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(54) **Vibration-reducing support structure for compressor**

Schwingungsdämpfende Stützstruktur für Verdichter

Structure de support atténuant les vibrations pour compresseur

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Description

Technical Field

[0001] The present invention relates to a vibration-reducing support structure for supporting a compressor in a vibration-reducing manner on a fixing base of a unit main body of an air conditioner, a chiller, and the like.

{Background Art}

[0002] A compressor includes multiple leg parts on the outer circumference of its housing, and its leg parts are commonly mounted in a vibration-reducing manner on a fixing base of a unit main body through a rubber vibration isolator or a spring, etc. In such a vibration-reducing support structure for a compressor, a single system of a rubber vibration isolator or a spring alone cannot always sufficiently absorb vibrations, and the vibrations failing to be absorbed travel to a unit main body, which can contribute to vibrations of the unit, or cause repetitive stress on refrigerant pipes connected to the compressor.

[0003] To address this problem, PTL 1 shows a structure in which a compressor is supported on a sheet-metal fixing plate through a vibration-reducing member composed of a rubber or a spring, etc., and the fixing plate is installed on a fixing base of a unit through a cushioning member such as a rubber sheet, while PTL 2 shows a structure in which a compressor, an accumulator, an oil separator, and the like are fixed on a common fixing plate and the fixing plate is fixed with bolts to a fixing base through a sheet-like rubber vibration isolator.

{Citation List}

{Patent Literature}

[0004]

{PTL 1}

Japanese Unexamined Patent Application, Publication No. H3-286193

{PTL 2}

Japanese Unexamined Patent Application, Publication No. 2004-293856

{Summary of Invention}

{Technical Problem}

[0005] The aforementioned PTL 1 discloses the structure in which the rubber cushioning member is integrally bonded with an adhesive to the sheet-metal fixing plate supporting the compressor in a vibration-reducing manner, and the fixing plate is installed on the fixing base. It is not clearly specified how to fixedly install the fixing plate and the cushioning member on the fixing base. When a fixing plate with a compressor installed thereon

is fixedly installed on a fixing base through a sheet-like rubber vibration isolator, a common practice is, as shown in PTL 2, to fasten and fix the fixing plate with bolts to the fixing base.

[0006] However, if such a configuration as described above is adopted, in which the fixing plate with the compressor installed thereon is fixedly installed, together with the sheet-like rubber vibration isolator, on the fixing base with a fixing means such as a bolt, despite the rubber vibration isolator interposed between the fixing plate and the fixing base, vibrations can travel to the fixing base via the fixing means, so that the sufficient effect of isolating vibrations cannot always be obtained. For this reason, when the configuration is adopted, in which the fixing plate with the compressor supported thereon in a vibration-reducing manner is installed on a fixing base through a sheet-like vibration-reducing member, there has been a need of a vibration-reducing support structure which can more reliably block the vibrations travelling from the fixing plate to the fixing base by means of a vibration-reducing member.

[0007] The present invention has been made in view of this situation, and an object thereof is to provide a vibration-reducing support structure for a compressor which can reliably block the vibrations travelling from the compressor to the fixing base, and thereby reducing vibrations of the unit.

{Solution to Problem}

[0008] In order to solve the above problem, the vibration-reducing support structure of a compressor of the present invention has adopted the following solutions.

[0009] According to a first aspect of the present invention, there is provided a vibration-reducing support structure according to claim 1.

[0010] According to the first aspect of the present invention, in the vibration-reducing support structure for a compressor, in which the fixing plate supporting the compressor in a vibration-reducing manner by means of the vibration-reducing member is installed on the fixing base through the sheet-like vibration-reducing member, the fixing plate is installed on the sheet-like vibration-reducing member by being stacked thereon or integrally joined therewith, and both of the fixing plate and the sheet-like vibration-reducing member are fixedly installed on a fixing base surface through the fixing means which fixes both while reducing the vibrations travelling from the fixing plate to the fixing base. This configuration makes it possible to absorb the vibrations of the compressor, which fail to be absorbed by the vibration-reducing member and travel to the fixing plate, by means of the sheet-like vibration-reducing member interposed between the fixing plate and the fixing base, and thereby blocking the vibrations travelling through the fixing base to a unit main body. At the same time, since both of the fixing plate and the sheet-like vibration-reducing member are fixedly installed through the fixing means so that the vibrations

travelling from the fixing plate to the fixing base are reduced, the vibrations travelling from the fixing plate to the fixing base via the fixing means can be reduced. Accordingly, vibrations of the unit can be reduced, and lift, etc. of the fixing plate during transportation or due to fall of the unit can be prevented.

[0011] According to a second aspect of the present invention, in the vibration-reducing support structure for a compressor of the first aspect, the fixing plate and the sheet-like vibration-reducing member are provided with a drain hole for discharging drain water onto the fixing base, and a surface of the fixing base is provided with drain grooves for collecting the drain water and discharging the drain water to a predetermined position.

[0012] According to the second aspect of the present invention, the fixing plate and the sheet-like vibration-reducing member are provided with the drain hole for discharging the drain water onto the fixing base, and the fixing base surface is provided with the drain groove for collecting the drain water and discharging the drain water to a specific position. Due to this configuration, even when dew is formed on surfaces of refrigerant pipes or components disposed in a space above the compressor, etc. and drips onto the fixing plate, this drain water is discharged onto the fixing base through the drain hole provided in the fixing plate and the sheet-like vibration-reducing member, and is introduced through the drain groove provided in the fixing base surface to a specific drain position for treatment. Thus, the drain water can be reliably discharged to a specific position for treatment, even in the configuration where the compressor is supported in a vibration-reducing manner on the fixing plate and the fixing plate is fixedly installed on the fixing base through the sheet-like vibration-reducing member.

[0013] According to the present invention, in the above-mentioned vibration-reducing support structure for a compressor of the first or second aspect, the fixing plate is provided with flange parts which are formed by bending the fixing plate upward at left and right ends thereof, the flange parts are fitted between upright walls provided on left and right sides of the fixing base so that the fixing plate and the sheet-like vibration-reducing member are installed on the fixing base, and the fixing means is a claw part which engages with the flange parts of the fixing plate and prevents the fixing plate and the sheet-like vibration-reducing member being uplifted.

[0014] According to the present invention, the fixing plate is provided with the flange parts at the left and right ends, these flange parts being fitted between the upright walls on the left and right sides of the fixing base so that the fixing plate and the sheet-like vibration-reducing member are installed on the fixing base, and the fixing means is the claw part which engage with the flange parts of the fixing plate and prevent uplift of the fixing plate and the sheet-like vibration-reducing member. This configuration makes it possible to fixedly install on the fixing base the fixing plate supporting the compressor in a vibration-reducing manner, and the sheet-like vibration-reducing

member interposed between the fixing plate and the fixing base, without using fastening means such as a screw. Accordingly, the fixing plate and the sheet-like vibration-reducing member can be reliably fixed on the fixing base without using expensive fixing means such as a bolt with a rubber vibration isolator which isolates vibrations.

