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(72) Inventors:
• **Eguchi, Tsuyoshi**
Tokyo, 108-8215 (JP)
• **Kanamori, Azusa**
Tokyo, 108-8215 (JP)

(74) Representative: **Henkel & Partner mbB**
Patentanwaltskanzlei, Rechtsanwaltskanzlei
Maximiliansplatz 21
80333 München (DE)

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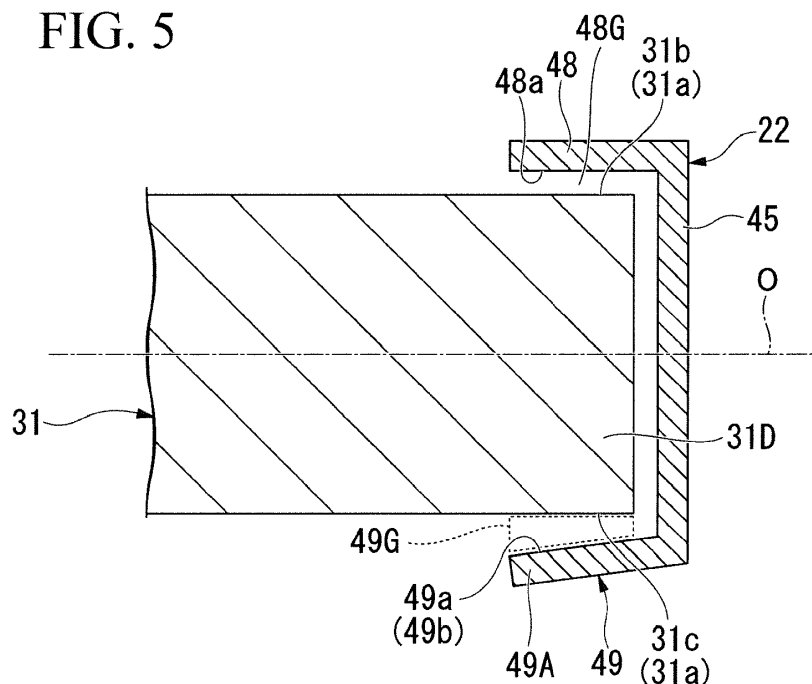
(71) Applicant: **MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.**
108-8215 Tokyo (JP)

(54) **AIR CONDITIONING INDOOR UNIT**

(57) An air conditioning indoor unit includes an end portion casing (22) that is provided for an end portion of a cross flow fan main body (31) and is provided with a first portion (48) and a second portion (49), the first portion (48) being provided with a first inner surface (48a) forming a first gap (48G) between the first inner surface (48a) and a first outer circumferential surface (31b) cor-

responding to an air inflow region and the second portion (49) being provided with a second inner surface (49a) forming a second gap (49G) between the second inner surface (49a) and a second outer circumferential surface (31c) corresponding to an air outflow region. The second gap (49G) is wider than the first gap (48G).

FIG. 5



Description

BACKGROUND OF THE INVENTION

Field of the Invention

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

Description of Related Art

[0002] Japanese Unexamined Patent Application, First Publication No. 2015-190637 discloses an air conditioning indoor unit that includes a housing provided with an air inlet port and an air outlet port, an end portion casing, a cross flow fan, and a heat exchanger unit.

[0003] The housing accommodates the end portion casing, the cross flow fan, and the heat exchanger unit.

[0004] The end portion casing is disposed to face an outer circumferential surface of an end portion of the cross flow fan with a slight gap interposed therebetween. The end portion casing is provided for the purpose of suppressing indoor air flowing backward from the end portion of the cross flow fan.

[0005] An outer circumferential surface of the cross flow fan includes a first outer circumferential surface corresponding to an air inflow region into which air sucked through the air inlet port flows and a second outer circumferential surface corresponding to an air outflow region from which air after heat exchange with the heat exchanger unit is blown toward the air outlet port.

SUMMARY OF THE INVENTION

[0006] However, when the end portion casing is disposed to face a second outer circumferential surface of the end portion of the cross flow fan with a slight gap interposed therebetween, there is a possibility that a flow of the air after the heat exchange blown from the outer circumferential surface of the end portion of the cross flow fan is inhibited, the indoor air enters the cross flow fan through the second outer circumferential surface of the end portion of the cross flow fan, and a blade passing frequency noise is generated.

[0007] The present invention provides an air conditioning indoor unit with which it is possible to suppress generation of a blade passing frequency noise by suppressing inhibition against air blown from an outer circumferential surface of an end portion of a cross flow fan which is caused by an end portion casing.

[0008] According to an aspect of the present invention, there is provided an air conditioning indoor unit including: a housing that is provided with an air inlet port through which indoor air is sucked and an air outlet port through which the air is blown outward; a heat exchange unit that is accommodated in the housing and performs heat exchange with the air sucked through the air inlet port; a cross flow fan that is accommodated in the housing, is

disposed to extend in a width direction of the housing, and is provided with an outer circumferential surface, the outer circumferential surface including a first outer circumferential surface corresponding to an air inflow region into which the air after the heat exchange flows and a second outer circumferential surface corresponding to an air outflow region from which the air after the heat exchange flows out; a rear guider that is accommodated in the housing and is disposed close to a rear surface of the housing; a stabilizer that is accommodated in the housing, is disposed close to a front surface of the rear guider, and defines an air outlet flow path that communicates with the air outlet port and through which the air outflow region is exposed, the air outlet flow path being defined between the stabilizer and the rear guider; and an end portion casing that is provided for an end portion of the cross flow fan and is provided with a first portion and a second portion, the first portion being provided with a first inner surface forming a first gap between the first inner surface and the first outer circumferential surface positioned at the end portion of the cross flow fan and the second portion being provided with a second inner surface forming a second gap between the second inner surface and the second outer circumferential surface positioned at the end portion of the cross flow fan, in which the second gap is wider than the first gap.

[0009] According to the aspect of the present invention, the second gap, which is formed between the second outer circumferential surface corresponding to the air outflow region and the second inner surface of the second portion constituting the end portion casing is made wider than the first gap, which is formed between the first outer circumferential surface corresponding to the air inflow region and the first inner surface of the first portion constituting the end portion casing. Therefore, it is possible to reduce a possibility that the second portion inhibits a flow of air blown from the second outer circumferential surface positioned at the end portion of the cross flow fan.

[0010] Accordingly, it is possible to suppress indoor air entering the cross flow fan through the second outer circumferential surface positioned at the end portion of the cross flow fan and thus it is possible to suppress generation of a blade passing frequency noise.

