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(54) INDOOR AIR CONDITIONER

INNENRAUMKLIMAANLAGE

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Description

TECHNICAL FIELD

[0001] The present invention relates to an air conditioning indoor unit.

BACKGROUND ART

[0002] In patent document 1 (JP-A No. 2001-116346) there is disclosed an air conditioning indoor unit that has air inlets in a front portion, an upper portion, and a lower portion of a body respectively. Air that has been sucked in from the lower air inlet in the lower portion of the body travels through a lower inlet air path and is supplied to a heat exchanger. The lower air inlet and the lower inlet air path are formed by a frame. The frame receives the weight of the heat exchanger and has a large force applied to it, so it is necessary to enhance the strength of the frame.

[0003] Additionally, JP 2002 195599 A discloses an air conditioner with a main body constituted of a base having an air vent in a connecting section which connects an upper rear guider section and a lower rear guider section and a suction opening in the bottom face, a base cover on the backside of the main body, and a front panel provided with an air outlet in the lower part of the front face of the main body, the air conditioner being provided with a heater exchanger which is positioned to face the air vent, first and second supply fans and which are respectively installed to the upper and lower rear guider sections, and a first opening in the front panel with an opening/closing panel which opens/closes the opening, a first rotating means which rotates the opening and a partition plate which divides the inside of the main body into front and rear chambers.

SUMMARY OF INVENTION

<Technical Problem>

[0004] However, in patent document 1 there is no disclosure regarding how to enhance the strength of the frame that forms the lower air inlet and the lower inlet air path. Therefore, it is an object of the present invention to provide an air conditioning indoor unit that has a frame structure whose strength can be enhanced.

<Solution to Problem>

[0005] The aforementioned technical problem is solved by the combination of features of claim 1. Preferred embodiments are addressed by the dependent claims.

[0006] An air conditioning indoor unit pertaining to a first aspect of the present invention is an air conditioning indoor unit of a wall-mounted type which is equipped with a body casing and having a lower air inlet disposed in a lower portion, the air conditioning indoor unit comprising: an attachment plate, the air conditioning indoor unit being attachable to an installation-side wall via the attachment plate, a first frame that has heat exchanger support portions that support a heat exchanger and a mounting portion, fixed to the attachment plate, for mounting a back surface of the air conditioning indoor unit on the installation-side wall; and a second frame which, together with the first frame, configures the lower air inlet and a lower inlet air path leading from the lower air inlet to the heat exchanger, with the second frame being installed facing the installation side wall.

[0007] According to this air conditioning indoor unit, the first frame is configured as a result of the heat exchanger support portions that support the heat exchanger that is a heavy object and the mounting portion that is directly fixed to the installation-side wall being integrally formed. Thus, compared to a case where the frame that supports the heavy object and the frame that is fixed to the installation-side wall are separately formed, there is no longer the weakness in the coupled section where the separate frames are coupled together, and the strength of the first frame can be enhanced.

[0008] An air conditioning indoor unit pertaining to a second aspect of the present invention is the air conditioning indoor unit pertaining to the first aspect, wherein a first surface that forms an outlet air path for blowing out air from the heat exchanger and a second surface that is a surface on the opposite side of the first surface are formed on the first frame, and a third surface that configures the lower inlet air path and the lower air inlet together with the second surface of the first frame as a result of the second frame being attached to a back surface side of the first frame is formed on the second frame.

[0009] According to this air conditioning indoor unit, the two first and second frames are formed with sheet shaped and are easy to remove from molds. Furthermore, the desired lower inlet air path and lower air inlet can be formed by combining the two sheet shaped first and second frames.

[0010] An air conditioning indoor unit pertaining to a third aspect of the present invention is the air conditioning indoor unit pertaining to the first aspect, wherein the first frame further has a communicating opening for delivering air from the lower inlet air path to the heat exchanger, and the second frame is attached in such a way as to extend from an open end portion of the communicating opening and continuously forms the lower inlet air path and the communicating opening.

[0011] According to this air conditioning indoor unit, the second frame is attached to the first frame in such a way that the communicating opening becomes continuous from the lower inlet air path. Thus, air that has passed through the lower inlet air path is provided to the heat exchanger efficiently from the communicating opening.

<Advantageous Effects of Invention>

[0012] In the air conditioning indoor unit pertaining to the first aspect of the present invention, the strength of the first frame can be enhanced as a result of the heat exchanger support portions that support the heat exchanger that is a heavy object and the mounting portion that is directly fixed to the installation-side wall being integrally formed.

[0013] In the air conditioning indoor unit pertaining to the second aspect of the present invention, the two first and second frames are formed with sheet shaped and are easy to remove from molds.

[0014] In the air conditioning indoor unit pertaining to the third aspect of the present invention, the communicating opening is continuous from the lower inlet air path, so air that has passed through the lower inlet air path is provided to the heat exchanger efficiently from the communicating opening.

BRIEF DESCRIPTION OF DRAWINGS

[0015]

FIG. 1 is a perspective view of an air conditioning indoor unit pertaining to an embodiment of the present invention;
FIG. 2 is a sectional view of the air conditioning indoor unit pertaining to an embodiment of the present invention;
FIGS. 3(a) and 3(b) are schematic views schematically showing the configurations of a first frame and a second frame, with FIG. 3(a) being a sectional view and FIG. 3(b) being a front view showing the positional relationship between the first frame and a heat exchanger;
FIG. 4 is a perspective view showing a state in which the second frame is attached to the first frame;
FIG. 5 is a back perspective view of the first frame; and
FIG. 6 is a front perspective view of the second frame.

DESCRIPTION OF EMBODIMENT

[0016] An embodiment of the present invention will be described below with reference to the drawings. The embodiment below is a specific example of the present invention and is not intended to limit the technical scope of the claims.