[0015] According to a third aspect of the present invention, in the vibration-reducing support structure for a compressor of the first aspect, the sheet-like vibration-reducing member is formed with upward bent parts at left and right ends thereof, and the bent parts are inserted between the upright walls of the fixing base and the flange parts of the fixing plate.

[0016] According to the third aspect of the present invention, the sheet-like vibration-reducing member is formed with the upward bent parts at the left and right ends thereof, and these bent parts are inserted between the upright walls of the fixing base and the flange parts of the fixing plate. This configuration makes it possible to block the vibration transmission, caused by direct contact between the flange parts of the fixing plate and the upright walls of the fixing base, by means of the bent parts provided in the sheet-like vibration-reducing member. Accordingly, the vibrations travelling from the fixing plate to the fixing base can be further reduced and the effect of reducing vibrations of the unit main body can be further enhanced.

[0017] According to another aspect of the present invention, a vibration-reducing support structure according to claim 4 is provided.

[0018] According to this aspect of the present invention, the fixing plate and the sheet-like vibration-reducing member are integrally bonded with an adhesive, and the fixing means is the fixing screw which passes through the hole of the fixing plate and fixes only the sheet-like vibration-reducing member to the fixing base. This configuration makes it possible to fixedly install both of the fixing plate and the sheet-like vibration-reducing member on the fixing base through the fixing screw, while the vibrations travelling from the fixing plate to the fixing base is reduced, by fastening and fixing the sheet-like vibration-reducing member, which is integrally bonded with the fixing plate with an adhesive, to the fixing base through the fixing screw passing through the hole of the fixing plate. Thus, even in the configuration where the sheet-like vibration-reducing member is fixed to the fixing base with the usual screw, vibrations of the unit main body can be reliably reduced by blocking the vibrations travelling from the fixing plate to the fixing base via the fixing means.

{Advantageous Effects of Invention}

[0019] According to the present invention, it is possible to absorb vibrations of the compressor, which fail to be absorbed by the vibration-reducing member and travel to the fixing plate, with the sheet-like vibration-reducing member interposed between the fixing plate and the fix-

ing base, and thereby blocking the vibrations travelling through the fixing base to the unit main body. Furthermore, since both of the fixing plate and the sheet-like vibration-reducing member are fixedly installed on the fixing base through the fixing means so that the vibrations travelling from the fixing plate to the fixing base are reduced, the vibrations travelling from the fixing plate to the fixing base via the fixing means can be reduced. Accordingly, vibrations of the unit can be reduced, and lift, etc. of the fixing plate during transportation or due to fall of the unit can be prevented.

{Brief Description of Drawings}

[0020]

{Fig. 1}

Fig. 1 is a perspective longitudinal cross-sectional view of a portion of a unit main body where a compressor is installed, Fig. 1 shows a vibration-reducing support structure of a compressor according to a first embodiment of the present invention.

{Fig. 2}

Fig. 2 is a perspective view of only the vibration-reducing support structure part shown in Fig. 1.

{Fig. 3}

Fig. 3 is a perspective view of the above-mentioned vibration-reducing support structure with the compressor removed.

{Fig. 4}

Fig. 4 is a perspective view of only a fixing base part of the above-mentioned vibration-reducing support structure.

{Fig. 5}

Fig. 5 is a front view of the above-mentioned vibration-reducing support structure.

{Fig. 6}

Fig. 6 is a front view, whose view direction is corresponding to Fig. 5, of a modified example of the above-mentioned vibration-reducing support structure.

{Fig. 7}

Fig. 7 is a cross-sectional view of only major parts of a vibration-reducing support structure according to a second embodiment of the present invention.

{Description of Embodiments}

[0021] Hereinafter, embodiments according to the present invention will be described with reference to the drawings.

(First Embodiment)

[0022] A first embodiment of the present invention will be described in the following using Fig. 1 to Fig. 5.

[0023] Fig. 1 shows a perspective longitudinal cross-sectional view of a portion of a unit main body where a

compressor is installed, Fig. 1 shows a vibration-reducing support structure of a compressor according to the first embodiment, Fig. 2 is a perspective view of only the vibration-reducing support structure part shown in Fig. 1, Fig. 3 is a perspective view of the above-mentioned vibration-reducing support structure with the compressor removed, Fig. 4 is a perspective view of only a fixing base part of the above-mentioned vibration-reducing support structure, and Fig. 5 is a front view of the above-mentioned vibration-reducing support structure.

[0024] A unit main body 1 of an air conditioner, a chiller, or various heat pumps, etc. has a compressor 2 supported in a vibration-reducing manner on a bottom surface of the unit main body. The compressor 2 includes multiple leg parts 4 in a lower portion of the outer circumference of a closed vessel 3.

[0025] This compressor 2 is supported on a fixing plate 10 in a vibration-reducing manner at multiple positions of the outer circumference of the compressor through a vibration-reducing support device 9. The vibration-reducing support device 9 has a configuration in which the leg parts 4 are fitted to the outer circumference of rubber vibration isolators (vibration-reducing member) 5, bolts 7 fixedly installed on the fixing plate 10 are inserted into through-holes 6 provided at the center of the rubber vibration isolators 5, and the compressor is fastened and fixed with nuts 8. The rubber vibration isolator 5 may be substituted with a spring, etc.

[0026] The fixing plate 10 is a rectangular sheet-metal plate member, and is provided with flange parts 11, formed by being bent upward, at left and right ends. In addition, the bolts 7 for the above-described vibration-reducing support device 9 are fixedly installed at multiple positions (usually, at three to four positions) of the fixing plate 10, and besides, as shown in Fig. 3, the fixing plate is provided with draining/positioning holes (draining holes) 12 for discharging drain water dripping onto the fixing plate 10.

[0027] A sheet-like vibration-reducing member 13 is integrally joined with a lower surface of the fixing plate 10 with an adhesive, a bolt, or caulking, etc. This sheet-like vibration-reducing member 13 is constituted of a rectangular rubber sheet, etc. having predetermined thickness and hardness, and serves to absorb vibrations which fail to be absorbed by the vibration-reducing support device 9 and travel to the fixing plate 10. The sheet-like vibration-reducing member 13 is provided with holes corresponding to the multiple draining/positioning holes (draining holes) 12 of the fixing plate 10 at corresponding positions. It is not essential that the fixing plate 10 and the sheet-like vibration-reducing member 13 are integrally joined, and the fixing plate may instead just be stacked on the sheet-like vibration-reducing member.

