### Appeal decision

Appeal No. 2017-5476

Tokyo, Japan Appellant

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Tokyo, Japan Patent Attorney

### SAKAI INTERNATIONAL PATENT OFFICE

The case of appeal against an examiner's decision of refusal of Japanese Patent Application No. 2014-14867, entitled "VERTICAL SHAFT PUMP" (the application published on August 3, 2015, Japanese Unexamined Patent Application Publication No. 2015-140750) has resulted in the following appeal decision.

### Conclusion

The appeal of the case was groundless.

### Reason

No. 1 History of the procedures

The present application was filed on January 29, 2014, and a notice of reasons for refusal was issued on November 25, 2015. A written opinion was submitted and an amendment was made on January 25, 2016, and the final reason for refusal was notified on July 11, 2016. Although a written opinion was submitted and an amendment was made on September 8, 2016, a decision to dismiss amendment on the written amendment was made and the examiner's decision of refusal was issued on January 12, 2017. Against the decision, an appeal against an examiner's decision of refusal was demanded on April 17, 2017, and an amendment was simultaneously made.

No. 2 Decision to dismiss amendment on the written amendment made on April 17, 2017

[Conclusion of Decision to Dismiss Amendment]

The amendment dated April 17, 2017 (hereinafter, referred to as "the Amendment") shall be dismissed.

[Reason]

1. Details of Amendment

1-1. Description of the scope of Claims before the Amendment

The description of the scope of claims which have been amended by the amendment dated January 25, 2016 before the Amendment is as follows. "[Claim 1]

A vertical shaft pump comprising: a casing which is disposed in a vertical direction, is installed on an attachment base at an upper end portion, and is provided with a suction port on a lower end side and a discharge port at a side part;

a rotary shaft which is disposed in the vertical direction in the casing;

an impeller which is fixed at a lower end portion of the rotary shaft; and

a support member which extends from a support base under the attachment base to support an outer peripheral surface of the casing; wherein the support member has a support bracket fixed on the support base, and a support bolt screwed with the support bracket and abutting on the outer peripheral surface of the casing at a tip end portion, and

a thick part is provided at a support positon on which a prop bolt abuts in the casing.

[Claim 2]

The vertical shaft pump according to Claim 1, wherein the plurality of support members are provided at equal intervals in a circumferential direction of the casing. [Claim 3]

The vertical shaft pump according to any one of Claim 1 and Claim 2, wherein the support bolt is provided in a horizontal direction and a diametrical direction of the casing.

[Claim 4]

The vertical shaft pump according to any one of Claim 1 to Claim 3, wherein the support base has a ring shape disposed apart from the outer peripheral surface of the casing only by a predetermined distance, and the support bracket is fixed on an upper surface or a lower surface or an inner peripheral surface of the support base.

[Claim 5]

The vertical shaft pump according to any one of Claim 1 to Claim 4, wherein the casing is supported by the support member at plural positions in the vertical direction."

1-2. Description of the scope of Claims after the Amendment

The description of the scope of the claims was amended as follows by the Amendment (underlines indicate amended portions).

"[Claim 1]

A vertical shaft pump comprising: a casing which is disposed in a vertical direction, is installed on an attachment base at an upper end portion, and is provided with a suction port on a lower end side and a discharge port at a side part;

a rotary shaft which is disposed in the vertical direction in the casing;

an impeller which is fixed at a lower end portion of the rotary shaft; and

a support member which extends from <u>a foundation provided on</u> a support base under the attachment base to support an outer peripheral surface of the casing;

the foundation being for reinforcing the support base, wherein the support member has a support bracket fixed <u>on the foundation</u>, and a support bolt screwed with the support bracket and abutting on the outer peripheral surface of the casing at a tip end portion, and

a thick part is provided at a support positon on which <u>the support bolt</u> abuts in the casing.

[Claim 2]

The vertical shaft pump according to Claim 1, wherein the plurality of support members are provided at equal intervals in a circumferential direction of the casing. [Claim 3]

The vertical shaft pump according to any one of Claim 1 and Claim 2, wherein the support bolt is provided in a horizontal direction and a diametrical direction of the casing.