[0011] In addition, in the air conditioning indoor unit according to the aspect of the present invention, the second inner surface may be an inclined surface that is inclined in a direction away from a central axis of the cross flow fan.

[0012] When the second inner surface is an inclined surface that is inclined in a direction away from the central axis of the cross flow fan as described above, the second gap can be made wider than the first gap and air blown from the end portion of the cross flow fan can be guided in a direction toward the center of the cross flow fan.

[0013] In addition, in the air conditioning indoor unit according to the aspect of the present invention, the rear guider may be provided with a first end portion positioned on the air outlet port side and a second end portion po-

sitioned opposite to the first end portion, the second end portion may be connected to a portion of the end portion casing that corresponds to a boundary between the air inflow region and the air outflow region, and the inclined surface may include a first inclined surface that is disposed on the second end portion side and of which an angle of inclination with respect to the central axis gradually increases toward the first end portion from the second end portion and a second inclined surface that is disposed on the first end portion side, that is integrated with the first inclined surface, and of which an angle of inclination with respect to the central axis is constant.

[0014] When an inclined surface which is the second inner surface includes the first inclined surface of which the angle of inclination with respect to the central axis gradually increases and the second inclined surface which is integrated with the first inclined surface and of which the angle of inclination with respect to the central axis is constant as described above, air flowing out from the second outer circumferential surface of the end portion of the cross flow fan can be smoothly guided in a direction toward the air outlet port.

[0015] In addition, in the air conditioning indoor unit according to the aspect of the present invention, a level difference may be formed in a boundary between the second inclined surface and the first inner surface, an end portion of the stabilizer that is positioned opposite to an end portion positioned on the air outlet port side may be provided with a tongue portion, the tongue portion may have a shape alleviating the level difference, and a portion of the tongue portion may be disposed to extend at the level difference.

[0016] When the portion of the tongue portion that has the shape alleviating of the level difference is disposed at the level difference, the level difference formed in the boundary between the second inclined surface and the first inner surface can be decreased. Accordingly, it is possible to suppress turbulence which occurs when air flowing out from the cross flow fan collides with the level difference.

[0017] According to the above-described air conditioning indoor unit, it is possible to suppress generation of a blade passing frequency noise by suppressing inhibition against air blown from an outer circumferential surface of an end portion of a cross flow fan which is caused by an end portion casing.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018]

FIG. 1 is a sectional view which is obtained by cutting an air conditioning indoor unit according to a first embodiment of the present invention with a plane orthogonal to a horizontal plane and is a view corresponding to a section of a structure in FIG. 2 taken along line B₁-B₂.

FIG. 2 is a sectional view of the structure in FIG. 1

taken along line A₁-A₂.

FIG. 3 is a perspective view of an end portion casing disposed on a motor side and a stabilizer.

FIG. 4 is a sectional view of an end portion of the end portion casing and a cross flow fan in FIG. 2 taken along line C₁-C₂.

FIG. 5 is a sectional view of the end portion of the end portion casing and the cross flow fan in FIG. 2 taken along line D₁-D₂.

FIG. 6 is a sectional view of the end portion of the end portion casing and the cross flow fan in FIG. 2 taken along line E₁-E₂.

FIG. 7 is a sectional view of the end portion of the end portion casing and the cross flow fan in FIG. 2 taken along line F₁-F₂.

FIG. 8 is a sectional view of the end portion of the end portion casing and the cross flow fan in FIG. 2 taken along line G₁-G₂.

FIG. 9 is a sectional view illustrating an end portion casing according to a modified example of the embodiment.

DETAILED DESCRIPTION OF THE INVENTION

Embodiment

[0019] An air conditioning indoor unit 10 according to an embodiment will be described with reference to FIGS. 1 to 8. In FIG. 1, "X" represents a width direction of a housing 11 and "O" represents a central axis (hereinafter, referred to as "central axis O") of a cross flow fan 15.

[0020] In FIGS. 1 and 2, a direction Z is a height direction (perpendicular direction) of the housing 11 which is orthogonal to a direction X. In FIG. 2, a direction Y is a depth direction of the housing 11 which is orthogonal to the direction X and the direction Z shown in FIG. 1.

[0021] In FIGS. 4 to 7, a section on a stabilizer 18 side is illustrated to be positioned on a lower side in the drawings. In FIGS. 1 to 8, the same components are given the same reference numerals.

[0022] The air conditioning indoor unit 10 includes the housing 11, a heat exchange unit 13, the cross flow fan 15, a bearing portion 16, a rear guider 17, the stabilizer 18, an air outlet flow path 19, a motor 20, end portion casings 21 and 22, and upper and lower wind directing plates 24.

[0023] The housing 11 has a hollow portion inside thereof and the housing 11 extends in the direction X. The housing 11 is provided with an air inlet port 11A and an air outlet port 11B.

[0024] The air inlet port 11A is disposed close to an upper surface of the housing 11 (disposed on one side in direction Z). The air inlet port 11A is used when air in an indoor place where the air conditioning indoor unit 10 is disposed is sucked into the housing 11.

[0025] The air outlet port 11B is disposed close to a lower surface of the housing 11 (disposed on other side in direction Z). The air outlet port 11B is an opening por-

tion that is used when air after heat exchange flowing out from the cross flow fan 15 is discharged to the indoor place.

[0026] The heat exchange unit 13 is accommodated in the housing 11 and a plurality of heat exchangers constitute the heat exchange unit 13. The heat exchange unit 13 is provided at a position separated from the cross flow fan 15.

[0027] The heat exchange unit 13 has a U-like shape. The heat exchange unit 13 is disposed to surround a first outer circumferential surface 31b (outer circumferential surface corresponding to air inflow region 31A) of the cross flow fan 15.

[0028] The heat exchange unit 13 performs heat exchange between indoor air sucked through the air inlet port 11A and a coolant flowing through a pipe of the heat exchange unit 13.

[0029] The cross flow fan 15 is accommodated in the housing 11. The cross flow fan 15 includes a cross flow fan main body 31, a shaft portion 32, and a shaft accommodation portion 34.

[0030] The cross flow fan main body 31 has a columnar shape and is disposed to extend in the direction X. The cross flow fan main body 31 is provided with the air inflow region 31A into which the air after the heat exchange flows, an air outflow region 31B from which the air after the heat exchange flows out, an outer circumferential surface 31a, and end portions 31C and 31D arranged in the direction X.

