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(54) **HOUSING ASSEMBLY OF AIR CONDITIONER, AND AIR CONDITIONER**

(57) Disclosed are a housing assembly (100) of an air conditioner, and an air conditioner. The housing assembly (100) of an air conditioner includes a face frame (1), a panel (2), and a base plate (3). The face frame (1) includes a first sealing part (4), the panel (2) includes a second sealing part (5), and the base plate (3) includes a third sealing part (6) and a fourth sealing part (7) which are spaced apart from each other. The first sealing part (4) of the face frame (1) is in contact with the third sealing part (6) of the base plate (3) to form a first sealing structure, and the second sealing part (5) of the panel (2) is in contact with the fourth sealing part (7) of the base plate (3) to form a second sealing structure.

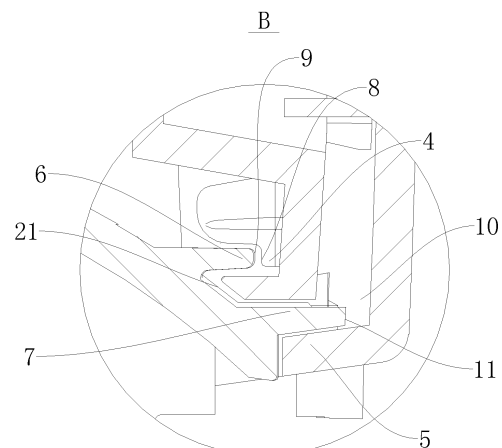


FIG. 5

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Description

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present disclosure is based on and claims priority to Chinese Patent Application Nos. 201911037476.1 and 201921839787.5, filed on October 29, 2019, the entire contents of which are incorporated herein by reference.

FIELD

[0002] The present disclosure relates to the field of air conditioning technology and, more particularly, to a housing assembly of an air conditioner and an air conditioner.

BACKGROUND

[0003] In the field of air conditioners, when an air conditioner works in a high temperature indoor environment, hot and humid ambient air meets a surface of the air conditioner with a temperature below the dew point, and water vapor may condense on the surface of the air conditioner and form condensation. The long-term presence of condensation shortens the service life of the air conditioner and causes malfunction of the air conditioner.

SUMMARY

[0004] The present disclosure aims to solve at least one of the technical problems existing in the related art.

[0005] Accordingly, an objective of the present disclosure is to provide a housing assembly of an air conditioner. The housing assembly has a double sealing structure that reduces a risk of condensation due to fresh air entering via an air outlet.

[0006] Another objective of the present disclosure is to provide an air conditioner that has the above housing assembly.

[0007] A housing assembly of an air conditioner according to embodiments of the present disclosure includes: a face frame having a first sealing part; a panel coupled to the face frame and arranged on a side of the face frame, the panel having a second sealing part; and a chassis having an opening and coupled to the face frame, the chassis having a third sealing part and a fourth sealing part spaced apart from each other, the fourth sealing part being arranged at an edge of the opening, the third sealing part being fitted with the first sealing part, and the fourth sealing part being fitted with the second sealing part.

[0008] For the housing assembly according to embodiments of the present disclosure, the first sealing structure is formed by the contact between the first sealing part of the face frame and the second sealing part of the chassis, and the second sealing structure is formed by the contact between the second sealing part of the panel and the fourth sealing part of the chassis. Such a double

sealing structure can block the airflow in the indoor environment from entering the interior of the housing assembly, and can reduce the risk of generating condensation at the opening.

[0009] In some embodiments of the present disclosure, one of the first sealing part and the third sealing part includes a first groove, and the other of the first sealing part and the third sealing part includes a first protrusion.

[0010] In some embodiments of the present disclosure, the first groove extends along the edge of the opening.

[0011] In some embodiments of the present disclosure, one of the second sealing part and the fourth sealing part includes a second groove, and the other of the second sealing part and the fourth sealing part includes a second protrusion.

[0012] In some embodiments of the present disclosure, the second groove is formed by bending a partial edge of the panel.

[0013] In some embodiments of the present disclosure, the second groove extends along the edge of the opening.

[0014] In some embodiments of the present disclosure, a partial edge of the panel is bent to form a bend, and the bend and an edge of the face frame are fit to define the second groove.

[0015] In some embodiments of the present disclosure, the chassis includes a first corner plate and a second corner plate; the first corner plate has a first main body segment and a first thinned segment coupled to the first main body segment, and a ratio of a thickness of the first thinned segment to a thickness of the first main body segment ranges from 0.5 to 0.9; the second corner plate has a second main body segment and a second thinned segment coupled to the second main body segment, and a ratio of a thickness of the second thinned segment to a thickness of the second main body segment ranges from 0.5 to 0.9; the first thinned segment and the second thinned segment are coupled and form an angle structure, and the first main body segment and the second main body segment are opposite each other and spaced apart.

[0016] In some embodiments of the present disclosure, the housing assembly further includes an air guide plate coupled to the face frame, the air guide plate being rotatable between a first position and a second position. The air guide plate closes the opening when the air guide plate is in the first position. The air guide plate is located inside the face frame, overlaps the first corner plate, and opens the opening, when the air guide plate is in the second position.

[0017] An air conditioner according to embodiments of the present disclosure includes the above housing assembly.

