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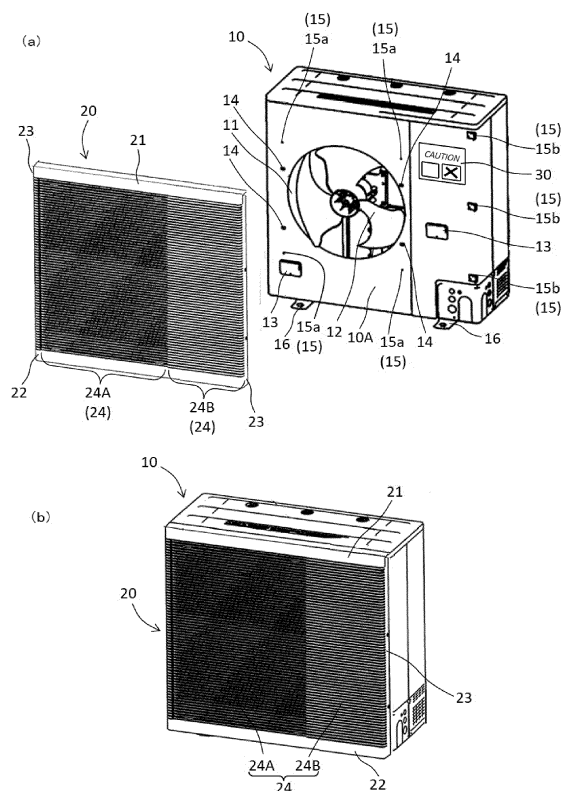
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(54) **OUTDOOR UNIT OF A HEAT PUMP DEVICE**

(57) [Object] It is an object of the present invention to provide an outdoor unit of a heat pump device capable of preventing the possibility that a contractor forgets to attach a front surface grill to an outdoor unit body. [Solving Means] The outdoor unit of the heat pump device of the present invention is shipped from a factory in a state where a front surface grill 20 thereof is detached from an outdoor unit body 10, and the front surface grill 20 is attached to the outdoor unit body 10 in a construction field site, wherein a label 30 on which construction attention-seeking display is described is pasted on a front surface grill attaching-surface 10A of the outdoor unit body 10.

[Figs. 1]



Description**[TECHNICAL FIELD]**

[0001] The present invention relates to an outdoor unit of a heat pump device which is shipped from a factory in a state where a front surface grill thereof is detached from an outdoor unit body and in which the front surface grill is attached to the outdoor unit body in a construction field site.

[BACKGROUND TECHNIQUE]

[0002] Patent document 1 discloses an outdoor unit having a front surface grill which is located on a front side of an air-blowing fan and which covers an air-blowing port.

[0003] To enhance design property of the outdoor unit, there is a known outdoor unit of a heat pump device in which a front surface of the outdoor unit is covered with a front surface grill.

[0004] It is known that during transportation from a factory to a construction field site, the front surface grill is not yet attached to a front surface of the outdoor unit. If the outdoor unit is transported in a state where the front surface grill is not yet attached to the outdoor unit, it is possible to prevent the front surface grill from being damaged, and the number of steps of a construction operation can be reduced.

[PRIOR ART DOCUMENT]**[PATENT DOCUMENT]**

[0005] [Patent Document 1] Japanese Patent Application Laidopen No.2017-9266

[SUMMARY OF THE INVENTION]**[PROBLEM TO BE SOLVED BY THE INVENTION]**

[0006] However, if a contractor does not attach the front surface grill to the outdoor unit body, the front surface grill rotates in a state where the air-blowing fan is exposed.

[0007] Therefore, to enhance safety, it is necessary that a contractor reliably attaches the front surface grill to the outdoor unit body before the outdoor unit body is operated.

[0008] It is an object of the present invention to provide an outdoor unit of a heat pump device capable of preventing the possibility that a contractor forgets to attach the front surface grill to the outdoor unit body.

[MEANS FOR SOLVING THE PROBLEM]

[0009] An outdoor unit of a heat pump device of the present invention described in claim 1 which is shipped

from a factory in a state where a front surface grill 20 thereof is detached from an outdoor unit body 10 and in which the front surface grill 20 is attached to the outdoor unit body 10 in a construction field site, wherein a label 30 on which construction attention-seeking display is described is pasted on a front surface grill attaching-surface 10A of the outdoor unit body 10.

[0010] According to the invention described in claim 2, in the outdoor unit of the heat pump device described in claim 1, the label 30 is pasted on a region which is not visually seen by the front surface grill 20 in a state where the front surface grill 20 is attached to the outdoor unit body 10.

[0011] According to the invention described in claim 3, in the outdoor unit of the heat pump device described in claim 1, an air-blowing fan opening 11 is formed in the outdoor unit body 10, an air-blowing fan 12 is placed at a position opposed to the air-blowing fan opening 11, and at least a portion of the label 30 closes at least a portion of the air-blowing fan opening 11.

[0012] According to the invention described in claim 4, in the outdoor unit of the heat pump device described in claim 1, an air-blowing fan opening 11 is formed in the outdoor unit body 10, and an air-blowing fan 12 is placed at a position opposed to the air-blowing fan opening 11, and at least a portion of the label 30 is pasted on the air-blowing fan 12.

[0013] According to the invention described in claim 5, in the outdoor unit of the heat pump device described in claim 1, at least a portion of the label 30 is pasted on a fixing portion between the front surface grill 20 and the outdoor unit body 10.

[0014] According to the invention described in claim 6, in the outdoor unit of the heat pump device described in claim 1, an air-blowing fan opening 11 is formed in the outdoor unit body 10, an air-blowing fan 12 is placed at a position opposed to the air-blowing fan opening 11, and a seal 40 which prevents rotation of the air-blowing fan 12 is pasted on the air-blowing fan 12.

[0015] According to the invention described in claim 7, in the outdoor unit of the heat pump device described in any one of claims 1 to 6, the construction attention-seeking display includes a content which generates a problem in safety of a user a contractor when the outdoor unit body 10 is operated in a state where the front surface grill 20 is not attached.

[EFFECT OF THE INVENTION]

[0016] According to the present invention, it is possible to prevent the possibility that a contractor forgets to attach a front surface grill to an outdoor unit body.