[0031] The air inflow region 31A is a region facing the heat exchange unit 13. The air outflow region 31B is a region exposed to the air outlet flow path 19 defined by the rear guider 17 and the stabilizer 18.

[0032] The outer circumferential surface 31a includes the first outer circumferential surface 31b and a second outer circumferential surface 31c. The first outer circumferential surface 31b is an outer circumferential surface, which is a portion of the outer circumferential surface 31a that corresponds to the air inflow region 31A. The second outer circumferential surface 31c is an outer circumferential surface, which is a portion of the outer circumferential surface 31a that corresponds to the air outflow region 31B.

[0033] The end portions 31C and 31D include the above-described first and second outer circumferential surfaces 31b and 31c. The end portion 31C is an end portion disposed on the bearing portion 16 side. The end portion 31D is an end portion disposed on the motor 20 side.

[0034] The shaft portion 32 is provided to protrude in the direction X from an end surface (end surface disposed on bearing portion 16 side) positioned on one side in the direction X.

[0035] The shaft accommodation portion 34 is a recess portion formed close to an end surface (end surface disposed on motor 20 side) positioned on the other side in the direction X. The shaft accommodation portion 34 is formed to extend in the direction X toward the shaft por-

tion 32.

[0036] The bearing portion 16 is accommodated in the housing 11. The bearing portion 16 rotatably supports the shaft portion 32.

[0037] The rear guider 17 is accommodated in the housing 11. The rear guider 17 is disposed close to a rear surface of the housing 11. The rear guider 17 has a curved shape that protrudes toward the rear surface of the housing 11. A surface 17a of the rear guider 17 that is positioned on the stabilizer 18 side is a curved surface.

[0038] The rear guider 17 is provided with a first end portion 17A (lower end portion) positioned on the air outlet port 11B side and a second end portion 17B positioned opposite to the first end portion 17A.

[0039] The first end portion 17A is connected to a portion of the housing 11 that is positioned close to the rear surface of the housing 11, the housing 11 defining the air outlet port 11B.

[0040] The second end portion 17B is connected to portions of the end portion casings 21 and 22 that are at a boundary between the air inflow region 31A and the air outflow region 31B.

[0041] The stabilizer 18 is accommodated in the housing 11. The stabilizer 18 is provided with a tongue portion 37 constituting one end portion 18A, the other end portion 18B, and a surface 18a.

[0042] The tongue portion 37 is disposed in a state of inclined with respect to a portion of the stabilizer 18 other than the tongue portion 37 while being inclined toward the air inlet port 11A side. The tongue portion 37 is connected to the end portion casings 21 and 22. Note that, the details of a position where the tongue portion 37 is connected to the end portion casing 22 will be described later.

[0043] The tongue portion 37 has a function of suppressing generation of a wind noise (blade passing frequency noise) which is caused by interference between an air vortex and blades of the cross flow fan 15.

[0044] The other end portion 18B is connected to a portion of the housing 11 that is positioned close to a front surface of the housing 11, the housing 11 defining the air outlet port 11B.

[0045] The surface 18a is a surface disposed on the rear guider 17 side. The surface 18a is disposed to be separated from the surface 17a in the direction Y.

[0046] The air outlet flow path 19 is a flow path formed between the surface 17a of the rear guider 17 and the surface 18a of the stabilizer 18.

[0047] Outer surfaces of the end portion casings 21 and 22 corresponding to the air outflow region 31B and the second outer circumferential surface 31c corresponding to the air outflow region 31B are exposed through the air outlet flow path 19 and the air outlet flow path 19 communicates with the air outlet port 11B. Accordingly, the air after the heat exchange flowing out from the cross flow fan 15 to the air outlet flow path 19 is supplied to the indoor space via the air outlet port 11B.

[0048] The motor 20 is accommodated in the housing

11. The motor 20 includes a motor main body 20A and a motor shaft 20B. The motor main body 20A is supported by a supporting member (not shown).

[0049] The motor shaft 20B is connected to the motor main body 20A and extends in the direction X. The motor shaft 20B is fixed to the cross flow fan main body 31 in a state of being accommodated in the shaft accommodation portion 34. The motor 20 is a drive unit for rotation of the cross flow fan 15.

[0050] The end portion casing 21 is accommodated in the housing 11. The end portion casing 21 is supported by a supporting member (not shown).

[0051] The end portion casing 21 is provided with a circular portion 41 and a cylindrical portion 42. In the center of the circular portion 41, an opening portion 41A through which the shaft portion 32 is inserted is formed. The circular portion 41 faces one end surface of the cross flow fan main body 31 with a gap (gap having same size as first gap 48G which will be described later) interposed therebetween in the direction X.

[0052] One end of the cylindrical portion 42 is connected to the circular portion 41 and the cylindrical portion 42 extends in the direction X. The cylindrical portion 42 faces the first and second outer circumferential surfaces 31b and 31c of the end portion 31C of the cross flow fan main body 31.

[0053] The end portion casing 21 configured as described above is provided to surround an end surface and the first and second outer circumferential surfaces 31b and 31c of the end portion 31C with a gap interposed therebetween.

[0054] The end portion casing 22 is accommodated in the housing 11. The end portion casing 22 is supported with respect to the housing 11 by a supporting member (not shown).

[0055] The end portion casing 22 is provided with a circular portion 45 and a tubular portion 46.

[0056] In the center of the circular portion 45, an opening portion 45A through which the motor shaft 20B is inserted is formed. The circular portion 45 faces the other end surface of the cross flow fan main body 31 with a gap interposed therebetween in the direction X.

[0057] One end of the tubular portion 46 is connected to the circular portion 45. The tubular portion 46 is provided with a first portion 48 and a second portion 49.

[0058] The first portion 48 is provided to surround the first outer circumferential surface 31b corresponding to the air inflow region 31A. The first portion 48 is provided with a first inner surface 48a that faces the first outer circumferential surface 31b and forms the first gap 48G between the first inner surface 48a and the first outer circumferential surface 31b. The size of the first gap 48G is constant in a circumferential direction of the cross flow fan main body 31.

[0059] The second portion 49 is provided to surround the second outer circumferential surface 31c corresponding to the air outflow region 31B. An end portion 49A of the second portion 49 that is positioned opposite

to an end portion on the circular portion 45 side is inclined in a direction away from the central axis O of the cross flow fan 15.

[0060] The second portion 49 is provided with a second inner surface 49a disposed on the second outer circumferential surface 31c side. The second inner surface 49a is an inclined surface inclined with respect to the central axis O of the cross flow fan 15.