[0028] The sheet-like vibration-reducing member 13 is provided with bent parts 14, formed by being bent upward along the outer surface of the flange parts 11 of the fixing plate 10, at left and right ends, and these bent parts 14 are inserted between upright walls 19 of a fixing base 15,

which is described later, and the flange parts 11 of the fixing plate 10. The sheet-like vibration-reducing member 13 is placed on an upper surface of the fixing base 15 which is fixedly installed on a seat 21 constituting the bottom surface of the unit main body 1.

[0029] The upper surface of the fixing base 15 is provided with many ribs 16, and multiple draining grooves 17 are formed between these ribs 16, so that the drain water can be guided and discharged to a specific position. In addition, the upper surface of the fixing base 15 is provided with protruding parts 18 protruding upward at multiple positions, which are fitted to the draining/positioning holes 12 provided in the sheet-like vibration-reducing member 13 and the fixing plate 10.

[0030] The fixing base 15 is provided with vertical upright walls 19 on left and right sides, to which the flange parts 11 of the fixing plate 10 and the bent parts 14 of the sheet-like vibration-reducing member 13 are fitted. Furthermore, the upright walls 19 on the left and right sides are each provided with a claw part (fixing means) 20 extending in the width direction over a predetermined area, which engages with the flange part 11 of the fixing plate 10 and the upward bent part 14 of the sheet-like vibration-reducing member 13, and fixes the fixing plate 10 and the sheet-like vibration-reducing member 13 so as not to be lifted upward.

[0031] According to this embodiment, the following effects can be obtained by the configuration described above.

[0032] Various vibrations are caused by operation of the compressor 2. As these vibrations are firstly absorbed by the vibration-reducing support device 9 supporting the compressor 2 in a vibration-reducing manner, the vibrations travelling to the fixing plate 10 are blocked. However, the vibration-reducing support by a single system of the rubber vibration isolator 5 alone cannot always sufficiently absorb the vibrations. Therefore, by installing the fixing plate 10 on the fixing base 15 through the sheet-like vibration-reducing member 13 constituted of a rubber sheet member, etc. and absorbing the vibrations, which fail to be absorbed by the vibration-reducing support device 9, by means of the sheet-like vibration-reducing member 13, the vibrations travelling through the fixing base 15 to the unit main body 1 are blocked and thereby vibrations of the unit are reduced.

[0033] Further, in this embodiment, both of the fixing plate 10 and the sheet-like vibration-reducing member 13 are not directly fixed by being fastened with fixing means such as a bolt, etc., but the fixing plate 10 and the sheet-like vibration-reducing member 13 are fixedly installed on the fixing base 15 through fixing means which fixes both while isolating the vibrations travelling from the fixing plate 10 to the fixing base 15. This configuration makes it possible to reduce the vibrations travelling from the fixing plate 10 to the fixing base 15 via the fixing means, and thereby reliably reducing vibrations of the unit as well as preventing lift, etc. of the fixing plate 10 during transportation or due to fall of the unit.

[0034] In this embodiment, the fixing plate 10 is provided with the flange parts 11 at the left and right ends, and these flange parts 11 are fitted to the upright walls 19 on the left and right sides of the fixing base 15, thereby the fixing plate 10 and the sheet-like vibration-reducing member 13 are installed on the fixing base 15. In addition, the fixing means for fixing the fixing plate and the sheet-like vibration-reducing member is the claw parts (fixing means) 20 which engage with the flange parts 11 of the fixing plate 10 and prevent the fixing plate 10 and the sheet-like vibration-reducing member 13 from being up-lifted.

[0035] This configuration makes it possible to fixedly install, on the fixing base 15, the fixing plate 10 supporting the compressor 2 in a vibration-reducing manner, and the sheet-like vibration-reducing member 13 interposed between the fixing plate 10 and the fixing base 15, without using fastening means such as a screw. Accordingly, the fixing plate 10 and the sheet-like vibration-reducing member 13 can be reliably fixed on the fixing base 15 without using expensive fixing means such as a bolt with a rubber vibration isolator to isolate vibrations.

[0036] In particular, the upward bent parts 14 are formed at the left and right ends of the sheet-like vibration-reducing member 13, and these bent parts 14 are inserted between the upright walls 19 of the fixing base 15 and the flange parts 11 of the fixing plate 10. This configuration makes it possible to block the vibration transmission, caused by direct contact between the flange parts 11 of the fixing plate 10 and the upright walls 19 of the fixing base 15, by the bent parts 14 provided in the sheet-like vibration-reducing member 13. Thus, the vibrations travelling from the fixing plate 10 to the fixing base 15 can be further reduced, and the effect of reducing vibrations of the unit main body 1 can be further enhanced.

[0037] In this embodiment, the fixing plate 10 and the sheet-like vibration-reducing member 13 are provided with the draining/positioning holes (draining holes) 12 for discharging the drain water onto the fixing base 15 so that the drain water is discharged to the surface of the fixing base 15 through these draining holes 12 and discharged through the draining grooves 17 to a specific position. Due to this configuration, even when dew is formed on surfaces of refrigerant pipes or components disposed in a space above the compressor 2, etc. and drips onto the fixing plate 10, the drain water can be discharged onto the fixing base 15 through the draining holes 12 provided in the fixing plate 10 and the sheet-like vibration-reducing member 13, and be guided through the draining grooves 17 provided in the surface of the fixing base 15 to a specific draining position for appropriate treatment.

[0038] Accordingly, even in the configuration where the compressor 2 is supported in a vibration-reducing manner on the fixing plate 10 and this fixing plate 10 is fixedly installed on the fixing base 15 through the sheet-like vibration-reducing member 13, the drain water can

be reliably discharged to a specific position.

[0039] In the above embodiment, the upward bent parts 14 are formed at the left and right ends of the sheet-like vibration-reducing member 13, and the bent parts 14 are inserted between the upright walls 19 of the fixing base 15 and the flange parts 11 of the fixing plate 10. However, as shown in Fig. 6, the bent parts 14 may be omitted.

[0040] Also in this configuration, it is possible to fixedly install both of the fixing plate 10 and the sheet-like vibration-reducing member 13 on the fixing base 15 by the claw parts 20, without directly fixing both with fixing means such as a bolt, while the vibrations travelling from the fixing plate 10 to the fixing base 15 are isolated. Thus, it is possible to reduce the vibrations travelling from the fixing plate 10 to the fixing base 15 via the fixing means, and thereby reducing vibrations of the unit main body 1 as well as preventing lift, etc. of the fixing plate 10 during transportation or due to fall of the unit.

(Second Embodiment)

[0041] Next, a second embodiment of the present invention will be described using Fig. 7.

[0042] This embodiment differs from the above-described first embodiment in the fixing structure of the fixing plate 10 and the sheet-like vibration-reducing member 13. Other features, which are the same as in the first embodiment, will not be described.