[Claim 4]

The vertical shaft pump according to any one of Claim 1 to Claim 3, wherein the

support base has a ring shape disposed apart from the outer peripheral surface of the casing only by a predetermined distance, <u>the foundation is provided in a ring shape</u>, and the support bracket is fixed <u>on an upper surface of the foundation</u>.

# [Claim 5]

The vertical shaft pump according to any one of Claim 1 to Claim 4, wherein the casing is supported by the support member at plural positions in the vertical direction."

# 2. Acceptability of amendment

### 2-1. Purpose requirements for amendment

We will examine whether or not the Amendment falls under one aiming at matters prescribed in any of the items of Article 17-2(5) of the Patent Act.

(1) "The restriction of the scope of claims" of Article 17-2(5) of the Patent Act restricts matters necessary for specifying the invention described in claims under the provisions of Article 36(6) of the Patent Act, and it is restricted to those having the same field of industrial application and the problems to be solved of the invention described in claims after amendment.

Then, it is required that correspondence between the claims before amendment and the claims after amendment is obvious and that it is clear that the claims after amendment have a relation restricting the claims before amendment, and the claims before amendment and the claims after amendment must have one-to-one correspondence or similar correspondence.

(2) The inventions described in Claims 1 to 5 before the Amendment and the inventions described in Claims 1 to 5 after the Amendment relate to "VERTICAL SHAFT PUMP," and the claims directly or indirectly restricting Claim 1 before the Amendment in Claims 2 to 5 before the Amendment and the claims restricting Claim 1 after the Amendment in Claims 2 to 5 after the Amendment have the same citation relation. Therefore, we will examine by assuming that Claims 1 to 5 before the Amendment respectively correspond to Claims 1 to 5 after the Amendment.

(3) The Amendment includes a correction (hereinafter, referred to as "the correction") which corrects "a support base" which is a matter necessary for specifying the invention described in Claim 1 before the Amendment to "a foundation provided on a support base," and "the support member has a support bracket fixed on the support base" to "the foundation being for reinforcing the support base, the support member has a support bracket fixed on the foundation."

In the correction, since "a foundation" has not been described in Claim 1 before the Amendment at all, and is not derived from the matters specifying the invention of Claim 1 before the Amendment, the correction does not restrict a matter necessary for specifying the invention that has been described in the claims. Furthermore, by the correction, the foundation solves a new problem of the invention by reinforcing the support base and being fixed with the support member at an upper part to securely support the outer peripheral surface of the casing with the support member.

In that case, the correction does not fall under one which restricts a matter necessary for specifying the invention that has been described in the claims and aims at "the restriction of the scope of claims" in which a problem to be solved is the same in the inventions described in the claims before amendment and the inventions described in the claims after amendment.

(4) Also, the description of places which were subjected to the correction in Claim 1

before the Amendment is clear and is not even a descriptive deficiency pointed out in the reasons for refusal, and thus it does not aim at the clarification of an ambiguous description.

Then, it is obvious that the correction does not aim at the deletion of claims, and the correction of errors.

(5) Therefore, the Amendment including the correction does not fall under one aiming at any one of "the deletion of claims," "the restriction of the scope of claims," "the correction of errors," and "the clarification of an ambiguous description," and thus does not comply with the prescriptions of Article 17-2(5) of the Patent Act.

Hence, the Amendment should be dismissed under the provisions of Article 53(1) of the Patent Act which is applied mutatis mutandis by replacing terms pursuant to Article 159(1) of the same Act.

2-2. Judgment on independent requirements for patentability

If assuming that the correction relating to Claim 1 of the Amendment is to aim at the restriction of the scope of claims stipulated in Article 17-2(5)(ii) of the Patent Act, it will be examined below whether the appellant can be granted a patent independently (whether or not it falls under the provision of Article 126(7) of the Patent Act which is applied mutatis mutandis pursuant to the provisions of Article 17-2(6) of the Patent Act) for the invention according to Claim 1 after amendment (hereinafter, referred to as "the Amended Invention").

(1) Described matters in Cited Document

(1-1) Cited Document 1

In Microfilm (hereinafter, referred to as "Cited Document 1") of Japanese Utility Model Application No. S53-80393 (Japanese Unexamined Utility Model Application Publication No. S54-181305), which was cited in the reason of the examiner's decision and is a publication distributed before the filing of the present application, there are the following descriptions with drawings.