[0018] For the air conditioner according to embodiments of the present disclosure, the first sealing structure is formed by the contact between the first sealing part of

the face frame and the second sealing part of the chassis, and the second sealing structure is formed by the contact between the second sealing part of the panel and the fourth sealing part of the chassis. Such a double sealing structure can block the airflow in the indoor environment from entering the interior of the housing assembly, and can reduce the risk of generating condensation at the opening.

[0019] Additional aspects and advantages of present disclosure will be given in part in the following descriptions, become apparent in part from the following descriptions, or be learned from the practice of the embodiments of the present disclosure.

BRIEF DESCRIPTION OF DRAWINGS

[0020] These and/or other aspects and advantages of embodiments of the present disclosure will become apparent and more readily appreciated from the following descriptions made with reference to the drawings, in which:

FIG. 1 is an exploded view of a housing assembly of an air conditioner according to an embodiment of the present disclosure;

FIG. 2 is a schematic view of a housing assembly of an air conditioner according to an embodiment of the present disclosure;

FIG. 3 is a schematic view of a housing assembly of an air conditioner according to an embodiment of the present disclosure;

FIG. 4 is a sectional view in FIG. 3 along A-A direction;

FIG. 5 is a partially enlarged view at B in FIG. 4;

FIG. 6 is a partially enlarged view at C in FIG. 4.

Reference numerals:

[0021]

housing assembly 100,
face frame 1, panel 2, chassis 3;
first sealing part 4, second sealing part 5, third sealing part 6, fourth sealing part 7,
first groove 8, first protrusion 9, second groove 10, second protrusion 11,
first corner plate 12, second corner plate 13,
air guide plate 14,
first position 15, second position 16,
first main body segment 17, first thinned segment 18, second main body segment 19, second thinned segment 20,
opening 21.

DETAILED DESCRIPTION OF EMBODIMENTS

[0022] Embodiments of the present disclosure will be described below in detail, and examples of the embodi-

ments are illustrated in the accompanying drawings, where the same or similar reference numerals throughout the specification refer to the same or similar elements or elements having the same or similar functions. The embodiments described below with reference to the accompanying drawings are exemplary and are intended to explain the present disclosure rather than limit the present disclosure.

[0023] A housing assembly 100 of an air conditioner, and an air conditioner according to embodiments of the present disclosure will be described below with reference to FIGS. 1-6.

[0024] As shown in FIGS. 1-6, the housing assembly 100 of the air conditioner according to embodiments of the present disclosure includes: a face frame 1, a panel 2, and a chassis 3.

[0025] Specifically, as shown in FIGS. 4-5, the chassis 3 has an opening 21, the face frame 1 is coupled to the chassis 3 and coupled to the panel 2, and the panel 2 is arranged on a side of the face frame 1. The face frame 1 has a first sealing part 4, the panel 2 has a second sealing part 5, and the chassis 3 has a third sealing part 6 and a fourth sealing part 7 spaced apart from each other.

[0026] The fourth sealing part 7 is located at an edge of the opening 21 of the chassis 3. An airflow inside the air conditioner can flow out through the opening 21. As shown in FIG. 5, the first sealing part 4 of the face frame 1 is in contact with the third sealing part 6 of the chassis 3 to form a first sealing structure. The second sealing part 5 of the face frame 2 is in contact with the fourth sealing part 7 of the chassis 3 to form a second sealing structure. As a result, a double sealing structure can be formed on the chassis 3.

[0027] In the related art, when the air conditioner is in a cooling mode, cold air in an indoor environment can enter an interior of the housing assembly through a gap at the opening, and the temperature of air inside the housing is low while the indoor ambient temperature is high, so that condensate water is easily generated when hot and cold air streams meet.

[0028] For the housing assembly 100 according to the embodiments of the present disclosure, the first sealing structure is formed by the contact between the first sealing part 4 of the face frame 1 and the second sealing part 5 of the chassis 3, and the second sealing structure is formed by the contact between the second sealing part 5 of the panel 2 and the fourth sealing part 7 of the chassis 3. Such a double sealing structure can block the airflow in the indoor environment from entering the interior of the housing assembly 100, and can reduce the risk of generating condensation at the opening 21.

[0029] According to some embodiments of the present disclosure, as shown in FIG. 5, one of the first sealing part 4 and the third sealing part 6 includes a first groove 8, and the other of the first sealing part 4 and the third sealing part 6 includes a first protrusion 9. It can be understood that the third sealing part 6 may include the first

protrusion 9 when the first sealing part 4 includes the first groove 8; alternatively, the first sealing part 4 may include the first protrusion 9 when the third sealing part 6 includes the first groove 8.

[0030] For example, as shown in FIG. 5, the first sealing part 4 includes the first groove 8 and the third sealing part 6 includes the first protrusion 9. In addition, it should be noted that the first groove 8 and the first protrusion 9 may be mutually embedded structures, and the first groove 8 and the first protrusion 9 have complementary shapes, to improve the sealing performance between the first sealing part 4 and the third sealing part 6. That is, the third sealing part 6 can be inserted into the first sealing part 4 to form a sealing structure. The sealing structure blocks the airflow in the indoor environment from entering an interior of the air conditioner, and can prevent hot and cold air from generating condensation at the opening 21.