[0061] The second inner surface 49a is provided with a first inclined surface 49b and a second inclined surface 49c.

[0062] The first inclined surface 49b is disposed on the rear guider 17 side and is an inclined surface extending from the second end portion 17B of the rear guider 17.

The first inclined surface 49b is an inclined surface of which the angle of inclination with respect to the central axis O gradually increases toward the first end portion 17A side from the second end portion 17B.

[0063] The second inclined surface 49c is disposed on the stabilizer 18 side (first end portion 17A side) and is a surface integrated with the first inclined surface. No level difference is formed between the second inclined surface 49c and the first inclined surface 49b and the second inclined surface 49c and the first inclined surface 49b are connected to each other via a smooth surface.

[0064] The second inclined surface 49c is inclined with respect to the central axis O. The second inclined surface 49c is inclined at the same inclination angle as an inclination angle in a boundary between the first inclined surface 49b and the second inclined surface 49c. That is, the second inclined surface 49c is an inclined surface of which the angle of inclination with respect to the central axis O is constant.

[0065] A second gap 49G is formed between the second inner surface 49a and the second outer circumferential surface 31c corresponding to the air outflow region 31B configured as described above. The second gap 49G is a gap wider than the first gap 48G.

[0066] As described above, the second gap 49G, which is formed between the second outer circumferential surface 31c of the cross flow fan main body 31 corresponding to the air outflow region 31B and the second inner surface 49a of the second portion 49 constituting the end portion casing 22 is made wider than the first gap 48G, which is formed between the first outer circumferential surface 31b of the cross flow fan main body 31 corresponding to the air inflow region 31A and the first inner surface 48a of the first portion 48 constituting the end portion casing 22. Therefore, it is possible to reduce a possibility that the second portion 49 inhibits a flow of air blown from the second outer circumferential surface 31c of the end portion 31D of the cross flow fan main body 31.

[0067] Accordingly, it is possible to suppress indoor air entering the cross flow fan main body 31 through the second outer circumferential surface 31c of the end portion 31D of the cross flow fan main body 31 and thus it is possible to suppress generation of a blade passing

frequency noise.

[0068] In addition, since the second inner surface 49a is an inclined surface that is inclined in a direction away from the central axis O of the cross flow fan 15, the second gap 49G can be made wider than the first gap 48G and air blown from the end portion 31D of the cross flow fan 15 can be guided in a direction toward the center of the cross flow fan 15.

[0069] In addition, since the second inner surface 49a which is an inclined surface includes the first inclined surface 49b of which the angle of inclination with respect to the central axis O gradually increases toward the first end portion 17A side from the second end portion 17B and the second inclined surface 49c which is integrated with the first inclined surface 49b and of which the angle of inclination with respect to the central axis O is constant, air flowing out from the second outer circumferential surface 31c of the end portion 31D of the cross flow fan main body 31 can be smoothly guided in a direction toward the air outlet port 11B.

[0070] A level difference G is formed between an end portion of the second inclined surface 49c that is positioned on the stabilizer 18 side and the first inner surface 48a since the second inclined surface 49c is inclined with respect to the central axis O (refer to FIG. 3).

[0071] A portion of the tongue portion 37 of the stabilizer 18 that has a shape capable of lessening the influence of the level difference G is disposed to extend at the level difference G.

[0072] As described above, since the portion of the tongue portion 37 that has the shape capable of alleviating of the level difference G is disposed at the level difference G, the level difference G formed in a boundary between the second inclined surface 49c and the first inner surface 48a can be decreased. Accordingly, it is possible to suppress turbulence which occurs when air flowing out from the cross flow fan 15 collides with the level difference G.

[0073] The upper and lower wind directing plates 24 are provided in the housing 11 corresponding to the air outlet port 11B. The upper and lower wind directing plates 24 adjust a direction in which air flowing out from the cross flow fan 15 is blown.

[0074] According to the air conditioning indoor unit 10 in the present embodiment, the second gap 49G, which is formed between the second outer circumferential surface 31c of the cross flow fan main body 31 corresponding to the air outflow region 31B and the second inner surface 49a of the second portion 49 constituting the end portion casing 22 is made wider than the first gap 48G, which is formed between the first outer circumferential surface 31b of the cross flow fan main body 31 corresponding to the air inflow region 31A and the first inner surface 48a of the first portion 48 constituting the end portion casing 22. Therefore, it is possible to reduce a possibility that the second portion 49 inhibits a flow of air blown from the second outer circumferential surface 31c of the end portion 31D of the cross flow fan main body 31.

[0075] Accordingly, it is possible to suppress indoor air entering the cross flow fan main body 31 through the second outer circumferential surface 31c of the end portion 31D of the cross flow fan main body 31 and thus it is possible to suppress generation of a blade passing frequency noise.

[0076] Note that, in the present embodiment, a case where the end portion casing 22 disposed on the motor 20 side is provided with the first and second portions 48 and 49 has been described as an example. However, a configuration in which the end portion casing 21 disposed on the bearing portion 16 side is provided with the first and second portions 48 and 49 may also be adopted and a configuration in which each of the end portion casings 21 and 22 is provided with the first and second portions 48 and 49 may also be adopted.

[0077] Next, an end portion casing 55 according to a modified example of the present embodiment will be described with reference to FIG. 9. In FIG. 9, the same components as those in the structure shown in FIGS. 4 to 7 are given the same reference numerals.

[0078] As shown in FIG. 9, the end portion casing 55 has the same configuration as the end portion casing 22 except that a second portion 56 is provided instead of the second portion 49 constituting the end portion casing 22 described above and a portion of the circular portion 45 that is positioned on the second outer circumferential surface 31c side is extended.

[0079] A second inner surface 56a of the second portion 56 is a surface not inclined with respect to the central axis O. A second gap 56G of which the width is greater than that of the first gap 48G is formed between the second inner surface 56a and the second outer circumferential surface 31c.

[0080] The size of the second gap 56G is constant in the circumferential direction of the second outer circumferential surface 31c.

[0081] In a case where the end portion casing 55 configured as described is used as well, it is possible to suppress indoor air entering the cross flow fan main body 31 through the second outer circumferential surface 31c of the end portion of the cross flow fan main body 31 and thus it is possible to suppress generation of a blade passing frequency noise.