(A) "In order to prevent a lifting pipe of a vertical shaft type pump from being shaken and broken by resonance caused by earthquake or pump rotation, conventionally, as shown in Fig. 1 to Fig. 3, a vibration-preventive supporting portion (a) is formed with concrete or an iron structure in a pump water absorption tank, a vibration-preventive metal fitting (b) is fixed to the supporting portion (a) with a bolt (c), a plurality of jack bolts (d) are screwed with the vibration-preventive metal fitting (b) toward a center at equal intervals in a circumferential direction, and tip ends of the jack bolts (d) are pressed against an outer peripheral surface of a lifting pipe (e) and locked with lock nuts (f)." (p. 1, line 13 to p. 2, line 7 of the description)

(B) "Hereinafter, if describing the present application about examples shown in Fig. 4 to Fig. 8, (1) is a lifting pipe of the vertical shaft type pump, and the lifting pipe (1) is suspended downward from a discharge elbow (3) of an installation floor (2)." (p. 5, lines 5 to 8 of the description)

(C) When viewed from Fig. 1, it can be understood that the lifting pipe (e) is disposed in a vertical direction, and is provided with a suction port on a lower end side and a discharge port at a side part of an upper end. Also, referring to (B) and, Fig. 1, and Fig. 4, it can be understood that a part drawn as a cross section with diagonal lines in an upper part of Fig. 1 is "the installation floor," and the lifting pipe (e) in Fig. 1 has an upper end portion suspended downward from "the discharge elbow" installed on "the

installation floor."

(D) When viewed from Fig. 1 and Fig. 2, it can be understood that a part for fixing "the vibration-preventive metal fitting (b)" of "the vibration-preventive supporting portion (a)" is provided with the supporting portion of the vibration-preventive metal fitting which is made thicker than other parts, and when viewed from Fig. 1, "the vibration-preventive supporting portion (a)" is under "the installation floor".

(E) When viewed from Fig. 2 and Fig. 3, it can be understood that "the jack bolt (d) screwed with the vibration-preventive metal fitting (b)" is extended from the supporting portion of the vibration-preventive metal fitting which is made thicker than other parts provided on the vibration-preventive supporting portion (a), and the tip end portion of the jack bolt (d) is pressed against the outer peripheral surface of "the lifting pipe (e)."

(1-2) According to the described matters, it is recognized that Cited Document 1 describes the following invention (hereinafter, referred to as "the Cited Invention").

"A vertical shaft type pump, comprising: a lifting pipe (e) which is disposed in a vertical direction, has an upper end portion suspended downward from a discharge elbow installed on an installation floor, and is provided with a suction port on a lower end side and a discharge port at a side part of the upper end; and

a jack bolt (d) screwed with a vibration-preventive metal fitting (b) which is extended from a supporting portion of the vibration-preventive metal fitting made thicker than other parts provided on a vibration-preventive supporting portion (a), and is pressed against an outer peripheral surface of the lifting pipe (e) under the installation floor,

wherein the vibration-preventive metal fitting (b) and the jack bolt (d) have the vibration-preventive metal fitting (b) which is fixed to the supporting portion of the vibration-preventive metal fitting made thicker than other parts provided on the vibration-preventive supporting portion (a) and the jack bolt (d) which is screwed with the vibration-preventive metal fitting (b) and is pressed against the outer peripheral surface of the lifting pipe (e) at the tip end portion."

### (3) Comparison/judgment

#### (3-1) Comparison

In comparison between the Amended Invention and the Cited Invention, "an installation floor" of the latter corresponds to "an attachment base" of the former. In the same way, "a lifting pipe (e)" corresponds to "a casing," "a vibration-preventive supporting portion (a)" corresponds to "a support base," both of "a jack bolt (d) screwed with a vibration-preventive metal fitting (b)" and "the vibration-preventive metal fitting (b)" corresponds to "a support bracket," "the vibration-preventive metal fitting (b)" corresponds to "a support bracket," "a jack bolt (d)" correspond to "a support bracket," "a jack bolt (d)" correspond to "a support bolt," and "a vertical shaft type pump" corresponds to "a vertical shaft pump."