[0031] Further, the first groove 8 may extend along the edge of the opening 21 of the chassis 3. Accordingly, the first protrusion 9 may also extend along the edge of the opening 21 of the chassis 3, so that a mating structure formed by the first groove 8 and the first protrusion 9 may extend along the edge of the opening 21, and the edge of the opening 21 can be effectively sealed. When the mating structure of the first groove 8 and the first protrusion 9 is arranged along a peripheral direction of the opening 21, the first groove 8 and the first protrusion 9 form an annular sealing structure, and the opening 21 can be sealed more effectively.

[0032] In some embodiments of the present disclosure, one of the second sealing part 5 and the fourth sealing part 7 includes a second groove 10, and the other of the second sealing part 5 and the fourth sealing part 7 includes a second protrusion 11. It can be understood that the fourth sealing part 7 may include the second protrusion 11 when the second sealing part 5 includes the second groove 10; alternatively, the second sealing part 5 may include the second protrusion 11 when the fourth sealing part 7 includes the second groove 10.

[0033] For example, as shown in FIG. 5, the second sealing part 5 includes the second groove 10, and the fourth sealing part 7 includes the second protrusion 11. In addition, it should be noted that the second groove 10 and the second protrusion 11 may be mutually embedded structures, and the second groove 10 and the second protrusion 11 have complementary shapes, to improve the sealing performance between the second sealing part 5 and the fourth sealing part 7. That is, the fourth sealing part 7 can be inserted into the second sealing part 5 to form a sealing structure. The sealing structure blocks the airflow in the indoor environment from entering the interior of the air conditioner, and can prevent hot and cold air from generating condensation at the opening 21.

[0034] Further, the second groove 10 may be formed by bending a partial edge of the panel 2. After the edge of the panel 2 is bent, a bent portion forms the second groove 10, simplifying a manufacturing process of the panel 2 and shortening a processing cycle of the panel 2.

[0035] According to some embodiments of the present disclosure, as shown in FIG. 5, a partial edge of the panel 2 is bent to form a bend, and the bend and an edge of the face frame 1 are fit to define the second groove 10. It can be understood that a lower edge of the face frame 1 provides a groove surface for the second groove 10, and the lower edge of the face frame 1 and the bend of the edge of the panel 2 define the second groove 10. With the groove and protrusion structures, the fourth sealing part 7 can be inserted into the second sealing part 5 to form a sealing structure. The sealing structure blocks fresh air from entering the interior of the air conditioner and avoids condensation since hot fresh air meets cold air inside the air conditioner.

[0036] According to some other embodiments of the present disclosure, as shown in FIGS. 4 and 6, the chassis 3 includes a first corner plate 12 and a second corner plate 13. The first corner plate 12 has a first main body segment 17 and a first thinned segment 18 coupled to the first main body segment 17. A ratio of a thickness of the first thinned segment 18 to a thickness of the first main body segment 17 ranges from 0.5 to 0.9. As shown in FIGS. 4 and 6, the second corner plate 13 has a first main body segment 19 and a second thinned segment 20 coupled to the first main body segment 19. A ratio of a thickness of the second thinned segment 20 to a thickness of the first main body segment 19 ranges from 0.5 to 0.9. As shown in FIG. 6, the first thinned segment 18 and the second thinned segment 20 are coupled and form an angle structure, and the first main body segment 17 and the first main body segment 19 are opposite each other and spaced apart.

[0037] When the air conditioner is in the cooling mode, the first corner plate 12 has a low temperature since the first corner plate 12 is close to an air outlet duct, and may be called a cold corner plate. The second corner plate 13 has a temperature approximate to the indoor ambient temperature since it is far away from the air outlet duct, and may be called a hot corner plate. When a distance between the cold corner plate and the hot corner plate is short, condensate water may be easily generated due to the cross between hot and cold environments. By arranging a thinned structure at a connection position of the cold corner plate and the hot corner plate, the distance between the first corner plate 12 and the second corner plate 13 can be increased to provide space for temperature homogenization of the air around the cold corner plate and the hot corner plate, avoiding the condensate water at the connection position of the first corner plate 12 and the second corner plate 13. By arranging the first thinned segment 18 in the first corner plate 12 and arranging the second thinned segment 19 in the second corner plate 13, the amount of cold air carried by the first corner plate 12 and the amount of heat carried by the second corner plate 13 can be reduced, so that the amount of hot and cold airflow at the connection position of the first corner plate 12 and the second corner plate 13 can be effectively reduced, and thus the generation

of condensate water can be reduced.

[0038] According to some embodiments of the present disclosure, as shown in FIGS. 3-4, the housing assembly 100 further includes an air guide plate 14 coupled to the face frame 1, and the air guide plate 14 is rotatable between a first position 15 and a second position 16. When the air guide plate 14 is in the first position 15, the air guide plate 14 closes the opening 21. When the air guide plate 14 is in the second position 16, the air guide plate 14 is located inside the face frame 1, overlaps the first corner plate 12, and opens the opening 21. Thus, the air output volume and air output direction can be adjusted by rotating the air guide plate 14, improving user experience.