<Example Embodiment>

(1) Overall Configuration

[0017] The overall configuration of an air conditioning indoor unit 10 will be described using FIG. 1 and FIG. 2. FIG. 1 is a perspective view of the air conditioning indoor unit pertaining to an embodiment of the present invention. FIG. 2 is a sectional view of the air conditioning indoor unit pertaining to an embodiment of the present invention.

[0018] The air conditioning indoor unit 10 pertaining to the embodiment of the present invention is a wall-mounted type and is equipped with a body casing 11, a heat exchanger 13, an indoor fan 15, a first frame 17, a second frame 27, a filter 25, and a controller 41.

[0019] The body casing 11 has a front surface grille 11a and a front surface panel 11b and is attached via an attachment plate 11c to an installation-side wall 45 (see FIG. 3). The heat exchanger 13, the indoor fan 15, the filter 25, and the controller 41 are housed in a three-dimensional space formed by the front surface grille 11a, the front surface panel 11b, and the first frame 17. The second frame 27 is disposed on the back surface of the first frame 17 between the first frame 17 and the attachment plate 11c. The front surface panel 11b covers the front surface of the front surface grille 11a, and the upper end of the front surface panel 11b is rotatably supported on the front surface grille 11a and can move in a hinged manner.

[0020] The heat exchanger 13 performs heat exchange with air passing through it. Furthermore, the heat exchanger 13 has an inverted V-shape, in which both ends are bent downward as seen in a side view, and is attached to the first frame 17.

[0021] The indoor fan 15 is positioned under the heat exchanger 13. The indoor fan 15 is a cross flow fan, applies air taken in from a room to the heat exchanger 13, causes the air to pass through the heat exchanger 13, and blows the air out into the room.

[0022] An air outlet 19 is disposed in the lower surface portion of the body casing 11. A flap 29 that guides the air blown out from the air outlet 19 is rotatably disposed in the air outlet 19. The flap 29 is driven by a motor (not shown in the drawings) and not only changes the direction in which the air is blown out but can also open and close the air outlet 19. The air outlet 19 is connected via an outlet air path 18 to the inside of the body casing 11 and allows the air that has exchanged heat in the heat exchanger 13 to be blown out. The outlet air path 18 is formed along the first frame 17 from the air outlet 19.

[0023] Moreover, a lower air inlet 21 is disposed in the lower surface portion of the body casing 11 on the wall side of the air outlet 19. The lower air inlet 21 is formed by an opening in the lower portion between the first frame 17 and the second frame 27 and is connected via a lower inlet air path 16 to the inside of the body casing 11. A shutter 31 that opens and closes the lower air inlet 21 as a result of being rotated by an opening and closing mechanism 32 is disposed in the lower air inlet 21. The lower inlet air path 16 is formed along the space between the first frame 17 and the second frame 27. Thus, the lower inlet air path 16 is adjacent to the outlet air path 18 across the first frame 17.

[0024] Room air in the neighborhood of the lower air inlet 21 is sucked by the operation of the indoor fan 15

into the indoor fan 15 via the lower air inlet 21, the lower inlet air path 16, the filter 25, and the heat exchanger 13 and is blown out from the air outlet 19 via the outlet air path 18 from the indoor fan 15.

[0025] The filter 25 is disposed between the front surface grille 11 a of the body casing 11 and the heat exchanger 13. The filter 25 removes dirt and dust included in the air flowing in toward the heat exchanger 13.

[0026] An upper air inlet 22 is disposed in the front upper portion of the front surface grille 11a. Room air in the neighborhood of the upper air inlet 22 is sucked by the operation of the indoor fan 15 into the indoor fan 15 via the upper air inlet 22, the filter 25, and the heat exchanger 13 and is blown out from the air outlet 19 via the outlet air path 18 from the indoor fan 15.

[0027] The controller 41 is housed in the front section of the body casing 11 and issues commands for controlling the rotating speed of the indoor fan 15, adjusting the opening degree of the air outlet 19, adjusting the opening degree of the lower air inlet 21, and adjusting the opening degree of the upper air inlet 22.

(2) Configurations of First Frame and Second Frame

[0028] Next, the configurations of the first frame 17 and the second frame 27 will be described using FIG. 2 and FIGS. 3(a) and 3(b). FIGS. 3(a) and 3(b) are schematic views schematically showing the configurations of the first frame 17 and the second frame 27, with FIG. 3(a) being a sectional view and FIG. 3(b) being a front view showing the positional relationship between the first frame and the heat exchanger.

[0029] The attachment plate 11c for supporting the body casing 11 is attached to the body casing 11. The second frame 27 and the first frame 17 are disposed in this order heading from the attachment plate 11c toward the front surface panel 11b. The first frame 17 supports the heat exchanger 13 located on its front surface.

(2-1) First Frame

[0030] The first frame 17 has an air outlet end portion 17a, an outlet air path constituent portion 17b, a drain pan 17c, a mounting portion 17d, a communicating opening 17e, and heat exchanger support portions 17h.

[0031] The air outlet end portion 17a is one end portion of the first frame 17, is disposed in the neighborhood of the air outlet 19, and is attached to the body casing 11 as a result of being bent relative to the outlet air path constituent portion 17b as shown in the drawings, for example.

[0032] The outlet air path constituent portion 17b is formed extending from the air outlet end portion 17a and configures the outlet air path 18 that allows the air output from the indoor fan 15 to be blown out to the air outlet 19. A first surface 17f and a second surface 17g on the opposite side of the first surface 17f are formed on the first frame 17, and the first surface 17f of the outlet air path constituent portion 17b forms one surface of the outlet air path 18.

[0033] The drain pan 17c is configured to branch, for example, from the outlet air path constituent portion 17b and has a first receiving portion 17c-1 and a second receiving portion 17c-2. The first receiving portion 17c-1 and the second receiving portion 17c-2 configure a pan that receives liquid dripping down from the heat exchanger 13.