[0043] This embodiment has a configuration in which, after the flange parts 11, the bent parts 14, and the claw parts 20 are removed, as shown in Fig. 7, the fixing plate 10 and the sheet-like vibration-reducing member 13 to be installed on the fixing base 15 are integrally bonded with an adhesive. In addition, only the sheet-like vibration-reducing member 13 is fastened and fixed with a fixing screw (fixing means) 22, which passes through a hole part 10A provided in the fixing plate 10, to a screw boss part 15A provided in the fixing base 15.

[0044] As described above, the fixing plate 10 and the sheet-like vibration-reducing member 13 are integrally bonded with an adhesive, and the fixing screw 22 as the fixing means passes through the hole part 10A of the fixing plate 10 to fasten and fix only the sheet-like vibration-reducing member 13 to the fixing base 15. This configuration makes it possible to fixedly install both of the fixing plate 10 and the sheet-like vibration-reducing member 13 on the fixing base 15 through the fixing screw 22, while the vibrations travelling from the fixing plate 10 to the fixing base 15 are isolated, by fastening and fixing the sheet-like vibration-reducing member 13, which is integrally bonded to the fixing plate 10 with an adhesive, to the fixing base 15 through the fixing screw 22 passing through the hole part 10A of the fixing plate 10.

[0045] Accordingly, also by this embodiment, even in the configuration where the sheet-like vibration-reducing member 13 is fastened and fixed to the fixing base 15 with the usual fixing screw 22, the vibrations travelling

from the fixing plate 10 to the fixing base 15 via the fixing means can be blocked, and thereby vibrations of the unit main body 1 can be reliably reduced.

[0046] In the description of the above embodiments, the vibration-reducing support device 9 for supporting the compressor 2 in a vibration-reducing manner on the fixing plate 10 has a configuration, as an example, where the leg parts 4 of the compressor 2 are fitted to the outer circumference of the rubber vibration isolators 5, the bolts 7 fixedly installed on the fixing plate 10 are inserted into the through-holes 6 provided at the center of the rubber vibration isolators 5, and the compressor is fastened and fixed with the nuts 8.

[0047] Although in the above embodiments, the draining/positioning holes (draining holes) 12 serve as a draining hole as well as a positioning hole, these holes may, of course, be separately provided. Furthermore, in the description of the above embodiments, the upper surface of the fixing base 15 is provided with the draining grooves 17 for discharging the drain water. Needless to say, the groove shape and the like of the draining groove 17 can be changed appropriately. In addition, the present invention is not limited to structures that include the draining groove 17, but can be readily applied to those that do not include the draining groove 17 as well.

{Reference Signs List}

[0048]

1	Unit main body
2	Compressor
5	Rubber vibration isolator (vibration-reducing member)
9	Vibration-reducing support device
10	Fixing plate
10A	Hole part
11	Flange part
12	Draining/positioning hole (draining hole)
13	Sheet-like vibration-reducing member
14	Bent part
15	Fixing base
17	Drain groove
19	Upright wall
20	Claw part (fixing means)
22	Fixing screw (fixing means)

Claims

1. A vibration-reducing support structure for a compressor including a compressor (2) supported in a vibration-reducing manner on a fixing plate (10) through a first vibration-reducing member (5), the fixing plate (10) being installed on a fixing base (15) through a second vibration-reducing member (13), the fixing plate (10) being installed on the second vibration-reducing member (13) by being stacked

thereon or integrally joined therewith, **characterized in that** both of the fixing plate (10) and the second vibration-reducing member (13) are fixedly installed on the fixing base (15) through fixing means (20) while reducing vibrations travelling from the fixing plate (10) to the fixing base (15),

the fixing plate (10) is provided with flange parts (11) which are formed by bending the fixing plate (10) upward at two facing ends thereof, the flange parts (11) are fitted between upright walls (19) provided on two facing sides of the fixing base (15) so that the fixing plate (10) and the second vibration-reducing member (13) are installed on the fixing base (15), and the fixing means is a claw part (20) which engages with the flange parts (11) of the fixing plate (10) and prevents the fixing plate (10) and the second vibration-reducing member (13) being uplifted.

2. The vibration-reducing support structure for a compressor according to claim 1, wherein the fixing plate (10) and the second vibration-reducing member (13) are provided with a drain hole (12) for discharging drain water onto the fixing base (15), and a surface of the fixing base (15) is provided with drain grooves (17) for collecting the drain water and discharging the drain water to a predetermined position.
3. The vibration-reducing support structure for a compressor according to claim 1, wherein the second vibration-reducing member (13) is formed with upward bent parts (14) at the two facing ends thereof, and the bent parts (14) are inserted between the upright walls (19) of the fixing base (15) and the flange parts (11) of the fixing plate (10).
4. A vibration-reducing support structure for a compressor including a compressor (2) supported in a vibration-reducing manner on a fixing plate (10) through a first vibration-reducing member (5), the fixing plate (10) being installed on a fixing base (15) through a second vibration-reducing member (13) the fixing plate (10) and the second vibration-reducing member (13) being integrally bonded with an adhesive, **characterized in that** the fixing plate (10) includes a hole (10A) and a fixing screw (22) passes entirely through the hole (10A) of the fixing plate (10) and fixes only the second vibration-reducing member (13) to the fixing base (15) without contacting the fixing plate (10).

Patentansprüche

1. Schwingungsdämpfende Stützkonstruktion für ei-

nen Verdichter, umfassend einen Verdichter (2), der auf einer Befestigungsplatte (10) durch ein erstes schwingungsdämpfendes Glied (5) schwingungsdämpfend gelagert ist, wobei die Befestigungsplatte (10) durch ein zweites schwingungsdämpfendes Glied (13) auf einer Befestigungsbasis (15) angebracht ist, wobei die Befestigungsplatte (10) auf dem zweiten schwingungsdämpfenden Glied (13) angebracht ist, indem sie darauf angeordnet oder einstückig damit verbunden ist, **dadurch gekennzeichnet, dass** sowohl die Befestigungsplatte (10) als auch das zweite schwingungsdämpfende Glied (13) durch ein Befestigungsmittel (20) fest an der Befestigungsbasis (15) angebracht sind und dabei Schwingungen, die sich von der Befestigungsplatte (10) zu der Befestigungsbasis (15) fortpflanzen, dämpfen, wobei die Befestigungsplatte (10) mit Flanschteilen (11) versehen ist, die durch Aufwärtsbiegen der Befestigungsplatte (10) an zwei entgegengesetzten Enden davon geformt werden, wobei die Flanschteile (11) zwischen aufrechten Wänden (19), die an zwei entgegengesetzten Seiten der Befestigungsbasis (15) vorgesehen sind, eingepasst sind, so dass die Befestigungsplatte (10) und das zweite schwingungsdämpfende Glied (13) an der Befestigungsbasis (15) angebracht sind, und wobei das Befestigungsmittel ein Klauenteil (20) ist, das mit den Flanschteilen (11) der Befestigungsplatte (10) in Eingriff kommt und verhindert, dass die Befestigungsplatte (10) und das zweite schwingungsdämpfende Glied (13) hochgehoben werden können.