[BRIEF DESCRIPTION OF THE DRAWINGS]**[0017]**

Figs. 1 are perspective views showing an outdoor

unit of a heat pump device according to a first example of the present invention;

Figs. 2 are perspective views showing an outdoor unit of a heat pump device according to a second example;

Figs. 3 are perspective views showing an outdoor unit of a heat pump device according to a third example;

Figs. 4 are perspective views showing an outdoor unit of a heat pump device according to a fourth example; and

Figs. 5 are perspective views showing an outdoor unit of a heat pump device according to a fifth example.

[MODE FOR CARRYING OUT THE INVENTION]

[0018] An outdoor unit of a heat pump device of a first embodiment of the present invention which is shipped from a factory in a state where a front surface grill thereof is detached from an outdoor unit body and in which the front surface grill is attached to the outdoor unit body in a construction field site, wherein a label on which construction attention-seeking display is described is pasted on a front surface grill attaching-surface of the outdoor unit body. According to this embodiment, it is possible to prevent the possibility that a contractor forgets to attach the front surface grill to the outdoor unit body.

[0019] According to a second embodiment of the invention, in the outdoor unit of the heat pump device of the first embodiment, the label is pasted on a region which is not visually seen by the front surface grill in a state where the front surface grill is attached to the outdoor unit body. According to this embodiment, design property of the outdoor unit body is enhanced.

[0020] According to a third embodiment of the invention, in the outdoor unit of the heat pump device of the first embodiment, an air-blowing fan opening is formed in the outdoor unit body, an air-blowing fan is placed at a position opposed to the air-blowing fan opening, and at least a portion of the label closes at least a portion of the air-blowing fan opening. According to this embodiment, it is possible to more reliably prevent the possibility that a contractor forgets to attach the front surface grill to the outdoor unit body.

[0021] According to a fourth embodiment of the invention, in the outdoor unit of the heat pump device of the first embodiment, an air-blowing fan opening is formed in the outdoor unit body, and an air-blowing fan is placed at a position opposed to the air-blowing fan opening, and at least a portion of the label is pasted on the air-blowing fan. According to this embodiment, the air-blowing fan can rotate by peeling off the label, and it is possible to enhance safety of the outdoor unit body before it is operated.

[0022] According to a fifth embodiment of the invention, in the outdoor unit of the heat pump device of the first embodiment, at least a portion of the label is pasted on

a fixing portion between the front surface grill and the outdoor unit body. According to this embodiment, the front surface grill cannot be attached to the outdoor unit body unless the label is peeled off. Therefore, it is possible to more reliably prevent the possibility that a contractor forgets to attach the front surface grill to the outdoor unit body.

[0023] According to a sixth embodiment of the invention, in the outdoor unit of the heat pump device of the first embodiment, an air-blowing fan opening is formed in the outdoor unit body, an air-blowing fan is placed at a position opposed to the air-blowing fan opening, and a seal which prevents rotation of the air-blowing fan is pasted on the air-blowing fan. According to this embodiment, the air-blowing fan can rotate by peeling off the label, and it is possible to enhance safety of the outdoor unit body before it is operated.

[0024] According to a seventh embodiment of the invention, in the outdoor unit of the heat pump device of any one of the first to sixth embodiments, the construction attention-seeking display includes a content which generates a problem in safety of a user and a contractor when the outdoor unit body is operated in a state where the front surface grill is not attached. According to this embodiment, it is possible to more reliably prevent the possibility that a contractor forgets to attach the front surface grill to the outdoor unit body.

[EXAMPLES]

[0025] Examples of the present invention will be described below with reference to the drawings.

[0026] An outdoor unit of a heat pump device according to each of the examples of the invention is shipped from a factory in a state where a front surface grill thereof is detached from an outdoor unit body, and the front surface grill is attached to the outdoor unit body in a construction field site.

[0027] Figs. 1 are perspective views showing an outdoor unit of a heat pump device according to a first example, wherein Fig. 1(a) is a perspective view showing a state where the front surface grill is not yet attached to the outdoor unit body, and Fig. 1(b) is a perspective view showing a state where the front surface grill is attached to the outdoor unit body.

[0028] An air-blowing fan opening 11 is formed in the outdoor unit body 10, and an air-blowing fan 12 is placed at a position opposed to the air-blowing fan opening 11. The outdoor unit body 10 is provided therein with the air-blowing fan 12, a heat exchanger (not shown) and a compressor (not shown).

[0029] A front surface grill attaching-surface 10A of the outdoor unit body 10 includes a handgrip 13 formed as a recess, a positioning/engagement portion 14 for positioning the front surface grill 20, and fixing portions 15 for mounting the front surface grill 20.

[0030] The front surface grill attaching-surface 10A includes, as the fixing portions 15, first fixing portions 15a

placed around the air-blowing fan opening 11, and second fixing portions 15b which fixes the front surface grill 20 from a side.

[0031] The positioning/engagement portion 14 and the fixing portion 15 are fitting portions between the front surface grill 20 and the outdoor unit body 10.

[0032] A lower portion of the outdoor unit body 10 is provided with legs 16 on which the outdoor unit body 10 is placed. Bolt holes are formed in the legs 16, and the legs 16 are fixed to placing surfaces by bolts.

[0033] As shown in Fig. 1(b), in a state where the front surface grill 20 is mounted on the legs 16, the legs 16 are covered with the front surface grill 20.

[0034] Therefore, before the front surface grill 20 is mounted on the outdoor unit body 10, the legs 16 are fixed to the placing surfaces through the bolts.

[0035] The front surface grill 20 is formed from an upper frame 21, a lower frame 22, a pair of side frames 23 and a panel surface 24.

[0036] The panel surface 24 is formed such that the panel surface 24 is surrounded by the upper frame 21, the lower frame 22 and the pair of side frames 23. The panel surface 24 is formed from a first panel surface 24A forming a vent, and a second panel surface 24B which functions as a decorative surface forming no vent.

[0037] In a state where the front surface grill 20 is mounted on the outdoor unit body 10, the first panel surface 24A is placed at a position opposed to the air-blowing fan opening 11.