[0034] The mounting portion 17d is the other end portion of the first frame 17 and is formed extending from the first receiving portion 17c-1 of the drain pan 17c. The mounting portion 17d is fixed to the attachment plate 11 c, whereby the first frame 17 can support a heavy object such as the heat exchanger 13.

[0035] The communicating opening 17e is an opening for delivering the air that has been sucked in from the lower air inlet 21 and traveled through the lower inlet air path 16 to the heat exchanger 13. The communicating opening 17e is formed between the first receiving portion 17c-1 of the drain pan 17c and the mounting portion 17d.

[0036] As shown in FIG. 3(b), the heat exchanger support portions 17h are disposed on both width direction end portions of the body casing 11 and support the heat exchanger 13. The heat exchanger support portions 17h include a first heat exchanger support portion 17h-1 and a second heat exchanger support portion 17h-2. The first heat exchanger support portion 17h-1 and the second heat exchanger support portion 17h-2 support both ends of the heat exchanger 13.

(2-2) Second Frame

[0037] The second frame 27 configures the lower air inlet 21 and the lower inlet air path 16 together with the first frame 17 and has a back surface portion 27a, a coupling portion 27b, and a pipe space constituent portion 27c.

[0038] The back surface portion 27a is formed along the attachment plate 11c.

[0039] The pipe space constituent portion 27c is formed bending from one end of the back surface portion 27a in such a way as to form, between itself and the attachment plate 11 c, a space 60 for pipes. Pipes and so forth connected between an air conditioning outdoor unit and the air conditioning indoor unit 10 are housed in the space 60 for pipes.

[0040] The coupling portion 27b is formed extending from the other end of the back surface portion 27a toward the first frame 17. The coupling portion 27b is connected to the end portion of the communicating opening 17e in the first frame 17 so that the air that has traveled through the lower inlet air path 16 is introduced via the communicating opening 17e to the heat exchanger 13. The second frame 27 is attached to the first frame 17 in such a way that the communicating opening 17e becomes continuous from the lower inlet air path 16, so the air that has passed through the lower inlet air path 16 is provided

to the heat exchanger 13 efficiently from the communicating opening 17e.

[0041] A third surface 27d and a fourth surface 27e on the opposite side of the third surface 27d are formed on the second frame 27. The second frame 27 is attached to the back surface side of the first frame 17, whereby the second surface 17g of the first frame 17 and the third surface 27d of the second frame 27 form the lower inlet air path 16.

(3) Action of First Frame and Second Frame

[0042] A heavy object such as the heat exchanger 13 is supported by the first frame 17. The first frame 17 is fixed to the installation-side wall 45 without involving the second frame 27. That is, the air outlet end portion 17a, the outlet air path constituent portion 17b, the drain pan 17c, the mounting portion 17d, and the heat exchanger support portions 17h of the first frame 17 are continuously and integrally formed. Additionally, the heat exchanger support portions 17h of the continuous and integral first frame 17 support a heavy object such as the heat exchanger 13. Thus, compared to a case where the frame that supports the heavy object and the frame that is fixed to the installation-side wall 45 are separately formed, there is no longer the weakness in the coupled section where the separate frames are coupled together, and the strength of the first frame 17 can be enhanced.

[0043] Assume, for example, that these two frames are divided into and formed by a front side frame that supports a heavy object such as a heat exchanger and a back surface side frame that supports the weight received by the front side frame and is fixed to a wall. In this case, it is necessary to make the coupling between the front side frame and the back surface side frame strong in order to ensure that the front side frame does not fall due to the weight of the heavy object. However, in a structure where the front side frame and the back surface side frame are separate, it is difficult to avoid weakness in the coupled section. According to the present embodiment, the first frame 17 that supports a heavy object is itself fixed to the installation-side wall 45 as described above, so the heavy object can be sufficiently supported.

[0044] Furthermore, the first frame 17 and the second frame 27 that form the lower inlet air path 16 and the lower air inlet 21 comprise separate frames, so mold limitations are also met. That is, frames such as the first frame 17 and the second frame 27 are usually formed by injection molding or the like using a mold. However, due to mold limitations, it is difficult to integrally form the first frame 17 and the second frame 27. The reason is because in a case where a molding material is fed into a mold to integrally form the first frame 17 and the second frame 27, the frame cannot be removed from the mold or it is difficult to remove the frame from the mold. Furthermore, even if the first frame 17 and the second frame 27 can be integrally formed, they are limited to a frame shape that can be removed from the mold and the degree of freedom of the frame shape becomes lower. For that reason, the first frame 17 and the second frame 27 are formed using a mold for the first frame 17 and a mold for the second frame 27, respectively. According to the configuration of the present embodiment, the first frame 17 that forms one surface of the lower inlet air path 16 and the second frame 27 that forms the other surface are separately formed, so mold limitations are met. Furthermore, the two first and second frames 17 and 27 are formed with sheet shaped and are easy to remove from the molds.

(4) Working Example

[0045] A specific configuration of the present embodiment will be described using FIG. 4 to FIG. 6. FIG. 4 is a perspective view showing a state in which the second frame is attached to the first frame. FIG. 5 is a back perspective view of the first frame, and FIG. 6 is a front perspective view of the second frame.

[0046] The first frame 17 shown in FIG. 5 is a frame that supports a heavy object such as the heat exchanger 13. FIG. 5 shows the back surface side of the first frame 17, and the front surface side of the second frame 27 shown in FIG. 6 opposes this back surface side. As shown in FIG. 5, the air outlet end portion 17a, the outlet air path constituent portion 17b, the drain pan 17c, the mounting portion 17d, and the heat exchanger support portions 17h of the first frame 17 are continuously and integrally formed. As shown in FIG. 4, the second frame 27 is attached to the first frame 17 in such a way as to cover a part of the back surface of the first frame 17 and forms the lower inlet air path 16.