[0039] In some embodiments, an outer surface of the air guide plate 14 may be an appearance surface of the air conditioner. It can be understood that when the air guide plate 14 is in the second position 16, the outer surface of the air guide plate 14 overlaps or adheres to the first corner plate 12; when the air guide plate 14 is in the first position 15, the air guide plate 14 closes the opening 21 and the outer surface of the air guide plate 14 serves as the appearance surface of the air conditioner.

[0040] The housing assembly 100 of the air conditioner according to embodiments of the present disclosure will be described in detail below with reference to FIGS. 1-6. It should be understood that the following description is merely exemplary illustration rather than specific limitation on the present disclosure.

[0041] As shown in FIGS. 1-6, the housing assembly 100 includes: a face frame 1, a panel 2, a chassis 3, and an air guide plate 14.

[0042] Specifically, the chassis 3 has an opening 21, and the opening 21 may be used as an air outlet of the air conditioner. The face frame 1 has a first sealing part 4, the panel 2 has a second sealing part 5, and the chassis 3 has a third sealing part 6 and a fourth sealing part 7 spaced apart from each other, the fourth sealing part 7 being located at an edge of the opening 21 of the chassis 3. The first sealing part 4, the second sealing part 5, the third sealing part 6, and the fourth sealing part 7 may be sealing parts designed to reduce the condensation phenomenon.

[0043] As shown in FIGS. 4-5, the face frame 1 is coupled to the chassis 3. The first sealing part 4 of the face frame 1 is in contact with the third sealing part 6 of the chassis 3 to form a first sealing structure. As shown in FIGS. 4-5, the face frame 1 is coupled to the panel 2, and the panel 2 is arranged on a side of the face frame 1. In such a case, the second sealing part 5 of the panel 2 is in contact with the fourth sealing part 7 of the chassis 3 to form a second sealing structure. Such a double sealing structure can block the airflow in the indoor environment from entering the interior of the housing assembly 100, and can reduce the risk of generating condensation at the opening 21.

[0044] The face frame 1 is also coupled to the air guide

plate 14 as shown in FIGS. 3-4. The air guide plate 14 is rotatable between a first position 15 and a second position 16. When the air guide plate 14 is in the first position 15, the air guide plate 14 closes the opening 21 of the chassis 3; when the air guide plate 14 is in the second position 16, the air guide plate 14 overlaps the first corner plate 12 and opens the opening 21 of the chassis 3. The air output volume and air output direction can be adjusted by rotating the air guide plate 14, bringing about better user experience.

[0045] As shown in FIG. 5, the first sealing part 4 includes a first groove 8, and the third sealing part 6 includes a first protrusion 9. The first groove 8 extends along the edge of the opening 21 of the chassis 3. As shown in FIG. 5, two surfaces of the first groove 8 and the first protrusion 9 are fitted with each other, and the first groove 8 and the first protrusion 9 are complementary in shape. As a result, the third sealing part 6 can be inserted into the first sealing part 4 to form a sealing structure. The sealing structure blocks fresh air from entering the interior of the air conditioner and avoids condensation since hot fresh air meets cold air inside the air conditioner.

[0046] As shown in FIG. 5, the second sealing part 5 includes a second groove 10, and the third sealing part 6 includes a second protrusion 11. The second groove 10 is formed by bending a partial edge of the panel 2. The second groove 10 extends along the edge of the opening 21 of the chassis 3. As shown in FIG. 5, surfaces of the second groove 10 and the second protrusion 11 are fitted with each other, and the second groove 10 and the second protrusion 11 are complementary in shape. Thus, the fit between the second groove 10 and the second protrusion 11 achieved by the complementary shape improves the sealing performance of the sealing structure.

[0047] As shown in FIG. 5, a lower edge of the face frame 1 provides a groove surface for the second groove 10, such that the lower edge of the face frame 1 and a bent edge of the panel 2 define the second groove 10. With the groove and protrusion structures, the fourth sealing part 7 can be inserted into the second sealing part 5 to form a sealing structure. The sealing structure blocks fresh air from entering the interior of the air conditioner and avoids condensation since hot fresh air meets cold air inside the air conditioner.

[0048] As shown in FIGS. 4 and 6, the chassis 3 includes a first corner plate 12 and a second corner plate 13. The first corner plate 12 has a first main body segment 17 and a first thinned segment 18 coupled to the first main body segment 17. A ratio of a thickness of the first thinned segment 18 to a thickness of the first main body segment 17 ranges from 0.5 to 0.9. As shown in FIGS. 4 and 6, the second corner plate 13 has a first main body segment 19 and a second thinned segment 20 coupled to the first main body segment 19. A ratio of a thickness of the second thinned segment 20 to a thickness of the first main body segment 19 ranges from 0.5 to 0.9. As shown in FIG. 6, the first thinned segment 18 and the

second thinned segment 20 are coupled and form an angle structure, and the first main body segment 17 and the first main body segment 19 are opposite each other and spaced apart.