"A lifting pipe (e) which is disposed in a vertical direction, has an upper end portion suspended downward from a discharge elbow installed on an installation floor, and is provided with a suction port on a lower end side and a discharge port at a side part of the upper end" of the latter corresponds to "a casing which is disposed in a vertical direction, is installed on an attachment base at an upper end portion, and is provided with a suction port on a lower end side and a discharge port at a side part" of the former. "A jack bolt (d) screwed with a vibration-preventive metal fitting (b) which is extended from a supporting portion of the vibration-preventive metal fitting made thicker than other parts provided on a vibration-preventive supporting portion (a), and is pressed against an outer peripheral surface of the lifting pipe (e) under the installation floor" of the latter and "a support member which extends from a foundation provided on a support base under the attachment base to support an outer peripheral surface of the casing" of the former are common in the point of "a support member which extends from a supporting portion of a support bracket provided on a support base under the attachment base to support an outer peripheral surface of the casing."

"the vibration-preventive metal fitting (b) and the jack bolt (d) have the vibration-preventive metal fitting (b) which is fixed to the supporting portion of the vibration-preventive metal fitting made thicker than other parts provided on the vibration-preventive supporting portion (a) and the jack bolt (d) which is screwed with the vibration-preventive metal fitting (b) and is pressed against the outer peripheral surface of the lifting pipe (e) at the tip end portion" of the latter and "the support member has a support bracket fixed on the foundation, and a support bolt screwed with the support bracket and abutting on the outer peripheral surface of the casing at a tip end portion" of the support bracket fixed on the support bracket on the support base, and a support bolt screwed with the support bracket and abutting on the outer peripheral surface of the casing at a tip end portion."

From the above, the corresponding features and the different features of the two are as follows.

# <Corresponding features>

A vertical shaft pump, comprising: a casing which is disposed in a vertical direction, is installed on an attachment base at an upper end portion, and is provided with a suction port on a lower end side and a discharge port at a side part; and

a support member which extends from a supporting portion of a support bracket provided on a support base under the attachment base to support an outer peripheral surface of the casing,

wherein the support member has a support bracket fixed on the supporting portion of the support bracket on the support base, and a support bolt screwed with the support bracket and abutting on the outer peripheral surface of the casing at a tip end portion.

### <Different feature 1>

The vertical shaft pump has "a rotary shaft which is disposed in the vertical direction in the casing" and "an impeller which is fixed at a lower end portion of the rotary shaft" in the Amended Invention, whereas in the Cited Invention, "a rotary shaft" and "an impeller" are not specified.

# <Different feature 2>

The supporting portion of the support bracket provided on the support base is "a foundation" and "for reinforcing the support base," and the support bracket is fixed on "the foundation," in the Amended Invention, whereas in the Cited Invention, it is the supporting portion (which is common with "the foundation" of the Amended Invention in the point that it is "the supporting portion of the support bracket") of the vibration-

preventive metal fitting made thicker than other parts provided on the vibrationpreventive supporting portion (a) (corresponding to "the support base" of the Amended Invention).

# <Different feature 3>

In the Amended Invention, "a thick part is provided at a support positon on which the support bolt abuts in the casing," whereas in the Cited Invention, it cannot be said that a thick part is provided at a place (corresponding to "the support position" of the Amended Invention) against which the jack bolt (d) (corresponding to "the support bolt" of the Amended Invention) on the lifting pipe (e) (corresponding to "the casing" of the Amended Invention) is pressed.

#### (3-2) Judgment

### <Regarding Different feature 1>

Also in the vertical shaft type pump in the Cited Invention, although it is not clearly stated, it is obvious that a rotary shaft or an impeller is provided.