(5) Characteristics

(5-1)

[0047] The heat exchanger 13 that is a heavy object is supported by the first frame 17. The first frame 17 that supports the heat exchanger 13 is fixed to the installation-side wall 45 without involving the second frame 27. That is, the first frame 17 is configured as a result of the heat exchanger support portions 17h that support the heat exchanger 13 that is a heavy object and the mounting portion 17d that is directly fixed to the installation-side wall 45 being integrally formed. Thus, compared to a case where the frame that supports the heavy object and the frame that is fixed to the installation-side wall 45 are separately formed, there is no longer the weakness in the coupled section where the separate frames are coupled together, and the strength of the first frame 17 can be enhanced.

[0048] Furthermore, the first frame 17 and the second frame 27 that form the lower inlet air path 16 and the lower air inlet 21 comprise separate frames, so mold limitations are also met.

(5-2)

[0049] The two first and second frames 17 and 27 are formed with sheet shaped and are easy to remove from molds. Furthermore, the desired lower inlet air path 16 and lower air inlet 21 can be formed by combining the two sheet shaped first and second frames 17 and 27.

(5-3)

[0050] The second frame 27 is attached to the first frame 17 in such a way that the communicating opening 17e becomes continuous from the lower inlet air path 16. Thus, air that has passed through the lower inlet air path 16 is provided to the heat exchanger 13 efficiently from the communicating opening 17e.

(6) Example Modifications

(6-1) Example Modification 1A

[0051] In the above embodiment, the heat exchanger 13 is directly attached to the first frame 17. It suffices for the weight of the heat exchanger 13 to be supported by the first frame 17, so the heat exchanger 13 may be directly supported by the first frame 17 or may be indirectly supported by the first frame 17. For example, the first frame 17 may also support the heat exchanger 13 with the heat exchanger support portions 17h via another member.

(6-2) Example Modification 1B

[0052] In the above embodiment, the first frame 17 supports the heat exchanger 13. It suffices for the first frame 17 to be a frame that can support a heavy object with a relatively large weight among the devices supported in the body casing 11, so, for example, the first frame 17 may support just the heat exchanger 13 or may support the heat exchanger 13 and other configurations such as the indoor fan 15.

INDUSTRIAL APPLICABILITY

[0053] As described above, according to the present invention, there can be provided a frame structure whose strength can be enhanced, so the present invention is useful for wall-mounted air conditioning indoor units.

REFERENCE SIGNS LIST

[0054]

10	Air Conditioning Indoor Unit
11	Body Casing
11a	Front Surface Grille
11b	Front Surface Panel
11c	Attachment Plate
13	Heat Exchanger
15	Indoor Fan
16	Lower Inlet Air Path
17	First Frame
17a	Air Outlet End Portion
17b	Outlet Air Path Constituent Portion
17c	Drain Pan
17h-1	First Receiving Portion
17h-2	Second Receiving Portion
17d	Mounting Portion
17e	Communicating Opening
17f	First Surface
17g	Second Surface
17h	Heat Exchanger Support Portions
17f-1	First Heat Exchanger Support Portion
17f-2	Second Heat Exchanger Support Portion
18	Outlet Air Path
19	Air Outlet
21	Lower Air Inlet
22	Upper Air Inlet
25	Filter
27	Second Frame
27a	Back Surface Portion
27b	Coupling Portion
27c	Pipe Space Constituent Portion
27d	Third Surface
27e	Fourth Surface
29	Flap
31	Shutter
32	Opening and Closing Mechanism
41	Controller
45	Installation-side Wall
60	Space

CITATION LIST

<Patent Literature>

[0055] Patent Document 1: JP-ANo. 2001-116346

Claims

1. An air conditioning indoor unit (10) of a wall-mounted type which is equipped with a body casing (11) and having a lower air inlet (21) disposed in a lower portion, the air conditioning indoor unit comprising:

a first frame (17) that has heat exchanger support portions (17h) that support a heat exchanger (13); and
a second frame (27) which, together with the first frame, configures the lower air inlet and a lower inlet air path (16) leading from the lower air inlet to the heat exchanger, with the second frame being installed facing an installation-side wall,
characterized in that

the air conditioning indoor unit (10) further comprises an attachment plate (11c) and is attachable to the installation-side wall via the attachment plate (11c), wherein
the first frame (17) further comprises a mounting portion (17d), fixed to the attachment plate (11c), for mounting a back surface of the air conditioning indoor unit on the installation-side wall (45)

2. The air conditioning indoor unit according to claim 1, wherein
a first surface (17f) that forms an outlet air path for blowing out air from the heat exchanger and a second surface (17g) that is a surface on the opposite side of the first surface are formed on the first frame, and
a third surface (27d) that configures the lower inlet air path and the lower air inlet together with the second surface of the first frame as a result of the second frame being attached to a back surface side of the first frame is formed on the second frame.

3. The air conditioning indoor unit according to claim 1, wherein
the first frame further has a communicating opening (17e) for delivering air from the lower inlet air path to the heat exchanger, and
the second frame is attached in such a way as to extend from an open end portion of the communicating opening and continuously forms the lower inlet air path and the communicating opening.