[0038] As shown in Fig. 1(b), in a state where the front surface grill 20 is mounted on the outdoor unit body 10, the front surface grill attaching-surface 10A is covered with the front surface grill 20.

[0039] An entire surface of the front surface grill attaching-surface 10A is covered with the front surface grill 20 in this manner, design property can be enhanced.

[0040] The front surface grill 20 may be divided into a plurality of pieces.

[0041] As shown in Fig. 1(a), a label 30 is pasted on the front surface grill attaching-surface 10A of the outdoor unit body 10. Construction attention-seeking is displayed on the label 30. The construction attention-seeking display includes contents which generate problems in safety of a user and a contractor when the outdoor unit body 10 is operated in a state where the front surface grill 20 is not attached.

[0042] By pasting the label 30 on the front surface grill attaching-surface 10A in this manner, it is possible to prevent the possibility that a contractor forgets to attach the front surface grill 20 to the outdoor unit body 10.

[0043] Further, as shown in Fig. 1(b), the label 30 is pasted on a region which cannot visually be seen by the front surface grill 20 in a state where the front surface grill 20 is attached to the outdoor unit body 10. That is, the second panel surface 24B is placed on a position of the label 30. Since the second panel surface 24B is a decorative surface where a vent is not formed, the label 30 is not visually seen in a state where the front surface

grill 20 is attached to the outdoor unit body 10. Therefore, design property of the outdoor unit body 10 is enhanced.

[0044] According to this example, the front surface grill 20 can be attached to the outdoor unit body 10 without peeling off the label 30, and also when the front surface grill 20 is detached from the outdoor unit body 10 for subsequent maintenance, construction attention-seeking can be displayed by the label 30.

[0045] Figs. 2 are perspective views showing an outdoor unit of a heat pump device according to a second example, wherein Fig. 2(a) is a perspective view showing a state where the front surface grill is not yet attached to the outdoor unit body, and Fig. 2(b) is a perspective view showing a state where the front surface grill is attached to the outdoor unit body.

[0046] In the following description, the same symbols are allocated to the same functional members as those of the first example, and the description will partially be omitted.

[0047] In the outdoor unit of the heat pump device of the second example, a label 30 is pasted on a front surface grill attaching-surface 10A such that at least a portion of the label 30 closes at least a portion of an air-blowing fan opening 11.

[0048] In Figs. 2, the label 30 is pasted on the front surface grill attaching-surface 10A such that the label 30 covers an entire surface of the air-blowing fan opening 11.

[0049] By pasting the label 30 on the front surface grill attaching-surface 10A such that at least the portion of the label 30 closes at least the portion of the air-blowing fan opening 11 in this manner, it is possible to more reliably prevent the possibility that a contractor forgets to attach the front surface grill 20 to the outdoor unit body 10.

[0050] Therefore, in the case of the second example, since the outdoor unit body 10 cannot be operated without peeling off the label 30, it is possible to turn contractor's focus towards the construction attention-seeking display, and it is possible to further reliably prevent the possibility that the contractor forgets to attach the front surface grill 20 to the outdoor unit body 10.

[0051] By covering an entire surface of the air-blowing fan opening 11 with the label 30 as shown in Fig. 2(a), it is possible to also enhance safety before the outdoor unit body 10 is operated.

[0052] Figs. 3 are perspective views showing an outdoor unit of a heat pump device according to a third example, wherein Fig. 3(a) is a perspective view showing a state where the front surface grill is not yet attached to the outdoor unit body, and Fig. 3(b) is a perspective view showing a state where the front surface grill is attached to the outdoor unit body.

[0053] In the following description, the same symbols are allocated to the same functional members as those of the first example, and the description will partially be omitted.

[0054] In the outdoor unit of the heat pump device of the third example, at least a portion of a label 30 is pasted

on an air-blowing fan 12.

[0055] By pasting at least the portion of the label 30 on the air-blowing fan 12 in this manner, it is possible to more reliably prevent the possibility that a contractor forgets to attach the front surface grill 20 to the outdoor unit body 10.

[0056] Therefore, in the case of the third example, if the label 30 is not peeled off, the outdoor unit body 10 cannot be operated and thus, it is possible to turn contractor's focus towards the construction attention-seeking display described in the label 30, and it is possible to further reliably prevent the possibility that the contractor forgets to attach the front surface grill 20 to the outdoor unit body 10.

[0057] Further, since the air-blowing fan 12 can rotate by peeling off the label 30, it is possible to enhance safety before the outdoor unit body 10 is operated.

[0058] Figs. 4 are perspective views showing an outdoor unit of a heat pump device according to a fourth example, wherein Fig. 4(a) is a perspective view showing a state where the front surface grill is not yet attached to the outdoor unit body, and Fig. 4(b) is a perspective view showing a state where the front surface grill is attached to the outdoor unit body.

[0059] In the following description, the same symbols are allocated to the same functional members as those of the first example, and the description will partially be omitted.

[0060] In the outdoor unit of the heat pump device of the fourth example, at least a portion of a label 30 is pasted on a fixing portion between the front surface grill 20 and the outdoor unit body 10.

[0061] Figs. 4 show that the label 30 is pasted on a second fixing portion 15b, but the label 30 may be pasted on other fixing portion 15 or a positioning/engagement portion 14.

[0062] At least a portion of the label 30 is pasted on the fixing portion between the front surface grill 20 and the outdoor unit body 10 as described above. Therefore, it is possible to further reliably prevent the possibility that the contractor forgets to attach the front surface grill 20 to the outdoor unit body 10.

[0063] In the case of the fourth example, the front surface grill 20 cannot be mounted on the outdoor unit body 10 without peeling off the label 30. Therefore, it is possible to turn contractor's focus towards the construction attention-seeking display described on the label 30, and it is possible to further reliably prevent the possibility that the contractor forgets to attach the front surface grill 20 to the outdoor unit body 10.

[0064] Figs. 5 are perspective views showing an outdoor unit of a heat pump device according to a fifth example, wherein Fig. 5(a) is a perspective view showing a state where the front surface grill is not yet attached to the outdoor unit body, and Fig. 5(b).

[0065] In the following description, the same symbols are allocated to the same functional members as those of the first example, and the description will partially be

omitted.

