

(19)



(11)

EP 3 647 675 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention of the grant of the patent:

05.04.2023 Bulletin 2023/14

(21) Application number: **17915223.6**

(22) Date of filing: **28.06.2017**

(51) International Patent Classification (IPC):

F24F 13/22 ^(2006.01) **F24F 1/0007** ^(2019.01)

(52) Cooperative Patent Classification (CPC):

F24F 13/222; F24F 1/0007

(86) International application number:

PCT/JP2017/023667

(87) International publication number:

WO 2019/003327 (03.01.2019 Gazette 2019/01)

(54) **AIR CONDITIONING INDOOR UNIT**

KLIMAAANLAGEN-INNENRAUMEINHEIT

UNITÉ INTÉRIEURE DE CLIMATISATION

(84) Designated Contracting States:

**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR**

(43) Date of publication of application:

06.05.2020 Bulletin 2020/19

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Description

Technical Field

[0001] The present invention relates to an air-conditioning indoor unit including a drain pan configured to drain water generated in a cooler and draining it to the outside.

Background Art

[0002] An existing air-conditioning indoor unit includes a housing, a heat exchanger, a fan, a drain pan, and a control box. One example of such an air-conditioning indoor unit is a floor type indoor unit, or a so-called low-boy type indoor unit.

[0003] A drain pan in the aforementioned indoor unit has a box-like shape with a top opening and includes a drain water collecting part and a recessed water collecting part. The recessed water collecting part includes at its end a drain port, and connecting a hose to the drain port enables drainage of drain water to the outside of the indoor unit through the hose (see JP 2007-132641, paragraphs [0010]-[0012], Figs. 1 and 2, for example).

[0004] KR 100 716 251 B1 relates to an air conditioner equipped with a drain pan to collect and discharge condensed water generated in a heat exchanger. This document discloses an air-conditioning indoor unit having the features of the preamble of claim 1 and of claim 2.

Summary of Invention

Technical Problem

[0005] The drain pan disclosed in JP 2007-132641 is a molded product where a drain water collecting part and a socket mounting face are flush with each other. This drain pan is made of foamed polystyrene beads, which are inexpensive and highly moldable. However, molding the drain pan from polystyrene beads alone may cause water leakage through a gap between beads remaining in the molded product. To prevent the water leakage, a waterproof sheet made of synthetic resin, called skin sheet, is covered from the top opening. The waterproof sheet is adhered at a socket portion with an adhesive so that water does not leak through the gap between beads. This application of the adhesive results in formation of a mound of the adhesive. When this drain pan is used in an air-conditioning indoor unit with a natural drainage system, which is often employed in floor type indoor units, such a mound may cause insufficient drainage of drain water.

[0006] The present invention has been made in view of the above problem and aims at improving drainage of drain water in an air-conditioning indoor unit with a natural drainage system.

Solution to Problem

[0007] The invention is defined in independent claims 1 and 2. According to an embodiment, there is provided an air-conditioning indoor unit including: a cooler; and a drain pan configured to receive drain water generated on a surface of the cooler and drain the drain water to an outside, wherein the drain pan includes: a drain pan body configured to receive the drain water, the drain pan body including: a drain water collecting part configured to gather the drain water; a socket mounting face formed at a bottom face of the drain water collecting part; and a socket mounting hole formed in an inner face of the drain water collecting part and in communication with the outside; a drain socket including: a drain nozzle part inserted into the socket mounting hole; and a horizontal plate part placed on the socket mounting face; a waterproof sheet configured to cover an inner face and a bottom face of the drain pan body; and an adhesive that adheres the waterproof sheet to the drain pan body, and a top face of an edge portion of the horizontal plate part of the drain socket is positioned below the bottom face of the drain water collecting part.

Advantageous Effects of Invention

[0008] According to an embodiment, the top face of the edge portion of the horizontal plate part of the drain socket placed on the socket mounting face of the drain water collecting part is positioned below the bottom face of the drain water collecting part. This creates a step between the top face of the edge portion of the horizontal plate part and the bottom face of the drain water collecting part. This step can offset the height of the applied adhesive, avoiding formation of a mound of the adhesive that may block the drain water. This results in a drain pan with improved natural drainage function.

Brief Description of Drawings

[0009]

[Fig. 1] Fig. 1 is a perspective view of an exterior of an air-conditioning indoor unit in Embodiment 1 of the present invention.

[Fig. 2] Fig. 2 is a perspective view of an internal structure of the air-conditioning indoor unit in Embodiment 1 of the present invention.

[Fig. 3] Fig. 3 is an overall perspective view of a drain pan used in the air-conditioning indoor unit in Embodiment 1 of the present invention.

[Fig. 4] Fig. 4 is a perspective view of a drain socket in Embodiment 1 of the present invention.

[Fig. 5] Fig. 5 is a perspective view illustrating how a waterproof sheet is adhered to the drain socket of the drain pan in Embodiment 1 of the present invention.

[Fig. 6] Fig. 6 is a partial, sectional side view of a

longitudinal section of the drain pan in Embodiment 1 of the present invention.

[Fig. 7] Fig. 7 is a partial, sectional front view mainly illustrating an adhesion area between the waterproof sheet and the drain socket of the drain pan in Embodiment 1 of the present invention.

[Fig. 8] Fig. 8 is a partial, sectional front view mainly illustrating an adhesion area between a waterproof sheet and a drain socket of a conventional drain pan.

[Fig. 9] Fig. 9 is a perspective view of the drain socket in Embodiment 2 of the present invention.

[Fig. 10] Fig. 10 is a partial, sectional front view mainly illustrating an adhesion area between the waterproof sheet and the drain socket of the drain pan in Embodiment 2 of the present invention.

Description of Embodiments

[0010] The air-conditioning indoor unit will be explained below with reference to the drawings. Throughout the drawings, including Fig. 1, like reference numerals refer to similar or corresponding parts. This holds true for all of the following embodiments in their entirety. Throughout the specification, the forms of elements as given below are by way of example only and not restrictive. When height, size and other factors are described as being high or low or large or small, it is not defined in comparison with a specific absolute value, but relatively defined according to factors such as structures and materials.