2. Schwingungsdämpfende Stützkonstruktion für einen Verdichter nach Anspruch 1, wobei die Befestigungsplatte (10) und das zweite schwingungsdämpfende Glied (13) mit einer Abführöffnung (12) zum Abführen von Abführwasser auf die Befestigungsbasis (15) versehen sind und eine Oberfläche der Befestigungsbasis (15) mit Abführrielen (17) zum Sammeln des Abführwassers und Abführen des Abführwassers zu einer vorgegebenen Position versehen ist.
3. Schwingungsdämpfende Stützkonstruktion für einen Verdichter nach Anspruch 1, wobei das zweite schwingungsdämpfende Glied (13) an den zwei entgegengesetzten Enden davon mit aufwärtsgebogenen Teilen (14) ausgebildet ist und die gebogenen Teile (14) zwischen den aufrechten Wänden (19) der Befestigungsbasis (15) und den Flanschteilen (11) der Befestigungsplatte (10) eingesetzt sind.
4. Schwingungsdämpfende Stützkonstruktion für einen Verdichter, umfassend einen Verdichter (2), der auf einer Befestigungsplatte (10) durch ein erstes schwingungsdämpfendes Glied (5) schwingungs-

dämpfend gelagert ist, wobei die Befestigungsplatte (10) durch ein zweites schwingungsdämpfendes Glied (13) auf einer Befestigungsbasis (15) angebracht ist, wobei die Befestigungsplatte (10) und das zweite schwingungsdämpfende Glied (13) mittels Klebstoff zu einem Stück verklebt sind, **dadurch gekennzeichnet, dass** die Befestigungsplatte (10) ein Loch (10A) umfasst und eine Befestigungsschraube (22) zur Gänze durch das Loch (10A) der Befestigungsplatte (10) tritt und nur das zweite schwingungsdämpfende Glied (13) an der Befestigungsbasis (15) befestigt, ohne die Befestigungsplatte (10) zu berühren.

Revendications

1. Structure de support de réduction de vibration pour un compresseur comprenant un compresseur (2) supporté d'une manière réduisant les vibrations sur une plaque de fixation (10) par l'intermédiaire d'un premier élément de réduction de vibration (5), la plaque de fixation (10) étant installée sur une base de fixation (15) par l'intermédiaire d'un deuxième élément de réduction de vibration (13), la plaque de fixation (10) étant installée sur le deuxième élément de réduction de vibration (13) en étant empilée dessus ou reliée d'un seul tenant à celle-ci, **caractérisée en ce que** la plaque de fixation (10) et le deuxième élément de réduction de vibration (13) sont tous les deux installés de façon fixe sur la base de fixation (15) par l'intermédiaire de moyens de fixation (20) tout en réduisant des vibrations se déplaçant depuis la plaque de fixation (10) jusqu'à la base de fixation (15),
la plaque de fixation (10) est pourvue de parties de bride (11) qui sont formées en pliant la plaque de fixation (10) vers le haut au niveau de deux extrémités en regard de celle-ci,
les parties de bride (11) sont montées entre des parois verticales (19) prévues sur deux côtés en regard de la base de fixation (15) de telle sorte que la plaque de fixation (10) et le deuxième élément de réduction de vibration (13) sont installés sur la base de fixation (15), et
les moyens de fixation sont une partie de griffe (20) qui engage les parties de bride (11) de la plaque de fixation (10) et empêche la plaque de fixation (10) et le deuxième élément de réduction de vibration (13) d'être soulevés.
2. Structure de support de réduction de vibration pour un compresseur selon la revendication 1, dans laquelle la plaque de fixation (10) et le deuxième élément de réduction de vibration (13) sont pourvus d'un trou de purge (12) pour l'évacuation de l'eau de purge sur la base de fixation (15), et une surface de la base de fixation (15) est pourvue de rainures de

purge (17) destinées à recueillir l'eau de purge et à évacuer l'eau de purge jusqu'à une position prédéterminée.

3. Structure de support de réduction de vibration pour un compresseur selon la revendication 1, dans laquelle le deuxième élément de réduction de vibration (13) est formé avec des parties pliées vers le haut (14) au niveau des deux extrémités en regard de celui-ci, et les parties pliées (14) sont insérées entre les parois verticales (19) de la base de fixation (15) et les parties de bride (11) de la plaque de fixation (10).
4. Structure de support de réduction de vibration pour un compresseur comprenant un compresseur (2) supporté d'une manière réduisant les vibrations sur une plaque de fixation (10) par l'intermédiaire d'un premier élément de réduction de vibration (5), la plaque de fixation (10) étant installée sur une base de fixation (15) par l'intermédiaire d'un deuxième élément de réduction de vibration (13), la plaque de fixation (10) et le deuxième élément de réduction de vibration (13) étant collés d'un seul tenant avec un adhésif, **caractérisée en ce que** la plaque de fixation (10) comprend un trou (10A) et une vis de fixation (22) passe entièrement à travers le trou (10A) de la plaque de fixation (10) et fixe seulement le deuxième élément de réduction de vibration (13) sur la base de fixation (15) sans entrer en contact avec la plaque de fixation (10).