[0066] In the outdoor unit of the heat pump device according to the fifth example, at least a portion of a label 30 is pasted on a fixing portion between the front surface grill 20 and the outdoor unit body 10, and a seal 40 which prevents rotation of an air-blowing fan 12 is pasted on an air-blowing fan 12.

[0067] Although Figs. 5 show that the label 30 is pasted on a first fixing portion 15a, the label 30 may be pasted on other fixing portion 15 or a positioning/engagement portion 14.

[0068] By pasting at least a portion of the label 30 on the fixing portion between the front surface grill 20 and the outdoor unit body 10 in this manner, it is possible to further reliably prevent the possibility that the contractor forgets to attach the front surface grill 20 to the outdoor unit body 10, and by pasting the seal 40 on the air-blowing fan 12, it is possible to enhance also safety before the outdoor unit body 10 is operated.

[0069] In the case of the fifth example, the front surface grill 20 cannot be mounted on the outdoor unit body 10 without peeling off the label 30. Therefore, it is possible to turn contractor's focus towards the construction attention-seeking display described on the label 30, and it is possible to further reliably prevent the possibility that the contractor forgets to attach the front surface grill 20 to the outdoor unit body 10. Further, the air-blowing fan 12 can be rotated by peeling off the seal 40. Hence, it is possible to enhance also safety before the outdoor unit body 10 is operated.

[0070] It is also effective that the seal 40 is applied to the first example shown in Figs. 1 and the fourth example shown in Figs. 4.

[Configuration supported by the above-described examples]

[0071] The above-described examples support the following configurations.

(Configuration 1)

[0072] An outdoor unit of a heat pump device which is shipped from a factory in a state where a front surface grill thereof is detached from an outdoor unit body and in which the front surface grill is attached to the outdoor unit body in a construction field site, wherein a label on which construction attention-seeking display is described is pasted on a front surface grill attaching-surface of the outdoor unit body.

[0073] According to this configuration, it is possible to prevent the possibility that a contractor forgets to attach the front surface grill to the outdoor unit body.

(Configuration 2)

[0074] The outdoor unit of the heat pump device according to configuration 1, wherein the label is pasted on

a region which is not visually seen by the front surface grill in a state where the front surface grill is attached to the outdoor unit body.

[0075] According to this configuration, design property of the outdoor unit body is enhanced.

(Configuration 3)

[0076] The outdoor unit of the heat pump device according to configuration 1, wherein an air-blowing fan opening is formed in the outdoor unit body, an air-blowing fan is placed at a position opposed to the air-blowing fan opening, and at least a portion of the label closes at least a portion of the air-blowing fan opening.

[0077] According to this configuration, it is possible to further reliably prevent the possibility that a contractor forgets to attach the front surface grill to the outdoor unit body.

(Configuration 4)

[0078] The outdoor unit of the heat pump device according to configuration 1 or 3, wherein an air-blowing fan opening is formed in the outdoor unit body, and an air-blowing fan is placed at a position opposed to the air-blowing fan opening, and at least a portion of the label is pasted on the air-blowing fan.

[0079] According to this configuration, the air-blowing fan can rotate by peeling off the label, and it is possible to enhance also safety before the outdoor unit body is operated.

(Configuration 5)

[0080] The outdoor unit of the heat pump device according to any one of configurations 1 to 4, wherein at least a portion of the label is pasted on a fixing portion between the front surface grill and the outdoor unit body.

[0081] According to this configuration, the front surface grill cannot be mounted on the outdoor unit body without peeling off the label. Therefore, it is possible to further reliably prevent the possibility that a contractor forgets to attach the front surface grill to the outdoor unit body.

(Configuration 6)

[0082] The outdoor unit of the heat pump device according to any one of configurations 1 to 5, wherein an air-blowing fan opening is formed in the outdoor unit body, an air-blowing fan is placed at a position opposed to the air-blowing fan opening, and a seal which prevents rotation of the air-blowing fan is pasted on the air-blowing fan.

[0083] According to this configuration, the air-blowing fan can rotate by peeling off the seal, and it is possible to enhance also safety before the outdoor unit body is operated.

(Configuration 7)

[0084] The outdoor unit of the heat pump device according to any one of configurations 1 to 6, wherein the construction attention-seeking display includes a content which generates a problem in safety of a user and a contractor when the outdoor unit body is operated in a state where the front surface grill is not attached.

[0085] According to this configuration, it is possible to further reliably prevent the possibility that a contractor forgets to attach the front surface grill to the outdoor unit body.

[INDUSTRIAL APPLICABILITY]

[0086] According to the present invention, it is possible to prevent the possibility that a contractor forgets to attach the front surface grill to the outdoor unit body.

20 [EXPLANATION OF SYMBOLS]

[0087]

- 10 outdoor unit body
- 25 10A front surface grill attaching-surface
- 11 air-blowing fan opening
- 12 air-blowing fan
- 13 handgrip
- 14 positioning/engagement portion
- 30 15 fixing portion
- 15a first fixing portion
- 15b second fixing portion
- 16 leg
- 20 front surface grill
- 35 21 upper frame
- 22 lower frame
- 23 side frame
- 24 panel surface
- 24A first panel surface
- 40 24B second panel surface
- 30 label
- 40 seal

45 **Claims**

1. An outdoor unit of a heat pump device which is shipped from a factory in a state where a front surface grill (20) thereof is detached from an outdoor unit body (10) and in which the front surface grill (20) is attached to the outdoor unit body (10) in a construction field site, wherein
a label (30) on which construction attention-seeking display is described is pasted on a front surface grill attaching-surface (10A) of the outdoor unit body (10).
2. The outdoor unit of the heat pump device according to claim 1, wherein the label (30) is pasted on a region

which is not visually seen by the front surface grill (20) in a state where the front surface grill (20) is attached to the outdoor unit body (10).