[0082] While preferred embodiments of the invention have been described and illustrated above, it should be understood that these are exemplary of the invention and are not to be considered as limiting. Additions, omissions, substitutions, and other modifications can be made without departing from the spirit or scope of the present invention. Accordingly, the invention is not to be considered as being limited by the foregoing description, and is only limited by the scope of the appended claims.

[0083] For example, the second inner surface 49a may be configured of the first inclined surface 49b only.

Claims**1.** An air conditioning indoor unit comprising:

a housing that is provided with an air inlet port through which indoor air is sucked and an air outlet port through which the air is blown outward; 5

a heat exchange unit that is accommodated in the housing and performs heat exchange with the air sucked through the air inlet port; 10

a cross flow fan that is accommodated in the housing, is disposed to extend in a width direction of the housing, and is provided with an outer circumferential surface, the outer circumferential surface including a first outer circumferential surface corresponding to an air inflow region into which the air after the heat exchange flows and a second outer circumferential surface corresponding to an air outflow region from which the air after the heat exchange flows out; 20

a rear guider that is accommodated in the housing and is disposed close to a rear surface of the housing;

a stabilizer that is accommodated in the housing, is disposed close to a front surface of the rear guider, and defines an air outlet flow path that communicates with the air outlet port and through which the air outflow region is exposed, the air outlet flow path being defined between the stabilizer and the rear guider; and 30

an end portion casing that is provided for an end portion of the cross flow fan and is provided with a first portion and a second portion, the first portion being provided with a first inner surface forming a first gap between the first inner surface and the first outer circumferential surface positioned at the end portion of the cross flow fan and the second portion being provided with a second inner surface forming a second gap between the second inner surface and the second outer circumferential surface positioned at the end portion of the cross flow fan, 35 40

wherein the second gap is wider than the first gap. 45

2. The air conditioning indoor unit according to claim 1, wherein the second inner surface is an inclined surface that is inclined in a direction away from a central axis of the cross flow fan. 50**3.** The air conditioning indoor unit according to claim 2,

wherein the rear guider is provided with a first end portion positioned on the air outlet port side and a second end portion positioned opposite to the first end portion, 55

wherein the second end portion is connected to

a portion of the end portion casing that corresponds to a boundary between the air inflow region and the air outflow region, and wherein the inclined surface includes a first inclined surface that is disposed on the second end portion side and of which an angle of inclination with respect to the central axis gradually increases toward the first end portion from the second end portion and a second inclined surface that is disposed on the first end portion side, that is integrated with the first inclined surface, and of which an angle of inclination with respect to the central axis is constant.

4. The air conditioning indoor unit according to claim 3,

wherein a level difference is formed in a boundary between the second inclined surface and the first inner surface,

wherein an end portion of the stabilizer that is positioned opposite to an end portion positioned on the air outlet port side is provided with a tongue portion,

wherein the tongue portion has a shape alleviating the level difference, and

wherein a portion of the tongue portion is disposed to extend at the level difference.