Patentansprüche

1. Klimagerät-Innenraumeinheit (10) vom Wandmontagetyp, die mit einem Körpergehäuse (11) ausgestattet ist und einen unteren Lufteinlass (21) hat, der in einem unteren Teil angeordnet ist, wobei die Klimagerät-Innenraumeinheit umfasst:

einen ersten Rahmen (17), der Wärmetauscher-Stützbereiche (17h) hat, die einen Wärmetauscher (13) stützen; und
einen zweiten Rahmen (27), der zusammen mit dem ersten Rahmen den unteren Lufteinlass und einen unteren Einlass-Luftpfad (16) konfiguriert, der von dem unteren Lufteinlass zum Wärmetauscher führt, wobei der zweite Rahmen einer installationsseitigen Wand zugewandt installiert ist,
dadurch gekennzeichnet, dass
die Klimagerät-Innenraumeinheit (10) ferner eine Befestigungsplatte (11c) umfasst und an der installationsseitigen Wand über die Befestigungsplatte (11c) befestigbar ist, wobei
der erste Rahmen (17) ferner einen Montageteil (17d) umfasst, der an der Befestigungsplatte (11c) befestigt ist, zum Montieren einer Rückfläche der Klimagerät-Innenraumeinheit an der installationsseitigen Wand (45)

2. Klimagerät-Innenraumeinheit nach Anspruch 1, wobei
eine erste Oberfläche (17f), die einen Auslass-Luftpfad zum Ausblasen von Luft aus dem Wärmetauscher und eine zweite Oberfläche (17g), die eine Oberfläche auf der gegenüberliegenden Seite der ersten Oberfläche ist, an dem ersten Rahmen ausgebildet sind, und
eine dritte Oberfläche (27d), die den unteren Einlass-Luftpfad und den unteren Lufteinlass zusammen mit der zweiten Oberfläche des ersten Rahmens als ein Ergebnis dessen konfiguriert, dass der zweite Rahmen an einer Rückflächenseite des ersten Rahmens befestigt ist, an dem zweiten Rahmen gebildet ist.

3. Klimagerät-Innenraumeinheit nach Anspruch 1, wobei
der erste Rahmen ferner eine Kommunikationsöffnung (17e) zum Zuführen von Luft aus dem unteren Einlass-Luftpfad zum Wärmetauscher hat, und
der zweite Rahmen auf eine solche Weise befestigt ist, dass er sich von einem offenen Endbereich der Kommunikationsöffnung erstreckt und durchgehend den unteren Einlass-Luftpfad und die Kommunikationsöffnung bildet.

Revendications

1. Unité intérieure de climatisation (10) d'un type mural qui est équipée d'un carter de corps (11) et possédant une entrée d'air inférieure (21) disposée dans une partie inférieure, l'unité intérieure de climatisation comprenant :

Un premier châssis (17) qui comporte des parties de support d'échangeur de chaleur (17h) qui supportent un échangeur de chaleur (13) ; et un second châssis (27) qui, avec le premier châssis, configure l'entrée d'air inférieure et un chemin d'air d'entrée inférieure (16) allant de l'entrée d'air inférieure à l'échangeur de chaleur, le second châssis étant installé face à une paroi côté installation,
caractérisée en ce que
l'unité intérieure de climatisation (10) comprend en outre une plaque de fixation (11c) et peut être fixée à la paroi côté installation par l'intermédiaire de la plaque de fixation (11c), dans laquelle le premier châssis (17) comprend en outre une partie de montage (17d), fixée à la plaque de fixation (11c), pour monter une surface arrière de l'unité intérieure de climatisation sur la paroi côté installation (45)

2. Unité intérieure de climatisation selon la revendication 1, dans laquelle
une première surface (17f) qui forme un chemin d'air de sortie pour souffler l'air à partir de l'échangeur de chaleur et une deuxième surface (17g) qui est une surface sur le côté opposé de la première surface sont formées sur le premier châssis, et
une troisième surface (27d) qui configure le chemin d'air d'entrée inférieure et l'entrée d'air inférieure avec la deuxième surface du premier châssis à la suite de la fixation du second châssis à un côté de surface arrière du premier châssis est formée sur le second châssis.

3. Unité intérieure de climatisation selon la revendication 1, dans laquelle
le premier châssis comporte en outre une ouverture de communication (17e) pour acheminer l'air du chemin d'air d'entrée inférieure à l'échangeur de chaleur, et
le second châssis est fixé de manière à s'étendre depuis une partie d'extrémité ouverte de l'ouverture de communication et forme en continu le chemin d'air d'entrée inférieure et l'ouverture de communication.