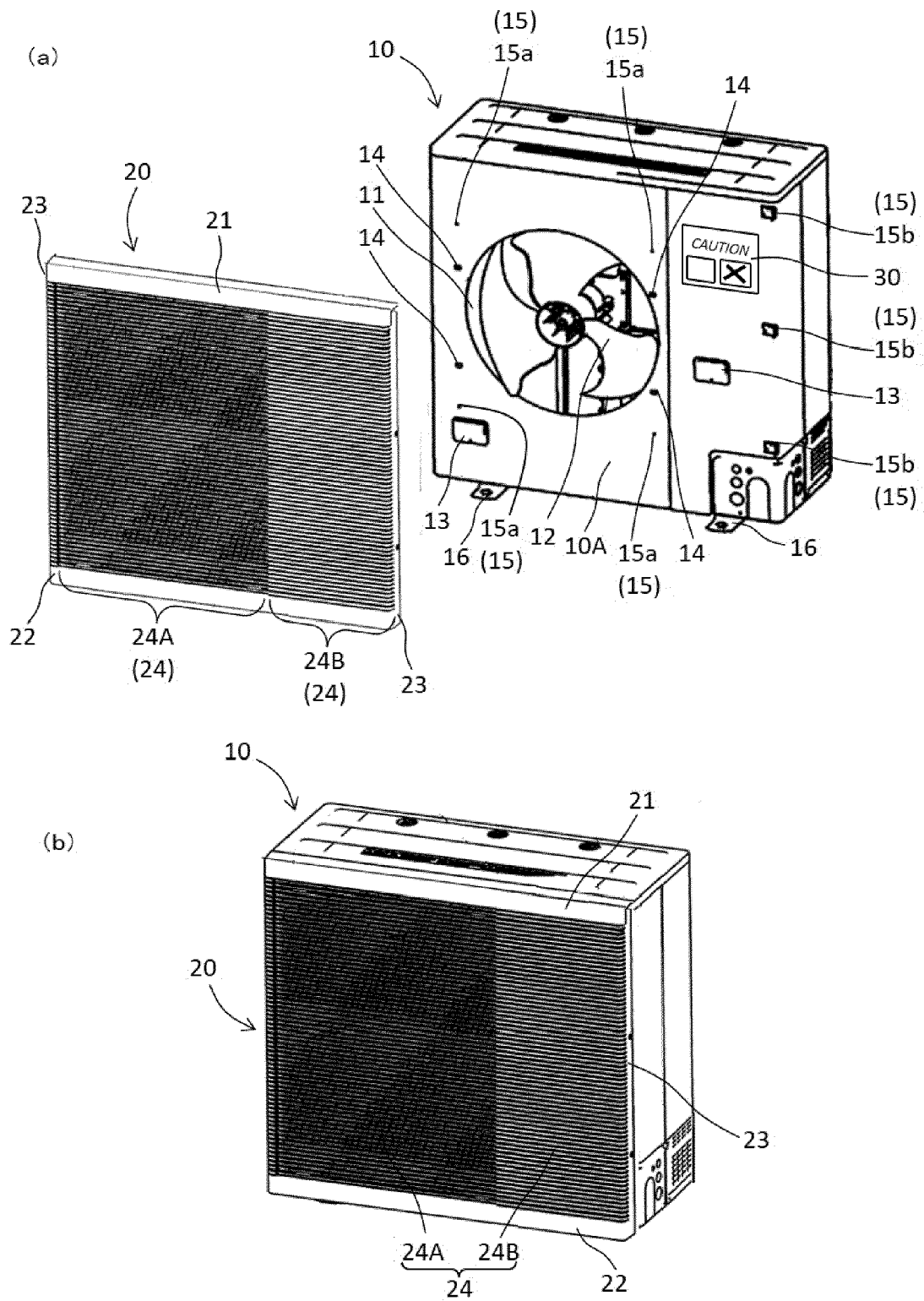
3. The outdoor unit of the heat pump device according to claim 1, wherein an air-blowing fan opening (11) is formed in the outdoor unit body (10), an air-blowing fan (12) is placed at a position opposed to the air-blowing fan opening (11), and at least a portion of the label (30) closes at least a portion of the air-blowing fan opening (11). 5
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4. The outdoor unit of the heat pump device according to claim 1 or 3, wherein an air-blowing fan opening (11) is formed in the outdoor unit body (10), and an air-blowing fan (12) is placed at a position opposed to the air-blowing fan opening (11), and at least a portion of the label (30) is pasted on the air-blowing fan (12). 15
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5. The outdoor unit of the heat pump device according to any one of claims 1 to 4, wherein at least a portion of the label (30) is pasted on a fixing portion between the front surface grill (20) and the outdoor unit body (10). 25