FIG. 2

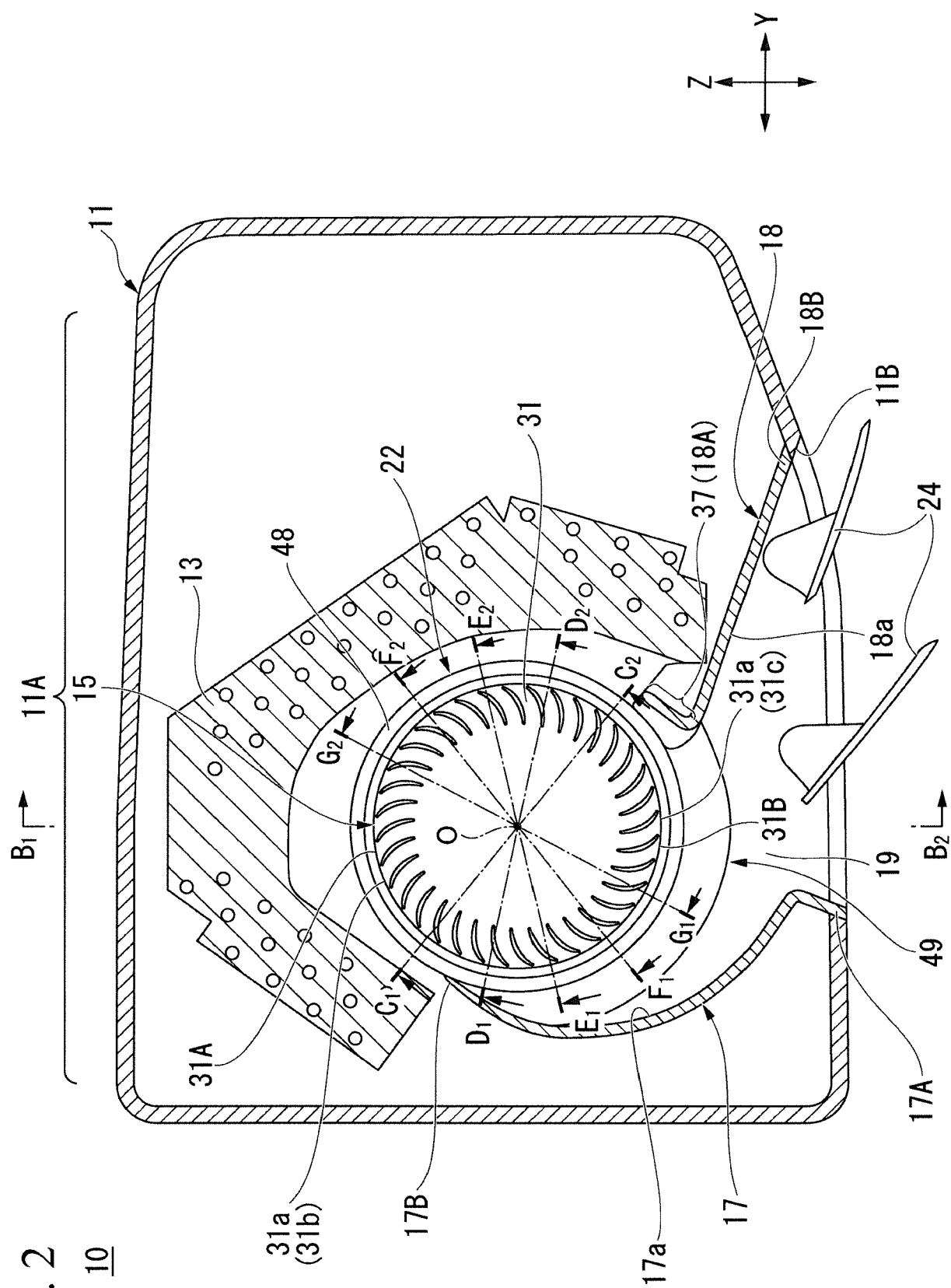


FIG. 3

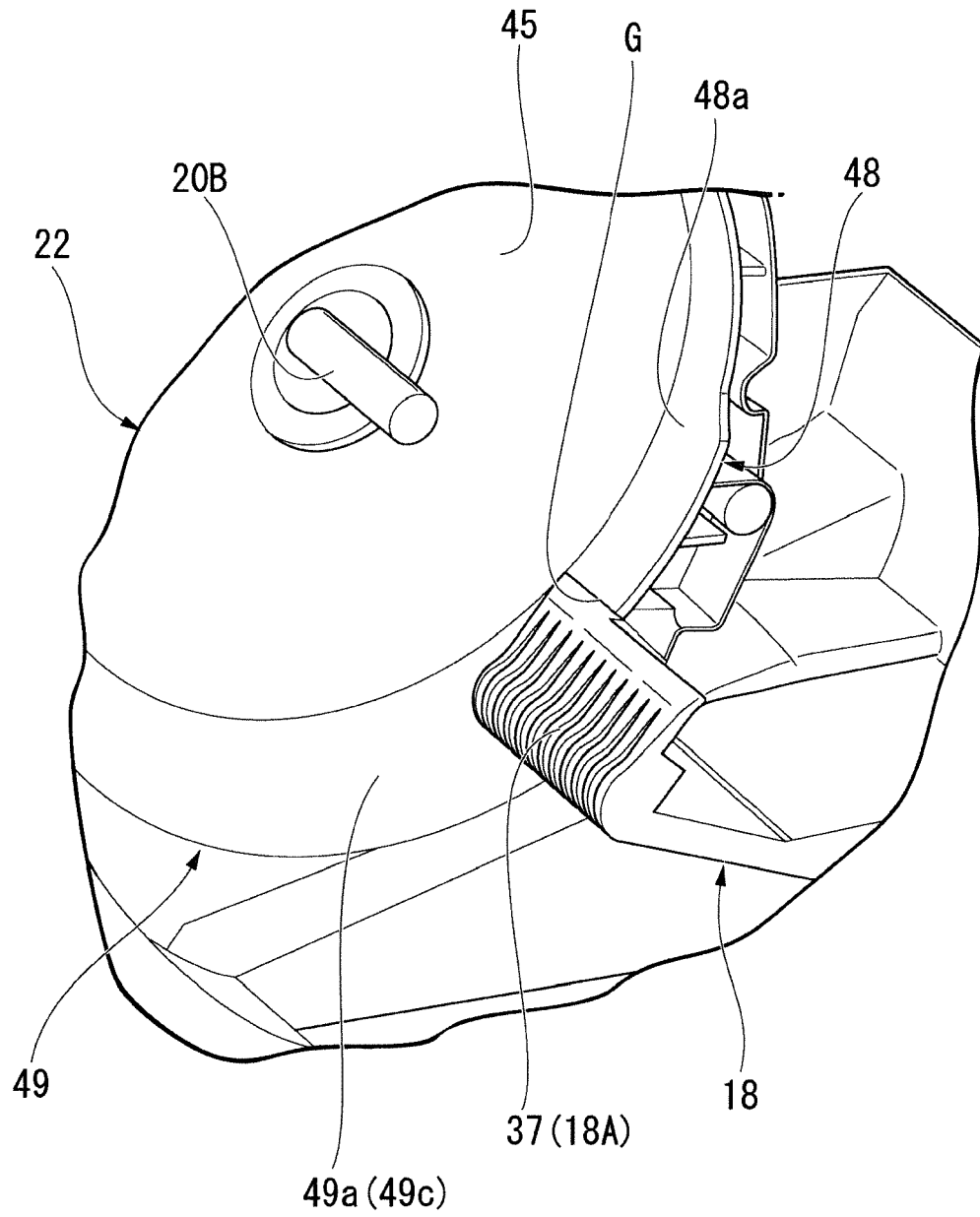


FIG. 4

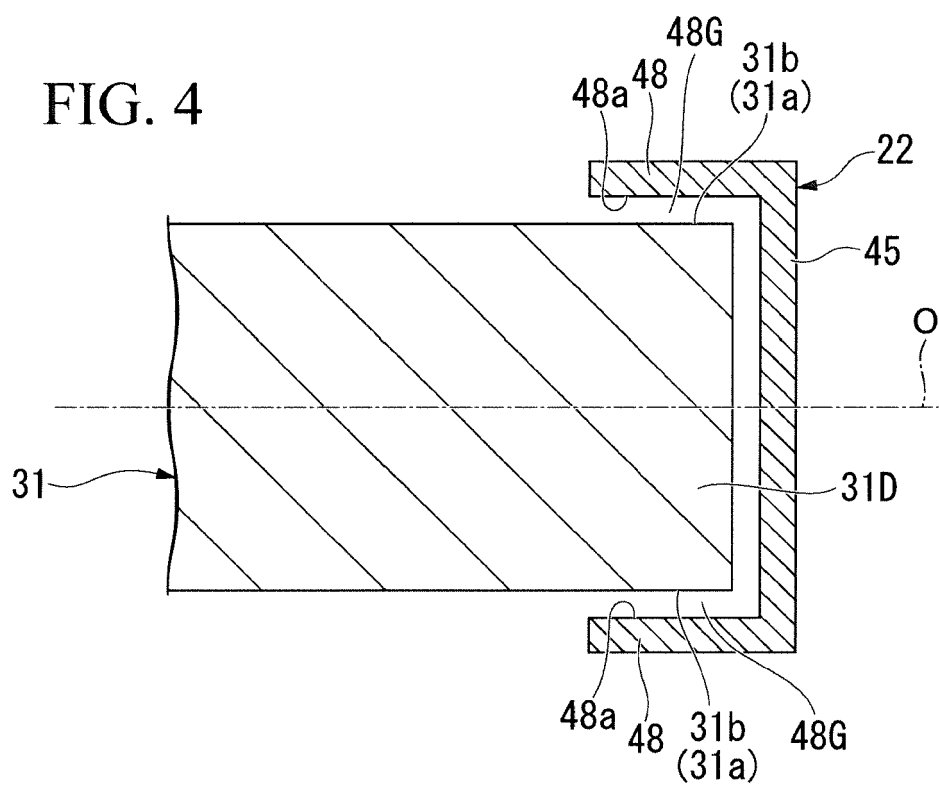