Embodiment 1

[0011] Fig. 1 is a perspective view of an exterior of an air-conditioning indoor unit in Embodiment 1 of the present invention, and Fig. 2 is a perspective view of an internal structure of the air-conditioning indoor unit in Embodiment 1 of the present invention. The air-conditioning indoor unit 100 in Embodiment 1 of the present invention is a floor type indoor unit, and its main components include a rectangular, box-like housing 1 and a heat exchanger (an example of the cooler) 21, a drain pan 22, a fan 23, and a control box 24 installed inside the housing 1. The drain pan 22 is placed below the heat exchanger 21 and used to receive drain water such as condensed water generated on a surface of the heat exchanger 21 and dew condensation water generated on surfaces of pipes and other components.

[0012] As shown in Figs. 3 to 7, the drain pan 22 includes a drain pan body 22a, a drain socket 34, a waterproof sheet 71, and an adhesive 72. The drain pan body 22a includes a heat exchanger receiving plane 31 for receiving the heat exchanger 21, a groove 32 for guiding the drain water, and a drain water collecting part 33 for gathering the drain water. On an inner face 29 near the drain water collecting part 33, there is a socket mounting hole 27 communicating with the outside. The drain pan body 22a has a top opening and, for example, a substan-

tially rectangular tray shape in plan view to receive the drain water. The drain water collecting part 33 is formed at one end of the drain pan body 22a, and a bottom face of the groove 32 of the drain pan body 22a is inclined at an inclination angle θ to run down toward the drain water collecting part 33. This allows the received drain water to gather in the drain water collecting part 33 naturally. A socket mounting face 42 depressed downward is formed in an area of the bottom face of the drain water collecting part 33. The bottom face and the socket mounting face 42 of the drain water collecting part 33 are slightly inclined downward toward a drain nozzle part 35. Thus, the drain water gathered in the drain water collecting part 33 is drained to the outside through a drain socket 34, which will be described below.

[0013] Fig. 4 is a perspective view of the drain socket 34 in Embodiment 1 of the present invention. The drain socket 34 includes an upright plate part 36 fitted onto the inner face 29 of the drain water collecting part 33 and including a drain port 37 for drainage of the drain water to the outside; the drain nozzle part 35 protruding from the drain port 37 and is inserted into the socket mounting hole 27 of the drain pan body 22a; and a flat horizontal plate part 41 extending substantially horizontally from a lower edge of the upright plate part 36 and is placed on the socket mounting face 42 of the drain water collecting part 33.

[0014] The waterproof sheet 71 is attached through the top opening of the drain pan body 22a at the time of molding of the drain pan and covers the inner and bottom faces of the drain pan body 22a. A portion of the waterproof sheet 71 at the drain port 37 of the drain socket 34 is cut out to form an edge portion 71a. For example, the waterproof sheet 71 is made of ABS resin with the thickness S of about 0.5 mm. The adhesive 72 provides adhesion between the waterproof sheet 71 and the drain pan 22 so that the waterproof sheet 71 does not separate from the drain pan 22. For example, the adhesive 72 is made of epoxy resin.

[0015] A description will be given on an adhesion structure of the waterproof sheet 71 around the drain socket 34. As shown in Fig. 5, the waterproof sheet 71 is cut around the drain socket 34 to surround the drain port 37, and the adhesive 72 is applied to an adhesion area 51 to make the waterproof sheet 71 adhere to the drain socket 34. Also, as shown in Fig. 7, the edge portion 71a of the waterproof sheet 71 cut around the drain port 37 of the drain socket 34 is placed on a top face 41b of an edge portion 41a of the horizontal plate part 41 of the drain socket 34, and the adhesive 72 is applied over the edge portion 71a and the top face 41b.

[0016] The top face 41b of the edge portion 41a of the horizontal plate part 41 of the drain socket 34 placed on the socket mounting face 42 of the drain water collecting part 33 is positioned below the bottom face 28 of the drain water collecting part 33. The height T from the top face 41b of the edge portion 41a of the horizontal plate part 41 to the bottom face 28 of the drain water collecting part

33 is set larger than the thickness S of the waterproof sheet 71; for example, the height T is set to about 2.5 mm. This height T creates a step between the top face 41b of the edge portion 41a of the horizontal plate part 41 and the bottom face 28 of the drain water collecting part 33, and creating this step avoids formation of a mound of the adhesive 72 in adhering the waterproof sheet 71 to the drain socket 34. More specifically, the adhesive 72 is applied over the top face of the edge portion 71a of the waterproof sheet 71 and the top face 41b of the edge portion 41a of the horizontal plate part 41 of the drain socket 34 so as to allow the applied adhesive 72 to slope down toward the top face 41b of the horizontal plate part 41. Applying the adhesive 72 in this way ensures that the drain water is not blocked by the adhesive 72, resulting in a drain pan with improved natural drainage function.

[0017] An operation of the air-conditioning indoor unit 100 will be described below. In the air-conditioning indoor unit 100, the heat exchanger 21 is assembled inside the housing 1, and the drain pan 22 is placed below the heat exchanger 21. The drain pan 22 includes the drain socket 34 provided with the drain nozzle part 35 projecting to the outside, and attaching a hose 22b to the drain nozzle part 35 completes installation of the air-conditioning indoor unit 100. Then, upon driving of the fan 23, a suction port 25 in a lower part of the housing 1 suctions indoor air to let it pass through the heat exchanger 21, where the indoor air is cooled and air-conditioned. The air-conditioned air is blown into the room through a blow duct 26 in an upper part of the housing 1. The drain water generated on the surface of the heat exchanger 21 during the air-conditioning drops onto, and is received by, the drain pan 22.

[0018] As described above, in the drain pan 22 of the air-conditioning indoor unit 100 in Embodiment 1, the top face 41b of the edge portion 41a of the horizontal plate part 41 of the drain socket 34 is positioned below the bottom face 28 of the drain water collecting part 33. This allows for adhesion of the waterproof sheet 71 without having to form a mound of the adhesive 72 that may block the drain water. This ensures drainage of the drain water to the outside.