6. The outdoor unit of the heat pump device according to any one of claims 1 to 5, wherein an air-blowing fan opening (11) is formed in the outdoor unit body (10), an air-blowing fan (12) is placed at a position opposed to the air-blowing fan opening (11), and a seal (40) which prevents rotation of the air-blowing fan (12) is pasted on the air-blowing fan (12). 30
7. The outdoor unit of the heat pump device according to any one of claims 1 to 6, wherein the construction attention-seeking display includes a content which generates a problem in safety of a user and a contractor when the outdoor unit body (10) is operated in a state where the front surface grill (20) is not attached. 35
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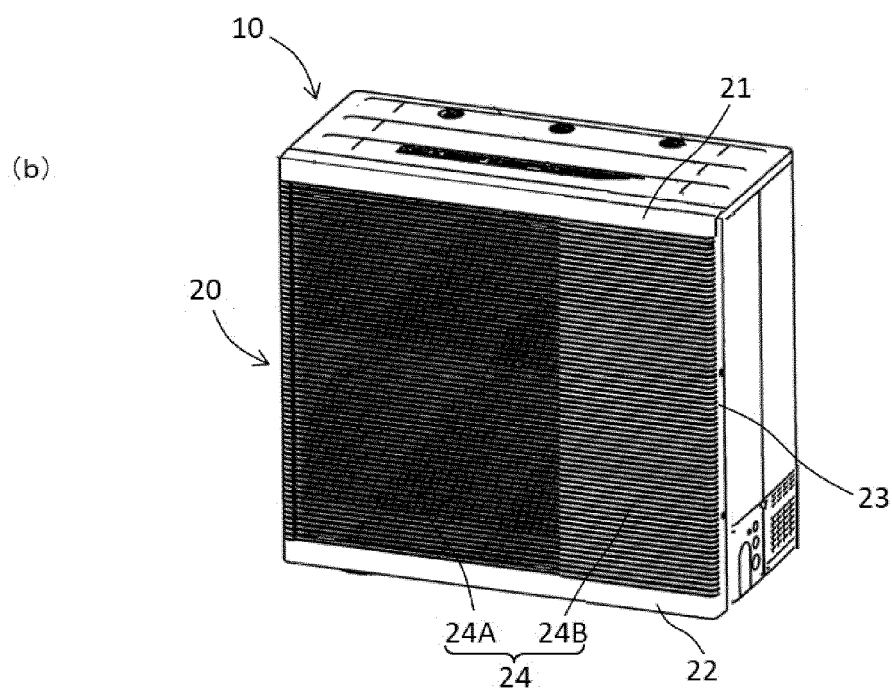
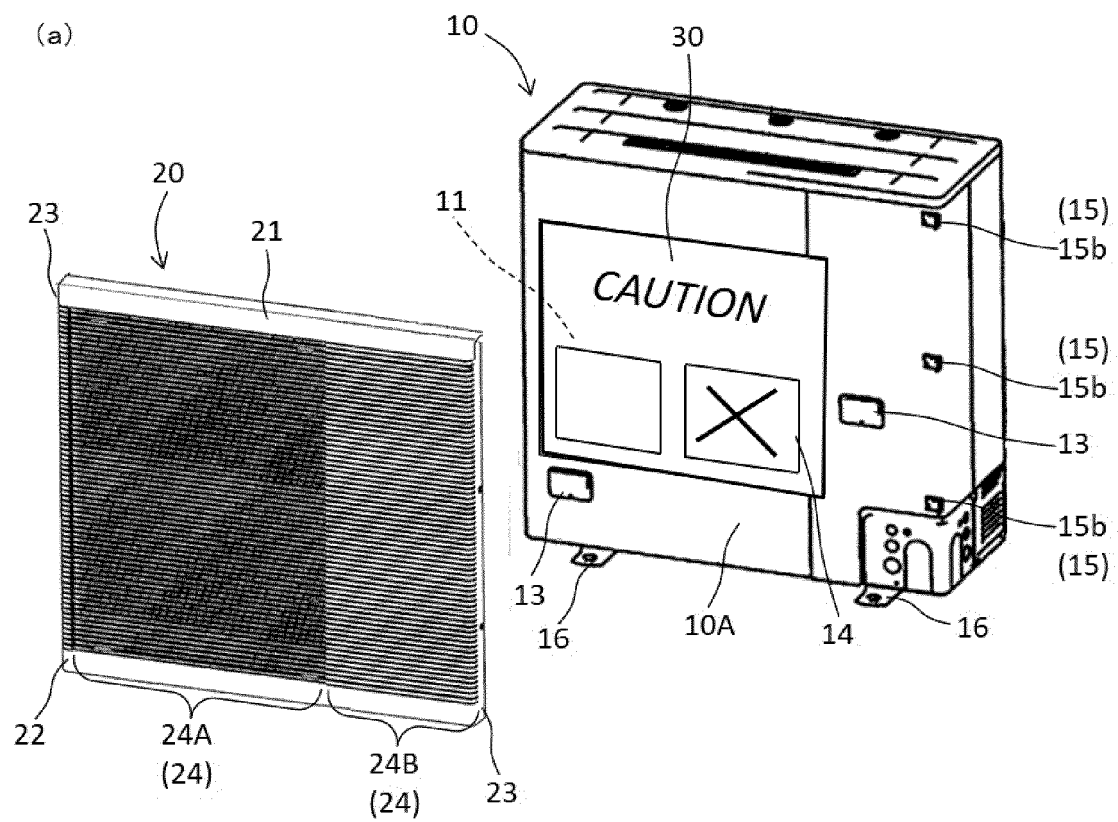
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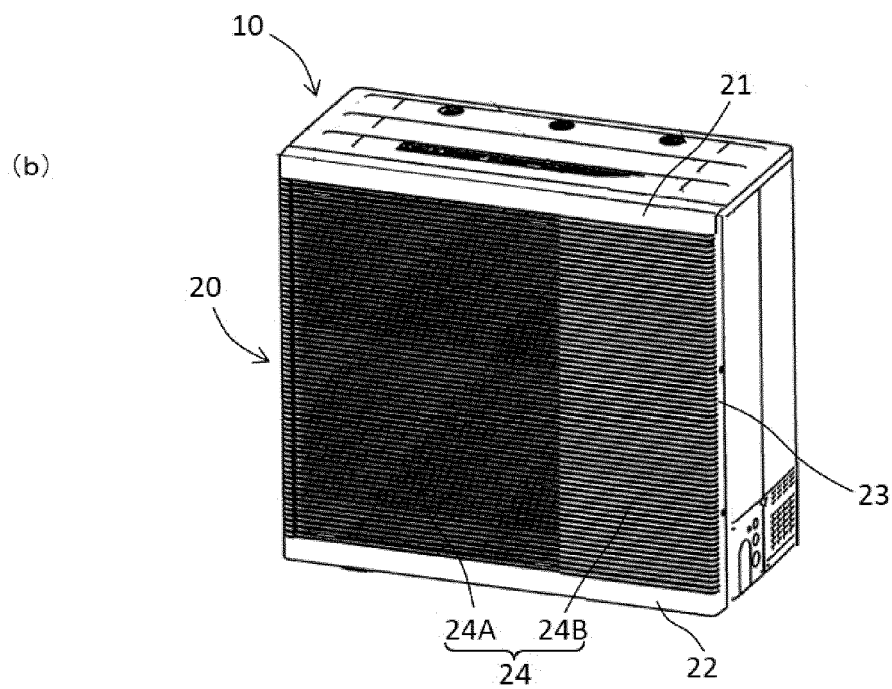
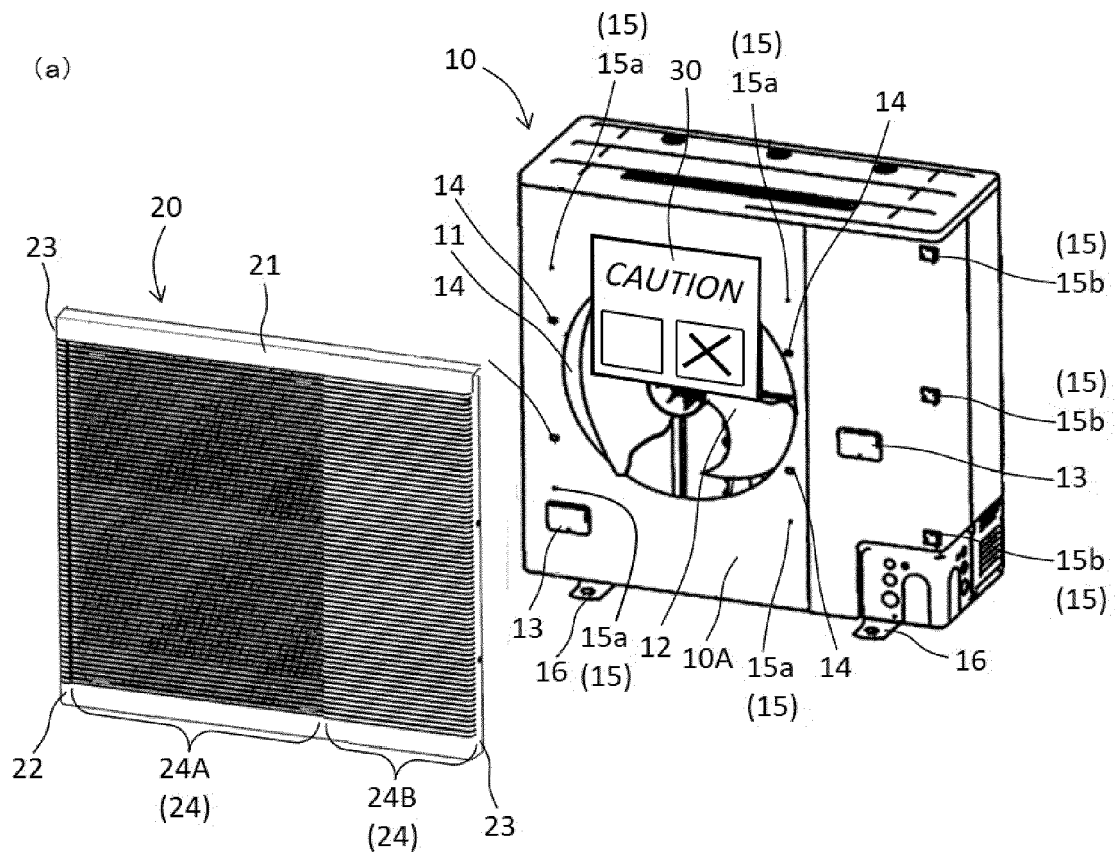
[Figs. 1]