FIG. 5

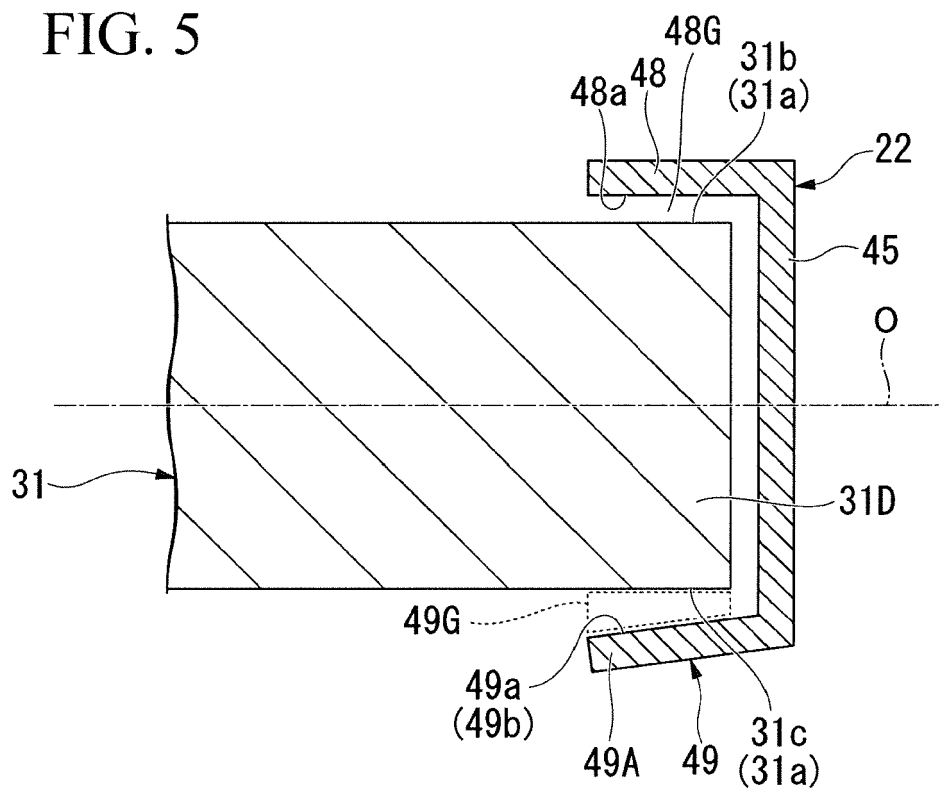


FIG. 6

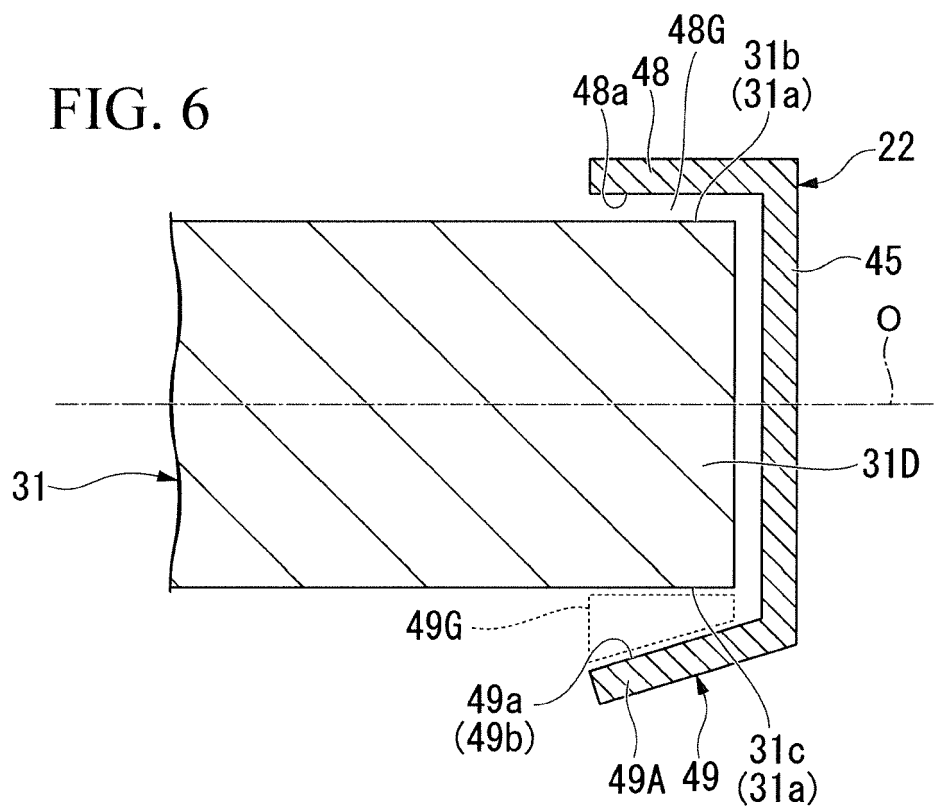


FIG. 7

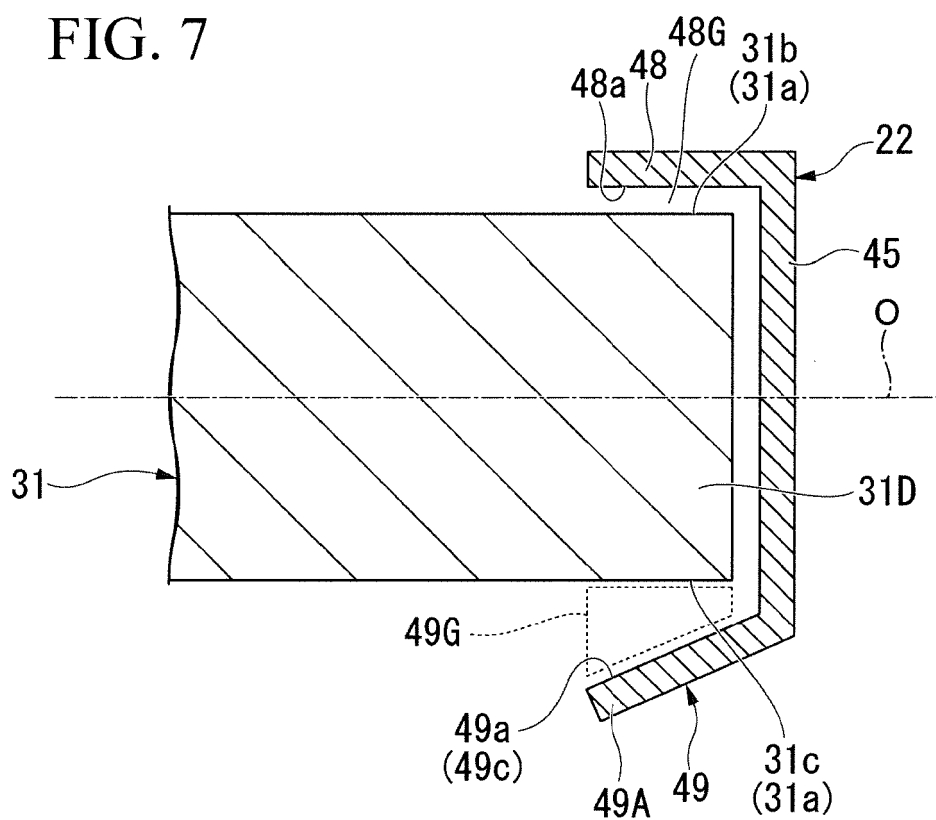