FIG. 1

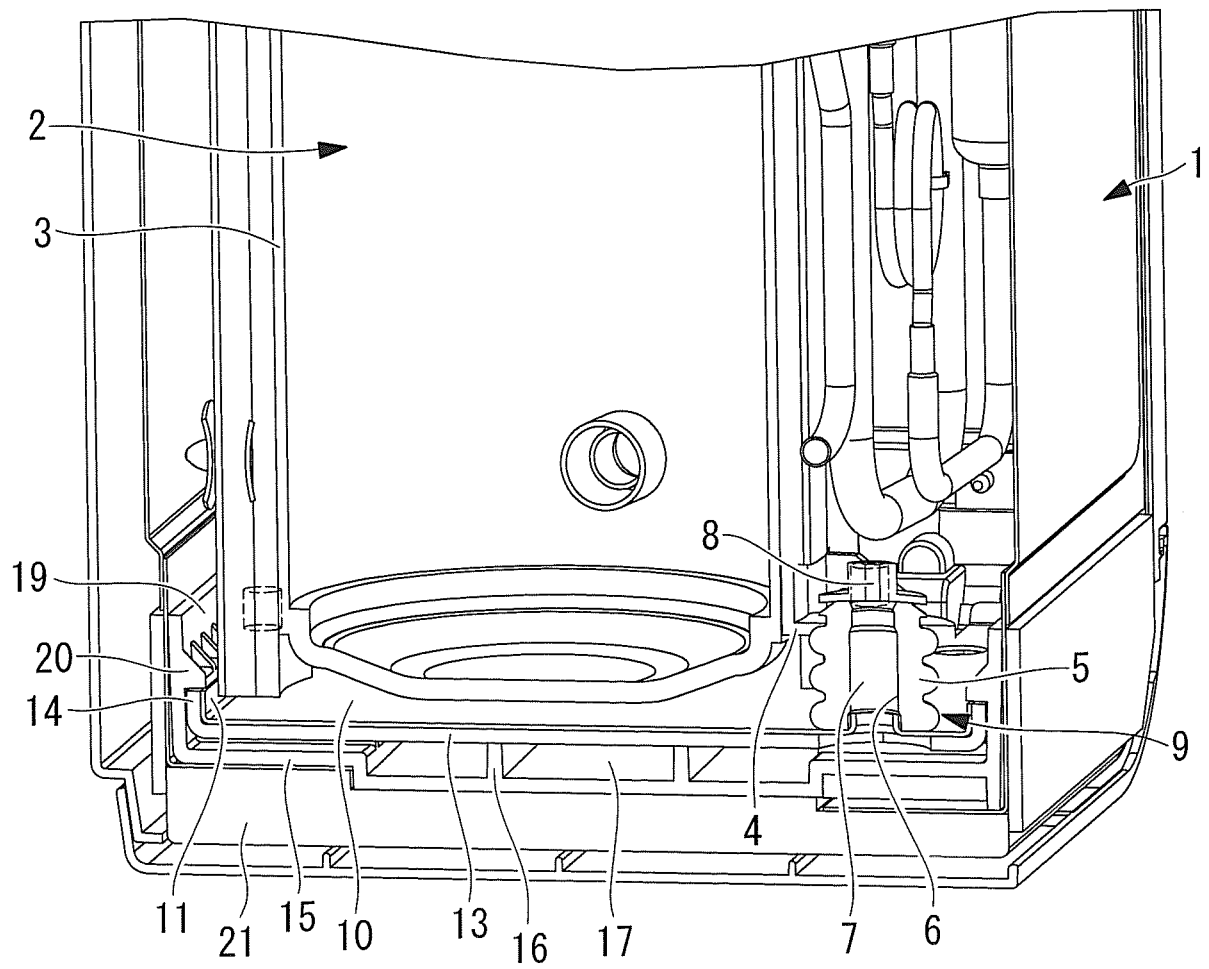


FIG. 2

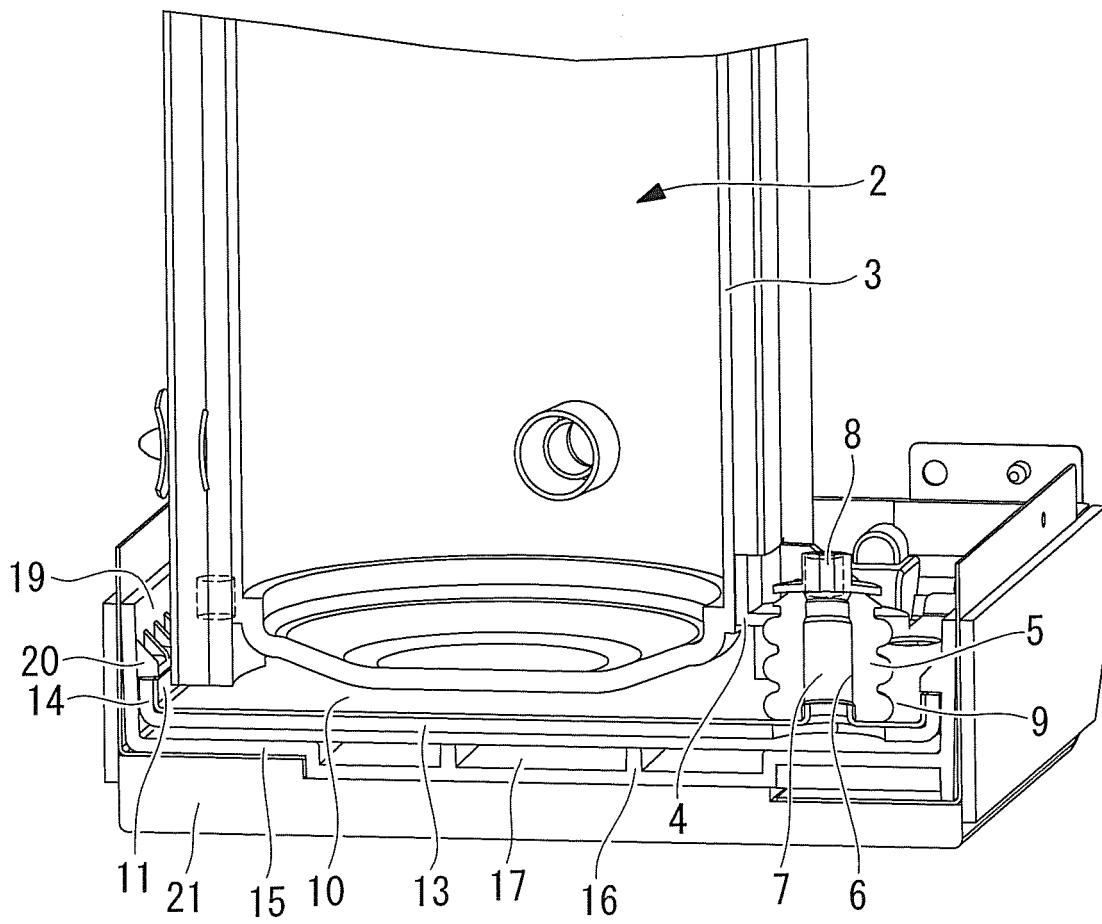


FIG. 3

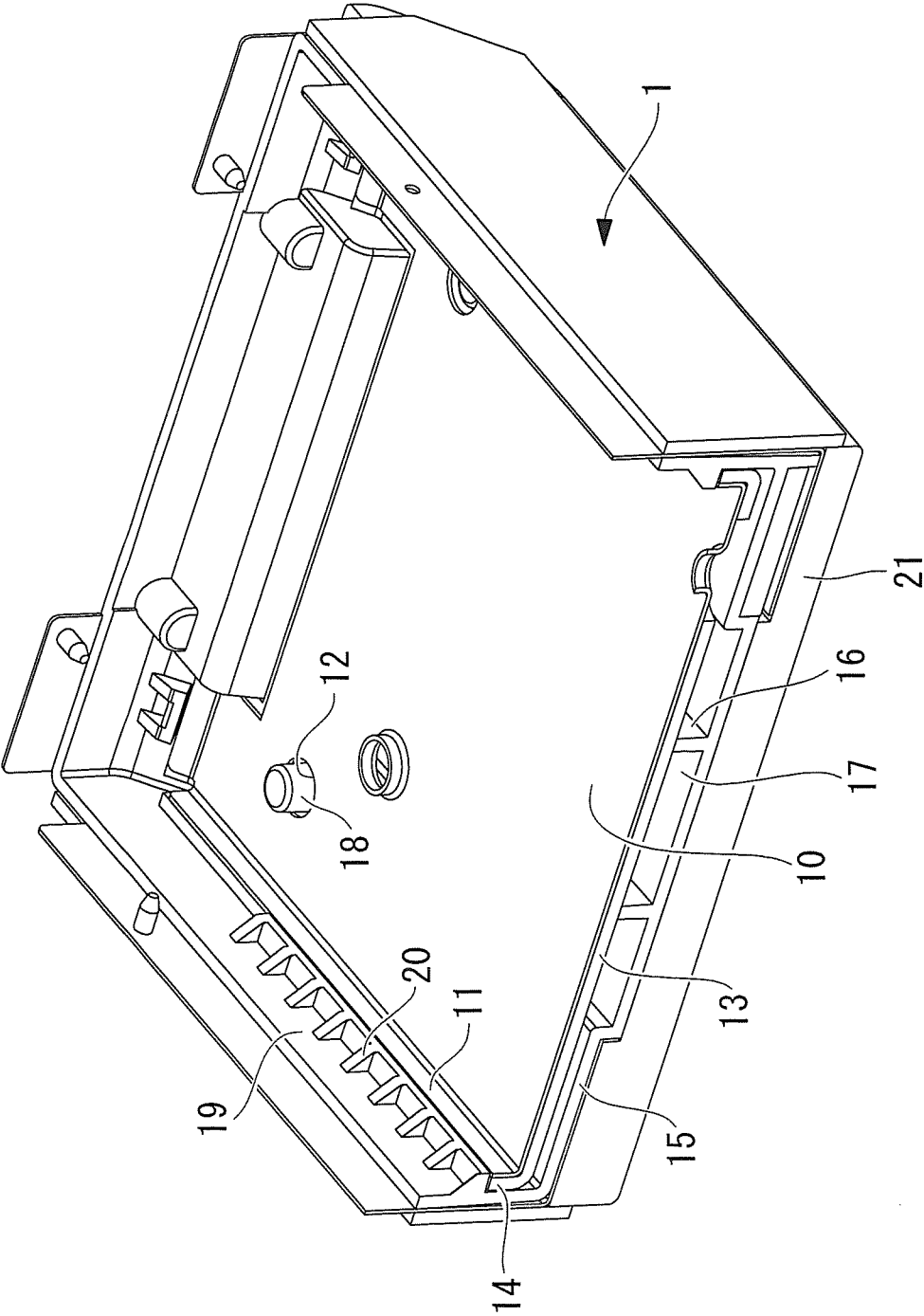