Furthermore, for example, Paragraph [0002] of Japanese Unexamined Patent Application Publication No. 2000-120597 which was cited in the reason of the examiner's decision and is a publication distributed before the filing of the application describes "A vertical shaft pump P shown in Fig. 10 is equipped with a pump casing 2 which rotatably stores an impeller 1; a suction bell mouth (suction pipe) 3 which communicates and water-tightly connects with a lower side (upstream side) of the pump casing 2; a lifting pipe 4 which communicates and water-tightly connects with an upper side (downstream side) of the pump casing 2; a discharge curved pipe 5 which communicates and water-tightly connects with an upper side of the lifting pipe 4; and a pump main shaft 7 {corresponding to "a rotary shaft" of the Amended Invention} which is adhered with an impeller 1 {corresponding to "an impeller" of the Amended Invention} at a lower end portion, is rotatably supported in the inside of the lifting pipe 4 {corresponding to "the casing" of the Amended Invention} by a plurality of bearings (not shown), and water-tightly and rotatably penetrates the discharge curved pipe 5 to extend upward, and is installed in a pump well 11 of a double-floor type draining pumping plant 10 having an upper floor portion 8 and a lower floor portion 9." ({}are added by the body; the same shall apply hereinafter). In addition, according to the described matter of Paragraph [0012] of Japanese Unexamined Patent Application Publication No. H11-159491 and illustrated contents of the drawings of Figs. 1 and 5, it can be understood that the vertical shaft pump has a pump shaft 9 (corresponding to "a rotary shaft" of the Amended Invention) which is disposed in a vertical direction in the discharge casing 7 (corresponding to "the casing" of the Amended Invention), and an impeller 1 (corresponding to "an impeller" of the Amended Invention) which is fixed at a lower end portion of the pump shaft 9 (corresponding to "the rotary shaft" of the Amended Invention), and it is a well-known art (commonly used configuration) to have "a rotary shaft which is disposed in a vertical direction in the casing" and "an impeller which is fixed at a lower end portion of the rotary shaft" in the vertical shaft pump.

Then, it could be made as appropriate by a person skilled in the art to adopt the well-known art (commonly used configuration) in the vertical shaft pump as a configuration of the rotary shaft or the impeller of the vertical shaft type pump (vertical shaft pump) of the Cited Invention.

<Regarding Different feature 2>

According to the described matter that "In an upper support member 123, as shown in Fig. 2 to Fig. 4, an upper support base 121 is provided with a foundation 131 in a ring shape by grout on an upper surface. The grout is a material for reinforcing the upper support base 121, and for example, cement milk, mortar, synthetic resin, and the like are used. The foundation 131 is fixed with a support bracket 132 formed in a ring shape at an upper part." in Paragraph [0045] of the description, the descriptions of the present application which the demandant describes as grounds for correction in the written demand for appeal, or the descriptions of Figs. 3 and 4, the Amended Invention, in the one fixed with the support bracket at the upper part of the foundation, uses one providing the foundation by using the grout which is the material for reinforcing the upper support base as an example.

Then, as indicated below, it is merely a well-known art that when supporting an apparatus such as the vertical shaft pump on the support base, the foundation is provided by using a grout material and is used for reinforcing the support base.

For example, there is the following description in Japanese Unexamined Patent Application Publication No. H9-158215.

"[0002]

[Conventional Art] For example, a large machine such as a rotary machine of a steam turbine, a gas turbine, a generator, and the like in a power plant installs a foundation portion {corresponding to "a foundation" of the Amended invention} having an upper surface with sufficient strength and a high horizontal degree on a solid foundation base {corresponding to "a support base" of the Amended Invention} generally made from concrete, and is mounted therein. The foundation portion is composed of a plurality of pads formed on the foundation base by using a noncontractility grout material, and the large machine is placed on a machine substrate on the pads thereof, and fixed and mounted on the foundation base with anchor bolts and the like."

There are the following descriptions in Japanese Unexamined Patent Application Publication No. H6-185075.

"[Claim 1] A foundation constructing method which disposes a pad mold frame 2 on a concrete basement {corresponding to "a support base" of the Amended Invention} 1, disposes a substrate 3 for mounting an apparatus thereon, and then fills a noncontractility grout material into the mold frame 2 to form the foundation of the substrate 3..."

"[0001]

[Industrial Application Field] The present invention relates to a foundation constructing method which forms a foundation by filling noncontractility grout material into a mold frame disposed under an apparatus mounting substrate in a power plant and the like. [0002]

[Conventional Art] Although an apparatus in a power plant and the like, such as a turbine and a generator, is mounted on a solid concrete basement 1 opening in a rectangular shape through a substrate 3 as illustrated in Fig. 1, sufficient strength and stability are required for the mounting, and it has to be mounted with high horizontal accuracy. Therefore, it is necessary to base the substrate 3 on the concrete basement with high horizontal accuracy as well. Then, a method of molding the pads 7 by using the mold frame and the noncontractility grout material and installing the substrate 3 on the concrete basement 1 has been conventionally known."