[0019] Additionally, the adhesive 72 is applied such that the applied adhesive 72 slopes down toward the top face 41b of the horizontal plate part 41. This facilitates guiding of the drain water on the waterproof sheet 71 toward the horizontal plate part 41 and eventually the drain port 37, ensuring drainage of the drain water to the outside. This can also reduce the amount of adhesive 72 to be applied, enabling low-cost manufacturing.

[0020] The bottom face of the groove 32 of the drain pan body 22a is inclined toward the drain water collecting part 33, and the bottom face and the socket mounting face 42 of the drain water collecting part 33 are slightly inclined toward the drain nozzle part 35. This facilitates natural drainage, to the outside, of the drain water generated in the heat exchanger 21 and other components

and received by the drain pan 22, allowing to maintain good drainage of the drain water.

[0021] For comparison, in a conventional drain pan, the top face 41b of the horizontal plate part 41 placed on the socket mounting face 42 lies flush with the bottom face of the drain water collecting part 33, as shown in Fig. 8. In that case, when the adhesive 72 is used for adhesion between the edge portion 71a of the waterproof sheet 71 and the edge portion 41a of the horizontal plate part 41, a mound of the adhesive 72 is created on the waterproof sheet 71, acting like a dam. This results in the drain water accumulating on the waterproof sheet 71 to the depth of about 2 to 5 mm, which is undesirable.

15 Embodiment 2

[0022] A description will now be given on the air-conditioning indoor unit in Embodiment 2 of the present invention. Fig. 9 is a perspective view of the drain socket in Embodiment 2 of the present invention. Fig. 10 is a partial, sectional front view mainly illustrating an adhesion area between the waterproof sheet and the drain socket of the drain pan in Embodiment 2 of the present invention. In Figs. 8 and 9, the same reference numerals as those in Figs. 4 and 7 refer to the same or corresponding components, and detailed description thereof will be omitted.

[0023] The drain socket 341 used for the air-conditioning indoor unit 100 in Embodiment 2 of the present invention differs from the drain socket in Embodiment 1 in that the drain socket 341 includes an elevated portion 38 raised above the edge portion 41a of the horizontal plate part 41.

[0024] More specifically, the elevated portion 38 continuous from the upright plate part 36 of the drain socket 341 is formed at the center of the horizontal plate part 41 and at a position higher than the edge portion 41a of the horizontal plate part 41. The edge portion 71a of the waterproof sheet 71 is placed on the edge portion 41a of the horizontal plate part 41 around the elevated portion 38. The drain water collecting part 33 of the drain pan body 22a is formed with the socket mounting face 42 having an uneven surface conforming to the bottom shape of the horizontal plate part 41 of the drain socket 341. The height of the elevated portion 38 is made equal to the height of the waterproof sheet 71 covering the bottom face 28 of the drain water collecting part 33. The adhesive 72 is filled onto the edge portion 41a of the horizontal plate part 41 around the elevated portion 38 up to the height flush with a top face of the elevated portion 38.

[0025] As described above, in Embodiment 2, the edge portion 71a of the waterproof sheet 71 is placed on the edge portion 41a of the horizontal plate part 41 around the elevated portion 38, the height of the elevated portion 38 is made equal to the height of the waterproof sheet 71, and the adhesive 72 is filled into the recess on the edge portion 41a of the horizontal plate part 41 around

the elevated portion 38 up to the height flush with the top face of the elevated portion 38. This avoids formation of a mound of the adhesive 72, preventing the adhesive 72 from blocking the drain water. This also allows for easy control of the amount of adhesive 72 to be applied.

[0026] The air-conditioning unit according to the present invention may have variations as defined by the appended claims. Also, the height T of the step may be optionally changed as long as the adhesive 72 does not block the drain water.

Reference Signs List

[0027]

1 housing 21 heat exchanger (cooler) 22 drain pan
22a drain pan body 22b hose 23 fan 24 control box
25 suction port 26 blow duct
27 socket mounting hole 28 bottom face 29 inner
face 31 heat exchanger receiving plane 32 groove
33 drain water collecting part 34, 341
drain socket 35 drain nozzle part 36 upright plate
part 37 drain port
38 elevated portion 41 horizontal plate part 41a edge
portion 41b top face 42 socket mounting face 51 ad-
hesion area 71 waterproof sheet 71a edge portion
72 adhesive 100 air-conditioning indoor unit
S thickness T height θ inclination angle

Claims

1. An air-conditioning indoor unit (100) comprising:

a cooler (21); and
a drain pan (22) configured to receive drain water generated on a surface of the cooler (21) and drain the drain water to an outside, wherein the drain pan (22) includes:

a drain pan body (22a) configured to receive the drain water, the drain pan body (22a) including: a drain water collecting part (33) configured to gather the drain water; a socket mounting face (42) formed at a bottom face (28) of the drain water collecting part (33); and a socket mounting hole (27) formed in an inner face (29) of the drain water collecting part (33) and in communication with the outside;
a drain socket (34) including: a drain nozzle part (35) inserted into the socket mounting hole (27); and a horizontal plate part (41) placed on the socket mounting face (42);
a waterproof sheet (71) configured to cover an inner face (29) and a bottom face (28) of the drain pan body (22a); and
an adhesive (72) that adheres the water-

proof sheet (71) to the drain pan body (22a),
characterized by

a top face of an edge portion (41a) of the horizontal plate part (41) of the drain socket (34) is positioned below the bottom face (28) of the drain water collecting part (33), and the adhesive (72) is applied such that the applied adhesive (72) slopes down toward the top face of the horizontal plate part (41) from a position of a top of the waterproof sheet (71) over an edge portion (71a) of the waterproof sheet (71), the position of the top of the waterproof sheet (71) being placed on an upper position of the edge portion (41a) of the horizontal plate (41).