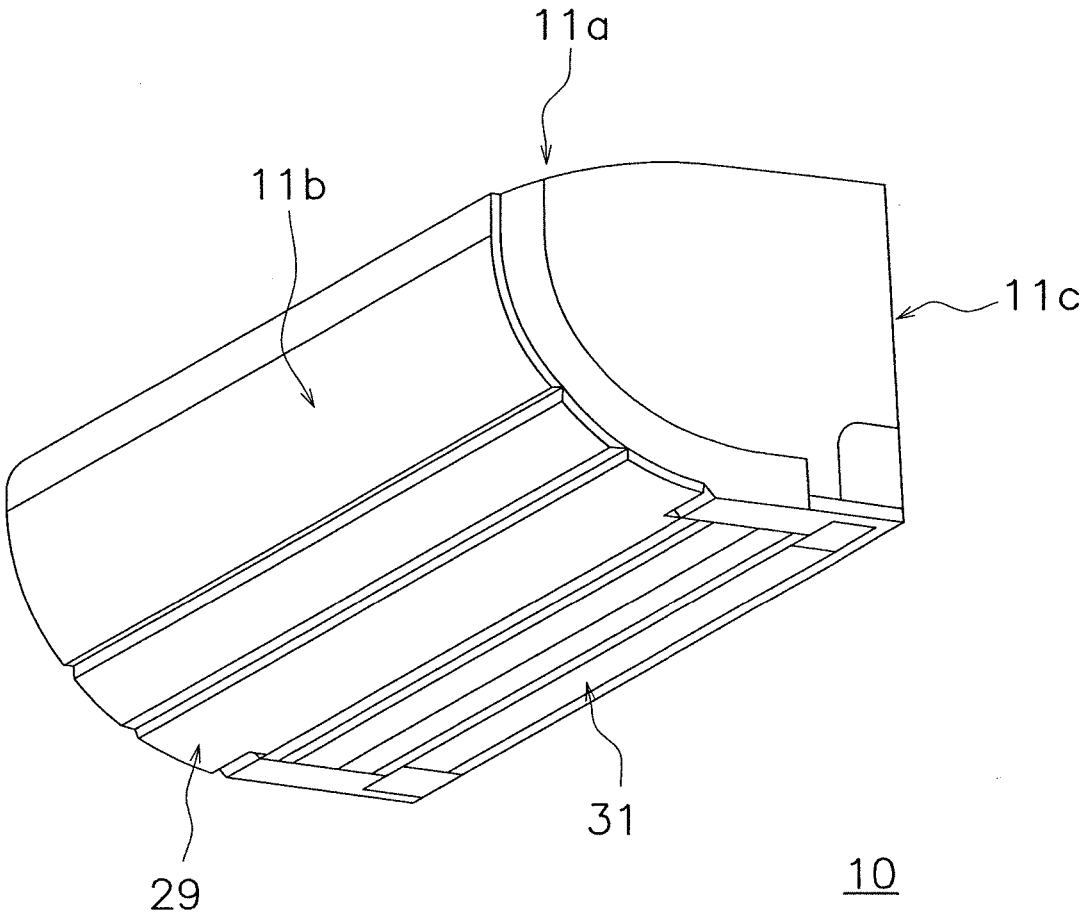

FIG. 1

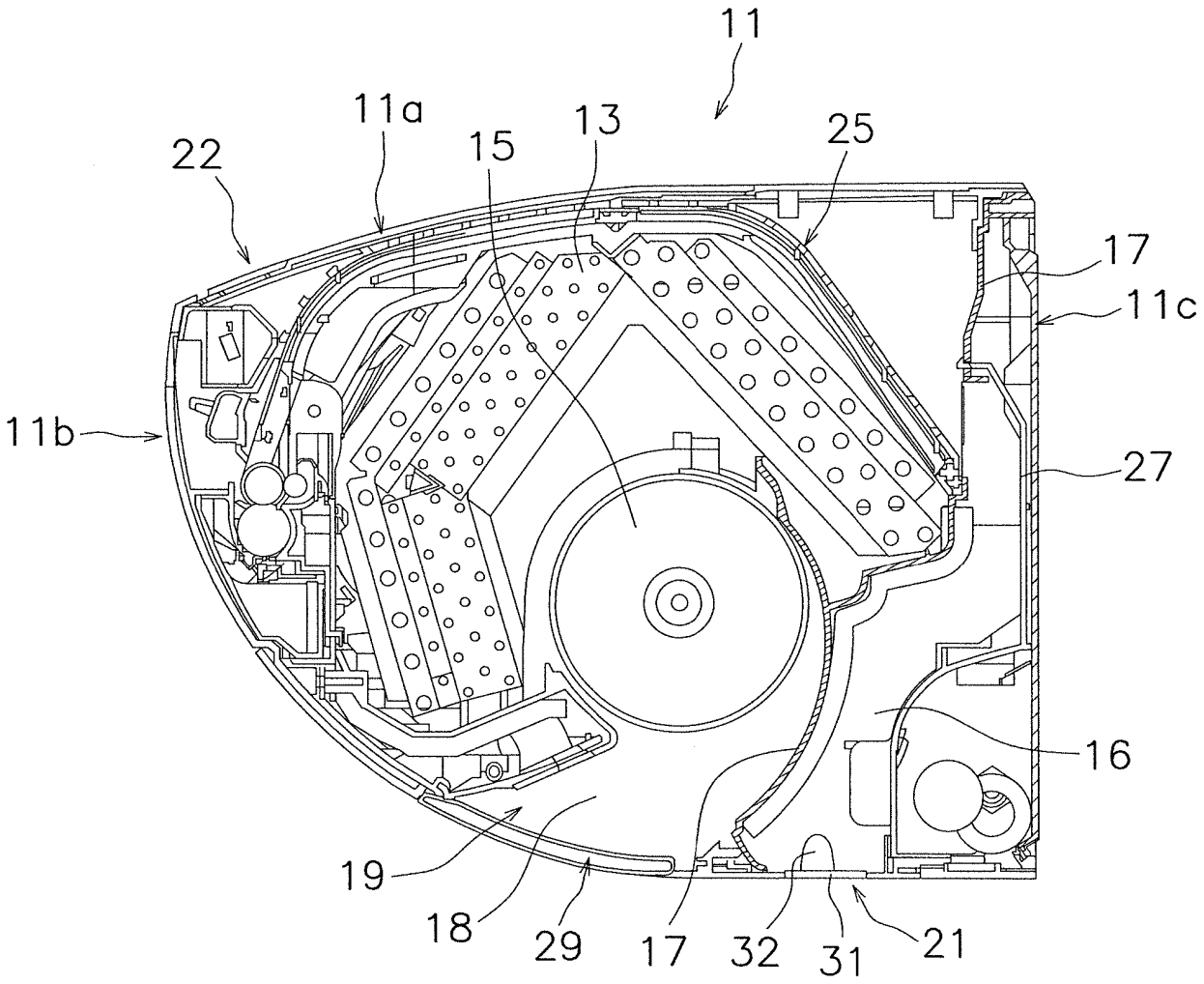

FIG. 2

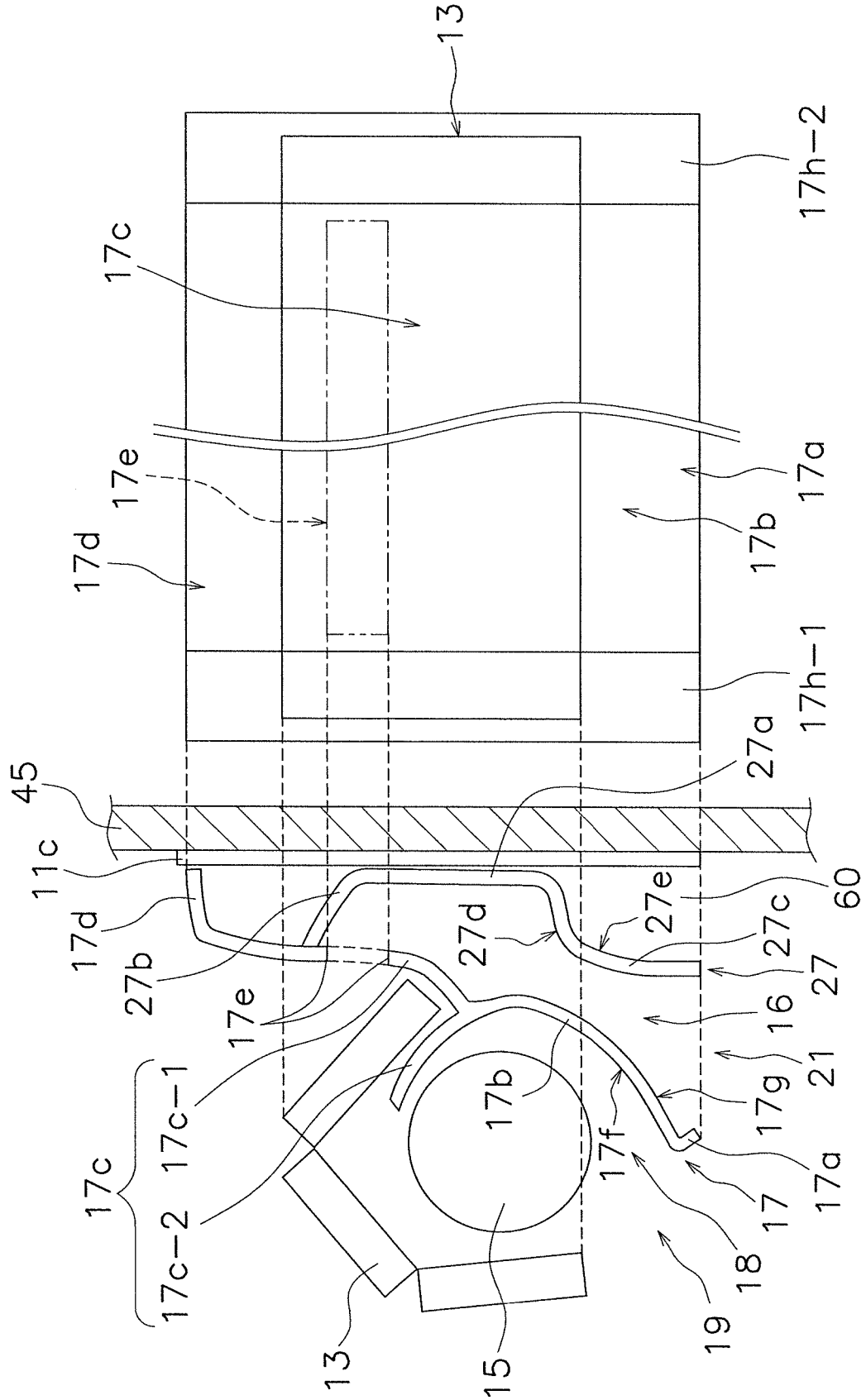
13
17h-2
17c
17e
17d
17b
17a
(b)
17h-1
27a
45
11c
60
27e
27c
27d
27b
27
16
21
17e
17c-1
17c
17c-2
17b
17g
17f
17a
17
18
19
13
15
(a)