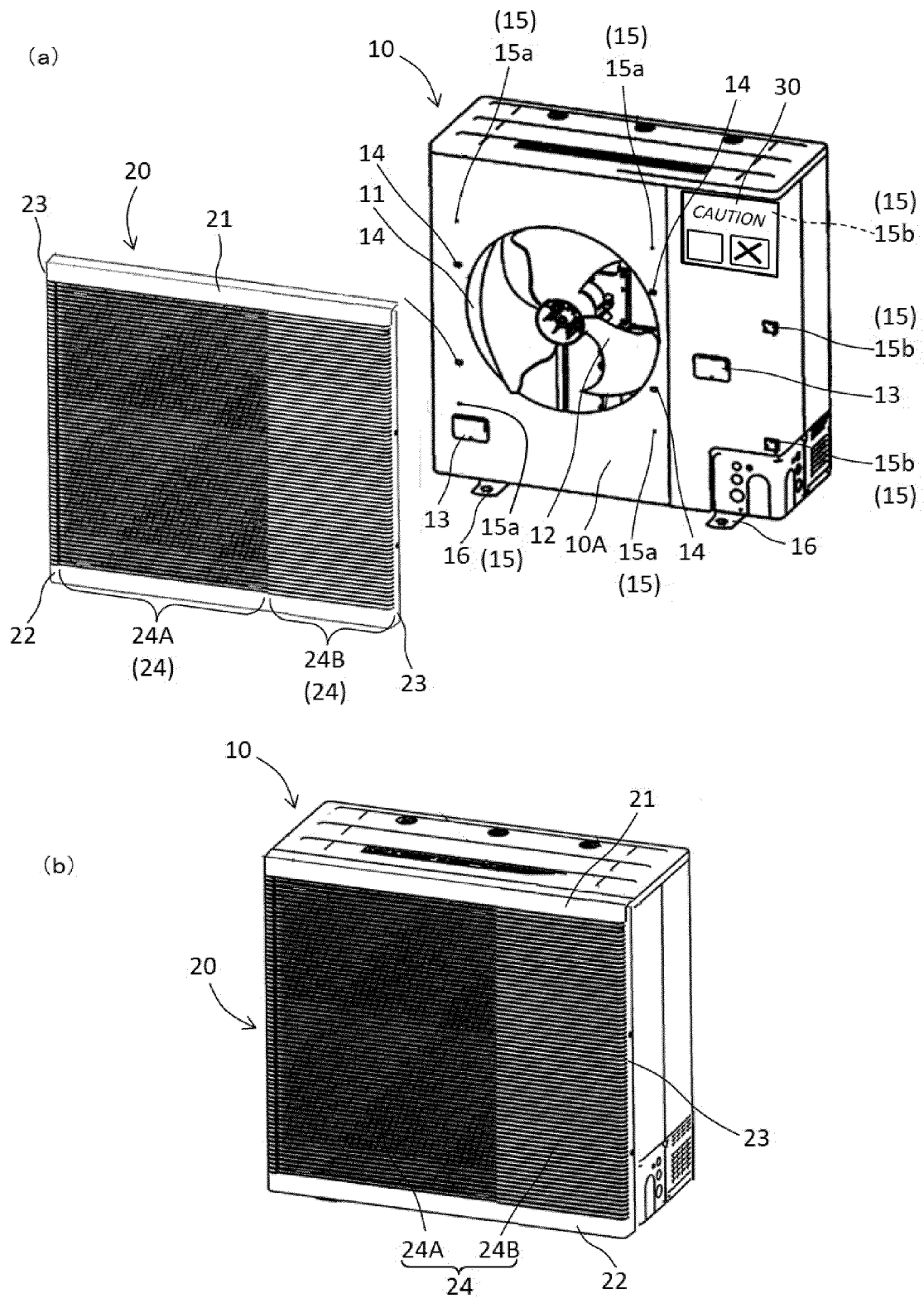
[Figs. 2]