[0049] When the air conditioner is in the cooling mode, the first corner plate 12 has a low temperature since the first corner plate 12 is close to an air outlet duct, and may be called a cold corner plate. The second corner plate 13 has a temperature approximate to the indoor ambient temperature since it is far away from the air outlet duct, and may be called a hot corner plate. When a distance between the cold corner plate and the hot corner plate is short, condensate water may be easily generated due to the cross between hot and cold environments. By arranging a thinned structure at a connection position of the cold corner plate and the hot corner plate, the distance between the first corner plate 12 and the second corner plate 13 can be increased to provide space for temperature homogenization of the air around the cold corner plate and the hot corner plate, avoiding the condensate water at the connection position of the first corner plate 12 and the second corner plate 13. By arranging the first thinned segment 18 in the first corner plate 12 and arranging the second thinned segment 19 in the second corner plate 13, the amount of cold air carried by the first corner plate 12 and the amount of heat carried by the second corner plate 13 can be reduced, so that the amount of hot and cold airflow at the connection position of the first corner plate 12 and the second corner plate 13 can be effectively reduced, and thus the generation of condensate water can be reduced.

[0050] As shown in FIGS. 2-3, an air conditioner according to embodiments of the present disclosure includes the housing assembly 100 described above.

[0051] For the air conditioner according to embodiments of the present disclosure, the first sealing structure is formed by the contact between the first sealing part 4 of the face frame 1 and the second sealing part 5 of the chassis 3, and the second sealing structure is formed by the contact between the second sealing part 5 of the panel 2 and the fourth sealing part 7 of the chassis 3. Such a double sealing structure can block the airflow in the indoor environment from entering the interior of the housing assembly 100, and can reduce the risk of generating condensation at the opening 21.

[0052] Reference throughout this specification to "an embodiment," "some embodiments," "an exemplary embodiment," "an example," "a specific example" or "some examples" means that a particular feature, structure, material, or characteristic described in connection with the embodiment or example is included in at least one embodiment or example of the present disclosure. Thus, the appearances of the phrases throughout this specification are not necessarily referring to the same embodiment or example of the present disclosure. Furthermore, the particular features, structures, materials, or characteristics may be combined in any suitable manner in one or more embodiments or examples.

[0053] Although embodiments of the present disclosure have been shown and described, it would be appreciated by those skilled in the art that changes, modifications, alternatives, and variations can be made in the embodiments without departing from principles and purposes of the present disclosure. The scope of the present disclosure is defined by the claims and their equivalents.

10 Claims

1. A housing assembly, comprising:

a face frame having a first sealing part;
a panel coupled to the face frame and arranged on a side of the face frame, the panel having a second sealing part; and
a chassis having an opening and coupled to the face frame, the chassis having a third sealing part and a fourth sealing part spaced apart from each other, the fourth sealing part being arranged at an edge of the opening, the third sealing part being fitted with the first sealing part, and the fourth sealing part being fitted with the second sealing part.

2. The housing assembly according to claim 1, wherein one of the first sealing part and the third sealing part comprises a first groove, and the other of the first sealing part and the third sealing part comprises a first protrusion.

3. The housing assembly according to claim 2, wherein the first groove extends along the edge of the opening.

4. The housing assembly according to any one of claims 1 to 3, wherein one of the second sealing part and the fourth sealing part comprises a second groove, and the other of the second sealing part and the fourth sealing part comprises a second protrusion.

5. The housing assembly according to claim 4, wherein the second groove is formed by bending a partial edge of the panel.

6. The housing assembly according to claim 4, wherein the second groove extends along the edge of the opening.

7. The housing assembly according to claim 4, wherein a partial edge of the panel is bent to form a bend, and the bend and an edge of the face frame are fit to define the second groove.

8. The housing assembly according to any one of claims 1 to 7, wherein:

the chassis comprises a first corner plate and a second corner plate;

the first corner plate has a first main body segment and a first thinned segment coupled to the first main body segment, and a ratio of a thickness of the first thinned segment to a thickness of the first main body segment ranges from 0.5 to 0.9;

the second corner plate has a second main body segment and a second thinned segment coupled to the second main body segment, and a ratio of a thickness of the second thinned segment to a thickness of the second main body segment ranges from 0.5 to 0.9;

the first thinned segment and the second thinned segment are coupled and form an angle structure, and the first main body segment and the second main body segment are opposite each other and spaced apart.

9. The housing assembly according to claim 8, further comprising an air guide plate coupled to the face frame, the air guide plate being rotatable between a first position and a second position, wherein:

the air guide plate closes the opening when the air guide plate is in the first position; and
the air guide plate is located inside the face frame, overlaps the first corner plate, and opens the opening, when the air guide plate is in the second position.