FIG. 4

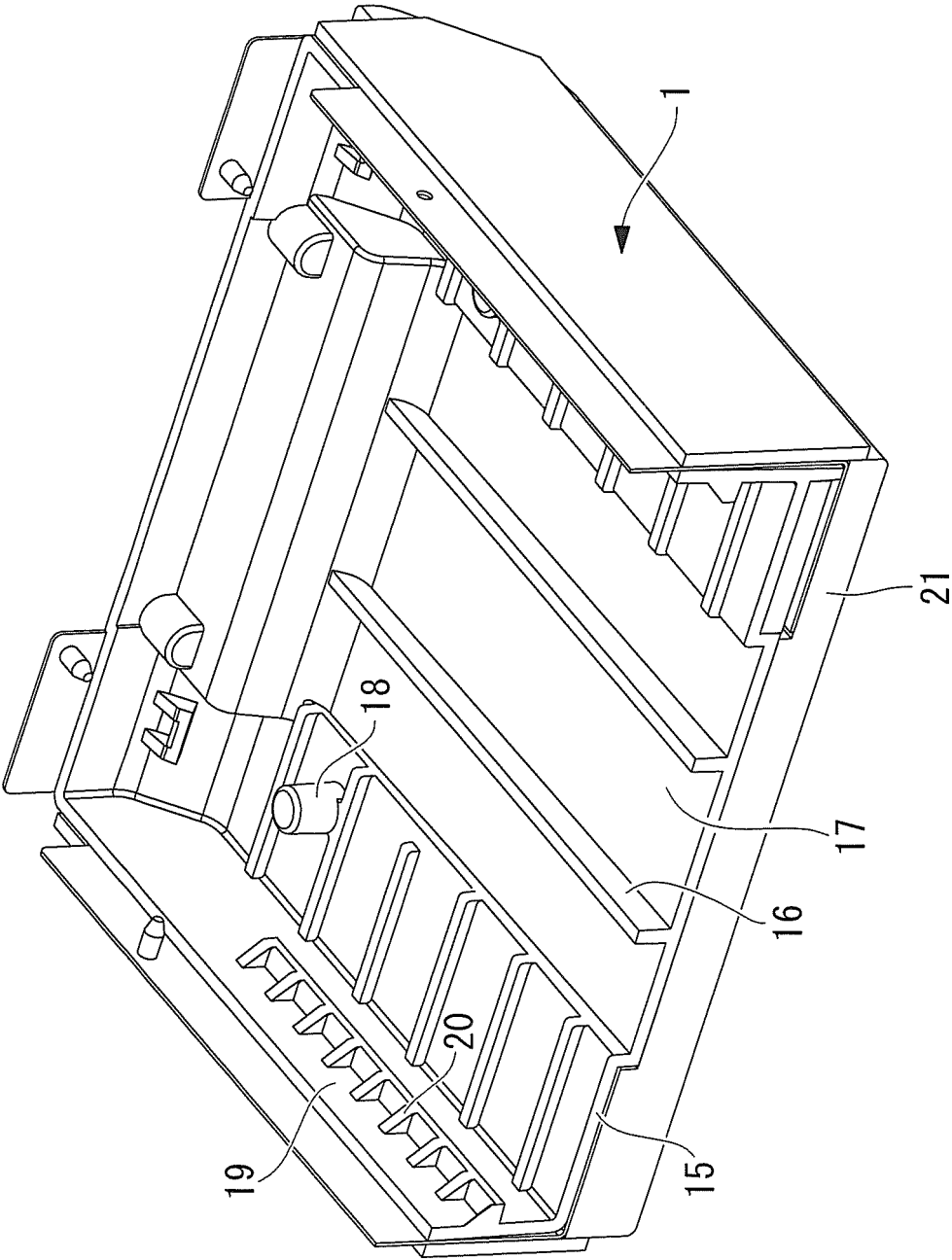


FIG. 5

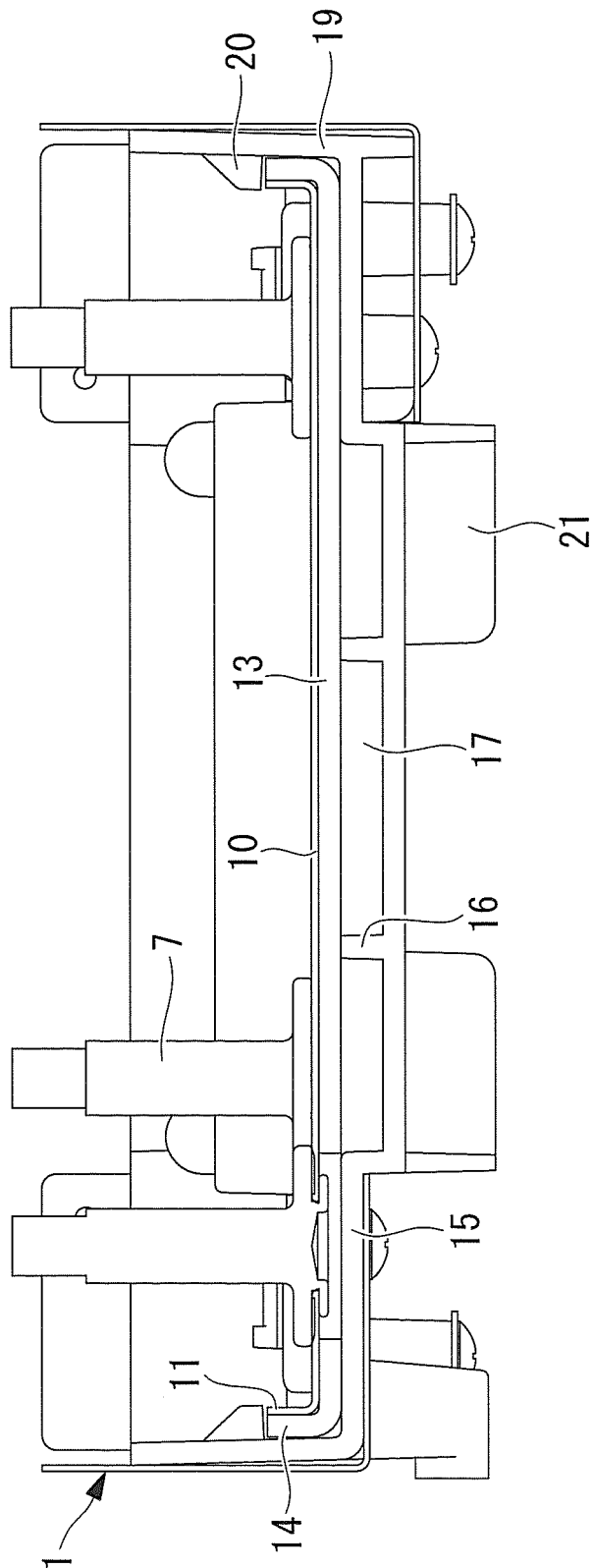


FIG. 6

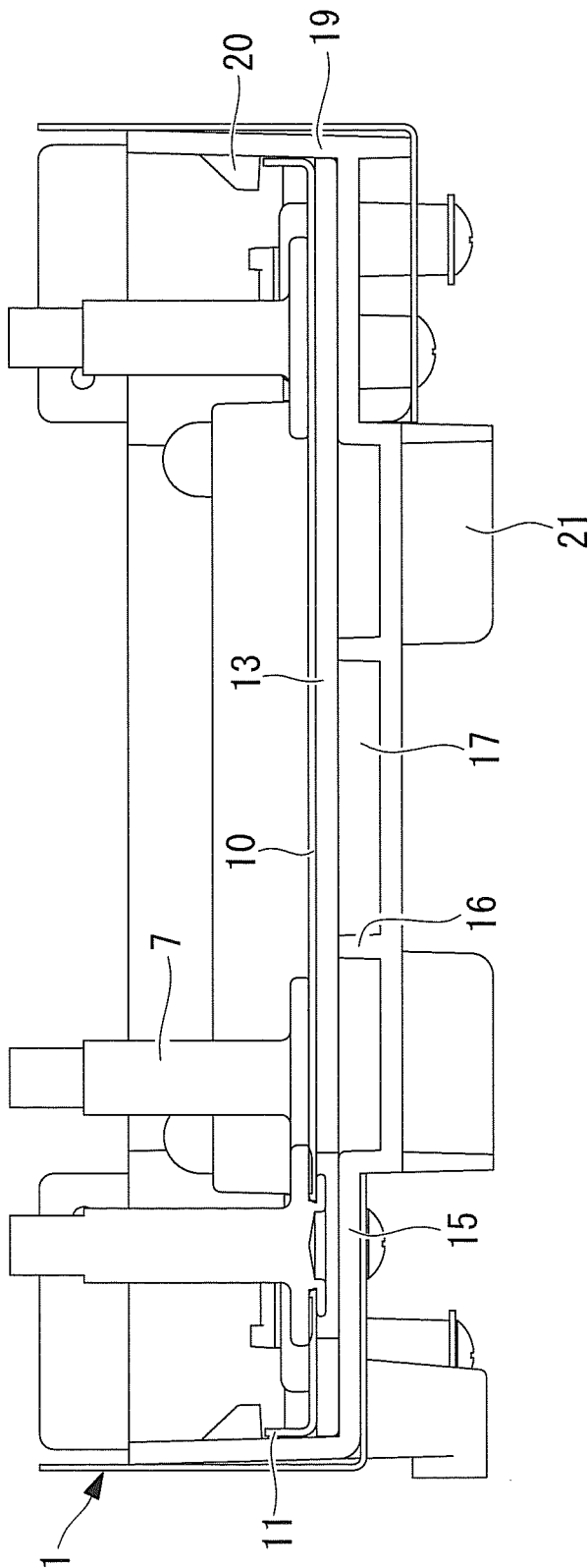
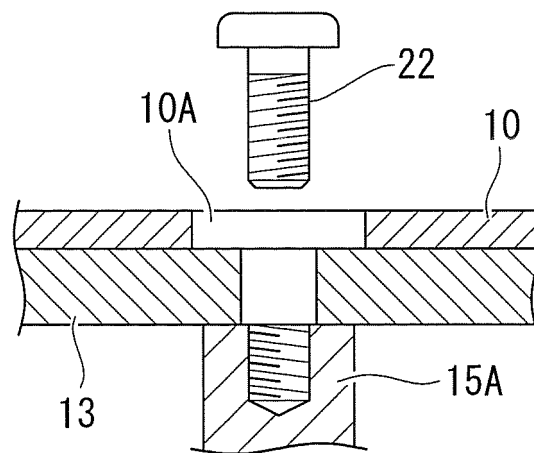


FIG. 7



REFERENCES CITED IN THE DESCRIPTION

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