2. An air-conditioning indoor unit (100) comprising:

a cooler (21); and
a drain pan (22) configured to receive drain water generated on a surface of the cooler (21) and drain the drain water to an outside, wherein the drain pan (22) includes:

a drain pan body (22a) configured to receive the drain water, the drain pan body (22a) including: a drain water collecting part (33) configured to gather the drain water; a socket mounting face (42) formed at a bottom face (28) of the drain water collecting part (33); and a socket mounting hole (27) formed in an inner face (29) of the drain water collecting part (33) and in communication with the outside;
a drain socket (341) including: a drain nozzle part (35) inserted into the socket mounting hole (27); and a horizontal plate part (41) placed on the socket mounting face (42);
a waterproof sheet (71) configured to cover an inner face (29) and a bottom face (28) of the drain pan body (22a); and
an adhesive (72) that adheres the waterproof sheet (71) to the drain pan body (22a),
characterized by

a top face of an edge portion (41a) of the horizontal plate part (41) of the drain socket (341) is positioned below the bottom face (28) of the drain water collecting part (33), wherein the horizontal plate part (41) includes an elevated portion (38) raised above the edge portion of the horizontal plate part (41), the elevated portion (38) has height equal to height of the waterproof sheet (71) covering the bottom face (28) of the drain water collecting part (33), and the adhesive (72) is filled onto the edge portion (41a) of the horizontal plate part (41) around the

elevated portion (38).

3. The air-conditioning indoor unit (100) of claim 1 or 2, wherein the bottom face (28) of the drain pan body (22a) is inclined downward toward the drain water collecting part (33). 5
4. The air-conditioning indoor unit (100) of any one of claims 1 to 3, wherein the socket mounting face (42) is inclined downward toward the drain nozzle part (35). 10

Patentansprüche

1. Klimaanlageeinheit (100) für Innenräume, umfassend: 15

einen Kühler (21); und
eine Ablaufschale (22), die ausgelegt ist, um Ablaufwasser, das auf einer Oberfläche des Kühlers (21) erzeugt wird, aufzunehmen und das Wasser an eine Umgebung abzuführen, wobei die Ablaufschale (22) Folgendes umfasst: 20

einen Ablaufschalenkörper (22a), der ausgelegt ist, um das Ablaufwasser aufzunehmen, wobei der Ablaufschalenkörper (22a) Folgendes umfasst: einen Ablaufwassersammelteil (33), der ausgelegt ist, um das Ablaufwasser zu sammeln; eine Stützenbefestigungsfläche (42), die auf einer Bodenfläche (28) des Ablaufwassersammelteils (33) ausgebildet ist; und ein Stützenbefestigungsloch (27), das in einer Innenfläche (29) des Ablaufwassersammelteils (33) ausgebildet ist und in Kommunikation mit der Umgebung steht; 25

einen Ablaufstutzen (34), der Folgendes umfasst: einen Ablaufdüsenteil (35), der in das Stützenbefestigungsloch (27) eingesetzt ist; und einen horizontalen Plattenteil (41), der auf der Stützenbefestigungsfläche (42) angeordnet ist; 30

eine wasserfeste Folie (71), die ausgelegt ist, um eine Innenfläche (29) und eine Bodenfläche (28) des Ablaufschalenkörpers (22a) zu bedecken; und 35

einen Klebstoff (72), der die wasserfeste Folie (71) an den Ablaufschalenkörper (22a) klebt, **dadurch gekennzeichnet, dass:** 40

eine Oberseite eines Randabschnitts (41a) des horizontalen Plattenteils (41) des Ablaufstutzens (34) unterhalb der Bodenfläche (28) des Ablaufwassersammelteils (33) angeordnet ist, und 45

der Klebstoff (72) so aufgebracht ist, dass der aufgebrachte Klebstoff (72) in Richtung der Oberseite des horizontalen Plattenteils (41) aus einer Position einer Oberseite der wasserdichten Folie (71) über einen Randabschnitt (71a) der wasserdichten Folie (71) schräg nach unten aufgebracht ist, wobei die Position auf der Oberseite der wasserdichten Folie (71) auf einer oberen Position des Randabschnitts (41a) der horizontalen Platte (41) angeordnet ist.

2. Klimaanlageeinheit (100) für Innenräume, umfassend: 50

einen Kühler (21); und
eine Ablaufschale (22), die ausgelegt ist, um Ablaufwasser, das auf einer Oberfläche des Kühlers (21) erzeugt wird, aufzunehmen und das Ablaufwasser an die Umgebung abzugeben, wobei 55

die Ablaufschale (22) Folgendes umfasst:
einen Ablaufschalenkörper (22a), der ausgelegt ist, um das Ablaufwasser aufzufangen, wobei der Ablaufschalenkörper (22a) Folgendes umfasst: einen Ablaufwassersammelteil (33), der ausgelegt ist, um das Ablaufwasser zu sammeln; eine Stützenbefestigungsfläche (42), die an einer Bodenfläche (28) des Ablaufwassersammelteils (33) ausgebildet ist; und ein Stützenbefestigungsloch (27), das in einer Innenfläche (29) des Ablaufwassersammelteils (33) ausgebildet ist und in Kommunikation mit der Umgebung steht; 60

einen Ablaufstutzen (341), der Folgendes umfasst: einen Ablaufdüsenteil (35), der in das Stützenbefestigungsloch (27) eingesetzt ist; und einen horizontalen Plattenteil (41), der auf der Stützenbefestigungsfläche (42) angeordnet ist; 65

eine wasserfeste Folie (71), die ausgelegt ist, um eine Innenfläche (29) und eine Bodenfläche (28) des Ablaufschalenkörpers (22a) zu bedecken; und 70

einen Klebstoff (72), der die wasserfeste Folie (71) an den Ablaufschalenkörper (22a) klebt, **dadurch gekennzeichnet, dass:** 75

eine Oberseite eines Randabschnitts (41a) des horizontalen Plattenteils (41) des Ablaufstutzens (341) unterhalb der Bodenfläche (28) des Ablaufwassersammelteils (33) angeordnet ist, wobei der horizontale Plattenteil (41) einen erhöhten Abschnitt (38) umfasst, der über den Randabschnitt des horizontalen Plattenteils (41) erhöht ist, wobei der erhöhte Abschnitt (38) eine Höhe auf- 80

weist, die gleich hoch ist wie die Höhe der was-
serfesten Folie (71), die die Bodenfläche (28)
des Ablaufwassersammelteils (33) bedeckt,
und

wobei der Klebstoff (72) in den Randabschnitt 5
(41a) des horizontalen Plattenteils (41) rund um
den erhöhten Abschnitt (38) eingefüllt ist.