10. An air conditioner, comprising the housing assembly according to any one of claims 1 to 9.

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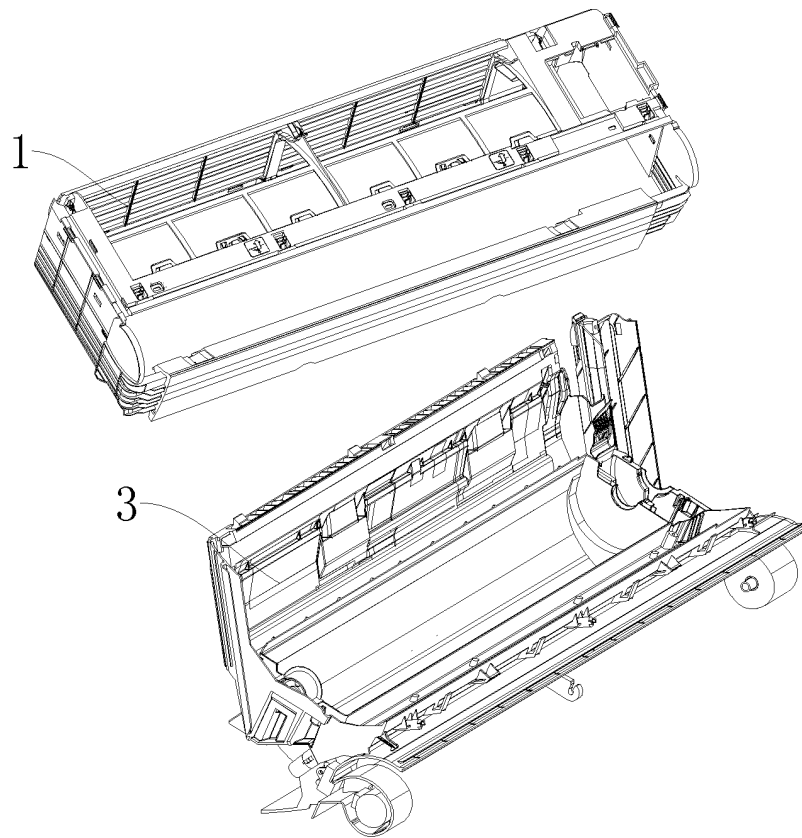