Then, since it is recognized that the supporting portion of the vibrationpreventive metal fitting of the Cited Invention is necessary to have sufficient strength for certainly adhering the vibration-preventive metal fitting, it could have been easily conceived of by a person skilled in the art to apply the above-mentioned well-known art to supporting portion of the vibration-preventive metal fitting (support bracket) for supporting the vertical shaft type pump (vertical shaft pump) of the Cited Invention to configure the foundation using the grout material to reinforce the vibration-preventive supporting portion, and make it be of the constitution of the Amended Invention in the above-mentioned Different feature 2.

<Regarding Different feature 3>

Since also in the Cited Invention, a place against which the jack bolt (d) pressed in the lifting pipe (e) is a place receiving pressing force, a person skilled in the art should take into consideration the point that it should be a place with sufficient strength.

Then, referring to Fig. 1 of Cited Document 1, since the place against which the jack bolt (d) is pressed in the lifting pipe (e) is described as a large-diameter portion, it can be said that there is an indication that the place to be pressed is made to be of a large diameter, and furthermore, there is no special circumstance in which the large diameter portion is prevented from being a thick part.

Also, in Fig. 6 and Fig. 7 of Cited Document 1, it is described that a part receiving pressing force from a gradient ring 13 is made to be a thick part, and in the Cited Invention, it could have been easily conceived of by a person skilled in the art to make a place against which the jack bolt (support bolt) is pressed in the lifting pipe (casing) to be a thick part so as to be a place with high strength, and make it be of the constitution of the Amended Invention in the above-mentioned Different feature 3.

Then, an effect of the Amended Invention can be predicted by a person skilled in the art from the Cited Invention, the matters described in Cited Document 1, and the above-mentioned well-known art, and cannot be said to be especially significant.

Therefore, the Amended Invention could be easily provided by a person skilled in the art based on the Cited Invention, the matters described in Cited Document 1, and the above-mentioned well-known art.

(5) Closing regarding independent requirements for patentability

As described above, since the Amended Invention could be easily provided by a person skilled in the art based on the Cited Invention, the matters described in Cited Document 1, and the above-mentioned well-known art, and the appellant should not be granted a patent for it independently at the time of patent application under the provisions of Article 29(2) of the Patent Act.

Therefore, since the Amendment violates the provisions of Article 126(7) of the Patent Act which is applied mutatis mutandis pursuant to the provisions of Article 17-2(6) of the Patent Act, the Amendment shall be dismissed under the provisions of Article 53(1) of the Patent Act applied mutatis mutandis by replacing certain terms pursuant to Article 159(1) of the Patent Act.

No. 3 Regarding the invention

#### 1. The Invention

Since the amendment dated April 17, 2017 was dismissed as described above,

the inventions relating to the claims of the present application are specified by the matters described in Claims 1 to 5 of the scope of claims for patent that were amended by the amendment dated January 25, 2016, and the invention relating to Claim 1 (hereinafter, referred to as "the Invention") is an invention specified by the matters described in Claim 1 in view of the descriptions and the drawings, and is as described in "No. 2 [Reason] 1. 1-1. [Claim 1]" (also, "the prop bolt" of the Invention is found to be an error of "the support bolt").

### 2. Reasons for refusal stated in the examiner's decision

The reason for refusal stated in the examiner's decision is that the inventions accroding to Claims 1 to 4 of the present application could have been invented easily by a person ordinary skilled in the art of the invention, based on the inventions described in the following Cited Document 1 and 2, that had been distributed prior to the filing of the patent application or that had become available to the public through electric communication lines prior to the filing of the patent application, and, thus, the appellant should not be granted a patent for the invention under the provisions of Article 29(2) of the Patent Act.

Cited Document 1: Microfilm of Japanese Utility Model Application No. S53-80393 (Japanese Unexamined Utility Model Application Publication No. S54-181305) Cited Document 2: Japanese Unexamined Patent Application Publication No. 2000-120597

# 3. Cited Document

The Cited Document cited in the reasons for refusal stated in the examiner's decision and described matters thereof are as described in "No. 2 [Reason] 2. 2-2. (1) " above.