3. Klimaanlageinheit (100) für Innenräume nach An-
spruch 1 oder 2, wobei die Bodenfläche (28) des
Ablaufschalenkörpers (22a) in Richtung des Ablauf-
wassersammelteils (33) nach unten geneigt ist. 10

4. Klimaanlageinheit (100) für Innenräume nach ei-
nem der Ansprüche 1 bis 3, wobei die Stützenbefes-
tigungsfläche (42) in Richtung des Ablaufdüsentils
(35) nach unten geneigt ist. 15

Revendications 20

1. Unité intérieure de climatisation (100), comprenant :

un refroidisseur (21) ; et
un bac de drainage (22) configuré pour recevoir 25
de l'eau de drainage générée sur une surface
du refroidisseur (21) et drainer l'eau de drainage
vers l'extérieur, dans lequel
le bac de drainage (22) inclut :

un corps de bac de drainage (22a) configuré
pour recevoir l'eau de drainage, le corps de
bac de drainage (22a) incluant : une partie
de collecte d'eau de drainage (33) configu-
rée pour rassembler l'eau de drainage ; une 35
face de montage de douille (42) formée au
niveau d'une face inférieure (28) de la partie
de collecte d'eau de drainage (33) ; et un
trou de montage de douille (27) formé dans
une face intérieure (29) de la partie de col-
lecte d'eau de drainage (33) et en commu-
nication avec l'extérieur ; 40

une douille de drainage (34) incluant : une
partie de buse de drainage (35) insérée
dans le trou de montage de douille (27) ; et 45
une partie de plaque horizontale (41) placée
sur la face de montage de douille (42) ;

une feuille imperméable à l'eau (71) confi-
gurée pour recouvrir une face intérieure
(29) et une face inférieure (28) du corps de 50
bac de drainage (22a) ; et

un adhésif (72) qui fait adhérer la feuille im-
perméable à l'eau (71) au corps de bac de
drainage (22a), **caractérisée en ce que**

une face supérieure d'une partie de bord (41a)
de la partie de plaque horizontale (41) de la
douille de drainage (34) est positionnée en des- 55

sous de la face inférieure (28) de la partie de
collecte d'eau de drainage (33), et

l'adhésif (72) est appliqué de sorte que l'adhésif
appliqué (72) descend vers la face supérieure
de la partie de plaque horizontale (41) à partir
d'une position d'un dessus de la feuille imper-
méable (71) au-dessus d'une partie de bord
(71a) de la feuille imperméable (71), la position
du dessus de la feuille imperméable (71) étant
placée sur une position supérieure de la partie
de bord (41a) de la plaque horizontale (41).

2. Unité intérieure de climatisation (100), comprenant :

un refroidisseur (21) ; et
un bac de drainage (22) configuré pour recevoir
de l'eau de drainage générée sur une surface
du refroidisseur (21) et drainer l'eau de drainage
vers l'extérieur, dans laquelle
le bac de drainage (22) inclut :

un corps de bac de drainage (22a) configuré
pour recevoir l'eau de drainage, le corps de
bac de drainage (22a) incluant : une partie
de collecte d'eau de drainage (33) configu-
rée pour rassembler l'eau de drainage ; une
face de montage de douille (42) formée au
niveau d'une face inférieure (28) de la partie
de collecte d'eau de drainage (33) ; et un
trou de montage de douille (27) formé dans
une face intérieure (29) de la partie de col-
lecte d'eau de drainage (33) et en commu-
nication avec l'extérieur ;

une douille de drainage (34) incluant : une
partie de buse de drainage (35) insérée
dans le trou de montage de douille (27) ; et
une partie de plaque horizontale (41) placée
sur la face de montage de douille (42) ;

une feuille imperméable à l'eau (71) confi-
gurée pour recouvrir une face intérieure
(29) et une face inférieure (28) du corps de
bac de drainage (22a) ; et

un adhésif (72) qui fait adhérer la feuille im-
perméable à l'eau (71) au corps de bac de
drainage (22a), **caractérisée en ce que**

une face supérieure d'une partie de bord (41a)
de la partie de plaque horizontale (41) de la
douille de drainage (34) est positionnée en
dessous de la face inférieure (28) de la partie
de collecte d'eau de drainage (33),
dans laquelle la partie de plaque horizontale (41)
inclut une partie surélevée (38) en relief au-des-
sus de la partie de bord de la partie de plaque
horizontale (41),

la partie surélevée (38) présente une hauteur
égale à la hauteur de la feuille imperméable (71)
recouvrant la face inférieure (28) de la partie de

collecte d'eau de drainage (33), et
l'adhésif (72) est versé sur la partie de bord (41a)
de la partie de plaque horizontale (41) autour de
la partie surélevée (38).

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3. Unité intérieure de climatisation (100) selon la revendication 1 ou 2, dans laquelle la face inférieure (28) du corps de bac de drainage (22a) est inclinée vers le bas en direction de la partie de collecte d'eau de drainage (33).

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4. Unité intérieure de climatisation (100) selon l'une quelconque des revendications 1 à 3, dans laquelle la face de montage de douille (42) est inclinée vers le bas en direction de la partie de buse de drainage (35).

