23; and

a heat exchanger ~~(13)~~ accommodated in the casing ~~(11)~~, wherein

the heat exchanger ~~(13)~~ is configured to cause air sucked from the suction port ~~(14)~~ and a refrigerant to exchange heat, and

air that has passed through the heat exchanger ~~(13)~~ is blown out from the blow-out port ~~(15)~~.