FIG. 8

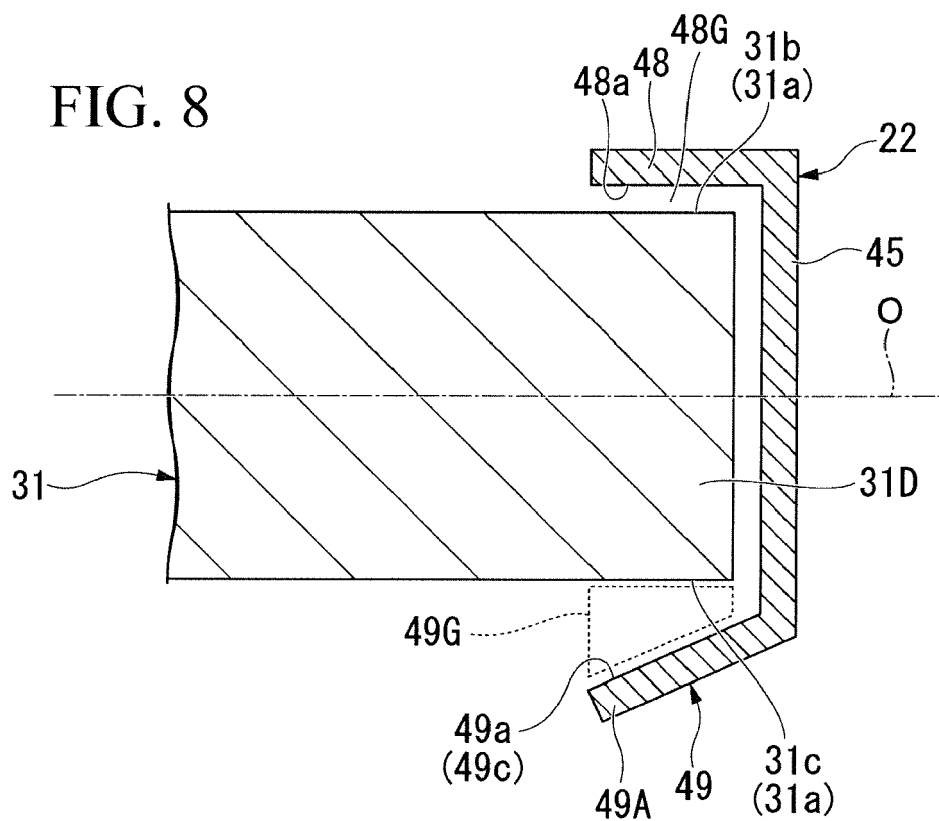
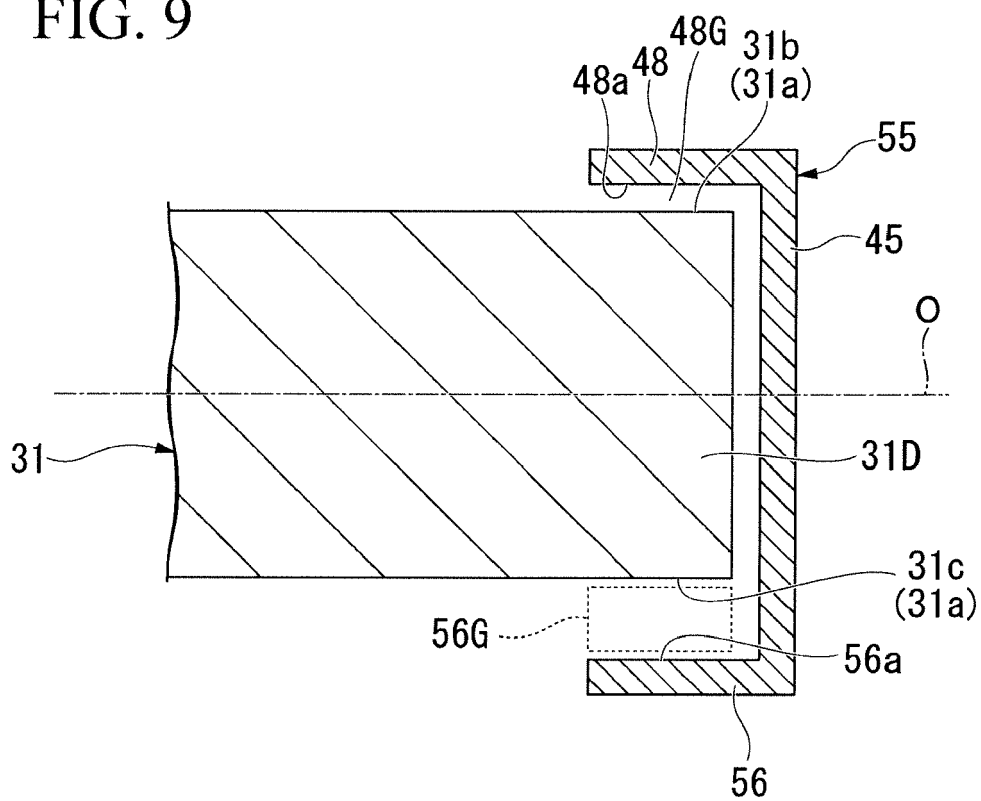


FIG. 9





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