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FIG. 1

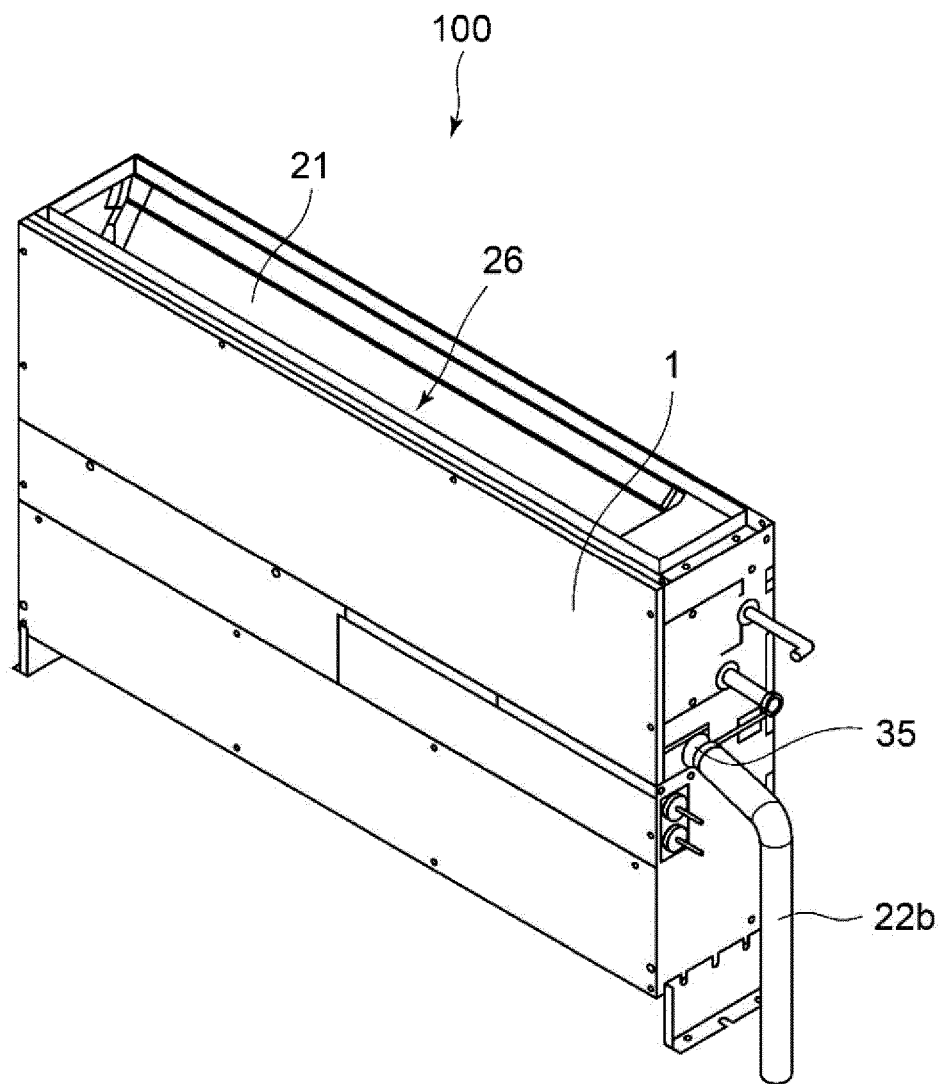


FIG. 2

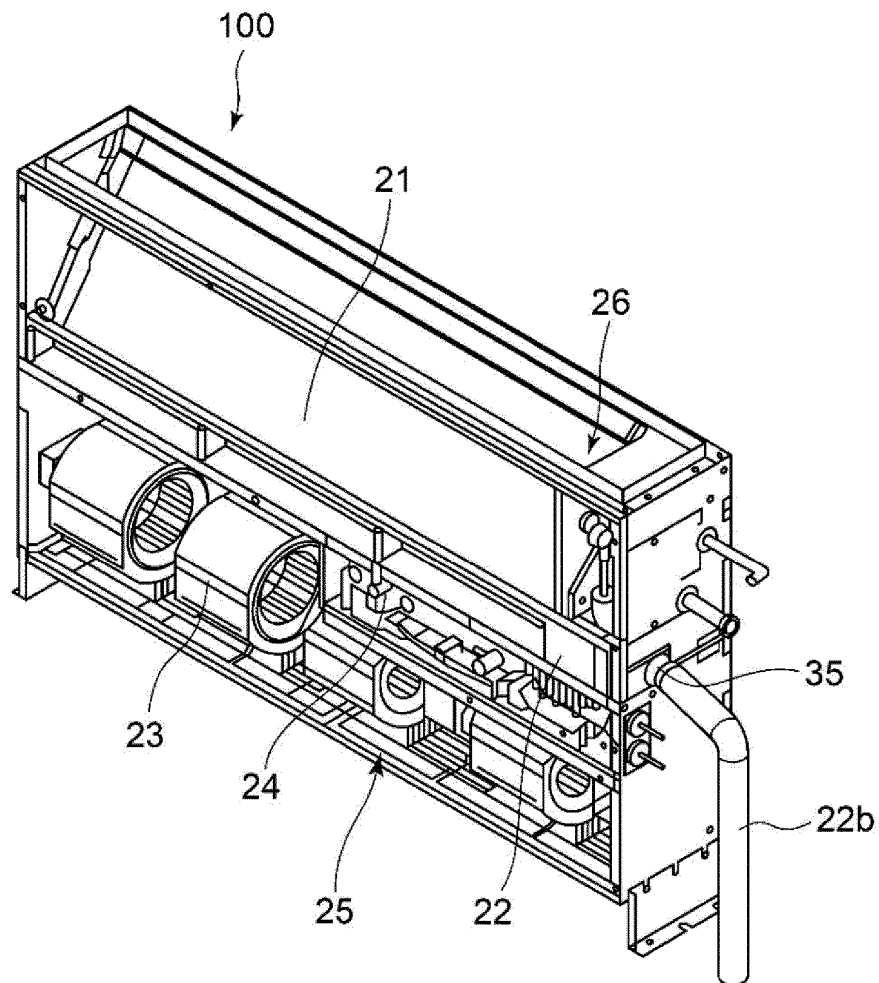


FIG. 3

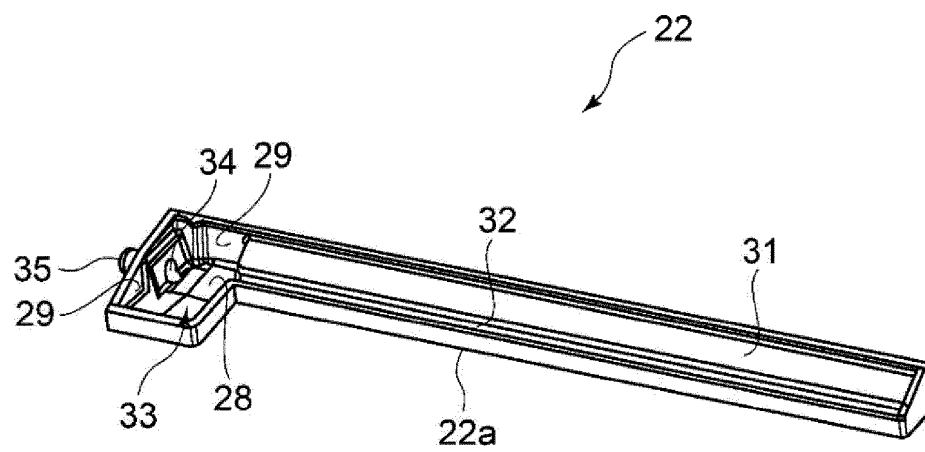


FIG. 4