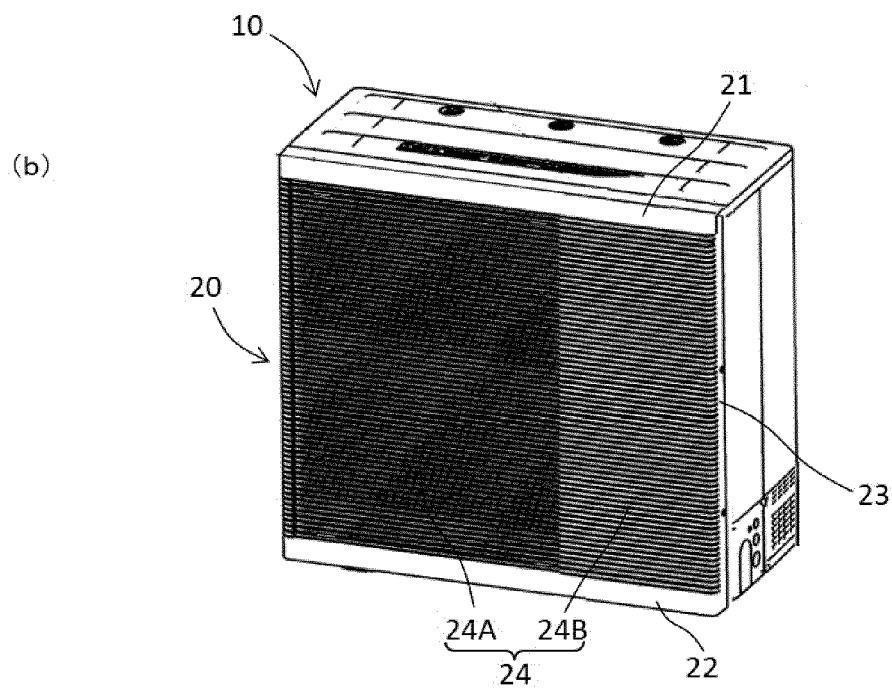
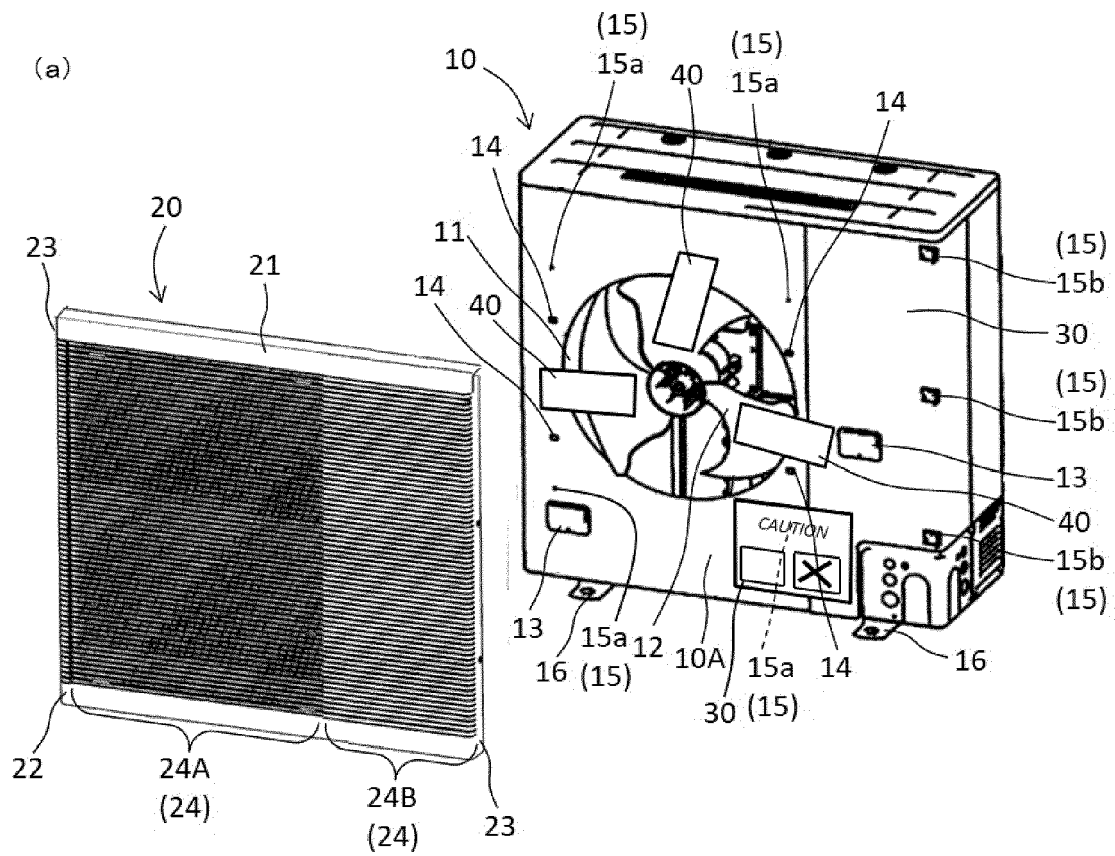
[Figs. 3]



[Figs. 4]



[Figs. 5]





EUROPEAN SEARCH REPORT

Application Number

EP 23 19 9110

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EPO FORM 1503 03.82 (P04C01)

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X, D	JP 2017 009266 A (DAIKIN IND LTD) 12 January 2017 (2017-01-12) * figures 1-5 *	1-7	INV. F24F13/08
X	EP 2 278 230 B1 (MITSUBISHI ELECTRIC CORP [JP]) 2 August 2017 (2017-08-02) * figures 1-4 *	1-7	
			TECHNICAL FIELDS SEARCHED (IPC)
			F24F
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 19 January 2024	Examiner Ismail, Youssef
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 23 19 9110

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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