# 4. Comparison/Judgment

In comparison between the Invention and the Cited Invention, "an installation floor" of the latter corresponds to "an attachment base" of the former. In the same way, "a lifting pipe (e)" corresponds to "a casing," "a vibration-preventive supporting portion (a)" corresponds to "a support base," both of "a jack bolt (d) screwed with a vibrationpreventive metal fitting (b)" and "the vibration-preventive metal fitting (b)" correspond to "a support member," "the vibration-preventive metal fitting (b)" corresponds to "a support bracket," "a jack bolt (d)" correspond to "a support bolt," and "a vertical shaft type pump" corresponds to "a vertical shaft pump."

"A lifting pipe (e) which is disposed in a vertical direction, has an upper end portion suspended downward from a discharge elbow installed on an installation floor, and is provided with a suction port on a lower end side and a discharge port at a side part of the upper end" of the latter corresponds to "a casing which is disposed in a vertical direction, is installed on an attachment base at an upper end portion, and is provided with a suction port on a lower end side and a discharge port at a side provided with a suction port on a lower end side and a discharge port at a side part" of the former.

"A jack bolt (d) screwed with a vibration-preventive metal fitting (b) which is extended from a supporting portion of the vibration-preventive metal fitting made thicker than other parts provided on a vibration-preventive supporting portion (a), and is pressed against an outer peripheral surface of the lifting pipe (e) under the installation floor" of the latter corresponds to "a support member which extends from a support base under the attachment base to support an outer peripheral surface of the casing" of the former, and "the vibration-preventive metal fitting (b) and the jack bolt (d) have the vibration-preventive metal fitting (b) which is fixed to the supporting portion of the vibration-preventive metal fitting made thicker than other parts provided on the vibration-preventive metal fitting (b) and the jack bolt (d) which is screwed with the vibration-preventive metal fitting (b) and is pressed against the outer peripheral surface of the lifting pipe (e) at the tip end portion" of the latter corresponds to "the support member has a support bracket fixed on the support base, and a support bolt screwed with the support bracket and abutting on the outer peripheral surface of the casing at a tip end portion" of the former.

Accordingly, the corresponding features and the different features of the two are as follows.

[Corresponding features]

A vertical shaft pump, comprising: a casing which is disposed in a vertical direction, is installed on an attachment base at an upper end portion, and is provided with a suction port on a lower end side and a discharge port at a side part; and

a support member which extends from a support base under the attachment base to support an outer peripheral surface of the casing,

wherein the support member has a support bracket fixed on the support base, and a support bolt screwed with the support bracket and abutting on the outer peripheral surface of the casing at a tip end portion.

# <Different feature 1'>

The vertical shaft pump has "a rotary shaft which is disposed in the vertical direction in the casing" and "an impeller which is fixed at a lower end portion of the rotary shaft" in the Invention, whereas in the Cited Invention, "a rotary shaft" and "an impeller" are not specified.

# <Different feature 3'>

In the Invention, "a thick part is provided at a support positon on which the support bolt abuts in the casing," whereas in the Cited Invention, it cannot be said that a thick part is provided at a place (corresponding to "the support position" of the Amended Invention) against which the jack bolt (d) (corresponding to "the support bolt" of the Amended Invention) on the lifting pipe (e) (corresponding to "the casing" of the Amended Invention) is pressed.

Then, <Different feature 1'> and <Different feature 3'> above are the same as Different feature 1 and Different feature 3 which are described in "No. 2 [Reason] 2. 2-2 (3) (3-1)" above, so that <Different feature 1'> and <Different feature 3">, as described in "No. 2 [Reason] 2. 2-2 (3) (3-2)" above, could be easily conceived by a person skilled in the art based on the Cited Invention, the matters described in Cited Document 1, and the above-mentioned well-known art.

Therefore, the Invention could be easily provided by a person skilled in the art based on the Cited Invention, the matters described in Cited Document 1, and the above-mentioned well-known art.

# 5. Closing

As described above, the appellant should not be granted a patent for the Invention in accordance with the provisions of Article 29(2) of the Patent Act.

Thus, the present application should be rejected without examining other claims. Therefore, the appeal decision shall be made as described in the conclusion.

May 21, 2018

Chief administrative judge: NAKAGAWA, Shinichi Administrative judge: FUJII, Noboru Administrative judge: HORIKAWA, Ichiro