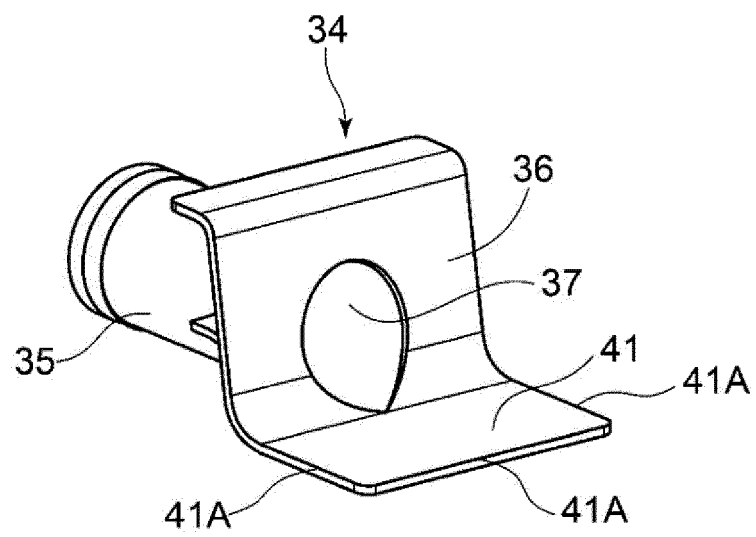


FIG. 5

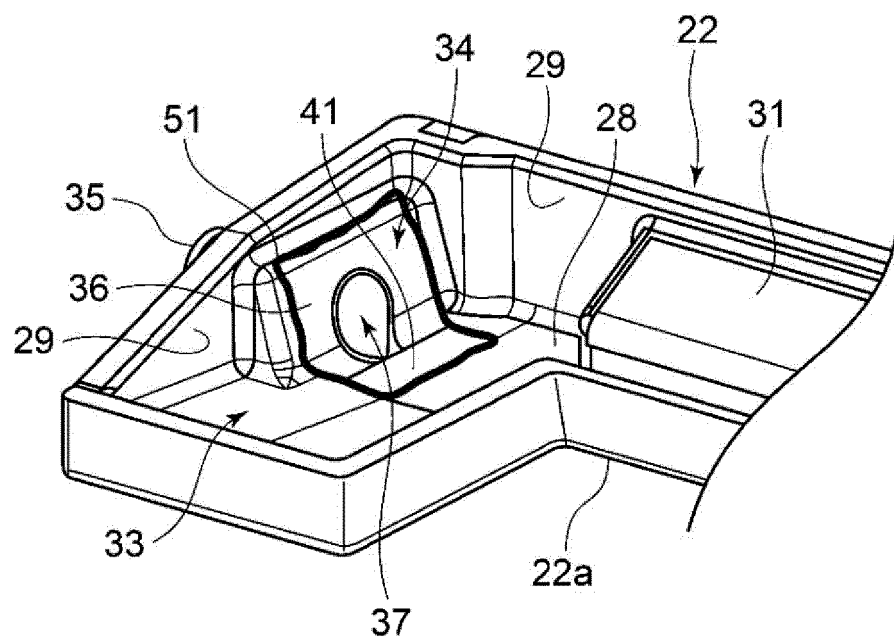


FIG. 6

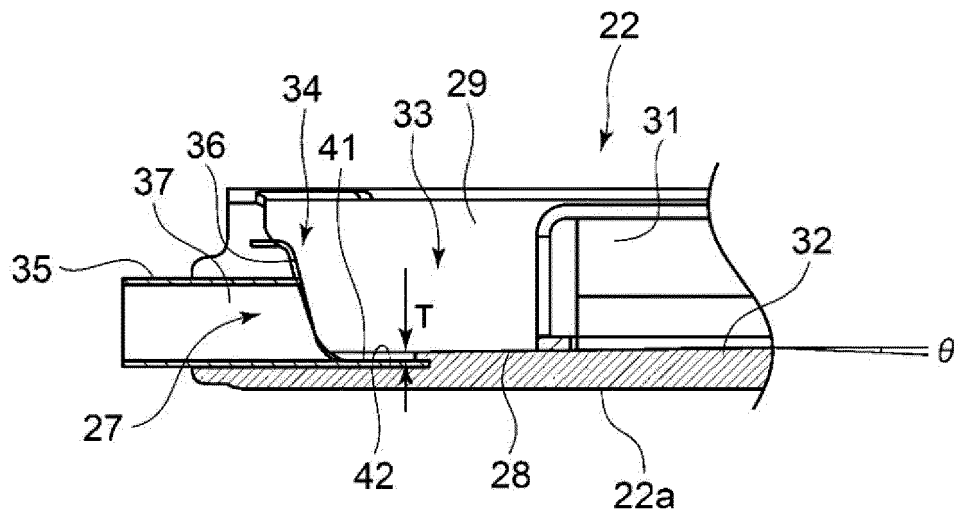


FIG. 7

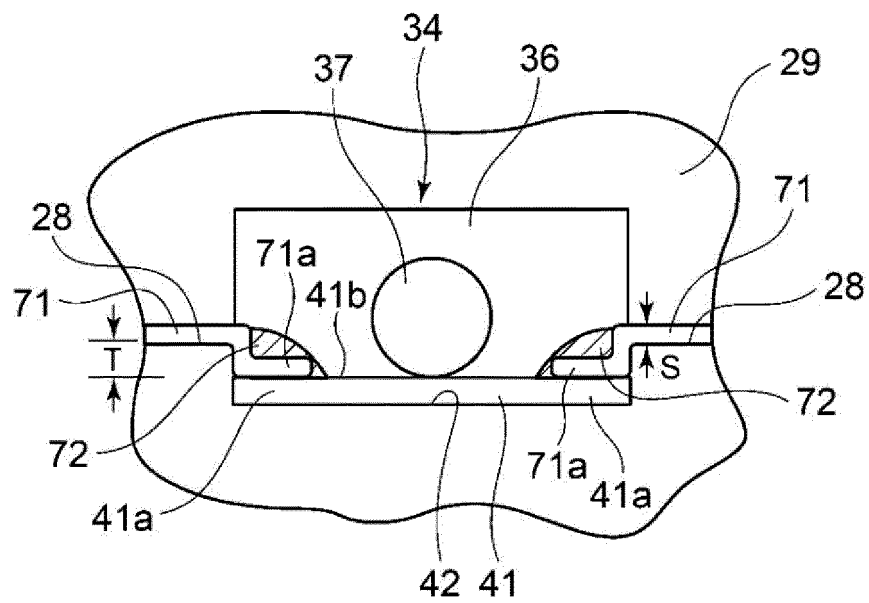


FIG. 8