FIG. 1

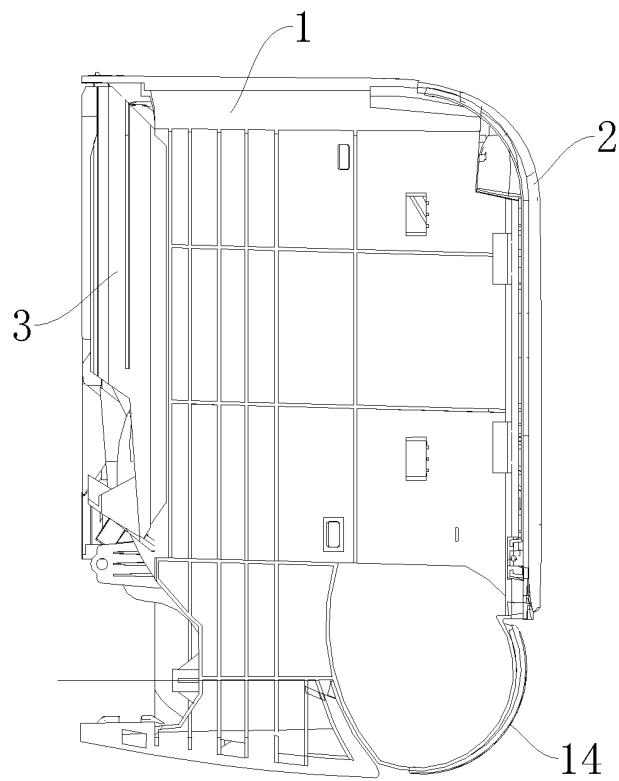


FIG. 2

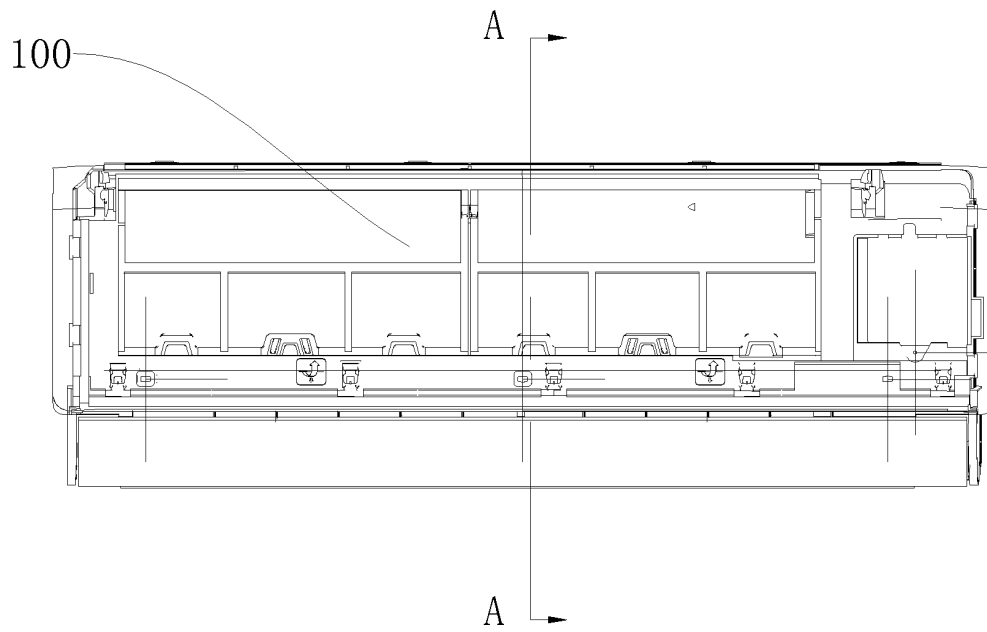


FIG. 3

A-A

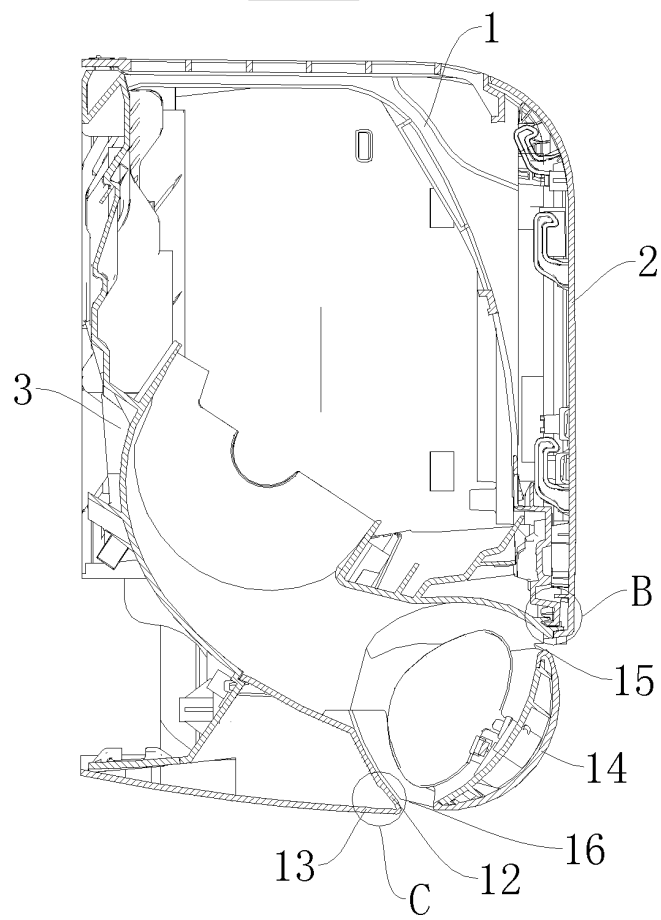
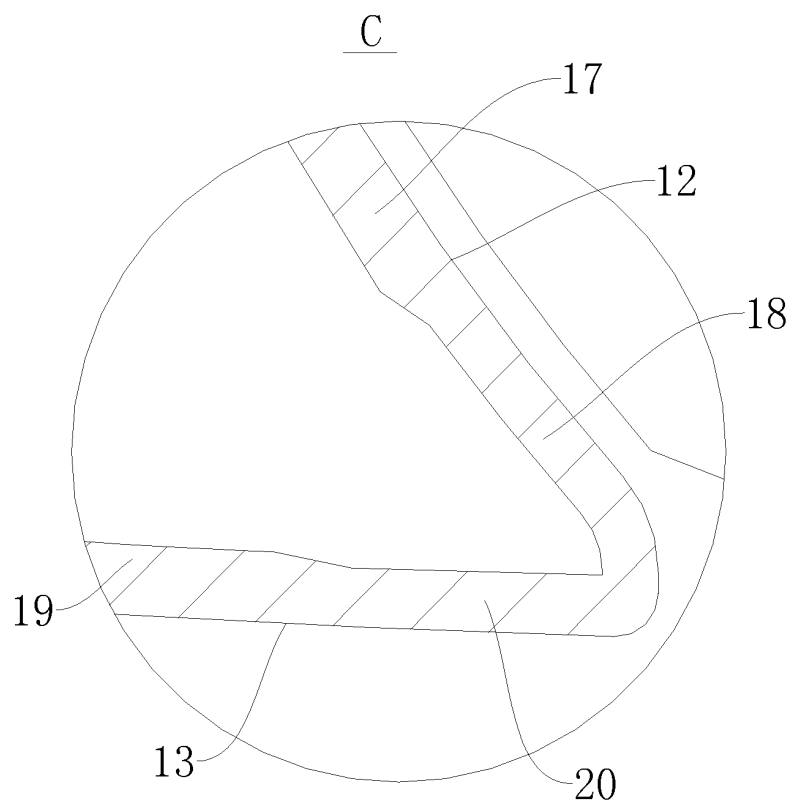
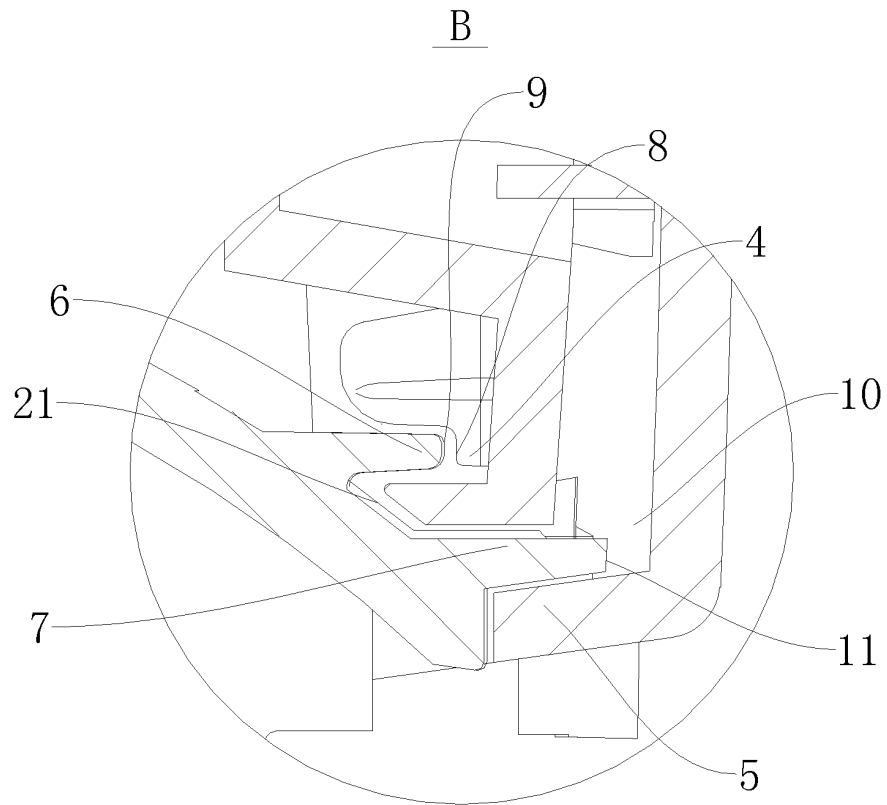