FIG. 3

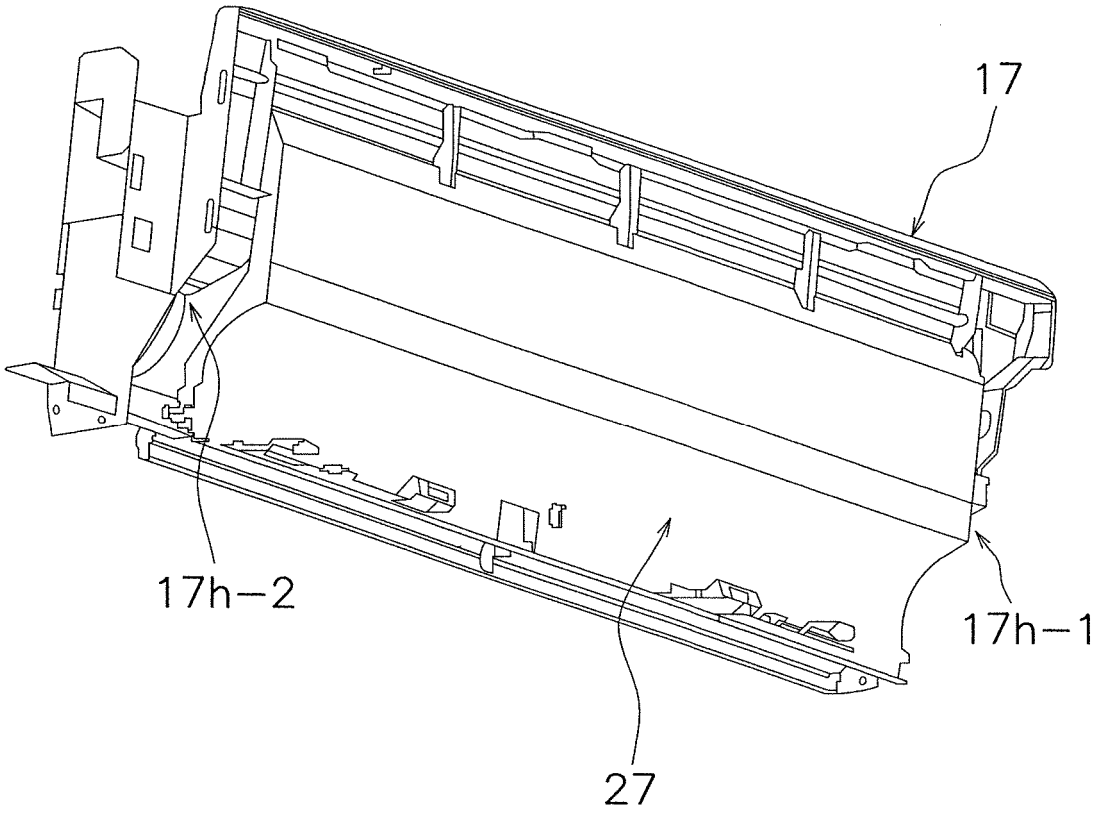

FIG. 4

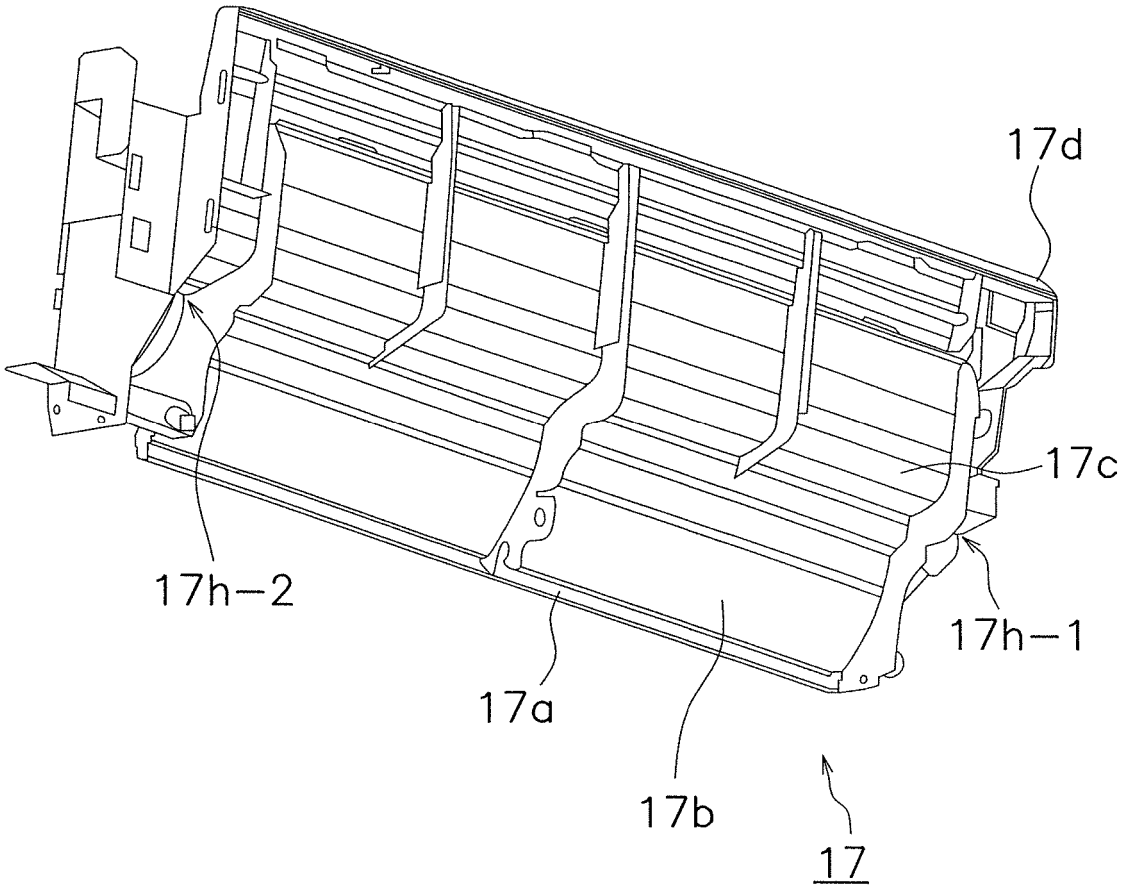

FIG. 5

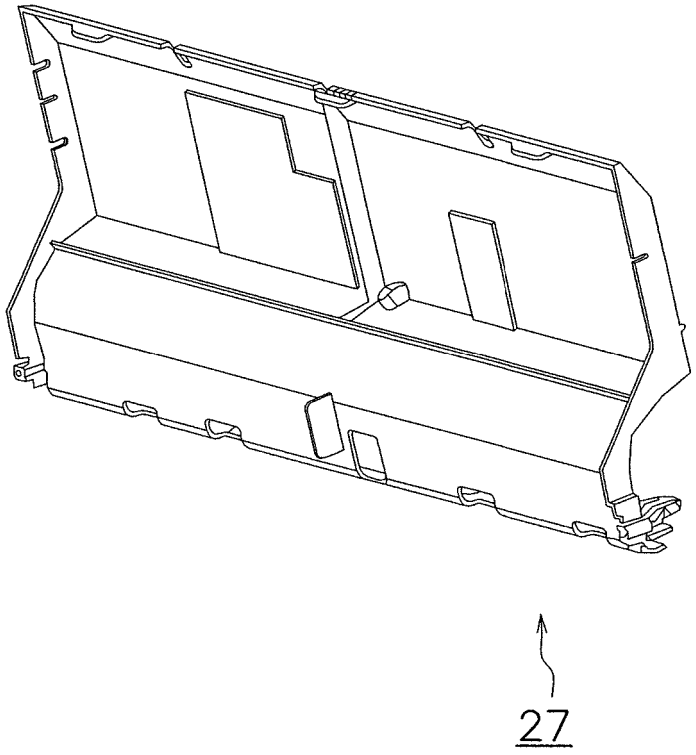

FIG. 6

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- JP 2001116346 A **[0002] [0055]**
- JP 2002195599 A **[0003]**