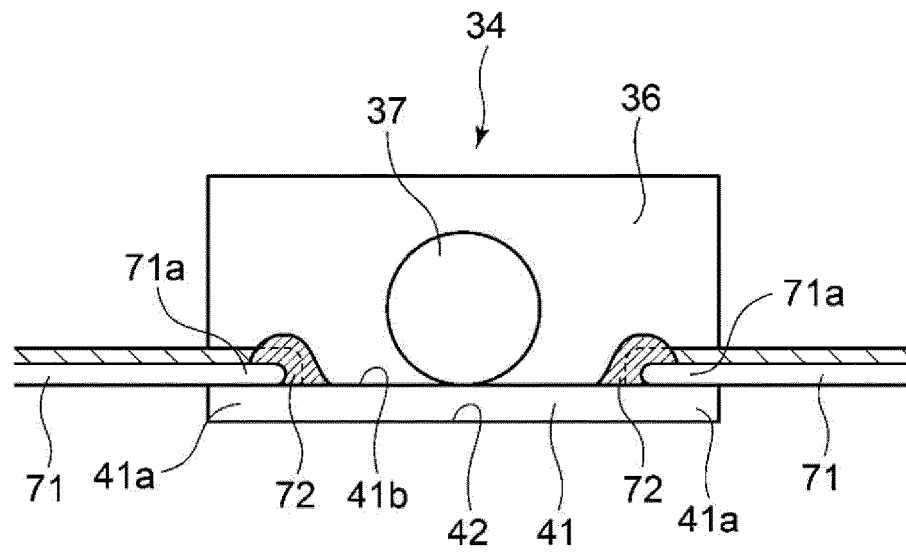


FIG. 9

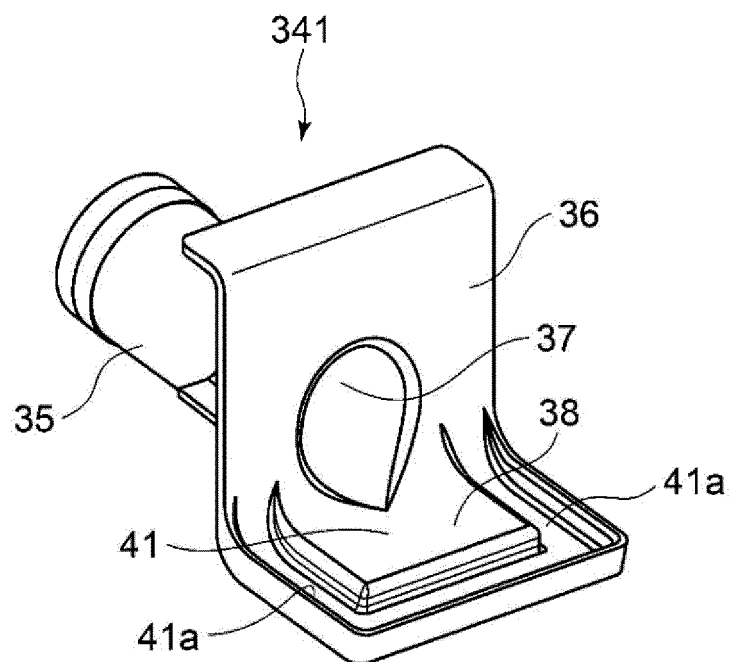
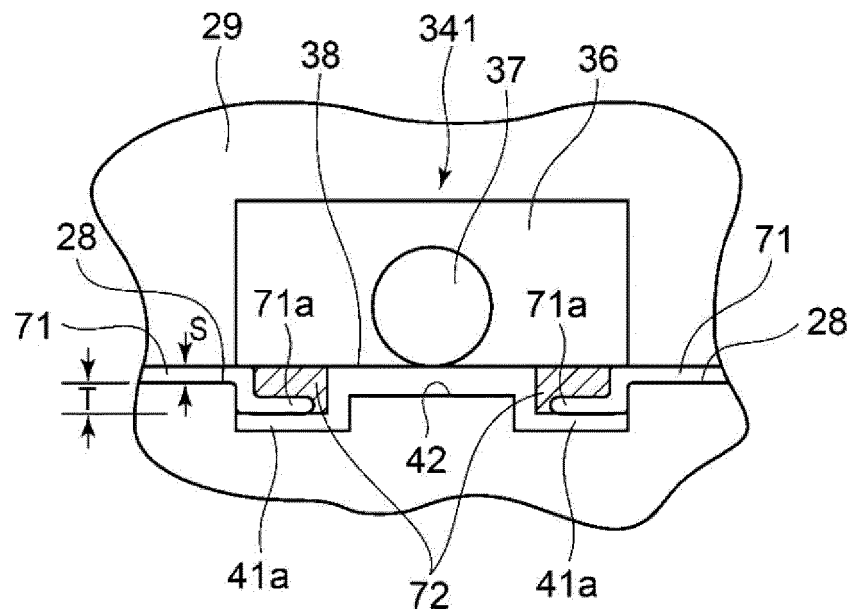


FIG. 10



REFERENCES CITED IN THE DESCRIPTION

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