FIG. 4



INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2020/124750

A. CLASSIFICATION OF SUBJECT MATTER F24F 13/22(2006.01)i; F24F 13/20(2006.01)i According to International Patent Classification (IPC) or to both national classification and IPC																		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) F24F Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched																		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) CNABS; VEN; DWPI; SIPOABS; CATXT; EPTXT; USTXT; WOTXT; CNTXT; CNKI: 美的, 姜凤华, 张卫东, 袁宏亮, 张哲源, 黄彪, 陈中清, 空调, 空气调节, 空气调和, 密封, 冷凝水, 凝结, 凝露, 结露, 面框, 中框, 框架, 面板框, 面板, 面罩, 底盘, 本体, 主体, 底座, 板, 壁, 出风口, 送风口, 厚, 薄, air 1w condition+, seal+, condens+, dew+, frame, front, face, panel, plate, board, sheet, chassis, base+, foundation, pedestal, outlet, depth, thin+, thick+, theckness, thk.																		
C. DOCUMENTS CONSIDERED TO BE RELEVANT <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>PX</td> <td>CN 110617614 A (GUANGDONG MEDIA REFRIGERATION EQUIPMENT CO., LTD.) 27 December 2019 (2019-12-27) description, paragraphs 35-63, figures 1-5</td> <td>1-10</td> </tr> <tr> <td>PX</td> <td>CN 211400013 U (GUANGDONG MEDIA REFRIGERATION EQUIPMENT CO., LTD. et al.) 01 September 2020 (2020-09-01) description, paragraphs 36-42, figures 1-4</td> <td>1, 10</td> </tr> <tr> <td>Y</td> <td>JP H0960913 A (FUJITSU GENERAL LTD.) 04 March 1997 (1997-03-04) description, paragraphs 6-7, figures 1-2, 3A-3C</td> <td>1-7, 10</td> </tr> <tr> <td>Y</td> <td>JP 2000337653 A (MITSUBISHI HEAVY IND LTD.) 08 December 2000 (2000-12-08) description, paragraphs 9-13, figures 1-2</td> <td>1-7, 10</td> </tr> <tr> <td>Y</td> <td>CN 106989502 A (GUANGDONG MEDIA REFRIGERATION EQUIPMENT CO., LTD. et al.) 28 July 2017 (2017-07-28) description, paragraphs 48-63, figures 1-3</td> <td>2-7, 10</td> </tr> </tbody> </table>	Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	PX	CN 110617614 A (GUANGDONG MEDIA REFRIGERATION EQUIPMENT CO., LTD.) 27 December 2019 (2019-12-27) description, paragraphs 35-63, figures 1-5	1-10	PX	CN 211400013 U (GUANGDONG MEDIA REFRIGERATION EQUIPMENT CO., LTD. et al.) 01 September 2020 (2020-09-01) description, paragraphs 36-42, figures 1-4	1, 10	Y	JP H0960913 A (FUJITSU GENERAL LTD.) 04 March 1997 (1997-03-04) description, paragraphs 6-7, figures 1-2, 3A-3C	1-7, 10	Y	JP 2000337653 A (MITSUBISHI HEAVY IND LTD.) 08 December 2000 (2000-12-08) description, paragraphs 9-13, figures 1-2	1-7, 10	Y	CN 106989502 A (GUANGDONG MEDIA REFRIGERATION EQUIPMENT CO., LTD. et al.) 28 July 2017 (2017-07-28) description, paragraphs 48-63, figures 1-3	2-7, 10
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Date of the actual completion of the international search 29 December 2020	Date of mailing of the international search report 01 February 2021																	
Name and mailing address of the ISA/CN China National Intellectual Property Administration (ISA/CN) No. 6, Xitucheng Road, Jimenqiao, Haidian District, Beijing 100088 China Facsimile No. (86-10)62019451	Authorized officer Telephone No.																	

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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
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CN	110617614	A	27 December 2019	CN	210861630	U	26 June 2020
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